AIRCRAFT STANDARD PARTS

BS AGS AS

Brown Brothers Engineering Ltd

Proprietary Fasteners:

ODDIE NUTS

HI-SHEAR RIVETS

HUCKBOLTS and BLIND FASTENERS

Catalogue No. 563/A

Brown Brothers Engineering Ltd

BEDFORD ROAD · NORTHAMPTON · NN1 5NP

Telephone: 0604 35181 *Telegrams: Imbrowned, Northampton*

Telex: Brownbro 311347

Printed in England by Staples Printers Limited, at The Stanhope Press, Rochester, Kent.

Business Arrangements and Conditions of Sale

1. ORDERS

(a) Brown Brothers Engineering Limited (hereinafter called "the Company") reserve the right to accept telephone or telegraph orders but such orders should always be confirmed in writing the same day by the Buyer and marked "confirmation". Any orders not so marked will be treated as fresh orders and the Buyer shall be responsible for the consequences of any resulting duplication.

(b) The Company reserves the right to refuse any order given to any representative of the Company.

(c) In respect of all orders executed in accordance with the Buyer's drawings the Company reserves the right to supply not exceeding 10 per cent. more or less than the specified quantity.

(d) No conditions or stipulations in or attached to the Buyer's form of order which are inconsistent with the Company's Business Arrangements or Conditions of Sale or which purport to add to or modify them in any way shall have any effect unless expressly accepted in writing by the Company. In the absence of such acceptance by the Company the Buyer shall be deemed to have withdrawn or waived his said conditions or stipulations and to contract solely on the basis of the Company's Conditions of Sale.

2. QUOTATIONS

All quotations are subject to confirmation by the Company on receipt of Buyer's official order, and no contract shall be concluded until such confirmation has been despatched by the Company.

3. CANCELLATION OF ORDERS

No cancellation of an order will be effective unless in writing and until accepted by the Company. The Company reserves the right to refuse to accept any cancellation of an order and in particular no cancellation will be accepted of orders for goods to special requirements or not normally stocked by the Company if the manufacture or obtaining by the Company of such goods is in process or has been completed.

4. PRICES

(a) All items quoted "ex stock" are subject to prior sale.

(b) All prices are quoted subject to revision or withdrawal without notice.

(c) All prices in respect of orders for forward delivery are subject to the Company's right to increase them if they are affected by general increases in cost of labour or raw material or other unforeseen causes.

(d) All prices are quoted "ex works" unless otherwise agreed and packing will be charged for, but all cases and crates returned to the Company carriage paid and in good condition within 60 days of the despatch thereof by the Company will be credited in full.

(e) All goods will be charged for as per quotation or at prices current at the time of despatch if affected by general increases in cost of labour or raw material or other unforeseen causes and all orders are accepted by the Company on that understanding.

5. SETTLEMENT TERMS

(a) All invoices are NET and no settlement discount is allowed.

(b) Accounts are payable by the 20th day of the month following the date of invoice.

(c) No special terms of payment will be operative unless confirmed in writing by the Company.

(d) The Company reserves the right to suspend delivery in respect of any order from time to time if any account is not paid when due.

6. CARRIAGE

The Company will, if so requested and as agents for the Buyer, arrange for the carriage of goods to destinations in Great Britain, and F.O.B. nearest port for Northern Ireland and Eire. Unless otherwise instructed, goods will be sent by goods train at Railway Company's risk; the Company will pay the cost of carriage on the above basis (or an amount equal to such cost if some other method of carriage is required by the Buyer) on all consignments of £50 and upwards other than consignments of aerodrome equipment or of exceptionally bulky goods for which the carriage terms will be as quoted.

7. NON-DELIVERY AND DAMAGE IN DELIVERY

All goods will be consigned at Carriers' risk unless sent by passenger train and no liability for partial loss, damage or non-delivery will be accepted by the Company. On delivery packages should be signed for as "not examined" but if loss

or damage is apparent they should be signed for accordingly. In the event of partial loss or damage the Buyer must (*a*) within three days of delivery give notice in writing to the Carriers (otherwise than on Carriers' documents) and at the same time notify the Company in writing, and (*b*) within seven days of delivery make a claim against the Carriers or accept any special arrangements which the Company may be able to make on the Buyer's behalf. In the event of non-delivery the Buyer must give notice in writing thereof to the Company within ten days of the date of the Company's invoice.

8. DELIVERY

The Company shall not be responsible for, nor shall the Buyer acquire any rights against the Company in respect of any failure or delay in delivery from any of the following causes:—

(*a*) Failure or delay in delivery of raw materials.
(*b*) Strikes, lockouts or trade disputes.
(*c*) Destruction or damage (by fire or otherwise) or breakdown of machinery, plant, buildings or premises.
(*d*) Breakdown or failure of electric or other power.
(*e*) Breakdown in transit.
(*f*) Default (including breach of contract) of sub-contractors.
(*g*) War or conditions arising as the result of war or anticipated war.
(*h*) Government controls and orders affecting economic or trade conditions or practices or otherwise.
(*i*) Any other cause unavoidable or beyond the Company's control.

In case of delay from any of the above causes, the delivery date laid down in the contract shall be postponed for a reasonable period.

9. DELAY IN TAKING DELIVERY

If the Buyer fails or refuses to take delivery of goods on the date laid down in the contract, he shall be liable to the Company for any loss occasioned by such failure or refusal, and for any charges thereby incurred by the Company, and for a reasonable charge by the Company for the care and custody of the goods whether he has been specifically requested to take delivery of the goods or not.

10. CONDITIONS AND WARRANTIES

No warranty or condition, whether statutory or otherwise, as to the fitness of the goods to be supplied for any particular purpose in contracts subject to these Conditions of Sale is given or shall be implied and the Company is not to be liable for consequential loss or damage of any kind or description arising from any goods sold by the Company.

11. RETURN OF GOODS

No return of goods will operate to affect the liability of the Buyer under the Contract unless such return is accepted by the Company in writing and no such acceptance will be given unless previous notice of intention to return with the reason therefor and quoting reference number of Release Note, Invoice or Contents Note is given to the Company and after acceptance by the Company of such notice the goods are returned to the Company carriage paid and in good condition.

12. BREAK CLAUSE

All Tenders, Quotations and Acceptances of Orders are subject to the conditions of the Break Clauses contained in the Standard Conditions of Government Contracts for Stores Purchases current at the time.

13. EXPORT ORDERS

(*a*) All export orders should be addressed to Brown Brothers (Overseas) Limited, 13-17 Tabernacle Street, London EC2A 4SQ and will be executed by them.
(*b*) Unless otherwise quoted all export prices are ex-warehouse and cartage or carriage and packing will be charged to the Buyer.
(*c*) If required, Brown Brothers (Overseas) Limited will be pleased to arrange shipment or Airfreight despatch at best current rates. Freight, insurance and other shipping charges will be paid by the Company and charged to the Buyer.
(*d*) On despatches arranged by the Company, goods, other than dangerous or deck cargo, will be insured against all risks under the conditions mentioned on the Certificate of Insurance issued for each shipment. Claims are adjustable at destination by the agent mentioned on such Certificate who should be advised immediately in the event of a claim arising.

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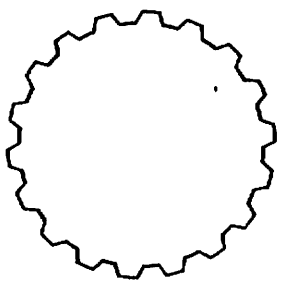
CAPACITY

WE ARE WELL EQUIPPED FOR THE MANUFACTURE OF SPECIAL AS WELL AS STANDARD PARTS FOR THE AIRCRAFT INDUSTRY AND FOR COMPONENTS AND ASSEMBLIES FOR GENERAL INDUSTRY



Our factory at Northampton covers an area of 130,000 sq. ft. and we employ a staff of 750 persons.

Our plant is composed of:

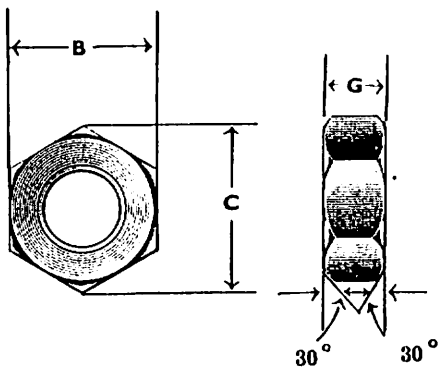
- **64 SINGLE SPINDLE AUTOS**
  $\frac{3}{16}$"–2" dia. bar capacity
- **16 MULTI SPINDLE AUTOS**
  up to $1\frac{3}{4}$" dia. bar capacity
- **22 CAPSTANS (including 6 Nicholls automated)**
  up to $2\frac{1}{4}$" dia. bar capacity
- **17 POWER PRESSES up to 200 tons capacity**
- Full supporting plant is available including:

  COPY TURNING — THREAD MILLING
  GEAR CUTTING — THREAD GENERATING

All classes of GRINDING, MILLING, DRILLING, BROACHING, etc. and we have extensive PLATING, HEAT TREATMENT and PAINTING facilities.

Brown Brothers Engineering Ltd

B.S. A14 NUTS (Brass)



Material : BRASS

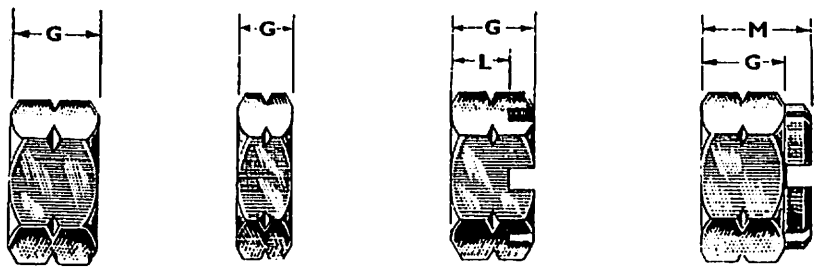
Finish : AS REQUIRED

	Nominal Size	Part No. Right Hand Thread	Part No. Left Hand Thread	B Min.	B Max.	C Max.	G Min.	G Max.
				IN.	IN.	IN.	IN.	IN.
Replaced by A53.	0 BA	0 B	0 BL	0·110	0·113	0·48	0·226	0·236
	1 BA	1 B	1 BL	0·362	0·365	0·42	0·199	0·209
	2 BA	2 B	2 BL	0·321	0·324	0·37	0·175	0·185
	4 BA	4 B	4 BL	0·245	0·248	0·29	0·132	0·142
	6 BA	6 B	6 BL	0·190	0·193	0·22	0·100	0·110
	8 BA	8 B	8 BL	0·150	0·152	0·18	0·082	0·087
	10 BA	10 B	10 BL	0·115	0·117	0·14	0·062	0·067
Replaced by A51.	4 BA	BB	BBL	0·245	0·248	0·29	0·08	0·09
	2 BA	CB	CBL	0·321	0·324	0·37	0·10	0·11
	1/4" BSF	EB	EBL	0·438	0·445	0·51	0·12	0·13
	5/16" BSF	GB	GBL	0·518	0·525	0·61	0·14	0·15
	3/8" BSF	JB	JBL	0·592	0·600	0·69	0·15	0·16
	7/16" BSF	LB	LBL	0·702	0·710	0·82	0·17	0·18
	1/2" BSF	NB	NBL	0·812	0·820	0·95	0·19	0·20
	9/16" BSF	PB	PBL	0·912	0·920	1·06	0·19	0·20
	5/8" BSF	QB	QBL	1·002	1·010	1·17	0·21	0·22
	11/16" BSF	RB	RBL	1·092	1·100	1·27	0·23	0·24
	3/4" BSF	SB	SBL	1·192	1·200	1·39	0·25	0·26
	13/16" BSF	TB	TBL	1·192	1·200	1·39	0·27	0·28
	7/8" BSF	UB	UBL	1·288	1·300	1·5	0·29	0·30
	15/16" BSF	VB	VBL	1·382	1·390	1·61	0·31	0·32
	1" BSF	WB	WBL	1·468	1·480	1·71	0·33	0·34
	1 1/8" BSF	XB	XBL	1·658	1·670	1·93	0·38	0·39
	1 1/4" BSF	YB	YBL	1·845	1·860	2·15	0·43	0·44

Brown Brothers Engineering Ltd

NUTS—ORDINARY, THIN, SLOTTED AND CASTLE

BA & BSF—B.S. 2A24, 2A27 & 2A29



Ordinary Thin Slotted Castle

Material identification grooves on B.S. 2A24 & B.S. 2A27 only

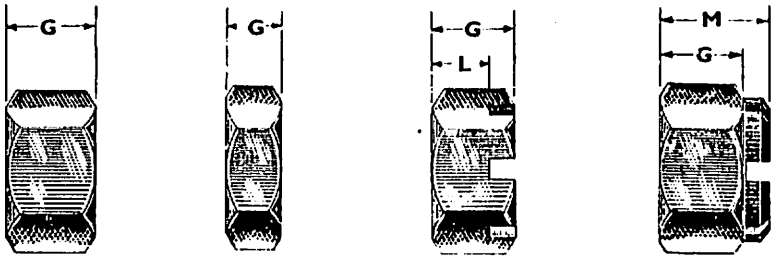
PRINCIPAL DIMENSIONS—IN.

NOM. SIZE	A/F		A/C	ORDINARY	THIN	SLOTTED			CASTLE		
	MIN.	MAX.	MAX.	G MAX.	G MAX.	G MAX.	L MAX.	SPLIT PIN DIA.	M MAX.	G MAX.	SPLIT PIN DIA.
6 BA	0·188	0·193	0·22	0·105	0·073	—	—	—	—	—	—
4 BA	0·243	0·248	0·29	0·135	0·094	—	—	—	—	—	—
2 BA	0·319	0·324	0·37	0·167	0·123	0·250	0·160	1/16"	—	—	—
1/4" BSF	0·438	0·445	0·51	0·200	0·133	0·260	0·170	1/16"	0·290	0·200	1/16"
5/16" BSF	0·518	0·525	0·61	0·250	0·166	0·280	0·190	1/16"	0·340	0·250	1/16"
3/8" BSF	0·592	0·600	0·69	0·312	0·208	0·312	0·222	1/16"	0·402	0·312	1/16"
7/16" BSF	0·702	0·710	0·82	0·375	0·250	0·375	0·235	3/32"	0·515	0·375	3/32"
1/2" BSF	0·812	0·820	0·95	0·437	0·291	0·437	0·297	3/32"	0·577	0·437	3/32"
9/16" BSF	0·912	0·920	1·06	0·500	0·333	0·500	0·313	1/8"	0·687	0·500	1/8"
5/8" BSF	1·000	1·010	1·17	0·562	0·375	0·562	0·375	1/8"	0·749	0·562	1/8"
3/4" BSF	1·190	1·200	1·39	0·687	0·458	0·687	0·453	5/32"	0·921	0·687	5/32"
7/8" BSF	1·288	1·300	1·50	0·750	0·500	0·750	0·516	5/32"	0·984	0·750	5/32"
1" BSF	1·468	1·480	1·71	0·875	0·583	0·875	0·595	3/16"	1·155	0·875	3/16"

Brown Brothers Engineering Ltd

NUTS—ORDINARY, THIN, SLOTTED AND CASTLE

UNIFIED—B.S. 3A103, 3A105 & 3A107



Ordinary Thin Slotted Castle

PRINCIPAL DIMENSIONS—IN.

Nominal Size	A/F		A/C	Ordinary	Thin	Slotted			Castle		
	Min.	Max.	Max.	G Max.	G Max.	G Max.	L Max.	Split Pin Dia.	M Max.	G Max.	Split Pin Dia.
No. 4-40 UNC	0·183	0·188	0·217	0·105	0·073	—	—	—	—	—	—
No. 6-32 UNC	0·245	0·250	0·289	0·125	0·089	—	—	—	—	—	—
No. 8-32 UNC	0·307	0·312	0·361	0·155	0·113	—	—	—	—	—	—
No. 10-32 UNF	0·339	0·344	0·397	0·167	0·123	0·250	0·160	1/16"	—	—	—
1/4" UNF	0·431	0·438	0·505	0·200	0·133	0·260	0·170	1/16"	0·290	0·200	3/32"
5/16" UNF	0·493	0·500	0·577	0·250	0·166	0·280	0·190	1/16"	0·340	0·250	1/16"
3/8" UNF	0·551	0·562	0·650	0·312	0·208	0·312	0·222	1/16"	0·402	0·312	1/16"
7/16" UNF	0·679	0·688	0·794	0·375	0·250	0·375	0·235	3/32"	0·515	0·375	3/32"
1/2" UNF	0·741	0·750	0·866	0·437	0·291	0·437	0·297	3/32"	0·577	0·437	3/32"
9/16" UNF	0·866	0·875	1·010	0·500	0·333	0·500	0·313	1/8"	0·687	0·500	1/8"
5/8" UNF	0·929	0·938	1·083	0·562	0·375	0·562	0·375	1/8"	0·749	0·562	1/8"
3/4" UNF	1·052	1·062	1·227	0·687	0·458	0·687	0·453	3/16"	0·921	0·687	3/16"
7/8" UNF	1·240	1·250	1·443	0·750	0·500	0·750	0·516	3/32"	0·984	0·750	3/32"
1" UNF	1·426	1·438	1·660	0·875	0·583	0·875	0·595	3/32"	1·155	0·875	1/8"

Brown Brothers Engineering Ltd

NUTS FOR SHEAR BOLTS—THIN AND SLOTTED

BSF—B.S. 2A58 UNIFIED—B.S. 2A110

Thin

Slotted

Material Identification Grooves on B.S. 2A58 only.

PRINCIPAL DIMENSIONS—IN.

Nom. Size	A/F		A/C	Thin	Slotted		
				G	G	L	Split Pin Dia.
	Min.	Max.	Max.	Max.	Max.	Max.	
¼" BSF	0·438	0·445	0·51	–	0·20	0·11	1/16"
5/16" BSF	0·438	0·445	0·51	0·20	0·20	0·11	1/16"
⅜" BSF	0·518	0·525	0·61	0·20	0·20	0·11	1/16"
7/16" BSF	0·592	0·600	0·69	0·20	0·20	0·11	1/16"
½" BSF	0·702	0·710	0·82	0·20	0·20	0·11	1/16"
9/16" BSF	0·812	0·820	0·95	0·20	0·20	0·11	1/16"
⅝" BSF	0·912	0·920	1·06	0·20	0·20	0·11	3/32"
¾" BSF	1·000	1·010	1·17	0·20	0·20	0·11	3/32"

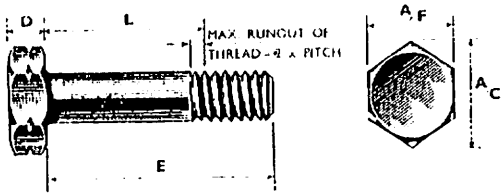
¼" BSF thin nuts should be ordered to B.S. 2A27 Part No. 2A27/ET

¼" UNF	0·370	0·375	0·433	0·20	0·20	0·11	1/16"
5/16" UNF	0·431	0·438	0·505	0·20	0·20	0·11	1/16"
⅜" UNF	0·493	0·500	0·577	0·20	0·20	0·11	1/16"
7/16" UNF	0·554	0·562	0·650	0·20	0·20	0·11	1/16"
½" UNF	0·679	0·688	0·794	0·20	0·20	0·11	1/16"
9/16" UNF	0·741	0·750	0·866	0·20	0·20	0·11	1/16"
⅝" UNF	0·866	0·875	1·010	0·20	0·20	0·11	3/32"
¾" UNF	0·929	0·938	1·083	0·20	0·20	0·11	3/32"

Brown Brothers Engineering Ltd

HEXAGON HEADED BOLTS

BA & BSF—B.S. 2A25, 2A26, 2A30, 2A59 & 2A61



PRINCIPAL DIMENSIONS—IN.

(For method of ordering, see pages 8 and 9)

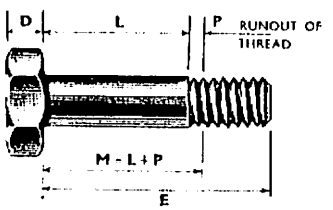
Item	Nominal Size	A F		A/C	E	D
		Min.	Max.	Max.	Min.	Max.
A	6 BA	0·188	0·193	0·22	L + 0·35	0·068
B	4 BA	0·243	0·248	0·29	L + 0·40	0·086
C	2 BA	0·319	0·324	0·37	L + 0·45	0·113
E	1/4" BSF	0·438	0·445	0·51	L + 0·50	0·150
G	5/16" BSF	0·518	0·525	0·61	L + 0·55	0·180
J	3/8" BSF	0·592	0·600	0·69	L + 0·65	0·220
L	7/16" BSF	0·702	0·710	0·82	L + 0·70	0·270
N	1/2" BSF	0·812	0·820	0·95	L + 0·80	0·300
P	9/16" BSF	0·912	0·920	1·06	L + 0·85	0·350
Q	5/8" BSF	1·000	1·010	1·17	L + 0·95	0·390
S	3/4" BSF	1·190	1·200	1·39	L + 1·255	0·480
U	7/8" BSF	1·288	1·300	1·50	L + 1·455	0·530
W	1" BSF	1·468	1·480	1·71	L + 1·555	0·620

N.B.—The head thickness "D" for B.S. 2A30 and B.S. 2A59 bolts is 0·030" smaller than the figures tabulated.

Aluminium alloy bolts B.S. 2A61 have no material identification grooves on hexagons.

HEXAGON HEADED BOLTS

UNIFIED—B.S. 3A102, 3A104, 3A108, 3A111, & 3A169



L = PLAIN LENGTH
M = CLAMPING LENGTH

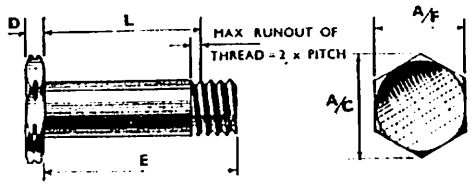
PRINCIPAL DIMENSIONS IN.

(For method of ordering, see pages 8 and 9)

Item	Nominal Size	A/F		A/C Max.	P Max. 2 × Pitch	E Min.	D Max.
		Min.	Max.				
A	No. 4-40 UNC	0·183	0·188	0·217	0·050	M + 0·350	0·070
B	No. 6-32 UNC	0·245	0·250	0·289	0·063	M + 0·337	0·085
C	No. 8-32 UNC	0·307	0·312	0·361	0·063	M + 0·387	0·100
D	No. 10-32 UNF	0·339	0·341	0·397	0·063	M + 0·437	0·115
E	1/4" UNF	0·431	0·438	0·505	0·071	M + 0·529	0·150
G	5/16" UNF	0·493	0·500	0·577	0·083	M + 0·567	0·180
J	3/8" UNF	0·554	0·562	0·650	0·083	M + 0·667	0·220
L	7/16" UNF	0·679	0·688	0·794	0·100	M + 0·750	0·270
N	1/2" UNF	0·741	0·750	0·866	0·100	M + 0·850	0·300
P	9/16" UNF	0·866	0·875	1·010	0·111	M + 0·939	0·350
Q	5/8" UNF	0·929	0·938	1·083	0·111	M + 1·039	0·390
S	3/4" UNF	1·052	1·062	1·227	0·125	M + 1·225	0·480
U	7/8" UNF	1·240	1·250	1·443	0·143	M + 1·407	0·530
W	1" UNF	1·426	1·438	1·660	0·167	M + 1·583	0·620

Brown Brothers Engineering Ltd

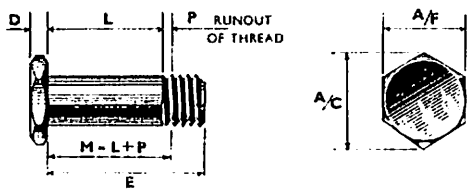
HEXAGON HEADED SHEAR BOLTS
BSF—B.S. 2A57, 2A60



PRINCIPAL DIMENSIONS—IN.
(For method of ordering, see pages 8 and 9)

ITEM	NOMINAL SIZE	A/F		A/C	E	D
		MIN.	MAX.	MAX.	MIN.	MAX.
E	$\frac{1}{4}$" BSF	0·319	0·324	0·37	L + 0·34	0·130
G	$\frac{5}{16}$" BSF	0·438	0·445	0·51	L + 0·34	0·130
J	$\frac{3}{8}$" BSF	0·518	0·525	0·61	L + 0·34	0·130
L	$\frac{7}{16}$" BSF	0·592	0·600	0·69	L + 0·35	0·130
N	$\frac{1}{2}$" BSF	0·702	0·710	0·82	L + 0·35	0·130
P	$\frac{9}{16}$" BSF	0·812	0·820	0·95	L + 0·35	0·130
Q	$\frac{5}{8}$" BSF	0·912	0·920	1·06	L + 0·36	0·130
S	$\frac{3}{4}$" BSF	1·000	1·010	1·17	L + 0·38	0·130

HEXAGON HEADED SHEAR BOLTS
UNIFIED—B.S. 2A109, 2A112



L = PLAIN LENGTH
M = CLAMPING LENGTH

PRINCIPAL DIMENSIONS—IN
(For method of ordering, see pages 8 and 9)

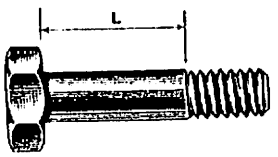
ITEM	NOMINAL SIZE	A/F		A/C	P MAX. 2 × PITCH	E	D
		MIN.	MAX.	MAX.		MIN.	MAX.
E	$\frac{1}{4}$" UNF	0·370	0·375	0·433	0·071	M + 0·329	0·130
G	$\frac{5}{16}$" UNF	0·431	0·438	0·505	0·083	M + 0·327	0·130
J	$\frac{3}{8}$" UNF	0·493	0·500	0·577	0·083	M + 0·327	0·130
L	$\frac{7}{16}$" UNF	0·554	0·562	0·650	0·100	M + 0·340	0·130
N	$\frac{1}{2}$" UNF	0·679	0·688	0·794	0·100	M + 0·340	0·130
P	$\frac{9}{16}$" UNF	0·741	0·750	0·866	0·111	M + 0·339	0·130
Q	$\frac{5}{8}$" UNF	0·866	0·875	1·010	0·111	M + 0·349	0·130
S	$\frac{3}{4}$" UNF	0·929	0·938	1·083	0·125	M + 0·365	0·130

Brown Brothers Engineering Ltd

HEXAGON HEADED BOLTS & SHEAR BOLTS

BA & BSF—B.S. 2A25, 2A26, 2A30, 2A57, 2A59, 2A60 & 2A61

UNIFIED—B.S. 3A102, 3A104, 3A108, 2A109, 3A111, 2A112 & 3A169



METHOD OF ORDERING

(For principal dimensions, see pages 5-7)

ITEM	A	B	C	D	E	G	J
NOM. SIZE	6 BA OR No. 4-40 UNC	4 BA OR No. 6-32 UNC	2 BA OR No. 8-32 UNC	No. 10-32 UNF	$\frac{1}{4}$" BSF OR $\frac{1}{4}$" UNF	$\frac{5}{16}$" BSF OR $\frac{5}{16}$" UNF	$\frac{3}{8}$" BSF OR $\frac{3}{8}$" UNF
ITEM	L	N	P	Q	S	U	W
NOM. SIZE	$\frac{7}{16}$" BSF OR $\frac{7}{16}$" UNF	$\frac{1}{2}$" BSF OR $\frac{1}{2}$" UNF	$\frac{9}{16}$" BSF OR $\frac{9}{16}$" UNF	$\frac{5}{8}$" BSF OR $\frac{5}{8}$" UNF	$\frac{3}{4}$" BSF OR $\frac{3}{4}$" UNF	$\frac{7}{8}$" BSF OR $\frac{7}{8}$" UNF	1" BSF OR 1" UNF

Bolts to the above specifications are ordered by the British Standard Number, followed by a number indicating the nominal length of plain shank "L" in tenths of an inch, followed by the item letter indicating the nominal size.

EXAMPLE :

(i) A 2BA– 2A25 bolt with a plain length "L" of 0·7" would be 2A25/7C.

(ii) A $\frac{5}{16}$" BSF– 2A60 bolt with a plain length "L" of 1·8" would be 2A60/18G.

(iii) A $\frac{1}{2}$" UNF-3A104 bolt with a plain length "L" of 3·2" would be 3A104/32N.

Brown Brothers Engineering Ltd

TABLE SHOWING METHOD OF CALCULATION OF OVERALL AND PLAIN LENGTHS OF STANDARD BOLTS

To find Nominal Plain Length subtract figure in Col. 1 from minimum overall length.
To find Minimum Overall Length add figure in Col. 1 to nominal plain length.
(Plain length is always a multiple of $\frac{1}{10}$ of an inch " nominal ".)

2A25, 2A26, 2A30, 2A59, 2A61

Item Letter	Thread Size	Col. 1
A	6 BA	0·35″
B	4 BA	0·40″
C	2 BA	0·45″
E	$\frac{1}{4}$″ BSF	0·50″
G	$\frac{5}{16}$″ BSF	0·55″
J	$\frac{3}{8}$″ BSF	0·65″
L	$\frac{7}{16}$″ BSF	0·70″
N	$\frac{1}{2}$″ BSF	0·80″
P	$\frac{9}{16}$″ BSF	0·85″
Q	$\frac{5}{8}$″ BSF	0·95″
S	$\frac{3}{4}$″ BSF	1·255″
U	$\frac{7}{8}$″ BSF	1·455″
W	1″ BSF	1·555″

2A109, 2A112

Item Letter	Thread Size	Col. 1
E	$\frac{1}{4}$″ UNF	0·400″
G	$\frac{5}{16}$″ UNF	0·410″
J	$\frac{3}{8}$″ UNF	0·410″
L	$\frac{7}{16}$″ UNF	0·440″
N	$\frac{1}{2}$″ UNF	0·440″
P	$\frac{9}{16}$″ UNF	0·450″
Q	$\frac{5}{8}$″ UNF	0·460″
S	$\frac{3}{4}$″ UNF	0·490″

2A57, 2A60

Item Letter	Thread Size	Col. 1
E	$\frac{1}{4}$″ BSF	0·34″
G	$\frac{5}{16}$″ BSF	0·34″
J	$\frac{3}{8}$″ BSF	0·34″
L	$\frac{7}{16}$″ BSF	0·35″
N	$\frac{1}{2}$″ BSF	0·35″
P	$\frac{9}{16}$″ BSF	0·35″
Q	$\frac{5}{8}$″ BSF	0·36″
S	$\frac{3}{4}$″ BSF	0·38″

3A102, 3A104, 3A108, 3A111, 3A113, 3A116, 3A117, 3A169, 3A170, 3A171, 2A173, 2A174, 2A175

Item Letter	Thread Size	Col. 1
A	No. 4-40 UNC	0·400″
B	No. 6-32 UNC	0·400″
C	No. 8-32 UNC	0·450″
D	No. 10-32 UNF	0·500″
E	$\frac{1}{4}$″ UNF	0·600″
G	$\frac{5}{16}$″ UNF	0·650″
J	$\frac{3}{8}$″ UNF	0·750″
L	$\frac{7}{16}$″ UNF	0·850″
N	$\frac{1}{2}$″ UNF	0·950″
P	$\frac{9}{16}$″ UNF	1·050″
Q	$\frac{5}{8}$″ UNF	1·150″
S	$\frac{3}{4}$″ UNF	1·350″
U	$\frac{7}{8}$″ UNF	1·550″
W	1″ UNF	1·750″

Brown Brothers Engineering Ltd

HIGH TENSILE STAINLESS STEEL NUTS

BA & BSF—B.S. 2A24 UNIFIED—B.S. 3A105

(Replacing A16Z)

ORDINARY, THIN, SLOTTED AND CASTLE

(For principal dimensions, see pages 2 and 3)

Nom. Size	Part Numbers							
	Ordinary		Thin		Slotted		Castle	
	Right Hand Thread	Left Hand Thread	Right Hand Thread	Left Hand Thread	Right Hand Thread		Right Hand Thread	
6 BA or No. 4-40 UNC	AP	APL	AT	ATL	—		—	
4 BA or No. 6-32 UNC	BP	BPL	BT	BTL	—		—	
2 BA	CP	CPL	CT	CTL	CS		—	
No. 8-32 UNC	CP	CPL	CT	CTL	—		—	
No. 10-32 UNF	DP	DPL	DT	DTL	DS		—	
1/4" BSF or 1/4" UNF	EP	EPL	ET	ETL	ES		EC	
5/16" BSF or 5/16" UNF	GP	GPL	GT	GTL	GS		GC	
3/8" BSF or 3/8" UNF	JP	JPL	JT	JTL	JS		JC	
7/16" BSF or 7/16" UNF	LP	LPL	LT	LTL	LS		LC	
1/2" BSF or 1/2" UNF	NP	NPL	NT	NTL	NS		NC	
9/16" BSF or 9/16" UNF	PP	PPL	PT	PTL	PS		PC	
5/8" BSF or 5/8" UNF	QP	QPL	QT	QTL	QS		QC	
3/4" BSF or 3/4" UNF	SP	SPL	ST	STL	SS		SC	
7/8" BSF or 7/8" UNF	UP	UPL	UT	UTL	US		UC	
1" BSF or 1" UNF	WP	WPL	WT	WTL	WS		WC	

METHOD OF ORDERING

The specification number is suffixed by the part number, e.g. :—

A 1/4" BSF ordinary nut with a right-hand thread would be 2A24/EP, or with a left-hand thread 2A24/EPL.

A 3/8" UNF thin nut with a right-hand thread would be 3A105/JT, or with a left-hand thread 3A105/JTL.

HIGH TENSILE STEEL BOLTS

BA & BSF—B.S. 2A25 UNIFIED—B.S. 3A102

(Replacing 2A15Y and 6A1)

(CADMIUM)

Over 5/8" nominal size normally supplied in increments of 1/8" only.

(For principal dimensions and method of ordering, see pages 5, 6, 8 and 9)

Brown Brothers Engineering Ltd

HIGH TENSILE STAINLESS STEEL BOLTS
BA & BSF—B.S. 2A26 UNIFIED—B.S. 3A104

(Replacing 2A15Z)

Over $\frac{5}{8}$" nominal size normally supplied in increments of $\frac{1}{8}$" only.

(For principal dimensions and method of ordering, see pages 5, 6, 8 and 9)

MEDIUM TENSILE STEEL NUTS
BA & BSF—B.S. 2A27

(Replacing A16Y)

UNIFIED—B.S. 3A103

(CADMIUM)

ORDINARY, THIN, SLOTTED and CASTLE

(For principal dimensions, see pages 2 and 3)

Nominal Size	Part Numbers							
	Ordinary		Thin		Slotted		Castle	
	Right Hand Thread	Left Hand Thread	Right Hand Thread	Left Hand Thread	Right Hand Thread		Right Hand Thread	
6 BA or No. 4-40 UNC	AP	APL	AT	ATL	—		—	
4 BA or No. 6-32 UNC	BP	BPL	BT	BTL	—		—	
2 BA	CP	CPL	CT	CTL	CS		—	
No. 8-32 UNC	CP	CPL	CT	CTL	—		—	
No. 10-32 UNF	DP	DPL	DT	DTL	DS		—	
$\frac{1}{4}$" BSF or $\frac{1}{4}$" UNF	EP	EPL	ET	ETL	ES		EC	
$\frac{5}{16}$" BSF or $\frac{5}{16}$" UNF	GP	GPL	GT	GTL	GS		GC	
$\frac{3}{8}$" BSF or $\frac{3}{8}$" UNF	JP	JPL	JT	JTL	JS		JC	
$\frac{7}{16}$" BSF or $\frac{7}{16}$" UNF	LP	LPL	LT	LTL	LS		LC	
$\frac{1}{2}$" BSF or $\frac{1}{2}$" UNF	NP	NPL	NT	NTL	NS		NC	
$\frac{9}{16}$" BSF or $\frac{9}{16}$" UNF	PP	PPL	PT	PTL	PS		PC	
$\frac{5}{8}$" BSF or $\frac{5}{8}$" UNF	QP	QPL	QT	QTL	QS		QC	
$\frac{3}{4}$" BSF or $\frac{3}{4}$" UNF	SP	SPL	ST	STL	SS		SC	
$\frac{7}{8}$" BSF or $\frac{7}{8}$" UNF	UP	UPL	UT	UTL	US		UC	
1" BSF or 1" UNF	WP	WPL	WT	WTL	WS		WC	

METHOD OF ORDERING

The specification number is suffixed by the part number., e.g. :—

A $\frac{1}{4}$" BSF ordinary nut with a right-hand thread would be 2A27/EP, or with a left-hand thread 2A27/EPL.

A $\frac{3}{8}$" UNF thin nut with a right-hand thread would be 3A103/JT, or with a left-hand thread 3A103/JTL.

Brown Brothers Engineering Ltd

ALUMINIUM ALLOY BOLTS (Anodised)

BA & BSF—B.S. A28

(Replaced by 2A61)

(Replacing A17)

UNIFIED—B.S. A106

(Replaced by 3A169)

ALUMINIUM ALLOY NUTS (Anodised)

BA & BSF—B.S. 2A29

(Replacing A18)

UNF—B.S. 3A107

ORDINARY AND SLOTTED

(For principal dimensions, see pages 2 and 3)

Nominal Size	Part Numbers				Nominal Size	Part Numbers			
	Ordinary		Slotted			Ordinary		Slotted	
	Right-Hand Thread	Left-Hand Thread	Right-Hand Thread			Right-Hand Thread	Left-Hand Thread	Right-Hand Thread	
4 BA or No. 6-32 UNC	BP	BPL	· ·		$\frac{3}{16}$" BSF or $\frac{3}{8}$" UNF	JP	JPL	JS	
2 BA or No. 8-32 UNC	CP	CPL	· ·		$\frac{7}{32}$" BSF or $\frac{7}{16}$" UNF	LP	LPL	LS	
No. 10-32 UNF	DP	DPL	· ·		$\frac{1}{4}$" BSF or $\frac{1}{4}$" UNF	NP	NPL	NS	
$\frac{1}{4}$" BSF or $\frac{1}{4}$" UNF	EP	EPL	ES		$\frac{9}{32}$" BSF or $\frac{9}{16}$" UNF	PP	PPL	PS	
$\frac{5}{16}$" BSF or $\frac{5}{16}$" UNF	GP	GPL	GS		$\frac{5}{16}$" BSF or $\frac{5}{16}$" UNF	QP	QPL	QS	

METHOD OF ORDERING

The specification number is suffixed by the part number, e.g.:—

A $\frac{1}{4}$" BSF ordinary nut with a right-hand thread would be 2A29/EP, or with a left-hand thread 2A29/EPL.

A $\frac{3}{8}$" UNF ordinary nut with a right-hand thread would be 3A107/JP, or with a left-hand thread 3A107/JPL.

CLOSE TOLERANCE HIGH TENSILE STEEL BOLTS

BA & BSF—B.S. 2A30

UNF—B.S. 3A108

(Head and Thread—Cadmium. Plain Shank and underside of Head—Temporary rust preventative)

Nominal Size	2 BA		No. 10-32 UNF		$\frac{1}{4}$" BSF or $\frac{1}{4}$" UNF		$\frac{5}{16}$" BSF or $\frac{5}{16}$" UNF	
Plain Shank Diameter - in.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
	0·18675	0·18725	0·18905	0·18955	0·24925	0·24975	0·31175	0·31225
Nominal Size	$\frac{3}{8}$" BSF or $\frac{3}{8}$" UNF		$\frac{7}{16}$" BSF or $\frac{7}{16}$" UNF		$\frac{1}{2}$" BSF or $\frac{1}{2}$" UNF			
Plain Shank Diameter—in.	Min.	Max.	Min.	Max.	Min.	Max.		
	0·37425	0·37475	0·43675	0·43725	0·49925	0·49975		

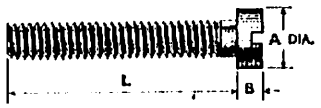
(For other dimensions and method of ordering, see pages 5, 6; 8 and 9)

B.S. A31, A35, A39, A43 B.A. CHEESE HEAD SCREWS

Replacing : AGS 247 (MILD STEEL) AGS 896 (STAINLESS STEEL) AGS 246 (BRASS)

Material :

A31 MILD STEEL (Cadmium)
A39 ALUMINIUM ALLOY (Anodised)
A35 STAINLESS STEEL (Self)
A43 BRASS (Electro-tinned)



ITEM	SIZE	A		B	
		MAX.	MIN.	MAX.	MIN.
		IN.	IN.	IN.	IN.
C	2 BA	0·319	0·309	0·130	0·123
B	4 BA	0·252	0·242	0·101	0·095
A	6 BA	0·194	0·184	0·078	0·073
Z	8 BA	0·157	0·147	0·063	0·059
Y	10 BA	0·112	0·107	0·045	0·041
X	12 BA	0·095	0·090	0·038	0·035

METHOD OF ORDERING

The part reference number consists of the item letter followed by the item number which represents the nominal length "L" in $\frac{1}{32}$ of an inch.

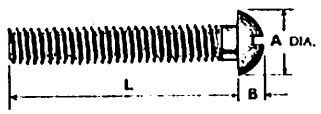
The complete part number for a 4 BA aluminium alloy cheese head screw with a nominal length "L" of $\frac{1}{2}$" is therefore A39/B16.

B.S. A32, A36, A40, A44 B.A. ROUND HEAD SCREWS

Replacing : AGS 245 (MILD STEEL) AGS 967 (STAINLESS STEEL) AGS 564 (AL. ALLOY) AGS 244 (BRASS)

Material :

A32 MILD STEEL (Cadmium)
A40 ALUMINIUM ALLOY (Anodised)
A36 STAINLESS STEEL (Self)
A44 BRASS (Electro-tinned)



ITEM	SIZE	A		B	
		MAX.	MIN.	MAX.	MIN.
		IN.	IN.	IN.	IN.
C	2 BA	0·319	0·309	0·130	0·123
B	4 BA	0·252	0·242	0·101	0·095
A	6 BA	0·194	0·184	0·078	0·073
Z	8 BA	0·157	0·147	0·063	0·059
Y	10 BA	0·112	0·107	0·045	0·041

METHOD OF ORDERING

The part reference number consists of the item letter followed by the item number which represents the nominal length "L" in $\frac{1}{32}$ of an inch.

The complete part number for a 4 BA aluminium alloy round head screw with a nominal length "L" of $\frac{1}{2}$" is therefore A40/B16.

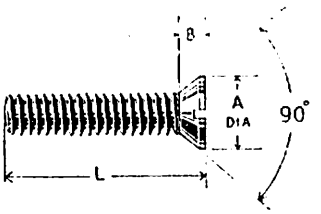
B.S. A33, A37, A41, A45 B.A. COUNTERSUNK HEAD SCREWS

Replacing : AGS 249 (MILD STEEL) AGS 968 (STAINLESS STEEL) AGS 248 (BRASS)

Material:

A33 MILD STEEL (Cadmium) A37 STAINLESS STEEL (Self)
A41 ALUMINIUM ALLOY (Anodised) A45 BRASS (Electro-tinned)

ITEM	SIZE	A		B
		MAX.	MIN.	NOMINAL
		IN.	IN.	IN.
C	2 BA	0·319	0·309	0·077
B	4 BA	0·252	0·242	0·065
A	6 BA	0·194	0·184	0·051
Z	8 BA	0·157	0·147	0·043
Y	10 BA	0·112	0·107	0·030
X	12 BA	0·095	0·090	0·028



METHOD OF ORDERING

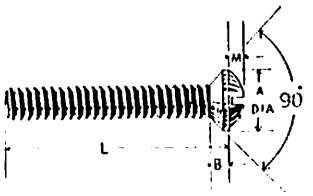
The part reference number consists of the item letter followed by the item number which represents the nominal length " L " in $\frac{1}{32}$ of an inch.

The complete part number for a 4 BA aluminium alloy countersunk head screw with a nominal length " L " of $\frac{1}{2}$" is therefore A41/B16.

B.S. A34, A38, A42, A46 B.A. RAISED COUNTERSUNK HEAD SCREWS

Material:

A34 MILD STEEL (Cadmium) A38 STAINLESS STEEL (Self)
A42 ALUMINIUM ALLOY (Anodised) A46 BRASS (Electro-tinned)



ITEM	SIZE	A		B	M
		MAX.	MIN.	NOMINAL	APPROXIMATE
		IN.	IN.	IN.	IN.
C	2 BA	0·319	0·309	0·077	0·036
B	4 BA	0·252	0·242	0·065	0·029
A	6 BA	0·194	0·184	0·051	0·023
Z	8 BA	0·157	0·147	0·043	0·019
Y	10 BA	0·112	0·107	0·030	0·013

METHOD OF ORDERING

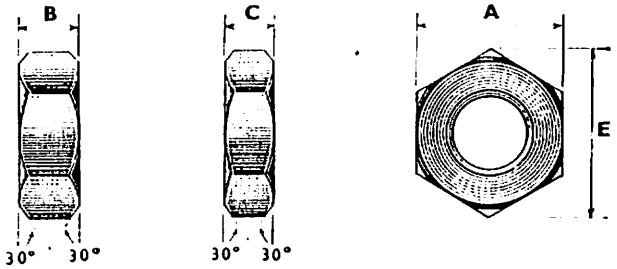
The part reference number consists of the item letter followed by the item number which represents the nominal length " L " in $\frac{1}{32}$ of an inch.

The complete part number for a 4 BA aluminium alloy raised countersunk head screw with a nominal length " L " of $\frac{1}{2}$" is therefore A42/B16.

B.S. A47 to A54 B.A. ORDINARY & THIN NUTS

Material :

A47	Ordinary	MILD STEEL (Cadmium)	A51	Ordinary	AL. ALLOY (Anodised)
A48	Thin		A52	Thin	
A49	Ordinary	STAINLESS STEEL (Self)	A53	Ordinary	BRASS (Electro-tinned)
A50	Thin		A54	Thin	



Ordinary Thin

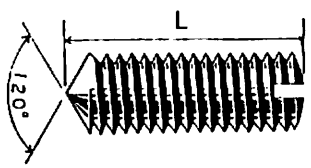
Item	Size	A		E	B		C	
		Max.	Min.	Max.	Max.	Min.	Max.	Min.
		in.	in.	in.	in.	in.	in.	in.
*C	2 BA	0·324	0·319	0·37	0·167	0·157	0·123	0·113
*B	4 BA	0·248	0·243	0·29	0·135	0·125	0·094	0·084
*A	6 BA	0·193	0·189	0·22	0·105	0·095	0·073	0·063
Z	8 BA	0·152	0·149	0·18	0·082	0·075	0·058	0·051
Y	10 BA	0·117	0·114	0·14	0·064	0·057	—	—
X	12 BA	0·090	0·088	0·10	0·049	0·044	—	—

METHOD OF ORDERING

The part number consists of the specification number followed by the item letter. The part number for a 4 BA aluminium alloy ordinary nut is therefore A51/B.

* 6, 4 and 2 BA nuts in mild steel should be ordered to BS 2A27 Medium Tensile Steel.

B.S. A55, A56 GRUB SCREWS



Material :

A55 FREE-CUTTING STEEL (Cadmium)
A56 STAINLESS STEEL (Self)

Item	A	B	C	E
Size	6 BA	4 BA	2 BA	¼" BSF

METHOD OF ORDERING

The part reference number consists of the item letter followed by the item number which represents the length "L" in $\frac{1}{16}$ of an inch. The complete part number for a 2 BA grub screw in free-cutting steel with a length of $\frac{5}{8}$" is therefore A55/C10.

CLOSE TOLERANCE HIGH TENSILE STEEL SHEAR BOLTS

(Head and Thread: Cadmium. Shank and Underside of Head: Self with Temporary Rust Preventative)

BSF—B.S. 2A57 UNIFIED—B.S. 2A109

Nominal Size	¼" BSF or ¼" UNF		5/16" BSF or 5/16" UNF		⅜" BSF or ⅜" UNF		7/16" BSF or 7/16" UNF	
Plain Shank Diameter—in.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
	0·21925	0·21975	0·31175	0·31225	0·37425	0·37475	0·43675	0·43725
Nominal Size	**¼" BSF or ¼" UNF**		**9/16" BSF or 9/16" UNF**		**⅝" BSF or ⅝" UNF**		**¾" BSF or ¾" UNF**	
Plain Shank Diameter in.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
	0·19925	0·19975	0·56175	0·56225	0·62425	0·62475	0·74925	0·74975

(For other dimensions and method of ordering, see pages 7, 8 and 9)

HIGH TENSILE STEEL NUTS FOR SHEAR BOLTS

BSF—B.S. 2A58 UNIFIED—B.S. 2A110

(CADMIUM)

Thin and Slotted

(For principal dimensions, see page 4)

Nominal Size	Part Numbers		Nominal Size	Part Numbers	
	Thin	Slotted		Thin	Slotted
*¼" BSF or ¼" UNF	Thread ET	Thread ES	¼" BSF or ¼" UNF	Thread NT	Thread NS
5/16" BSF or 5/16" UNF	GT	GS	7/16" BSF or 7/16" UNF	PT	PS
⅜" BSF or ⅜" UNF	JT	JS	½" BSF or ½" UNF	QT	QS
7/16" BSF or 7/16" UNF	LT	LS	⅝" BSF or ⅝" UNF	ST	SS

* ¼" BSF thin nuts should be ordered as 2A27/ET.

METHOD OF ORDERING

The specification number is suffixed by the part number, *e.g.* :—

A 5/16" BSF thin nut would be 2A58/GT.
A ⅜" UNF slotted nut would be 2A110/JS.

CLOSE TOLERANCE HIGH TENSILE STEEL BOLTS

(Cadmium Plated All Over)

BA & BSF—B.S. 2A59 UNIFIED—B.S. 3A111

Nominal Size	2 BA		No. 10-32 UNF		¼" BSF or ¼" UNF		5/16" BSF or 5/16" UNF	
Plain Shank Dia. —In. (After Plating)	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
	0·18675	0·18725	0·18905	0·18955	0·24925	0·24975	0·31175	0·31225
Nominal Size	3/8" BSF or 3/8" UNF		7/16" BSF or 7/16" UNF		½" BSF or ½" UNF			
Plain Shank Dia.—In. (After Plating)	Min.	Max.	Min.	Max.	Min.	Max.		
	0·37425	0·37475	0·43675	0·43725	0·49925	0·49975		

(For other dimensions and method of ordering, see pages 5, 6, 8 and 9)

CLOSE TOLERANCE HIGH TENSILE STEEL SHEAR BOLTS

(Cadmium Plated All Over)

BSF—B.S. 2A60 UNIFIED—B.S. 2A112

Nominal Size	¼" BSF or ¼" UNF		5/16" BSF or 5/16" UNF		3/8" BSF or 3/8" UNF		7/16" BSF or 7/16" UNF	
Plain Shank Diameter—In. (After Plating)	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
	0·24925	0·24975	0·31175	0·31225	0·37425	0·37475	0·43675	0·43725
Nominal Size	½" BSF or ½" UNF		9/16" BSF or 9/16" UNF		⅝" BSF or ⅝" UNF		¾" BSF or ¾" UNF	
Plain Shank Diameter - In. (After Plating)	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
	0·49925	0·49975	0·56175	0·56225	0·62425	0·62475	0·74925	0·74975

(For other dimensions and method of ordering, see pages 7, 8 and 9)

ALUMINIUM ALLOY BOLTS

(Anodised and Dyed Green)

BA & BSF—B.S. 2A61

(Replacing A28 and A17)

Normally supplied in sizes up to ⅝" BSF only

(For principal dimensions and method of ordering, see pages 5, 8 and 9)

B.S. 3A102 UNIFIED HIGH TENSILE STEEL BOLTS

(See page 10)

B.S. 3A103 UNIFIED MEDIUM TENSILE STEEL NUTS

(See page 11)

B.S. 3A104 UNIFIED HIGH TENSILE STAINLESS STEEL BOLTS

(See page 11)

B.S. 3A105 UNIFIED HIGH TENSILE STAINLESS STEEL NUTS

(See page 10)

B.S. A106 UNIFIED ALUMINIUM ALLOY BOLTS

(See page 12)
(Replaced by 3A169)

B.S. 3A107 UNIFIED ALUMINIUM ALLOY NUTS

(See page 12)

B.S. 3A108 UNIFIED CLOSE TOLERANCE HIGH TENSILE STEEL BOLTS

(Unplated Shank)

(See page 12)

B.S. 2A109 UNIFIED CLOSE TOLERANCE HIGH TENSILE STEEL SHEAR BOLTS

(Unplated Shank)

(See page 16)

B.S. 2A110 UNIFIED HIGH TENSILE STEEL NUTS FOR SHEAR BOLTS

(See page 16)

B.S. 3A111 UNIFIED CLOSE TOLERANCE HIGH TENSILE STEEL BOLTS

(Cadmium Plated Shank)

(See page 17)

B.S. 2A112 UNIFIED CLOSE TOLERANCE HIGH TENSILE STEEL SHEAR BOLTS

(Cadmium Plated Shank)

(See page 17)

B.S. 3A113, 3A114 & A115

UNIFIED MUSHROOM HEAD BOLTS

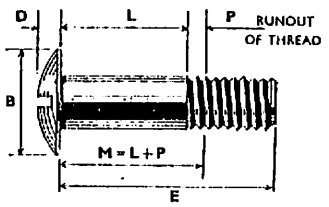
Material:

3A113 HIGH TENSILE STEEL (CADMIUM)

3A114 STAINLESS STEEL (SELF)

A115 ALUMINIUM ALLOY (ANODISED AND DYED BLUE)

(A115 replaced by 3A170)



L = PLAIN LENGTH
M = CLAMPING LENGTH

ITEM	NOMINAL SIZE	B DIA.		P MAX. 2 × PITCH	E	D
		MIN.	MAX.		MIN.	MAX.
		IN.	IN.	IN.	IN.	IN.
B	No. 6-32 UNC	0·303	0·316	0·063	M + 0·337	0·086
C	No. 8-32 UNC	0·364	0·378	0·063	M + 0·387	0·102
D	No. 10-32 UNF	0·425	0·441	0·063	M + 0·437	0·118
E	¼" UNF	0·546	0·565	0·071	M + 0·529	0·150
G	5/16" UNF	0·666	0·690	0·083	M + 0·567	0·183

METHOD OF ORDERING

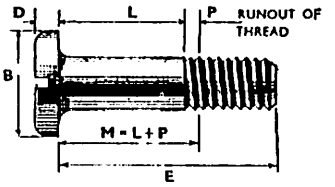
Mushroom head bolts are ordered by the British Standard Number, followed by a number indicating the nominal length of plain shank "L" in tenths of an inch followed by the item letter indicating the nominal size required, e.g. the part number of a ¼" UNF mushroom head bolt in stainless steel, with a plain length 0·5", would be 2A114/5E.

B.S. 3A116, 3A117 & A118
UNIFIED PAN HEAD BOLTS

Material:

3A116 HIGH TENSILE STEEL
(CADMIUM)
3A117 STAINLESS STEEL (SELF)
A118 ALUMINIUM ALLOY
(ANODISED AND DYED BLUE)

(A118 replaced by 3A171)



L = PLAIN LENGTH
M = CLAMPING LENGTH

ITEM	NOMINAL SIZE	B DIA.		P MAX. 2 × PITCH	E	D
		MIN.	MAX.		MIN.	MAX.
		IN.	IN.	IN.	IN.	IN.
A	No. 4-40 UNC	0·184	0·194	0·050	M + 0·350	0·068
B	No. 6-32 UNC	0·242	0·252	0·063	M + 0·337	0·082
C	No. 8-32 UNC	0·273	0·283	0·063	M + 0·387	0·096
D	No. 10-32 UNF	0·309	0·319	0·063	M + 0·437	0·110
E	¼" UNF	0·420	0·440	0·071	M + 0·529	0·144
G	$\frac{5}{16}$" UNF	0·527	0·547	0·083	M + 0·567	0·178

METHOD OF ORDERING

Pan head bolts are ordered by the British Standard Number, followed by a number indicating the nominal length of plain shank "L" in tenths of an inch followed by the item letter indicating the nominal size required, e.g. the part number of a ¼" UNF Pan head bolt in stainless steel, with a plain length of 0.5", would be 2A117/5E.

B.S. A119, A120 & A121
UNIFIED 90° COUNTERSUNK HEAD BOLTS

A119 REPLACED BY 2A173
A120 REPLACED BY 2A174
A121 REPLACED BY 2A175

B.S. A.122—A.124 UNIFIED CLINCH NUTS

Material: A122 STEEL (CADMIUM)

A123 BRASS OR BRONZE (ELECTRO-TINNED)

A124 ALUMINIUM ALLOY (ANODISED)

(For details see " Oddie Nuts & Anchorages ", page 261)

B.S. 2A125—2A168 UNIFIED STIFFNUTS

(For details see " Oddie Nuts & Anchorages ", page 262)

B.S. 3A169 UNIFIED ALUMINIUM ALLOY BOLTS

(ANODISED AND DYED GREEN)

(Replacing A106)

(For principal dimensions and method of ordering, see pages 6, 8 and 9)

B.S. 3A170 UNIFIED ALUMINIUM ALLOY MUSHROOM HEAD BOLTS

(ANODISED AND DYED GREEN)

(Replacing A115)

All dimensions as for A115

B.S. 3A171 UNIFIED ALUMINIUM ALLOY PAN HEAD BOLTS

(ANODISED AND DYED GREEN)

(Replacing A118)

All dimensions as for A118

B.S. A172 UNIFIED 90° ALUMINIUM ALLOY COUNTERSUNK HEAD BOLTS

(ANODISED AND DYED GREEN)

Replaced by 2A175

Brown Brothers Engineering Ltd

B.S. 2A173, 2A174 & 2A175

UNIFIED 100° COUNTERSUNK BOLTS

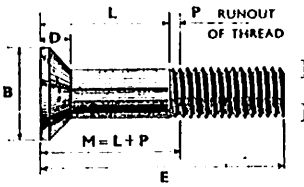
(Flushness Toleranced Head)

Material:

2A173 HIGH TENSILE STEEL (CADMIUM)

2A174 STAINLESS STEEL (SELF)

2A175 ALUMINIUM ALLOY (ANODISED AND DYED GREEN)



L = PLAIN LENGTH

M = CLAMPING LENGTH

ITEM	NOMINAL SIZE	P MAX. 2 × PITCH	E MIN.	B MIN.	D REF. ONLY
		IN.	IN.	IN.	IN.
C	No. 8-32 UNC	0·063	M + 0·387	0·287	0·068
D	No. 10-32 UNF	0·063	M + 0·437	0·337	0·080
E	$\frac{1}{4}$" UNF	0·071	M + 0·529	0·452	0·106
G	$\frac{5}{16}$" UNF	0·083	M + 0·567	0·572	0·133
J	$\frac{3}{8}$" UNF	0·083	M + 0·667	0·692	0·159
L	$\frac{7}{16}$" UNF	0·100	M + 0·750	0·812	0·186
N	$\frac{1}{2}$" UNF	0·100	M + 0·850	0·932	0·213

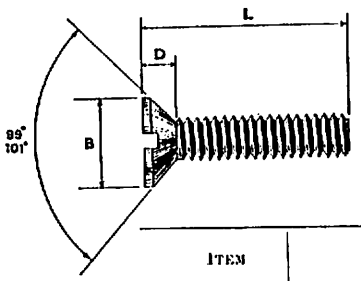
METHOD OF ORDERING

Bolts to the above specifications are ordered by the British Standard Number, followed by a number indicating the length of the plain shank "L" in tenths of an inch, followed by the item letter indicating the nominal size, e.g. the part No. of a $\frac{5}{16}$" UNF stainless steel bolt, 1" long, is 2 A174/10G.

B.S. 2A180 & 2A181 UNIFIED STIFFNUTS
2A186 & 2A187
2A192 & 2A193
2A200 & 2A201

(For details see "Oddie Nuts and Anchorages", page 262)

BS. 2A204, 2A206, 2A208 & A220
UNIFIED 100° COUNTERSUNK HEAD SCREW



Material:

2A204 MILD STEEL (CADMIUM)
2A206 STAINLESS STEEL (SELF)
2S208 ALUMINIUM ALLOY (ANODISED AND DYED GREEN)
A220 BRASS (ELECTRO TINNED)

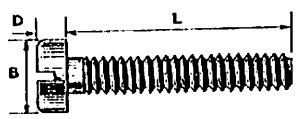
ITEM	SIZE	B DIA.		D
		MAX.	MIN.	MAX.
		IN.	IN.	IN.
Y	No. 0 × 80 UNF	0·110	0·102	0·026
Z	No. 2 × 64 UNF	0·158	0·148	0·038
A	No. 4 × 40 UNC	0·206	0·191	0·049
B	No. 6 × 32 UNC	0·255	0·238	0·051
C	No. 8 × 32 UNC	0·303	0·285	0·073
D	No. 10 × 32 UNF	0·351	0·333	0·084

METHOD OF ORDERING

Screws to the above specifications are ordered by the British Standard Number followed by the letter representing the thread size, followed by a numeral representing the nominal length " L " in $\frac{1}{32}$ of an inch, e.g. the part number of a countersunk head screw in aluminium alloy $\frac{1}{2}$" long with a No. 6 × 32 UNC thread would be 2A208/B16.

B.S. A205, A207, A209
UNIFIED PAN HEAD SCREWS

(Superseded by A217, A218, A219)



Material:

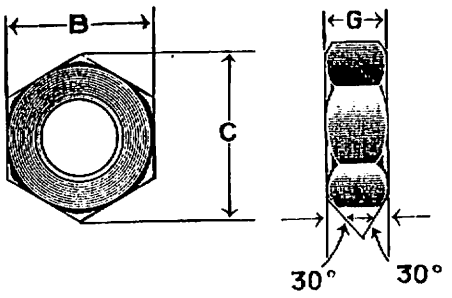
A205 MILD STEEL (CADMIUM)
A207 STAINLESS STEEL (SELF)
A209 ALUMINIUM ALLOY (ANODISED AND DYED GREEN)

ITEM	SIZE	B DIA.		D	
		MAX.	MIN.	MAX.	MIN.
		IN.	IN.	IN.	IN.
A	No. 4-40 UNC	0·194	0·184	0·068	0·058
B	No. 6-32 UNC	0·252	0·242	0·082	0·072
C	No. 8-32 UNC	0·283	0·273	0·096	0·085
D	No. 10-32 UNF	0·319	0·309	0·110	0·099

METHOD OF ORDERING

Screws to the above specifications are ordered by the British Standard Number followed by the letter indicating the thread size, followed by a numeral(s) representing the nominal length " L " in $\frac{1}{32}$ of an inch, e.g. the part number of a pan head screw in aluminium alloy $\frac{1}{2}$" long, with a No. 6-32 UNC thread, would be A209/B16.

B.S. 2A210 UNIFIED ORDINARY & THIN NUTS (Brass)



Material: BRASS
Finish: (ELECTRO-TINNED)

THREAD SIZE	PART REF.				B		C	G			
	ORDINARY		THIN		MIN.	MAX.	MAX.	ORDINARY		THIN	
	R.H.	L.H.	R.H.	L.H.				MIN.	MAX.	MIN.	MAX.
No. 4-40 U.N.C.	AP	APL	AT	ATL	0·183"	0·188"	0·217"	0·095"	0·105"	0·063"	0·073"
No. 6-32 U.N.C.	BP	BPL	BT	BTL	0·245"	0·250"	0·289"	0·115"	0·125"	0·079"	0·089"
No. 8-32 U.N.C.	CP	CPL	CT	CTL	0·307"	0·312"	0·361"	0·145"	0·155"	0·103"	0·113"
No. 10-32 U.N.F.	DP	DPL	DT	DTL	0·339"	0·344"	0·397"	0·157"	0·167"	0·113"	0·123"

METHOD OF ORDERING

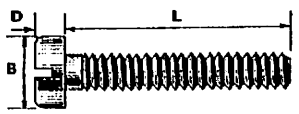
The part number consists of the specification number followed by the Item letter. The part number for a No. 6 × 32 U.N.C. brass ordinary nut is therefore 2A210/BP.

B.S. A211 UNIFIED 100° COUNTERSUNK BOLTS. WITH CRUCIFORM RECESSES

Material: HIGH TENSILE STEEL (CADMIUM)
Identical to 2A173 except driver slot

B.S. A217, A218, A219, & A221 UNIFIED PAN HEAD SCREWS

Material: A217—MILD STEEL (CADMIUM). A218—STAINLESS STEEL (SELF).
A219—ALUMINIUM ALLOY (ANODISED AND DYED GREEN). A221—BRASS (ELECTRO-TINNED)

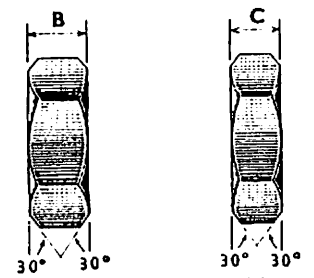


ITEM	SIZE	B DIA.		D	
		MAX.	MIN.	MAX.	MIN.
Y	No. 0 × 80 UNF	0·116"	0·104"	0·039"	0·031"
Z	No. 2 × 64 UNF	0·167"	0·155"	0·053"	0·045"
A	No. 4 × 40 UNC	0·219"	0·205"	0·068"	0·058"
B	No. 6 × 32 UNC	0·270"	0·256"	0·082"	0·072"
C	No. 8 × 32 UNC	0·322"	0·306"	0·096"	0·085"
D	No. 10 × 32 UNF	0·373"	0·357"	0·110"	0·099"

METHOD OF ORDERING

Screws to the above specifications are ordered by the British Standard Number followed by the letter representing the thread size followed by a numeral representing the nominal length "L" in 1/32 of an inch, e.g. the part number of a pan head screw in aluminium alloy ½" long with No. 6 × 32 U.N.C. thread would be A219/B16.

B.S. A222, A223, A224 & A225
UNIFIED ORDINARY & THIN NUTS



Ordinary Thin

A222 Ordinary, A223 Thin } MILD STEEL (CADMIUM)

A224 Ordinary, A225 Thin } BRASS (Electro-tinned)

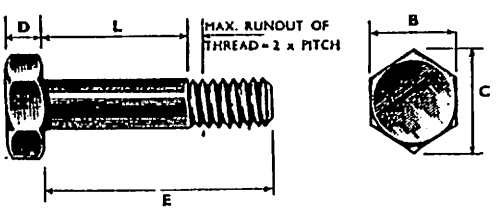
ITEM	SIZE	A		E	B		C	
		MAX.	MIN.	MAX.	MAX.	MIN.	MAX.	MIN.
Y	No. 0 × 80 UNF	0·125″	0·120″	0·144″	0·055″	0·050″	—	—
Z	No. 2 × 64 UNF	0·156″	0·151″	0·180″	0·082″	0·075″	0·058″	0·051″

METHOD OF ORDERING

The part number consists of the specification number followed by the item number. The part number for a No. 2 × 64 U.N.F. brass ordinary nut is therefore A224/Z.

No. 0 × 80 U.N.F. available as ordinary type only.

B.S. A226 HEXAGON HEAD BOLTS
UNIFIED SHORT THREAD—CLASS 3A



Material:
HIGH TENSILE STEEL
(CADMIUM)

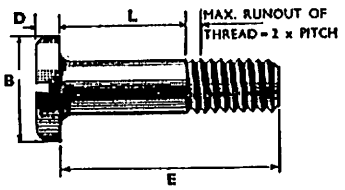
ITEM	NOMINAL SIZE	B		C	E	D
		MIN.	MAX.	MAX.	NOM.	MAX.
A	No. 4 × 40 UNC	0·183″	0·188″	0·217″	L + 0·308″	0·070″
B	No. 6 × 32 UNC	0·245″	0·250″	0·289″	L + 0·357″	0·085″
C	No. 8 × 32 UNC	0·307″	0·312″	0·361″	L + 0·404″	0·100″
D	No. 10 × 32 UNF	0·339″	0·344″	0·397″	L + 0·404″	0·115″

METHOD OF ORDERING

Bolts to the above specification are ordered by the British Standard Number followed by the letter representing the thread size, followed by a numeral representing the nominal length "L" in $\frac{1}{16}$ of an inch, *e.g.* the part number of a hexagon head bolt $\frac{7}{16}$″ long with a No. 6 × 32 U.N.C. thread would be A226/B7.

B.S. A227 PAN HEAD BOLTS

UNIFIED SHORT THREAD—CLASS 3A



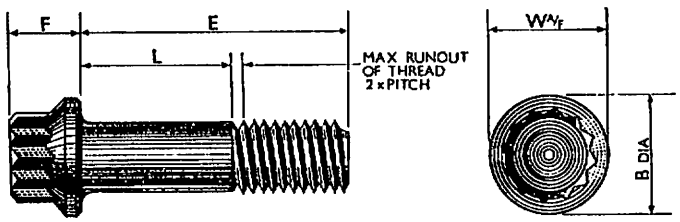
Material:
HIGH TENSILE STEEL
(CADMIUM)

ITEM	NOMINAL SIZE	B		E	D
		MIN.	MAX.	NOM.	MAX.
A	No. 4 × 40 UNC	0·205″	0·219″	L + 0·308″	0·068″
B	No. 6 × 32 UNC	0·256″	0·270″	L + 0·357″	0·082″
C	No. 8 × 32 UNC	0·306″	0·322″	L + 0·404″	0·096″
D	No. 10 × 32 UNF	0·357″	0·373″	L + 0·404″	0·110″

METHOD OF ORDERING

Bolts to the above specification are ordered by the British Standard Number followed by the letter representing the thread size, followed by a numeral representing the nominal length "L" in $\frac{1}{16}$ of an inch, e.g. the part number of a pan head bolt $\frac{7}{16}$" long with a No. 6×32 U.N.C. thread would be A227/B7.

B.S. A228 DOUBLE HEXAGON BOLTS



Material:
HIGH TENSILE STEEL
(CADMIUM)

ITEM	NOMINAL SIZE	W		B	E	F
		MIN.	MAX.	NOM.	NOM.	NOM.
E	$\frac{1}{4}$″ UNJF	0·307″	0·313″	0·433″	L + 0·512″	0·300″
G	$\frac{5}{16}$″ UNJF	0·370″	0·376″	0·526″	L + 0·599″	0·348″
J	$\frac{3}{8}$″ UNJF	0·432″	0·439″	0·644″	L + 0·645″	0·388″
L	$\frac{7}{16}$″ UNJF	0·495″	0·502″	0·745″	L + 0·741″	0·435″
N	$\frac{1}{2}$″ UNJF	0·557″	0·564″	0·823″	L + 0·788″	0·504″
P	$\frac{9}{16}$″ UNJF	0·620″	0·627″	0·933″	L + 0·872″	0·557″
Q	$\frac{5}{8}$″ UNJF	0·683″	0·690″	1·045″	L + 0·919″	0·618″
S	$\frac{3}{4}$″ UNJF	0·806″	0·814″	1·225″	L + 1·056″	0·711″
U	$\frac{7}{8}$″ UNJF	0·932″	0·940″	1·433″	L + 1·264″	0·808″
W	1″ UNJF	1·056″	1·064″	1·620″	L + 1·490″	0·923″

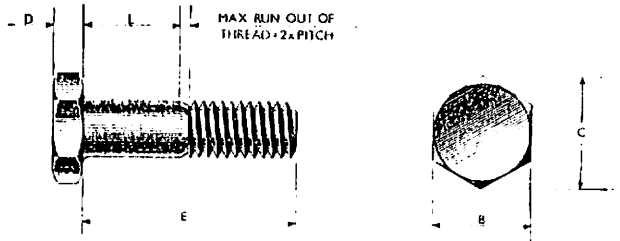
METHOD OF ORDERING

Bolts to the above specification are ordered by the British Standard Number followed by the letter representing the thread size, followed by a numeral representing the nominal length "L" in $\frac{1}{16}$ of an inch, e.g. the part number of a double hexagon head bolt ·625″ long with a $\frac{3}{8}$″ U.N.J.F. thread would be A228/J10.

Brown Brothers Engineering Ltd

B.S. A229 HEXAGON HEAD BOLT

Material: HIGH TENSILE STEEL
(CADMIUM)



ITEM	NOMINAL SIZE	B MIN.	B MAX.	C MAX.	D NOM.	E MAX.
D	No. 10 × 32 UNJF	0·367″	0·376″	0·434″	L + 0·406″	0·125″
E	¼″ UNJF	0·430″	0·439″	0·507″	L + 0·468″	0·140″
G	5/16″ UNJF	0·492″	0·502″	0·580″	L + 0·531″	0·171″
J	⅜″ UNJF	0·553″	0·564″	0·651″	L + 0·641″	0·203″
L	7/16″ UNJF	0·679″	0·690″	0·797″	L + 0·656″	0·234″
N	½″ UNJF	0·741″	0·752″	0·868″	L + 0·782″	0·265″

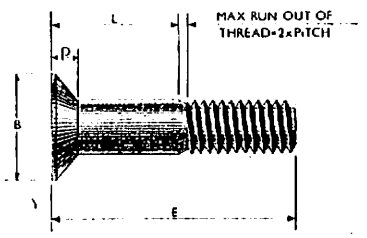
METHOD OF ORDERING

Bolts to the above specification are ordered by the British Standard Number followed by the letter representing the thread size, followed by a numeral representing the nominal length " L " in 1/16″ of an inch, *e.g.* the part number of a hexagon head bolt ·625″ long with a ⅜″ UNJF thread would be A229/J10.

B.S. A230 & A232 100° COUNTERSUNK HEAD BOLTS

A230 With HI-TORQUE RECESSES
A232 With TORQ-SET RECESSES

Material: HIGH TENSILE STEEL
(CADMIUM)

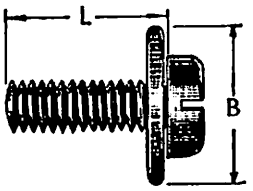


ITEM	NOMINAL SIZE	B MIN.	E NOM.	D REF.
D	No. 10 × 32 UNJF	0·328″	L + 0·406″	0·080″
E	¼″ UNJF	0·449″	L + 0·468″	0·106″
G	5/16″ UNJF	0·577″	L + 0·531″	0·133″
J	⅜″ UNJF	0·704″	L + 0·641″	0·160″
L	7/16″ UNJF	0·832″	L + 0·656″	0·188″
N	½″ UNJF	0·959″	L + 0·782″	0·215″

METHOD OF ORDERING

Bolts to the above specifications are ordered by the British Standard Number followed by the letter representing the thread size followed by a numeral representing the nominal length " L " in 1/16″ of an inch, *e.g.* the part number of a 100° Countersunk Head Bolt with Torq-Set Recess, ·625″ long with a ⅜″ UNJF thread would be A232/J10.

B.S. G154 SCREWS WITH CAPTIVE WASHERS



(Replacing AGS 1753 and 1754)

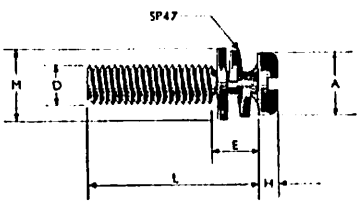
Material: MILD STEEL (CADMIUM)

SCREW			WASHER	
LENGTH "L"	PART NUMBER		PART NUMBER	DIA. "B" IN.
	6 BA	4 BA		
3/16"	A6	—	1	0·20
1/4"	A8	B8	2	0·23
5/16"	A10	B10	3	0·25
3/8"	A12	B12	4	0·28
7/16"	A14	B14	5	0·33
1/2"	A16	B16	6	0·47
5/8"	—	B20	7	0·53

METHOD OF ORDERING

Screws to the above specification are ordered by the British Standard Number followed by the part number of the screw and the part number of the washer required, *e.g.* the complete part number of a 4BA screw 1/2" long, with a 0·25" dia. washer, would be G154/B16/3.

B.S. G203 SCREWS WITH CAPTIVE FACING & LOCKING WASHERS



Material:

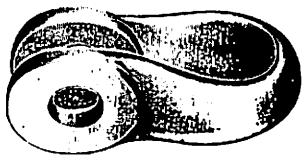
SCREW & PLAIN WASHER—STAINLESS STEEL (SELF)

LOCKING WASHER—STEEL (CADMIUM)

ITEM	D THREAD	A	E	H	L	M
A	4 × 40 UNC	0·210"	0·120"	0·063"	0·550"	0·235"
B	6 × 32 UNC	0·260"	0·128"	0·077"	0·550"	0·315"
D	10 × 32 UNF	0·365"	0·164"	0·105"	0·550"	0·405"

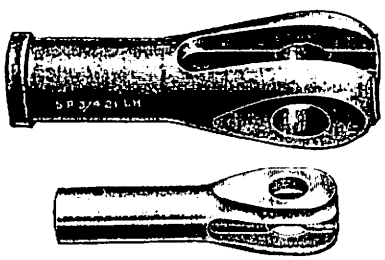
B.S. 2SP1 STANDARD SHACKLES

Material : STEEL STAMPING
(CADMIUM)



Part No.	Diameter of Pin Hole	Width between Jaws	Width over Jaws	Pin SP4 No.	Minimum Tensile Strength	Suitable for use with Cable
	IN.	IN.	IN.		LBS.	CWT.
690A	$\frac{5}{32}$	0·10	0·23	A2	1120	10
690B	$\frac{3}{16}$	0·15	0·34	B4	2240	20
690C	$\frac{1}{4}$	0·20	0·45	D6	3920	35
690D	$\frac{5}{32}$	0·20	0·48	E7	5040	45
690E	$\frac{11}{32}$	0·25	0·55	G8	6720	60
690F	$\frac{13}{32}$	0·30	0·64	J10	8960	80

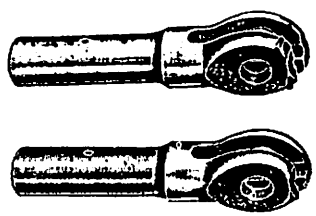
B.S. 3SP3 FORK JOINTS (Low Tensile)



Fork with Collar omitted indicates Stainless Steel.

Material :
MILD STEEL
(CADMIUM)
or
STAINLESS STEEL

Alternative design when Cold Headed



Fork without raised ring indicates Stainless Steel.

Part No. R.H.	Part No. L.H.	Threads	Diameter of Pin Hole	Width Over Jaws	Width Between Jaws	Slot Depth from Pin Centre	Pin SP4	Minimum Tensile Strength
			IN.	IN.	IN.	IN.		LBS.
412	412L	4 BA	$\frac{5}{32}$	0·26	0·10	0·35	A2	1,155
413	413L	2 BA	$\frac{3}{16}$	0·33	0·15	0·40	B3	2,090
414	414L	$\frac{1}{4}$" BSF	$\frac{1}{4}$	0·48	0·20	0·50	D6	3,795
416	416L	$\frac{5}{16}$" BSF	$\frac{11}{32}$	0·68	0·25	0·70	G10	6,270
418	418L	$\frac{3}{8}$" BSF	$\frac{13}{32}$	0·78	0·30	0·80	J12	9,350
420	420L	$\frac{7}{16}$" BSF	$\frac{15}{32}$	0·83	0·36	1·0	L13	12,980
422	422L	$\frac{1}{2}$" BSF	$\frac{17}{32}$	0·98	0·40	1·17	N16	17,050

When ordering: The letter "Y" must precede Part No. for Non-Stainless Steel, *e.g.* 3SP3 Y,414L.
The letter "Z" must precede Part No. for Stainless Steel, *e.g.* 3SP3 Z,414L.
For High Tensile Fork Joints see B.S. 2SP7

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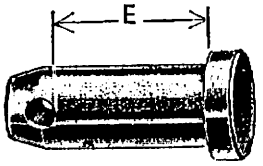
B.S. 5SP4 STEEL PINS

Pins up to and including size N (1/4" dia.) may be Cold Headed



Material : H.T. STEEL
(CADMIUM)
or STAINLESS STEEL

WHEN ORDERING :

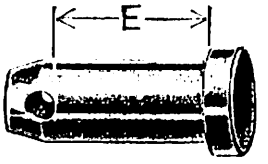
THE LETTER "Y" MUST PRECEDE PART NO. FOR NON-STAINLESS STEEL, *e.g.* 5SP4 Y,C12.
THE LETTER "Z" MUST PRECEDE PART NO. FOR STAINLESS STEEL, *e.g.* 5SP4 Z,C12.

LENGTH E INS.	DIAMETER 3/32"	1/8"	5/32"	3/16"	7/32"	1/4"	5/16"	3/8"	7/16"
	PART NUMBERS								
0·25	A1	B1	C1	D1	E1	F1	G1	H1	J1
0·30	A2	B2	C2	D2	E2	F2	G2	H2	J2
0·35	A3	B3	C3	D3	E3	F3	G3	H3	J3
0·40	A4	B4	C4	D4	E4	F4	G4	H4	J4
0·45	A5	B5	C5	D5	E5	F5	G5	H5	J5
0·50	A6	B6	C6	D6	E6	F6	G6	H6	J6
0·55	A7	B7	C7	D7	E7	F7	G7	H7	J7
0·60	A8	B8	C8	D8	E8	F8	G8	H8	J8
0·65	A9	B9	C9	D9	E9	F9	G9	H9	J9
0·70	A10	B10	C10	D10	E10	F10	G10	H10	J10
0·75	A11	B11	C11	D11	E11	F11	G11	H11	J11
0·80	A12	B12	C12	D12	E12	F12	G12	H12	J12
0·85	A13	B13	C13	D13	E13	F13	G13	H13	J13
0·90	A14	B14	C14	D14	E14	F14	G14	H14	J14
0·95	A15	B15	C15	D15	E15	F15	G15	H15	J15
1·00	A16	B16	C16	D16	E16	F16	G16	H16	J16
1·1	—	B17	C17	D17	E17	F17	G17	H17	J17
1·2	—	B18	C18	D18	E18	F18	G18	H18	J18
1·3	—	B19	C19	D19	E19	F19	G19	H19	J19
1·4	—	B20	C20	D20	E20	F20	G20	H20	J20
1·5	—	B21	C21	D21	E21	F21	G21	H21	J21
1·6	—	B22	C22	D22	E22	F22	G22	H22	J22
1·7	—	B23	C23	D23	E23	F23	G23	H23	J23
1·8	—	B24	C24	D24	E24	F24	G24	H24	J24
1·9	—	B25	C25	D25	E25	F25	G25	H25	J25
2·0	—	B26	C26	D26	E26	F26	G26	H26	J26
2·2	—	—	—	D27	E27	F27	G27	H27	J27
2·4	—	—	—	D28	E28	F28	G28	H28	J28
2·6	—	—	—	D29	E29	F29	G29	H29	J29
2·8	—	—	—	D30	E30	F30	G30	H30	J30
3·0	—	—	—	D31	E31	F31	G31	H31	J31
3·2	—	—	—	—	—	—	—	H32	J32
3·4	—	—	—	—	—	—	—	H33	J33

Brown Brothers Engineering Ltd

B.S. 5SP4 STEEL PINS—(cont.)

Pins up to and including size N (1¼" dia.) may be Cold Headed



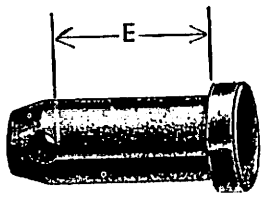
Material : H.T. STEEL
(CADMIUM)
or STAINLESS STEEL

WHEN ORDERING :

THE LETTER "Y" MUST PRECEDE PART NO. FOR NON-STAINLESS STEEL, *e.g.* 5SP4 Y,M16.
THE LETTER "Z" MUST PRECEDE PART NO. FOR STAINLESS STEEL, *e.g.* 5SP4 Z,M16.

LENGTH E	DIAMETER								
	7/16"	1/2"	5/8"	11/16"	3/4"	13/16"	7/8"	15/16"	1"
IN.	PART NUMBERS								
0·25	K1	L1	M1	N1	—	—	—	—	—
0·30	K2	L2	M2	N2	P2	—	—	—	—
0·35	K3	L3	M3	N3	P3	Q3	—	—	—
0·40	K4	L4	M4	N4	P4	Q4	—	—	—
0·45	K5	L5	M5	N5	P5	Q5	R5	—	—
0·50	K6	L6	M6	N6	P6	Q6	R6	—	—
0·55	K7	L7	M7	N7	P7	Q7	R7	S7	—
0·60	K8	L8	M8	N8	P8	Q8	R8	S8	T8
0·65	K9	L9	M9	N9	P9	Q9	R9	S9	T9
0·70	K10	L10	M10	N10	P10	Q10	R10	S10	T10
0·75	K11	L11	M11	N11	P11	Q11	R11	S11	T11
0·80	K12	L12	M12	N12	P12	Q12	R12	S12	T12
0·85	K13	L13	M13	N13	P13	Q13	R13	S13	T13
0·90	K14	L14	M14	N14	P14	Q14	R14	S14	T14
0·95	K15	L15	M15	N15	P15	Q15	R15	S15	T15
1·00	K16	L16	M16	N16	P16	Q16	R16	S16	T16
1·1	K17	L17	M17	N17	P17	Q17	R17	S17	T17
1·2	K18	L18	M18	N18	P18	Q18	R18	S18	T18
1·3	K19	L19	M19	N19	P19	Q19	R19	S19	T19
1·4	K20	L20	M20	N20	P20	Q20	R20	S20	T20
1·5	K21	L21	M21	N21	P21	Q21	R21	S21	T21
1·6	K22	L22	M22	N22	P22	Q22	R22	S22	T22
1·7	K23	L23	M23	N23	P23	Q23	R23	S23	T23
1·8	K24	L24	M24	N24	P24	Q24	R24	S24	T24
1·9	K25	L25	M25	N25	P25	Q25	R25	S25	T25
2·0	K26	L26	M26	N26	P26	Q26	R26	S26	T26
2·2	K27	L27	M27	N27	P27	Q27	R27	S27	T27
2·4	K28	L28	M28	N28	P28	Q28	R28	S28	T28
2·6	K29	L29	M29	N29	P29	Q29	R29	S29	T29
2·8	K30	L30	M30	N30	P30	Q30	R30	S30	T30
3·0	K31	L31	M31	N31	P31	Q31	R31	S31	T31
3·2	K32	L32	M32	N32	P32	Q32	R32	S32	T32
3·4	K33	L33	M33	N33	P33	Q33	R33	S33	T33

B.S. 5SP4 STEEL PINS—(cont.)



Material : H.T. STEEL
(CADMIUM)
or STAINLESS STEEL

WHEN ORDERING :

THE LETTER "Y" MUST PRECEDE PART NO. FOR NON-STAINLESS STEEL, *e.g.* 5SP4 Y,V20.
THE LETTER "Z" MUST PRECEDE PART NO. FOR STAINLESS STEEL, *e.g.* 5SP4 Z,X25.

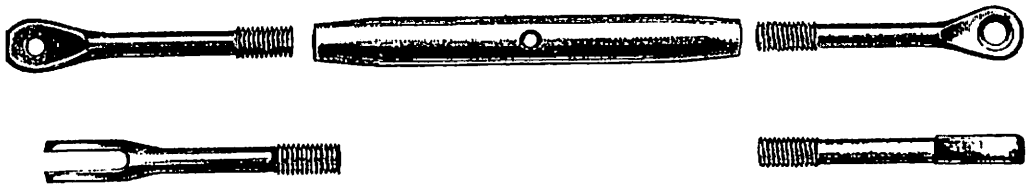
LENGTH E IN.	DIAMETER					
	$\frac{3}{4}$"	$\frac{13}{16}$"	$\frac{7}{8}$"	$\frac{15}{16}$"	1"	1 $\frac{1}{16}$"
	PART NUMBERS					
1·1	U17	V17	W17	X17	Y17	—
1·2	U18	V18	W18	X18	Y18	—
1·3	U19	V19	W19	X19	Y19	—
1·4	U20	V20	W20	X20	Y20	Z20
1·5	U21	V21	W21	X21	Y21	Z21
1·6	U22	V22	W22	X22	Y22	Z22
1·7	U23	V23	W23	X23	Y23	Z23
1·8	U24	V24	W24	X24	Y24	Z24
1·9	U25	V25	W25	X25	Y25	Z25
2·0	U26	V26	W26	X26	Y26	Z26
2·2	U27	V27	W27	X27	Y27	Z27
2·4	U28	V28	W28	X28	Y28	Z28
2·6	U29	V29	W29	X29	Y29	Z29
2·8	U30	V30	W30	X30	Y30	Z30
3·0	U31	V31	W31	X31	Y31	Z31
3·2	U32	V32	W32	X32	Y32	Z32
3·4	U33	V33	W33	X33	Y33	Z33

Brown Brothers Engineering Ltd

B.S. SP6 TURNBUCKLES

Obsolete. Replaced by SP33

Material :
Eyes and Forks, MILD STEEL
Barrels, BRASS
(CADMIUM)

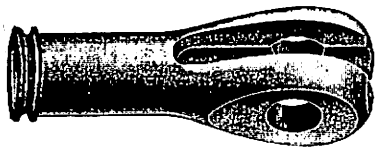


PART No.		TO TAKE WIRE ROPE B.S. W2	MAXIMUM ADJUSTMENT	SIZE OF THREADS	FORK A			BARREL B		EYE C OR E	
AGS	SP6				DIAM. OF PIN HOLE	WIDTH OVER JAWS	WIDTH BETWEEN JAWS	LENGTH	DIAM. OF BODY	DIAM. OF HOLE	THICKNESS
		CWT.	IN.		IN.	IN.	IN.	IN.	IN.	IN.	IN.
490	5	5	0·75	4 BA	5/32	0·18	0·08	1·7	0·25	11/64	0·12
491	10	10	2	2 BA	5/32	0·26	0·10	3·2	0·3125	11/64	0·17
492	20L	20	2	1/4" BSF	3/16	0·33	0·15	3·5	0·4375	7/32	0·20
506	20S	20	1	1/4" BSF	3/16	0·33	0·15	2·5	0·38	7/32	0·20
493	35L	35	2	5/16" BSF	1/4	0·45	0·20	3·8	0·50	9/32	0·26
507	35S	35	1	5/16" BSF	1/4	0·45	0·20	2·8	0·47	9/32	0·26
494	45L	45	2	3/8" BSF	9/32	0·58	0·20	4·0	0·58	5/16	0·32
508	45S	45	1	3/8" BSF	9/32	0·58	0·20	3·0	0·58	5/16	0·32
495	60	60	2	13/32" BSF	11/32	0·68	0·25	4·0	0·58	23/64	0·36
496	70	70	2	7/16" BSF	11/32	0·73	0·25	4·1	0·60	13/32	0·39
497	80	80	2	1/2" BSF	13/32	0·78	0·30	4·2	0·67	29/64	0·42
498	90	90	2	17/32" BSF	7/16	0·78	0·34	4·3	0·72	1/2	0·46

For Turnbuckles (Tension Rod Type) see B.S. SP8

Brown Brothers Engineering Ltd

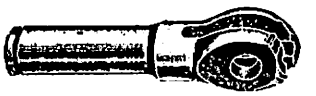
B.S. 2SP7 FORK JOINTS (High Tensile)



Fork with collar omitted indicates Stainless Steel.

Material :
H.T. STEEL
(CADMIUM)
or
STAINLESS STEEL

Alternative design when Cold Headed for Forks up to and including size J (⅜" BSF)



Fork without raised ring indicates Stainless Steel.

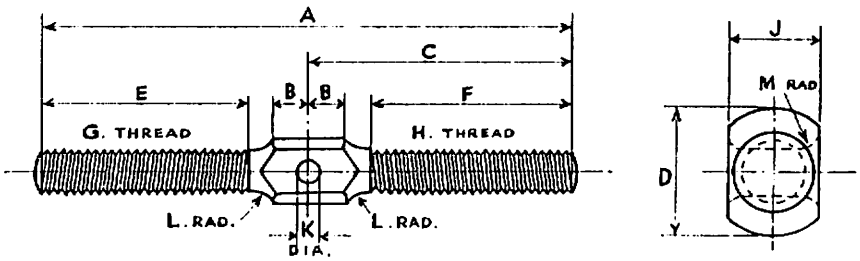
Part No.		Threads	Diameter of Pin Hole	Width Over Jaws	Width Between Jaws	Slot Depth from Pin Centre Min.	Pin SP4	Minimum Tensile Strength
R.H.	L.H.							
			in.	in.	in.	in.		lbs.
B	**BL**	4 BA	$\frac{5}{32}$	0·25	0·07	0·30	A 2	1,155
C	**CL**	2 BA	$\frac{3}{16}$	0·30	0·10	0·35	B 3	2,090
E	**EL**	$\frac{1}{4}$" BSF	$\frac{1}{4}$	0·41	0·125	0·50	D 5	3,795
G	**GL**	$\frac{5}{16}$" BSF	$\frac{11}{32}$	0·50	0·14	0·65	G 7	6,270
J	**JL**	$\frac{3}{8}$" BSF	$\frac{13}{32}$	0·60	0·17	0·75	J 9	9,350
L	**LL**	$\frac{7}{16}$" BSF	$\frac{15}{32}$	0·68	0·188	0·90	L 10	12,980
N	**NL**	$\frac{1}{2}$" BSF	$\frac{17}{32}$	0·77	0·25	1·05	N 13	17,050
P	**PL**	$\frac{9}{16}$" BSF	$\frac{9}{16}$	0·70	0·281	1·81	P 11	21,230
Q	**QL**	$\frac{5}{8}$" BSF	$\frac{19}{32}$	0·75	0·313	1·87	Q 12	25,990
R	**RL**	$\frac{11}{16}$" BSF	$\frac{5}{8}$	0·83	0·350	1·86	R 13	32,570
S	**SL**	$\frac{3}{4}$" BSF	$\frac{11}{16}$	0·90	0·375	2·00	T 15	37,970

When ordering: The letter " Y " must precede Part No. for non-Stainless Steel, *e.g.* 2SP7 Y,CL.
The letter " Z " must precede Part No. for Stainless Steel, *e.g.* 2SP7 Z,CL.

See B.S. 3SP3 for Low Tensile Forks

B.S. SP8 TENSION RODS

Material : H.T. STEEL (CADMIUM) or STAINLESS STEEL



WHEN ORDERING :

THE LETTER "Y" MUST PRECEDE PART NO. FOR NON-STAINLESS STEEL, *e.g.* SP8 Y,4A.

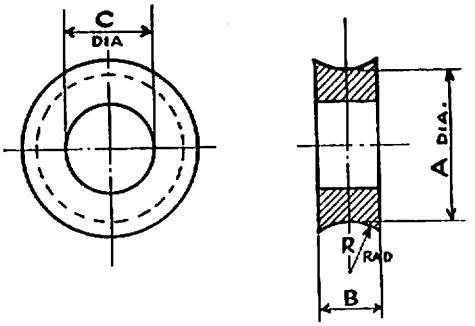
THE LETTER "Z" MUST PRECEDE PART NO. FOR STAINLESS STEEL, *e.g.* SP8 Z,4A.

TABLE 3

1	2	3	4	5	6	7	8	9	10	11	12	13	14
PART NO.	A	B	C	D	E	F	G LEFT HAND THREAD	H RIGHT HAND THREAD	J	K	L	M	MINIMUM BREAKING LOAD
1	IN. 2·86	IN. 0·25	IN. 1·43	IN. 0·28	IN. 0·89	IN. 0·89	4BA	4BA	IN. 0·19	IN. 7/64	IN. 0·10	IN. 0·03	CWT. 5
1A	3·08	0·25	1·61	0·28	0·89	1·06	4BA	2BA	0·19	7/64	0·10	0·03	10
2	3·20	0·25	1·60	0·30	1·06	1·06	2BA	2BA	0·19	9/64	0·10	0·03	15
4	3·46	0·25	1·73	0·36	1·18	1·18	1/4" BSF	1/4" BSF	0·27	1/32	0·12	0·03	25
4A	3·68	0·25	1·91	0·36	1·18	1·35	1/4" BSF	5/16" BSF	0·32	1/32	0·12	0·03	35
6	4·00	0·30	2·00	0·46	1·35	1·35	5/16" BSF	5/16" BSF	0·32	3/64	0·12	0·04	45
8	4·52	0·30	2·26	0·48	1·51	1·51	3/8" BSF	3/8" BSF	0·38	3/64	0·12	0·04	75
12	5·30	0·35	2·65	0·58	1·79	1·79	1/2" BSF	1/2" BSF	0·50	3/64	0·12	0·05	120

B.S. SP8 ROLLERS

Material : STEEL (CADMIUM) or
STAINLESS STEEL



WHEN ORDERING :

THE LETTER "Y" MUST PRECEDE PART NO. FOR NON-STAINLESS STEEL, *e.g.* SP8 Y,13.

THE LETTER "Z" MUST PRECEDE PART NO. FOR STAINLESS STEEL, *e.g.* SP8 Z,13.

TABLE 4

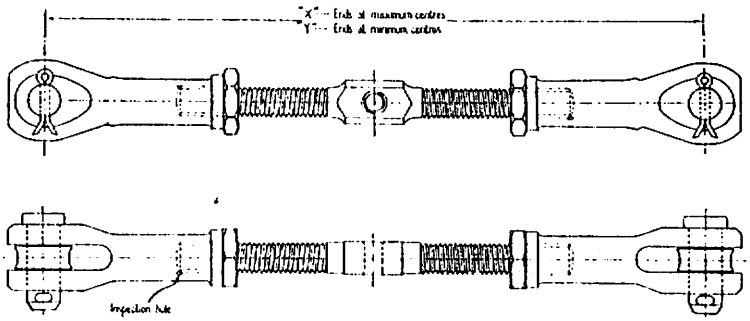
ITEM No.	A	B	C	R RADIUS
	IN.	IN.	IN.	IN.
13	0·266	0·095	$\frac{5}{32}$	0·075
14	0·338	0·145	$\frac{3}{16}$	0·10
16	0·428	0·195	$\frac{1}{4}$	0·15
18	0·520	0·240	$\frac{11}{32}$	0·20
20	0·576	0·290	$\frac{13}{32}$	0·20
24	0·825	0·380	$\frac{17}{32}$	0·25

Brown Brothers Engineering Ltd

B.S. SP8

TURNBUCKLES

(TENSION ROD TYPE)



Material :

NON-STAINLESS STEEL

(CADMIUM) OR

STAINLESS STEEL

WHEN ORDERING :

THE LETTER "Y" MUST PRECEDE PART NO. FOR NON-STAINLESS STEEL, *e.g.* SP8 Y,412L.
THE LETTER "Z" MUST PRECEDE PART NO. FOR STAINLESS STEEL, *e.g.* SP8 Z,412L.

TABLE 1.—TURNBUCKLES FOR USE WITH TWO ROLLERS.

SIZE NO.	ADJUSTMENT X–Y	TO TAKE FLEXIBLE STEEL WIRE ROPE TO B.S. W2		FORK JOINT B.S. SP3			THIN NUTS B.S. A16		TENSION ROD TABLE 3	ROLLER TABLE 4	PIN B.S. SP4		SPLIT PIN	
				1 OFF		1 OFF	1 OFF	1 OFF	1 OFF	2 OFF	1 OFF	1 OFF	2 OFF	
		SIZE	ITEM NO. IN B.S. W2	NOM. SIZE	PART NO.	PART NO.	PART NO.	PART NO.	PART NO.	PART NO.	PART NO.	PART NO.	DIAM.	OVER-ALL LENGTH
	IN.	CWT.											IN.	IN.
5	0·9	5	4	4 BA	412L	412	BTL	BT	1	13	A2	A2	1/16	1/2
15	1·1	10 15	6 and 41 6 and 42	2 BA	413L	413	CTL	CT	2	14	B3	B3	1/16	1/2
25	1·2	25	51 and 44	BSF 1/4"	414L	414	ETL	ET	4	16	D6	D6	1/16	1/2
45A	1·4	35 45	52 and 45 53 and 46	BSF 5/16"	416L	416	GTL	GT	6	18	G10	G10	3/32	1/2
75	1·6	60 70 75	54 and 47 55 48	BSF 3/8"	418L	418	JTL	JT	8	20	J12	J12	1/8	1
120A	1·75	100	58 and 72	BSF 1/2"	422L	422	NTL	NT	12	24	N16	N16	1/8	1 1/4

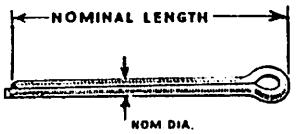
TABLE 2.—TURNBUCKLES FOR USE WITH ONE ROLLER AND ONE WIRING LUG.
Note.—The Roller is assembled in Right-hand Fork Joint.

SIZE NO.	ADJUSTMENT X–Y	TO TAKE FLEXIBLE STEEL WIRE ROPE TO B.S. W2		FORK JOINT B.S. SP3				THIN NUTS B.S. A16		TENSION ROD (TABLE 3)	ROLLER (TABLE 4)	PIN B.S. SP4		SPLIT PIN	
				1 OFF		1 OFF		1 OFF	1 OFF	1 OFF	1 OFF	1 OFF	1 OFF	2 OFF	
		SIZE	ITEM NO. IN B.S. W2	NOM. SIZE	PART NO.	NOM. SIZE	PART NO.	PART NO.	PART NO.	PART NO.	PART NO.	PART NO.	PART NO.	DIAM.	OVER-ALL LENGTH
	IN.	CWT.												IN.	IN.
5	0·9	5	4	4BA	412L	4BA	412	BTL	BT	1	13	A2	A2	1/16	1/2
10	1·0	10	5 and 41	4BA	412L	2BA	413	BTL	CT	1A	14	A2	B3	1/16 1/8	1/2
15	1·1	15	6 and 42	2BA	413L	2BA	413	CTL	CT	2	14	B3	B3	1/16	1/2
25	1·2	25	51 and 44	BSF 1/4"	414L	BSF 1/4"	414	ETL	ET	4	16	D6	D6	1/16	1/2
35	1·3	35	52 and 45	BSF 1/4"	414L	BSF 5/16"	416	ETL	GT	4A	18	D6	G10	1/16 3/32	1/2
75	1·6	75	48	BSF 3/8"	418L	BSF 3/8"	418	JTL	JT	8	20	J12	J12	1/8	1

Stainless Sets comprise S.S. Forks, Pins and Split Pins, Rods and Rollers

B.S. SP9 SPLIT COTTER PINS (Non-Corrodible)

(Replaced by SP90.) See equivalent chart page 182



Material: NICKEL ALLOY or NICKEL-COPPER ALLOY

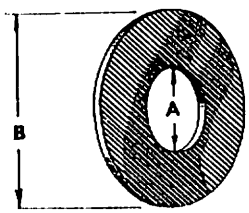
ITEM	A	B	C	E	G	H	K	L
Nom. Dia.	IN. 1/32	IN. 3/64	IN. 1/16	IN. 3/32	IN. 1/8	IN. 5/32	IN. 3/16	IN. 1/4

METHOD OF ORDERING:

Part No. consists of the Item Letter followed by the nominal length in $\frac{1}{8}$ths of an inch. *E.g.* the complete Part No. reference for a $\frac{1}{16}$" nominal diameter split cotter pin with a nominal length of $\frac{5}{8}$" is therefore: SP9/C5.

B.S. SP10, SP11 (MILD STEEL (Cadmium)) (STAINLESS STEEL) WASHERS—26 S.W.G. (·018")

B.S. SP13, SP14, SP15 (MILD STEEL (Cadmium)) (STAINLESS STEEL) (ALUM. ALLOY) WASHERS—18 S.W.G. (·048")



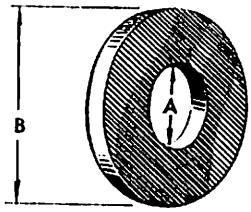
TO SUIT BOLTS	ITEM	A		B	
		MAX.	MIN.	MAX.	MIN.
		IN.	IN.	IN.	IN.
6 BA	A	0·123	0·118	0·233	0·228
4 BA	B	0·157	0·152	0·301	0·296
2 BA	C	0·202	0·197	0·391	0·386
1/4" BSF	E	0·270	0·265	0·520	0·510
5/16" BSF	G	0·333	0·328	0·610	0·600
3/8" BSF	J	0·395	0·390	0·700	0·690
7/16" BSF	L	0·458	0·453	0·820	0·810
1/2" BSF	N	0·520	0·515	0·950	0·940
9/16" BSF	P	0·583	0·578	1·070	1·060
5/8" BSF	Q	0·645	0·640	1·170	1·160
3/4" BSF	S	0·770	0·765	1·390	1·380
7/8" BSF	U	0·895	0·890	1·500	1·490
1" BSF	W	1·025	1·015	1·710	1·700

Brown Brothers Engineering Ltd

B.S. SP16 ALUMINIUM ALLOY WASHERS—12 S.W.G. (·104″)

(SELF-FINISH)

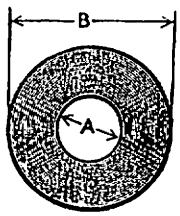
To Suit Bolts	Item	A		B	
		Max.	Min.	Max.	Min.
		IN.	IN.	IN.	IN.
6 BA	A	0·123	0·118	0·233	0·228
4 BA	B	0·157	0·152	0·301	0·296
2 BA	C	0·202	0·197	0·391	0·386
¼″ BSF	E	0·270	0·265	0·520	0·510
5/16″ BSF	G	0·333	0·328	0·610	0·600
⅜″ BSF	J	0·395	0·390	0·700	0·690
7/16″ BSF	L	0·458	0·453	0·820	0·810
½″ BSF	N	0·520	0·515	0·950	0·940
9/16″ BSF	P	0·583	0·578	1·070	1·060
⅝″ BSF	Q	0·645	0·640	1·170	1·160
¾″ BSF	S	0·770	0·765	1·390	1·380
⅞″ BSF	U	0·895	0·890	1·500	1·490
1″ BSF	W	1·025	1·015	1·710	1·700



B.S. SP18, SP19 WASHERS

(MILD STEEL (Cadmium)) (STAINLESS STEEL)

To Suit Bolts	Item	A		B		Thickness C
		Max.	Min.	Max.	Min.	
		IN.	IN.	IN.	IN.	
6 BA	A	0·123	0·118	1·01	0·99	0·064″ (16 SWG)
4 BA	B	0·157	0·152	1·01	0·99	0·064″ (16 SWG)
2 BA	C	0·202	0·197	1·26	1·24	0·064″ (16 SWG)
¼″ BSF	E	0·270	0·265	1·26	1·24	0·064″ (16 SWG)
5/16″ BSF	G	0·333	0·328	1·26	1·24	0·064″ (16 SWG)
⅜″ BSF	J	0·395	0·390	1·51	1·49	0·080″ (14 SWG)
7/16″ BSF	L	0·458	0·453	1·51	1·49	0·080″ (14 SWG)
½″ BSF	N	0·520	0·515	1·51	1·49	0·080″ (14 SWG)



Brown Brothers Engineering Ltd

B.S. SP21 LUBRICATING NIPPLE

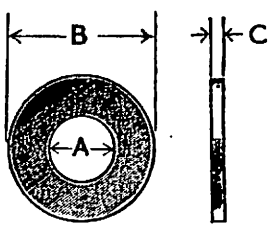
(Formerly known as AGS 554)

Material: LIGHT ALLOY (Anodised)

MINIATURE HOOK-ON TYPE

B.S. SP22 to SP27 B.A. WASHERS

(Primarily for instrument use)



Material:

SP22, SP25 BRASS (Electro-tinned)

SP23, SP26 STEEL (Cadmium)

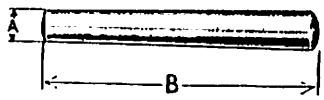
SP24, SP27 AUSTENITIC CHROMIUM-NICKEL RUST, ACID- AND HEAT-RESISTING STEEL (Self-finish)

To Suit Screws	Code Letter	A Diameter		Large Washers SP22, SP23 and SP24			Small Washers SP25, SP26 and SP27		
				B Diameter		C	B Diameter		C
		Max.	Min.	Max.	Min.	Thickness	Max.	Min.	Thickness
		in.	in.	in.	in.	in.	in.	in.	in.
2 BA	C	0·202	0·197	0·500	0·495	0·048 (18 SWG)	0·391	0·386	0·032 (21 SWG)
4 BA	B	0·157	0·152	0·378	0·373	0·040 (19 SWG)	0·301	0·296	0·028 (22 SWG)
6 BA	A	0·123	0·118	0·288	0·283	0·036 (20 SWG)	0·233	0·228	0·024 (23 SWG)
8 BA	Z	0·099	0·094	0·228	0·223	0·020 (25 SWG)	0·185	0·180	0 020 (25 SWG)
10 BA	Y	0·078	0·073	0·176	0·171	0·016 (27 SWG)	—	—	—

B.S. SP28, SP29, SP30 SOLID TAPER PINS

Material :

SP28 HIGH TENSILE STEEL (Cadmium)
SP29 STAINLESS STEEL
SP30 ALUMINIUM ALLOY (Anodised)
(SP30 replaced by SP65)



Item	E	G	H	K	L	N	P	R
Diameter at small end "A" (Nom.)	1/16"	3/32"	1/8"	5/32"	3/16"	1/4"	5/16"	3/8"

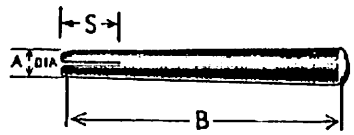
METHOD OF ORDERING

The part reference number consists of the item letter followed by the item number which represents the nominal length "B" in $\frac{1}{8}$ of an inch. The complete part number for a $\frac{1}{8}$" diameter × $1\frac{1}{2}$" long stainless steel pin is therefore SP29/H12.

B.S. SP31, SP32 SPLIT TAPER PINS

Material :

SP31 HIGH TENSILE STEEL (Cadmium)
SP32 STAINLESS STEEL



Item	Diam. at Small End "A" (Nom.)	Nominal Length "B"									
		1/2"	3/4"	1"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/2"	3"	4"
		Nominal Length "S"									
H	IN. 1/8	IN. 1/8	IN. 1/4	IN. 5/16	IN. 3/8	IN. 3/8	IN. 3/8	IN. 3/8	IN. —	IN. —	IN. —
K	5/32	—	1/4	5/16	3/8	3/8	3/8	1/2	5/8	5/8	—
L	3/16	—	1/4	3/8	1/2	1/2	1/2	5/8	5/8	5/8	5/8
N	1/4	—	5/16	3/8	1/2	1/2	1/2	5/8	5/8	5/8	5/8
P	5/16	—	—	—	—	—	5/8	5/8	5/8	5/8	5/8
R	3/8	—	—	—	—	—	—	5/8	5/8	5/8	5/8

METHOD OF ORDERING

The part reference number consists of the item letter followed by the item number which represents the nominal length "B" in $\frac{1}{8}$ of an inch. The complete part number for $\frac{1}{8}$" diameter × $1\frac{1}{2}$" long stainless steel pin is therefore SP32/H12.

Brown Brothers Engineering Ltd

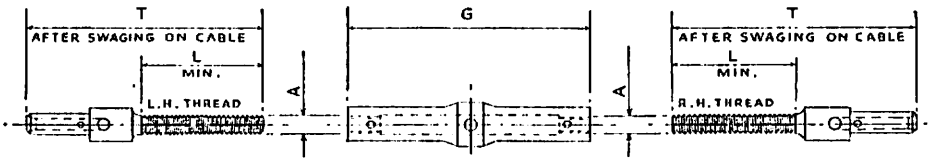
B.S. SP33 BA & BSF TURNBARRELS

Material : MILD STEEL (Cadmium and Temporary Rust Preventative)

B.S. SP34 BA & BSF SCREWED ENDS (for Swaged Cable-end Connections)

Material : HIGH TENSILE STEEL (Cadmium)

(For Tension Rods and Tapped Ends, see B.S. SP35 and SP36)
(For Turnbarrels and Screwed Ends with Unified Threads, see 2SP101 and 2SP102)



Screwed End (L.H.) B.S. SP34

Cable Size Cwt.	Code Letters	A	L	T
			IN.	IN.
5	B5L	4 BA	0·95	1·85
5	C5L	2 BA	1·65	2·56
10	C10L	2 BA	1·65	2·81
10	E10L	¼" BSF	1·71	2·90
15	C15L	2 BA	1·65	2·93
15	E15L	¼" BSF	1·71	3·02
20	E20L	¼" BSF	1·71	3·16
20	G20L	5/16" BSF	1·79	3·26
25	E25L	¼" BSF	1·71	3·33
25	G25L	5/16" BSF	1·79	3·41
30/35	E30L	¼" BSF	1·71	3·45
30/35	G35L	5/16" BSF	1·79	3·55
40/45	G45L	5/16" BSF	1·79	3·79

Turnbarrel B.S. SP33

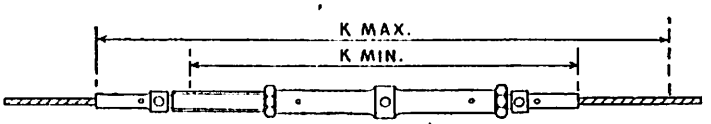
Code Letter	A	G
		IN.
B	4 BA	1·91
C	2 BA	3·26
E	¼" BSF	3·36
G	5/16" BSF	3·50

Screwed End (R.H.) B.S. SP34

Cable Size Cwt.	Code Letter	A	L	T
			IN.	IN.
5	B5	4 BA	0·95	1·85
5	C5	2 BA	1·65	2·56
10	C10	2 BA	1·65	2·81
10	E10	¼" BSF	1·71	2·90
15	C15	2 BA	1·65	2·93
15	E15	¼" BSF	1·71	3·02
20	E20	¼" BSF	1·71	3·16
20	G20	5/16" BSF	1·79	3·26
25	E25	¼" BSF	1·71	3·33
25	G25	5/16" BSF	1·79	3·41
30/35	E30	¼" BSF	1·71	3·45
30/35	G35	5/16" BSF	1·79	3·55
40/45	G45	5/16" BSF	1·79	3·79

Turnbarrels are ordered by the specification number followed by the code letter of the size required, *e.g.* a 2 BA turnbarrel would be SP33/C.

Screwed ends are ordered by the specification number followed by the code letters of the size required, *e.g.* a ¼" BSF (right hand) suitable for a 15 cwt. cable would be SP34/E15 and a 2 BA (left hand) suitable for a 10 cwt. cable would be SP34/C10L.



Dimensions of Assemblies

Cable Size Cwt.		5	5	10	10	15	15	20	20	25	25	30/35	30/35	40/45
Thread		4 BA	2 BA	2 BA	¼" BSF	2 BA	¼" BSF	¼" BSF	5/16" BSF	¼" BSF	5/16" BSF	¼" BSF	5/16" BSF	5/16" BSF
K	Max. In.	5·08	7·72	8·22	8·40	8·46	8·64	8·92	9·15	9·26	9·49	9·50	9·73	10·21
	Min. In.	3·88	5·32	5·82	6·00	6·06	6·24	6·52	6·75	6·86	7·09	7·10	7·33	7·81

Brown Brothers Engineering Ltd

B.S. SP35 BA & BSF TENSION RODS

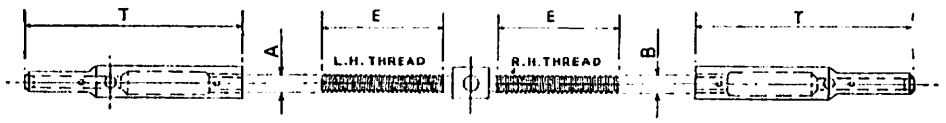
Material : HIGH TENSILE STEEL (Cadmium)

B.S. SP36 BA & BSF TAPPED ENDS (for Swaged Cable-end Connections)

Material : MILD STEEL (Cadmium and Temporary Rust Preventative)

(For Turnbarrels and Screwed Ends, see B.S. SP33 and SP34)

(For Tension Rods and Tapped Ends with Unified Threads, see 2SP103 and 2SP104)

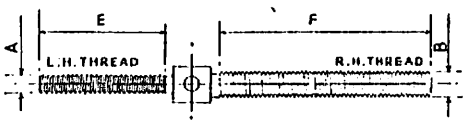


Tension Rod (Even Ends). B.S. SP35

Code Letter	A	B	E
B	4 BA	4 BA	IN. 0·95
C	2 BA	2 BA	1·65
E	¼" BSF	¼" BSF	1·71
G	7/16" BSF	7/16" BSF	1·79

Tapped End (L.H.) B.S. SP36

Cable Size Cwt.	Code Letters	A	T
5	B5L	4 BA	IN. 1·77
5	C5L	2 BA	2·49
10	C10L	2 BA	2·67
10	E10L	¼" BSF	2·74
15	C15L	2 BA	2·79
15	E15L	¼" BSF	2·85
20	E20L	¼" BSF	2·91
20	G20L	7/16" BSF	3·01
25	E25L	¼" BSF	3·05
25	G25L	7/16" BSF	3·15
30/35	E30L	¼" BSF	3·17
30/35	G35L	7/16" BSF	3·27
40/45	G45L	7/16" BSF	3·48



Tension Rod (Odd Ends). B.S. SP35

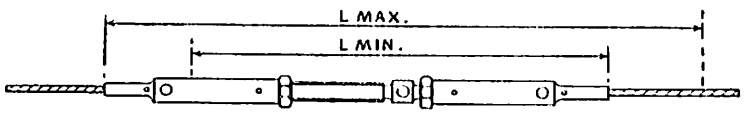
Code Letters	A	B	E	F
BC	4 BA	2 BA	0·95	1·65
CB	2 BA	4 BA	1·65	0·95
CE	2 BA	¼" BSF	1·65	1·71
EC	¼" BSF	2 BA	1·71	1·65
EG	¼" BSF	7/16" BSF	1·71	1·79
GE	7/16" BSF	¼" BSF	1·79	1·71

Tapped End (R.H.) B.S. SP36

Cable Size Cwt.	Code Letter	B	T
5	B5	4 BA	IN. 1·77
5	C5	2 BA	2·49
10	C10	2 BA	2·67
10	E10	¼" BSF	2·74
15	C15	2 BA	2·79
15	E15	¼" BSF	2·85
20	E20	¼" BSF	2·91
20	G20	7/16" BSF	3·01
25	E25	¼" BSF	3·05
25	G25	7/16" BSF	3·15
30/35	E30	¼" BSF	3·17
30/35	G35	7/16" BSF	3·27
40/45	G45	7/16" BSF	3·48

Tension rods are ordered by the specification number followed by the code letter(s) of the size required, *e.g.* a 2 BA tension rod (even ends) would be SP35/C and a ¼" BSF (left hand) and 2 BA (right hand) tension rod (odd ends) would be SP35/EC.

Tapped ends are ordered by the specification number followed by the code letters of the size required, *e.g.* a ¼" BSF (right hand) suitable for a 15 cwt. cable would be SP36/E15 and a 2 BA (left hand) suitable for a 10 cwt. cable would be SP36/C10L.



Dimensions of Assemblies

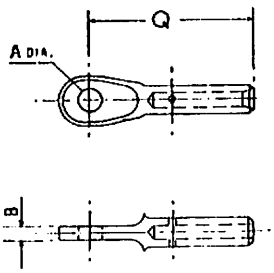
Cable Size Cwt.		5	5	10	10	15	15	20	20	25	25	30/35	30/35	40/45
Thread		4 BA	2 BA	2 BA	¼" BSF	2 BA	¼" BSF	¼" BSF	7/16" BSF	¼" BSF	7/16" BSF	¼" BSF	7/16" BSF	7/16" BSF
L	Max.	5·31	8·04	8·40	8·72	8·64	8·94	9·06	9·35	9·34	9·63	9·58	9·87	10·29
	Min.	4·11	5·64	6·00	6·32	6·21	6·54	6·66	6·95	6·94	7·23	7·18	7·47	7·89

Brown Brothers Engineering Ltd

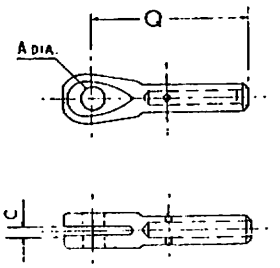
B.S. SP37, SP38, SP39 SWAGED CABLE-END CONNECTIONS

SP37 EYE ENDS
SP38 FORK ENDS
SP39 EYE ENDS FOR CHAIN

Material :
MILD STEEL (Cadmium)



Eye End
B.S. SP37



Fork End
B.S. SP38

Cable Size Cwt.	5	10	15	20	25	30/35	40/45
Code Letter	A	B	C	D	E	F	G
A	$\frac{5}{32}$"	$\frac{5}{32}$"	$\frac{3}{16}$"	$\frac{1}{4}$"	$\frac{1}{4}$"	$\frac{1}{4}$"	$\frac{5}{16}$"
B	IN. 0·096	IN. 0·096	IN. 0·146	IN. 0·196	IN. 0·196	IN. 0·196	IN. 0·246
C	0·100	0·100	0·150	0·200	0·200	0·200	0·250
Q	0·94	1·21	1·41	1·58	1·75	1·93	2·27

Eye ends and fork ends are ordered by the specification number followed by the code letter of the size required, *e.g.* an eye end suitable for a 10 cwt. cable would be SP37/B and a fork end suitable for a 20 cwt. cable would be SP38/D.

Eye End for Chain
B.S. SP39

Chain Size (BS228)	BS1	BS1	BS2	BS4	BS2	BS4	BS4	BS6	BS6	BS6	BS10	BS10
Cable Size Cwt.	5	10	10	10	15	15	20	20	25	30/35	30/35	40/45
Code Numbers	1-5	1-10	2-10	4-10	2-15	4-15	4 20	6-20	6-25	6-30	10-35	10-45
A	IN. 0·093	IN. 0·093	IN. 0·131	IN. 0·162	IN. 0·131	IN. 0·162	IN. 0·162	IN. 0·181	IN. 0·181	IN. 0·181	IN. 0·206	IN. 0·206
F	0·186	0·186	0·261	0·232	0·261	0·232	0·232	0·344	0·344	0·344	0·400	0·400

Eye ends for chain are ordered by the specification number followed by the code numbers of the size required, *e.g.* an eye end suitable for a BS4 chain and a 10 cwt. cable would be SP39/4–10.

B.S. SP40

(Rubber)

B.S. SP93 & SP95

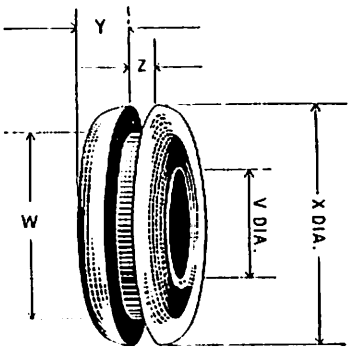
(Rubber-Nitrile) (Rubber-Neoprene)

GROMMETS

(SELF-FINISH)

(SP40 replaces AGS 1696)

(SP40 replaced by SP93 and SP95)



Item Letter	A	B	C	D	E	F
Z	0·04″	0·07″	0·10″	0·15″	0·20″	0·25″

V	W	X	Y
IN.	IN.	IN.	IN.
$\frac{1}{8}$	$\frac{1}{4}$	0·375	0·094
$\frac{3}{16}$	$\frac{5}{16}$	0·438	0·094
$\frac{1}{4}$	$\frac{3}{8}$	0·500	0·094
$\frac{5}{16}$	$\frac{7}{16}$	0·625	0·125
$\frac{3}{8}$	$\frac{1}{2}$	0·688	0·125
$\frac{7}{16}$	$\frac{5}{8}$	0·813	0·125
$\frac{1}{2}$	$\frac{11}{16}$	0·875	0·125
$\frac{9}{16}$	$\frac{3}{4}$	1·000	0·125
$\frac{5}{8}$	$\frac{13}{16}$	1·063	0·125

V	W	X	Y
IN.	IN.	IN.	IN.
$\frac{11}{16}$	$\frac{15}{16}$	1·188	0·125
$\frac{3}{4}$	1	1·250	0·125
$\frac{7}{8}$	$1\frac{1}{8}$	1·438	0·156
1	$1\frac{1}{4}$	1·563	0·156
$1\frac{1}{8}$	$1\frac{3}{8}$	1·688	0·156
$1\frac{1}{4}$	$1\frac{1}{2}$	1·813	0·156
$1\frac{3}{8}$	$1\frac{5}{8}$	1·938	0·156
$1\frac{1}{2}$	$1\frac{3}{4}$	2·125	0·188
$1\frac{3}{4}$	2	2·375	0·188
2	$2\frac{1}{4}$	2·625	0·188

METHOD OF ORDERING

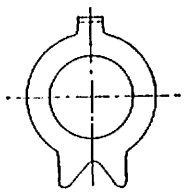
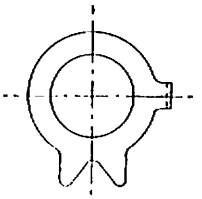
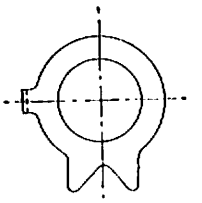
The part reference number consists of the item letter followed by the item number which represents the "V" diameter in $\frac{1}{32}$ of an inch. The complete part number for a Rubber Grommet with a "Z" width of 0·07″ and a "V" diameter of $\frac{1}{4}$″ is therefore SP40/B8.

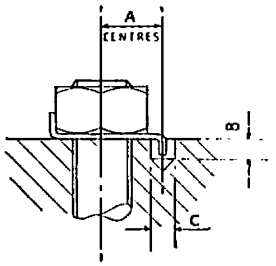
Brown Brothers Engineering Ltd

TAB WASHERS

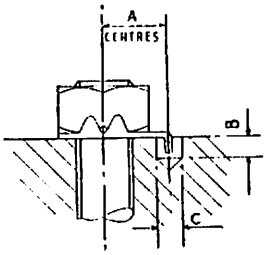
BA & BSF—B.S. SP41 to SP46
UNIFIED—B.S. SP107 to SP112

Material :

SP41 & SP107 MILD STEEL (Cadmium) SP42 & SP108 STAINLESS STEEL	SP43 & SP109 MILD STEEL (Cadmium) SP44 & SP110 STAINLESS STEEL	SP45 & SP111 MILD STEEL (Cadmium) SP46 & SP112 STAINLESS STEEL
 Straight	 Right Angle	 Left Angle



Recommended application of Tab Washer



BA/BSF

To Suit Thread Size			2 BA	¼" BSF	5/16" BSF	⅜" BSF	7/16" BSF	½" BSF	9/16" BSF	⅝" BSF	¾" BSF	⅞" BSF	1" BSF
Item			C	E	G	J	L	N	P	Q	S	U	W
A			0·225"	0·275"	0·335"	0·375"	0·425"	0·475"	0·550"	0·575"	0·675"	0·800"	0·875"
B			0·105"	0·115"	0·115"	0·155"	0·165"	0·165"	0·165"	0·165"	0·165"	0·165"	0·165"
C Drill			¼"	¼"	9/32"	5/32"	11/64"	3/32"	7/32"	7/32"	1"	9/32"	5/16"

UNIFIED

To Suit Thread Size	No. 8 (0·313" A/F)	No. 10 (0·344" A/F)	No. 10 (0·375" A/F)	¼" UNF	5/16" UNF	⅜" UNF	7/16" UNF	½" UNF	9/16" UNF	⅝" UNF	¾" UNF	⅞" UNF	1" UNF
Item	A		D		G	J	L	N	P	Q	S	U	W
A	0·197"	Use SP41–46 Item C	0·225"	Use SP41–46 Item E	0·335"	0·375"	0·425"	0·475"	0·550"	0·575"	0·675"	0·800"	0·875"
B	0·100"		0·112"		0·115"	0·155"	0·165"	0·165"	0·165"	0·165"	0·165"	0·165"	0·165"
C Drill	9/32"		¼"		9/32"	5/32"	11/64"	3/32"	7/32"	7/32"	1"	9/32"	5/16"

METHOD OF ORDERING

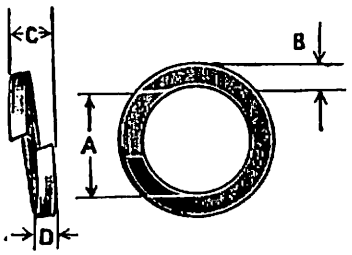
The specification number is suffixed by the item letter. *E.g.* a straight tab washer in mild steel to suit a ¼" BSF thread would be SP41/E. A left angle tab washer in stainless steel to suit a ½" Unified thread would be SP112/N.

Brown Brothers Engineering Ltd

B.S. 2SP47 SINGLE COIL SPRING WASHERS

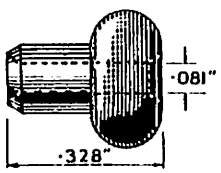
(Replacing AGS 162, 517 and 585)

Material :
SPRING STEEL (CADMIUM)

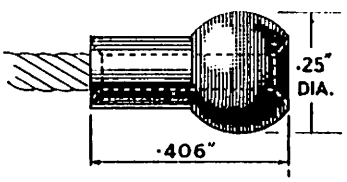


To Suit Nom. Thread Size	Item Letter	A		B		C		D	
		Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
		IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
10 BA	Y	0·071	0·068	0·033	0·028	0·060	0·040	0·023	0·020
8 BA	Z	0·091	0·088	0·042	0·036	0·070	0·050	0·028	0·024
6 BA & No. 4-40 UNC	A	0·116	0·113	0·064	0·056	0·092	0·072	0·041	0·036
No. 6-32 UNC	B	0·146	0·143	0·082	0·072	0·092	0·072	0·041	0·036
No. 8-32 UNC	X	0·168	0·165	0·090	0·080	0·100	0·080	0·045	0·040
2 BA & No. 10-32 UNF	C	0·195	0·191	0·102	0·092	0·116	0·096	0·053	0·048
$\frac{1}{4}$" dia.	E	0·256	0·251	0·138	0·128	0·150	0·120	0·061	0·056
$\frac{5}{16}$" dia.	G	0·320	0·314	0·150	0·140	0·180	0·150	0·069	0·064
$\frac{3}{8}$" dia.	J	0·383	0·376	0·170	0·160	0·200	0·170	0·077	0·072
$\frac{7}{16}$" dia.	L	0·447	0·439	0·186	0·176	0·220	0·190	0·077	0·072
$\frac{1}{2}$" dia.	N	0·510	0·501	0·220	0·210	0·240	0·210	0·085	0·080
$\frac{9}{16}$" dia.	P	0·574	0·564	0·240	0·230	0·270	0·240	0·097	0·092
$\frac{5}{8}$" dia.	Q	0·636	0·626	0·270	0·260	0·290	0·260	0·109	0·104

B.S. SP49 & SP50 BALL ENDS FOR SWAGING ON CABLE

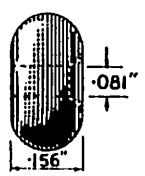


Before Swaging

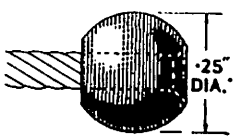


After Swaging

Material :
MILD STEEL (CADMIUM)



Before Swaging



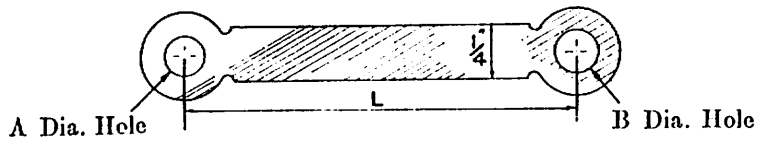
After Swaging

Ball End with Shank, SP49.

Ball End without Shank, SP50.

B.S. SP51 & SP52 IDENTIFICATION TAGS

Material : ALUMINIUM (SELF-FINISH)



22 SWG (0·028″)

B.S.	A	B	L
SP51	9/64″	13/64″	1½″
SP52	15/64″	17/64″	2″

B.S. SP53 SWAGED CABLE END ASSEMBLIES (BA & BSF Threads for Preformed Steel Wire Rope)

(Suitable for use with B.S. W9 Wire Rope)

Details on request

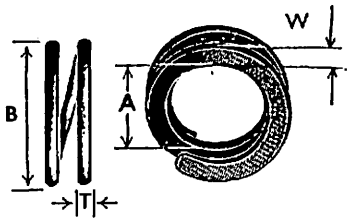
B.S. SP54 SWAGED CABLE END ASSEMBLIES (BA & BSF Threads for Preformed Non-Corrodible Steel Wire Rope)

(Suitable for use with B.S. W11 Wire Rope)

Details on request

B.S. SP55 & SP56 DOUBLE COIL SPRING WASHERS

(Replacing AGS 163, 586, 1583 and 1607)



Material : SP55—STEEL (CADMIUM)
SP56—PHOSPHOR BRONZE (SELF-FINISH)

ITEM	NOM. SIZE	A MIN.	A MAX.	W NOM.	B NOM.	T MAX.
		IN.	IN.	IN.	IN.	IN.
A	6 BA	0·133	0·141	0·048	0·237	0·032
B	4 BA	0·164	0·172	0·064	0·300	0·032
C	2 BA	0·196	0·203	0·080	0·363	0·032
E	¼″	0·267	0·281	0·116 0·092*	0·513 0·465*	0·040 0·048*
G	5/16″	0·328	0·344	0·116	0·576	0·048

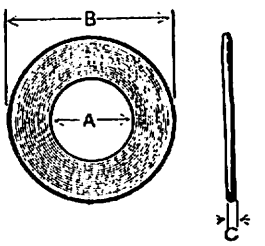
* Phosphor Bronze Washers only.

ITEM	NOM. SIZE	A MIN.	A MAX.	W NOM.	B NOM.	T MAX.
		IN.	IN.	IN.	IN.	IN.
J	⅜″	0·391	0·406	0·144	0·694	0·048
L	7/16″	0·453	0·469	0·144	0·757	0·064
N	½″	0·516	0·531	0·160	0·851	0·064
P	9/16″	0·594	0·625	0·192	1·009	0·064
Q	⅝″	0·656	0·688	0·192	1·072	0·080

B.S. SP57 & SP58 RIVET BURRS

(Replacing AGS 190 and 191)

Material : SP57—COPPER (TINNED)
SP58—ALUMINIUM ALLOY (ANODISED)

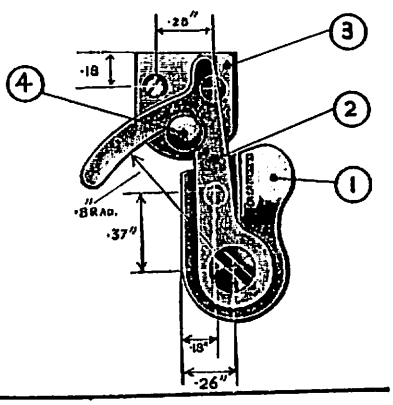


DIM.	ITEM										
	A	B	C	D	E	F	G	H	J	K	L
A	1/16"	3/32"	1/8"	5/32"	3/16"	7/32"	1/4"	5/16"	3/8"	7/16"	1/2"
B	IN. 0·35	IN. 0·40	IN. 0·45	IN. 0·55	IN. 0·65	IN. 0·70	IN. 0·80	IN. 0·85	IN. 0·90	IN. 1·00	IN. 1·10
C	0·028	0·028	0·028	0·028	0·028	0·036	0·036	0·036	0·036	0·048	0·048

B.S. SP59 & SP60 SPRING CATCHES

(Replacing AGS 787)

Material : Item 1—PHOSPHOR BRONZE
Items 2, 3 and 4—BRASS (TINNED)



SP59 (RIGHT-HAND—AS SHOWN)		SP60 (LEFT-HAND—OPPOSITE)	
ITEM	DESCRIPTION	ITEM	DESCRIPTION
1	Spring Plate	1	Spring Plate
2	Catch Hook	2	Catch Hook
3	Back Plate	3	Back Plate
4	Stop Pin	4	Stop Pin

B.S. SP61 to SP64 WOOD SCREWS (RECESSED HEADS)

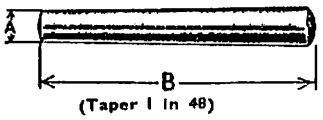
(Superseded by SP128 to SP133)

Material:

90° Countersunk Head	Round Head
SP61—BRASS (SELF-FINISH)	SP62—BRASS (SELF-FINISH)
SP63—STEEL (CADMIUM)	SP64—STEEL (CADMIUM)

Available in gauge sizes No. 4, 6 and 8 only

B.S. SP65 SOLID TAPER PINS



Material :
ALUMINIUM ALLOY (ANODISED & DYED BLUE)
(Replacing SP30)

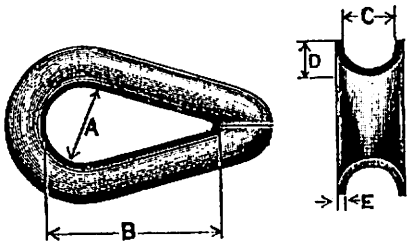
ITEM	E	G	H	K	L	N	P	R
Diameter at small end "A" (Nom.)	$\frac{1}{16}$"	$\frac{3}{32}$"	$\frac{1}{8}$"	$\frac{5}{32}$"	$\frac{3}{16}$"	$\frac{1}{4}$"	$\frac{5}{16}$"	$\frac{3}{8}$"

METHOD OF ORDERING

The part reference number consists of the item letter followed by the item number which represents the nominal length "B" in $\frac{1}{8}$ of an inch. The complete part number for a $\frac{1}{8}$" diameter × $1\frac{1}{2}$" long aluminium alloy pin is therefore SP65/H12.

B.S. SP66 BRASS-ELECTRO TINNED (Replaces AGS 136)
B.S. SP67 STAINLESS STEEL (Replaces AGS 969)

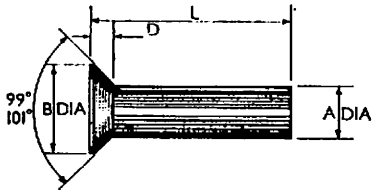
THIMBLES



ITEM	TO SUIT CABLE CAPACITY	A	B	C	D	E
	CWTS.	IN.	IN.	IN.	IN.	S.W.G.
A	5	0·35	0·7	0·12	0·08	24
B	10–15	0·4	0·8	0·17	0·11	24
C	20–25	0·5	1·0	0·21	0·135	22
D	30–35	0·6	1·2	0·24	0·155	20
E	40–45	0·7	1·4	0·27	0·17	20
F	65	0·8	1·6	0·30	0·19	20
G	75	0·9	1·8	0·33	0·21	18

B.S. SP68 to SP71 100° C'SK. PRECISION HEAD RIVETS

Material: ALUMINIUM & ALUMINIUM ALLOY



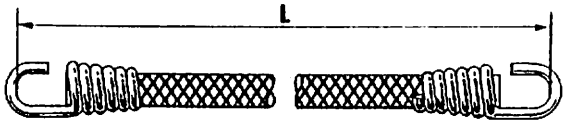
"A" DIA.	$\frac{1}{16}$"	$\frac{5}{64}$"	$\frac{3}{32}$"	$\frac{7}{64}$"	$\frac{1}{8}$"	$\frac{9}{64}$"	$\frac{5}{32}$"	$\frac{11}{64}$"	$\frac{3}{16}$"
"B" DIA. MIN.	IN. 0·104	IN. 0·164	IN. 0·208	IN. 0·267	IN. 0·329	IN. 0·386	IN. 0·445	IN. 0·526	IN. 0·650
"D" DEPTH	0·022	0·036	0·042	0·055	0·070	0·082	0·095	0·106	0·134

BRITISH STANDARD NO.	MATERIAL	FINISH		IDENT. MARK
	BRITISH STANDARD	TREATMENT	COLOUR	
SP68	L36	Anodic or Chemical Oxidation	Black	1
SP69	4-L37	None	Plain	7
SP70	L58	Anodic or Chemical Oxidation	Green	8
SP71	L86		Violet	0

METHOD OF ORDERING

Rivets to the above specifications are ordered by the British Standard Number, followed by the part number, the last two figures of the part number denoting the nominal length "L" in $\frac{1}{16}$ of an inch, the remaining figure or figures denoting the diam. in $\frac{1}{32}$ of an inch, *e.g.* the complete part number for a rivet in L58 material, $\frac{1}{8}$" Diam. and $\frac{5}{8}$" long, is SP70/410.

B.S. SP72 BRAIDED RUBBER CORD ASSEMBLIES



METHOD OF ORDERING

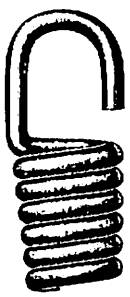
Cord assemblies shall be ordered by British Standard Number suffixed by:—

1 The cord specification number, e.g. F51.
2 The cord nominal diameter, e.g. $\frac{1}{4}$".
3 The unstretched length " L " in inches, e.g. 12"

e.g. the complete part number for a cord assembly consisting of F51 cord $\frac{1}{4}$" nominal diameter 12" long is SP72/F51/$\frac{1}{4}$/12.

B.S. 2SP73

HOOK FERRULE FOR ELASTIC CORD



Material:

SPRING STEEL WIRE

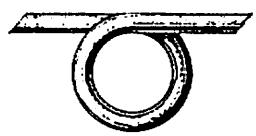
Item Letter	To Suit Cord Dia.	S.W.G.
A	$\frac{3}{16}$"	16
B	$\frac{1}{4}$"	14
C	$\frac{5}{16}$"	12
D	$\frac{3}{8}$"	11
F	$\frac{1}{2}$"	10
G	$\frac{5}{8}$"	8

B.S. 2SP74 ASSEMBLY WIRES

Material:

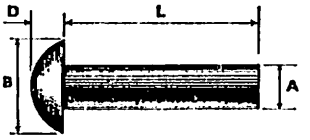
MILD STEEL WIRE (Cadmium)

FOR USE WITH F16 and F51 ELASTIC CORD



Item Letter	To Suit Cord Dia.	Wire Gauge
A	$\frac{3}{16}$"	17 S.W.G.
B	$\frac{1}{4}$"	16 S.W.G.
C	$\frac{5}{16}$"	14 S.W.G.
D	$\frac{3}{8}$"	14 S.W.G.
F	$\frac{1}{2}$"	12 S.W.G.
G	$\frac{5}{8}$"	10 S.W.G.

B.S. SP76 to SP82 SNAP HEAD RIVETS



British Standard No.	Material	Specification	Treatment	Colour	Ident. Mark
SP 76	Steel	B.S. 1109	Cadmium	—	—
SP 77	Aluminium	L36	Anodic or Chemical Oxidation	Black	I
SP 78	Aluminium Alloy	L37	None	Plain	7
SP 79	Aluminium Alloy	L58	Anodic or Chemical Oxidation	Green	8
SP 80	Aluminium Alloy	L86		Violet	0
SP 81	High Nickel Copper Alloy	D.T.D. 204	None	—	M
SP 82			Cadmium	—	M

Nom. Size of Rivet	A		B		D	
	Max.	Min.	Max.	Min.	Max.	Min.
	in.	in.	in.	in.	in.	in.
$\frac{1}{16}$"	0·065	0·059	0·114	0·103	0·039	0·035
$\frac{3}{32}$"	0·097	0·091	0·170	0·157	0·059	0·053
$\frac{1}{8}$"	0·128	0·122	0·227	0·210	0·079	0·071
$\frac{5}{32}$"	0·160	0·154	0·282	0·263	0·098	0·090
$\frac{3}{16}$"	0·191	0·185	0·338	0·317	0·117	0·107
$\frac{7}{32}$"	0·223	0·215	0·394	0·371	0·136	0·126
$\frac{1}{4}$"	0·254	0·246	0·450	0·425	0·156	0·144
$\frac{5}{16}$"	0·316	0·306	0·562	0·531	0·194	0·180
$\frac{3}{8}$"	0·379	0·367	0·673	0·638	0·233	0·217

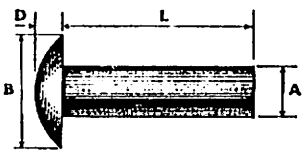
METHOD OF ORDERING

Rivets to the above specifications are ordered by the British Standard Number, followed by the part number, the last two figures of the part number denoting the nominal length "L" in $\frac{1}{16}$ of an inch, the remaining figure or figures denoting the diam. in $\frac{1}{32}$ of an inch, *e.g.* the complete part number for a rivet in L58 material, $\frac{1}{8}$" diam. and $\frac{5}{8}$" long, is SP79/410.

B.S. SP83 to SP85 MUSHROOM HEAD RIVETS

Material : ALUMINIUM ALLOY

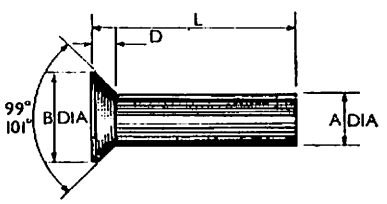
British Standard No.	Specification	Treatment	Colour	Ident. Mark
SP83	L37	None	Plain	7
SP84	L58	Anodic or Chemical Oxidation	Green	8
SP85	L86		Violet	0



Nom. Size of Rivet	A		B		D	
	Max.	Min.	Max.	Min.	Max.	Min.
	in.	in.	in.	in.	in.	in.
1/16"	0·065	0·061	0·130	0·117	0·027	0·023
3/32"	0·097	0·093	0·197	0·178	0·041	0·035
1/8"	0·128	0·124	0·263	0·237	0·054	0·046
5/32"	0·160	0·155	0·325	0·299	0·066	0·058
3/16"	0·191	0·186	0·389	0·359	0·080	0·070
7/32"	0·223	0·218	0·453	0·423	0·093	0·083
1/4"	0·254	0·249	0·517	0·483	0·106	0·094
5/16"	0·316	0·311	0·645	0·603	0·132	0·118
3/8"	0·379	0·374	0·773	0·727	0·158	0·142

BS SP86, SP87 & SP88 100° C'SK PRECISION HEAD RIVETS

British Std. No.	Material	Specification	Finish	Ident. Mark
SP86	Steel	BS1109	Cadmium	—
SP87	Nickel Copper Alloy	DTD204	Self	M
SP88	Nickel Copper Alloy	DTD204	Cadmium	M



"A" Dia.		1/8"	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"
"B" Dia.	Max. in.	0·121	0·172	0·216	0·274	0·337	0·397	0·455	0·535	0·657
	Min. in.	0·111	0·162	0·204	0·262	0·323	0·381	0·439	0·515	0·637
"D" Depth in.		0·032	0·041	0·048	0·061	0·078	0·091	0·103	0·115	0·143

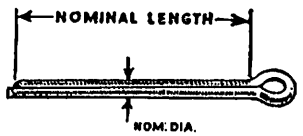
METHOD OF ORDERING

Rivets to the above specifications are ordered by the British Standard Number, followed by the part number, the last two figures of the part number denoting the nominal length "L" in 1/16 of an inch, the remaining figure or figures denoting the diameter in 1/32 of an inch, *e.g.* the complete part number for a rivet 1/8" dia. and 5/8" long, in L58 material is SP84/410 and for a steel rivet SP86 /410

B.S. SP89 AIRFRAME BEARINGS BALL & ROLLER BEARING

This standard acts as a supplement to B.S. 292 and relates to bearings for applications which require features not included in that standard.

B.S. SP90 SPLIT COTTER PINS



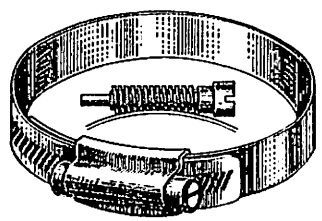
Material: CORROSION RESISTANT STEEL WIRE

Item	A	B	C	E	G	H	K	L
Nominal dia.	$\frac{1}{32}$"	$\frac{1}{64}$"	$\frac{1}{16}$"	$\frac{3}{32}$"	$\frac{1}{8}$"	$\frac{5}{32}$"	$\frac{3}{16}$"	$\frac{1}{4}$"

METHOD OF ORDERING

Part number consists of item letter followed by nominal length in $\frac{1}{8}$ of an inch.

B.S. SP91 & 92 HOSE CLIPS (Worm Drive Type)



B.S. No.	Type of Clip	Material	Finish
SP91	Clip with band with rolled or milled serrations	Steel	Cadmium
SP92	Clip with band with pierced serrations	Steel	Cadmium

Clip Size	Suitable for Hose O/D		Clip Size	Suitable for Hose O/D	
	Min.	Max.		Min.	Max.
A	$\frac{3}{8}$"	$\frac{5}{8}$"	J	$1\frac{1}{4}$"	$2\frac{1}{8}$"
B	$\frac{1}{2}$"	$\frac{3}{4}$"	K	$1\frac{3}{8}$"	$2\frac{3}{8}$"
C	$\frac{5}{8}$"	$\frac{7}{8}$"	L	2"	$2\frac{3}{8}$"
D	$\frac{3}{4}$"	1"	M	$2\frac{3}{8}$"	$3\frac{1}{8}$"
E	$\frac{7}{8}$"	$1\frac{1}{4}$"	N	$2\frac{3}{4}$"	$3\frac{1}{2}$"
F	1"	$1\frac{3}{8}$"	P	$3\frac{1}{4}$"	4"
G	$1\frac{1}{8}$"	$1\frac{5}{8}$"	Q	$3\frac{3}{4}$"	$4\frac{1}{2}$"
H	$1\frac{1}{4}$"	$1\frac{7}{8}$"	R	$4\frac{1}{2}$"	5"

B.S. SP93 GROMMETS

Material:
RUBBER (NITRILE)

This range of grommets is intended for use in engines where resistance to petroleum-based fuels and lubricants is of more importance than the resistance to ozone.
See page 45 for dimensions and method of ordering.

B.S. SP94 BRONZE OIL-RETAINING BUSHES & THRUST WASHERS

This standard covers bushes and thrust washers of the type given in B.S. 1131 Part 5 impregnated with the oil required in bushes for aircraft use.
Details on request

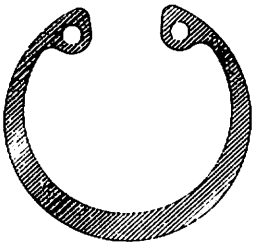
B.S. SP95 GROMMETS

Material:
RUBBER (NEOPRENE)

This range of grommets is intended for use in applications where a good ozone resistance is more important than the resistance to petroleum-based lubricants and fuels.
See page 45 for dimensions and method of ordering

B.S. SP96 INTERNAL RETAINING CLIPS (CIRCLIPS)

Material:
SPRING STEEL
(PHOSPHATE AND OIL)



METHOD OF ORDERING

Retaining Rings should be ordered by the specification number followed by the letter " B " and the nominal bore size for which the clip is required.

EXAMPLES:
Metric Retaining Rings: SP96B035M = Retaining Ring to suit 35 m/m nom. dia.
Inch Retaining Rings: SP96B0125 = Retaining Ring to suit 1·250" nom. dia.

Brown Brothers Engineering Ltd

B.S. 2SP101 UNIFIED TURNBARRELS

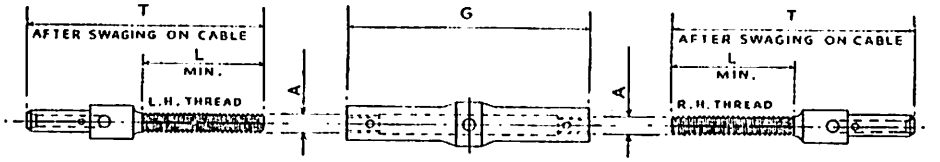
Material : MILD STEEL (CADMIUM AND TEMPORARY RUST PREVENTATIVE)

B.S. 2SP102 UNIFIED SCREWED ENDS (for Swaged Cable-end Connections)

Material : HIGH TENSILE STEEL (CADMIUM)

(For Tension Rods and Tapped Ends, see B.S. 2SP103 and 2SP104)

(For Turnbarrels and Screwed Ends with BA and BSF Threads, see SP33 and SP34)



Screwed End (L.H.) B.S. 2SP102

CABLE SIZE CWT.	CODE LETTERS	A	L	T
			IN.	IN.
5	C5L	No. 8-32 UNC	0·85	1·85
5	D5L	No. 10-32 UNF	1·56	2·56
10	D10L	No. 10-32 UNF	1·56	2·81
15	D15L	No. 10-32 UNF	1·56	2·93
10	E10L	$\frac{1}{4}$" UNF	1·71	2·90
15	E15L	$\frac{1}{4}$" UNF	1·71	3·02
20	E20L	$\frac{1}{4}$" UNF	1·71	3·16
20	G20L	$\frac{5}{16}$" UNF	1·79	3·26
25	E25L	$\frac{1}{4}$" UNF	1·71	3·33
25	G25L	$\frac{5}{16}$" UNF	1·79	3·41
30/35	E30L	$\frac{1}{4}$" UNF	1·71	3·45
30/35	G35L	$\frac{5}{16}$" UNF	1·79	3·55
40/45	G45L	$\frac{5}{16}$" UNF	1·79	3·79

Turnbarrel B.S. 2SP101

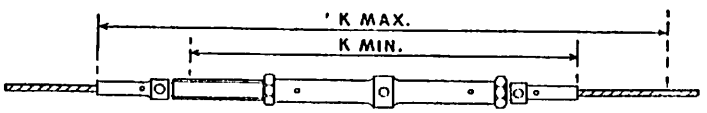
CODE LETTER	A	G
		IN.
C	No. 8-32 UNC	1·91
D	No. 10-32 UNF	3·26
E	$\frac{1}{4}$" UNF	3·36
G	$\frac{5}{16}$" UNF	3·50

Screwed End (R.H.) B.S. 2SP102

CABLE SIZE CWT.	CODE LETTERS	A	L	T
			IN.	IN.
5	C5	No. 8-32 UNC	0·85	1·85
5	D5	No. 10-32 UNF	1·56	2·56
10	D10	No. 10-32 UNF	1·56	2·81
15	D15	No. 10-32 UNF	1·56	2·93
10	E10	$\frac{1}{4}$" UNF	1·71	2·90
15	E15	$\frac{1}{4}$" UNF	1·71	3·02
20	E20	$\frac{1}{4}$" UNF	1·71	3·16
20	G20	$\frac{5}{16}$" UNF	1·79	3·26
25	E25	$\frac{1}{4}$" UNF	1·71	3·33
25	G25	$\frac{5}{16}$" UNF	1·79	3·41
30/35	E30	$\frac{1}{4}$" UNF	1·71	3·45
30/35	G35	$\frac{5}{16}$" UNF	1·79	3·55
40/45	G45	$\frac{5}{16}$" UNF	1·79	3·79

Turnbarrels are ordered by the specification number followed by the code letter of the size required, *e.g.* a $\frac{1}{4}$" UNF turnbarrel would be 2SP101/E.

Screwed ends are ordered by the specification number followed by the code letters of the size required, *e.g.* a $\frac{1}{4}$" UNF (right hand) suitable for a 15 cwt. cable would be 2SP102/E15 and a $\frac{5}{16}$" UNF (left hand) suitable for a 20 cwt. cable would be 2SP102/G20L.



Dimensions of Assemblies

CABLE SIZE CWT.		5	5	10	15	10	15	20	20	25	25	30/35	30/35	40/45
THREAD		No. 8-32 UNC	No. 10-32 UNF	No. 10-32 UNF	No. 10-32 UNF	$\frac{1}{4}$" UNF	$\frac{1}{4}$" UNF	$\frac{1}{4}$" UNF	$\frac{5}{16}$" UNF	$\frac{1}{4}$" UNF	$\frac{5}{16}$" UNF	$\frac{1}{4}$" UNF	$\frac{5}{16}$" UNF	$\frac{5}{16}$" UNF
K	MAX. IN.	5·08	7·72	8·22	8·40	8·40	8·64	8·92	9·15	9·26	9·49	9·50	9·73	10·21
	MIN. IN.	3·88	5·32	5·82	6·06	6·00	6·24	6·52	6·75	6·86	7·09	7·10	7·33	7·81

Brown Brothers Engineering Ltd

B.S. 2SP103 UNIFIED TENSION RODS

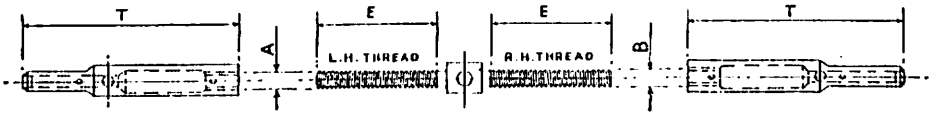
Material : HIGH TENSILE STEEL (CADMIUM)

B.S. 2SP104 UNIFIED TAPPED ENDS (for Swaged Cable-end Connections)

Material : MILD STEEL (CADMIUM AND TEMPORARY RUST PREVENTATIVE)

(For Turnbarrels and Screwed Ends, see B.S. 2SP101 and 2SP102)

(For Tension Rods and Tapped Ends with BA and BSF Threads, see SP35 and SP36)

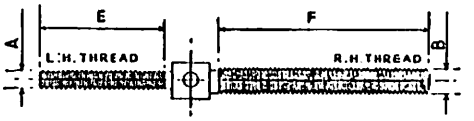


Tapped End (L.H.) B.S. 2SP104

CABLE SIZE	CODE LETTERS	A	T
CWT. 5	C5L	No. 8-32 UNC	IN. 1·77
5	D5L	No. 10-32 UNF	2·49
10	D10L	No. 10-32 UNF	2·67
15	D15L	No. 10-32 UNF	2·79
10	E10L	¼" UNF	2·74
15	E15L	¼" UNF	2·85
20	E20L	¼" UNF	2·91
20	G20L	5/16" UNF	3·01
25	E25L	¼" UNF	3·05
25	G25L	5/16" UNF	3·15
30/35	E30L	¼" UNF	3·17
30/35	G35L	5/16" UNF	3·27
40/45	G45L	5/16" UNF	3·48

Tension Rod (Even Ends) B.S. 2SP103

CODE LETTER	A	B	E
C	No. 8-32 UNC	No. 8-32 UNC	0·85
D	No. 10-32 UNF	No. 10-32 UNF	1·56
E	¼" UNF	¼" UNF	1·71
G	5/16" UNF	5/16" UNF	1·79



Tension Rod (Odd Ends). B.S. 2SP103

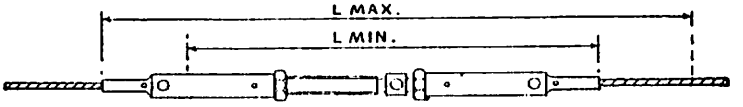
CODE LETTERS	A	B	E	F
			IN.	IN.
CD	No. 8-32 UNC	No. 10-32 UNF	0·85	1·56
DC	No. 10-32 UNF	No. 8-32 UNF	1·56	0·85
DE	No. 10-32 UNF	¼" UNF	1·65	1·71
ED	¼" UNF	No. 10-32 UNF	1·71	1·65
EG	¼" UNF	5/16" UNF	1·71	1·79
GE	5/16" UNF	¼" UNF	1·79	1·71

Tapped End (R.H.) B.S. 2SP104

CABLE SIZE	CODE LETTER	B	T
CWT. 5	C5	No. 8-32 UNC	IN. 1·77
5	D5	No. 10-32 UNF	2·49
10	D10	No. 10-32 UNF	2·67
15	D15	No. 10-32 UNF	2·79
10	E10	¼" UNF	2·74
15	E15	¼" UNF	2·85
20	E20	¼" UNF	2·91
20	G20	5/16" UNF	3·01
25	E25	¼" UNF	3·05
25	G25	5/16" UNF	3·15
30/35	E30	¼" UNF	3·17
30/35	G35	5/16" UNF	3·27
40/45	G45	5/16" UNF	3·48

Tension rods are ordered by the specification number followed by the code letter(s) of the size required, *e.g.* a ¼" UNF tension rod (even ends) would be 2SP103/E and a ¼" UNF (left hand) and 2 BA (right hand) tension rod (odd ends) would be 2SP103/EC.

Tapped ends are ordered by the specification number followed by the code letters of the size required, *e.g.* a ¼" UNF (right hand) suitable for a 15 cwt. cable would be 2SP104/E15 and a 5/16" UNF (left hand) suitable for a 20 cwt. cable would be 2SP104/G20L.



Dimensions of Assemblies

CABLE SIZE CWT.		5	5	10	15	10	15	20	20	25	25	30/35	30/35	40/45
THREAD		No. 8-32 UNC	No. 10-32 UNF	No. 10-32 UNF	No. 10-32 UNF	¼" UNF	¼" UNF	¼" UNF	5/16" UNF	¼" UNF	5/16" UNF	¼" UNF	5/16" UNF	5/16" UNF
L	MAX. IN.	5·31	8·04	8·40	8·64	8·72	8·94	9·06	9·35	9·34	9·63	9·58	9·87	10·29
	MIN. IN.	4·11	5·64	6·00	6·24	6·32	6·54	6·66	6·95	6·94	7·23	7·18	7·47	7·89

B.S. 2SP105 SWAGED CABLE END ASSEMBLIES (Unified Threads for Preformed Steel Wire Rope—B.S. W9)

Details on request

B.S. 2SP106 SWAGED CABLE END ASSEMBLIES (Unified Threads for Preformed Non-Corrodible Steel Wire Rope—B.S. W11)

Details on request

B.S. SP107 (MILD STEEL) B.S. SP108 (STAINLESS STEEL) UNIFIED STRAIGHT TAB WASHERS

(See Page 46)

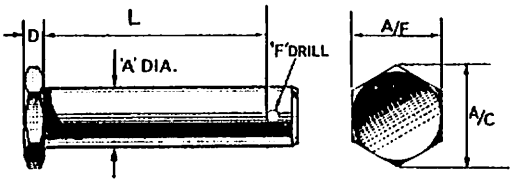
B.S. SP109 (MILD STEEL) B.S. SP110 (STAINLESS STEEL) UNIFIED RIGHT ANGLE TAB WASHERS

(See Page 46)

B.S. SP111 (MILD STEEL) B.S. SP112 (STAINLESS STEEL) UNIFIED LEFT ANGLE TAB WASHERS

(See Page 46)

B.S. SP113 SHEAR PINS (CLOSE TOLERANCE)



Material :
HIGH TENSILE STEEL
(CADMIUM)

ITEM	NOM. SIZE	A/F		A/C	*A		D		F
		MIN.	MAX.	MAX.	MIN.	MAX.	MIN.	MAX.	DRILL
		IN.	IN.	IN.	IN.	IN.	IN.	IN.	
A	$\frac{1}{8}$"	0·1890	0·1930	0·220	0·12425	0·12475	0·065	0·070	No. 52
B	$\frac{5}{32}$"	0·2430	0·2480	0·290	0·15550	0·15600	0·070	0·075	No. 52
C	$\frac{3}{16}$"	0·2430	0·2480	0·290	0·18675	0·18725	0·075	0·080	No. 52
X	0·1898"	0·3190	0·3240	0·370	0·18905	0·18955	0·075	0·080	No. 52
E	$\frac{1}{4}$"	0·3700	0·3750	0·433	0·24925	0·24975	0·075	0·085	No. 52
G	$\frac{5}{16}$"	0·4305	0·4375	0·505	0·31175	0·31225	0·100	0·110	No. 41
J	$\frac{3}{8}$"	0·4930	0·5000	0·577	0·37425	0·37475	0·100	0·110	No. 30
L	$\frac{7}{16}$"	0·5545	0·5625	0·650	0·43675	0·43725	0·100	0·110	No. 30
N	$\frac{1}{2}$"	0·6795	0·6875	0·794	0·49925	0·49975	0·100	0·110	No. 30

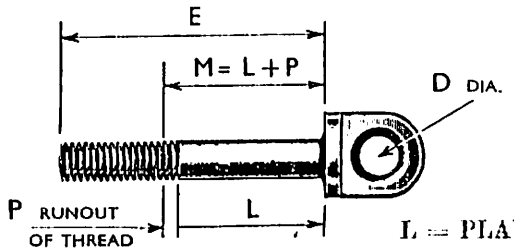
* After plating.

METHOD OF ORDERING

The part reference number consists of the item letter followed by the item number which represents the length " L " in $\frac{1}{16}$ of an inch. The complete part number for $\frac{1}{4}$" nominal diameter shear pin with a length " L " of 0·55" is therefore SP113/E5$\frac{1}{2}$.

B.S. SP114 UNIFIED EYE BOLT

Material :
STEEL (CADMIUM)



L = PLAIN LENGTH
M = CLAMPING LENGTH

ITEM LETTER	NOM. SIZE	P MAX. 2 × PITCH	E	D	DIA. OF HEAD
		IN.	IN.	IN.	IN.
C	No. 8-32 UNC	0·062	M + 0·358	0·17	0·31
D	No. 10-32 UNF	0·062	M + 0·408	0·22	0·43
E	¼" UNF	0·071	M + 0·499	0·27	0·56
G	5/16" UNF	0·083	M + 0·537	0·30	0·62
J	⅜" UNF	0·083	M + 0·637	0·38	0·83

METHOD OF ORDERING

The part reference number consists of the item number which represents the length "L" in 1/16 of an inch, followed by the item letter representing the size of thread required. The complete part number for a ¼" UNF eye bolt with a length "L" of 1·8" is therefore SP114/18E.

B.S. SP115, SP116, SP117 HYDRAULIC SURFACE CHECK TYPE LUBRICATING NIPPLES

SP115 ¼" UNF STRAIGHT NIPPLE
SP116 ¼" UNF 45° ANGLE NIPPLE
SP117 ¼" UNF 90° ANGLE NIPPLE

B.S. SP118 UNIFIED TIE RODS

Material : STEEL (CADMIUM)

ITEM	C	D	E	G	J
Nom. Size	No. 8 32 UNC	No. 10-32 UNF	¼" UNF	5/16" UNF	⅜" UNF

BS SP119 & SP120 UNIFIED FORK JOINTS

SP119 H.T. STEEL (CADMIUM) SP120 STAINLESS STEEL

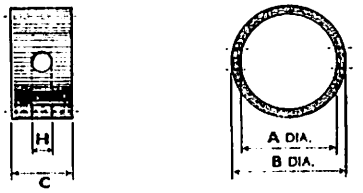
ITEM LETTER		NOMINAL SIZE
R.H.	L.H.	
C	CL	No. 8-32 UNC
D	DL	No. 10-32 UNF
E	EL	¼" UNF
G	GL	5/16" UNF
J	JL	⅜" UNF

METHOD OF ORDERING

Fork joints to the above specifications are ordered by the British Standard Number, followed by the item letter for the size required. When ordering stainless steel fork joints to SP120, the letter "Z" should precede the item letters, *e.g.* the complete part number for a left-hand ¼" UNF thread fork joint is SP120/ZEL.

SP121 COLLARS FOR SHEAR PINS

Material: ALUMINIUM ALLOY (ANODISED & DYED BLUE)



ITEM LETTER	NOM. DIAM.	TO SUIT PIN SP113	A DIAM.		B DIAM.	C	H	
			MAX.	MIN.			DRILL SIZE	DIAM.
			IN.	IN.	IN.	IN.		IN.
A	⅛"	A	0·1280	0·1250	0·250	0·220	No. 52	0·0635
B	5/32"	B	0·1593	0·1563	0·281	0·220	No. 52	0·0635
C	·1898	C & X	0·1928	0·1898	0·313	0·220	No. 52	0·0635
E	¼"	E	0·2525	0·2500	0·375	0·220	No. 52	0·0635
G	5/16"	G	0·3160	0·3125	0·436	0·250	No. 41	0·0960
J	⅜"	J	0·3785	0·3750	0·500	0·290	No. 30	0·1285
L	7/16"	L	0·4415	0·4375	0·563	0·290	No. 30	0·1285
N	½"	N	0·5040	0·5000	0·625	0·290	No. 30	0·1285

METHOD OF ORDERING

Collars to the above specification are ordered by the British Standard Specification Number, followed by the item letter for the nominal diam. required, *e.g.* the complete part number for a collar for use with a ¼" diam. pin is SP121/E.

Brown Brothers Engineering Ltd

B.S. SP122, SP123 & SP124 WASHERS 18SWG (·048″)

B.S. SP125 WASHERS 12SWG (·104″)

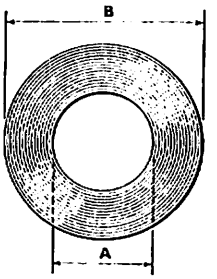
(Primarily for packing purposes)

B.S. SP126 & SP127 WASHERS 26SWG (·018″)

(Primarily for facing purposes)

SP122 STEEL (CADMIUM)
SP123 CORROSION-RESISTING STEEL (SELF)
SP124 ALUMINIUM ALLOY (SELF)
SP125 ALUMINIUM ALLOY (SELF)
SP126 STEEL (CADMIUM)
SP127 CORROSION RESISTING STEEL (SELF)

ITEM LETTER	TO SUIT BOLTS	DIAM. A		DIAM. B	
		MAX.	MIN.	MAX.	MIN.
		IN.	IN.	IN.	IN.
A	No. 4-40 UNC	0·125	0·120	0·220	0·215
B	No. 6-32 UNC	0·151	0·146	0·295	0·290
C	No. 8-32 UNC	0·179	0·174	0·365	0·360
D	No. 10-32 UNF	0·205	0·200	0·400	0·395
E	¼″ UNF	0·270	0·265	0·515	0·505
G	5/16″ UNF	0·333	0·328	0·585	0·575
J	⅜″ UNF	0·395	0·390	0·660	0·650
L	7/16″ UNF	0·458	0·453	0·805	0·795
N	½″ UNF	0·520	0·515	0·875	0·865
P	9/16″ UNF	0·583	0·578	1·020	1·010
Q	⅝″ UNF	0·645	0·640	1·095	1·085
S	¾″ UNF	0·770	0·765	1·235	1·225
U	⅞″ UNF	0·895	0·890	1·455	1·445
W	1″ UNF	1·020	1·015	1·670	1·660



METHOD OF ORDERING

Washers to the above specifications are ordered by the British Standard Number, followed by the item letter indicating the nominal size, *e.g.* the part number of a thin washer in aluminium alloy to suit a ¼″ UNF bolt is SP124/E.

Brown Brothers Engineering Ltd

B.S. SP. 128—133 WOOD SCREWS

RECESSED HEADS

Superseding SP61-64

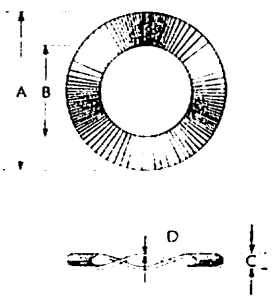
90° COUNTERSUNK HEAD	Material :	ROUND HEAD
SP128 STEEL (CADMIUM)		SP129 STEEL (CADMIUM)
SP130 BRASS (SELF)		SP131 BRASS (SELF)
SP132 STEEL (NICKEL CADMIUM)		SP133 STEEL (NICKEL CADMIUM)

Available in gauge sizes No. 4, 6 and 8 only

B.S. SP. 134-138 CRINKLE WASHERS

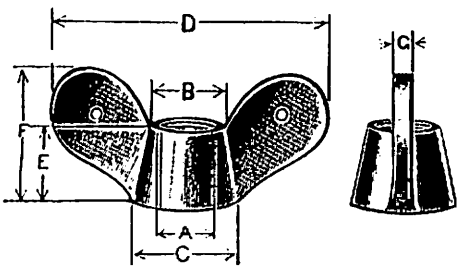
Material : BERYLLIUM COPPER

SP134 SELF
SP135 CADMIUM COATED
SP136 SILVER COATED
SP137 NICKEL COATED
SP138 TIN COATED



ITEM	TO SUIT SCREW OR BOLT		A DIA.		B DIA.		C	D
	UNIFIED	B.A.	MAX.	MIN.	MAX.	MIN.		
Y	0	10	0·080"	0·075"	0·155"	0·145"	0·017"	0·006"
Z	2	8	0·100"	0·095"	0·211"	0·201"	0·018"	0·006"
A	4	6	0·130"	0·125"	0·255"	0·245"	0·022"	0·006"
B	6	4	0·157"	0·152"	0·305"	0·295"	0·028"	0·008"
C	8	- -	0·181"	0·176"	0·345"	0·335"	0·030"	0·011"
D	10	2	0·208"	0·203"	0·380"	0·370"	0·032"	0·012"
E	1/4"		0·271"	0·266"	0·505"	0·495"	0·042"	0·015"
G	5/16"		0·337"	0·332"	0·605"	0·595"	0·052"	0·015"
J	3/8"		0·411"	0·406"	0·705"	0·695"	0·064"	0·022"
L	7/16"		0·474"	0·469"	0·825"	0·815"	0·070"	0·022"
N	1/2"		0·536"	0·531"	0·955"	0·945"	0·076"	0·022"
Q	9/16"		0·661"	0·656"	1·175"	1·165"	0·090"	0·028"
S	5/8"		0·786"	0·781"	1·395"	1·385"	0·095"	0·028"

AGS 113 (B.A.) & 120 (B.S.F.) WING NUTS



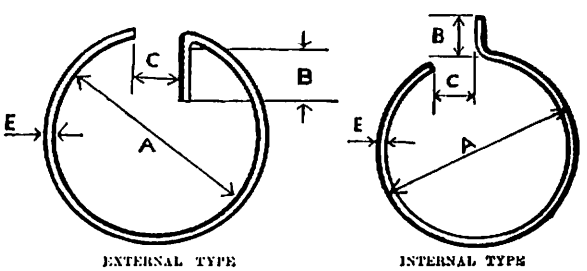
Material : BRASS (CADMIUM)

ITEM NO.	A	B	C	D	E	F	G
		IN.	IN.	IN.	IN.	IN.	IN.
A	6 BA	0·25	0·28	1·0	0·187	0·50	0·062
B	4 BA	0·25	0·28	1·0	0·187	0·50	0·062
C	2 BA	0·312	0·34	1·25	0·25	0·625	0·080
A	¼" BSF	0·375	0·44	1·50	0·31	0·75	0·093
B	9/32" BSF	0·437	0·52	1·62	0·39	0·812	0·093
C	5/16" BSF	0·437	0·52	1·62	0·39	0·812	0·093
D	11/32" BSF	0·50	0·60	1·75	0·47	0·875	0·093
E	⅜" BSF	0·50	0·60	1·75	0·47	0·875	0·093
F	13/32" BSF	0·562	0·71	2·0	0·55	1·00	0·125
G	7/16" BSF	0·562	0·71	2·0	0·55	1·00	0·125
H	½" BSF	0·625	0·82	2·25	0·63	1·125	0·125

AGS 154 WIRE LOCKING RINGS

Material : SPRING STEEL, Japanned all over. Can be supplied in any size to customers' requirements. All orders must state type and dimensions A, B & C and S.W.G.(E).

See also AGS 165.



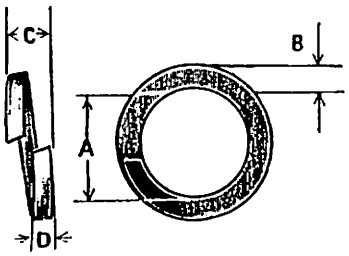
EXTERNAL TYPE INTERNAL TYPE

AGS 162 SINGLE SPRING WASHERS

Replaced by 2SP47.

Material : SPRING STEEL (CADMIUM)

ITEM	NOMINAL SIZE	A	B	C	D
		IN.	IN.	IN.	S.W.G.
A	6 BA	0·13	0·05	0·125	18
B	4 BA	0·16	0·06	0·125	18
C	2 BA	0·20	0·06	0·14	16
D	$\frac{1}{4}$"	0·27	0·07	0·16	16
E	$\frac{5}{16}$"	0·33	0·07	0·187	14
F	$\frac{3}{8}$"	0·39	0·10	0·20	12
G	$\frac{7}{16}$"	0·46	0·11	0·20	12
H	$\frac{1}{2}$"	0·52	0·12	0·25	10



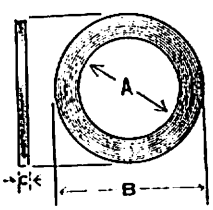
AGS 163 DOUBLE SPRING WASHERS

Material : SPRING STEEL (CADMIUM)

Replaced by SP55.

AGS 164 FIBRE JOINTING WASHERS

Material :
VULCANISED FIBRE



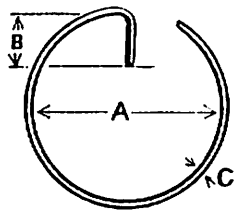
See also AGS 567.

ITEM	A	B	C	ITEM	A	B	C
	IN.	IN.	IN.		IN.	IN.	IN.
A	0·67	0·94	0·11	J	0·925	1·1	0·13
B	0·85	1·3	0·13	K	1·9	2·25	0·16
C	1·14	1·5	0·13	L	1·52	1·75	0·16
D	0·53	0·80	0·11	M	0·84	1·12	0·13
E	0·40	0·60	0·08	N	1·2	1·5	0·13
F	0·53	0·71	0·11	P	1·33	1·75	0·16
G	0·84	1·01	0·13	Q	1·67	1·95	0·16
H	1·06	1·3	0·13	R	0·62	0·90	0·11
I	1·39	1·6	0·16	S	0·77	1·05	0·13

AGS 165 WIRE LOCKING RINGS

Material : SPRING STEEL (JAPANNED)

(See also AGS 154)



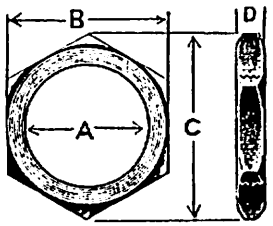
ITEM	A	B	C	ITEM	A	B	C
	IN.	IN.	S.W.G.		IN.	IN.	S.W.G.
A	1·125	0·2	14	F	2·65	0·25	16
B	1·0	0·3	16	G	1·4	0·30	18
C	0·75	0·2	16	H	1·45	0·25	18
D	1·95	0·25	16	J	3·15	0·25	18
E	1·84	0·25	16	K	0·85	0·15	18

AGS 207 UNION LOCK NUTS (Steel)

Material: MILD STEEL (CADMIUM)

(See AGS 224 for Brass and AGS 957 for Alum. Alloy, Page 66)

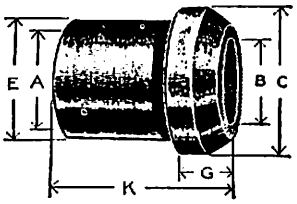
ITEM	A	B	C	D	ITEM	A	B	C	D
	B.S.P.	IN.	IN.	IN.		B.S.P.	IN.	IN.	IN.
A	$\frac{1}{8}$"	0·525	0·61	0·19	E	$\frac{5}{8}$"	1·01	1·17	0·19
B	$\frac{1}{4}$"	0·60	0·69	0·19	F	$\frac{3}{4}$"	1·2	1·39	0·19
C	$\frac{3}{8}$"	0·82	0·95	0·19	G	$\frac{7}{8}$"	1·3	1·5	0·19
D	$\frac{1}{2}$"	0·92	1·06	0·19	H	1"	1·48	1·71	0·19



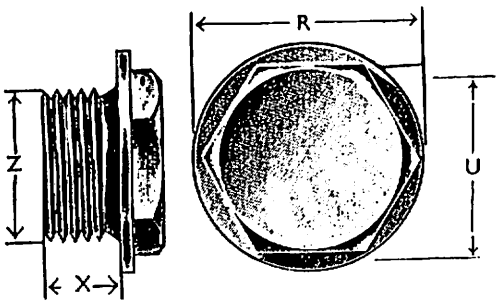
AGS 209 CONICAL NIPPLES

Material : BRASS

(SELF-FINISH)



ITEM	A	B	C	E	G	K	NUT ITEM AGS 1217	ITEM	A	B	C	E	G	K	NUT ITEM AGS 1217
	IN.	IN.	IN.	IN.	IN.	IN.			IN.	IN.	IN.	IN.	IN.	IN.	
O	$\frac{1}{8}$	0·06	0·33	0·20	0·13	0·38	A	H	$\frac{1}{8}$	0·54	0·805	0·72	0·25	0·90	E
A	$\frac{3}{16}$	0·12	0·33	0·25	0·13	0·38	A	J	$\frac{1}{4}$	0·68	0·94	0·85	0·25	1·04	F
B	$\frac{1}{4}$	0·18	0·44	0·35	0·15	0·47	B	K	$\frac{3}{8}$	0·80	1·08	0·98	0·25	1·12	G
BB	$\frac{5}{16}$	0·24	0·51	0·42	0·17	0·54	BB	L	1	0·93	1·18	1·09	0·30	1·30	H
C	$\frac{3}{8}$	0·24	0·57	0·42	0·19	0·54	C	M	$1\frac{1}{4}$	1·18	1·50	1·38	0·35	1·60	J
D	$\frac{1}{2}$	0·30	0·57	0·48	0·19	0·59	C	N	$1\frac{1}{2}$	1·42	1·75	1·64	0·35	1·85	K
DD	$\frac{5}{8}$	0·36	0·64	0·52	0·21	0·71	CC	P	$1\frac{3}{4}$	1·67	1·99	1·89	0·40	1·95	L
E	$\frac{3}{4}$	0·36	0·71	0·52	0·23	0·71	D	Q	2	1·92	2·22	2·12	0·45	2·10	M
F	$\frac{7}{8}$	0·42	0·71	0·60	0·23	0·78	D								



AGS 216 & 948 PLUGS

AGS 216 Material : BRASS (CADMIUM)

AGS 948 Material : ALUM. ALLOY (ANODISED)

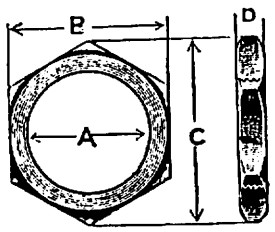
(See also AGS 565 & 566)

ITEM	Z	X	U	R	ITEM	Z	X	U	R
	IN.	IN.	IN.	IN.		IN.	IN.	IN.	IN.
A	⅛ BSP	0·3	0·445	0·60	L	¼ BSP	0·42	1·01	1·18
B	¼ BSP	0·32	0·60	0·75	M	⅜ BSP	0·46	1·2	1·48
C	⅜ BSP	0·34	0·71	0·9	N	1 BSP	0·53	1·3	1·6
D	½ BSP	0·41	0·92	1·08	Q	1¼ BSP	0·55	1·67	1·95
F	¾ BSP	0·43	1·1	1·35	K	1½ BSP	0·59	1·86	2·20

AGS 224 & 957 UNION LOCK NUTS

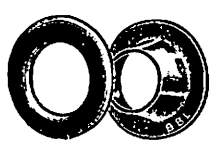
(BRASS CADMIUM) (ALUM. ALLOY ANODISED)

(See AGS 207 for Steel)



ITEM	A	B	C	D
	B.S.P.	IN.	IN.	IN.
A	⅛"	0·525	0·61	0·19
B	¼"	0·60	0·69	0·19
C	⅜"	0·82	0·95	0·22
D	½"	0·92	1·06	0·25
E	¾"	1·1	1·27	0·30

AGS 232 EYELETS AND WASHERS

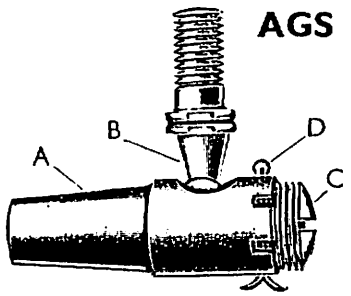


Material : ALUMINIUM SHEET (SELF-FINISH)

OR BRASS (SELF-FINISH)

Washers also supplied in Leather

ITEM	DIAMETER OF HOLE	
C	[illegible]"	Aluminium
D	¼"	Aluminium
E	[illegible]"	Brass
F	¼"	Brass

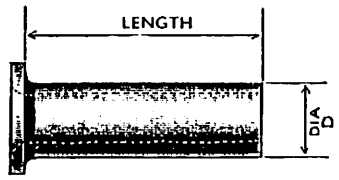


AGS 385 BALL JOINTS

Material : Items A & C MILD STEEL
Item B H.T. STEEL
(CADMIUM)

ITEM	SOCKET A	PLUG C	BALL BOLT B	SPLIT PIN D	COMPLETE JOINT A B C D

Socket A, tapped $\frac{1}{4}$" B.S.F. Ball Bolt B, screwed $\frac{1}{4}$" B.S.F.



AGS 501 TUBULAR RIVETS

MATERIAL		MIN. ULT. TENSILE STRENGTH TONS PER SQ. IN.	FINISH	IDENTIFICATION
AGS 501A	Aluminium	7	Self	Black Film
AGS 501D	Aluminium Alloy (Duralumin)	25	Self	Natural Colour
AGS 501H	Mild Steel	25 / 20	Cadmium	Magnetic Quality
AGS 501J	46 % Nickel Alloy	35	Cadmium	Non-Magnetic
AGS 501K	45% Nickel Alloy	35	Self	Non-Magnetic

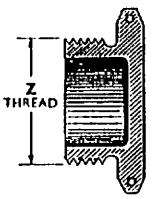
OUTSIDE DIAMETER OF TUBE D	S.W.G.	LENGTHS 0·25"	0·3"	0·375"	0·5"	0·75"	0·875"	1·0"	1·25"	1·5"	2·0"	2·5"	3·0"	3·5"	4·0"	4·5"	5·0"	5·5"
		ITEM NUMBERS																
3/16"	26	1	—	3	5	7	—	9	—	—	—	—	—	—	—	—	—	—
	22	—	22	—	25	27	—	29	—	—	—	—	—	—	—	—	—	—
1/4"	26	41	—	43	45	47	—	49	—	—	—	—	—	—	—	—	—	—
	22	—	—	—	65	67	—	69	70	71	73	74	—	—	—	—	—	—
5/16"	22	—	—	—	105	107	108	109	110	111	113	—	—	—	—	—	—	—
3/8"	22	—	—	123	125	127	128	129	130	131	133	134	—	—	—	—	—	—
	20	—	—	—	145	147	—	149	150	151	153	154	155	—	—	—	—	—
	17	—	—	—	165	167	—	169	170	171	173	174	175	—	—	—	—	—
1/2"	22	—	—	183	185	187	—	189	190	191	193	—	—	—	—	—	—	—
	20	—	—	—	205	207	—	209	210	211	213	214	215	—	—	—	—	—
	17	—	—	—	225	227	—	229	230	231	233	234	235	—	—	—	—	—
5/8"	20	—	—	—	—	247	—	249	250	251	253	254	255	256	—	—	—	—
	17	—	—	—	—	267	—	269	270	271	273	274	275	276	—	—	—	—
3/4"	20	—	—	—	—	287	—	289	290	291	293	294	295	296	297	—	—	—
	17	—	—	—	—	307	—	309	310	311	313	314	315	316	317	—	—	—
1"	17	—	—	—	—	—	—	329	330	331	333	334	335	336	337	338	339	—
	14	—	—	—	—	—	—	349	350	351	353	354	355	356	357	358	359	—
1"	17	—	—	—	—	—	—	—	370	371	373	374	375	376	377	378	379	380
	14	—	—	—	—	—	—	—	390	391	393	394	395	396	397	398	399	400

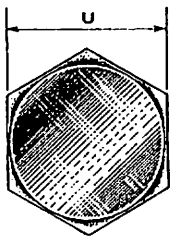
AGS 565 & 566 PLUGS

AGS 565 Material : BRASS
(CADMIUM)

AGS 566 Material : ALUM. ALLOY
(ANODISED)

(See also AGS 216 and AGS 1229)

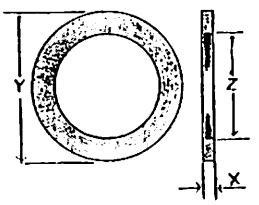




ITEM		A	B	C	D	E	F	G	H	J	K
Z B.S. PIPE		IN. 1/8	IN. 1/4	IN. 3/8	IN. 1/2	IN. 5/8	IN. 3/4	IN. 7/8	IN. 1	IN. 1 1/4	IN. 1 1/2
U	MAXIMUM	0·600	0·820	0·920	1·100	1·200	1·390	1·480	1·670	2·050	2·220
	MINIMUM	0·595	0·815	0·915	1·092	1·192	1·382	1·468	1·658	2·035	2·200
JOINTING WASHERS AGS 1138 or AGS 1139		A	B	C	D	E	F	G	H	J	K

AGS 567 & 568 JOINTING WASHERS

AGS 567 Material :
VULCANISED FIBRE
(SELF)
(See also AGS 164)



AGS 568 Material :
SOFT ALUMINIUM
(ANODISED)

ITEM	A	B	BB	C	CC	D	E	F	G	H	J	K
	AGS 567											
Z	IN. 0·39	IN. 0·52	IN. 0·60	IN. 0·66	IN. 0·75	IN. 0·83	IN. 0·90	IN. 1·04	IN. 1·19	IN. 1·31	IN. 1·65	IN. 1·89
Y	0·60	0·75	0·75	0·90	0·90	1·08	1·18	1·35	1·48	1·60	1·95	2·20
X	0·05	0·05	0·05	0·05	0·07	0·07	0·07	0·07	0·1	0·1	0·1	0·1
	AGS 568											
Z	0·39	0·52	0·60	0·66	0·75	0·83	0·90	1·05	1·19	1·31	1·66	—
Y	0·60	0·75	0·75	0·90	0·90	1·08	1·18	1·35	1·48	1·60	1·85	—
X S.W.G.	18	18	18	18	16	16	16	16	16	14	14	—
X EQUIVALENT SIZE	0·048	0·048	0·048	0·048	0·064	0·064	0·064	0·064	0·064	0·080	0·080	—

AGS 575, 576, 921 & 935 SCREWED RODS

Material :
AGS 575
MILD STEEL
(CADMIUM)

AGS 576
ALUM. ALLOY
(ANODISED)

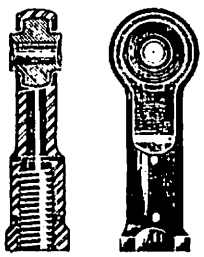
ITEM	Z
A	6 B.A.
B	4 B.A.
C	2 B.A.
D	$\frac{7}{32}$" B.S.F.
E	$\frac{1}{4}$" B.S.F.

Material :
AGS 921
STAINLESS STEEL

AGS 935
H.T. STEEL
(CADMIUM)

AGS 589, 592, 593 ROD END BEARINGS (Internal Thread)

Materials :



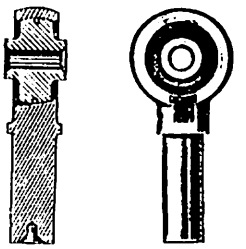
BODIES	Mild Steel (Cadmium)	
BALLS	Mild Steel (Cadmium)	Suffix : S
	Case Hardening Steel (Cadmium)	,, CS
	Phosphor Bronze	,, PB
	Self-lubricating Bronze	,, LB

A $\frac{3}{8}$" BSF Rod End (Long) with a Right-hand Thread and with a Ball in Mild Steel should be ordered : AGS 592R/S

ITEM	DESCRIPTION	COMPRISING
589R	$\frac{3}{8}$" BSF Rod End. Short R.H.	AGS 589/1 & 589/3
589L	$\frac{3}{8}$" BSF Rod End. Short L.H.	AGS 589/2 & 589/3
592R	$\frac{3}{8}$" BSF Rod End. Long R.H.	AGS 592/1 & 589/3
592L	$\frac{3}{8}$" BSF Rod End. Long L.H.	AGS 592/2 & 589/3
593R	$\frac{5}{16}$" BSF Rod End. Short R.H.	AGS 593/1 & 589/3
593L	$\frac{5}{16}$" BSF Rod End. Short L.H.	AGS 593/2 & 589/3

AGS 590 ROD END BEARINGS (Plain Shank)

Material : MILD STEEL (CADMIUM)

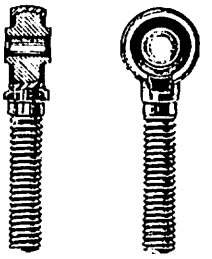


AGS 591 ROD END BEARINGS (External Thread)

Materials:

BODIES	Mild Steel (Cadmium)	
BALLS	Mild Steel (Cadmium)	Suffix : S
	Case Hardening Steel (Cadmium)	,, CS
	Phosphor Bronze	,, PB
	Self-lubricating Bronze	,, LB

A Rod End with a Ball in Mild Steel should be ordered : AGS 591/S.



$\frac{5}{16}$" BSF.

ITEM	No.	DESCRIPTION	QUANTITY
1	AGS 591	Body	1
2	AGS 589/3	Ball	1

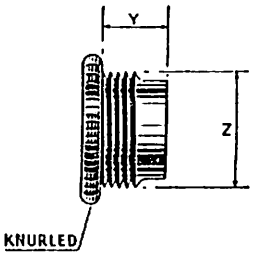
AGS 592, 593 ROD END BEARINGS

See page 69

AGS 595 PROTECTION PLUG

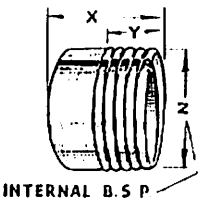
For Brass Transportation Plugs, see AGS 1229

Material : BRASS 30 S.W.G. (ELECTRO-TINNED) OR ALUMINIUM 30 S.W.G. (NATURAL)



ITEM	A	B	BB	C	CC	D	E	F	G	H	J	K	L	M
Z (BSP)	IN. $\frac{1}{8}$	IN. $\frac{1}{4}$	IN. 0·600 Diam. Whit. form	IN. $\frac{3}{8}$	IN. 0·750 Diam. Whit. form	IN. $\frac{1}{2}$	IN. $\frac{5}{8}$	IN. $\frac{3}{4}$	IN. $\frac{7}{8}$	IN. 1	IN. $1\frac{1}{4}$	IN. $1\frac{1}{2}$	IN. $1\frac{3}{4}$	IN. 2
Y	0·29	0·35	0·38	0·39	0·45	0·48	0·51	0·56	0·66	0·72	0·67	0·77	0·65	0·65

AGS 596 PROTECTION CAP



Material : BRASS or ALUMINIUM 30 SWG

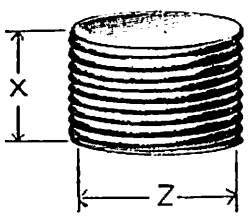
Finishes :
BRASS (ELECTRO-TINNED)
ALUM. (SELF)

ITEM	Z THREAD	X	Y	ITEM	Z THREAD	X	Y
	IN.	IN.	IN.		IN.	IN.	IN.
A	$\frac{1}{4}$	0·58	0·28	F	$\frac{3}{4}$	1·00	0·55
B	$\frac{1}{2}$	0·71	0·45	G	$\frac{7}{8}$	1·00	0·55
BB	0·600	0·75	0·45	H	1	1·00	0·55
C	$\frac{3}{8}$	0·78	0·45	J	$1\frac{1}{4}$	1·00	0·55
CC	0·750	0·83	0·50	K	$1\frac{1}{2}$	1·00	0·55
D	$\frac{1}{2}$	0·88	0·55	M	2	—	—
E	$\frac{5}{8}$	0·88	0·55	P	$2\frac{1}{2}$	—	—

AGS 597 PROTECTION CAP

Material : BRASS OR ALUM. 30 SWG

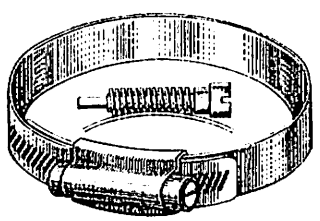
Finishes : BRASS (ELECTRO-TINNED)
ALUM. (SELF)



ITEM	INTERNAL THREAD "Z" BSP		X
	IN.		IN.
A	$\frac{1}{4}$	28 TPI	0·25
B	$\frac{1}{2}$	19 „	0·36
BB	0·600	19 „	0·38
C	$\frac{3}{8}$	19 „	0·38
CC	0·750	14 „	0·44
D	$\frac{1}{2}$	14 „	0·44
E	$\frac{5}{8}$	14 „	0·44
F	$\frac{3}{4}$	14 „	0·48
G	$\frac{7}{8}$	14 „	0·48
H	1	11 „	0·50
J	$1\frac{1}{4}$	11 „	0·50
K	$1\frac{1}{2}$	11 „	0·63

AGS 605 HOSE CLIPS

Superseded by B.S. SP91 and 92
See Equivalents Chart, page 181

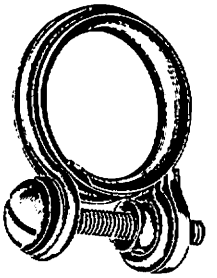


Material : STEEL
(CADMIUM)

ITEM	SUITABLE FOR PIPES O/D		STORES REF. NO.
	MIN.	MAX.	
	IN.	IN.	
00	$\frac{1}{2}$	$\frac{5}{8}$	28E/10154
0	$\frac{5}{8}$	$\frac{7}{8}$	28E/8182
1A	$\frac{7}{8}$		
1	$\frac{7}{8}$	$1\frac{1}{2}$	28E/8183
1X	1	$1\frac{5}{8}$	
2	$1\frac{1}{2}$	2	28E/8184
3	2	$2\frac{3}{4}$	28E/8185
4	$2\frac{3}{4}$	$3\frac{1}{2}$	28E/8186
5	$3\frac{1}{2}$	$4\frac{1}{8}$	28E/8187
6	$4\frac{1}{8}$	5	28E/8188

AGS 606 HOSE CLIPS

Item	Inside Diam.	Item.	Inside Diam.	Item	Inside Diam.
	IN.		IN.		IN.
A	$\frac{5}{16}$	F	$\frac{5}{8}$	J	$\frac{7}{8}$
B	$\frac{3}{8}$	G	$\frac{11}{16}$	K	$1\frac{5}{16}$
C	$\frac{7}{16}$	H	$\frac{3}{4}$	L	1
D	$\frac{1}{2}$	I	$1\frac{3}{16}$	T	$1\frac{1}{2}$
E	$\frac{9}{16}$			V	$1\frac{3}{4}$



All Steel Parts
Cadmium coated

AGS 607 FILLER CAP

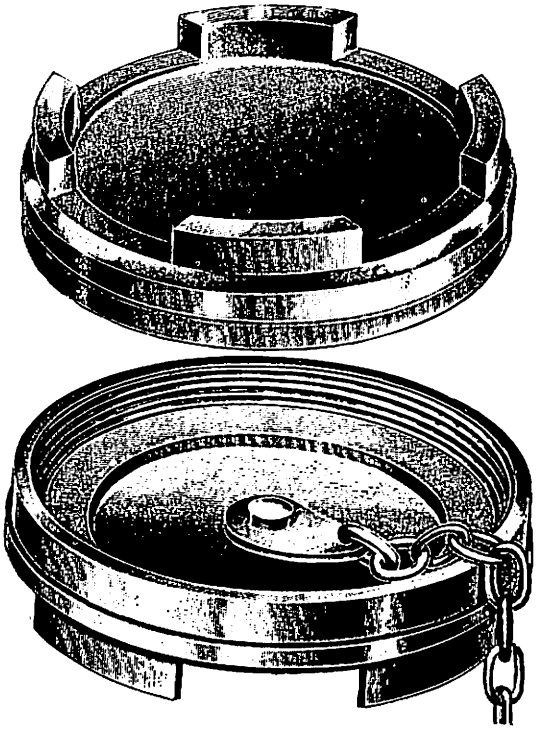
Material : BRASS, GUN-METAL or ALUM. ALLOY

Finishes : BRASS & GUN-METAL
(Cadmium)

ALUM. ALLOY
(Anodised)

Part No.	Description
607A B C D	Filler Cap complete with Safety Chain and Plate and Leather Washer
607A	Cap only
607B	Washer
607C	Plate
607D	Chain

Note—Cap is screwed 2·625″ dia. × 16 T.P.I. to fit Standard Seatings AGS 608 and 609

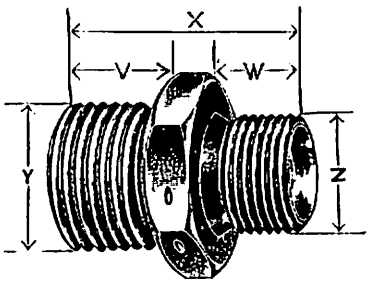


Brown Brothers Engineering Ltd

REDUCING UNION BODIES

AGS 626
(BRASS)
(CADMIUM)

AGS 950
(MILD STEEL)
(CADMIUM)



Item	Thread Z	Thread Y	Length X	Length W	Length V	Hex. A/F Max.
	B.S.P.	B.S.P.	in.	in.	in.	in.
A	$\frac{1}{8}$"	$\frac{1}{4}$"	1·12	0·45	0·45	0·71
B	$\frac{1}{4}$"	$\frac{3}{8}$"	1·17	0·45	0·50	0·82
BB	$\frac{1}{4}$"	·6" o/d 19 tpi	1·19	0·45	0·52	0·82
C	$\frac{3}{8}$"	$\frac{1}{2}$"	1·35	0·50	0·60	1·01
CC	$\frac{3}{8}$"	·75" o/d 14 tpi	1·30	0·50	0·55	0·92
D	$\frac{1}{2}$"	$\frac{3}{8}$"	1·58	0·60	0·70	1·10
E	$\frac{3}{8}$"	$\frac{3}{4}$"	1·76	0·70	0·75	1·20
F	$\frac{3}{4}$"	$\frac{7}{8}$"	1·90	0·75	0·80	1·39
G	$\frac{7}{8}$"	1"	1·95	0·80	0·80	1·48
H	1"	1$\frac{1}{4}$"	1·95	0·80	0·80	1·86
J	1$\frac{1}{4}$"	1$\frac{1}{4}$"	2·10	0·80	0·85	2·22

These unions have 60° conical seats to suit standard nipples AGS 209, and AGS 1102

Pipe line fittings and special parts in mild steel, H.T.S., S.S., brass, aluminium and light alloys made to constructors' requirements. Quotations on receipt of requirements.

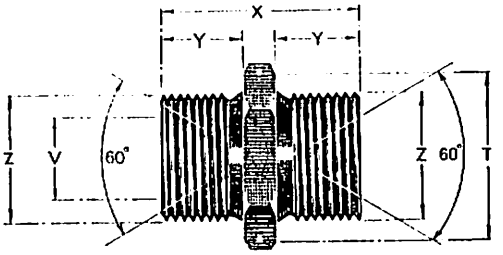
Brown Brothers Engineering Ltd

DOUBLE ENDED UNION BODIES

AGS 627
(BRASS)
(CADMIUM)

AGS 949
(MILD STEEL)
(CADMIUM)

AGS 627 replaced by AGS 949, or AGS 1103

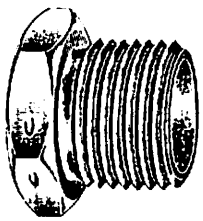


Item	Threads Z	Length Y	Length X	Bore V	Hex. a/f T
	B.S.P.	in.	in.	in.	in.
A	1/8"	0·45	1·12	0·187	0·525 0·520
B	1/4"	0·45	1·12	0·281	0·710 0·705
BB	·6" o/d × 19 tpi	0·52	1·26	0·359	0·820 0·815
C	3/8"	0·50	1·22	0·406	0·820 0·815
CC	·75" o/d × 14 tpi	0·55	1·34	0·468	0·920 0·915
D	1/2"	0·60	1·45	0·531	1·010 1·002
E	5/8"	0·70	1·68	0·625	1·100 1·092
F	3/4"	0·75	1·81	0·75	1·200 1·192
G	7/8"	0·80	1·95	0·875	1·390 1·382
H	1"	0·80	1·95	0·968	1·480 1·468
J	1 1/4"	0·80	1·95	1·25	1·860 1·845
K	1 1/2"	0·85	2·15	1·468	2·220 2·200
L	1 3/4"	0·950	2·35	1·687	2·410 2·390
M	2"	1·000	2·50	1·875	2·760 2·735

Brown Brothers Engineering Ltd

AGS 628 REDUCING PLUGS

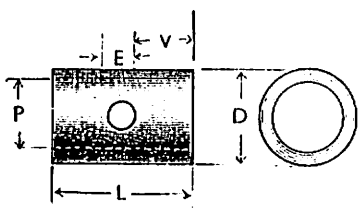
Material: BRASS (CADMIUM)



ITEM	SCREWED OUTSIDE	SCREWED INSIDE	LENGTH	HEXAGON A/FLATS
			IN.	IN.
B	½" B.S.P.	¼" B.S.P.	0·85	1·002 1·010
C	⅝" B.S.P.	¼" B.S.P.	0·98	1·092 1·100

AGS 674 & 899 COLLARS

(ALUM. ALLOY ANODISED) (MILD STEEL CADMIUM)



ITEM	P	D	L.	V	E	ITEM	P	D	L.	V	E
	IN.	IN.	IN.	IN.	IN.		IN.	IN.	IN.	IN.	IN.
1	$\frac{5}{32}$	$\frac{9}{32}$	0·27	0·1	0·07	13	$\frac{17}{32}$	$\frac{11}{16}$	0·34	0·1	0·136
2	$\frac{3}{16}$	$\frac{5}{16}$	0·27	0·1	0·07	14	$\frac{9}{16}$	$\frac{23}{32}$	0·37	0·1	0·166
3	$\frac{7}{32}$	$\frac{11}{32}$	0·27	0·1	0·07	15	$\frac{5}{8}$	$\frac{13}{16}$	0·37	0·1	0·166
4	$\frac{1}{4}$	$\frac{3}{8}$	0·27	0·1	0·07	16	$\frac{21}{32}$	$\frac{27}{32}$	0·37	0·1	0·166
5	$\frac{9}{32}$	$\frac{13}{32}$	0·31	0·1	0·104	17	$\frac{11}{16}$	$\frac{7}{8}$	0·37	0·1	0·166
6	$\frac{5}{16}$	$\frac{7}{16}$	0·31	0·1	0·104	18	$\frac{3}{4}$	$\frac{15}{16}$	0·37	0·1	0·166
7	$\frac{11}{32}$	$\frac{1}{2}$	0·31	0·1	0·104	19	$\frac{13}{16}$	1	0·6	0·2	0·199
8	$\frac{3}{8}$	$\frac{17}{32}$	0·31	0·1	0·104	20	$\frac{7}{8}$	$1\frac{3}{16}$	0·6	0·2	0·199
9	$\frac{13}{32}$	$\frac{9}{16}$	0·34	0·1	0·136	21	$\frac{15}{16}$	$1\frac{1}{8}$	0·6	0·2	0·199
10	$\frac{7}{16}$	$\frac{19}{32}$	0·34	0·1	0·136	22	1	$1\frac{5}{16}$	0·6	0·2	0·199
11	$\frac{15}{32}$	$\frac{5}{8}$	0·34	0·1	0·136	23	$1\frac{1}{16}$	$1\frac{1}{4}$	0·67	0·2	0·261
12	$\frac{1}{2}$	$\frac{21}{32}$	0·34	0·1	0·136	—	—	—	—	—	—

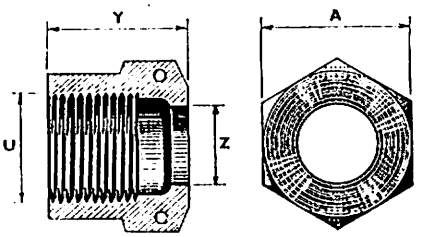
Brown Brothers Engineering Ltd

AGS 711, 904 & 954 OUTER SLEEVES

(BRASS CADMIUM) (ALUM. ALLOY ANODISED) (MILD STEEL CADMIUM)

(AGS 711 replaced by AGS 904 or 954)

AGS 904 Item B cancelled. Replaced by AGS 2111



ITEMS A–H MANUFACTURED FROM HEXAGON BAR
ITEMS J P MANUFACTURED FROM ROUND BAR

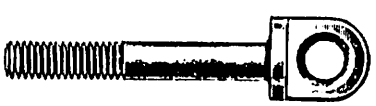
Item	O/D of Pipe	U Thread	AGS 711 & AGS 904 A Across Flats		AGS 954 A Across Flats		Y	Z Diam.
			Min.	Max.	Min.	Max.		
A	$\frac{3}{16}$"	$\frac{1}{8}$" BSP	In. 0·520	In. 0·525	In. 0·520	In. 0·525	In. 0·63	$\frac{7}{32}$"
B	$\frac{1}{4}$"	$\frac{1}{4}$" BSP	0·595	0·600	0·595	0·600	0·75	$\frac{9}{32}$"
BB	$\frac{5}{16}$"	0·600 × 19TPI	0·705	0·710	0·705	0·710	0·80	$\frac{11}{32}$"
C	$\frac{3}{8}$"	$\frac{3}{8}$" BSP	0·815	0·820	0·815	0·820	0·83	$\frac{13}{32}$"
CC	$\frac{7}{16}$"	0·75 × 14 TPI	0·915	0·920	0·915	0·920	0·85	$\frac{15}{32}$"
D	$\frac{1}{2}$"	$\frac{1}{2}$" BSP	1·002	1·010	1·002	1·010	0·87	$\frac{17}{32}$"
E	$\frac{5}{8}$"	$\frac{5}{8}$" BSP	1·092	1·100	1·092	1·100	1·01	$\frac{21}{32}$"
F	$\frac{3}{4}$"	$\frac{3}{4}$" BSP	1·192	1·200	1·192	1·200	1·06	$\frac{25}{32}$"
G	$\frac{7}{8}$"	$\frac{7}{8}$" BSP	1·382	1·390	1·292	1·300	1·10	$\frac{29}{32}$"
H	1"	1" BSP	1·658	1·670	1·468	1·480	1·06	$1\frac{1}{32}$"
			Dia.		Dia.			
J	$1\frac{1}{4}$"	$1\frac{1}{4}$" BSP	2·140	2·160	1·95	1·97	1·06	$1\frac{9}{32}$"
K	$1\frac{1}{2}$"	$1\frac{1}{2}$" BSP	2·140	2·160	2·14	2·16	1·3	$1\frac{17}{32}$"
M	2"	2" BSP	2·940	2·960	—	—	1·64	$2\frac{1}{32}$"
P	$2\frac{1}{2}$"	$2\frac{1}{2}$" BSP	3·580	3·600	—	—	1·86	$2\frac{17}{32}$"

AGS 771 & 796 to 806 EYEBOLTS

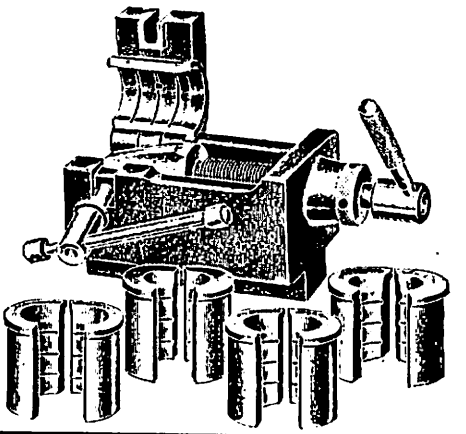
Material : MILD STEEL

(Cadmium)

Details and Prices on Application



AGS 772 & 773 PIPE EXPANDING TOOLS



AGS 772 for pipe sizes $\frac{3}{16}$" to $\frac{1}{2}$"
AGS 773 for pipe sizes $\frac{5}{8}$" to $1\frac{1}{4}$"

Details and Prices on Application

AGS 784 NON-CORRODIBLE SPLIT PINS

Replaced by SP90

See equivalent chart page 182

Material: NON-CORRODIBLE WIRE

AGS 787 SPRING CATCH

Material: BRASS and PHOSPHOR BRONZE (CADMIUM)

Replaced by SP59 (right-hand) and SP 60 (left-hand)

AGS 796 to 806 EYEBOLTS

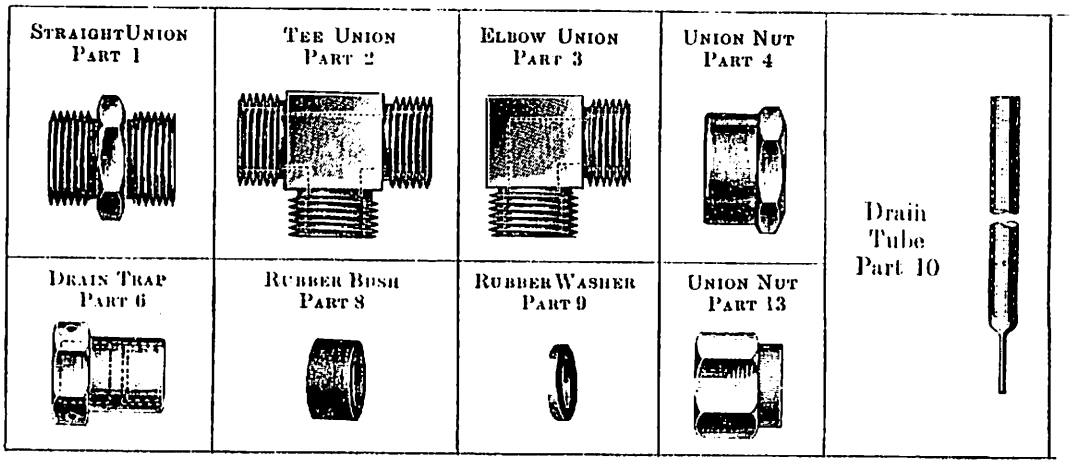
(See AGS 771, page 76)

AGS 838 LOW PRESSURE UNION ASSEMBLIES

For $\frac{5}{16}$" Tubing. All threads $\frac{1}{2}$" × 26 TPI Whitform

ALUM. ALLOY ANODISED RUBBER BUSH & WASHER

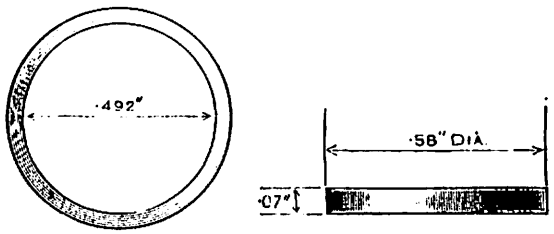
STRAIGHT UNION	TEE UNION	ELBOW UNION	STRAIGHT OR ELBOW UNION WITH DRAIN TUBE	STRAIGHT OR ELBOW UNION WITH DRAIN TRAP
1 Off Part 1	1 Off Part 2	1 Off Part 3	1 Off Part 2	1 Off Part 2
2 Off Part 13	3 Off Part 13	2 Off Part 13	3 Off Part 4	1 Off Part 6
			3 Off Part 8	1 Off Part 9
			1 Off Part 10	2 Off Part 13



Part 4, Part 8 and Part 10 are obsolescent

AGS 839 THERMOMETER WASHERS

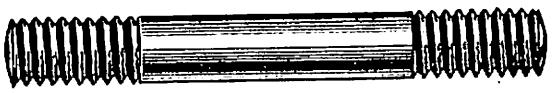
Material : COPPER
(CADMIUM)



AGS 883 to 887 STUDS

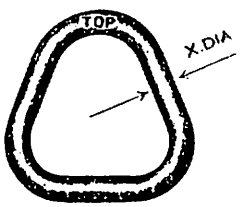
Material : MILD STEEL
(CADMIUM)

Details and Prices on Application

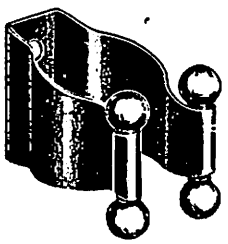


AGS 890 LIFTING RING

Materials : STEEL DROP FORGING (CADMIUM)
or STAINLESS STEEL



ITEM	'X' DIAMETER MAX.	'X' DIAMETER MIN.	ULTIMATE LOAD (VERTICAL)	PROOF LOAD (VERTICAL)	FOR LOADS UP TO
	IN.	IN.	TONS	TONS	LB.
A	0·430	0·400	9	4·5	5000
B	0·530	0·500	16	8	9000



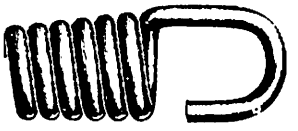
AGS 895 CLIP FOR SPEAKING TUBES

Material : CLIP—SPRING STEEL. ROLLER—MILD STEEL

(Phosphate treatment followed by Stove Enamel)

AGS 897 HOOK FERRULES FOR ELASTIC CORD

Material: H.T. STEEL WIRE (CADMIUM)
Replaced by BS. 2SP73 and 2SP74



AGS 899 COLLARS

Material: MILD STEEL (CADMIUM)

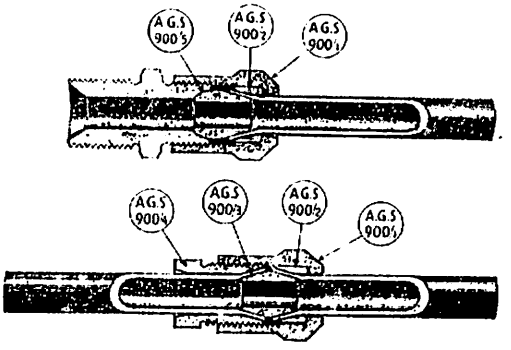
See AGS 674

AGS 900 METAL COUPLINGS (Light Type)
(ALUM. ALLOY)

For use with $\frac{5}{16}$ O/D × 20 S.W.G. Tube

Material: ALUM. ALLOY

These Couplings are similar to AGS 1101, but of lighter construction, for use on Automatic Controls only.



PART	
Outer Sleeves	Part 1
Pipe Collars	Part 2
Nipples	Part 3
Inner Sleeves	Part 4
Adaptor Nipples	Part 5

For PIPE TO PIPE Joints use Parts 1, 2, 3 and 4.

For PIPE TO UNION or similar Fitting use Parts 1, 2 and 5.

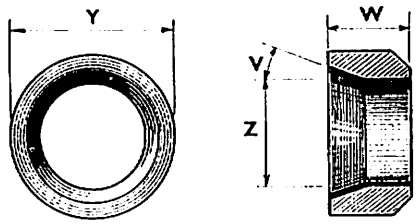
Note.—Sleeves, Parts 1 and 4, are screwed $\frac{1}{4}$" B.S.P.

PIPE COLLARS

AGS 902 & 952

(ALUM. ALLOY ANODISED) (STEEL CADMIUM)

AGS 902 replaced by AGS 952



Item	O/D of Pipe	Z Diam. Bore	Y	W	V
			IN.	IN.	
A	$\frac{3}{16}$"	$\frac{13}{64}$"	0·325	0·155	13½°
B	$\frac{1}{4}$"	$\frac{17}{64}$"	0·44	0·25	13½°
BB	$\frac{5}{16}$"	$\frac{21}{64}$"	0·523	0·25	13½°
C	$\frac{3}{8}$"	$\frac{25}{64}$"	0·575	0·25	13½°
CC	$\frac{7}{16}$"	$\frac{29}{64}$"	0·65	0·25	13½°
D	$\frac{1}{2}$"	$\frac{33}{64}$"	0·72	0·25	13½°
E	$\frac{5}{8}$"	$\frac{41}{64}$"	0·795	0·25	14°
F	$\frac{3}{4}$"	$\frac{49}{64}$"	0·935	0·25	14°
G	$\frac{7}{8}$"	$\frac{57}{64}$"	1·085	0·25	14°
H	1"	$1\frac{1}{64}$"	1·175	0·25	14°
J	$1\frac{1}{4}$"	$1\frac{17}{64}$"	1·52	0·30	14°
K	$1\frac{1}{2}$"	$1\frac{33}{64}$"	1·75	0·35	14½°
M	2"	$2\frac{1}{32}$"	2·22	0·38	15°
P	$2\frac{1}{2}$"	$2\frac{17}{32}$"	2·83	0·50	15°

AGS 904 OUTER SLEEVES

See AGS 711

AGS 904 Item B cancelled. Replaced by AGS 2111

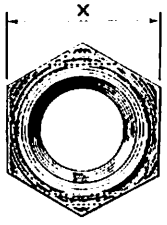
Working Pressure: 3000 lb/sq. in. up to ½" B.S.P.F. 500 lb/sq. in. up to 1" B.S.P.F.
200 lb/sq. in. 1¼"-2" B.S.P.F. 100 lb/sq. in. up to 2½" B.S.P.F.

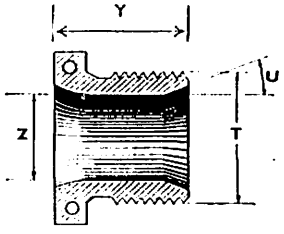
AGS 905 & 955 INNER SLEEVES

(ALUM. ALLOY ANODISED) (STEEL CADMIUM)

AGS 905 items A–G replaced by AGS 1218

AGS 905 Working Pressure:
500 lb/sq. in. up to 1" B.S.P.F.
200 lb sq. in. 1¼"-2" B.S.P.F.
100 lb sq. in up to 2½" B.S.P.F.





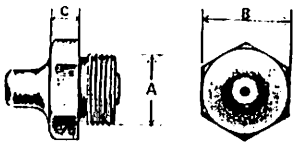
ITEMS A–H FROM HEXAGON BAR ITEMS J–P FROM ROUND BAR

Item	O/D of Pipe	T Thread	X Across Flats Min.	X Across Flats Max.	Y	Z	U
			In.	In.	In.		
A	3/16"	1/8" BSP	0·440	0·445	0·63	13/64"	13½°
B	1/4"	1/4" BSP	0·520	0·525	0·69	17/64"	13½°
BB	5/16"	0·600 × 19 TPI	0·595	0·600	0·75	21/64"	13½°
C	3/8"	3/8" BSP	0·705	0·710	0·77	25/64"	13½°
CC	7/16"	0·75 × 14 TPI	0·815	0·820	0·81	29/64"	13½°
D	1/2"	1/2" BSP	0·915	0·920	0·83	33/64"	13½°
E	5/8"	5/8" BSP	1·002	1·010	0·89	41/64"	14°
F	3/4"	3/4" BSP	1·092	1·100	0·94	49/64"	14°
G	7/8"	7/8" BSP	1·292	1·300	0·98	57/64"	14°
H	1"	1" BSP	1·382	1·390	0·98	1 1/64"	14°
			Dia.				
J	1¼"	1¼" BSP	1·95	1·97	1·00	1 17/64"	14°
K	1½"	1½" BSP	2·14	2·16	1·15	1 33/64"	14½°
M	2"	2" BSP	2·94	2·96	1·39	2 1/32"	15°
P	2½"	2½" BSP	3·58	3·60	1·49	2 17/32"	15°

AGS 910 LUBRICATION NIPPLE

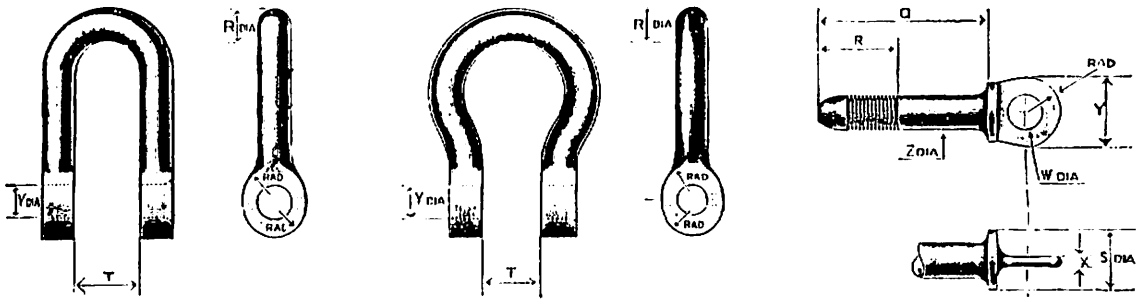
Material : STAINLESS STEEL or MILD STEEL (Cadmium)

A	B	C
1/8" B.S.P.	0·441" 0·445"	0·15"
1/4" B.S.F.	0·278" 0·282"	0·10"



Brown Brothers Engineering Ltd

CHAIN SHACKLES AND PINS



AGS 911 CHAIN SHACKLES FOR ANCHOR CABLES

Complete assembly

AGS 912 SHACKLES ("U" SHAPE)

Material : STEEL (CADMIUM)

ITEM	NOMINAL SIZE OF SHACKLE	Y	T	R	PROOF LOAD	CHAIN FOR WHICH SUITABLE
					LB.	
C	¾"	¾ BSF	0·72"	0·36"	2,100	¾"
D	7/8"	7/8" BSF	0·84"	0·42"	2,860	7/8"
E	1"	1" BSF	1·00"	0·48"	3,730	1"
F	1¼"	1¼" BSF	1·20"	0·60"	5,830	1¼"
G	1½"	1½" BSF	1·50"	0·72"	8,400	1½"

AGS 914 SHACKLES (HARP SHAPE)

Material : STEEL (CADMIUM)

ITEM	NOMINAL SIZE OF SHACKLE	Y	T	R	PROOF LOAD	CHAIN FOR WHICH SUITABLE
					LB.	
C	¾"	¾" BSF	0·72"	0·36"	2,100	¾"
D	7/8"	7/8" BSF	0·84"	0·42"	2,860	7/8"
E	1"	1" BSF	1·00"	0·48"	3,730	1"
F	1¼"	1¼" BSF	1·20"	0·60"	5,830	1¼"
G	1½"	1½" BSF	1·50"	0·72"	8,400	1½"

AGS 916 SHACKLE PINS

Material : STEEL (CADMIUM)

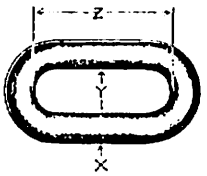
ITEM	NOMINAL SIZE OF PIN	Z DIA. & THREAD	Y	X	W	S	R	Q	PROOF LOAD	CHAIN FOR WHICH SUITABLE
									LB.	
C	¾"	¾" BSF	0·78"	0·12"	¾"	0·66"	0·90"	1·92"	2,100	¾"
D	7/8"	7/8" BSF	0·91"	0·14"	7/8"	0·77"	1·05"	2·24"	2,860	7/8"
E	1"	1" BSF	1·04"	0·16"	1"	0·88"	1·20"	2·60"	3,730	1"
F	1¼"	1¼" BSF	1·30"	0·20"	1¼"	1·10"	1·50"	3·20"	5,830	1¼"
G	1½"	1½" BSF	1·56"	0·24"	1½"	1·32"	1·80"	3·90"	8,400	1½"

Brown Brothers Engineering Ltd

AGS 918 END LINK FOR CHAIN SHACKLE

Material : STEEL (CADMIUM)

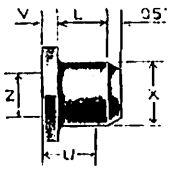
ITEM	NOMINAL SIZE OF CHAIN	Z	Y	X	PROOF LOAD FOR W.I. CHAIN	SIZE OF SUITABLE SHACKLE FOR W.I. CHAIN
	IN.	IN.	IN.	IN.	LBS.	IN.
C	$\frac{1}{4}$	1·44	0·48	0·32	1,680	$\frac{3}{8}$
D	$\frac{5}{16}$	1·80	0·60	0·40	2,625	$\frac{7}{16}$
E	$\frac{3}{8}$	2·16	0·72	0·48	3,780	$\frac{1}{2}$
F	$\frac{7}{16}$	2·52	0·84	0·56	5,145	$\frac{5}{8}$
G	$\frac{1}{2}$	2·88	0·96	0·64	6,720	$\frac{3}{4}$



AGS 920 & 934 FERRULES

AGS 920 Material : STAINLESS STEEL

AGS 934 Material : H.T. STEEL (CADMIUM)



SIZE X NOMINAL	SIZE X LIMITS	ITEM	L	Z	W	V	U
IN.	IN.		IN.		IN.	IN.	IN.
$\frac{3}{16}$	0·1855 0·1865	CL CM CS	0·35 0·25 0·15	6 BA	0·245 0·248	0·05	0·15
$\frac{7}{32}$	0·2167 0·2177	DL DM DS	0·40 0·30 0·20	4 BA	0·321 0·324	0·07	0·20
$\frac{1}{4}$	0·2480 0·2490	EL EM ES	0·45 0·35 0·20	4 BA	0·321 0·324	0·07	0·20
$\frac{9}{32}$	0·2792 0·2802	FL FM FS	0·50 0·40 0·25	2 BA	0·410 0·413	0·07	0·25
$\frac{5}{16}$	0·3105 0·3115	GL GM GS	0·55 0·40 0·25	2 BA	0·440 0·445	0·07	0·25
$\frac{3}{8}$	0·3730 0·3740	JL JM JS	0·65 0·50 0·30	$\frac{7}{32}$" BSF	0·520 0·525	0·07	0·28
$\frac{7}{16}$	0·4355 0·4365	LL LM LS	0·80 0·60 0·35	$\frac{7}{32}$" BSF	0·595 0·600	0·08	0·28
$\frac{1}{2}$	0·4980 0·4990	NL NM NS	0·90 0·65 0·40	$\frac{1}{4}$" BSF	0·595 0·600	0·08	0·30

AGS 921 & 935 SCREWED RODS

(See Page 69)

AGS 948 PLUGS

(See page 66)

AGS 949 & 950 UNION BODIES

(See AGS 627 & 626)

AGS 950 Working Pressure:
3000 lb/sq. in. up to ¼" B.S.P.F.
500 lb/sq in. ⅜"-½" B.S.P.F.
200 lb/sq. in. 1" & 1¼" B.S.P.F.

AGS 952 PIPE COLLARS

(See AGS 902)

AGS 954 & 955 OUTER & INNER SLEEVES

(See AGS 711 and AGS 905)

AGS 954 & 955 Working Pressure:
3000 lb/sq. in. up to ¼" B.S.P.F.
500 lb/sq. in ⅜"-1" B.S.P.F.
200 lb/sq. in. 1¼" & 1½" B.S.P.F.

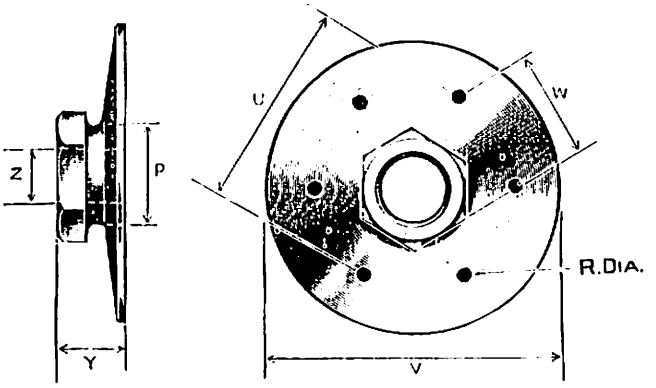
AGS 957 LOCK NUTS (ALUM. ALLOY)

(See AGS 221)

AGS 958

(ALUM. ALLOY)
(ANODISED)

FEMALE FLANGES



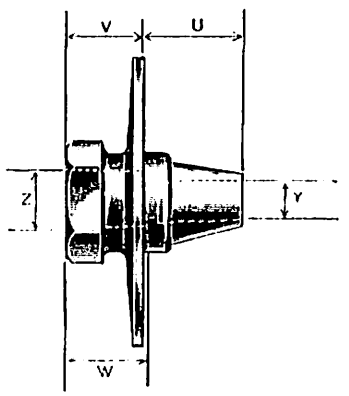
ITEM	Z BSP	DEPTH Y	HEX. A/F W	FLANGE DIAM. V	PITCH CIRCLE DIAM. U	DIAM. P	DIAM. R
		IN.	IN.	IN.	IN.	IN.	IN.
A	¼"	0·32	0·525	1·42	1·025	0·50	5/16
B	⅜"	0·35	0·710	1·50	1·10	0·595	3/8
C	½"	0·45	0·820	1·70	1·30	0·71	7/16
D	¾"	0·55	1·010	1·90	1·50	0·99	5/8
E	1"	0·65	1·100	2·0	1·60	1·06	11/16
F	1¼"	0·65	1·200	2·10	1·70	1·18	3/4
G	1½"	0·67	1·390	2·25	1·85	1·31	13/16
H	1"	0·70	1·480	2·35	1·95	1·46	15/16
J	1¼"	0·80	1·860	2·75	2·35	1·80	1 1/8

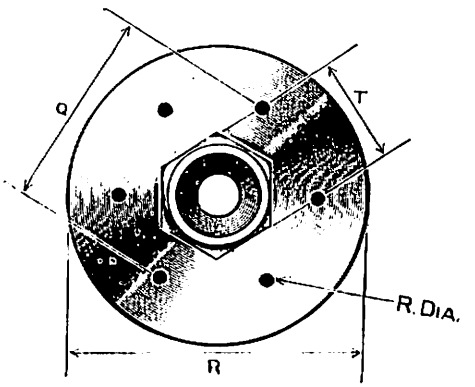
Brown Brothers Engineering Ltd

AGS 959

(ALUM. ALLOY) ANODISED

SPECIAL FEMALE FLANGES



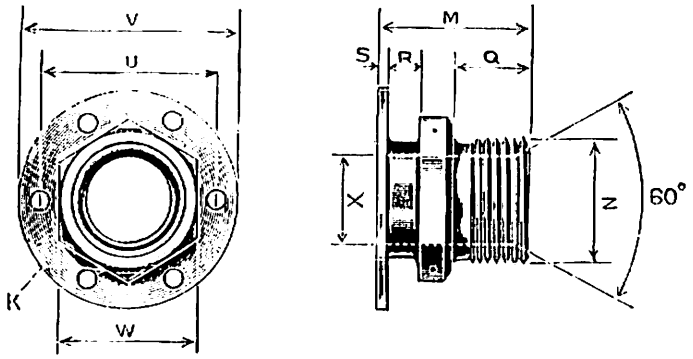


ITEM	THREADS Z	DEPTH U	DEPTH V	DEPTH W	HEXAGON A/FLATS T	P.C.D. Q	FLANGE R	BORE Y	DIAM. R
		IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
B	$\frac{1}{4}$" BSP	0·50	0·35	0·40	0·705/0·71	1·10	1·50	0·25	$\frac{7}{64}$
C	$\frac{3}{8}$" BSP	0·52	0·45	0·50	0·815/0·820	1·30	1·70	0·375	$\frac{7}{64}$
D	$\frac{1}{2}$" BSP	0·65	0·55	0·62	1·002/1·010	1·50	1·90	0·50	$\frac{7}{64}$
E	$\frac{5}{8}$" BSP	0·79	0·65	0·72	1·092/1·10	1·60	2·0	0·625	$\frac{7}{64}$
F	$\frac{3}{4}$" BSP	0·95	0·65	0·75	1·192/1·20	1·70	2·10	0·75	$\frac{7}{64}$
G	$\frac{7}{8}$" BSP	1·07	0·67	0·77	1·382/1·39	1·85	2·25	0·875	$\frac{7}{64}$
H	1" BSP	1·20	0·70	0·80	1·468/1·48	1·95	2·35	1·0	$\frac{7}{64}$
J	1$\frac{1}{4}$" BSP	1·45	0·80	0·90	1·845/1·86	2·35	2·75	1·25	$\frac{7}{64}$

AGS 977, 978 & 979

(ALUM. ALLOY ANODISED) (STEEL CADMIUM) (BRASS CADMIUM)

MALE FLANGES (BOLTED)

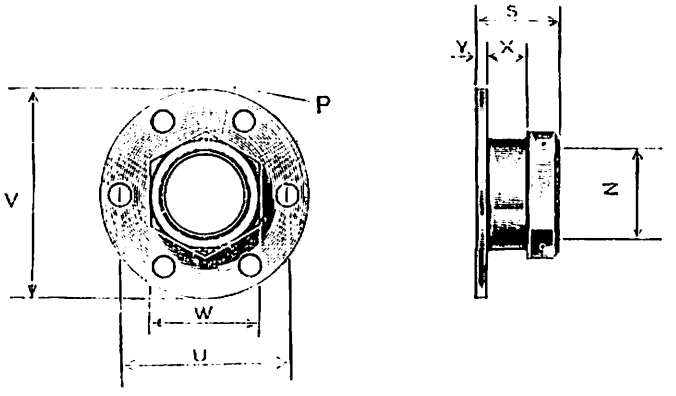


ITEM	Z B.S.P. Thread	X Bore	W Min.	W Max.	V	U	M	S	R	Q	K Dia. Drill
	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
A	$\frac{1}{4}$	$\frac{3}{16}$	0·520	0·525	1·42	1·025	1·03	0·080	0·35	0·45	$\frac{1}{16}$
B	$\frac{3}{8}$	$\frac{1}{4}$	0·705	0·710	1·50	1·10	1·06	0·080	0·35	0·45	$\frac{1}{16}$
BB	0·60 O/D 19 T.P.I.	$\frac{5}{16}$	0·760	0·765	1·60	1·20	1·15	0·080	0·35	0·52	$\frac{1}{16}$
C	$\frac{3}{8}$	$\frac{3}{8}$	0·815	0·820	1·70	1·30	1·20	0·080	0·35	0·55	$\frac{1}{16}$
CC	0·75 O/D 14 T.P.I.	$\frac{7}{16}$	0·915	0·920	1·80	1·40	1·22	0·080	0·35	0·55	$\frac{1}{16}$
D	$\frac{1}{2}$	$\frac{1}{2}$	1·002	1·010	1·90	1·50	1·28	0·080	0·35	0·60	$\frac{1}{16}$
E	$\frac{1}{2}$	$\frac{9}{16}$	1·092	1·100	2·00	1·60	1·41	0·080	0·35	0·70	$\frac{1}{16}$
F	$\frac{3}{4}$	$\frac{11}{16}$	1·192	1·200	2·10	1·70	1·19	0·080	0·35	0·75	$\frac{1}{16}$
G	$\frac{3}{4}$	$\frac{13}{16}$	1·382	1·390	2·25	1·85	1·56	0·080	0·35	0·80	No. 48
H	1	$\frac{15}{16}$	1·468	1·480	2·35	1·95	1·58	0·080	0·35	0·80	No. 48
J	$1\frac{1}{4}$	$1\frac{3}{16}$	1·845	1·860	2·75	2·35	1·61	0·080	0·35	0·80	No. 48
K	$1\frac{1}{2}$	$1\frac{7}{16}$	2·200	2·220	3·15	2·70	1·68	0·080	0·35	0·85	No. 48

AGS 980, 981 & 982

(ALUM. ALLOY ANODISED) (MILD STEEL CADMIUM) (BRASS CADMIUM)

FEMALE FLANGES (BOLTED)



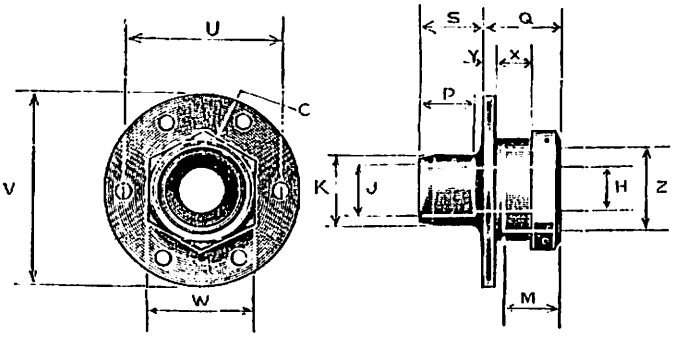
ITEM	Z	W		V	U	S	P	Y	X
	B.S.P. Thread	Min.	Max.				Dia. Drill		
A	IN. $\frac{1}{8}$	IN. 0·520	IN. 0·525	IN. 1·42	IN. 1·025	IN. 0·60	IN. $\frac{1}{16}$	IN. 0·080	IN. 0·35
B	$\frac{1}{4}$	0·705	0·710	1·50	1·10	0·60	$\frac{1}{16}$	0·080	0·35
BB	19 T.P.I. Whit. Form 0·60 O/D	0·760	0·765	1·60	1·20	0·67	$\frac{1}{16}$	0·080	0·35
C	$\frac{3}{8}$	0·815	0·820	1·70	1·30	0·67	$\frac{1}{16}$	0·080	0·35
CC	14 T.P.I. Whit. Form 0·75 O/D	0·915	0·920	1·80	1·40	0·70	$\frac{1}{16}$	0·080	0·35
D	$\frac{1}{2}$	1·002	1·010	1·90	1·50	0·75	$\frac{1}{16}$	0·080	0·40
E	$\frac{5}{8}$	1·092	1·100	2·00	1·60	0·85	$\frac{1}{16}$	0·080	0·45
F	$\frac{3}{4}$	1·192	1·200	2·10	1·70	0·90	$\frac{1}{16}$	0·080	0·50
G	$\frac{7}{8}$	1·382	1·390	2·25	1·85	0·95	No. 48	0·080	0·50
H	1	1·468	1·480	2·35	1·95	0·95	No. 48	0·080	0·50
J	$1\frac{1}{4}$	1·845	1·860	2·75	2·35	0·95	No. 48	0·080	0·50
K	$1\frac{1}{2}$	2·200	2·220	3·15	2·70	1·00	No. 48	0·080	0·50

AGS 986, 987 & 988

(ALUM. ALLOY ANODISED) (MILD STEEL CADMIUM) (BRASS CADMIUM)

FEMALE FLANGES (BOLTED)

WITH SPIGOT



ITEM	Z	W		V	U	S	Q	K	J	H	C	M	P	Y	X
	B.S.P. Thread	Min.	Max.							Dia. Drill	Dia. Drill				
A	IN. $\frac{1}{8}$	IN. 0·520	IN. 0·525	IN. 1·42	IN. 1·025	IN. 0·50	IN. 0·60	IN. 0·34	IN 0·187	IN. $\frac{1}{8}$	IN. $\frac{1}{16}$	IN. 0·47	IN. 0·40	IN. 0·08	IN. 0·35
B	$\frac{1}{4}$	0·705	0·710	1·50	1·10	0·50	0·60	0·40	0·250	$\frac{9}{64}$	$\frac{1}{16}$	0·47	0·40	0·08	0·35
BB	19 T.P.I. Whit. Form 0·60 O/D	0·760	0·765	1·60	1·20	0·50	0·67	0·47	0·312	$\frac{1}{4}$	$\frac{1}{16}$	0·54	0·40	0·08	0·35
C	$\frac{3}{8}$	0·815	0·820	1·70	1·30	0·52	0·67	0·53	0·375	$\frac{5}{16}$	$\frac{1}{16}$	0·54	0·42	0·08	0·35
CC	14 T.P.I. Whit. Form 0·75 O/D	0·915	0·920	1·80	1·40	0·58	0·70	0·59	0·437	$\frac{7}{16}$	$\frac{1}{16}$	0·57	0·46	0·08	0·35
D	$\frac{1}{2}$	1·002	1·010	1·90	1·50	0·65	0·75	0·66	0·500	$\frac{1}{2}$	$\frac{1}{16}$	0·62	0·53	0·08	0·40
E	$\frac{5}{8}$	1·092	1·100	2·00	1·60	0·79	0·85	0·78	0·625	$\frac{9}{16}$	$\frac{1}{16}$	0·72	0·67	0·08	0·45
F	$\frac{3}{4}$	1·192	1·200	2·10	1·70	0·95	0·90	0·90	0·750	$\frac{11}{16}$	$\frac{1}{16}$	0·77	0·80	0·08	0·50
G	$\frac{7}{8}$	1·382	1·390	2·25	1·85	1·07	0·95	1·03	0·875	$\frac{13}{16}$	No. 48	0·82	0·92	0·08	0·50
H	1	1·468	1·480	2·35	1·95	1·20	0·95	1·16	1·000	$\frac{15}{16}$	No. 48	0·82	1·05	0·08	0·50
J	$1\frac{1}{4}$	1·845	1·860	2·75	2·35	1·45	0·95	1·41	1·250	$1\frac{3}{16}$	No. 48	0·82	1·30	0·08	0·50
K	$1\frac{1}{2}$	2·200	2·220	3·15	2·70	1·60	1·00	1·66	1·500	$1\frac{7}{16}$	No. 48	0·87	1·55	0·08	0·50

AGS 995 to AGS 998 HIGH DUTY STUDS

Material : H.T. STEEL

(CADMIUM)

SIZE	ITEM	LENGTH OF THREAD B	DIAMETER C
2BA	AGS 995	0·375	0·175/0·178
¼" BSF	AGS 996	0·500	0·2412/0·2442
5/16" BSF	AGS 997	0·625	0·3027/0·3057
⅜" BSF	AGS 998	0·750	0·3645/0·3675

METHOD OF ORDERING

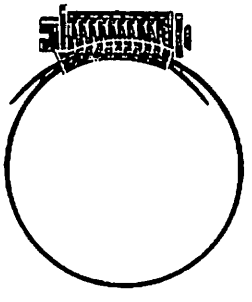
Method of calling up is by AGS number followed by "A" length in tenths of an inch. *E.g.* a 2 BA stud "A" length 2·6" is AGS 995/26, and a 5/16" BSF stud "A" length 3·8" is AGS 997/38.

AGS 1000 HOSE CLIPS

Replaced by SP91 and 92

Material: STEEL (CADMIUM)

See Equivalents Chart, page 181



ITEM	SUITABLE FOR HOSE O/D MIN.	MAX.	ITEM	MIN.	MAX.
00A & 00	IN. ½	IN. ⅝	3	IN. Over 2	IN. 2¾
0	Over ⅝	⅞	4	Over 2¾	3½
1A	Over ⅞	Up to and inc. 1⅛	5	Over 3½	4⅛
1	Over ⅞	Up to and inc. 1½	6	Over 4⅛	5
1X	1	1⅛			
2	Over 1¼	2			

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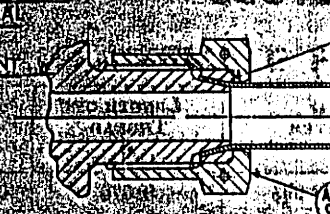
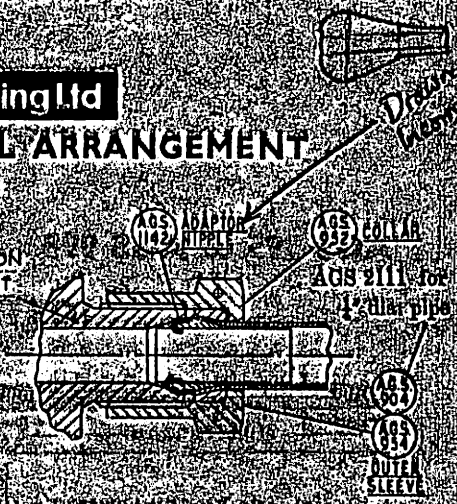
AGS. 1101 PIPE COUPLINGS: GENERAL ARRANGEMENT

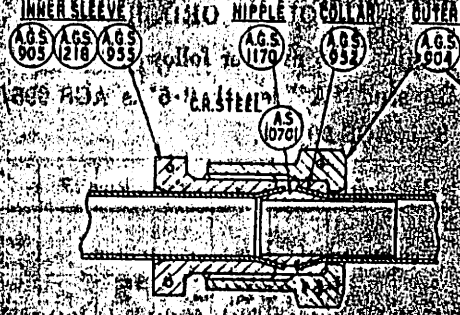


1. STANDARD JOINT FOR ALL PIPES UP TO 1"



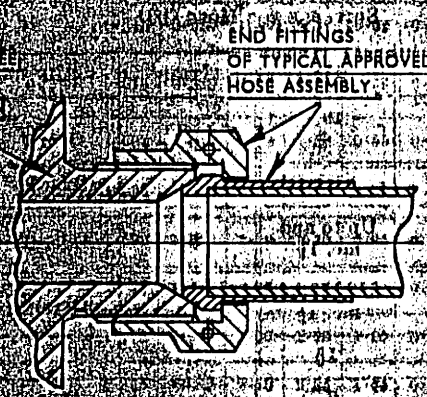
2. PIPE TO FITTING JOINT, SIZES ½" AND ABOVE

This type of joint can also be used for sizes ⅜" to ½" when connection is required to be made to a component not provided with the standard solid cone end.

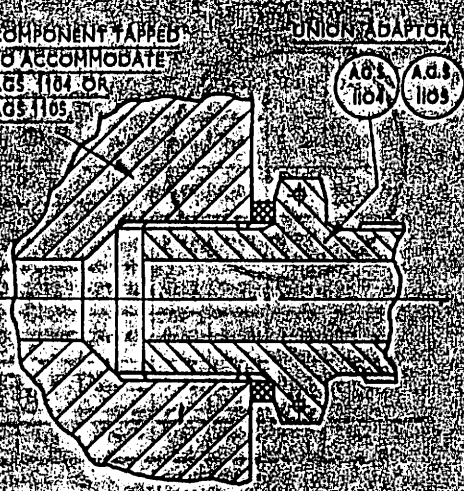


3. PIPE TO PIPE JOINT, SIZES ½" AND ABOVE

This type of joint can also be used for sizes ⅜" to ½" when space considerations preclude the use of the arrangement shown in Figure 2.

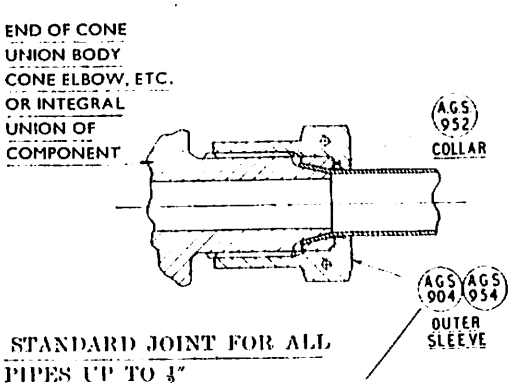


4. HOSE ASSEMBLY TO FITTING, ALL SIZES

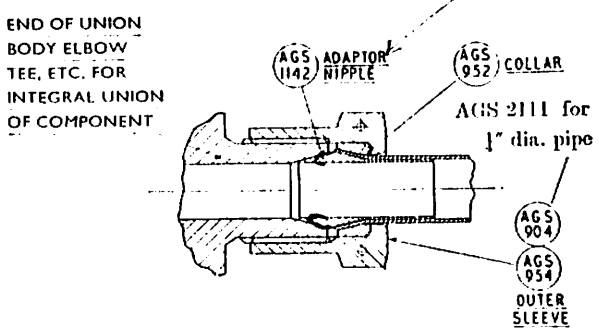


5. PIPE TO COMPONENT, ALL SIZES

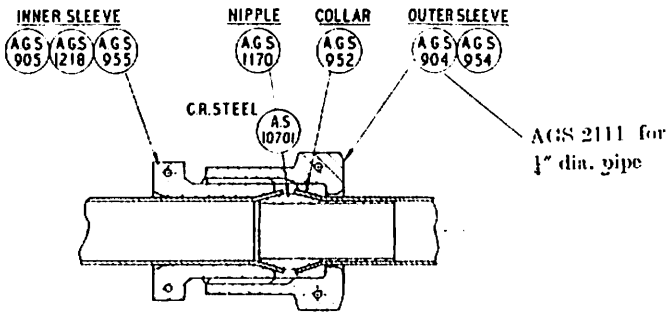
AGS. 1101 PIPE COUPLINGS: GENERAL ARRANGEMENT



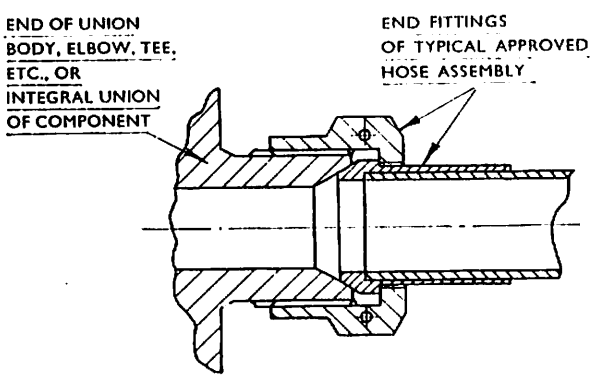
1. STANDARD JOINT FOR ALL PIPES UP TO ½"



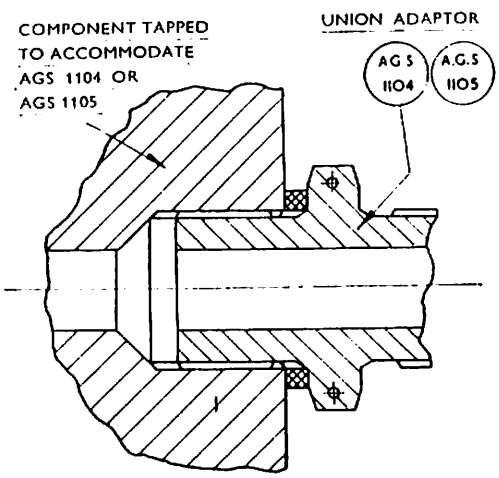
2. PIPE TO FITTING JOINT, SIZES $\frac{5}{8}$" AND ABOVE
This type of joint can also be used for sizes $\frac{3}{16}$" to $\frac{1}{2}$" when connection is required to be made to a component not provided with the standard solid cone end.



3. PIPE TO PIPE JOINT, SIZES $\frac{5}{8}$" AND ABOVE
This type of joint can also be used for sizes $\frac{3}{16}$" to $\frac{1}{2}$" when space considerations preclude the use of the arrangement shown in Fig. 1



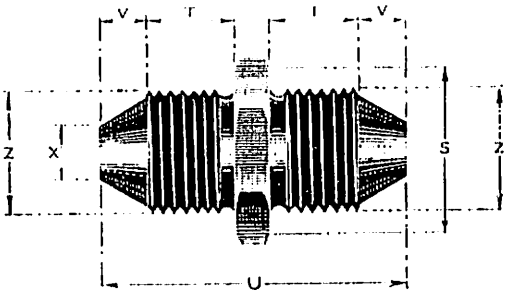
4. HOSE ASSEMBLY TO FITTING, ALL SIZES



5. PIPE TO COMPONENT, ALL SIZES

Brown Brothers Engineering Ltd

AGS 1102 CONE UNION BODY



Material : ALUM. ALLOY (ANODISED)

Working Pressure : 3000 lb./sq. in. for sizes up to $\frac{1}{2}$" B.S.P.

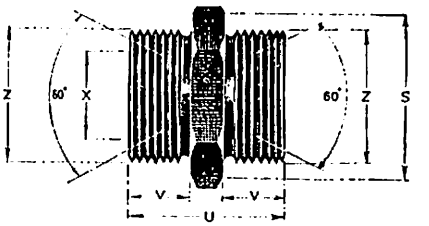
ITEM	O/D OF PIPE	Z	X	V	U	T	HEX. A/F S	
		B.S.P. Thread	Bore				Min.	Max.
	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
A	$\frac{3}{16}$	$\frac{1}{8}$	$\frac{3}{32}$	0·22	1·55	0·43	0·595	0·600
B	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{5}{32}$	0·28	1·73	0·46	0·705	0·710
BB	$\frac{5}{16}$	19 T.P.I. Whit. Form 0·60 O/D	$\frac{3}{16}$	0·32	1·85	0·48	0·815	0·820
C	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{1}{4}$	0·32	1·97	0·53	0·915	0·920
CC	$\frac{7}{16}$	14 T.P.I. Whit. Form 0·75 O/D	$\frac{5}{16}$	0·32	2·06	0·57	1·002	1·010
D	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{8}$	0·32	2·12	0·60	1·002	1·010

AGS 1103 UNION BODY

Material : ALUM. ALLOY (ANODISED)

Working Pressures :

3000 lb./sq. in. for sizes up to $\frac{1}{2}$" B.S.P.
500 lb./sq. in. for sizes $\frac{5}{8}$" to 1" B.S.P.
200 lb./sq. in. for sizes $1\frac{1}{4}$" to $2\frac{1}{2}$" B.S.P.



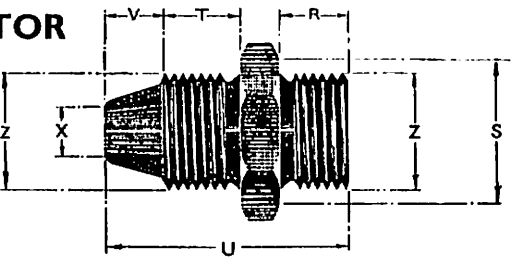
ITEM	NOMINAL DIA. OF PIPE	Z	X	V	U	HEX. A/F S	
		B.S.P. Thread	Dia. Bore			Min.	Max.
A	IN. $\frac{1}{16}$	IN. $\frac{1}{4}$	IN. $\frac{3}{32}$	IN. 0·45	IN. 1·15	IN. 0·595	IN. 0·600
B	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{5}{32}$	0·45	1·18	0·705	0·710
BB	$\frac{5}{16}$	19 T.P.I. 0·60 O/D	$\frac{7}{16}$	0·52	1·29	0·815	0·820
C	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{4}$"	0·52	1·31	0·915	0·920
CC	$\frac{7}{16}$	14 T.P.I. 0·75 O/D	$\frac{5}{16}$	0·55	1·38	1·002	1·010
D	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{8}$	0·65	1·58	1·002	1·010
E	$\frac{5}{8}$	$\frac{5}{8}$	$\frac{1}{2}$	0·70	1·70	1·092	1·100
F	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{5}{8}$	0·75	1·80	1·292	1·300
G	$\frac{7}{8}$	$\frac{7}{8}$	$\frac{3}{4}$	0·80	1·95	1·382	1·390
H	1	1	$\frac{7}{8}$	0·80	1·95	1·658	1·670
J	$1\frac{1}{4}$	$1\frac{1}{4}$	$1\frac{1}{8}$	0·83	2·06	2·035	2·050
K	$1\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{3}{8}$	0·85	2·10	2·200	2·220
L	$1\frac{3}{4}$	$1\frac{3}{4}$	$1\frac{5}{8}$	0·95	2·35	2·390	2·410
M	2	2	$1\frac{7}{8}$	1·00	2·50	2·735	2·760
P	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{3}{8}$	1·10	2·70	3·320	3·340

AGS 1104 CONE ADAPTOR

Material : ALUM. ALLOY (ANODISED)

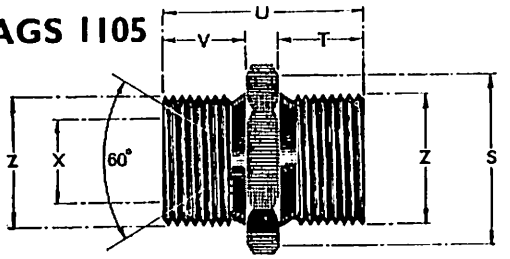
Working Pressure :

3000 lb./sq. in. for sizes up to $\frac{1}{2}$" B.S.P.



ITEM	O/D OF PIPE	Z	X	V	U	T	HEX. A/F S		R
		B.S.P. Thread	Dia. Bore				Min.	Max.	
A	IN. $\frac{1}{16}$	IN. $\frac{1}{4}$	IN. $\frac{3}{32}$	IN. 0·22	IN. 1·25	IN. 0·43	IN. 0·595	IN. 0·600	IN. 0·35
B	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{5}{32}$	0·28	1·31	0·46	0·705	0·710	0·35
BB	$\frac{5}{16}$	19 T.P.I. Whit. Form. 0·60 O/D	$\frac{7}{16}$	0·32	1·45	0·48	0·815	0·820	0·40
C	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{4}$	0·32	1·52	0·53	0·915	0·920	0·40
CC	$\frac{7}{16}$	14 T.P.I. Whit. Form 0·75 O/D	$\frac{5}{16}$	0·32	1·62	0·57	1·002	1·010	0·45
D	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{8}$	0·32	1·70	0·60	1·002	1·010	0·50

AGS 1105



UNION ADAPTOR

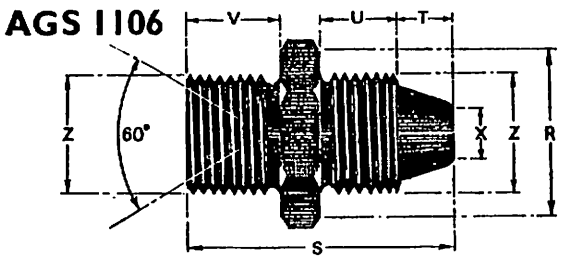
Material : ALUM. ALLOY (ANODISED)

Working Pressures :

3000 lb./sq. in. for sizes up to ½" B.S.P.
500 lb./sq. in. for sizes ⅝" to 1" B.S.P.
200 lb./sq. in. for sizes 1¼" to 2½" B.S.P.

ITEM	DIA. OF PIPE	Z	X	V	U	T	S HEX. A/F	
		B.S.P. Thread	Dia. Bore				Min.	Max.
	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
A				0·45	1·05	0·35	0·595	0·600
B				0·45	1·05	0·35	0·705	0·710
BB		19 T.P.I. Whit. Form 0·60 O/D		0·52	1·17	0·40	0·815	0·820
C				0·52	1·19	0·40	0·915	0·920
CC		14 T.P.I. Whit. Form 0·75 O/D		0·55	1·28	0·45	1·002	1·010
D				0·65	1·43	0·50	1·002	1·010
E				0·70	1·50	0·50	1·092	1·100
F				0·75	1·60	0·55	1·292	1·300
G				0·80	1·75	0·60	1·382	1·390
H	1	1		0·80	1·80	0·65	1·658	1·670
J	1¼	1¼		0·83	1·98	0·75	2·035	2·050
K	1½	1½		0·85	2·05	0·80	2·200	2·220
L	1¾	1¾		0·95	2·30	0·90	2·390	2·410
M	2	2		1·00	2·45	0·95	2·735	2·760
P	2½	2½		1·10	2·55	0·95	3·320	3·340

AGS 1106



UNION BODY

Material : ALUM. ALLOY (ANODISED)

Working Pressure :

3000 lb./sq. in. for sizes up to ½" B.S.P.

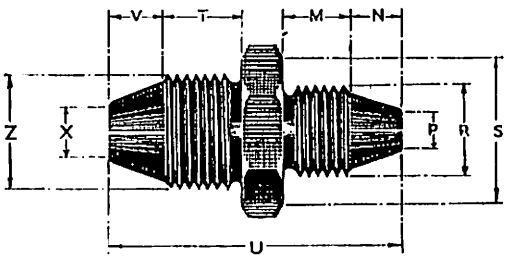
ITEM	O/D OF PIPE	Z	X	V	U	T	S	R HEX. A/F	
		B.S.P. Thread	Bore					Min.	Max.
	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
A				0·45	0·43	0·22	1·35	0·595	0·600
B				0·45	0·46	0·28	1·44	0·705	0·710
BB		19 T.P.I. Whit. Form 0·60 O/D		0·52	0·48	0·32	1·57	0·815	0·820
C				0·52	0·53	0·32	1·61	0·915	0·920
CC		14 T.P.I. Whit. Form 0·75 O/D		0·55	0·57	0·32	1·72	1·002	1·010
D				0·65	0·60	0·32	1·85	1·002	1·010

Brown Brothers Engineering Ltd

AGS 1107 REDUCING CONE UNION

Material :

ALUM. ALLOY (ANODISED)

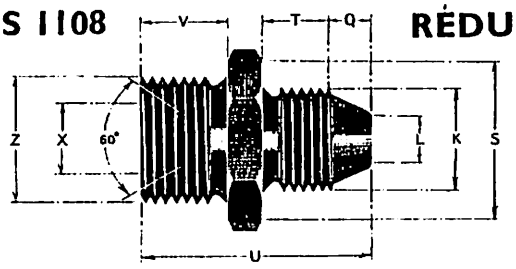


Working Pressure :

3000 lb./sq. in. for sizes up to $\frac{1}{2}$" B.S.P.

ITEM	O/DIA. OF PIPE	Z	X	V	U	T	HEX. A/F S		R	P	N	M
		B.S.P. Thread	Bore				Max.	Min.	B.S.P. Thread	Bore		
A	IN. $\frac{1}{4}\times\frac{5}{16}$	IN. $\frac{1}{4}$	IN. $\frac{5}{32}$	IN. 0·28	IN. 1·67	IN. 0·46	IN. 0·705	IN. 0·710	IN. $\frac{1}{4}$	IN. $\frac{5}{32}$	IN. 0·22	IN. 0·43
B	$\frac{5}{16}\times\frac{3}{8}$	19 T.P.I. Whit. Form 0·60 O/D	$\frac{3}{16}$	0·32	1·73	0·48	0·815	0·820	$\frac{1}{4}$	$\frac{3}{32}$	0·22	0·43
C	$\frac{5}{16}\times\frac{1}{2}$	19 T.P.I. Whit. Form 0·60 O/D	$\frac{3}{16}$	0·32	1·82	0·48	0·815	0·820	$\frac{1}{4}$	$\frac{5}{32}$	0·28	0·46
D	$\frac{3}{8}\times\frac{3}{16}$	$\frac{3}{8}$	$\frac{1}{4}$	0·32	1·78	0·53	0·915	0·920	$\frac{1}{4}$	$\frac{3}{32}$	0·22	0·43
E	$\frac{3}{8}\times\frac{1}{2}$	$\frac{3}{8}$	$\frac{1}{4}$	0·32	1·87	0·53	0·915	0·920	$\frac{1}{4}$	$\frac{5}{32}$	0·28	0·46
F	$\frac{3}{8}\times\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{4}$	0·32	1·93	0·53	0·915	0·920	19 T.P.I. Whit. Form 0·60 O/D	$\frac{3}{16}$	0·32	0·48
G	$\frac{7}{16}\times\frac{1}{2}$	14 T.P.I. Whit. Form 0·75 O/D	$\frac{5}{16}$	0·32	1·91	0·57	1·002	1·010	$\frac{1}{4}$	$\frac{5}{32}$	0·28	0·46
H	$\frac{7}{16}\times\frac{5}{16}$	14 T.P.I. Whit. Form 0·75 O/D	$\frac{5}{16}$	0·32	1·97	0·57	1·002	1·010	19 T.P.I. Whit. Form 0·60 O/D	$\frac{3}{16}$	0·32	0·48
J	$\frac{5}{16}\times\frac{3}{8}$	14 T.P.I. Whit. Form 0·75 O/D	$\frac{5}{16}$	0·32	2·02	0·57	1·002	1·010	$\frac{3}{8}$	$\frac{1}{4}$	0·32	0·53
K	$\frac{1}{2}\times\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{8}$	0·32	1·94	0·60	1·002	1·010	$\frac{1}{4}$	$\frac{5}{32}$	0·28	0·46
L	$\frac{1}{2}\times\frac{5}{16}$	$\frac{1}{2}$	$\frac{3}{8}$	0·32	2·00	0·60	1·002	1·010	19 T.P.I. Whit Form 0·60 O/D	$\frac{3}{16}$	0·32	0·48
M	$\frac{1}{2}\times\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{8}$	0·32	2·05	0·60	1·002	1·010	$\frac{3}{8}$	$\frac{1}{4}$	0·32	0·53
N	$\frac{1}{2}\times\frac{7}{16}$	$\frac{1}{2}$	$\frac{3}{8}$	0·32	2·09	0·60	1·002	1·010	14 T.P.I. Whit. Form 0·75 O/D	$\frac{5}{16}$	0·32	0·57

AGS 1108 REDUCING UNION

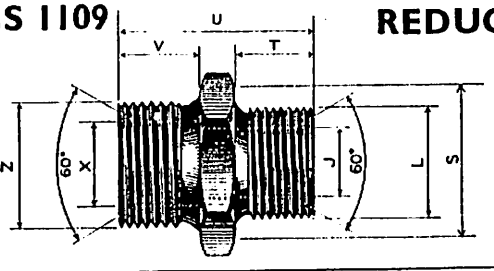


Material : ALUM. ALLOY (ANODISED)

Working Pressure :
500 lb./sq. in. for sizes $\frac{3}{8}$" to 1" B.S.P.

ITEM	O/DIA. OF PIPE	Z	X	V	U	T	HEX. A/F S		Q	L	K
		B.S.P. Thread	Dia. Bore				Min.	Max.		Dia. Bore	B.S.P. Thread
	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
A	$\frac{1}{4}\times\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	0·70	1·85	0·53	1·092	1·100	0·32	$\frac{1}{4}$	$\frac{3}{8}$
B	$\frac{1}{4}\times\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{4}$	0·70	1·92	0·60	1·092	1·100	0·32	$\frac{3}{8}$	$\frac{1}{2}$
C	$\frac{1}{4}\times\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{4}$	0·75	1·97	0·60	1·292	1·300	0·32	$\frac{3}{8}$	$\frac{1}{2}$

AGS 1109 REDUCING UNION



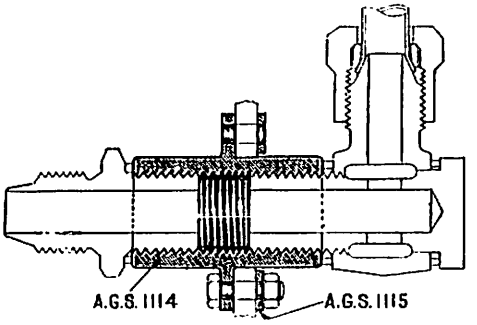
Material : ALUM. ALLOY (ANODISED)

Working Pressures :
3000 lb./sq. in. for sizes $\frac{3}{16}$" to $\frac{1}{2}$" B.S.P.
500 lb./sq. in. for sizes $\frac{3}{8}$" to 1" B.S.P.
200 lb./sq. in. for sizes $1\frac{1}{4}$" and $1\frac{1}{2}$" B.S.P.

ITEM	NOMINAL DIA. OF PIPES	Z	X	V	U	T	HEX. A/F S		L	J
		B.S.P. Thread	Dia. Bore				Min.	Max.	B.S.P. Thread	Dia. Bore
	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
A	$\frac{1}{4}\times\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	0·75	1·75	0·70	1·292	1·30	$\frac{1}{4}$	$\frac{1}{4}$
B	$\frac{1}{4}\times\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	0·80	1·85	0·70	1·382	1·39	$\frac{3}{8}$	$\frac{1}{4}$
C	$\frac{1}{4}\times\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	0·80	1·90	0·75	1·382	1·39	$\frac{3}{8}$	$\frac{1}{4}$
D	$1\times\frac{1}{4}$	1	$\frac{1}{4}$	0·80	1·90	0·75	1·658	1·67	$\frac{3}{8}$	$\frac{1}{4}$
E	$1\times\frac{1}{4}$	1	$\frac{1}{4}$	0·80	1·95	0·80	1·658	1·67	$\frac{3}{8}$	$\frac{3}{8}$
F	$1\frac{1}{4}\times\frac{1}{4}$	$1\frac{1}{4}$	$1\frac{1}{4}$	0·83	2·03	0·80	2·035	2·05	$\frac{3}{8}$	$\frac{3}{8}$
G	$1\frac{1}{4}\times1$	$1\frac{1}{4}$	$1\frac{1}{4}$	0·83	2·03	0·80	2·035	2·05	1	$\frac{3}{8}$
H	$1\frac{1}{4}\times1$	$1\frac{1}{4}$	$1\frac{1}{4}$	0·85	2·05	0·80	2·20	2·22	1	$\frac{3}{8}$
J	$1\frac{1}{4}\times1\frac{1}{4}$	$1\frac{1}{4}$	$1\frac{1}{4}$	0·85	2·08	0·83	2·20	2·22	$1\frac{1}{4}$	$1\frac{1}{4}$
K	$\frac{1}{4}\times\frac{3}{16}$	$\frac{1}{4}$	$\frac{3}{16}$	0·45	1·15	0·45	0·705	0·710	$\frac{1}{4}$	$\frac{3}{16}$
L	$\frac{1}{4}\times\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	0·52	1·25	0·45	0·915	0·920	$\frac{1}{4}$	$\frac{1}{4}$
M	$\frac{1}{4}\times\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	0·65	1·38	0·45	1·002	1·010	$\frac{1}{4}$	$\frac{5}{32}$
N	$\frac{1}{4}\times\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	0·70	1·65	0·65	1·092	1·100	$\frac{1}{4}$	$\frac{3}{8}$
P	$1\times\frac{1}{4}$	1	$\frac{1}{4}$	0·80	1·85	0·70	1·658	1·670	$\frac{3}{8}$	$\frac{1}{4}$
Q	$\frac{1}{16}\times\frac{1}{4}$	19 T.P.I. 0·60 O/D	$\frac{1}{16}$	0·52	1·22	0·45	0·815	0·820	$\frac{1}{4}$	$\frac{1}{16}$
R	$\frac{1}{4}\times\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	0·65	1·45	0·52	1·002	1·010	$\frac{3}{8}$	$\frac{1}{4}$
S	$\frac{1}{16}\times\frac{1}{4}$	14 T.P.I. 0·75 O/D	$\frac{1}{16}$	0·55	1·35	0·52	1·002	1·010	$\frac{3}{8}$	$\frac{1}{4}$

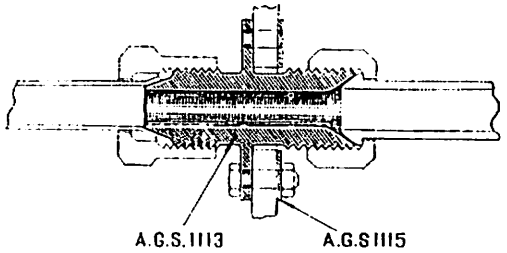
AGS 1110 BULKHEAD UNION BODIES

(General Arrangement)



INTERNAL THREAD TYPE

Outside Dia. of Pipes	IN. 3/16	IN. 1/4	IN. 5/16	IN. 3/8	IN. 1/2	IN. 1/2	IN. 5/8	IN. 3/4	IN. 3/4	IN. 1	IN. 1 1/4	IN. 1 1/2
Size of Hole in Bulkhead	11/16	13/16	15/16	1 1/16	1 1/16	1 5/16	1 1/16	1 13/32	1 5/16	1 5/16	2 1/16	2 1/16



FOR USE WITH BULKHEADS NOT EXCEEDING ·25"

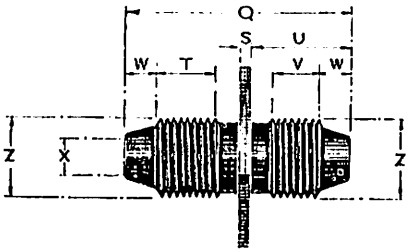
Outside Dia. of Pipes	IN. 3/16	IN. 1/4	IN. 5/16	IN. 3/8	IN. 1/2	IN. 1/2	IN. 5/8	IN. 3/4	IN. 3/4	IN. 1	IN. 1 1/4	IN. 1 1/2
Dia. of Hole in Bulkhead	13/32	17/32	1/2	11/16	23/32	3/4	31/32	1 1/16	1 7/32	1 11/32	1 13/16	1 15/16

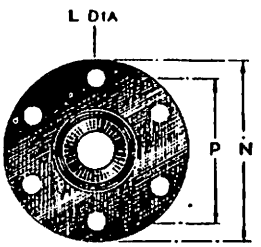
Double Female Ends : AGS 1112
Double Male Ends : AGS 1111

AGS 1111 CONE UNION BODY

Material :
ALUM. ALLOY (ANODISED)

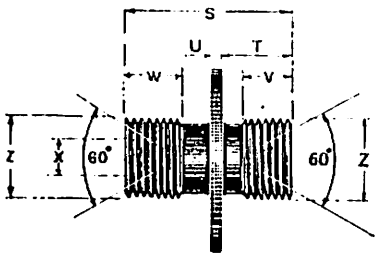
Working Pressure :
3000 lb./sq. in. for sizes up to 1/2" B.S.P.

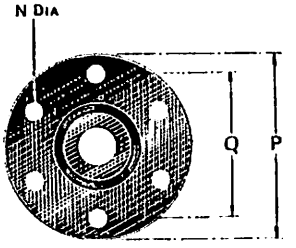




ITEM	O/D OF PIPE	Z	X	W	FULL V THREAD	U	FULL T THREAD	S	Q	P p.c.d.	N	L
		B.S.P. Thread	Dia. Bore									Dia. Drill
A	IN. 3/16	IN. 1/4	IN. 3/16	IN 0·22	IN. 0·36	IN. 0·72	IN. 0·50	IN. 0·06	IN. 1·71	IN. 0·80	IN. 1·10	IN. 5/16
B	1/4	1/4	5/16	0·28	0·39	0·85	0·50	0·08	1·94	1·00	1·30	5/16
BB	5/16	19 T.P.I. Whit. Form 0·60 O/D	3/16	0·32	0·40	0·91	0·55	0·08	2·08	1·2	1·50	5/32
C	1/4	1/4	1/4	0·32	0·42	0·93	0·55	0·08	2·12	1·30	1·65	11/64
CC	5/16	14 T.P.I. Whit. Form 0·75 O/D	1/4	0·32	0·47	1·01	0·60	0·10	2·29	1·40	1·75	11/64
D	1/2	1/2	1/2	0·32	0·48	1·03	0·60	0·10	2·33	1·50	1·85	11/64

AGS 1112 UNION BODY



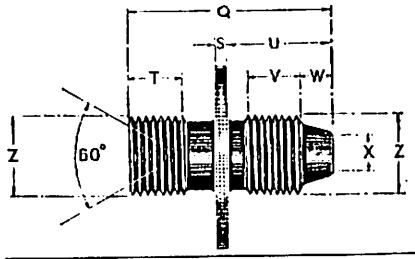


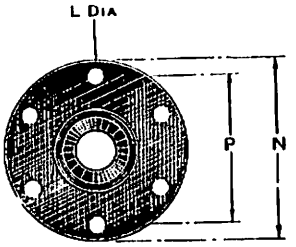
Material :
ALUM. ALLOY (ANODISED)

Working Pressures :
3000 lb./sq. in. for sizes up to $\frac{1}{2}$" B.S.P.
500 lb./sq. in. for sizes $\frac{5}{8}$" to 1" B.S.P.
200 lb./sq. in. for sizes $1\frac{1}{4}$" and $1\frac{1}{2}$" B.S.P.

ITEM	DIA. OF PIPE	Z	X	FULL W THREAD	FULL V THREAD	U	T	S	Q p.c.d	P	N
		B.S.P. Thread	Dia. Bore								Dia. Drill
	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
A	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{5}{32}$	0·35	0·33	0·06	0·47	1·35	0·80	1·10	$\frac{5}{32}$
B	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{5}{32}$	0·40	0·36	0·08	0·52	1·45	1·00	1·30	$\frac{5}{32}$
BB	$\frac{1}{2}$	19 T.P.I. Whit. Form 0·60 O/D	$\frac{3}{16}$	0·45	0·40	0·08	0·57	1·51	1·20	1·50	$\frac{5}{32}$
C	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$	0·45	0·40	0·08	0·59	1·62	1·30	1·65	$\frac{11}{64}$
CC	$\frac{1}{2}$	14 T.P.I. Whit. Form 0·75 O/D	$\frac{1}{4}$	0·50	0·45	0·10	0·67	1·81	1·40	1·75	$\frac{11}{64}$
D	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$	0·55	0·53	0·10	0·75	1·94	1·50	1·85	$\frac{11}{64}$
E	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$	0·60	0·55	0·12	0·78	2·02	1·60	1·95	$\frac{11}{64}$
F	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$	0·60	0·55	0·12	0·78	2·04	1·70	2·05	$\frac{11}{64}$
G	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$	0·70	0·65	0·15	0·88	2·27	1·85	2·20	$\frac{13}{64}$
H	1	1	$\frac{1}{4}$	0·75	0·70	0·15	0·98	2·40	2·05	2·40	$\frac{13}{64}$
J	$1\frac{1}{4}$	$1\frac{1}{4}$	$1\frac{1}{4}$	0·75	0·70	0·20	0·98	2·48	2·30	2·65	$\frac{13}{64}$
K	$1\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{1}{4}$	0·75	0·70	0·20	0·98	2·48	2·55	2·90	$\frac{13}{64}$

AGS 1113 UNION BODY





Material :
ALUM. ALLOY (ANODISED)

Working Pressure :
3000 lb./sq. in. for sizes up to $\frac{1}{2}$" B.S.P.

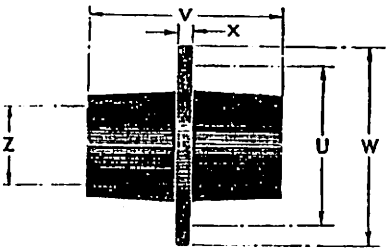
ITEM	DIA. OF PIPE	Z	X	W	FULL V THREAD	U	FULL T THREAD	S	Q	P p.c.d.	N	L
		B.S.P. Thread	Dia. Bore									Dia. Drill
	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
A	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{5}{32}$	0·22	0·36	0·72	0·35	0·06	1·60	0·80	1·10	$\frac{5}{32}$
B	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{5}{32}$	0·28	0·39	0·85	0·40	0·08	1·78	1·00	1·30	$\frac{5}{32}$
BB	$\frac{1}{2}$	19 T.P.I. Whit. Form 0·60 O/D	$\frac{3}{16}$	0·32	0·40	0·91	0·45	0·08	1·85	1·20	1·50	$\frac{5}{32}$
C	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$	0·32	0·42	0·93	0·45	0·08	1·96	1·30	1·65	$\frac{11}{64}$
CC	$\frac{1}{2}$	14 T.P.I. Whit. Form 0·75 O/D	$\frac{1}{4}$	0·32	0·47	1·01	0·50	0·10	2·18	1·40	1·75	$\frac{11}{64}$
D	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$	0·32	0·48	1·03	0·55	0·10	2·22	1·50	1·85	$\frac{11}{64}$

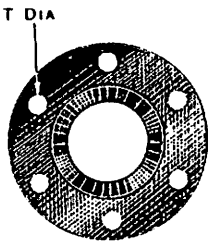
Brown Brothers Engineering Ltd

AGS 1114 BULKHEAD SCREWED SLEEVE

Material :
ALUM. ALLOY
(ANODISED)

Working Pressures :
3000 lb./sq. in. for sizes up to $\frac{1}{2}$" B.S.P.
500 lb./sq. in. for sizes $\frac{5}{8}$" to 1" B.S.P.
200 lb./sq. in. for sizes $1\frac{1}{4}$" and $1\frac{1}{2}$" B.S.P.

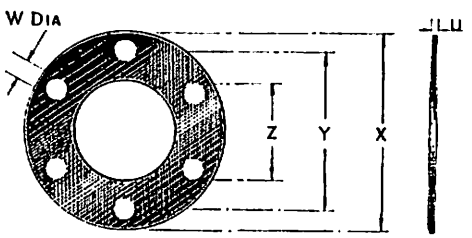




ITEM	O/D OF PIPE	Z	X	W	V	U p.c.d.	T
		B.S.P. Thread					Dia. of Drill
A	IN. $\frac{3}{16}$	IN. $\frac{1}{8}$	IN. 0·06	IN. 1·3	IN. 1·47	IN. 1·00	IN. $\frac{5}{64}$
B	$\frac{1}{4}$	$\frac{1}{4}$	0·08	1·5	1·63	1·20	$\frac{5}{64}$
BB	$\frac{5}{16}$	19 T.P.I. Whit. Form 0·60 O/D	0·08	1·65	1·75	1·30	$\frac{13}{64}$
C	$\frac{3}{8}$	$\frac{3}{8}$	0·10	1·75	1·81	1·40	$\frac{13}{64}$
CC	$\frac{7}{16}$	14 T.P.I. Whit. Form 0·75 O/D	0·10	1·85	1·93	1·50	$\frac{17}{64}$
D	$\frac{1}{2}$	$\frac{1}{2}$	0·12	1·95	1·97	1·60	$\frac{13}{64}$
E	$\frac{5}{8}$	$\frac{5}{8}$	0·12	2·05	1·42	1·70	$\frac{13}{64}$
F	$\frac{3}{4}$	$\frac{3}{4}$	0·12	2·20	1·52	1·85	$\frac{21}{64}$
G	$\frac{7}{8}$	$\frac{7}{8}$	0·16	2·40	1·62	2·05	$\frac{13}{64}$
H	1	1	0·15	2·50	1·65	2·15	$\frac{13}{64}$
J	$1\frac{1}{4}$	$1\frac{1}{4}$	0·20	2·90	1·70	2·55	$\frac{17}{64}$
K	$1\frac{1}{2}$	$1\frac{1}{2}$	0·20	3·15	1·70	2·78	$\frac{11}{64}$

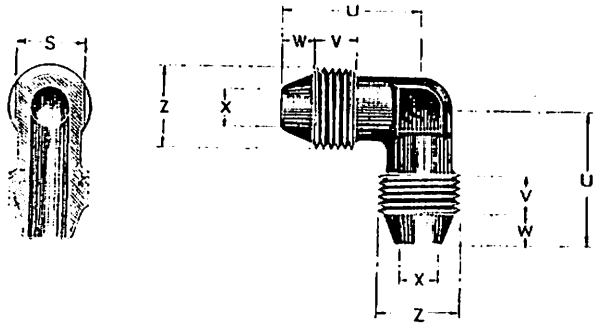
AGS 1115 WASHER PLATES

Material : MILD STEEL
(CADMIUM)



ITEM	Z	Y p.c.d.	X	W	U	ITEM	Z	Y p.c.d.	X	W	U
				Dia. of Drill	S.W.G.					Dia. of Drill	S.W.G.
1	IN. 0·500	IN. 0·80	IN. 1·10	IN. $\frac{5}{32}$	20	8	IN. 1·250	IN. 1·70	IN. 2·10	IN. $\frac{13}{64}$	18
2	0·687	1·00	1·30	$\frac{5}{32}$	20	9	1·437	1·85	2·25	$\frac{13}{64}$	18
3	0·844	1·20	1·50	$\frac{5}{32}$	20	10	1·626	2·05	2·45	$\frac{13}{64}$	18
4	0·906	1·30	1·70	$\frac{13}{64}$	20	11	1·75	2·15	2·55	$\frac{13}{64}$	18
5	0·908	1·40	1·80	$\frac{13}{64}$	20	12	1·687	2·30	2·70	$\frac{13}{64}$	18
6	1·062	1·50	1·90	$\frac{13}{64}$	20	13	2·125	2·55	2·95	$\frac{13}{64}$	18
7	1·156	1·60	2·00	$\frac{13}{64}$	18	14	2·375	2·78	3·20	$\frac{13}{64}$	18

AGS 1116 CONE ELBOW



Material : ALUM. ALLOY

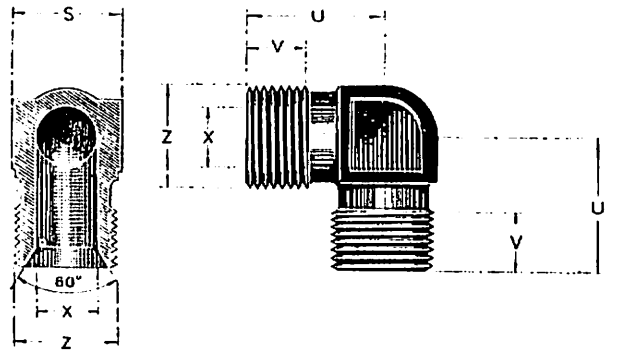
(ANODISED)

Working Pressure :

3000 lb./sq. in. for sizes up to ½" B.S.P.

ITEM	O/D OF PIPE	Z	X	W	V	U	S	
		B.S.P. Thread	Dia. Bore				Min.	Max.
A	IN. 3/16	IN. 1/8	IN. 3/32	IN. 0·22	IN. 0·30	IN. 0·90	IN 0·321	IN. 0·324
B	1/4	1/4	5/32	0·28	0·30	1·05	0·410	0·413
BB	5/16	19 T.P.I. Whit. Form 0·60 O/D	7/32	0·32	0·31	1·15	0·440	0·445
C	3/8	3/8	1/4	0·32	0·37	1·25	0·520	0·525
CC	7/16	14 T.P.I. Whit. Form 0·75 O/D	9/32	0·32	0·39	1·32	0·595	0·600
D	1/2	1/2	3/8	0·32	0·40	1·37	0·705	0·710

AGS 1117 ELBOW UNION



Material : ALUM. ALLOY

(ANODISED)

Working Pressures :

500 lb./sq. in. for sizes ⅝" to 1" B.S.P.

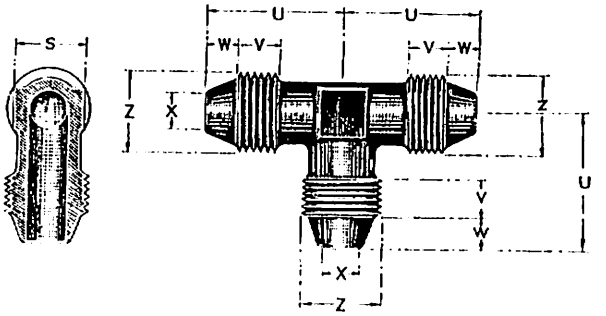
200 lb./sq. in. for sizes 1¼" and 1½" B.S.P.

ITEM	O/D OF PIPE	Z	X	V	U	S	
		B.S.P. Thread	Dia. Bore			Min.	Max.
E	IN. 1/2	IN. 1/2	IN. 1/4	IN. 0·55	IN. 1·25	IN. 0·915	IN. 0·920
F	5/8	5/8	1/4	0·61	1·375	1·092	1·100
G	3/4	3/4	3/8	0·65	1·50	1·192	1·200
H	1	1	3/8	0·65	1·65	1·382	1·390
J	1¼	1¼	1¼	0·65	1·88	1·658	1·670
K	1½	1½	1½	0·70	2·05	2·035	2·050

AGS 1118 CONE TEE

Material : ALUM. ALLOY
(ANODISED)

Working Pressure :
3000 lbs./sq. in. for sizes up to ½" B.S.P.

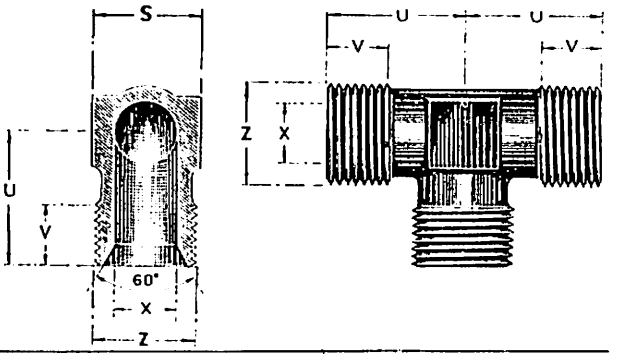


ITEM	O/D OF PIPE	Z	X	W	V	U	S	
		B.S.P. Thread	Dia. Bore				Min.	Max.
A	IN. 3/16	IN. 1/4	IN. 5/32	IN. 0·22	IN. 0·30	IN. 0·90	IN. 0·321	IN. 0·324
B	1/4	1/4	5/32	0·28	0·30	1·05	0·410	0·413
BB	5/16	19 T.P.I. Whit. Form 0·60 O/D	3/16	0·32	0·34	1·15	0·440	0·445
C	3/8	3/8	1/4	0·32	0·37	1·25	0·520	0·525
CC	7/16	14 T.P.I. Whit. Form 0·75 O/D	5/16	0·32	0·39	1·32	0·595	0·600
D	1/2	1/2	3/8	0·32	0·40	1·37	0·705	0·710

AGS 1119 TEE UNION

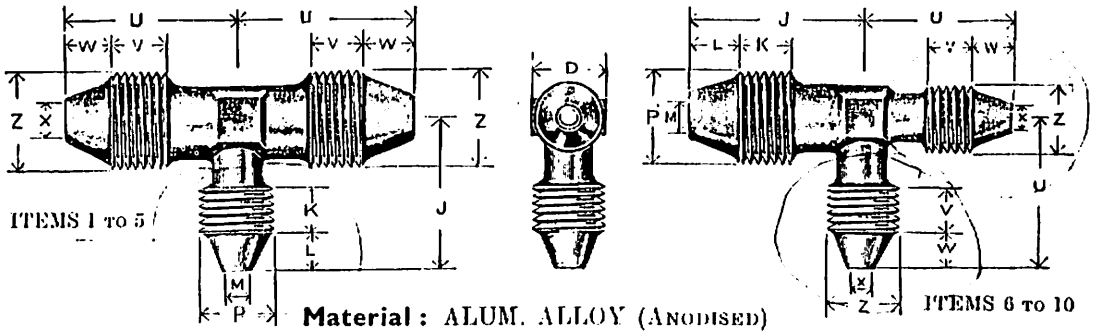
Material : ALUM. ALLOY
(ANODISED)

Working Pressures :
500 lb./sq. in. for sizes 5/8" to 1" B.S.P.
200 lb./sq. in. for sizes 1¼" and 1½" B.S.P.



ITEM	O/D PIPE	Z	X	V	U	S	
		B.S.P. Thread	Dia. Bore			Min.	Max.
E	IN. 1/2	IN. 1/2	IN. 1/4	IN. 0·55	IN. 1·25	IN. 0·915	IN. 0·920
F	3/4	3/4	3/8	0·61	1·375	1·092	1·100
G	1	1	1/2	0·65	1·50	1·192	1·200
H	1	1	3/4	0·65	1·65	1·382	1·390
J	1¼	1¼	1¼	0·65	1·88	1·658	1·670
K	1½	1½	1½	0·70	2·05	2·035	2·050

AGS 1120 CONE TEES



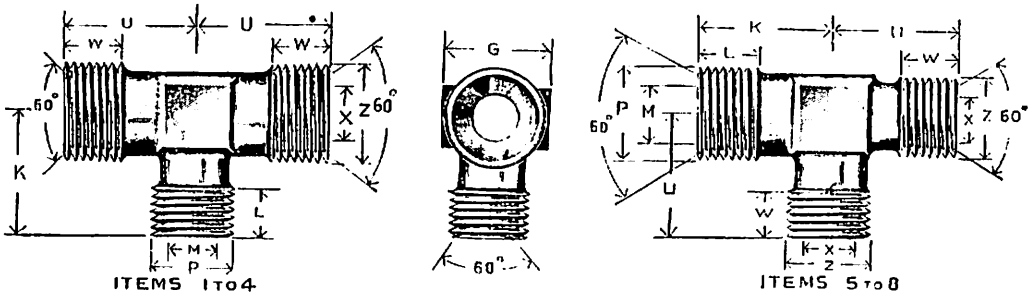
Material : ALUM. ALLOY (ANODISED)

Working Pressure : 3000 lb./sq. in. for sizes up to $\frac{1}{2}$" B.S.P.

ITEM	SIZE OF TEE O/D OF PIPES	DIMENSIONS FOR EQUAL BRANCHES						
		Z B.S.P. THREAD	X DIA. BORE	W	V	U	D ACROSS FLATS MIN.	D ACROSS FLATS MAX.
		IN.	IN.	IN.	IN.	IN.	IN.	IN.
1	$\frac{1}{4}$" × $\frac{1}{4}$" × $\frac{3}{16}$"	$\frac{1}{4}$	$\frac{3}{32}$	0·28	0·30	1·05	0·410	0·413
2	$\frac{3}{16}$" × $\frac{1}{4}$" × $\frac{3}{16}$"	19 T.P.I. 0·60 O/D Whit. Form	$\frac{3}{16}$	0·32	0·31	1·15	0·440	0·445
3	$\frac{1}{4}$" × $\frac{1}{4}$" × $\frac{1}{4}$"	$\frac{1}{4}$	$\frac{1}{4}$	0·32	0·37	1·25	0·520	0·525
4	$\frac{1}{4}$" × $\frac{5}{16}$" × $\frac{1}{4}$"	14 T.P.I. 0·75 O/D Whit. Form	$\frac{5}{16}$	0·32	0·39	1·32	0·595	0·600
5	$\frac{1}{4}$" × $\frac{1}{4}$" × $\frac{1}{4}$"	$\frac{1}{4}$	$\frac{1}{4}$	0·32	0·40	1·37	0·705	0·710
6	$\frac{1}{4}$" × $\frac{3}{16}$" × $\frac{3}{16}$"	$\frac{1}{4}$	$\frac{3}{32}$	0·22	0·30	0·98	0·410	0·413
7	$\frac{3}{16}$" × $\frac{3}{16}$" × $\frac{3}{16}$"	$\frac{1}{4}$	$\frac{3}{32}$	0·22	0·30	1·02	0·440	0·445
8	$\frac{1}{4}$" × $\frac{1}{4}$" × $\frac{1}{4}$"	$\frac{1}{4}$	$\frac{3}{32}$	0·28	0·30	1·11	0·520	0·525
9	$\frac{1}{4}$" × $\frac{1}{4}$" × $\frac{1}{4}$"	19 T.P.I. 0·60 O/D Whit. Form	$\frac{3}{16}$	0·32	0·34	1·24	0·595	0·600
10	$\frac{1}{4}$" × $\frac{1}{4}$" × $\frac{1}{4}$"	$\frac{1}{4}$	$\frac{1}{4}$	0·32	0·37	1·35	0·705	0·710
11	$\frac{1}{4}$" × $\frac{1}{4}$" × $\frac{5}{16}$"	$\frac{1}{4}$	$\frac{1}{4}$	0·32	0·37	1·25	0·520	0·525
12	$\frac{5}{16}$" × $\frac{5}{16}$" × $\frac{5}{16}$"	14 T.P.I. 0·75 O/D Whit. Form	$\frac{5}{16}$	0·32	0·39	1·32	0·595	0·600
13	$\frac{1}{4}$" × $\frac{1}{4}$" × $\frac{3}{16}$"	$\frac{1}{4}$	$\frac{1}{4}$	0·32	0·40	1·37	0·705	0·710

ITEM	SIZE OF TEE O/D OF PIPES	DIMENSIONS FOR REMAINING BRANCH						
		P B.S.P. THREAD	M DIA. BORE	L	K	J	D ACROSS FLATS MIN.	D ACROSS FLATS MAX.
		IN.	IN.	IN.	IN.	IN.	IN.	IN.
1	$\frac{1}{4}$" × $\frac{1}{4}$" × $\frac{3}{16}$"	$\frac{1}{4}$	$\frac{3}{32}$	0·22	0·30	0·98	0·410	0·413
2	$\frac{3}{16}$" × $\frac{1}{4}$" × $\frac{3}{16}$"	$\frac{1}{4}$	$\frac{3}{32}$	0·22	0·30	1·02	0·440	0·445
3	$\frac{1}{4}$" × $\frac{1}{4}$" × $\frac{1}{4}$"	$\frac{1}{4}$	$\frac{3}{32}$	0·28	0·30	1·11	0·520	0·525
4	$\frac{1}{4}$" × $\frac{1}{4}$" × $\frac{1}{4}$"	19 T.P.I. 0·60 O/D Whit. Form	$\frac{3}{16}$	0·32	0·34	1·24	0·595	0·600
5	$\frac{1}{4}$" × $\frac{1}{4}$" × $\frac{1}{4}$"	$\frac{1}{4}$	$\frac{1}{4}$	0·32	0·37	1·35	0·705	0·710
6	$\frac{1}{4}$" × $\frac{3}{16}$" × $\frac{3}{16}$"	$\frac{1}{4}$	$\frac{3}{32}$	0·28	0·30	1·05	0·410	0·413
7	$\frac{3}{16}$" × $\frac{3}{16}$" × $\frac{3}{16}$"	19 T.P.I. 0·60 O/D Whit. Form	$\frac{3}{16}$	0·32	0·34	1·15	0·440	0·445
8	$\frac{1}{4}$" × $\frac{1}{4}$" × $\frac{1}{4}$"	$\frac{1}{4}$	$\frac{1}{4}$	0·32	0·37	1·25	0·520	0·525
9	$\frac{1}{4}$" × $\frac{1}{4}$" × $\frac{1}{4}$"	14 T.P.I. 0·75 O/D Whit. Form	$\frac{5}{16}$	0·32	0·39	1·32	0·595	0·600
10	$\frac{1}{4}$" × $\frac{1}{4}$" × $\frac{1}{4}$"	$\frac{1}{4}$	$\frac{1}{4}$	0·32	0·40	1·37	0·705	0·710
11	$\frac{1}{4}$" × $\frac{1}{4}$" × $\frac{5}{16}$"	$\frac{1}{4}$	$\frac{3}{32}$	0·22	0·30	1·05	0·520	0·525
12	$\frac{5}{16}$" × $\frac{5}{16}$" × $\frac{5}{16}$"	$\frac{1}{4}$	$\frac{3}{32}$	0·22	0·30	1·10	0·595	0·600
13	$\frac{1}{4}$" × $\frac{1}{4}$" × $\frac{3}{16}$"	$\frac{1}{4}$	$\frac{3}{32}$	0·22	0·30	1·13	0·705	0·710

AGS 1121 TEE UNIONS



Material : ALUM. ALLOY (ANODISED)

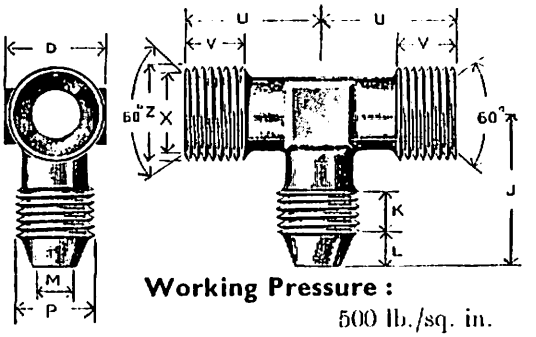
Working Pressures : 500 lb./sq. in. for sizes $\frac{3}{8}$" to 1" B.S.P. 200 lb./sq. in. for sizes $1\frac{1}{4}$" & $1\frac{1}{2}$" B.S.P.

Item	Dia. of Pipes	Dimensions for Equal Branches					
		Z	X	W	U	G Across Flats	
		B.S.P. Thread	Dia. Bore			Min.	Max.
		in.	in.	in.	in.	in.	in.
1	$\frac{3}{8}$" × $\frac{3}{8}$" × $\frac{5}{8}$"	$\frac{3}{4}$	$\frac{5}{8}$	0·61	1·37	1·092	1·100
2	1" × 1" × $\frac{3}{4}$"	1	$\frac{7}{8}$	0·65	1·65	1·382	1·390
3	$1\frac{1}{4}$" × $1\frac{1}{4}$" × 1"	$1\frac{1}{4}$	$1\frac{1}{8}$	0·65	1·88	1·658	1·670
4	$1\frac{1}{2}$" × $1\frac{1}{2}$" × $1\frac{1}{4}$"	$1\frac{1}{2}$	$1\frac{3}{8}$	0·70	2·05	2·035	2·050
5	$\frac{3}{8}$" × $\frac{5}{8}$" × $\frac{5}{8}$"	$\frac{5}{8}$	$\frac{1}{2}$	0·55	1·30	1·092	1·100
6	1" × $\frac{3}{4}$" × $\frac{3}{4}$"	$\frac{3}{4}$	$\frac{5}{8}$	0·61	1·50	1·382	1·390
7	$1\frac{1}{4}$" × 1" × 1"	1	$\frac{7}{8}$	0·65	1·78	1·658	1·670
8	$1\frac{1}{2}$" × $1\frac{1}{4}$" × $1\frac{1}{4}$"	$1\frac{1}{4}$	$1\frac{1}{8}$	0·65	1·95	2·035	2·050

Item	Dia. of Pipes	Dimensions for Remaining Branch					
		P	M	L	K	G Across Flats	
		B.S.P. Thread	Dia. Bore			Min.	Max.
		in.	in.	in.	in.	in.	in.
1	$\frac{3}{8}$" × $\frac{3}{8}$" × $\frac{5}{8}$"	$\frac{5}{8}$	$\frac{1}{2}$	0·55	1·30	1·092	1·100
2	1" × 1" × $\frac{3}{4}$"	$\frac{3}{4}$	$\frac{5}{8}$	0·61	1·50	1·382	1·390
3	$1\frac{1}{4}$" × $1\frac{1}{4}$" × 1"	1	$\frac{7}{8}$	0·65	1·78	1·658	1·670
4	$1\frac{1}{2}$" × $1\frac{1}{2}$" × $1\frac{1}{4}$"	$1\frac{1}{4}$	$1\frac{1}{8}$	0·65	1·95	2·035	2·050
5	$\frac{3}{8}$" × $\frac{5}{8}$" × $\frac{5}{8}$"	$\frac{3}{4}$	$\frac{5}{8}$	0·61	1·37	1·092	1·100
6	1" × $\frac{3}{4}$" × $\frac{3}{4}$"	1	$\frac{7}{8}$	0·65	1·65	1·382	1·390
7	$1\frac{1}{4}$" × 1" × 1"	$1\frac{1}{4}$	$1\frac{1}{8}$	0·65	1·88	1·658	1·670
8	$1\frac{1}{2}$" × $1\frac{1}{4}$" × $1\frac{1}{4}$"	$1\frac{1}{2}$	$1\frac{3}{8}$	0·70	2·05	2·035	2·050

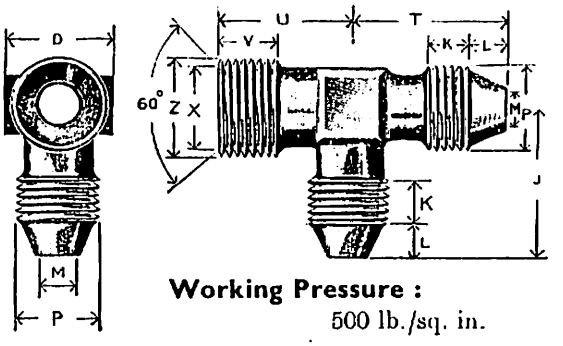
AGS 1122 CONE & NIPPLE TEES

Material : ALUM. ALLOY
(ANODISED)



Working Pressure :
500 lb./sq. in.

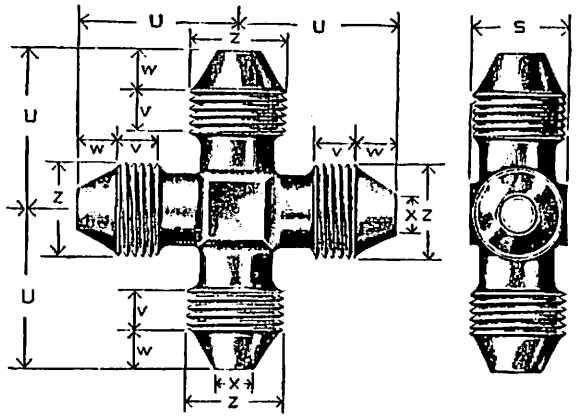
ITEM	SIZE OF TEE O/D OF PIPE	Z	X	V	U	P	M	L	K	J	D ACROSS FLATS
		B.S.P. THREAD	DIA. BORE			B.S.P. THREAD	DIA. BORE				MAX.
1	$\frac{3}{8}$" × $\frac{3}{8}$" × $\frac{1}{2}$"	IN. $\frac{5}{8}$	IN. $\frac{1}{2}$	IN. 0·55	IN. 1·25	IN. $\frac{1}{2}$	IN. $\frac{3}{8}$	IN. 0·32	IN. 0·40	IN. 1·41	IN. 0·920



Working Pressure :
500 lb./sq. in.

ITEM	SIZE OF TEE O/D OF PIPE	Z	X	V	T	U	P	M	L	K	J	D ACROSS FLATS
		B.S.P. THREAD	DIA. BORE				B.S.P. THREAD	DIA. BORE				MAX.
2	$\frac{3}{8}$" × $\frac{1}{2}$" × $\frac{1}{2}$"	IN. $\frac{5}{8}$	IN. $\frac{1}{2}$	IN. 0·55	IN. 1·41	IN. 1·25	IN. $\frac{1}{2}$	IN. $\frac{3}{8}$	IN. 0·32	IN. 0·40	IN. 1·41	IN. 0·920

AGS 1123 CONE PIECE (4-WAY)

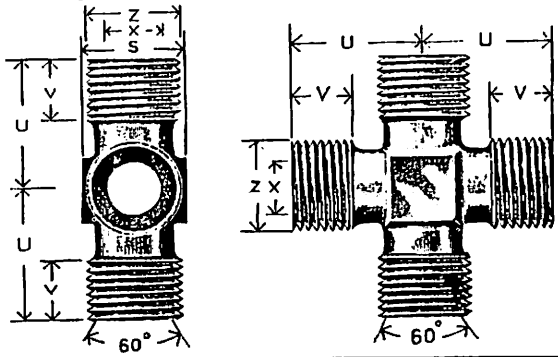


Material :
ALUM. ALLOY
(ANODISED)

Working Pressure :
3000 lb./sq. in. for sizes up to ¼" B.S.P.

ITEM	DIA. OF PIPE	Z B.S.P. THREAD	X DIA. BORE	W	V	U	S ACROSS FLATS MIN.	S ACROSS FLATS MAX.
		IN.	IN.	IN.	IN.	IN.	IN.	IN.
A	1/8	1/4	7/32	0·22	0·30	0·90	0·410	0·413
B	1/4	1/4	9/32	0·28	0·30	1·05	0·520	0·525
BB	5/16	19 T.P.I. Whit. Form 0·60 O/D	11/32	0·32	0·34	1·15	0·595	0·600
C	3/8	3/8	3/8	0·32	0·37	1·25	0·705	0·710
CC	7/16	14 T.P.I. Whit. Form 0·75 O/D	13/32	0·32	0·39	1·32	0·815	0·820
D	1/2	1/2	1/2	0·32	0·40	1·37	0·815	0·820

AGS 1124 UNION PIECE (4-WAY)



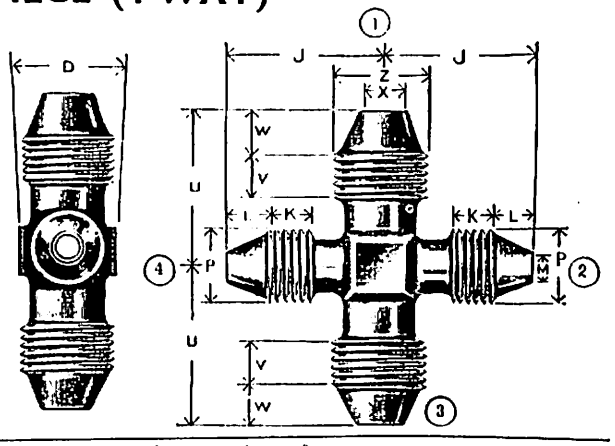
Material :
ALUM. ALLOY
(ANODISED)

Working Pressures :
500 lb./sq. in. for sizes ⅜" to 1" B.S.P.
200 lb./sq. in. for sizes 1¼" & 1½" B.S.P.

ITEM	DIA. OF PIPE	Z B.S.P. THREAD	X DIA. BORE	V	U	S ACROSS FLATS MIN.	S ACROSS FLATS MAX.
		IN.	IN.	IN.	IN.	IN.	IN.
E	3/8	3/8	3/8	0·55	1·25	0·915	0·920
F	1/2	1/2	1/2	0·61	1·375	1·092	1·100
G	3/4	3/4	3/4	0·65	1·50	1·192	1·20
H	1	1	3/4	0·65	1·65	1·382	1·390
J	1¼	1¼	1¼	0·65	1·88	1·658	1·670
K	1½	1½	1¼	0·70	2·05	2·035	2·050

Brown Brothers Engineering Ltd

AGS 1125 CONE PIECE (4-WAY)



Material : ALUM. ALLOY

(ANODISED)

Working Pressure :

3000 lb./sq. in. for sizes up to $\frac{1}{2}$" B.S.P.

DIMENSIONS FOR BRANCHES 1 AND 3

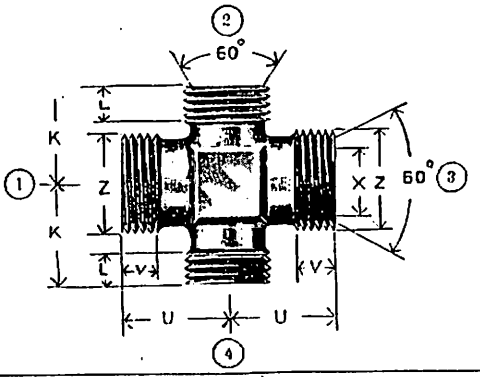
ITEM	O/DIA. OF PIPES	Z B.S.P. THREAD	X DIA. BORE	W	V	U	D ACROSS FLATS MIN.	D ACROSS FLATS MAX.
		IN.	IN.	IN.	IN.	IN.	IN.	IN.
1	$\frac{1}{4}$" × $\frac{3}{16}$"	$\frac{1}{4}$	$\frac{5}{32}$	0·28	0·30	1·05	0·520	0·525
2	$\frac{5}{16}$" × $\frac{3}{16}$"	19 T.P.I. Whit. Form 0·60 O/D	$\frac{3}{16}$	0·32	0·34	1·15	0·595	0·600
3	$\frac{5}{16}$" × $\frac{1}{4}$"	19 T.P.I. Whit Form 0·60 O/D	$\frac{1}{4}$	0·32	0·34	1·15	0·595	0·600
4	$\frac{1}{4}$" × $\frac{1}{4}$"	$\frac{1}{4}$	$\frac{1}{4}$	0·32	0·37	1·25	0·705	0·710
5	$\frac{1}{4}$" × $\frac{5}{16}$"	$\frac{1}{4}$	$\frac{1}{4}$	0·32	0·37	1·25	0·705	0·710
6	$\frac{3}{16}$" × $\frac{1}{4}$"	14 T.P.I. Whit. Form 0·75 O/D	$\frac{1}{4}$	0·32	0·39	1·32	0·815	0·820
7	$\frac{3}{16}$" × $\frac{5}{16}$"	14 T.P.I. Whit. Form 0·75 O/D	$\frac{5}{16}$	0·32	0·39	1·32	0·815	0·820
8	$\frac{1}{4}$" × $\frac{1}{4}$"	$\frac{1}{4}$	$\frac{1}{4}$	0·32	0·40	1·37	0·815	0·820
9	$\frac{1}{4}$" × $\frac{5}{16}$"	$\frac{1}{4}$	$\frac{1}{4}$	0·32	0·40	1·37	0·815	0·820
10	$\frac{1}{4}$" × $\frac{1}{4}$"	$\frac{1}{4}$	$\frac{1}{4}$	0·32	0·40	1·37	0·815	0·820

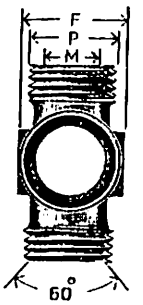
DIMENSIONS FOR BRANCHES 2 AND 4

ITEM	O/DIA. OF PIPES	P B.S.P. THREAD	M DIA. BORE	L	K	J	D ACROSS FLATS MIN.	D ACROSS FLATS MAX.
	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
1	$\frac{1}{4}$" × $\frac{3}{16}$"	$\frac{1}{8}$	$\frac{3}{32}$	0·22	0·30	0·98	0·520	0·525
2	$\frac{5}{16}$" × $\frac{3}{16}$"	$\frac{1}{4}$	$\frac{3}{16}$	0·22	0·30	1·02	0·595	0·600
3	$\frac{5}{16}$" × $\frac{1}{4}$"	$\frac{1}{4}$	$\frac{5}{32}$	0·28	0·30	1·08	0·595	0·600
4	$\frac{1}{4}$" × $\frac{1}{4}$"	$\frac{1}{4}$	$\frac{1}{4}$	0·28	0·30	1·11	0·705	0·710
5	$\frac{1}{4}$" × $\frac{5}{16}$"	19 T.P.I. Whit. Form 0·60 O/D	$\frac{1}{4}$	0·32	0·34	1·19	0·705	0·710
6	$\frac{3}{16}$" × $\frac{1}{4}$"	$\frac{1}{4}$	$\frac{5}{32}$	0·28	0·30	1·16	0·815	0·820
7	$\frac{3}{16}$" × $\frac{5}{16}$"	19 T.P.I. Whit. Form 0·60 O/D	$\frac{5}{16}$	0·32	0·34	1·24	0·815	0·820
8	$\frac{1}{4}$" × $\frac{1}{4}$"	$\frac{1}{4}$	$\frac{5}{32}$	0·28	0·30	1·19	0·815	0·820
9	$\frac{1}{4}$" × $\frac{5}{16}$"	19 T.P.I. Whit. Form 0·60 O/D	$\frac{5}{16}$	0·32	0·34	1·27	0·815	0·820
10	$\frac{1}{4}$" × $\frac{1}{4}$"	$\frac{1}{4}$	$\frac{1}{4}$	0·32	0·37	1·35	0·815	0·820

Brown Brothers Engineering Ltd

AGS 1126 UNION PIECES (4-WAY)





Material : ALUM. ALLOY (ANODISED)

Working Pressures :
500 lb./sq. in. for sizes ⅜" to 1" B.S.P.
200 lb./sq. in. for sizes 1¼" and 1½" B.S.P.

Item	Dia. of Pipes	Dimensions for Branches 1 and 3					
		Z	X	V	U	F Across Flats	
		B.S.P. Thread	Dia. Bore			Min.	Max.
		in.	in.	in.	in.	in.	in.
1	¾" × ⅝"	¾	⅝	0·61	1·375	1·092	1·10
2	⅞" × ⅝"	⅞	¾	0·65	1·50	1·192	1·20
3	1" × ⅝"	1	⅞	0·65	1·65	1·382	1·39
4	1" × ¾"	1	⅞	0·65	1·65	1·382	1·39
5	1¼" × ⅞"	1¼	1⅛	0·65	1·88	1·658	1·67
6	1¼" × 1"	1¼	1⅛	0·65	1·88	1·658	1·67
7	1½" × 1"	1½	1⅜	0·70	2·05	2·035	2·05
8	1½" × 1¼"	1½	1⅜	0·70	2·05	2·035	2·05

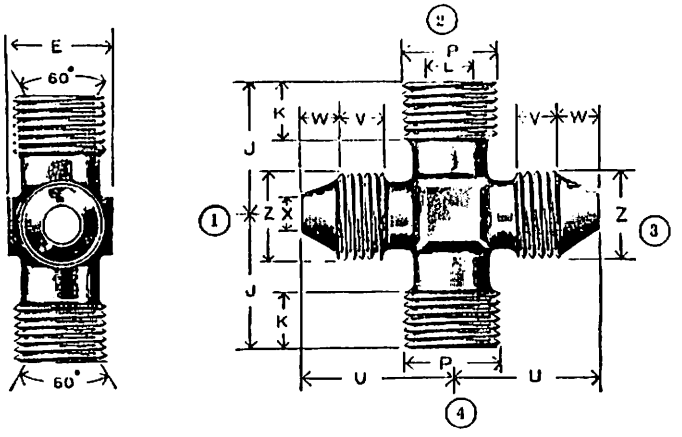
Item	Dia. of Pipes	Dimensions for Branches 2 and 4					
		P	M	L	K	F Across Flats	
		B.S.P. Thread	Dia. Bore			Min.	Max.
		in.	in.	in.	in.	in.	in.
1	¾" × ⅝"	⅝	½	0·55	1·30	1·092	1·10
2	⅞" × ⅝"	⅝	½	0·55	1·39	1·192	1·29
3	1" × ⅝"	⅝	½	0·55	1·45	1·382	1·39
4	1" × ¾"	¾	⅝	0·61	1·50	1·382	1·39
5	1¼" × ⅞"	⅞	¾	0·65	1·72	1·658	1·67
6	1¼" × 1"	1	⅞	0·65	1·78	1·658	1·67
7	1½" × 1"	1	⅞	0·65	1·90	2·035	2·05
8	1½" × 1¼"	1¼	1⅛	0·65	1·95	2·035	2·05

Brown Brothers Engineering Ltd

AGS 1127 CONE & NIPPLE PIECES (4-WAY)

Material : ALUM. ALLOY (ANODISED)

Working Pressure : 500 lb./sq. in. for sizes $\frac{5}{8}$" to 1" B.S.P.

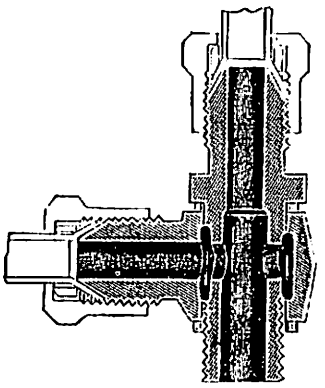


Item	Dia. of Pipes	Dimensions for Branches 1 and 3					E Across Flats	
		Z	X	W	V	U		
		B.S.P. Thread	Dia. Bore				Min.	Max.
		IN.	IN.	IN.	IN.	IN.	IN.	IN.
1	$\frac{5}{8}$" × $\frac{3}{8}$"	$\frac{3}{8}$	$\frac{1}{4}$	0·32	0·37	1·33	0·915	0·920
2	$\frac{5}{8}$" × $\frac{1}{2}$"	$\frac{1}{2}$	$\frac{3}{8}$	0·32	0·40	1·42	0·915	0·920
3	$\frac{3}{4}$" × $\frac{1}{2}$"	$\frac{1}{2}$	$\frac{3}{8}$	0·32	0·40	1·50	1·092	1·10

Item	Dia. of Pipes	Dimensions for Branches 2 and 4				E Across Flats	
		P	L	K	J		
		B.S.P. Thread	Dia. Bore			Min.	Max.
		IN.	IN.	IN.	IN.	IN.	IN.
1	$\frac{5}{8}$" × $\frac{3}{8}$"	$\frac{5}{8}$	$\frac{1}{2}$	0·55	1·25	0·915	0·920
2	$\frac{5}{8}$" × $\frac{1}{2}$"	$\frac{5}{8}$	$\frac{1}{2}$	0·55	1·25	0·915	0·920
3	$\frac{3}{4}$" × $\frac{1}{2}$"	$\frac{3}{4}$	$\frac{5}{8}$	0·61	1·375	1·092	1·10

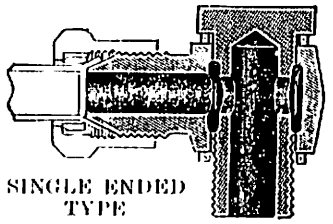
AGS 1128 CONE AND UNION BANJOS
(USING ALUMINIUM OR COPPER WASHERS)

(General Arrangement)



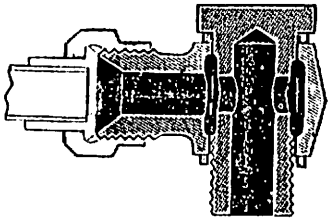
SINGLE ENDED TYPE WITH END CONNECTION ON BOLT

Parts required :—
Body–AGS 1129
Banjo Bolt–AGS 1136 or 1214
Jointing Washer AGS 1138 or 1139



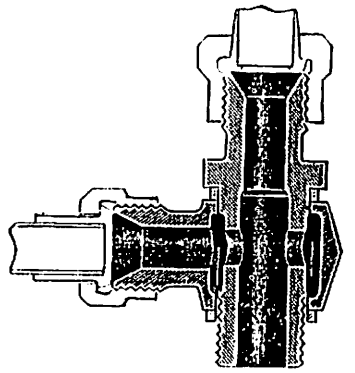
SINGLE ENDED TYPE

Parts required :
Body–AGS 1129
Banjo Bolt–AGS 1135 or 1213
Jointing Washer–AGS 1138 or 1139



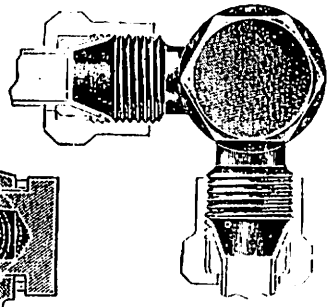
SINGLE ENDED TYPE

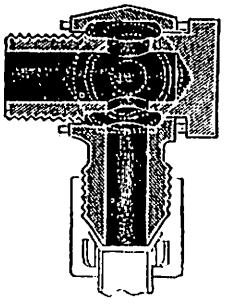
Parts required :
Body–AGS 1132
Banjo Bolt–
AGS 1135 or 1213
Jointing Washer–
AGS 1138 or 1139



SINGLE ENDED TYPE WITH END CONNECTION ON BOLT

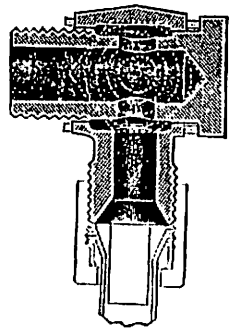
Parts required :—
Body–AGS 1132
Banjo Bolt–AGS 1137 or 1215
Jointing Washer AGS 1138 or 1139

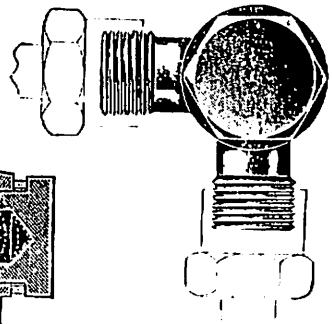




RIGHT ANGLE TYPE

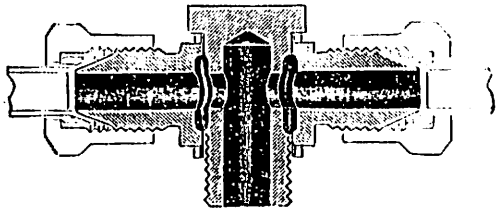
Parts required :
Body–AGS 1131
Banjo Bolt–AGS 1135 or 1213
Jointing Washer–
AGS 1138 or 1139





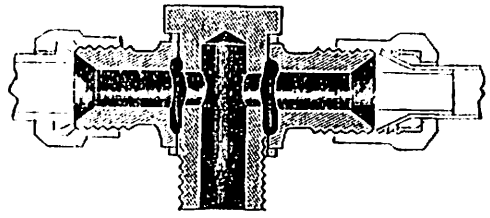
RIGHT ANGLE TYPE

Parts required :
Body–AGS 1134
Banjo Bolt–
AGS 1135 or 1213
Jointing Washer–
AGS 1138 or 1139



DOUBLE ENDED TYPE

Parts required : Body–AGS 1130, Banjo Bolt–1135 or 1213, and Jointing Washer–1138 or 1139

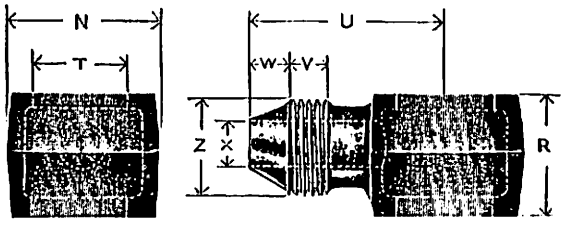


DOUBLE ENDED TYPE

Parts required : Body–AGS 1133, Banjo Bolt–1135 or 1213, and Jointing Washer–1138 or 1139

BONDED SEALS AGS 1186 MAY BE USED IN LIEU OF AGS 1138 AND 1139.

AGS 1129 SINGLE END CONE BANJO BODY



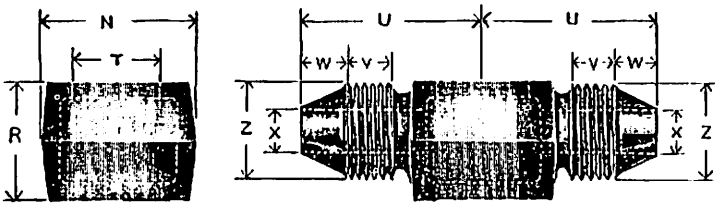
Material : ALUM. ALLOY

(ANODISED)

Working Pressure :
3000 lb/sq in. for sizes up to ½" B.S.P.

ITEM	O/D OF PIPE	Z B.S.P. THREAD	X BORE	W	V	U	T	R	N
		IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
A	1/8	1/4	3/32	0·22	0·30	1·05	0·383	0·50	0·75
B	1/4	1/4	3/32	0·28	0·30	1·22	0·518	0·60	0·90
BB	5/16	19 T.P.I. Whit. Form 0·60 O/D	1/8	0·32	0·34	1·35	0·60	0·70	1·00
C	3/8	3/8	1/4	0·32	0·37	1·43	0·656	0·80	1·10
CC	1/2	14 T.P.I. Whit. Form 0·75 O/D	5/16	0·32	0·39	1·56	0·75	0·90	1·20
D	1/2	1/2	3/8	0·32	0·40	1·62	0·825	1·00	1·30

AGS 1130 DOUBLE END CONE BANJO BODY



Material : ALUM. ALLOY

(ANODISED)

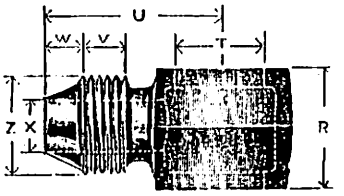
Working Pressure :
3000 lb./sq. in. for sizes up to ½" B.S.P.

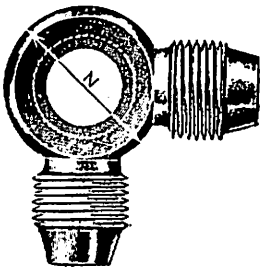
ITEM	O/D OF PIPE	Z B.S.P. THREAD	X BORE	W	V	U	T	R	N
	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
A	1/8	1/4	3/32	0·22	0·30	1·05	0·383	0·50	0·75
B	1/4	1/4	3/32	0·28	0·30	1·22	0·518	0·60	0·90
BB	5/16	19 T.P.I. Whit. Form 0·60 O/D	1/8	0·32	0·34	1·35	0·60	0·70	1·00
C	3/8	3/8	1/4	0·32	0·37	1·43	0·656	0·80	1·10
CC	1/2	14 T.P.I. Whit. Form 0·75 O/D	5/16	0·32	0·39	1·56	0·750	0·90	1·20
D	1/2	1/2	3/8	0·32	0·40	1·62	0·825	1·00	1·30

AGS 1131 DOUBLE R/A CONE BANJO BODY

Material : ALUM. ALLOY

(ANODISED)





Working Pressure :

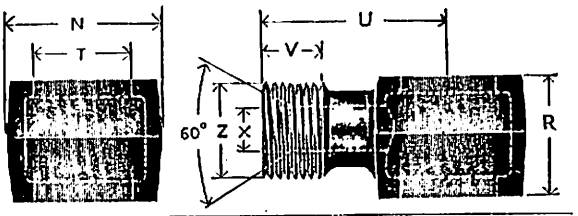
3000 lb./sq. in. for sizes up to $\frac{1}{2}$" B.S.P.

ITEM	O/D OF PIPE	Z B.S.P. THREAD	X BORE	W	V	U	T	R	N
	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
A	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{3}{32}$	0·22	0·30	1·05	0·383	0·50	0·75
B	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{3}{32}$	0·28	0·30	1·22	0·518	0·60	0·90
BB	$\frac{5}{16}$	19 T.P.I. Whit. Form 0·60 O/D	$\frac{7}{64}$	0·32	0·34	1·35	0·60	0·70	1·00
C	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{1}{4}$	0·32	0·37	1·43	0·656	0·80	1·10
CC	$\frac{7}{16}$	14 T.P.I. Whit. Form 0·75 O/D	$\frac{5}{16}$	0·32	0·39	1·56	0·75	0·90	1·20
D	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{8}$	0·32	0·40	1·62	0·825	1·00	1·30

AGS 1132 SINGLE END UNION BANJO BODY

Material : ALUM. ALLOY

(ANODISED)

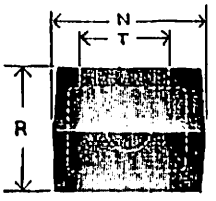


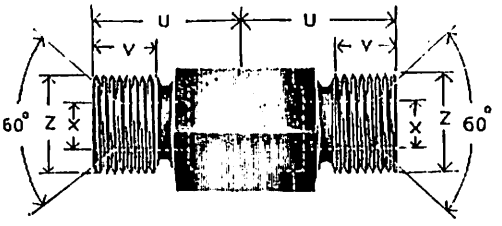
Working Pressures :

3000 lb./sq. in. for sizes up to $\frac{1}{2}$" B.S.P.
500 lb./sq. in. for sizes $\frac{5}{8}$" to 1" B.S.P.

ITEM	DIA. OF PIPE	Z B.S.P. THREAD	X DIA. BORE	V	U	T	R	N
	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
A	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{3}{32}$	0·35	0·87	0·383	0·50	0·75
B	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{3}{32}$	0·35	1·00	0·518	0·60	0·90
BB	$\frac{5}{16}$	19 T.P.I. Whit. Form 0·60 O/D	$\frac{7}{64}$	0·40	1·10	0·60.	0·70	1·00
C	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{1}{4}$	0·40	1·15	0·656	0·80	1·10
CC	$\frac{7}{16}$	14 T.P.I. Whit. Form 0·75 O/D	$\frac{5}{16}$	0·45	1·30	0·75	0·90	1·20
D	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{8}$	0·50	1·40	0·825	1·00	1·30
E	$\frac{5}{8}$	$\frac{5}{8}$	$\frac{1}{2}$	0·55	1·58	0·902	1·10	1·55
F	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{5}{8}$	0·61	1·79	1·041	1·25	1·85
G	$\frac{7}{8}$	$\frac{7}{8}$	$\frac{3}{4}$	0·65	1·93	1·189	1·40	2·05
H	1	1	$\frac{7}{8}$	0·65	2·05	1·309	1·65	2·20

AGS 1133 DOUBLE END UNION BANJO BODY





Material : ALUM. ALLOY

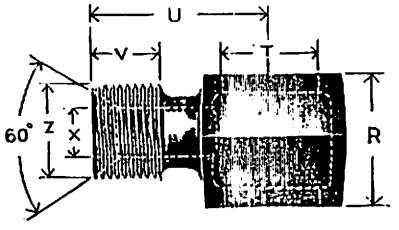
(ANODISED)

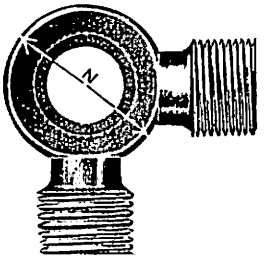
Working Pressures :

3000 lb./sq. in. for sizes up to $\frac{1}{2}$" B.S.P.
500 lb./sq. in. for sizes $\frac{5}{8}$" to 1" B.S.P.

ITEM	DIA. OF PIPE	Z B.S.P. THREAD	X DIA. BORE	V	U	T	R	N
	IN.		IN.	IN.	IN.	IN.	IN.	IN.
A	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{32}$	0·35	0·87	0·383	0·50	0·75
B	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{5}{32}$	0·35	1·00	0·518	0·60	0·90
BB	$\frac{3}{8}$	19 T.P.I. Whit. Form 0·60 O/D	$\frac{3}{16}$	0·40	1·10	0·60	0·70	1·00
C	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{4}$	0·40	1·15	0·656	0·80	1·10
CC	$\frac{1}{2}$	14 T.P.I. Whit. Form 0·75 O/D	$\frac{5}{16}$	0·45	1·30	0·75	0·90	1·20
D	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{8}$	0·50	1·40	0·825	1·00	1·30
E	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{8}$	0·55	1·58	0·902	1·10	1·55
F	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{8}$	0·61	1·79	1·041	1·25	1·85
G	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{8}$	0·65	1·93	1·189	1·40	2·05
H	1	1	$\frac{3}{8}$	0·65	2·05	1·309	1·65	2·20

AGS 1134 DOUBLE R.A. UNION BANJO BODY





Material : ALUM. ALLOY

(ANODISED)

Working Pressures :

3000 lb./sq. in. for sizes up to $\frac{1}{2}$" B.S.P.
500 lb./sq. in. for sizes $\frac{5}{8}$" to 1" B.S.P.

ITEM	DIA. OF PIPE	Z B.S.P. THREAD	X DIA. BORE	V	U	T	R	N
	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
A	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{32}$	0·35	0·87	0·383	0·50	0·75
B	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{5}{32}$	0·35	1·00	0·518	0·60	0·90
BB	$\frac{3}{8}$	19 T.P.I. Whit. Form 0·60 O/D	$\frac{3}{16}$	0·40	1·10	0·60	0·70	1·00
C	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{4}$	0·40	1·15	0·656	0·80	1·10
CC	$\frac{1}{2}$	14 T.P.I. Whit. Form 0·75 O/D	$\frac{5}{16}$	0·45	1·30	0·75	0·90	1·20
D	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{8}$	0·50	1·40	0·825	1·00	1·30
E	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{8}$	0·55	1·58	0·902	1·10	1·55
F	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{8}$	0·61	1·79	1·041	1·25	1·85
G	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{8}$	0·65	1·93	1·189	1·40	2·05
H	1	1	$\frac{3}{8}$	0·65	2·05	1·309	1·65	2·20

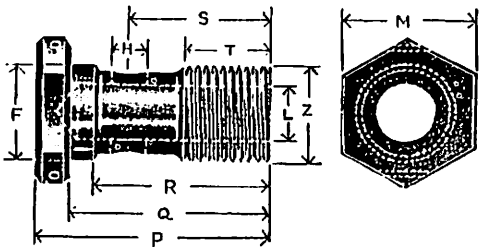
AGS 1135 BANJO BOLT

Material : H.T. STEEL

(CADMIUM)

Working Pressures :

3000 lb./sq. in. for sizes up to ½" B.S.P.
500 lb./sq. in. for sizes ⅝" to 1" B.S.P.



ITEM	O/D OF PIPE	Z B.S.P. THREAD	T	S	R	Q	P	M MIN.	M MAX.	L DRILL	H DRILL	F
	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
A	3/16	1/4	0·53	0·72	0·83	1·01	1·36	0·595	0·60	13/64	7/64	0·375
B	1/4	1/4	0·53	0·75	0·93	1·11	1·44	0·705	0·71	9/32	9/64	0·507
BB	5/16	19 T.P.I. Whit. Form 0·60 O/D	0·60	0·88	1·06	1·26	1·60	0·815	0·82	17/64	13/64	0·589
C	1/4	1/4	0·60	0·95	1·16	1·36	1·70	0·915	0·92	1/4	11/64	0·645
CC	3/8	14 T.P.I. Whit. Form 0·75 O/D	0·68	1·05	1·28	1·51	1·85	1·002	1·01	21/64	11/64	0·736
D	1/4	1/4	0·73	1·14	1·43	1·66	1·98	1·002	1·01	1/4	3/16	0·811
E	1/4	1/4	0·73	1·20	1·53	1·76	2·10	1·092	1·10	25/64	13/64	0·888
F	3/8	3/8	0·83	1·33	1·68	1·96	2·31	1·292	1·30	17/32	1/4	1·027
G	1/4	1/4	0·88	1·48	1·88	2·16	2·55	1·382	1·39	9/16	15/64	1·175
H	1	1	0·97	1·72	2·22	2·54	2·91	1·658	1·67	41/64	21/64	1·291

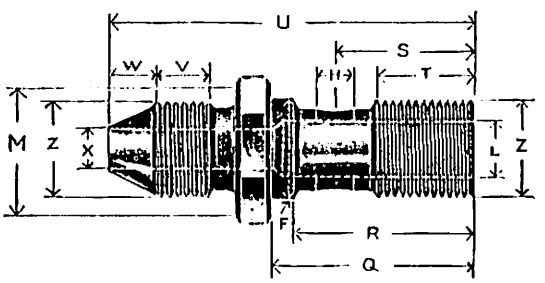
AGS 1136 BANJO BOLT with Cone Head Connection

Material : H.T. STEEL

(CADMIUM)

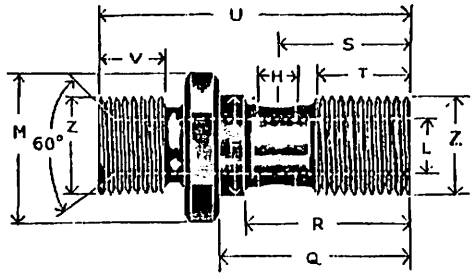
Working Pressure :

3000 lb./sq. in. for sizes up to ½" B.S.P.



ITEM	O/D OF PIPE	Z B.S.P. THREAD	X BORE	W	V	U	T	S	R	Q	M HEX. A/F MIN.	M HEX. A/F MAX.	L DRILL	H DRILL	F
	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
A	3/16	1/4	3/32	0·22	0·36	1·98	0·53	0·72	0·83	1·01	0·595	0·600	13/64	7/64	0·375
B	1/4	1/4	1/8	0·28	0·39	2·22	0·53	0·75	0·93	1·11	0·705	0·710	9/32	9/64	0·507
BB	5/16	19 T.P.I. Whit. Form 0·60 O/D	3/16	0·32	0·40	2·41	0·60	0·88	1·06	1·26	0·815	0·820	17/64	13/64	0·589
C	1/4	1/4	1/4	0·32	0·42	2·64	0·60	0·95	1·16	1·36	0·915	0·920	1/4	11/64	0·645
CC	3/8	14 T.P.I. Whit. Form 0·75 O/D	5/16	0·32	0·47	2·83	0·68	1·05	1·28	1·51	1·002	1·010	21/64	11/64	0·736
D	1/4	1/4	1/4	0·32	0·48	2·99	0·73	1·14	1·43	1·66	1·002	1·010	1/4	3/16	0·811

AGS 1137 BANJO BOLT with Union Head Connection



Material : H.T. STEEL

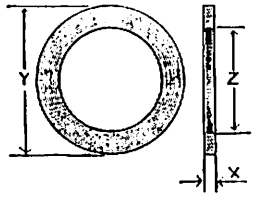
(CADMIUM)

Working Pressures :
3000 lb./sq. in. for sizes up to ½" B.S.P.
500 lb./sq. in. for sizes ⅝" to 1" B.S.P.

ITEM	O/D OF PIPE	Z B.S.P. THREAD	V	U	T	S	R	Q	M HEX. A/F MIN.	M HEX. A/F MAX.	L BORE	H BORE	F
	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
A	1/4	1/4	0·35	1·75	0·53	0·72	0·83	1·01	0·595	0·600	5/32	3/16	0·375
B	1/4	1/4	0·35	1·90	0·53	0·75	0·93	1·11	0·705	0·710	5/32	7/64	0·507
BB	1/8	19 T.P.I. Whit. Form 0·60 O/D	0·40	2·09	0·60	0·88	1·06	1·26	0·815	0·820	5/32	11/64	0·589
C	1/4	1/4	0·40	2·19	0·60	0·95	1·16	1·36	0·915	0·920	1/8	13/64	0·645
CC	1/8	14 T.P.I. Whit. Form 0·75 O/D	0·45	2·53	0·68	1·05	1·28	1·51	1·002	1·010	1/16	1/4	0·736
D	3/8	3/8	0·53	2·71	0·73	1·14	1·43	1·66	1·002	1·010	1/8	5/16	0·811
E	3/8	3/8	0·55	2·85	0·73	1·20	1·53	1·76	1·092	1·100	5/64	11/32	0·888
F	1/2	1/2	0·55	3·05	0·83	1·33	1·68	1·96	1·292	1·300	1/8	3/8	1·027
G	1/2	1/2	0·65	3·40	0·88	1·48	1·88	2·16	1·382	1·390	1/8	7/16	1·175
H	1	1	0·70	3·89	0·97	1·72	2·22	2·54	1·658	1·670	1/8	1/2	1·291

AGS 1138 & 1139 JOINTING WASHERS

AGS 1138 Material :
ALUMINIUM
(ANODISED)
(SELF)



AGS 1139 Material :
COPPER
(CADMIUM)

AGS 1138 :

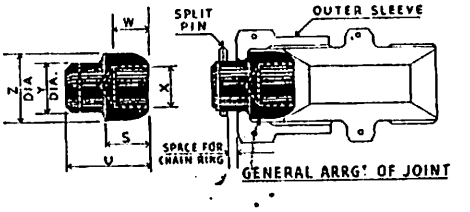
Working Pressure: 2000 lbs./sq. in. For sizes up to and including ½" B.S.P.

ITEM	Z	Y	X	IF MADE FROM SHEET	USED WITH B.S.P. THREADS
	IN.	IN.	IN.		IN.
A	0·39	0·56	0·08	14 S.W.G.	1/4
B	0·52	0·69	0·08	14 S.W.G.	1/4
BB	0·60	0·77	0·08	14 S.W.G.	19 T.P.I. Whit. Form 0·60 O/D
C	0·66	0·83	0·08	14 S.W.G.	1/4
CC	0·75	0·92	0·09	13 S.W.G.	14 T.P.I. Whit. Form 0·75 O/D
D	0·83	1·00	0·09	13 S.W.G.	3/8
E	0·91	1·08	0·09	13 S.W.G.	3/8
F	1·05	1·22	0·09	13 S.W.G.	1/2
G	1·19	1·36	0·09	13 S.W.G.	1/2
H	1·31	1·56	0·12	10 S.W.G.	1
J	1·66	1·91	0·12	10 S.W.G.	1¼
K	1·89	2·14	0·12	10 S.W.G.	1¼

AGS 1140 NIPPLE PLUGS

Material : ALUM. ALLOY

(ANODISED)



GENERAL ARRG' OF JOINT

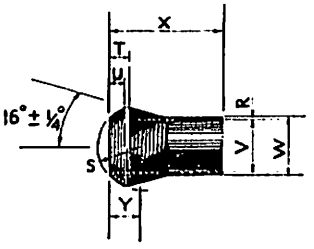
Working Pressures :

3000 lb./sq. in. for sizes up to ½" B.S.P.
500 lb./sq. in. for sizes ⅝" to 1" B.S.P.
200 lb./sq. in. for sizes 1¼" and 1½" B.S.P.

ITEM	B.S.P. THREAD	Z	Y	X	W	U	S	ITEMS REQUIRED TO COMPLETE JOINT	
				DIA. DRILL				OUTER SLEEVE	SPLIT PIN
	IN.	IN.	IN.	IN.	IN.	IN.	IN.		
A	¼	0·30	0·19	7/64	0·250	0·70	0·33	AGS 904/A	SP90–C4
B	⅜	0·40	0·25	17/64	0·375	0·86	0·49	AGS 2111	SP90–C5
BB	19 T.P.I. Whit. Form 0·60 O/D	0·49	0·31	9/32	0·375	0·85	0·48	904/ BB	SP90–C5
C	⅜	0·55	0·37	11/32	0·375	0·91	0·54	904/C	SP90—C5
CC	14 T.P.I. Whit. Form 0·75 O/D	0·61	0·44	⅜	0·375	0·91	0·54	904/CC	SP90–C7
D	½	0·69	0·50	15/32	0·375	0·85	0·48	904/D	SP90–C7
E	½	0·78	0·62	0·562	0·420	0·87	0·50	904/E	SP90–C4
F	¾	0·92	0·75	0·672	0·420	0·87	0·50	904/F	SP90–C4
G	¾	1·06	0·87	0·812	0·420	0·87	0·50	904/G	SP90–C4
H	1	1·16	1·00	0·844	0·420	0·87	0·50	904/H	SP90–C4
J	1¼	1·50	1·25	1·125	0·420	0·87	0·50	904/J	SP90–C4
K	1½	1·73	1·50	1·400	0·650	1·10	0·78	904/K	SP90–C4

NOTE: Items A—D as shown.
Items E—K have flat bottom holes drilled at each end.

AGS 1142 ADAPTOR NIPPLE



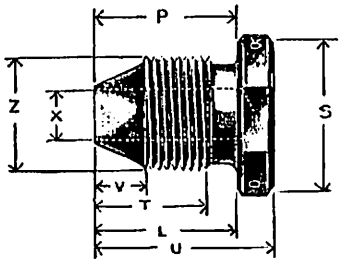
Material : STEEL (CADMIUM)

Working Pressures :

3000 lb./sq. in. for sizes up to ½" B.S.P.
500 lb./sq. in. for sizes ⅜" to 1" B.S.P.
200 lb./sq. in. for sizes 1¼" to 2" B.S.P.
100 lb./sq. in. for size 2½" B.S.P.

ITEM	O/D OF PIPE	Y	X	W	V	U	T	S	R	SUITABLE FOR PIPES
					BORE			RAD.	MIN.	S.W.G.
	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	
A	1/8	0·10	0·70	0·118	5/64	0·065	0·105	0·134	0·016	22 & 24
B	¼	0·14	0·85	0·181	3/16	0·070	0·110	0·30	0·016	22 & 24
BB	5/16	0·17	0·90	0·227	7/32	0·070	0·110	0·24	0·016	20 & 22
C	⅜	0·19	0·95	0·290	¼	0·100	0·140	0·27	0·017	20 & 22
CC	7/16	0·21	1·00	0·352	5/16	0·110	0·150	0·30	0·017	20 & 22
D	½	0·22	1·02	0·415	⅜	0·115	0·155	0·33	0·017	20 & 22
E	⅝	0·29	1·07	0·540	½	0·140	0·180	0·41	0·017	20 & 22
F	¾	0·30	1·10	0·666	⅝	0·175	0·215	0·46	0·018	20 & 22
G	⅞	0·37	1·15	0·789	¾	0·150	0·190	0·56	0·018	20 & 22
H	1	0·36	1·20	0·914	⅞	0·160	0·200	0·61	0·018	20 & 22
J	1¼	0·48	1·30	1·163	1·100	0·170	0·210	0·77	0·025	20 & 22
K	1½	0·55	1·45	1·412	1·350	0·190	0·230	0·91	0·030	20 & 22
M	2	0·67	2·00	1·852	1·780	0·200	0·250	1·170	0·035	18 & 16
P	2½	0·83	2·00	2·302	2·220	0·200	0·250	1·510	0·040	18 & 16

AGS 1143 CONE PLUGS



Material : ALUM. ALLOY

(ANODISED)

Working Pressures :

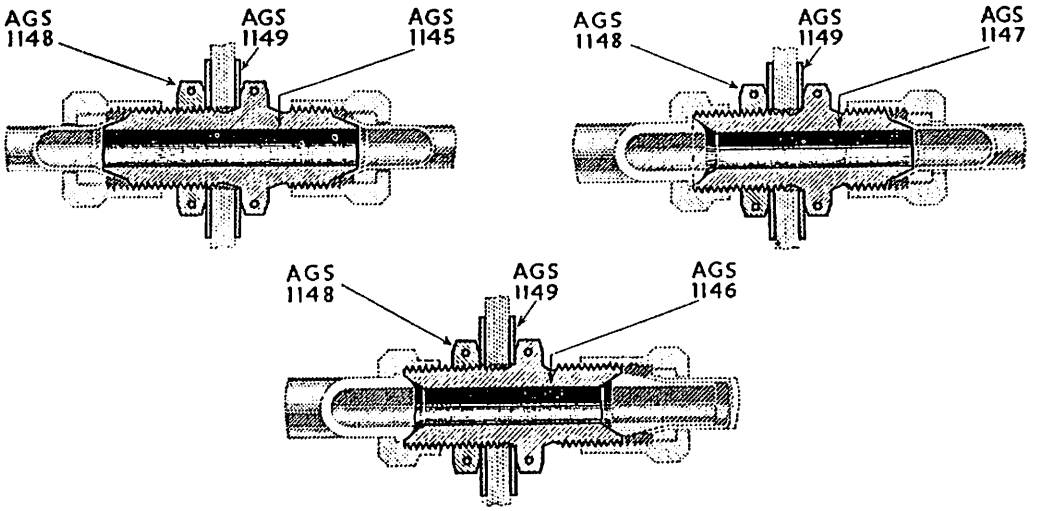
3000 lb./sq. in. for sizes up to ½" B.S.P.
500 lb./sq. in. for sizes ⅜" to 1" B.S.P.
200 lb./sq. in. for sizes 1¼" and 1½" B.S.P.

ITEM	O/D OF PIPE	Z	X	V	U	T	S ACROSS FLATS		P DRILL	L
		B.S.P. THREAD	DRILL				MAX.	MIN.	LENGTH	
	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
A	1/8	¼	3/32	0·22	0·95	0·57	0·525	0·520	0·7	0·70
B	¼	¼	5/32	0·28	1·05	0·62	0·600	0·595	0·8	0·80
BB	5/16	19 T.P.I. Whit. Form 0·60 O/D	7/32	0·32	1·15	0·72	0·710	0·705	0·85	0·90
C	⅜	⅜	¼	0·32	1·15	0·72	0·820	0·815	0·85	0·90
CC	7/16	14 T.P.I. Whit. Form 0·75 O/D	9/32	0·32	1·30	0·78	0·920	0·915	0·95	1·02
D	½	½	⅜	0·32	1·30	0·78	1·010	1·002	0·95	1·02
E	⅝	⅝	½	0·32	1·35	0·81	1·10	1·092	1·0	1·05
F	¾	¾	⅝	0·32	1·40	0·86	1·20	1·192	1·0	1·10
G	⅞	⅞	¾	0·32	1·50	0·91	1·39	1·382	1·0	1·15
H	1	1	⅞	0·34	1·50	0·87	1·67	1·658	1·0	1·15
J	1¼	1¼	1⅛	0·34	1·50	0·82	2·05	2·035	1·0	1·10
K	1½	1½	1⅜	0·34	1·65	0·97	2·22	2·20	1·0	1·25

E

AGS 1144 BULKHEAD UNION BODIES (HEXAGON)

(General Arrangement)



FOR USE WITH BULKHEADS NOT EXCEEDING 0·25" THICK

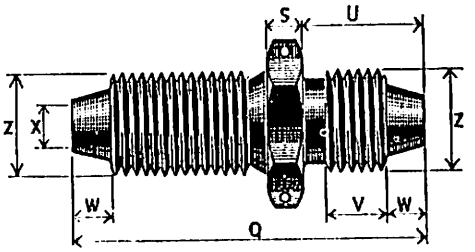
OUTSIDE DIA. OF PIPES	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"
WASHERS ITEM	1	2	3	4	5	6	7	8	9	10	11	12
DIA. OF HOLE IN BULKHEAD	13/32"	17/32"	1/2"	21/32"	25/32"	7/8"	29/32"	1 1/16"	1 5/32"	1 11/32"	1 13/16"	1 15/16"

AGS 1145 UNION BODY

Material : ALUM. ALLOY

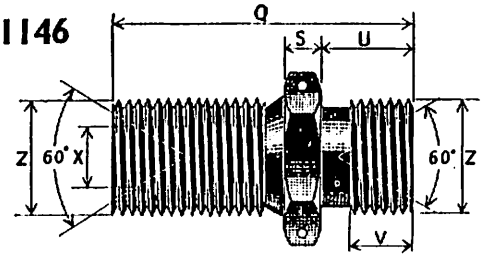
(ANODISED)

Working Pressure :
3000 lb./sq. in. for sizes up to 1/2" B.S.P.



ITEM	O/D OF PIPES	Z	X	W	FULL V THREAD	U	S	Q	HEXAGON ACROSS FLATS	
		B.S.P. THREAD	DIA. BORE						MIN.	MAX.
A	IN. 1/8	1/4	IN. 5/32	IN. 0·23	IN. 0·36	IN. 0·72	IN. 0·25	IN. 2·21	IN. 0·595	IN. 0·600
B	1/4	1/4	5/32	0·28	0·39	0·86	0·25	2·47	0·705	0·710
BB	5/16	19 T.P.I. Whit. Form 0·60 O/D	3/16	0·32	0·40	0·91	0·25	2·59	0·815	0·820
C	3/8	3/8	1/4	0·32	0·42	0·93	0·27	2·67	0·915	0·920
CC	7/16	14 T.P.I. Whit. Form 0·75 O/D	5/16	0·32	0·47	1·01	0·28	2·83	1·002	1·010
D	1/2	1/2	3/8	0·32	0·48	1·03	0·28	2·87	1·092	1·100

AGS 1146



UNION BODY

Material : ALUM. ALLOY

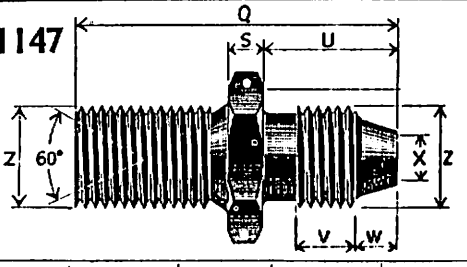
(ANODISED)

Working Pressures :

3000 lb/sq. in. for sizes up to ½" B.S.P.
500 lb./sq. in. for sizes ⅝" to 1" B.S.P.
200 lb./sq. in. for sizes 1¼" & 1½" B.S.P.

ITEM	DIAM. OF PIPES	Z	X	FULL V THREAD	U	S	Q	HEXAGON ACROSS FLATS	
		B.S.P. THREAD	DIA. BORE					MIN.	MAX.
A	IN. 1/8	IN. 1/8	IN. 3/32	IN. 0·33	IN. 0·47	IN. 0·25	IN. 1·70	IN. 0·595	IN. 0·600
B	1/4	1/4	5/32	0·35	0·52	0·25	1·81	0·705	0·710
BB	5/16	19 T.P.I. Whit. Form 0·60 O/D	7/32	0·40	0·57	0·25	1·92	0·815	0·820
C	3/8	3/8	1/4	0·40	0·59	0·27	1·96	0·915	0·920
CC	7/16	14 T.P.I. Whit. Form 0·75 O/D	9/32	0·45	0·67	0·28	2·14	1·002	1·010
D	1/2	1/2	3/8	0·53	0·75	0·28	2·31	1·092	1·100
E	5/8	5/8	1/2	0·55	0·78	0·30	2·40	1·292	1·300
F	3/4	3/4	5/8	0·55	0·78	0·30	2·40	1·382	1·390
G	7/8	7/8	3/4	0·65	0·88	0·35	2·65	1·658	1·670
H	1	1	7/8	0·70	0·98	0·35	2·90	1·845	1·860
J	1¼	1¼	1⅛	0·70	0·98	0·40	2·95	2·200	2·220
K	1½	1½	1⅜	0·70	0·98	0·40	2·95	2·555	2·580

AGS 1147



UNION BODY

Material : ALUM. ALLOY

(ANODISED)

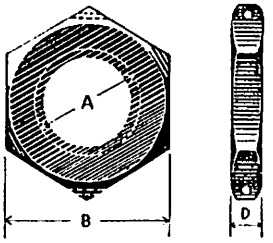
Working Pressure :

3000 lb./sq. in. for sizes up to ½" B.S.P.

ITEM	DIAM. OF PIPES	Z	X	W	FULL V THREAD	U	S	Q	HEXAGON ACROSS FLATS	
		B.S.P. THREAD	DIA. BORE						MIN.	MAX.
A	IN. 1/8	IN. 1/8	IN. 3/32	IN. 0·22	IN. 0·36	IN. 0·72	IN. 0·25	IN. 1·94	IN. 0·595	IN. 0·60
B	1/4	1/4	5/32	0·28	0·39	0·85	0·25	2·13	0·705	0·71
BB	5/16	19 T.P.I. Whit. Form 0·60 O/D	7/32	0·32	0·40	0·91	0·25	2·25	0·815	0·82
C	3/8	3/8	1/4	0·32	0·42	0·93	0·27	2·29	0·915	0·92
CC	7/16	14 T.P.I. Whit. Form 0·75 O/D	9/32	0·32	0·47	1·01	0·28	2·47	1·002	1·01
D	1/2	1/2	3/8	0·32	0·48	1·03	0·28	2·58	1·092	1·10

AGS 1148

THIN NUTS

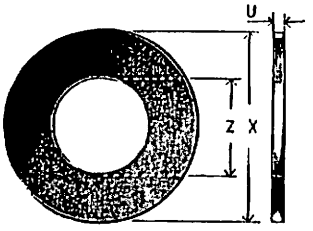


Material :
ALUM. ALLOY
(ANODISED)

ITEM	A	B		D
	B.S.P. THREAD	MIN.	MAX.	
	IN.	IN.	IN.	IN.
A	$\frac{1}{8}$	0·595	0·60	0·19
B	$\frac{1}{4}$	0·705	0·71	0·22
BB	19 T.P.I. Whit. Form 0·60 o/D	0·815	0·82	0·22
C	$\frac{3}{8}$	0·915	0·92	0·22
CC	14 T.P.I. Whit. Form 0·75 o/D	1·002	1·01	0·25
D	$\frac{1}{2}$	1·092	1·10	0·25
E	$\frac{5}{8}$	1·292	1·30	0·25
F	$\frac{3}{4}$	1·382	1·39	0·25
G	$\frac{7}{8}$	1·658	1·67	0·25
H	1	1·845	1·86	0·30
J	$1\frac{1}{4}$	2·20	2·22	0·30
K	$1\frac{1}{2}$	2·655	2·58	0·30

AGS 1149

WASHER PLATES



Material :
ALUMINIUM
(SELF)

ITEM	Z	X	U
			S.W.G.
	IN.	IN.	
1	0·40	1·00	18
2	0·53	1·15	18
3	0·61	1·35	18
4	0·67	1·40	18
5	0·76	1·55	18
6	0·84	1·65	18
7	0·92	1·90	16
8	1·06	2·05	16
9	1·20	2·40	16
10	1·32	2·65	16
11	1·67	3·05	16
12	1·90	3·50	16

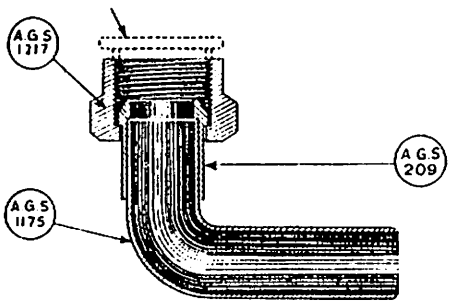
AGS 1159

CONE CAPS

Material : ALUMINIUM ALLOY (ANODISED)
Replaced by AGS 1236

AGS 1165 90° NIPPLE ELBOW (END CONNECTION)

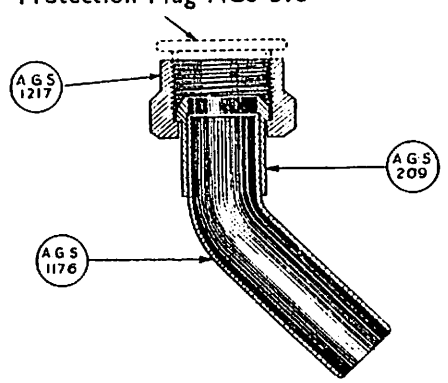
Protection Plug AGS 595



Item	To Suit Hose Bore	Component Parts		
		A.G.S. 1217 Item	A.G.S. 209 Item	A.G.S. 1175 Item
	in.			
B	$\frac{1}{4}$	B	B	B
C	$\frac{3}{8}$	C	D	C
D	$\frac{1}{2}$	D	F	D
E	$\frac{5}{8}$	E	H	E
F	$\frac{3}{4}$	F	J	F
G	$\frac{7}{8}$	G	K	G
H	1	H	L	H
J	$1\frac{1}{4}$	J	M	J
K	$1\frac{1}{2}$	K	N	K

AGS 1166 45° NIPPLE ELBOW (END CONNECTION)

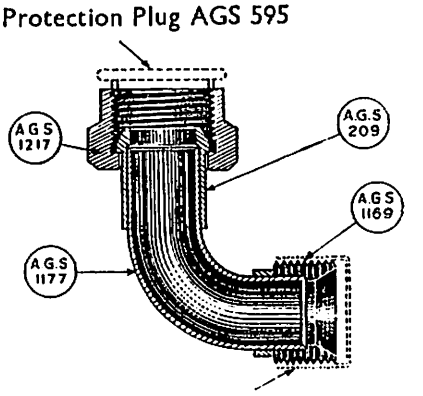
Protection Plug AGS 595



Item	To Suit Hose Bore	Component Parts		
		A.G.S. 1217 Item	A.G.S. 209 Item	A.G.S. 1176 Item
	in.			
B	$\frac{1}{4}$	B	B	B
C	$\frac{3}{8}$	C	D	C
D	$\frac{1}{2}$	D	F	D
E	$\frac{5}{8}$	E	H	E
F	$\frac{3}{4}$	F	J	F
G	$\frac{7}{8}$	G	K	G
H	1	H	L	H
J	$1\frac{1}{4}$	J	M	J
K	$1\frac{1}{2}$	K	N	K

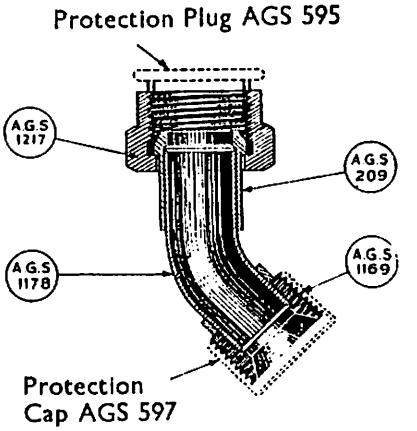
AGS 1167 — 90° UNION ELBOW

Item	Thread	Nut A.G.S. 1217 Item	Nipple A.G.S. 209 Item	Union Sleeve A.G.S. 1169 Item	Tube A.G.S. 1177 Item	Test Pressure Lb./Sq. In.
A	IN. ¼ B.S.P.	A	A	A	A	3,750
B	⅜ B.S.P.	B	B	B	B	3,750
BB	19 T.P.I. Whit. Form 0·60 O/D	BB	BB	BB	BB	3,750
C	½ B.S.P.	C	D	C	C	3,750
CC	14 T.P.I. Whit. Form 0·75 O/D	CC	DD	CC	CC	3,750
D	¾ B.S.P.	D	F	D	D	3,750
E	1 B.S.P.	E	H	E	E	750
F	1¼ B.S.P.	F	J	F	F	750
G	1½ B.S.P.	G	K	G	G	750
H	1 B.S.P.	H	L	H	H	750
J	1½ B.S.P.	J	M	J	J	300
K	1½ B.S.P.	K	N	K	K	300



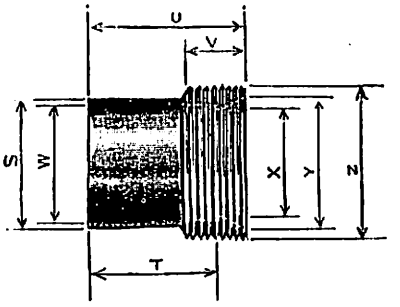
AGS 1168 — 45° UNION ELBOW

Item	Thread	Nut A.G.S. 1217 Item	Nipple A.G.S. 209 Item	Union Sleeve A.G.S. 1169 Item	Tube A.G.S. 1178 Item	Test Pressure Lb./Sq. In.
A	IN. ¼ B.S.P.	A	A	A	A	3,750
B	⅜ B.S.P.	B	B	B	B	3,750
BB	19 T.P.I. Whit. Form 0·60 O/D	BB	BB	BB	BB	3,750
C	½ B.S.P.	C	D	C	C	3,750
CC	14 T.P.I. Whit. Form 0·75 O/D	CC	DD	CC	CC	3,750
D	¾ B.S.P.	D	F	D	D	3,750
E	1 B.S.P.	E	H	E	E	750
F	1¼ B.S.P.	F	J	F	F	750
G	1½ B.S.P.	G	K	G	G	750
H	1 B.S.P.	H	L	H	H	750
J	1½ B.S.P.	J	M	J	J	300
K	1½ B.S.P.	K	N	K	K	300



AGS 1169 UNION SLEEVE

ITEM	DIA. OF PIPE	Z	X	W	V	U	S	T
		B.S.P. Thread	Dia. Drill					
A	IN. 1/16	IN. 1/4	IN. 1/4	IN. 1/16	IN. 0·35	IN. 0·53	IN. 0·30	IN. 0·30
B	1/8	1/4	9/32	1/4	0·35	0·65	0·37	0·37
BB	1/8	19 T.P.I. Whit. Form 0·60 O/D	1/4	5/16	0·40	0·70	0·43	0·42
C	1/4	1/4	11/32	1/4	0·40	0·74	0·49	0·45
CC	1/4	14 T.P.I. Whit. Form 0·75 O/D	1/4	7/16	0·45	0·83	0·55	0·55
D	3/8	3/8	1/2	3/8	0·50	0·90	0·62	0·60
E	3/8	3/8	25/64	3/8	0·55	0·75	0·75	0·50
F	1/2	1/2	21/32	1/2	0·61	0·81	0·88	0·54
G	1/2	1/2	11/16	1/2	0·65	0·85	1·00	0·57
H	1	1	1 1/32	1	0·65	0·85	1·13	0·60
J	1 1/4	1 1/4	1 5/16	1 1/4	0·65	0·85	1·38	0·54
K	1 1/4	1 1/4	1 3/8	1 1/4	0·70	0·90	1·63	0·61
L	1 1/2	1 1/2	1 1/2	1 1/2	0·70	0·90	1·90	0·61
M	2	2	1 3/4	2	0·75	0·95	2·15	0·61



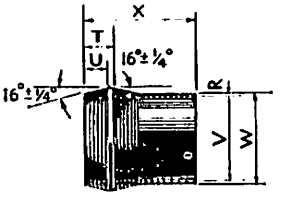
Material : BRASS

(SELF FINISH)

AGS 1170 NIPPLE

Items D, G, H and J cancelled. Replaced by AGS 2120

ITEM	O/D OF PIPE	X	W	V	U	T	R
				Bore			Min.
A	IN. 1/16	IN. 0·70	IN. 0·118	IN. 1/16	IN. 0·142	IN. 0·192	IN. 0·016
B	1/8	0·85	0·181	1/16	0·185	0·235	0·016
BB	1/8	0·90	0·227	3/32	0·235	0·285	0·016
C	1/4	0·95	0·290	1/8	0·235	0·285	0·017
CC	1/4	1·00	0·352	1/8	0·235	0·285	0·017
D							
E	3/8	1·05	0·540	1/4	0·235	0·285	0·017
F	1/2	1·11	0·665	3/8	0·235	0·285	0·018
G							
H							
J							
K	1 1/4	1·45	1·412	1·350	0·285	0·335	0·030
M	2	2·25	1·852	1·780	0·425	0·525	0·035
P	2 1/2	2·45	2·302	2·220	0·570	0·670	0·040



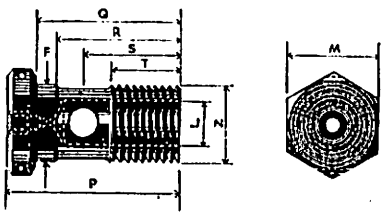
Material : STEEL

(CADMIUM)

Working Pressures :

3000 lb./sq. in. for sizes 1/16" to 1/2" B.S.P.
500 lb./sq. in. for sizes 3/8" to 1" B.S.P.
200 lb./sq. in. for sizes 1 1/4" to 2" B.S.P.
100 lb./sq. in. for size 2 1/2" B.S.P.

AGS 1173 & 1220 BANJO BOLT



Material: AGS 1173 .H.T STEEL
(CADMIUM)

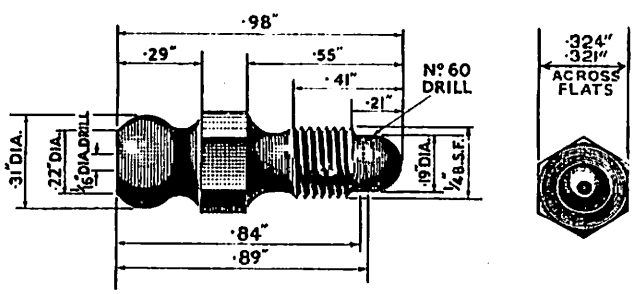
AGS 1220 ALUMINIUM ALLOY
(ANODISED)

Working Pressures:

3,000 lb./sq. in. for sizes up to ½" B.S.P.
500 lb./sq. in. for sizes ⅝" to 1" B.S.P.

ITEM	O/D OF PIPE	Z	T	S	R	Q	P	N	M		L	F
		B.S.P. Thread							Min.	Max.	Drill	
A	IN. $\frac{1}{4}$	IN. $\frac{1}{4}$	IN. 0·53	IN. 0·72	IN. 0·83	IN. 1·01	IN. 1·36	IN. 0·81	IN. 0·595	IN. 0·600	IN. $\frac{7}{32}$	IN. 0·375
B	$\frac{3}{8}$	$\frac{3}{8}$	0·53	0·75	0·93	1·11	1·44	0·87	0·705	0·710	$\frac{7}{32}$	0·507
BB	$\frac{7}{16}$	19 T.P.I. Whit. Form 0·60 O/D	0·60	0·88	1·06	1·26	1·60	1·00	0·815	0·820	$\frac{5}{32}$	0·589
C	$\frac{1}{2}$	$\frac{1}{2}$	0·60	0·95	1·16	1·36	1·70	1·09	0·915	0·920	$\frac{1}{4}$	0·645
CC	$\frac{7}{16}$	14 T.P.I. Whit. Form 0·75 O/D	0·68	1·05	1·28	1·51	1·85	1·21	1·002	1·010	$\frac{7}{32}$	0·736
D	$\frac{1}{2}$	$\frac{1}{2}$	0·73	1·14	1·43	1·66	1·98	1·32	1·002	1·010	$\frac{1}{4}$	0·811
E	$\frac{1}{2}$	$\frac{1}{2}$	0·73	1·20	1·53	1·76	2·10	1·43	1·092	1·100	$\frac{9}{32}$	0·888
F	$\frac{3}{4}$	$\frac{3}{4}$	0·83	1·33	1·08	1·96	2·31	1·60	1·292	1·300	$\frac{11}{32}$	1·027
G	$\frac{3}{4}$	$\frac{3}{4}$	0·88	1·48	1·88	2·16	2·55	1·80	1·382	1·390	$\frac{11}{32}$	1·175
H	1	1	0·97	1·72	2·22	2·64	2·91	2·09	1·658	1·670	$\frac{13}{32}$	1·291

AGS 1174 BLEEDER SCREW



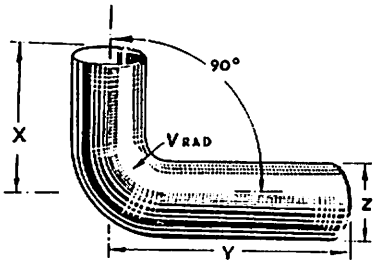
Material :

STEEL

(CADMIUM)

AGS 1175 90° ELBOW TUBE

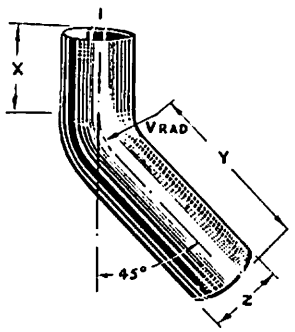
Material: STEEL TUBE
(SELF FINISH)



ITEM	Z		Y	X	V
	O.D	SWG			RAD.
	IN.		IN.	IN.	IN.
B	$\frac{1}{4}$	20	1·55	0·670	0·300
C	$\frac{3}{8}$	18	2·16	0·860	0·410
D	$\frac{1}{2}$	18	2·41	1·260	0·660
E	$\frac{5}{8}$	17	2·41	1·360	0·660
F	$\frac{3}{4}$	17	2·65	1·725	0·875
G	$\frac{7}{8}$	16	3·00	2·200	1·250
H	1	16	3·00	2·350	1·250
J	$1\frac{1}{4}$	14	3·25	2·600	1·250
K	$1\frac{1}{2}$	14	3·50	3·100	1·500

AGS 1176 45° ELBOW TUBE

Material : STEEL TUBE
(SELF FINISH)

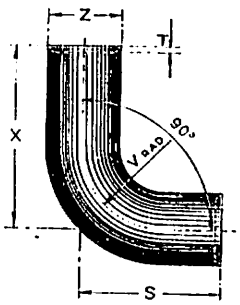


ITEM	Z		Y	X	V
	O/D	SWG			
	IN.		IN.	IN.	IN.
B	$\frac{1}{4}$	20	1·25	0·37	0·300
C	$\frac{3}{8}$	18	1·75	0·45	0·410
D	$\frac{1}{2}$	18	1·75	0·60	0·660
E	$\frac{5}{8}$	17	1·75	0·70	0·660
F	$\frac{3}{4}$	17	1·75	0·85	0·875
G	$\frac{7}{8}$	16	1·75	0·95	1·250
H	1	16	1·75	1·10	1·250
J	$1\frac{1}{4}$	14	2·00	1·35	1·250
K	$1\frac{1}{2}$	14	2·00	1·60	1·500

AGS 1177 ELBOW TUBE

Item	Z O/Dia.	Z SWG	X	V	T	S
	IN.		IN.	IN.	IN.	IN.
A	3/16	20	0·55	0·25	0·02	0·55
B	1/4	20	0·67	0·30	0·02	0·67
BB	5/16	18	0·83	0·41	0·02	0·83
C	3/8	18	0·86	0·41	0·02	0·86
CC	7/16	18	0·96	0·41	0·02	0·96
D	1/2	18	1·26	0·66	0·02	1·26
E	5/8	17	1·36	0·66	0·03	1·16
F	3/4	17	1·725	0·875	0·03	1·415
G	7/8	16	2·20	1·25	0·03	1·82
H	1	16	2·35	1·25	0·03	1·85
J	1 1/4	14	2·60	1·25	0·04	1·79
K	1 1/2	14	3·10	1·50	0·04	2·11

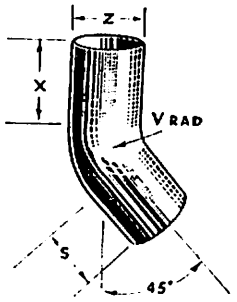
Material : STEEL TUBE (Self Finish)



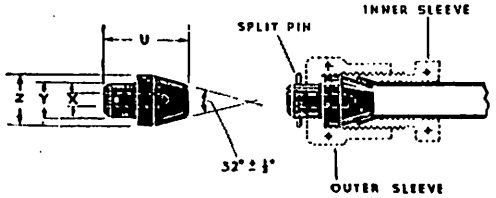
AGS 1178 ELBOW TUBE

Item	Z O/D	Z SWG	X	V	S
	IN.		IN.	IN.	IN.
A	3/16	20	0·30	0·25	0·30
B	1/4	20	0·37	0·30	0·37
BB	5/16	18	0·42	0·41	0·42
C	3/8	18	0·45	0·41	0·45
CC	7/16	18	0·55	0·41	0·55
D	1/2	18	0·60	0·66	0·60
E	5/8	17	0·70	0·66	0·50
F	3/4	17	0·85	0·875	0·54
G	7/8	16	0·95	1·25	0·57
H	1	16	1·10	1·25	0·60
J	1 1/4	14	1·35	1·25	0·54
K	1 1/2	14	1·60	1·50	0·61

Material : STEEL TUBE (Self Finish)



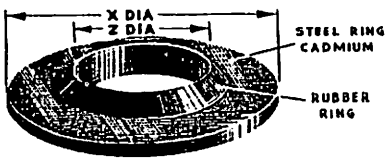
AGS 1185 PIPE COUPLINGS—CONE PLUGS



Material : BRASS (Cadmium)

Item	O/D of Pipe	Z	Y	X	U	Items Required to Complete Joint: Outer Sleeve	Items Required to Complete Joint: Split Pin
	IN.	IN.	IN.	IN.	IN.		
BB	5/16	0·49	0·31	Not Drilled	0·85	AGS 904/BB	SP9C6
C	3/8	0·55	0·37	7/16	0·91	AGS 904/C	SP9C6

AGS 1186 BONDED SEALS

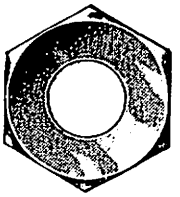


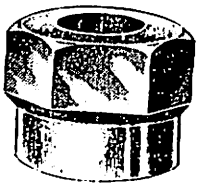
STEEL AND RUBBER RINGS BONDED TOGETHER

Item	Nom. Dia. or Thread	Z	X	Item	Nom. Dia. or Thread	Z	X
		IN.	IN.			IN.	IN.
1	6 B.A.	0·115 0·125	0·250 0·255	13	1⅛"	0·950 0·960	1·310 1·315
2	4 B.A.	0·157 0·167	0·286 0·291	F	¾" B.S.P.F. 1"	1·060 1·068	1·375 1·380
3	2 B.A.	0·200 0·210	0·330 0·335	FF	1 1/16"	1·090 1·100	1·520 1·525
4	¼"	0·265 0·275	0·520 0·525	14	1¼"	1·150 1·160	1·440 1·445
5	¼"	0·270 0·280	0·525 0·530	G	⅞" B.S.P.F. 1 3/16"	1·208 1·216	1·500 1·505
6	9/32"	0·322 0·330	0·525 0·530	15	1⅛"	1·280 1·290	1·630 1·635
7	5/16"	0·335 0·345	0·560 0·565	H	1" B.S.P.F. 1 5/16"	1·329 1·337	1·685 1·690
A	⅛" B.S.P.F. ⅜"	0·403 0·411	0·625 0·630	16	1⅜"	1·410 1·420	1·750 1·755
8	0·40"	0·438 0·442	0·723 0·727	17	1½"	1·530 1·540	1·880 1·885
9	7/16"	0·455 0·465	0·750 0·755	J	1¼" B.S.P.F 1⅝"	1·685 1·693	2·062 2·067
B	¼" B.S.P.F. ⅜"	0·536 0·544	0·810 0·815	18	1⅝"	1·780 1·790	2·250 2·255
10	9/16"	0·580 0·590	0·875 0·880	K	1½" B.S.P.F. 1¾"	1·902 1·910	2·307 2·312
BB	19 T.P.I. 0·60% WHIT. B.S.84	0·618 0·626	0·875 0·880	19	2"	2·030 2·040	2·500 2·505
11	⅝"	0·645 0·655	1·000 1·005	L	1¾" B.S.P.F.	2·156 2·164	2·750 2·755
C	⅜" B.S.P.F.	0·675 0·683	0·937 0·942	LL	2⅛"	2·280 2·290	2·770 2·775
12	11/16"	0·710 0·720	1·000 1·005	M	2" B.S.P.F.	2·380 2·390	2·875 2·880
CC	14 T.P.I. 75% WHIT. B.S.84	0·770 0·778	1·060 1·065	MM	2¼"	2·530 2·540	3·060 3·065
D	½" B.S.P.F. 13/16"	0·843 0·851	1·125 1·130	N	2½" B.S.P.F.	2·620 2·630	3·130 3·135
E	⅝" B.S.P.F. ⅞"	0·920 0·928	1·250 1·255	P	2½" B.S.P.F.	2·990 3·000	3·555 3·560

Brown Brothers Engineering Ltd

AGS 1187 (ALUM. ALLOY ANODISED) UNION NUT





Details and Prices on Application

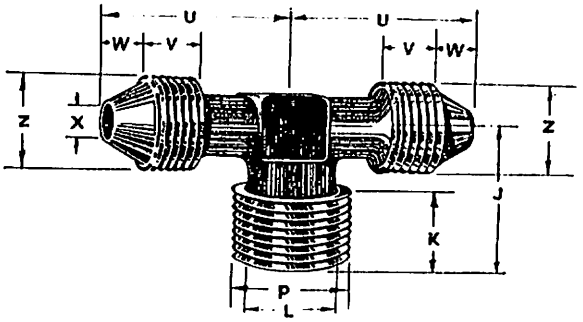
AGS 1193 & AGS 1194 PIPE COUPLINGS

FLANGED BULKHEAD UNION BODY

Material : BRASS **Working Pressure:** 3,000 lb./sq. in.

For arrangement of pipe joints, see AGS 1110

AGS 1195 PIPE COUPLINGS—CONE TEE



Material : BRASS (CADMIUM)

Working Pressure: 3,000 lb./sq. in. for sizes up to $\frac{1}{2}$" B.S.P.

ITEM	DIA. OF PIPES	DIMENSIONS FOR EQUAL BRANCHES Z		X	W	V	U	DIMENSIONS FOR REMAINING BRANCH P		J, K		J			
		B.S.P. THREAD		DIA. DRILL				B.S.P. THREAD		DIA. DRILL					
	IN.	IN.		IN.	IN.	IN.	IN.	IN.		IN.	IN.	IN.			
1	$\frac{3}{8}\times\frac{3}{8}\times\frac{3}{8}$	$\frac{3}{8}$		$\frac{13}{64}$	0·27	0·37	1·28	$\frac{3}{8}$		$\frac{1}{4}$	0·50	0·97			
2	$\frac{3}{8}\times\frac{3}{8}\times\frac{1}{4}$	$\frac{3}{8}$		$\frac{13}{64}$	0·27	0·37	1·10	$\frac{1}{4}$		$\frac{1}{4}$	0·35	0·82			
3	$\frac{5}{16}\times\frac{5}{16}\times\frac{3}{8}$	19 T.P.I. Whit. form 0·60" O/D		LETTR. "B" 0·238"	0·29	0·34	1·16	$\frac{3}{8}$		$\frac{3}{8}$	0·40	0·88			
4	$\frac{5}{16}\times\frac{5}{16}\times\frac{1}{4}$	19 T.P.I. Whit. form 0·60" O/D		LETTR. "B" 0·238"	0·29	0·34	1·08	$\frac{1}{4}$		$\frac{1}{4}$	0·35	0·79			

AGS 1196 UNION 4-WAY PIECE (Unequal)

Material: BRASS

AGS 1197 NIPPLE PLUGS

Material: BRASS

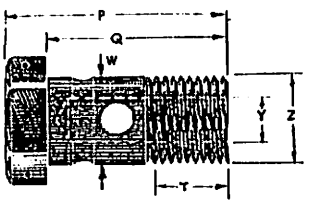
AGS 1198 CONE TEE (Equal)

Material: BRASS

AGS 1199 UNION TEE (Unequal)

Material: BRASS

AGS 1213 BANJO BOLT



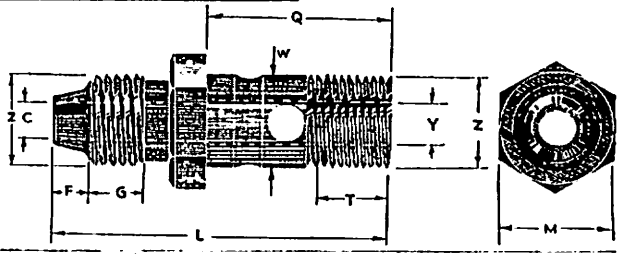
Material : LIGHT ALLOY
(ANODISED)

Working Pressures :
3,000 lb./sq. in. for sizes up to ½" B.S.P.
500 lb./sq. in. for sizes ⅝" to 1" B.S.P.

ITEM	O/D OF PIPE	Z B.S.P. THREAD	Y DIA. DRILL		W		T MIN. FULL THD.	Q	P	M MIN.	M MAX.
	IN.	IN.	IN.		IN.		IN.	IN.	IN.	IN.	IN.
A	3/16	1/8	5/32		0·375		0·43	1·01	1·36	0·595	0·600
B	1/4	1/4	7/32		0·507		0·45	1·11	1·44	0·705	0·710
BB	5/16	19 T.P.I. Whit. form 0·60" O/D	9/32		0·589		0·45	1·26	1·60	0·815	0·820
C	3/8	3/8	5/16		0·645		0·49	1·36	1·70	0·915	0·920
CC	7/16	14 T.P.I. Whit. form 0·75" O/D	13/32		0·736		0·52	1·51	1·85	1·002	1·010
D	1/2	1/2	7/16		0·811		0·59	1·66	1·98	1·002	1·010
E	5/8	5/8	9/16		0·888		0·59	1·76	2·10	1·092	1·100
F	3/4	3/4	11/16		1·027		0·65	1·96	2·31	1·292	1·300
G	7/8	7/8	13/16		1·175		0·69	2·16	2·55	1·382	1·390
H	1	1	1		1·291		0·75	2·54	2·91	1·658	1·670

AGS 1214 BANJO BOLT

with CONE HEAD CONNECTION



Material : LIGHT ALLOY

(ANODISED)

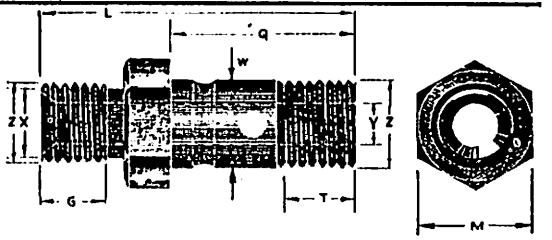
Working Pressure :

3000 lb./sq. in. for sizes up to $\frac{1}{2}$" B.S.P.

ITEM	O/D OF PIPE	Z B.S.P. THREAD	Y DIA. DRILL		W		T MIN. FULL THD.	Q	M MIN.	M MAX.	L		G	F	C BORE
	IN.	IN.	IN.		IN.		IN.	IN.	IN.	IN.	IN.		IN.	IN.	IN.
A	$\frac{3}{16}$	$\frac{1}{8}$	$\frac{5}{32}$		0·375		0·43	1·01	0·595	0·600	1·98		0·36	0·22	$\frac{3}{32}$
B	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{7}{32}$		0·507		0·45	1·11	0·705	0·710	2·22		0·39	0·28	$\frac{5}{32}$
BB	$\frac{5}{16}$	19 T.P.I. Whit. form 0·60"O/D	$\frac{9}{32}$		0·589		0·45	1·26	0·815	0·820	2·41		0·40	0·32	$\frac{3}{16}$
C	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{5}{16}$		0·645		0·49	1·36	0·915	0·920	2·54		0·42	0·32	$\frac{1}{4}$
CC	$\frac{7}{16}$	14 T.P.I. Whit.form 0·75"O/D	$\frac{13}{32}$		0·736		0·52	1·51	1·002	1·010	2·83		0·47	0·32	$\frac{5}{16}$
D	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{7}{16}$		0·811		0·59	1·66	1·002	1·010	2·99		0·48	0·32	$\frac{3}{8}$

AGS 1215 BANJO BOLT

with UNION HEAD CONNECTION



Material : LIGHT ALLOY

(ANODISED)

Working Pressures :

3000 lb./sq. in. for sizes up to $\frac{1}{2}$" B.S.P.

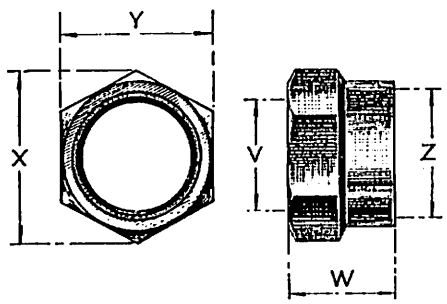
500 lb./sq. in. for sizes $\frac{5}{8}$" to 1" B.S.P.

ITEM	O/D OF PIPE	Z B.S.P. THREAD	Y DIA. DRILL	X	W		T MIN. FULL THD.	Q	M MIN.	M MAX.	L	G
	IN.	IN.	IN.	IN.	IN.		IN.	IN.	IN.	IN.	IN.	IN.
A	$\frac{3}{16}$	$\frac{1}{8}$	$\frac{5}{32}$	0·295	0·375		0·43	1·01	0·595	0·600	1·75	0·35
B	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{7}{32}$	0·410	0·507		0·45	1·11	0·705	0·710	1·90	0·35
BB	$\frac{5}{16}$	19 T.P.I. Whit. Form 0·60" O/D	$\frac{9}{32}$	0·480	0·589		0·45	1·26	0·815	0·820	2·09	0·40
C	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{5}{16}$	0·550	0·645		0·49	1·36	0·915	0·920	2·19	0·40
CC	$\frac{7}{16}$	14 T.P.I. Whit. Form 0·75" O/D	$\frac{13}{32}$	0·600	0·736		0·52	1·51	1·002	1·010	2·53	0·45
D	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{7}{16}$	0·690	0·811		0·59	1·66	1·002	1·010	2·71	0·53
E	$\frac{5}{8}$	$\frac{5}{8}$	$\frac{9}{16}$	0·760	0·888		0·59	1·76	1·092	1·100	2·85	0·55
F	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{11}{16}$	0·900	1·027		0·65	1·96	1·292	1·300	3·05	0·55
G	$\frac{7}{8}$	$\frac{7}{8}$	$\frac{13}{16}$	1·040	1·175		0·69	2·16	1·382	1·390	3·40	0·65
H	1	1	$\frac{15}{16}$	1·130	1·291		0·75	2·54	1·658	1·670	3·89	0·70

Brown Brothers Engineering Ltd

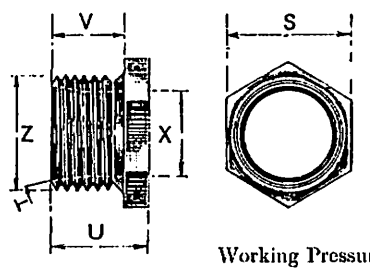
AGS 1216 & 1217 UNION NUTS

(MILD STEEL CADMIUM) (BRASS CADMIUM)



ITEM	Z	Y		X	W	V
	B.S.P. Thread	Max.	Min.	Approx.		
A	IN. ¼	IN. 0·525	IN. 0·520	IN. 0·610	IN. 0·45	IN. 0·270
B	⅜	0·710	0·705	0·820	0·51	0·370
BB	0·60 O/D × 19 T.P.I.	0·820	0·815	0·950	0·57	0·440
C	½	0·820	0·815	0·950	0·60	0·500
CC	0·75 O/D × 14 T.P.I.	0·920	0·915	1·060	0·65	0·540
D	¾	1·010	1·003	1·170	0·70	0·620
E	1	1·100	1·092	1·270	0·76	0·740
F	1¼	1·200	1·192	1·390	0·82	0·870
G	1½	1·390	1·382	1·610	0·93	1·000
H	1	1·480	1·468	1·710	1·01	1·110
J	1¾	1·860	1·845	2·150	1·02	1·400
K	1¼	2·220	2·200	2·560	1·13	1·665
L	1½	2·410	2·390	2·780	1·15	1·900
M	2	2·760	2·735	3·190	1·25	2·130

AGS 1218 PIPE COUPLING



STANDARD INNER SLEEVE

Replacing AGS 712 & 905

Material : ALUMINIUM ALLOY

(ANODISED)

Working Pressure: 3000 lb./sq. in. up to ½" B.S.P.F., 500 lb./sq. in. ⅝"–⅞" B.S.P.F.

ITEM	EXT. DIA. OF PIPE	Z	X	V	U	T	S	
		B.S.P. Thread	Dia. Drill				Min.	Max.
A	IN. 7/16	IN. ¼	IN. 11/32	IN. 0·50	IN. 0·70	13½°	IN. 0·440	IN. 0·445
B	½	⅜	11/32	0·55	0·75	13½°	0·520	0·525
BB	9/16	19 T.P.I. 0·60 O/D	11/32	0·60	0·80	13½°	0·595	0·600
C	⅝	½	11/32	0·60	0·80	13½°	0·705	0·710
CC	11/16	14 T.P.I. 0·75 O/D	11/32	0·70	0·95	13½°	0·815	0·820
D	¾	¾	11/32	0·70	0·95	13½°	0·915	0·920
E	⅞	1	11/32	0·70	0·95	14°	1·002	1·010
F	1⅛	1¼	11/32	0·75	1·00	14°	1·092	1·100
G	1⅜	1½	11/32	0·75	1·00	14°	1·292	1·300

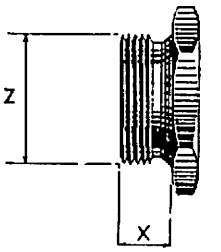
AGS 1220 BANJO BOLT

For use with Bleeder Screw, see page 122

AGS 1229 PLUG, TRANSPORTATION

For Brass Protection Plug, see AGS 595

Material : BRASS (SELF-FINISH)



ITEM		A	B	BB	C	CC	D	E	F	G	H	J	K	M	P
		IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.		
Z	B.S. Pipe	$\frac{1}{8}$	$\frac{1}{4}$	19 T.P.I. ·60 %	$\frac{3}{8}$	14 T.P.I. ·75 %	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$		
X		·30	·32	·33	·34	·37	·41	·42	·43	·46	·53	·55	·59		
Jointing Washer AGS 164. Item		E	F	R	A	S	M	J	H	N	P	Q	K		

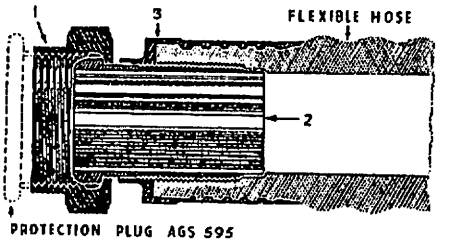
AGS 1230 RE-USABLE END FITTINGS

Material : LIGHT ALLOY (ANODISED)

Details and Prices on Application.

PARTS REQUIRED FOR ONE COMPLETE END FITTING

ITEM No.	AGS No.	DESCRIPTION
1	1231	Union Nut
2	1232	Tailpiece
3	1233	Ferrule



ITEM	A	B	C	D	E	F	G	H	J	K	L	M
	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
1/Dia. of Hose	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2

AGS 1234 90° RE-USABLE END FITTINGS

For Non-Fire Resistant Hose to Spec. No D.T.D. (R.D.I.) 3951.

Material: ALUM. ALLOY

Details on Application

AGS 1235 45° RE-USABLE END FITTINGS

For Non-Fire Resistant Hose to Spec. No. D.T.D. (R.D.I.) 3951

Material: ALUM. ALLOY

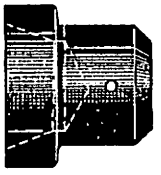
Details on Application

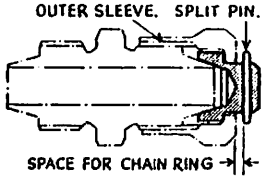
AGS 1236 CONE CAPS

Material : STEEL (CADMIUM)

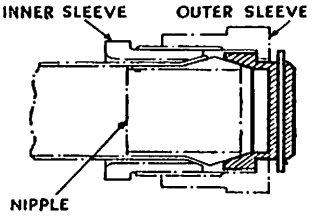
Working Pressures : 3000 lb./sq. in. for sizes up to ½" B.S.P.
500 lb./sq. in. for sizes up to 1" B.S.P.
200 lb./sq. in. for sizes up to 1½" B.S.P.

(Replacing AGS 1159)





Arrangement of Joints A to D.



Arrangement of Joints E to K.

ITEM	B.S.P. THREAD	ITEM REQUIRED TO COMPLETE JOINT			
		OUTER SLEEVE	SPLIT PIN	INNER SLEEVE	NIPPLE
A	¼"	AGS 904-A.	SP90-C3		
B	⅜"	AGS 2111	SP90-C5		
BB	19 T.P.I. 0·60%	AGS 904-BB	SP90-C5		
C	½"	AGS 904-C	SP90-C5		
CC	14 T.P.I. 0·75%	AGS 904-CC	SP90-C6		
D	¾"	AGS 904-D	SP90-C6		
E	1"	AGS 904-E	SP90-C7	AGS 1218-E	AGS 1170-E
F	1¼"	AGS 904-F	SP90-C8	AGS 1218-F	AGS 1170-F
G	1½"	AGS 904-G	SP90-C9	AGS 1218-G	AGS 1170-G
H	1"	AGS 904-H	SP90-C11	AGS 905-H	AGS 1170-H
J	1¼"	AGS 904-J	SP90-C13	AGS 905-J	AGS 1170-J
K	1½"	AGS 904-K	SP90-C15	AGS 905-K	AGS 1170-K

AGS 1237 90° RE-USABLE END FITTING

For ¼" I/D Non-Fire Resistant Hose to Spec. No. D.T.D. (R.D.I.) 3951

Material: STAINLESS STEEL. Details on Application

AGS 1238 45° RE-USABLE END FITTING

For ¼" I/D Non-Fire Resistant Hose to Spec. No. D.T.D. (R.D.I.) 3951

Material: STAINLESS STEEL. Details on Application

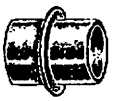
AGS 1512 OUTER SLEEVES

For 9·5 mm. H.T. Metal Braided Cable

Material : BRASS (ELECTRO-TINNED)

AGS 1513 INNER SLEEVES

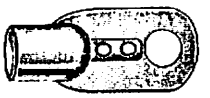
For H.T. Metal Braided Cable



Material: BRASS (ELECTRO-TINNED)

AGS 1516 TERMINAL LUGS

For 9 mm. Cable

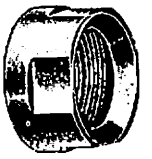


Material: BRASS

Finish: ELECTRO-TINNED

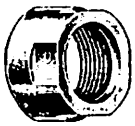
AGS 1517 UNION NUT

For H.T. Cable



Material : BRASS (ELECTRO-TINNED)

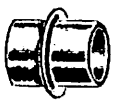
AGS 1519



UNION NUTS
For L.T. Cable

Material : BRASS (ELECTRO-TINNED)

AGS 1520



INNER SLEEVES
For Unisheathmet 7 Cable

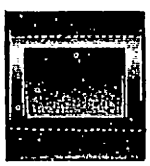
Material : BRASS (ELECTRO-TINNED)

AGS 1521

OUTER SLEEVES
For Unisheathmet 7 Cable

Material : BRASS (ELECTRO-TINNED)

AGS 1523

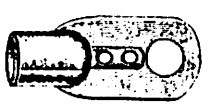


IDENTIFICATION SLEEVES
For L.T. Cable

Material: SYNTHETIC RESIN COMPOUND

Engraving when required to order

AGS 1524

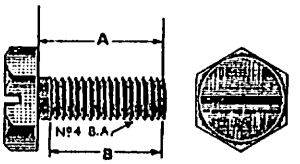


TERMINAL LUGS
For 7 mm. Ignition Cable

Material : BRASS (ELECTRO-TINNED)

AGS 1529 BONDING STRIP SCREWS

Material : MILD STEEL (CADMIUM)



ITEM	A	B	C	D	E
A IN.	0·25	0·30	0·40	0·50	0·60
B IN.	0·20	0·25	0·35	0·45	0·55

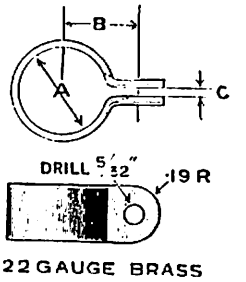
AGS 1531 THIMBLES FOR CAMBRIC COVERED H.T. CABLES

Material : BRASS (ELECTRO-TINNED)

AGS 1536 BONDING CLIPS

Material : BRASS (ELECTRO-TINNED)

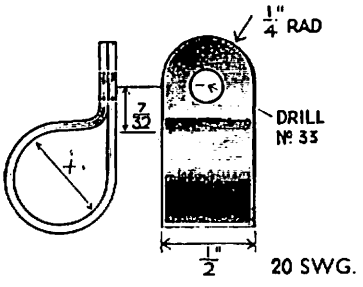
ITEM	A	B	C
	IN.	IN.	IN.
A	0·28	0·37	0·05
B	0·37	0·43	0·05



AGS 1538 TERMINAL LUGS FOR 5 mm. IGNITION CABLE

Material : BRASS (ELECTRO-TINNED)

AGS 1541



ELECTRIC CABLE CLEATS

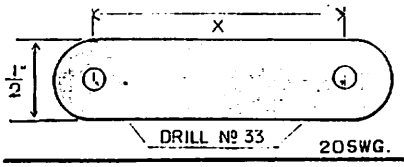
Material : BRASS (ELECTRO-TINNED)

ITEM	A	B	C	D	E	I
	IN.	IN.	IN.	IN.	IN.	IN.
X	1/4	5/16	3/8	7/16	1/2	3/4

AGS 1542

ELECTRIC CABLE SADDLES

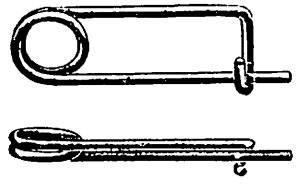
Material : ALUMINIUM (ANODISED)



ITEM	A	B	C	D	E	F	G	I
	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
X	1	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	3

AGS 1551

LOCKING PIN



Material : SPRING STEEL (CADMIUM)

Pins to this pattern supplied in any required size.

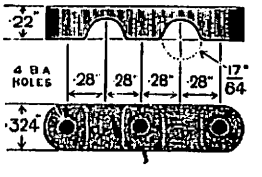
ITEM	TO SUIT NUTS
1	2 BA. 7/32" & 1/4" BSF.
2	5/32", 5/16", 3/8" BSF.
3	7/16", 1/2" BSF.
4	9/16", 5/8", 11/16" BSF.
5	3/4", 7/8" BSF.
6	1" BSF.

AGS 1562

SWITCH CLAMP

For 2 L.T. Cables

Material : ALUMINIUM ALLOY (SELF-FINISH)

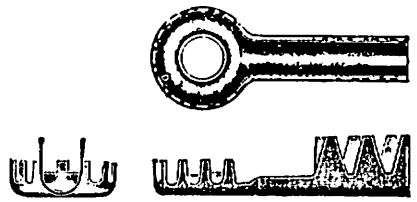


AGS 1593, 1594, 1595 & 1596 TERMINALS (CLAW TYPE)

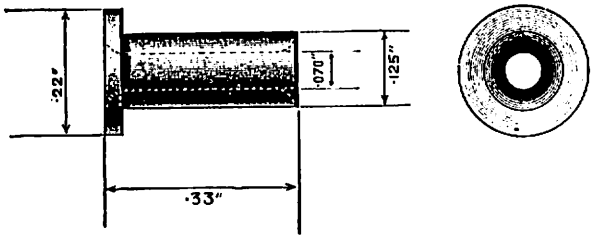
(6 BA) (4 BA) (2 BA) (0 BA)

Material: BRASS
(ELECTRO-TINNED OR NICKEL PLATED)

PART NO.	TERMINAL SIZE	TO TAKE CABLE
1593A	6 BA	UNIFLEX 4
1594A	4 BA	UNIFLEX 4
1594B	4 BA	UNISHEATH 4
1595A	2 BA	UNISHEATH 4
1595B	2 BA	UNIPLUG
1596A	0 BA	UNISHEATH 4
1596B	0 BA	UNIPLUG



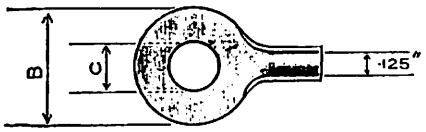
AGS 1599 BONDING WIRE SOCKET



Material : BRASS
(ELECTRO-TINNED)

AGS 1600 TERMINALS (CABLE END)

Material : BRASS SHEET, 22 S.W.G.
(ELECTRO-TINNED)



ITEM	SIZE	B	C
		IN.	IN.
A	4 BA	0·35	0·15
B	2 BA	0·45	0·19
C	$\frac{1}{4}$"	0·6	0·26
D	$\frac{5}{16}$"	0·6	0·32

AGS 1606 CABLE SLEEVES

Material : BRASS
(ELECTRO-TINNED)

ITEM	A	B	GAUGE SWG	ITEM	A	B	GAUGE SWG
	IN.	IN.			IN.	IN.	
1	0·083	0·25	28	5	0·125	0·625	28
2	0·110	0·25	24	6	0·125	0·75	28
3	0·110	0·50	24	7	0·135	0·50	28
4	0·125	0·50	28				

AGS 1612 BONDING LEADS

Material : FLEXIBLE COPPER CORD (Construction 16 × 4 × ·0048") and AGS 1599.
Length Overall 5" or as required

Brown Brothers Engineering Ltd

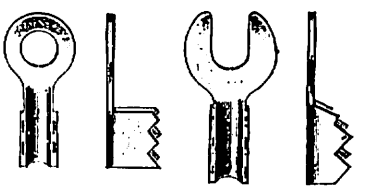
AGS 1615 TERMINAL TAGS

(P.O. Type Nos. 29, 30, 31 & 32)

Material : BRASS SHEET
(MATT NICKELLED)
OR NICKEL SILVER SHEET
(BRIGHT)

Tools for Crimping these Tags, P.O. Tool Inst. No. 213 (Mark 234)

TAG NO.	TO SUIT TERMINAL	TYPE
29	8 B.A.	RING
30	6 B.A.	RING
31	4 B.A.	SPADE
32	6 B.A.	SPADE



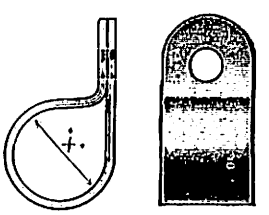
AGS 1616 SLEEVE (Inner)

(Short for 9·5 m/m. metal braided cable)

Material: BRASS (ELECTRO-TINNED)

AGS 1617 ELECTRIC CABLE CLEATS

Material : LIGHT ALLOY
(SELF)



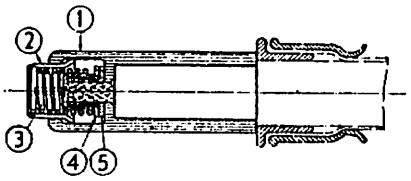
ITEM	1	2	3	4	5	6	7	8	9	10	11	12	13
×	1/8"	5/32"	3/16"	7/32"	1/4"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"	11/16"	3/4"

AGS 1624
(7 m'm. Cable)

TERMINALS

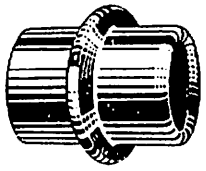
Complete assembly comprising :

Spring Loaded type for Magneto H.T. Cables



Description	7 mm. Cable
Cable Sleeve	AGS 1624/1
Plunger	AGS 1624/2
Spring	AGS 1624/3
Nipple (Outer)	AGS 1624/4
Nipple (Inner)	AGS 1624/5

AGS 1629



SLEEVE (Inner)

Medium, for 8·5 mm. Metal Braided Cable

Material : BRASS
(Electro-tinned)

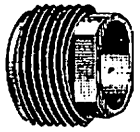
AGS 1630

SLEEVE (Inner) Short

(Short for 8·5 mm. metal braided cable)

Material: BRASS (Electro-tinned)

AGS 1634

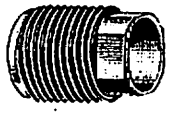


UNION NUT

For H.T. Cables

Material : BRASS
(Electro-tinned)

AGS 1635



UNION NUT

For L.T. Cables

Material : BRASS
(Electro-tinned)

AGS 1636

SLEEVE (Inner)

For Unisheathmet 7 Cable

Material : BRASS (Electro-tinned)

AGS 1638 SLEEVE (Outer)

For Unisheathmet 7 Cable

Material : BRASS
(ELECTRO-TINNED)

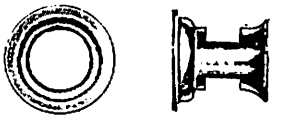
AGS 1639 SLEEVE (Inner)

For Unisheathmet 7 Cable

Material : BRASS
(ELECTRO-TINNED)

AGS 1651 SLEEVE (Type 1) CIRCULAR

ITEM	FOR CABLES
1	Unicel 4 and Unicel 7
2	Unisheath 4 and 7 and Unicel 19
3	Tricel 4 and Unisheath 19
4	Quadracel 4, Quincel 4, Tricel 7, Trisheathsmall 4 and Unicel 37
5	Quincel 7, Septocel 4, Quintosheathsmall 4
6	Septocel 7, Tricel 19, Septosheathsmall 4, and Trigen T.R.S. No. 1
7	Dusheath 7 and Quadragen T.R.S. No. 1
8	Dusheath 19 and Unicel 64
9	Quadragen T.R.S. No. 2, Tricel 37 and Trigen No. 2
10	Quadragen T.R.S. No. 3 and Trigenvin No. 2
11	Quadragen T.R.S. No. 2, Trigen T.R.S. No. 2 and Trigenvin No. 1 (Special)
12	Univin 83, Twelvevin 7, Unistartvin No. 2, Trigenvin No. 1 and Eighteenvin 4
13	Univin 138 and Twenfivecorevin



Material :
BRASS, 22 S.W.G.
(ELECTRO-TINNED)

AGS 1652 SLEEVE (Type 1) OVAL

ITEM	FOR CABLE
1	Ducel 4
2	Ducel 7 and Dusheathsmall 4
3	Ducel 19
4	Ducel 37
5	Duvin 64
6	—
7	—

Material:
BRASS, 22 S.W.G.
(ELECTRO-TINNED)

AGS 1653 & 1654 (Inner) (Outer) SLEEVE (Type 2) CIRCULAR

Material : BRASS, 22 S.W.G. (ELECTRO-TINNED)

AGS 1653 (Inner)

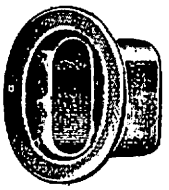
The cables shown are for both AGS 1653 & 1654

AGS 1654 (Outer)

ITEM	FOR CABLE	ITEM	FOR CABLE
1	Unisheathmet 7 and Trimet 4	13	Eighteencorevinmet No. 2
2	Trimet 7, Quadramet 4 and Quintomet 4	14	Sextocorevinmet No. 1
3	Sextomet 4, Septomet 4, Trimet 19 and Trigenmet 1	15	Twelvecorevinmet No. 2
		16	Ducorevinmet No. 1
4	Dusheathmet 4, Sextomet 7, Septomet 7 and Quadragenmet 1	17	Sextocorevinmet No. 3
5	Dusheathmet 7	18	Sextocorevinmet No. 2
6	Dusheathmet 19 and Trigenmet 2	19	Unimet 7
7	Quadragenmet 2	20	Unimet 4
8	Dusheathmet 37	21	Ducorevinmet No. 3
9	Quadragenmet 3 and Trigenmet 3	22	Eighteencorevinmet No. 1
10	Trigenmet 2 (Special)	23	Eighteencorevinmet No. 2
11	Quadragenmet 2 (Special)	24	Twenfivecorevinmet

AGS 1655 & 1656 (Inner) (Outer) SLEEVE (Type 2) OVAL

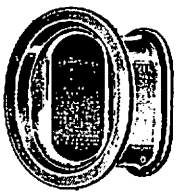
Material : BRASS, 22 S.W.G. (ELECTRO-TINNED)



AGS 1655 (Inner)

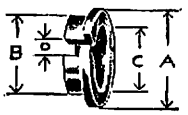
ITEM	FOR CABLE
1	Dumet 4 & 7
2	Dumet 19
3	Dumet 37
4	—
5	—
6	—
7	—

AGS 1656 (Outer)



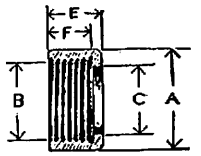
AGS 1657 COLLET

Material : STEEL (CADMIUM)



ITEM	A	B	C	D	ITEM	A	B	C	D
	IN.	IN.	IN.	IN.		IN.	IN.	IN.	IN.
0	0·56	0·63	0·41	0·128	5	1·15	1·05	0·87	0·62
1	0·68	0·58	0·54	0·37	6	1·25	1·18	1·00	0·68
2	0·80	0·71	0·59	0·37	7	1·33	1·25	1·12	0·75
3	0·90	0·80	0·68	0·44	8	0·56	0·53	0·41	0·28
4	1·02	0·93	0·78	0·56					

AGS 1658 GLAND NUT



Material : STEEL (CADMIUM)

ITEM	A	B		C	E	F	REF. NO.	ITEM	A	B		C	E	F	REF. NO.
		DIAM.	T.P.I.							DIAM.	T.P.I.				
	IN.	IN.		IN.	IN.	IN.			IN.	IN.		IN.	IN.	IN.	
0	0·70	0·625	26	0·50	0·31	0·26	5K/87	5A	1·35	1·25	16	0·90	0·50	0·45	5K/97
1	0·70	0·625	26	0·50	0·37	0·32	5K/88	6	1·35	1·25	16	1·03	0·50	0·45	5K/98
1A	0·85	0·75	26	0·50	0·37	0·32	5K/89	6A	1·46	1·375	16	1·03	0·50	0·45	5K/99
2	0·85	0·75	26	0·625	0·37	0·32	5K/90	7	1·46	1·375	16	1·18	0·50	0·45	5K/100
2A	0·95	0·875	26	0·625	0·37	0·32	5K/91	7A	1·55	1·437	16	1·18	0·50	0·45	5K/101
3	0·95	0·875	26	0·70	0·37	0·32	5K/92	8	0·95	$\frac{13}{16}$	20	0·625	0·50	0·45	5K/145
3A	1·10	1·00	16	0·70	0·37	0·32	5K/93	9	1·00	0·90	20	0·625	0·50	0·45	5K/146
4	1·10	1·00	16	0·80	0·37	0·32	5K/94	10	1·05	$\frac{15}{16}$	20	0·80	0·50	0·45	5K/147
4A	1·20	1·125	16	0·80	0·50	0·45	5K/95	11	0·75	0·687	26	0·57	0·37	0·32	5K/2364
5	1·20	1·125	16	0·90	0·50	0·45	5K/96								

AGS 1661 WATER PIPE BONDING CLIPS

Replacing AGS 1510 and AGS 1613

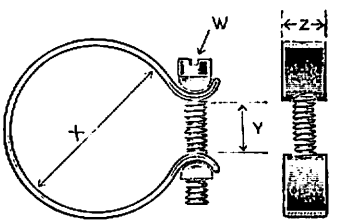
Material:

Clip—BRASS (ELECTRO-TINNED)

Bolt—STEEL (CADMIUM)

Nut—STEEL (CADMIUM)

ITEM	X	Y	Z	W	ITEM	X	Y	Z	W
	IN.	IN.	IN.	B.S.		IN.	IN.	IN.	B.S.
A	0·5	0·2	0·31	A31/B24	H	1·5	0·45	0·38	A31/B32
B	0·63	0·2	0·31	A31/B24	J	1·75	0·45	0·38	A31/B32
C	0·75	0·2	0·31	A31/B24	K	2·0	0·45	0·38	A31/B32
D	0·88	0·2	0·31	A31/B24	L	2·25	0·45	0·38	A31/B32
E	1·0	0·2	0·31	A31/B24	M	2·50	0·45	0·38	A31/B32
F	1·13	0·3	0·38	A31/B28	N	2·75	0·45	0·38	A31/B32
G	1·25	0·45	0·38	A31/B32					

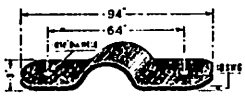


AGS 1666 WIRING CLEATS

Material : BRASS (ELECTRO-TINNED)

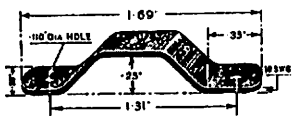
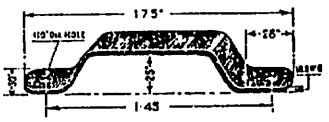
ITEM	2	3	4	5	6	7	8
DIA. 'A'	IN. 0·875	IN. 1·375	IN. 1·75	IN. 2·0	IN. 2·5	IN. 2·75	IN. 3·125

AGS 1671 WIRING CLEATS

ITEM A	ITEM B
	

Material :
ALUMINIUM
(SELF-FINISH)

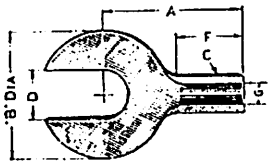
AGS 1672 WIRING CLEATS

ITEM A	ITEM B
	

Material:
ALUMINIUM
(SELF-FINISH)

AGS 1678 CABLE END

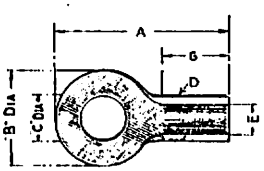
Fork Type, Channel End. **Material :** COPPER (ELECTRO-TINNED)



ITEM	REF. NO.	SIZE	A	B	C	D	F	G
A	5K/1605	0 BA	IN. 0·73	IN. 0·66	SWG 21	IN. 0·26	IN. 0·35	IN. 0·16
B	5K/1604	2 BA	0·65	0·50	21	0·20	0·35	0·10
C	5K/1603	4 BA	0·46	0·31	22	0·16	0·25	0·08
D	5K1,602	6 BA	0·375	0·26	23	0·125	0·20	0·062

AGS 1681 CABLE END

Eye Type, Channel End. **Material :** COPPER (ELECTRO-TINNED)



ITEM	REF. NO.	SIZE	A	B	C	D	E	G
A	5K/298	0 BA	IN. 0·90	IN. 0·50	IN. 0·26	SWG 23	IN. 0·16	IN. 0·35
D	5K/301	6 BA	0·62	0·30	0·13	26	0·10	0·25

AGS 1686 & 1687 SLEEVE (Type 4)

Material : BRASS
(ELECTRO-TINNED)

AGS 1686 INNER

AGS 1687 OUTER

ITEM	FOR CABLE	REF. NO.
1	Dumet 4	5K/73
2	Trimet 4 & Quadramet 4	5K/74
3	Quintomet 4	5K/75
4	Duradio 28	5K/197

ITEM	FOR CABLE	REF. NO.
1	Dumet 4	5K/76
2	Trimet 4 & Quadramet 4	5K/77
3	Quintomet 4	5K/78
4	Duradio 28	5K/198

AGS 1688 CABLE SLEEVE (Type 1) CIRCULAR

ITEM	FOR CABLE	REF. NO.
1	Ducel 7, Tricel 7 & Trisheathsmall 7	5K/33
2	Quincel 7 & Quintosheathsmall 4	5K/34
3	Septocel 7 & Septosheathsmall 4	5K/35

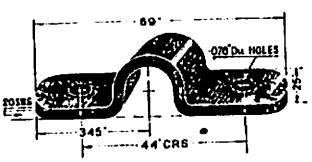
Material : BRASS, 22 S.W.G.
(ELECTRO-TINNED)

AGS 1689 SLEEVE FOR DUSHEATHSMALL 4 CABLE (Type 1) OVAL

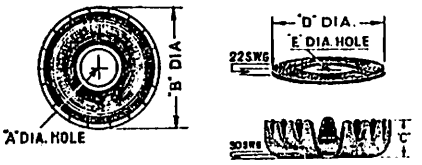
Material : BRASS, 22 S.W.G.
(ELECTRO-TINNED)

AGS 1690 WIRING CLEAT

Material : ALUMINIUM
(SELF-FINISH)



AGS 1691 CABLE END, CROWN EYE TYPE

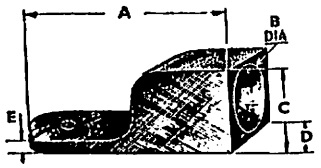


Material: BRASS
(ELECTRO-TINNED)

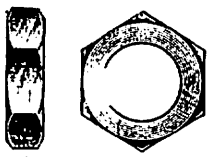
ITEM	A	B	C	D	E	REF. NO.
	IN.	IN.	IN.	IN.	IN.	
A	0·125	0·343	0·156	0·300	0·170	5K/910
AA	0·156	0·343	0·156	0·300	0·187	5K/184
B	0·156	0·406	0·187	0·340	0·202	5K/911
BB	0·187	0·406	0·187	0·340	0·233	5K/14
C	0·250	0·625	0·187	0·550	0·207	5K/912
D	0·375	0·812	0·281	0·742	0·430	5K/913
E	0·156	0·500	0·250	0·465	0·202	5K/186
F	0·312	0·812	0·281	0·742	0·367	5K/2505

AGS 1703—1706 TERMINAL LUGS

Material: BRASS (ELECTRO-TINNED)



AGS No.	A	B	C	D	E
	IN.	IN.	IN.	IN.	IN.
1703	1·7	0·45	0·6	0·6	0·125
1704	1·7	0·34	0·5	0·5	0·08
1705	1·7	0·218	0·36	0·36	0·08
1706	2·0	0·55	0·7	0·7	0·125



AGS 1710 L.T. UNION LOCKNUT

½" × 26 T.P.I. Whit. Form.

Material : BRASS
(ELECTRO-TINNED)

AGS 1713 L.T. CABLE END

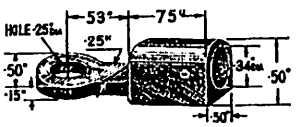
Material : BRASS
(ELECTRO-TINNED)

AGS 1714 L.T. INSULATING CABLE SLEEVE

Material : 'TUFNOL'

AGS 1715 No. 7 TERMINAL LUG

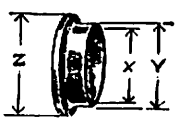
Material : BRASS
(ELECTRO-TINNED)



AGS 1722 CABLE SLEEVE (TRIGENMET)

Material : BRASS (ELECTRO-TINNED)

	ITEM	X	Y	Z
		IN.	IN.	IN.
A	INNER	0·890	0·946	1·08
B	OUTER	0·970	1·026	1·08



AGS 1723 CABLE SLEEVE (Inner) (TRIGENMET No. 2)

Material : BRASS
(ELECTRO-TINNED)

X	Y	Z
IN.	IN.	IN.
0·565	0·616	1·08

AGS 1724 CABLE SLEEVE (Outer) (TRIGENMET No. 2)

Material : BRASS (ELECTRO-TINNED)

AGS 1725 BLANKING DISCS

For use under Gland Nuts where Cable Sleeves are not fitted

Material : MILD STEEL
(CADMIUM)

ITEM	A
	IN.
1	0·565
2	0·685
3	0·875

AGS 1726 SLEEVE (Type 3) CIRCULAR

Material :
BRASS
(ELECTRO-TINNED)

ITEM	DESCRIPTION	FOR CABLE
1	INNER SLEEVE	QUADRAGENMET 2
2	OUTER SLEEVE	QUADRAGENMET 2
3	INNER SLEEVE	QUADRAGENMET 1
4	OUTER SLEEVE	QUADRAGENMET 1
5	INNER SLEEVE	UNIMET 7
6	OUTER SLEEVE	UNIMET 7

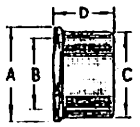
AGS 1727 SLEEVE (Type 3) CIRCULAR (Inner)

Material : BRASS
(ELECTRO-TINNED)

ITEM	FOR CABLE
1	QUADRAGENMET 2
2	UNIMET 37

AGS 1729 SLEEVE (Type 3) CIRCULAR (Outer)

For L.T. Metal Braided Cable

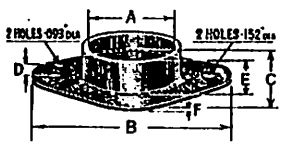


Material : BRASS
(ELECTRO-TINNED)

A	B	C	D
IN.	IN.	IN.	IN.
0·58	0·428	0·535	0·33

AGS 1731 SLEEVE, CIRCULAR (Outer)

For L.T. Metal Braided Cable



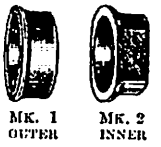
Material : BRASS
(ELECTRO-TINNED)

A	B	C	D	E	F
IN.	IN.	IN.	IN.	IN.	IN. SWG.
0·97	1·86	1·25	0·19	0·30	22

AGS 1732 SLEEVE (Type 8) CIRCULAR (Outer and Inner)

For L.T. Metal Braided Cable

Material: BRASS (ELECTRO-TINNED)

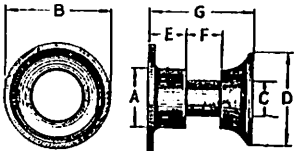


AGS 1733 SLEEVE (Type 1) CIRCULAR

For L.T. Cable

Material: BRASS (ELECTRO-TINNED)

ITEM	A	B	C	D	E	F	G
	IN.	IN.	IN.	IN.	IN.	IN.	IN.
1	0·53	0·68	0·20	0·62	0·20	0·20	0·55
2	0·43	0·56	0·20	0·49	0·20	0·20	0·55
3	0·65	1·15	0·30	0·84	0·25	0·25	0·80

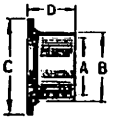


AGS 1734 SLEEVE (Type 4) CIRCULAR (Inner)

For L.T. Metal Braided Cable

Material: BRASS (ELECTRO-TINNED)

ITEM	A	B	C	D
	IN.	IN.	IN.	IN.
1	0·61	0·677	1·10	0·49
2	0·61	0·677	0·96	0·49
3	0·368	0·420	0·61	0·23
4	0·404	0·47	0·61	0·23

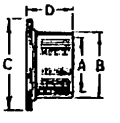


AGS 1735 SLEEVE (Type 9) CIRCULAR (Outer)

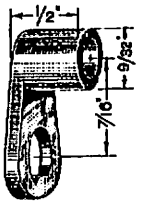
For L.T. Metal Braided Cable

Material: BRASS (ELECTRO-TINNED)

ITEM	A	B	C	D
	IN.	IN.	IN.	IN.
1	0·445	0·50	0·61	0·35
2	0·495	0·55	0·61	0·35
3	0·702	0·84	1·10	0·80
4	0·702	0·84	0·96	0·55



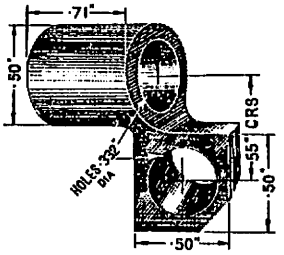
AGS 1737 TERMINAL LUG (Nos. 10 & 11)



Material : BRASS (ELECTRO-TINNED)

ITEM	LUG NO.	DIA. CABLE HOLE
		IN.
1	10	0·1875

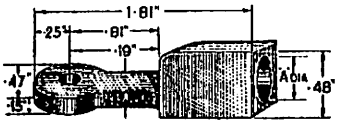
AGS 1738 TERMINAL LUG (Nos. 12 & 13)



Material : BRASS (ELECTRO-TINNED)

ITEM	LUG NO.	
1	12	Right-hand
2	13	Left-hand

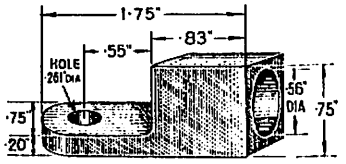
AGS 1741 TERMINAL LUG (Nos. 16 & 31)



Material : BRASS (ELECTRO-TINNED)

ITEM	LUG NO.	"A" DIMENSION
		IN.
A	16	0·344
B	31	0·201

AGS 1744 TERMINAL LUG (No. 17)



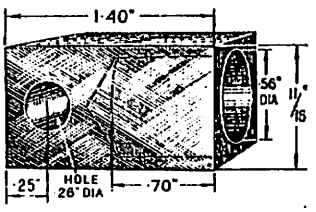
Material: BRASS (ELECTRO-TINNED)

AGS 1745 TERMINAL EYELET

Material : BRASS (ELECTRO-TINNED)

AGS 1746 TERMINAL LUG (No. 18)

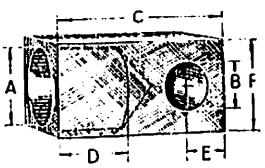
Material : BRASS (ELECTRO-TINNED)



AGS 1747 TERMINAL LUG (No. 19, 23, 24 & 27)

Material : BRASS (ELECTRO-TINNED)

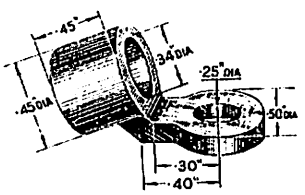
ITEM	LUG NO.	A	B	C	D	E	F
		IN.	IN.	IN.	IN.	IN.	
A	19	0·42	0·261	1·00	0·45	0·25	$\frac{1}{2}$" sq.
B	23	0·34	0·201	0·80	0·32	0·25	$\frac{1}{2}$" sq.
C	24	0·201	0·201	0·75	0·30	0·25	$\frac{1}{2}$" sq.
D	27	0·201	0·152	0·69	0·30	0·188	$\frac{5}{16}$" sq.



AGS 1748 TERMINAL LUG (No. 22)

(D.C. Output on "UK.X" (GENERATOR)

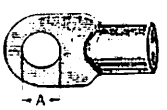
Material : BRASS (ELECTRO-TINNED)



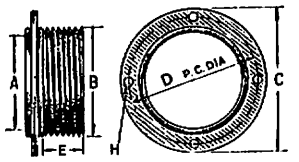
AGS 1749 TERMINAL LUG (Nos. 28 & 29)

Material : COPPER TUBE (ELECTRO-TINNED)

ITEM	LUG NO.	"A" DIA.
		IN.
A	28	0·390
B	29	0·328



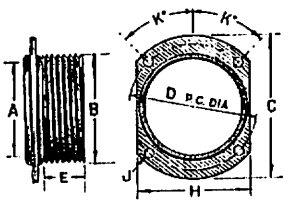
AGS 1756 FLANGED GLAND (Round) FOR CABLES



Material: STEEL
(CADMIUM)

ITEM	A	B		C	D	E	H	FITS COUPLING NUT
	IN.	Dia. IN.	TPI	IN.	IN.	IN.	Rivets IN.	AGS
1	0·540	0·625	26	1·000	0·812	0·32	$\frac{1}{16}$	1658-0/1
2	0·600	0·750	26	1·150	0·937	0·32	$\frac{1}{16}$	1658-1A/2
3	0·725	0·875	26	1·310	1·090	0·32	$\frac{1}{16}$	1658-2A/3
4	0·820	1·000	16	1·500	1·250	0·32	$\frac{3}{32}$	1658-3A/4
5	0·950	1·125	16	1·500	1·312	0·50	$\frac{3}{32}$	1658-4A/5
6	1·070	1·250	16	1·750	1·500	0·50	$\frac{3}{32}$	1658-5A/6
7	1·200	1·375	16	1·875	1·625	0·50	$\frac{3}{32}$	1658-6A/7
8	1·270	1·437	16	1·950	1·687	0·50	$\frac{3}{32}$	1658-7A
9	0·950	1·125	16	1·620	1·370	0·50	$\frac{3}{32}$	1658-4A/5
10	1·460	1·625	20	2·130	1·875	0·50	$\frac{3}{32}$	Stores Ref. No.5X/257
11	1·460	1·625	20	2·240	1·950	0·50	$\frac{5}{32}$"	Stores Ref. No.5X/257

AGS 1757 FLANGED GLAND (Oval) FOR CABLES

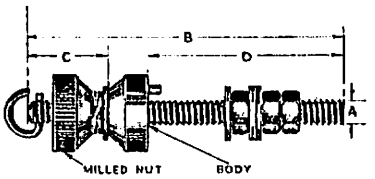


Material:
STEEL
(CADMIUM)

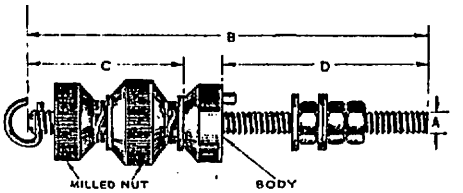
ITEM	A	B		C	D	E	H	J	K	FITS COUPLING NUT
	IN.	Dia. IN.	T.P.I.	IN.	IN.	IN.	IN.	Rivets IN.		AGS
1	0·540	0·625	26	1·000	0·812	0·32	0·650	$\frac{1}{16}$	30°	1658-0/1
2	0·600	0·750	26	1·150	0·937	0·32	0·780	$\frac{1}{16}$	30°	1658-1A/2
3	0·725	0·875	26	1·310	1·090	0·32	0·900	$\frac{1}{16}$	30°	1658-2A/3
4	0·820	1·000	16	1·500	1·250	0·32	1·100	$\frac{3}{32}$	45°	1658-3A/4
5	0·950	1·125	16	1·625	1·375	0·50	1·200	$\frac{3}{32}$	45°	1658-4A/5
6	1·070	1·250	16	1·750	1·500	0·50	1·280	$\frac{3}{32}$	45°	1658-5A/6
7	1·200	1·375	16	1·875	1·625	0·50	1·400	$\frac{3}{32}$	45°	1658-6A/7
8	1·270	1·437	16	1·950	1·687	0·50	1·470	$\frac{3}{32}$	45°	1658-7A
9	0·950	1·125	16	1·620	1·370	0·50	1·150	$\frac{3}{32}$	45°	1658-4A/5
10	1·200	1·375	16	1·875	1·625	0·50	1·430	$\frac{3}{32}$	45°	1658-6A/7

INSTRUMENT TERMINALS

Material: BRASS
(NICKEL PLATED)



AGS 1759 (SINGLE)



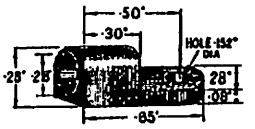
AGS 1760 (DOUBLE)

SIZE	DIMENSIONS			WASHER	SPRING-WASHER	NUTS B.S. SPEC. A11
A	B	C	D			
	IN.	IN.	IN.	AGS NO.	AGS NO.	
1" BSF	2·60	0·79	1·50	1582-A	1583-A	EB
2 BA	2·64	0·73	1·50	1582-B	1583-B	2B
4 BA	2·15	0·64	1·25	1582-C	1583-C	4B
6 BA	1·75	0·54	1·00	1582-D	1583-D	6B
8 BA	1·35	0·47	0·75	1582-E	1583-E	8B
10 BA	1·00	0·39	0·50	1582-F	1583-F	10B

SIZE	DIMENSIONS		
A	B	C	D
	IN.	IN.	IN.
¼ BSF	3·28	1·47	1·50
2 BA	3·17	1·36	1·50
4 BA	2·70	1·19	1·25
6 BA	2·27	1·06	1·00
8 BA	1·74	0·86	0·75
10 BA	1·33	0·72	0·59

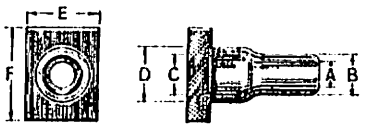
AGS 1761 TERMINAL LUG No. 25

Material: BRASS



AGS 1762 CABLE SLEEVES, SINGLE (WEATHERPROOFING)

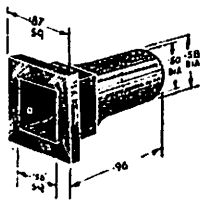
Material:
SYNTHETIC RUBBER



Item	A	B	C	D	E	F
	IN.	IN.	IN.	IN.	IN.	IN.
A	0·140	0·210	0·185	0·255	0·380	0·480
	0·135	0·200	0·180	0·245	0·375	0·475

AGS 1766 CABLE LUG WEATHER-PROOFING SLEEVE

Material : SYNTHETIC RUBBER



AGS 1767 CABLE END FITTING (For Magneto)

Material : BRASS (ELECTRO-TINNED)

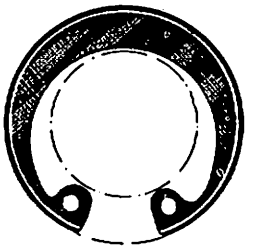
AGS 2001—2020 ODDIE NUTS AND ANCHORAGES

PLEASE REFER TO SPECIAL ODDIE SECTION

Pages 255–264

Brown Brothers Engineering Ltd.

AGS 2030 INTERNAL CIRCLIPS

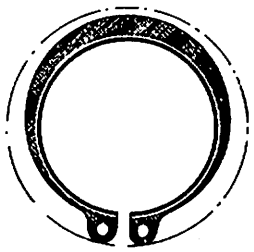


Material: STEEL
(PHOSPHATE AND OIL)

TABLE OF SIZES

ITEM	TO SUIT BORES OF DIAMETER	ITEM	TO SUIT BORES OF DIAMETER	ITEM	TO SUIT BORES OF DIAMETER	ITEM	TO SUIT BORES OF DIAMETER
1	⅜"	34	1 1/16", 1 1/8" & 28 mm.	87	2 3/16" & 2¼"	116	3 3/16"
2	7/16", ⅜" & ⅝"	36	1 1/16"	88	2 5/16" & 2 3/8"	110	3½", 90 mm. & 3 7/16"
3	⅝"	37	1¼" & 1 5/16"	89	2 7/16", 2½" & 2 9/16"	111	3⅝" & 3 ¾"
4	½"	19	1 5/16", 1 11/32", 30 mm. & 1 3/8"	91	58 mm., 2 7/16", 2 11/16" & 2¾"	112	95 mm. & 3¾"
7	⅝", ¾" & ⅞"	39	1 11/32", 1 3/8", 1 13/32", 1½",32mm.	93	2 ¾"	117	3 ⅞"
9	7/16" & ⅝"	41	1 13/32" & 1 7/16"	94	2 13/16" & 62 mm.	60	3½", 100 mm. & 3 15/16"
5	⅝", ¾" & ⅞"	42	1 15/32" & 1 1/2"	95	2 ⅞"	146	4"
6	6 mm.	43	1 ⅝" & 1 11/16"	96	2¼"	61	4 1/16", 4¼" & 105 mm.
10	½" & ⅝"	23	1 ⅝", 1 5/8" & 35 mm.	97	2 11/16", 2 3/4" & 2 ⅞"	62	4 1/8" & 4½"
16	⅝"	45	1 ⅝", 1 11/16", 1 17/32" & 1 3/4"	132	2⅞" & 2 15/16"	65	4 5/32", 110 mm. & 4⅜"
11	¾" & ⅞"	25	1 17/32", 37 mm. & 1 19/32"	101	2 15/16" & 3"	145	4 3/16"
13	¾"	25	1 19/32", 38 mm. & 1½"	102	2⅞" & 70 mm.	66	4½", 115 mm. & 4 7/16"
14	7/8" & 19 mm.	26	1 19/32", 1 11/16" & 1 ⅝"	103	2 15/16"	67	117 mm., 4⅝" & 4 ¾"
147	¾" & ⅞"	26	1 3/4", 40 mm. & 1 13/16"	106	2 ⅞"	68	120 mm. & 4¾"
15	⅞"	27	1 13/16", 1 15/16" & 1⅞"	104	72 mm & 2 15/16"	69	4 ⅞" & 4¾"
17	15/16"	28	1 13/16", 42 mm., 1 15/16" & 1 31/32"	105	2⅞"	70	125 mm. & 4 15/16"
18	⅞"	47	1 15/16", 1 31/32", 1 ⅞" & 44 mm.	114	2 15/16"	70	127 mm. & 5"
35	21 mm., ⅞" & ⅞"	48	1 31/32" & 1½"	107	2 ⅞"	71	5 1/16", 130 mm. & 5⅛"
20	⅞"	49	1 31/32"	108	2 15/16" & 3"	72	5 1/8" & 5¼"
21	22 mm.	44	1 15/16", 1 31/32" & 1 ⅞"	115	3 1/16"	99	5 1/8" & 135 mm.
22	¾" & ⅞"	51	1 15/16" & 47 mm.	109	3 1/16", 3 3/16" & 3¼"	99	5⅜" & 137 mm.
24	⅞", ⅞" & ⅞"	50	1½"	109	80 mm. & 3 3/16"	100	5 3/16", 5¼" & 140 mm.
31	24 mm., ⅞" & ⅞"	57	1 15/16", 1 ⅞" & 1 31/32"	113	3 3/16"	64	5 3/16" & 5⅜"
32	⅞"	59	2"	53	3 1/16"	73	5 ⅞" & 145 mm.
29	1" & 1 1/16"	58	2 1/16" & 52 mm.	54	3½"	73	5¾", 147 mm. & 5 ⅞"
33	26 mm., 1 1/16" & 1 1/8"	86	2 1/16"	55	3 1/16"	74	5¾", 150 mm. & 6 ⅛"
				56	85 mm. & 3⅜"	75	6"

AGS 2031 EXTERNAL CIRCLIPS



Material:

STEEL
(PHOSPHATE AND OIL)

TABLE OF SIZES

ITEM	TO SUIT SHAFTS OF DIAMETER
1	12 mm.
2	1/2"
3	13 mm. & 33/64"
4	17/32", 14 mm. & 9/16"
5	15 mm. & 19/32"
6	5/8" & 16 mm.
7	43/64", 17 mm., 11/16" & 11/16"
11	45/64", 18 mm. & 23/32"
9	47/64", 19 mm. & 3/4"
8	23/32" & 20 mm.
10	13/16", 21 mm. & 53/64"
12	27/32", 22 mm. & 7/8"
14	29/32", 15/16", 24 mm. & 31/32"
16	31/32", 25 mm. & 33/32"
18	1"
20	26 mm. & 1 1/32"
22	1 1/16" & 27 mm.
24	1 1/8", 28 mm., 1 3/32"
24	1 1/4", 1 5/32" & 29 mm.
25	1 11/32", 30 mm. & 1 3/8"
26	1 7/16", 1 15/32", 1 1/2" & 1 17/32"

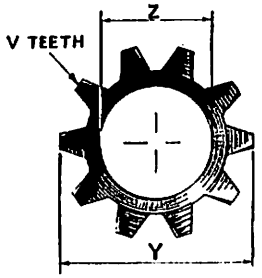
ITEM	TO SUIT SHAFTS OF DIAMETER
23	1 9/16" & 1 19/32"
27	1 5/8", 1 21/32" & 1 11/16"
28	1 23/32", 1 3/4" & 35 mm.
29	1 25/32", 1 13/16", 1 53/64" & 1 7/8"
30	1 29/32", 1 15/16", 40 mm. & 1 31/32"
31	1 31/32", 1 31/32" & 1 63/64"
31	1 31/32" & 1 63/64"
33	1 63/64", 1 31/32" & 1 31/32"
33	1 31/32" & 45 mm.
19	1 63/64", 1 31/32" & 1 31/32"
34	1 31/32", 1 31/32", 1 31/32" & 1 31/32"
21	1 31/32", 50 mm. & 1 31/32"
35	2"
32	2 1/16" & 2 1/16"
36	2 1/16", 55 mm. & 2 1/16"
37	2 1/16" & 2 1/16"
38	2 1/16", 2 1/16", 60 mm. & 2 3/32"
40	2 1/16", 2 1/16" & 2 1/16"
42	2 1/16", 65 mm. & 2 1/16"
46	2 1/16", 2 1/16" & 70 mm.
49	2 1/16", 2 1/16" & 75 mm.

ITEM	TO SUIT SHAFTS OF DIAMETER
50	2 1/16" & 3"
53	3 1/16", 3 1/16", 80 mm. & 3 1/16"
54	3 1/16", 3 1/16" & 3 1/16"
58	3 1/16", 85 mm. & 3 1/16"
59	3 1/16" & 90 mm.
60	3 1/16", 95 mm. & 3 1/16"
61	3 1/16" & 3 1/16"
62	100 mm., 3 1/16" & 4"
63	4 1/16", 4 1/16" & 105 mm.
64	4 1/16" & 4 1/16"
65	4 1/16", 110 mm. & 4 1/16"
66	4 1/16", 4 1/16", 115 mm. & 4 1/16"
67	4 1/16", 120 mm., 4 1/16" & 4 1/16"
68	4 1/16", 125 mm., 4 1/16" & 5"
69	5 1/16", 130 mm., 5 1/16" & 5 1/16"
70	5 1/16", 5 1/16" & 135 mm.
71	5 1/16", 5 1/16", 140 mm. & 5 1/16"
72	5 1/16", 145 mm. & 5 1/16"
74	5 1/16"
80	5 1/16", 150 mm. & 5 1/16"
73	6"

AGS 2034

LOCKWASHERS

"Shakeproof." Flat—External Teeth



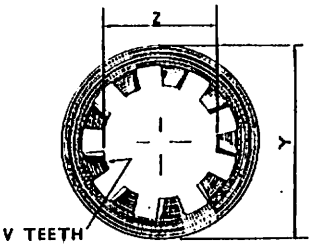
Material : HIGH CARBON SPRING STEEL

Finish : OIL BLACKED

Mark	Screw Size	Z	Y	V
		IN.	IN.	
A	6 BA	0·123 0·116	0·255 0·245	8
B	4 BA	0·153 0·145	0·317 0·306	12
C	2 BA	0·204 0·195	0·406 0·395	12
E	$\frac{1}{4}$" BSF	0·265 0·255	0·506 0·494	12
G	$\frac{5}{16}$" BSF	0·332 0·320	0·601 0·588	12
J	$\frac{3}{8}$" BSF	0·396 0·382	0·695 0·680	12
L	$\frac{7}{16}$" BSF	0·461 0·446	0·791 0·771	11
N	$\frac{1}{2}$" BSF	0·529 0·512	0·882 0·862	12
P	$\frac{9}{16}$" BSF	0·594 0·576	0·980 0·960	14
Q	$\frac{5}{8}$" BSF	0·660 0·638	1·075 1·055	12

AGS 2035 LOCKWASHERS

"Shakeproof." Flat—Internal Teeth



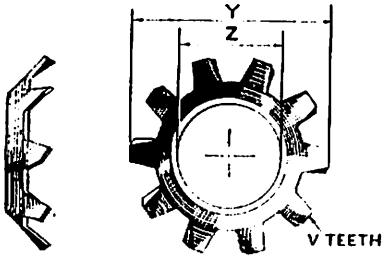
Material : HIGH CARBON SPRING STEEL

Finish : OIL BLACKED

Mark	Screw Size	Z	Y	V
		IN.	IN.	
AA	8 BA	0·095 0·089	0·185 0·175	6
A	6 BA	0·120 0·113	0·255 0·245	6
B	4 BA	0·153 0·145	0·305 0·295	6
C	2 BA	0·199 0·190	0·406 0·395	8
E	$\frac{1}{4}$" BSF	0·267 0·256	0·478 0·466	8
G	$\frac{5}{16}$" BSF	0·332 0·320	0·607 0·594	8
J	$\frac{3}{8}$" BSF	0·396 0·382	0·695 0·680	9
L	$\frac{7}{16}$" BSF	0·461 0·446	0·791 0·771	10
N	$\frac{1}{2}$" BSF	0·529 0·512	0·883 0·867	10
P	$\frac{9}{16}$" BSF	0·594 0·576	0·980 0·960	12
Q	$\frac{5}{8}$" BSF	0·660 0·638	1·075 1·055	12

AGS 2036 LOCKWASHERS

"Shakeproof." Countersunk—External Teeth



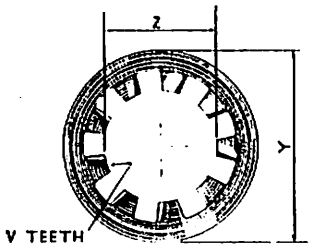
Material : HIGH CARBON SPRING STEEL

Finish : OIL BLACKED

Mark	Screw Size	Z	Y	V
		IN.	IN.	
B	4 BA	0·153 0·145	0·305 0·290	7
C	2 BA	0·204 0·195	0·377 0·360	8

AGS 2037 LOCKWASHERS

"Shakeproof." Flat—Internal Teeth



Material : PHOSPHOR BRONZE

Finish : CADMIUM OR ELECTRO-TINNED

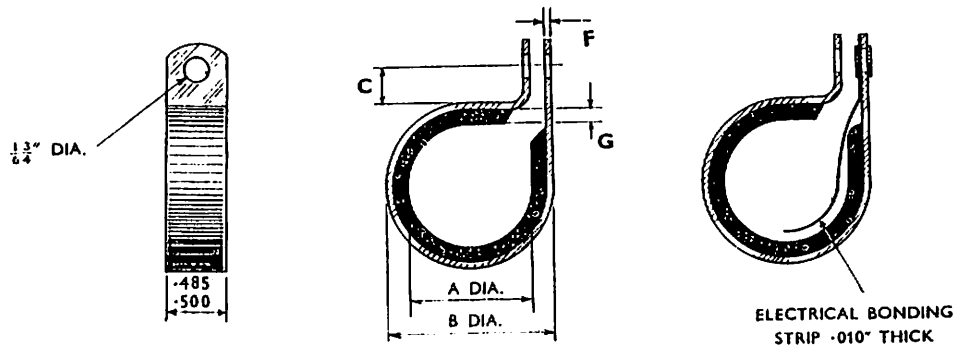
Mark	Screw Size	Z	Y	V
		IN.	IN.	
AA	8 BA	0·095 0·089	0·185 0·175	6
A	6 BA	0·120 0·113	0·255 0·245	6
B	4 BA	0·153 0·145	0·305 0·295	6
C	2 BA	0·204 0·195	0·400 0·395	8
E	¼" BSF	0·267 0·256	0·478 0·466	8

Brown Brothers Engineering Ltd.

AGS 2080 & 2081
PIPE CLIP FOR 3/16″ DIA. FIXING

Material : ALUMINIUM ALLOY (Coloured Anodised) RUBBER COVERED

AGS 2080 Plain AGS 2081 with earthing tongue



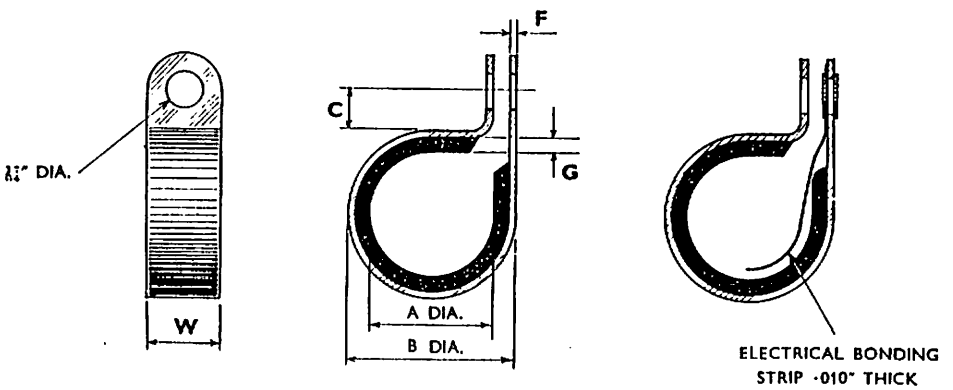
Item	A Dia.	B Dia.	C	F	G
		in.	in.		in.
3	$\frac{3}{16}$″	0·389	0·25	20 SWG	0·06
4	$\frac{1}{4}$″	0·452	0·25	20 SWG	0·06
5	$\frac{5}{16}$″	0·554	0·25	20 SWG	0·08
6	$\frac{3}{8}$″	0·617	0·25	20 SWG	0·08
7	$\frac{7}{16}$″	0·679	0·25	20 SWG	0·08
8	$\frac{1}{2}$″	0·742	0·25	20 SWG	0·08
9	$\frac{9}{16}$″	0·878	0·30	18 SWG	0·10
10	$\frac{5}{8}$″	0·941	0·30	18 SWG	0·10
12	$\frac{3}{4}$″	1·066	0·30	18 SWG	0·10
14	$\frac{7}{8}$″	1·191	0·30	18 SWG	0·10
16	1″	1·316	0·30	18 SWG	0·10
18	$1\frac{1}{8}$″	1·441	0·30	18 SWG	0·10
20	$1\frac{1}{4}$″	1·566	0·30	18 SWG	0·10
22	$1\frac{3}{8}$″	1·691	0·30	18 SWG	0·10

Brown Brothers Engineering Ltd

AGS 2082 & 2083 PIPE CLIP FOR 1/4" DIA. FIXING

Material : ALUMINIUM ALLOY (COLOURED ANODISED) RUBBER COVERED

AGS 2082 Plain. (Items 28, 30 & 32 replaced by AGS 3431, items 28, 30 & 32).
AGS 2083 With Earthing Tongue. (Items 28, 30 & 32 replaced by AGS 3432, items 28, 30 & 32)



ITEM	A DIA.	B DIA.	C	G	F	W
		IN.	IN.	IN.		
3	3/16"	0·389	0·25	0·06	20 SWG	0·502 / 0·547
4	1/4"	0·452	0·25	0·06	20 SWG	
5	5/16"	0·554	0·25	0·08	20 SWG	
6	3/8"	0·617	0·25	0·08	20 SWG	
7	7/16"	0·679	0·25	0·08	20 SWG	
8	1/2"	0·742	0·25	0·08	20 SWG	
9	9/16"	0·878	0·30	0·10	18 SWG	
10	5/8"	0·941	0·30	0·10	18 SWG	
12	3/4"	1·066	0·30	0·10	18 SWG	
14	7/8"	1·191	0·30	0·10	18 SWG	
16	1"	1·316	0·30	0·10	18 SWG	
18	1 1/8"	1·441	0·30	0·10	18 SWG	0·625 / 0·605
20	1 1/4"	1·566	0·35	0·10	16 SWG	
22	1 3/8"	1·691	0·35	0·10	16 SWG	
24	1 1/2"	1·890	0·35	0·12	16 SWG	
26	1 5/8"	2·020	0·35	0·12	16 SWG	

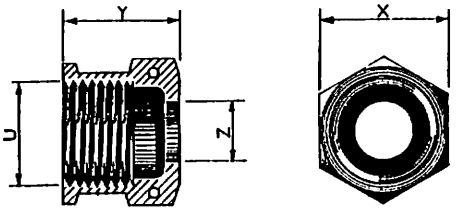
Brown Brothers Engineering Ltd

AGS 2085 OUTER SLEEVES

SPECIAL NON-REVERSIBLE COUPLINGS TYPE

Working Pressure:
3,000 lb./sq. in.—Up to ½".
500 lb./sq. in.—⅝" to 1".
200 lb./sq. in.—1¼" to 2".
100 lb./sq. in.—2½".

Material:
ALUMINIUM ALLOY
(ANODISED)



Items "A" to "H" manufactured from hexagonal bar.
Items "J" to "P" manufactured from round bar.

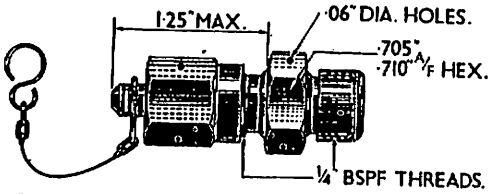
ITEM	O/D OF PIPE	U THREAD	X A/F		Y	Z DIA.
			MIN.	MAX.		
A						
*B	¼"	¼" BSPF	0·595"	0·600"	0·900"	5/32"
BB						
C	⅜"	⅜" BSPF	0·815"	0·820"	0·840"	13/32"
CC						
D	½"	½" BSPF	1·002"	1·010"	0·880"	17/32"
E	⅝"	⅝" BSPF	1·092"	1·100"	1·020"	21/32"
F	¾"	¾" BSPF	1·192"	1·200"	1·070"	23/32"
G	⅞"	⅞" BSPF	1·382"	1·390"	1·110"	29/32"
H	1"	1" BSPF	1·658"	1·670"	1·070"	1 1/32"
			DIA.			
J	1¼"	1¼" BSPF	2·140"	2·160"	1·070"	1 9/32"
K	1½"	1½" BSPF	2·140"	2·160"	1·310"	1 7/32"
M	2"	2" BSPF	2·940"	2·960"	1·650"	2 1/32"
P	2½"	2½" BSPF	3·580"	3·600"	1·870"	2 17/32"

*Item "B" cancelled. Replaced by AGS. 3414.

Brown Brothers Engineering Ltd

AGS 2096 CHARGING VALVE

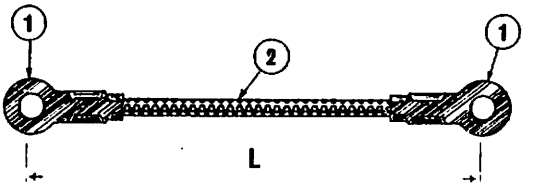
AIR & MINERAL BASE HYDRAULIC FLUID



... TYPE A
... Damic Ltd.

... TYPE B
... High Pressure Components Ltd.

AGS 2097 FLEXIBLE BONDING



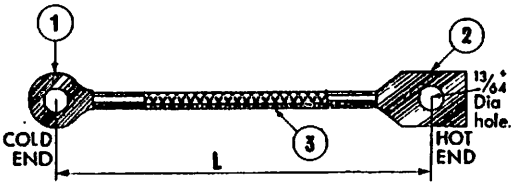
Item	Description
1	Closed end tag (see table).
2	Flexible tinned copper braid 12/5/0·0048".

Item 1	
Code	To Suit Bolt Size
B	4 BA or No. 6 UNC.
C	2 BA or No. 10 UNF.
E	¼" BSF or ¼" UNF.
G	5/16" BSF or 5/16" UNF.
J	⅜" BSF or ⅜" UNF.

METHOD OF ORDERING

Length "L" in 1" increments (minimum length 3"). A 4" bonding flexible with No. 6 U.N.C. or 4 B.A. ends is A.G.S. 2097B 4B. A 4" bonding flexible with a 4 B.A. or No. 6 U.N.C. end and ¼" B.S.F. or ¼" U.N.F. end is A.G.S. 2097 B4E. The smaller end must always be quoted first.

AGS 2100 HIGH TEMPERATURE BONDING LEADS



Suitable for temperatures up to 500° C. Can be attached to aluminium structure without electrolytic corrosion occurring. For use with bonding clip AGS 2104.

Item	Description
1	Tinned copper tag (see table).
2	Nickel tag.
3	60 parallel strands of 40 S.W.G. nickel wire in a woven cover of 41 S.W.G. monel wire.

Item 1	
Code	To Suit Bolt Size
B	4 BA or No. 6 UNC.
C	2 BA or No. 10 UNF.
E	¼" BSF or UNF.
G	5/16" BSF or UNF.
J	⅜" BSF or UNF.

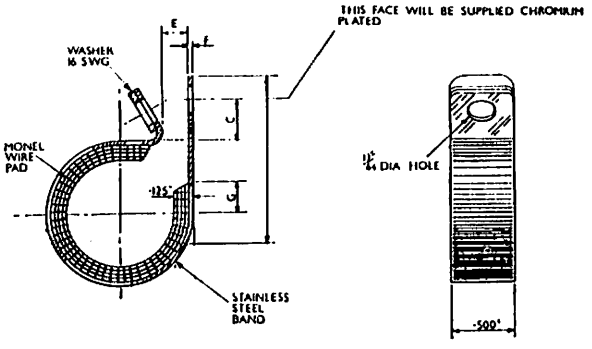
METHOD OF ORDERING

Length "L" in 1" increments.
Minimum length: 3". Maximum length: 6".
Example: A 4" bonding lead with 4 B.A. end, is AGS 2100/B/4.

Brown Brothers Engineering Ltd

AGS 2101 PIPE SUPPORT CLIP

SUITABLE FOR TEMPERATURES UP TO 500° C.

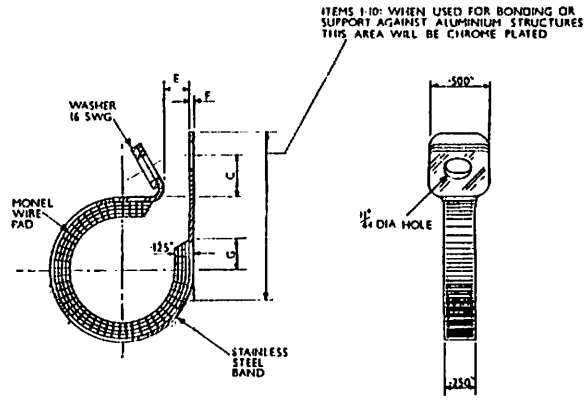


Item	To Suit Pipe Dia.	C ins.	E ins.	F	G ins.
11	1"	0·300	0·250	22 S.W.G.	0·500
12	1⅛"	0·300	0·250		0·500
13	1¼"	0·300	0·250		0·500
14	1⅜"	0·300	0·250		0·500
15	1½"	0·300	0·350		0·500
16	1⅝"	0·300	0·350		0·500
17	1¾"	0·300	0·350		0·750
18	1⅞"	0·300	0·350		0·750
19	2"	0·300	0·400	20 S.W.G.	0·750
20	2¼"	0·400	0·400		0·750
21	2½"	0·400	0·400		1·000
22	2¾"	0·400	0·400		1·000
23	3"	0·400	0·500		1·250
24	3¼"	0·400	0·500		1·250
25	3½"	0·400	0·500		1·250
26	3¾"	0·400	0·500		1·500
27	4"	0·400	0·500		1·500
28	4¼"	0·400	0·500		1·750
29	4½"	0·400	0·500		1·750

Brown Brothers Engineering Ltd

AGS 2104 PIPE BONDING & SUPPORT CLIP

SUITABLE FOR TEMPERATURES UP TO 500° C



ITEM	TO SUIT PIPE DIA.	C IN.	E IN.	F	G IN.
1	⅛"	0·250	0·100	22 S.W.G.	0·200
2	¼"	0·250	0·100		0·200
3	⅜"	0·250	0·150		0·200
4	½"	0·250	0·150		0·200
5	⅝"	0·250	0·150		0·200
6	¾"	0·250	0·150		0·200
7	⅞"	0·300	0·150		0·250
8	1"	0·300	0·150		0·250
9	1¼"	0·300	0·150		0·375
10	1½"	0·300	0·150		0·375
11	1"	0·300	0·250		0·500
12	1¼"	0·300	0·250		0·500
13	1½"	0·300	0·250		0·500
14	1¾"	0·300	0·250		0·500
15	1½"	0·300	0·350		0·500
16	1¾"	0·350	0·350		0·500
17	1½"	0·350	0·350		0·750
18	1¾"	0·350	0·350		0·750
19	2"	0·350	0·400	20 S.W.G.	0·750
20	2¼"	0·400	0·400		0·750
21	2½"	0·400	0·400		1·000
22	2¾"	0·400	0·400		1·000
23	3"	0·400	0·500		1·250
24	3¼"	0·400	0·500		1·250
25	3½"	0·400	0·500		1·250
26	3¾"	0·400	0·500		1·500
27	4"	0·400	0·500		1·500
28	4½"	0·400	0·500		1·750
29	4¼"	0·400	0·500		1·750

AGS 2105 'PIP' PINS. PUSH-PULL

AVAILABLE DIAMETERS: $\frac{1}{4}$", $\frac{5}{16}$", $\frac{3}{8}$", $\frac{7}{16}$", $\frac{1}{2}$", $\frac{9}{16}$", $\frac{5}{8}$", $\frac{3}{4}$", $\frac{7}{8}$" and 1".

AVAILABLE GRIP LENGTHS: 0.3" to 4.0" (in tenths of an inch increments).

Details on application.

AGS 2106 'PIP' PINS. PUSH TYPE WITH HANDLE

AVAILABLE DIAMETERS: $\frac{1}{4}$", $\frac{5}{16}$" and $\frac{3}{8}$".

AVAILABLE GRIP LENGTHS: 0.3" to 2.8" (in tenths of an inch increments).

Details on application.

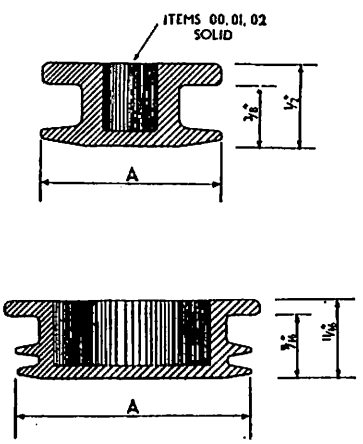
AGS 2107 'PIP' PINS. 3/16" DIA. PULL TYPE

AVAILABLE GRIP LENGTHS: 0.2" to 1.0" (in tenths of an inch increments).

Details on application.

AGS 2108 PROTECTIVE PLUGS

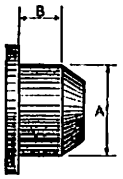
Material: POLYTHENE (Natural).



Item	Size Range Hole Dia.		A Dia.
	From	To	
00	$\frac{1}{4}$"	$\frac{5}{16}$"	$\frac{5}{16}$"
01	$\frac{11}{32}$"	$\frac{3}{8}$"	$\frac{3}{8}$"
02	$\frac{13}{32}$"	$\frac{7}{16}$"	$\frac{7}{16}$"
03	$\frac{15}{32}$"	1"	1"
04	1 $\frac{1}{32}$"	1$\frac{1}{8}$"	1$\frac{1}{8}$"
05	1 $\frac{3}{32}$"	1$\frac{1}{4}$"	1$\frac{1}{4}$"
06	1 $\frac{5}{32}$"	1$\frac{3}{8}$"	1$\frac{3}{8}$"
07	1 $\frac{7}{32}$"	1$\frac{1}{2}$"	1$\frac{1}{2}$"
08	1 $\frac{9}{32}$"	1$\frac{5}{8}$"	1$\frac{5}{8}$"
09	1 $\frac{11}{32}$"	1$\frac{3}{4}$"	1$\frac{3}{4}$"
010	1 $\frac{13}{32}$"	1$\frac{7}{8}$"	1$\frac{7}{8}$"
011	1 $\frac{15}{32}$"	2"	2"
012	2 $\frac{1}{32}$"	2$\frac{1}{8}$"	2$\frac{1}{8}$"
013	2 $\frac{3}{32}$"	2$\frac{1}{4}$"	2$\frac{1}{4}$"
014	2 $\frac{5}{32}$"	2$\frac{3}{8}$"	2$\frac{3}{8}$"
015	2 $\frac{7}{32}$"	2$\frac{1}{2}$"	2$\frac{1}{2}$"

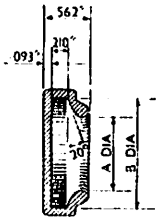
AGS 2109 PROTECTIVE PLUGS

Material:
P.V.C. or POLYTHENE
(PIGMENTED RED)



ITEM	SUITABLE FOR THREADS	A	B
01	¼" BSPF	0·337"	0·250"
02	⅜" BSPF	0·451"	0·250"
04	½" BSPF	0·589"	0·500"
05	⅝" BSPF	0·734"	0·500"
06	¾" BSPF	0·811"	0·500"
07	⅞" BSPF	0·950"	0·500"
08	1" BSPF	1·098"	0·750"
09	1" BSPF	1·193"	0·750"
010	1¼" BSPF	1·534"	0·875"
011	1½" BSPF	1·766"	0·875"
012	1¾" BSPF	2·000"	1·000"
013	2" BSPF	2·231"	1·000"

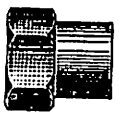
AGS 2110 COVERS FOR 20° FLANGES



Material:
RUBBER
(NATURAL)

ITEM	A DIA.	B DIA.	ITEM	A DIA.	B DIA.	ITEM	A DIA.	B DIA.
8	0·500"	1·000"	25	2·625"	3·125"	56	6·500"	7·000"
9	0·625"	1·125"	26	2·750"	3·250"	58	6·750"	7·250"
10	0·750"	1·250"	28	3·000"	3·500"	60	7·000"	7·500"
11	0·875"	1·375"	30	3·250"	3·750"	62	7·250"	7·750"
12	1·000"	1·500"	32	3·500"	4·000"	64	7·500"	8·000"
13	1·125"	1·625"	34	3·750"	4·250"	66	7·750"	8·250"
14	1·250"	1·750"	36	4·000"	4·500"	68	8·000"	8·500"
15	1·375"	1·875"	38	4·250"	4·750"	70	8·250"	8·750"
16	1·500"	2·000"	40	4·500"	5·000"	72	8·500"	9·000"
17	1·625"	2·125"	42	4·750"	5·250"	74	8·750"	9·250"
18	1·750"	2·250"	44	5·000"	5·500"	76	9·000"	9·500"
19	1·875"	2·375"	46	5·250"	5·750"	78	9·250"	9·750"
20	2·000"	2·500"	48	5·500"	6·000"	80	9·500"	10·000"
21	2·125"	2·625"	50	5·750"	6·250"	82	9·750"	10·250"
22	2·250"	2·750"	52	6·000"	6·500"	84	10·000"	10·500"
23	2·375"	2·875"	54	6·250"	6·750"	86	10·250"	10·750"
24	2·500"	3·000"						

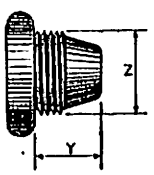
AGS 2111 OUTER SLEEVE



Material: ALUMINIUM ALLOY (ANODISED).
Across Flats: 0.705″/0.710″. Threads: ¼″ B.S.P.F.
Overall Length: 0.760″.
Replacing AGS 904 Item B.
Working Pressure: 3,000 lb./sq. in.

AGS 2112 PROTECTION PLUG

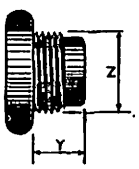
Material: ALUMINIUM—30 S.W.G. (SELF).



ITEM	A	B	BB	C	CC	D	E	F	G	H	J	K
Z BSPF	⅛″	¼″	6″×19	⅜″	0.75″×14	½″	⅝″	¾″	⅞″	1″	1¼″	1½″
Y	0·47″	0·52″	0·55″	0·56″	0·61″	0·64″	0·76″	0·83″	0·88″	0·83″	0·77″	0·97″

Intended for use with pipe assemblies AGS 1100.

AGS 2113 PROTECTION PLUG



Material: ALUMINIUM—30 S.W.G. (SELF).
Intended for use with hose assemblies and AGS 1100 fittings.

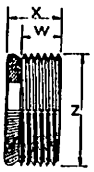
ITEM	A	B	C	D
Z BSPF	⅛″	¼″	⅜″	⅜″
Y	0·22″	0·25″	0·38″	0·38″

Use AGS 595 for sizes above ½″ B.S.P.F.

AGS 2118 SHALLOW SEALING CAP

FOR INHIBITED UNITS

Material: CAP: 30 S.W.G. ALUMINIUM. (SELF)
WASHER: SYNTHETIC RUBBER.

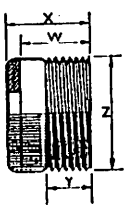


ITEM	W	X	Z—B.S.P.
A	0·160"	0·236"	¼"
B	0·250"	0·360"	⅜"
BB	0·273"	0·377"	0·60" dia. Whit. form
C	0·273"	0·380"	⅜"
CC	0·350"	0·440"	0·75" dia. Whit. form
D	0·320"	0·440"	½"
E	0·309"	0·440"	⅝"
F	0·350"	0·480"	¾"
G	0·350"	0·480"	¾"
H	0·370"	0·500"	1"
J	0·340"	0·500"	1¼"
K	0·470"	0·630"	1¼"
L	0·590"	0·750"	1½"
M	0·590"	0·750"	2"

AGS 2119 DEEP SEALING CAP

FOR INHIBITED UNITS

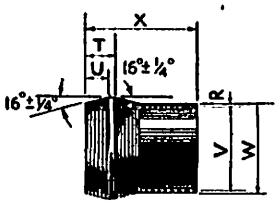
Material: CAP: 30 S.W.G. ALUMINIUM. (SELF)
WASHER: SYNTHETIC RUBBER.



ITEM	W	X	Y	Z—B.S.P.
A	0·460"	0·550"	0·230"	¼"
B	0·540"	0·650"	0·400"	⅜"
BB	0·590"	0·700"	0·400"	0·60" dia. Whit. form
C	0·640"	0·750"	0·400"	⅜"
CC	—	—	—	—
D	0·746"	0·850"	0·550"	½"

AGS 2120 PIPE COUPLING NIPPLE

(Superseding in part AGS 1170)



Material: STEEL (CADMIUM).

Working Pressures:
3,000 lb./sq. in. for ½" o/d.
500 lb./sq. in. for ⅞" and 1" o/d.
200 lb./sq. in. for 1¼" o/d.

ITEM	O/DIA OF PIPE	R MIN.	T	U	V	W	X
D	½"	0·017"	0·285"	0·235"	½"	0·415"	1·02"
G	¾"	0·018"	0·285"	0·235"	¾"	0·789"	1·13"
H	1"	0·018"	0·285"	0·235"	⅞"	0·914"	1·16"
J	1¼"	0·025"	0·285"	0·235"	1·100"	1·193"	1·25"

AGS 3005 to AGS 3007 HIGH DUTY STUDS

Size	AGS	B	C	
¼" UNF	3005	0·500"	For Items 11 & 12 0·400"	For Items 13 to 40 0·500"
5/16" UNF	3006	0·625"	For Items 13 to 15 0·500"	For Items 16 to 45 0·625"
⅜" UNF	3007	0·750"	For Items 17 & 18 0·600"	For Items 19 to 50 0·750"

Material : STEEL (Cadmium)

Method of calling up is by AGS number followed by "A" length in tenths of an inch. *E.g.* a ¼" UNF stud "A" length 2·6" is AGS 3005/26.

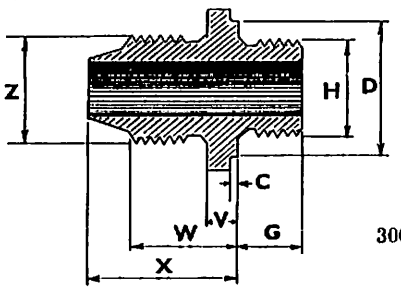
AGS 3012 & AGS 3016
CONE UNION ADAPTOR UNIFIED ATTACHMENT END

Material: STAINLESS STEEL (Self)

AGS 3012—For Use with Parallel Gaskets (*e.g.* Bonded Seals).

AGS 3016—For Use with "O" Ring Gaskets in American (AND 10050) or Equivalent AGS 3018 Tapped Bosses

COUPLING END COMPONENT END



Alternative range of parts with locking wire holes: see AS8589 and AS8591

Working Pressure: 3000 lb./sq. in. up to ½" B.S.P.F.

	Coupling End—BSP							Component End—Unified			
Item	O/D of Pipe	Z Thread Size	A/F Min.	A/F Max.	V	W	X	H Thread Size	C	D	G
			in.	in.	in.	in.	in.		in.	in.	in.
A	5/16"	⅛" BSP	0·6170	0·6250	0·20	0·635	0·855	⅜" UNF	0·025	0·610	0·35
B	¼"	¼" BSP	0·6759	0·6875	0·20	0·665	0·945	7/16" UNF	0·025	0·670	0·40
BB	5/16"	0·600 × 19 TPI Whit. Form	0·7420	0·7500	0·20	0·685	1·005	½" UNF	0·025	0·730	0·40
C	⅜"	⅜" BSP	0·8045	0·8125	0·22	0·755	1·075	5/16" UNF	0·025	0·790	0·45
CC											
D	½"	½" BSP	0·9920	1·0000	0·22	0·825	1·145	¾" UNF	0·025	0·980	0·50

AGS 3013 & AGS 3017

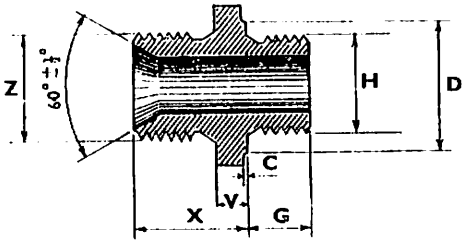
UNION ADAPTOR UNIFIED ATTACHMENT END

Material: STAINLESS STEEL (SELF)

COUPLING END COMPONENT END

Working Pressure:
3000 lb./sq. in. up to ½" B.S.P.F.
500 lb./sq. in. ⅝"–1" B.S.P.F.
200 lb./sq. in. 1¼"–2" B.S.P.F.

Alternative range of parts with locking wire holes:
see AS8590 and AS8592



AGS 3013: FOR USE WITH PARALLEL GASKETS (*e.g.* BONDED SEALS).

AGS 3017: FOR USE WITH "O" RING GASKETS IN AMERICAN (AND 10050) OR EQUIVALENT AGS3018 TAPPED BOSSES.

	COUPLING END—BSP						COMPONENT END—UNIFIED			
ITEM	O/D OF PIPE	Z THREAD SIZE	A/F MIN.	A/F MAX.	V	X	H THREAD SIZE	C	D	G
			IN.	IN.	IN.	IN.		IN.	IN.	IN.
A	3/16"	⅛" BSP	0·6170	0·6250	0·20	0·65	⅜" UNF	0·025	0·61	0·35
B	¼"	¼" BSP	0·6795	0·6875	0·20	0·65	7/16" UNF	0·025	0·67	0·40
BB	5/16"	0·60 O/D × 19 TPI Whit. Form	0·7420	0·7500	0·20	0·72	½" UNF	0·025	0·73	0·40
C	⅜"	⅜" BSP	0·8045	0·8125	0·22	0·74	9/16" UNF	0·025	0·79	0·45
CC										
D	½"	½" BSP	0·9920	1·0000	0·22	0·87	¾" UNF	0·025	0·98	0·50
E	⅝"	⅝" BSP	1·1150	1·1250	0·24	0·94	⅞" UNF	0·035	1·10	0·55
F	¾"	¾" BSP	1·3005	1·3125	0·24	0·99	1 1/16" × 12 UNS	0·035	1·29	0·65
G										
H	1"	1" BSP	1·6100	1·6250	0·26	1·06	1 5/16" × 12 UNS	0·035	1·60	0·65
			DIA.							
J	1¼"	1¼" BSP	2·14	2·16	0·26	1·11	1⅝" × 12 UNS	0·045	2·00	0·65
K	1½"	1½" BSP	2·35	2·37	0·26	1·15	1¾" × 12 UNS	0·045	2·20	0·65
L	1¾"	1¾" BSP	2·83	2·85	0·26	1·25	2¼" × 12 UNS	0·045	2·70	0·65
M	2"	2" BSP	3·14	3·16	0·26	1·30	2½" × 12 UNS	0·045	3·00	0·65

AGS 3016 CONE UNION ADAPTOR

See AGS 3012

AGS 3017 UNION ADAPTOR

See AGS 3013

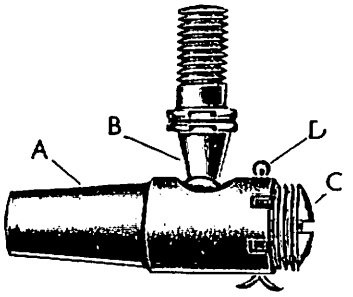
AGS 3020 PROTECTION PLUG (Unified)

Obsolete—replaced by AGS 3802, page 178.

AGS 3021 PROTECTION CAP (Unified)

Obsolete—replaced by AGS 3805, page 179.

AGS 3022 BALL JOINT (Unified)



Material:

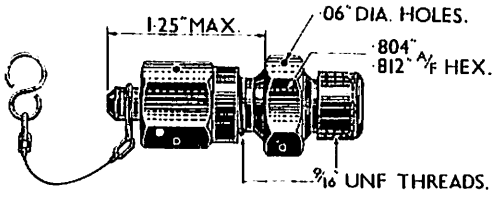
ITEMS A and C: H.T. STEEL (CADMIUM).

ITEM B: MILD STEEL (CADMIUM).

ITEM	PART NO.	DESCRIPTION
A	AGS 3023	Socket
B	AGS 3024	Ball Bolt ¼" UNF
C	AGS 3025	Plug $\frac{7}{16}$" × 28 UNS
D	SP 9/C6	Split Pin

AGS 3034 CHARGING VALVE

AIR AND MINERAL BASE HYDRAULIC FLUID



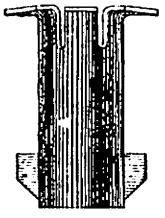
TYPE A

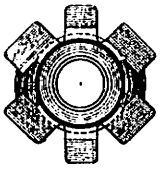
Damic Ltd.

TYPE B

High Pressure Components Ltd.

AGS 3037-3040 BLIND ANCHOR NUT ASSEMBLY



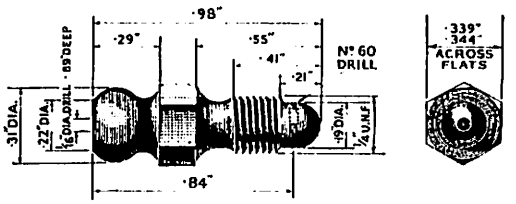


Material: STEEL (CADMIUM)

THREAD SIZE	PART NUMBER		
	UP TO 0·10" GRIP	0·10" TO 0·20" GRIP	0·20" TO 0·35" GRIP
4 BA	AGS 3037/1	AGS 3037/2	AGS 3037/3
No. 6 UNC	AGS 3037/4	AGS 3037/5	AGS 3037/6
2 BA	AGS 3038/1	AGS 3038/2	AGS 3038/3
No. 10 UNF	AGS 3038/4	AGS 3038/5	AGS 3038/6
No. 8 UNC	AGS 3038/7	AGS 3038/8	AGS 3038/9
¼" BSF	AGS 3039/1	AGS 3039/2	—
¼" UNF	AGS 3039/3	AGS 3039/4	—
$\frac{5}{16}$" BSF	AGS 3040/1		—
$\frac{5}{16}$" UNF	AGS 3040/3		—

Brown Brothers Engineering Ltd

AGS 3049 BLEEDER SCREW (UNIFIED)



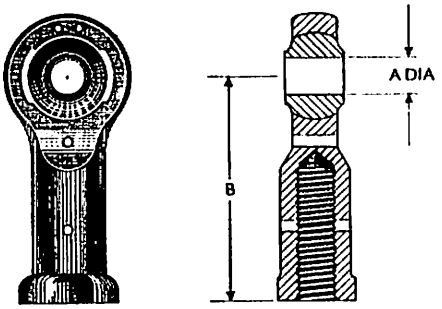
Material:

STEEL (CADMIUM).

WORKING PRESSURE:

3,000 lb./sq. in.

AGS 3050-3069 SPHERICAL BEARING ROD ENDS



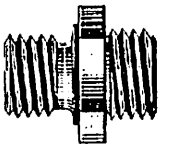
Material:

HOUSING—HIGH TENSILE STEEL (CADMIUM)

BALL —HARDENED STEEL (CADMIUM)

PART NUMBER	THREAD SIZE	A	B	BALL DIA.	MAX. ANGULAR MOVEMENT	MAX. STATIC LOAD IN LBS.
AGS 3050	No. 6 UNC R.H.	0·112"	0·937"	0·312"	24°	520
AGS 3051	No 6 UNC L.H.	0·112"	0·937"	0·312"	24°	520
AGS 3052	No. 8 UNC R.H.	0·138"	1·000"	0·343"	19°	830
AGS 3053	No. 8 UNC L.H.	0·138"	1·000"	0·343"	19°	830
AGS 3054	No. 10 UNF R.H.	0·164"	1·187"	0·406"	20°	1,210
AGS 3055	No. 10 UNF L.H.	0·164"	1·187"	0·406"	20°	1,210
AGS 3056	¼" UNF R.H.	0·190"	1·437"	0·500"	20°	2,250
AGS 3057	¼" UNF L.H.	0·190"	1·437"	0·500"	20°	2,250
AGS 3058	5/16" UNF R.H.	0·250"	1·687"	0·625"	22°	3,600
AGS 3059	5/16" UNF L.H.	0·250"	1·687"	0·625"	22°	3,600
AGS 3060	⅜" UNF R.H.	0·3125"	1·937"	0·720"	21°	5,540
AGS 3061	⅜" UNF L.H.	0·3125"	1·937"	0·720"	21°	5,540
AGS 3062	½" UNF R.H.	0·375"	2·562"	0·937"	22°	10,150
AGS 3063	½" UNF L.H.	0·375"	2·562"	0·937"	22°	10,150
AGS 3064	⅝" UNF R.H.	0·500"	3·125"	1·250"	22°	16,400
AGS 3065	⅝" UNF L.H.	0·500"	3·125"	1·250"	22°	16,400
AGS 3066	¾" UNF R.H.	0·625"	3·687"	1·437"	21°	23,000
AGS 3067	¾" UNF L.H.	0·625"	3·687"	1·437"	21°	23,000
AGS 3068	1" UNF R.H.	0·750"	4·250"	1·500"	16°	32,800
AGS 3069	1" UNF L.H.	0·750"	4·250"	1·500"	16°	32,800

AGS 3092 PITOT CONNECTOR (Screwed)

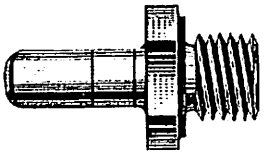


Material: ALUMINIUM ALLOY (ANODISED)

Threads: ½" × 26 Whit. and 7/16" × 20 U.N.F.

Across flats: 0·680"/0·688".

AGS 3093 PITOT CONNECTOR (Plain Screwed)

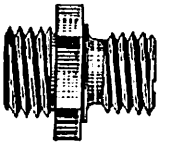


Material: ALUMINIUM ALLOY (ANODISED)

Threads: 7/16" × 20 U.N.F. Diameter of plain end: 0·312".

Across flats: 0·680"/0·688"

AGS 3094 STATIC CONNECTOR (Screwed)

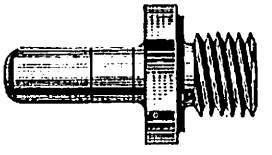


Material: ALUMINIUM ALLOY (ANODISED)

Threads: 9/16" × 28 U.N.S. and ½" × 20 U.N.F.

Across flats: 0·742"/0·750"

AGS 3095 STATIC CONNECTOR (Plain Screwed)



Material: ALUMINIUM ALLOY (ANODISED)

Threads: ½" × 20 U.N.F. Diameter of plain end: 0·375"

Across flats: 0·742"/0·750"

AGS 3096

CONNECTOR $\frac{1}{8}$" B.S.P.

Obsolete—superseded by AGS 3500.

AGS 3097

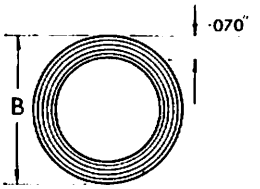
CONNECTOR $\frac{3}{8}$" U.N.F.

Obsolete—superseded by AGS 3501.

AGS 3098 & 3099

GASKET 'O' RING

Material: RUBBER (NATURAL)



PART NO.	B
AGS 3098	0·350"
AGS 3099	0·415"

AGS 3401-3404

LOW PRESSURE UNION ASSEMBLIES

FOR USE WITH $\frac{5}{16}$" DIA. TUBING (UNIFIED THREADS)

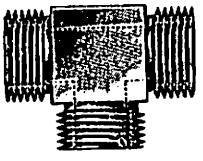
PART NO.			
AGS 3401	AGS 3402	AGS 3403	AGS 3404
STRAIGHT OR ELBOW WITH DRAIN TRAP	TEE UNION	ELBOW UNION	STRAIGHT UNION
1 OFF AGS 3406	1 OFF AGS 3406	1 OFF AGS 3407	1 OFF AGS 3405
2 OFF AGS 3412	3 OFF AGS 3412	2 OFF AGS 3412	2 OFF AGS 3412
1 OFF AGS 3408			
1 OFF AGS 3409			

See next page for AGS 3405—3409, 3412

AGS 3405 STRAIGHT UNION BODY

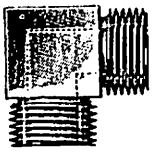
Material: ALUMINIUM ALLOY (ANODISED)
Across flats: 0·617″/0·625″
Threads: $\frac{1}{2}$″ × 28 T.P.I. U.N.S.
Overall length: 0·675″

AGS 3406 TEE UNION BODY



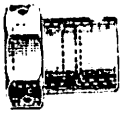
Material: ALUMINIUM ALLOY (ANODISED)
Threads: $\frac{1}{2}$″ × 28 T.P.I. U.N.S.

AGS 3407 ELBOW UNION BODY



Material: ALUMINIUM ALLOY (ANODISED)
Threads: $\frac{1}{2}$″ × 28 T.P.I. U.N.S.

AGS 3408 DRAIN TRAP



Material: ALUMINIUM ALLOY (ANODISED)
Across flats: 0·742″/0·750″
Threads: $\frac{1}{2}$″ × 28 T.P.I. U.N.S.
Overall length: 0·825″

AGS 3409 WASHER

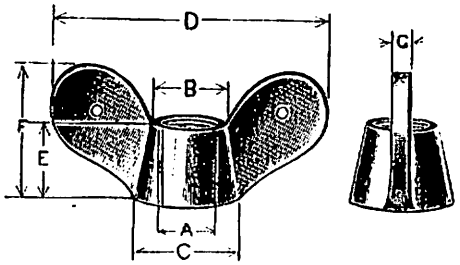
Material: RUBBER
Bore: $\frac{5}{16}$″
Outside diameter: $\frac{1}{2}$″
Thickness: $\frac{1}{16}$″

AGS 3412 UNION NUT

Material: ALUMINIUM ALLOY (ANODISED)
plus RUBBER BUSH
Across flats: 0·617″/0·625″
Threads: $\frac{1}{2}$″ × 28 T.P.I. U.N.S.
Overall length: 0·440″

AGS 3413 WING NUTS

UNIFIED THREADS



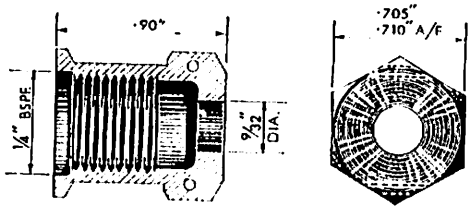
Material:
BRASS (CADMIUM)

No wire holes in items A to D inclusive.

ITEM NO.	A	B	C	D	E	F	G
A	No. 4 × 40 UNC	0·250″	0·280″	1·000″	0·187″	0·500″	0·062″
B	No. 6 × 32 UNC	0·250″	0·280″	1·000″	0·187″	0·500″	0·062″
C	No. 8 × 32 UNC	0·312″	0·340″	1·250″	0·250″	0·625″	0·080″
D	No. 10 × 32 UNF	0·312″	0·340″	1·250″	0·250″	0·625″	0·080″
E	1″ UNF	0·375″	0·440″	1·500″	0·310″	0·750″	0·094″
G	5/16″ UNF	0·437″	0·520″	1·620″	0·390″	0·812″	0·094″
J	3/8″ UNF	0·500″	0·600″	1·750″	0·470″	0·875″	0·094″
L	5/16″ UNF	0·562″	0·710″	2·000″	0·550″	1·000″	0·125″
N	1/4″ UNF	0·625″	0·820″	2·250″	0·630″	1·250″	0·125″

AGS 3414 OUTER SLEEVE

REPLACING AGS 2085, ITEM B



Material:
ALUMINIUM ALLOY (ANODISED)

WORKING PRESSURE.
3,000 lb./sq. in.

AGS 3420 & 3421 FLANGED MOUNTING

See AGS 3437–3440 assemblies

AGS 3422 STRAIGHT UNION

See AGS 3433 and 3437 assemblies

AGS 3423 ELBOW UNION

See AGS 3434 and 3438 assemblies

AGS 3424 STRAIGHT UNION

See AGS 3435 and 3439 assemblies

AGS 3425 ELBOW UNION

See AGS 3436 and 3440 assemblies

AGS 3429 FLEXIBLE HOSE ASSEMBLY (PITOT)

Material: HOSE—MARICON TYPE H (NATURAL)
END FITTINGS—ALUMINIUM ALLOY (ANODISED)

Thread on end fittings: $\frac{1}{2}$″ × 26 T.P.I. Whitform
Available in lengths: 6″ to 24″ Overall

AGS 3430 FLEXIBLE HOSE ASSEMBLY (STATIC)

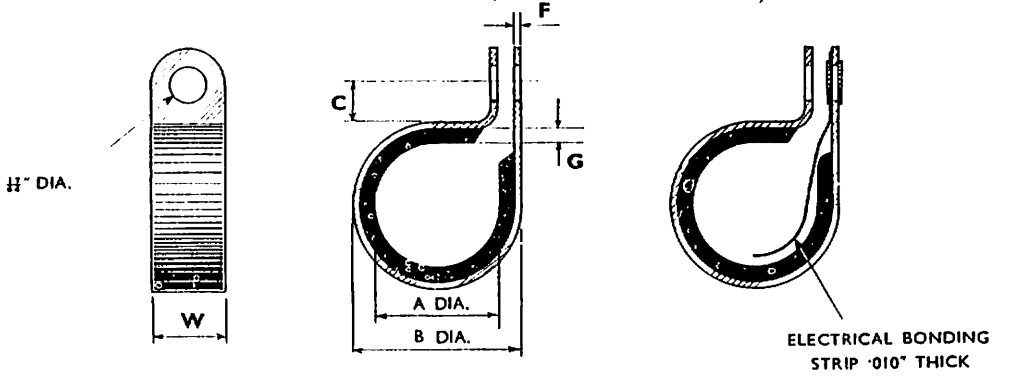
Material: HOSE—MARICON TYPE H (NATURAL)
END FITTINGS—ALUMINIUM ALLOY (ANODISED)

Thread on end fittings: $\frac{9}{16}$″ × 28 T.P.I. U.N.S.
Available in lengths: 6″ to 24″ Overall

AGS 3431 & 3432 PIPE CLIP FOR ¼" DIA. FIXING

RUBBER COVERED

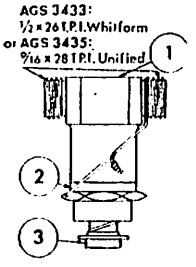
Material: ALUMINIUM ALLOY (COLOURLESS ANODISED)



AGS 3431 (Plain) AGS 3432 (with Earthing Tongue)

ITEM	A DIA.	B DIA.	C	G	F	W
28	1¼"	2·230"	0·50"	0·15"	14 SWG	0·730" 0·750"
30	1⅜"	2·355"	0·50"	0·15"	14 SWG	
32	2"	2·480"	0·50"	0·15"	14 SWG	

AGS 3433 & 3435 DRAIN TRAPS



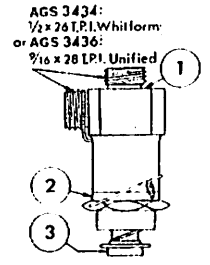
AGS 3433: INTERNAL STRAIGHT UNION PITOT

AGS 3435: INTERNAL STRAIGHT UNION STATIC

Material: Item 1: ALUMINIUM ALLOY (ANODISED)
Item 2: STEEL and RUBBER Bonded Together (CADMIUM AND NATURAL)

ITEM	PART NO.	DESCRIPTION
1	AGS 3422 or AGS 3424	Straight Union Pitot Straight Union Static
2	AGS 1186/B	Bonded Seal
3	Vickers A5260 Mk. B	¼" BSPF Drain Cock

AGS 3434 & 3436 DRAIN TRAPS



AGS 3434: INTERNAL ELBOW UNION PITOT

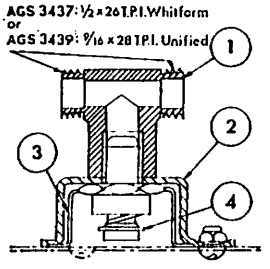
AGS 3436: INTERNAL ELBOW UNION STATIC

Material: Item 1: ALUMINIUM ALLOY (ANODISED)
Item 2: STEEL and RUBBER Bonded Together (CADMIUM AND NATURAL)

ITEM	PART NO.	DESCRIPTION
1	AGS 3423 or AGS 3425	Elbow Union Pitot Elbow Union Static
2	AGS 1186/B	Bonded Seal
3	Vickers A5260 Mk. B	¼" BSPF Drain Cock

AGS 3437 & 3439 DRAIN TRAPS

AGS 3437 : EXTERNAL STRAIGHT UNION PITOT
AGS 3439 : EXTERNAL STRAIGHT UNION STATIC

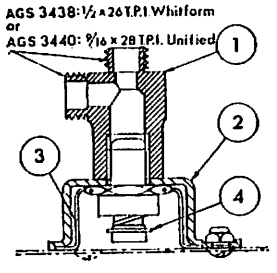


Material: Item 1 and 3 : ALUMINIUM ALLOY (ANODISED)
Item 2 : STEEL AND RUBBER Bonded Together (CADMIUM AND NATURAL)

ITEM	PART NO.	DESCRIPTION
1	AGS 3422 or AGS 3424	Straight union pitot Straight union static
2	AGS 3420	Flanged mounting
3	AGS 3421	Locking plate
4	Vickers A 5269 Mk B	¼" BSPF drain cock

AGS 3438 & 3440 DRAIN TRAPS

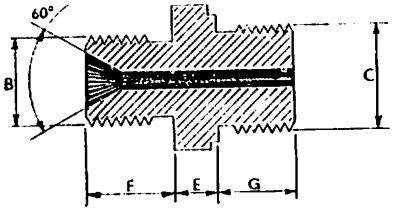
AGS 3438 : EXTERNAL ELBOW UNION PITOT
AGS 3440 : EXTERNAL ELBOW UNION STATIC

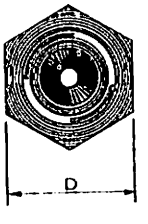


Material: Item 1 and 3 : ALUMINIUM ALLOY (ANODISED)
Item 2 : STEEL AND RUBBER bonded together (CADMIUM AND NATURAL)

ITEM	PART NO.	DESCRIPTION
1	AGS 3423 or AGS 3425	Elbow union pitot Elbow union static
2	AGS 3420	Flanged mounted
3	AGS 3421	Locking plate
4	Vickers A 5269 Mk. B	¼" BSPF drain cock

AGS 3500 & 3501 CONNECTORS





Material:
ALUMINIUM ALLOY (ANODISED)

WORKING PRESSURE
3,000 lb./sq. in.

PART NO.	B THRD.	C THRD.	D A/F MIN.	D A/F MAX.	E	F	G
AGS 3500	¼" BSPF	⅞" UNF	0·680"	0·688"	0·20"	0·45"	0·40"
AGS 3501	¾" UNF	⅞" UNF	0·680"	0·688"	0·20"	0·45"	0·40"

Brown Brothers Engineering Ltd

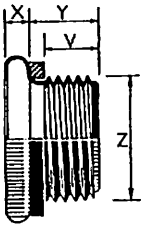
AGS 3800 COVER FOR 10,000 LB LASHING FITTING BASE

Material: ALUMINIUM ALLOY (ANODISED). Details available on request

AGS 3801 COVER FOR 25,000 LB LASHING FITTING BASE

Material: ALUMINIUM ALLOY (ANODISED). Details available on request

AGS 3802, 3803 & 3804 PLUGS (Unified)



Materials:

Plug: ALUMINIUM, 30 S.W.G.

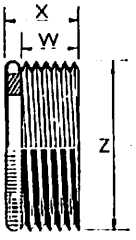
Seal (Type 1): RUBBER suitable for mineral base hydraulic fluid.

Seal (Type 2): RUBBER suitable for Skydol and Silcodyne H.

AGS 3802: PLUG (no seal)
AGS 3803: PLUG AND SEAL (Type 1)
AGS 3804: PLUG AND SEAL (Type 2)

ITEM	Z EXTERNAL THREAD	V	X	Y
4	1/4" × 28 UNF	0·09"	0·18"	0·18"
5	5/16" × 24 UNF	0·10"	0·16"	0·18"
6	3/8" × 24 UNF	0·23"	0·16"	0·31"
7	7/16" × 20 UNF	0·26"	0·18"	0·34"
8	1/2" × 20 UNF	0·31"	0·20"	0·39"
9	9/16" × 18 UNF	0·28"	0·26"	0·40"
10	5/8" × 18 UNF	0·28"	0·32"	0·36"
11	11/16" × 20 UNS	0·27"	0·20"	0·35"
12	3/4" × 16 UNF	0·23"	0·18"	0 31"
13	13/16" × 16 UNS	0·27"	0·20"	0·39"
14	7/8" × 14 UNF	0·28"	0·30"	0·40"
17	1 1/16" × 12 UNS	0·42"	0·20"	0·54"
21	1 5/16" × 12 UNS	0·47"	0·20"	0·62"
22	1 3/8" × 12 UNF	0·46"	0·30"	0·61"
26	1 5/8" × 12 UNS	0·48"	0·20"	0·63"
30	1 7/8" × 12 UNS	0·50"	0·20"	0·69"
36	2 1/4" × 12 UNS	0·54"	0·20"	0·73"
40	2 1/2" × 12 UNS	0·54"	0·20"	0·73"

AGS 3805, 3806 & 3807 CAPS (Unified)



Material:

Cap : ALUMINIUM, 30 S.W.G.

Seal (Type 1) : RUBBER suitable for mineral base hydraulic fluid

Seal (Type 2) : RUBBER suitable for Skydrol and Silcodyne II

AGS 3805 : CAP (no seal)

AGS 3806 : CAP AND SEAL (Type 1)

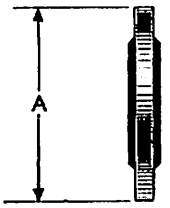
AGS 3807 : CAP AND SEAL (Type 2)

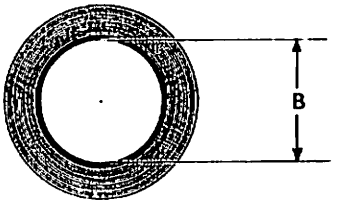
Item	Z Internal Thread	W	X
5	$\frac{5}{16}$″ × 24 UNF	0·29″	0·37″
6	$\frac{3}{8}$″ × 24 UNF	0·27″	0·35″
7	$\frac{7}{16}$″ × 20 UNF	0·30″	0·38″
8	$\frac{1}{2}$″ × 20 UNF	0·22″	0·32″
9	$\frac{9}{16}$″ × 18 UNF	0·27″	0·37″
10	$\frac{5}{8}$″ × 18 UNF	0·37″	0·47″
11	$\frac{11}{16}$″ × 20 UNS	0·46″	0·58″
12	$\frac{3}{4}$″ × 16 UNF	0·33″	0·48″
13	$\frac{13}{16}$″ × 16 UNS	0·35″	0·47″
14	$\frac{7}{8}$″ × 14 UNF	0·35″	0·54″
17	$1\frac{1}{16}$″ × 12 UNS	0·39″	0·51″
21	$1\frac{5}{16}$″ × 12 UNS	0·42″	0·54″
22	$1\frac{3}{8}$″ × 12 UNF	0·49″	0·61″
26	$1\frac{5}{8}$″ × 12 UNS	0·45″	0·55″
30	$1\frac{7}{8}$″ × 12 UNS	0·49″	0·61″
36	$2\frac{1}{4}$″ × 12 UNS	0·74″	0·93″
40	$2\frac{1}{2}$″ × 12 UNS	0·74″	0·93″

AGS 3816 COVER FOR 50,000 LB LASHING FITTING BASE

Material: ALUMINIUM ALLOY (Anodised). Details available on request

AGS 3820-3869 BONDED SEALS

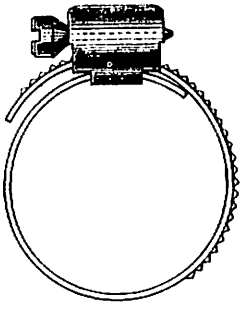




Material:
STEEL & RUBBER (NITRILE) BONDED TOGETHER

Part Number	Nom. Dia. or Thrd.	A	B	Part Number	Nom. Dia. or Thrd.	A	B
AGS 3823	0·190"	0·330" 0·335"	0·200" 0·210"	AGS 3841	1·000" & 1" B.S.P.F.	1·375" 1·380"	1·060" 1·068"
AGS 3824	0·250"	0·520" 0·525"	0·265" 0·275"	AGS 3842	1·062"	1·520" 1·525"	1·090" 1·100"
AGS 3825	0·250"	0·525" 0·530"	0·270" 0·280"	AGS 3843	1·125"	1·440" 1·445"	1·150" 1·160"
AGS 3826	0·312"	0·525" 0·530"	0·322" 0·330"	AGS 3844	1·188" & 1" B.S.P.F.	1·500" 1·505"	1·208" 1·216"
AGS 3827	0·312"	0·560" 0·565"	0·335" 0·345"	AGS 3845	1·250"	1·630" 1·635"	1·280" 1·290"
AGS 3828	0·375" & ¼" B.S.P.F.	0·625" 0·630"	0·403" 0·411"	AGS 3846	1·312" & 1" B.S.P.F.	1·685" 1·690"	1·329" 1·337"
AGS 3829	0·400"	0·723" 0·727"	0·438" 0·442"	AGS 3847	1·375"	1·750" 1·755"	1·410" 1·420"
AGS 3830	0·438"	0·750" 0·755"	0·455" 0·465"	AGS 3848	1·500"	1·880" 1·885"	1·530" 1·540"
AGS 3831	0·500" & ¼" B.S.P.F.	0·810" 0·815"	0·536" 0·544"	AGS 3849	1·625" & 1½" B.S.P.F.	2·062" 2·067"	1·685" 1·693"
AGS 3832	0·562"	0·875" 0·880"	0·590" 0·580"	AGS 3850	1·750"	2·250" 2·255"	1·780" 1·790"
AGS 3833	0·600"	0·875" 0·880"	0·618" 0·626"	AGS 3851	1·875" & 1½" B.S.P.F.	2·307" 2·312"	1·902" 1·910"
AGS 3834	0·625"	1·000" 1·005"	0·645" 0·655"	AGS 3852	2·000"	2·500" 2·505"	2·030" 2·040"
AGS 3835	⅜" B.S.P.F.	0·937" 0·942"	0·675" 0·685"	AGS 3853	1½" B.S.P.F.	2·750" 2·755"	2·156" 2·164"
AGS 3836	0·688"	1·000" 1·005"	0·710" 0·720"	AGS 3854	2·250"	2·770" 2·775"	2·280" 2·290"
AGS 3837	0·750"	1·060" 1·065"	0·770" 0·778"	AGS 3855	2" B.S.P.F.	2·875" 2·880"	2·380" 2·390"
AGS 3838	0·812" & ¼" B.S.P.F.	1·125" 1·130"	0·843" 0·851"	AGS 3856	2·500"	3·060" 3·065"	2·530" 2·540"
AGS 3839	0·875" & ⅜" B.S.P.F.	1·250" 1·255"	0·920" 0·928"	AGS 3857	2½" B.S.P.F.	3·430" 3·435"	2·620" 2·630"
AGS 3840	0·938"	1·310" 1·315"	0·950" 0·960"	AGS 3858	2½" B.S.P.F.	3·550" 3·560"	2·990" 3·000"

AGS 3924 HOSE CLIP—Worm Drive Type
Extra Light duty

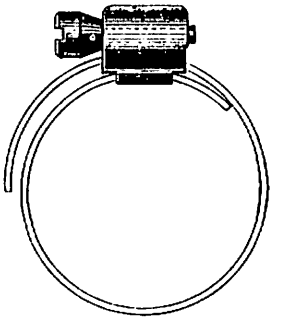


Material:

18/8 AUSTENIC STAINLESS STEEL (SELF)

PART NO.	SUITABLE FOR HOSE OF O/DIA. MIN.	SUITABLE FOR HOSE OF O/DIA. MAX.	WEIGHT LB./100
AGS 3924/1	0·28″	0·43″	0·57
AGS 3924/2	0·43″	0·75″	0·63

AGS 3925 HOSE CLIP—Worm Drive Type
Light Duty



Material:

18/8 AUSTENIC STAINLESS STEEL (SELF)

PART NUMBER	SUITABLE FOR HOSE OF O/DIA. MIN.	SUITABLE FOR HOSE OF O/DIA. MAX.	WEIGHT LB./100
AGS 3925/1	0·43″	0·63″	1·38
AGS 3925/2	0·55″	0·87″	1·51
AGS 3925/00	0·71″	1·10″	1·70
AGS 3925/0	0·94″	1·42″	1·92

BS EQUIVALENTS FOR AGS WORM DRIVE HOSE CLIPS

OUTSIDE DIA. OF HOSE	AGS 605	AGS 1000	SP 91 MILLED BAND	SP 92 PIERCED BAND
¼″ ⅝″	00	00	A	A
½″ ¾″	-	-	B	B
⅝″ ⅞″	0	0	C	C
¾″ 1″	-	—	D	D
⅞″ 1⅛″	1A	1A	E	E
1″ 1⅜″	1	1	F	F
1⅛″ 1⅝″	1X	1X	G	G
1⅜″ 1⅞″	-	-	H	H
1⅝″ 2⅛″	2	2	J	J
1⅞″ 2⅜″	-	-	K	K
2″ 2⅝″	3	3	L	L
2⅜″ 3⅛″	-	-	M	M
2⅝″ 3½″	4	4	N	N
3⅛″ 4″	5	5	P	P
3½″ 4½″	—	-	Q	Q
4½″ 5″	6	6	R	R

Brown Brothers Engineering Ltd

AGS 784, BS SP9 AND BS SP90 EQUIVALENTS

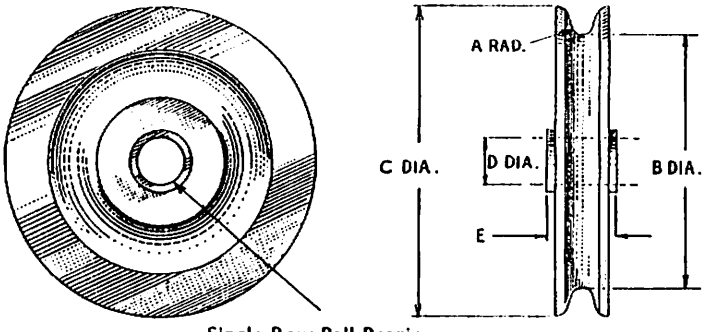
FOR NICKEL ALLOY SPLIT COTTER PINS

Overall Length Including Eye	Nominal Diameter 1/32"			3/64"			1/16"			5/64"			3/32"		
	AGS 784	SP 9	SP90	AGS 784	SP 9	SP90	AGS 784	SP 9	SP90	AGS 784	SP 9	SP90	AGS 784	SP 9	SP90
	Nominal Length Under Eye—SP90 Only														
3/16"	—	A3	A2 (1/16")	—	B3	B2 (1/16")		C3	C2 (1/16")					E3	—
1/4"	—	A4	A3 (1/8")	1B	B4	B3 (1/8")	1	C4	C3 (1/8")				9	E4	E2 (1/16")
5/16"	—	A5	A4 (1/8")	—	B5	B4 (1/8")	50	C5	C4 (1/8")					E5	E3 (3/16")
3/8"	—	A6	A5 (1/8")	2B	B6	B5 (1/8")	2	C6	C5 (1/8")				10	E6	E4 (1/4")
1/2"		A8	A7 (1/8")	3B	B8	B7 (1/8")	3	C8	C7 (1/8")	3A	—	(1/8")	11	E8	E6 (1/4")
5/8"	—	A10	A9 (1/16")	—	B10	B9 (1/16")	4	C10	C9 (1/16")				12	E10	E8 (1/4")
3/4"		A12	A11 (1/8")		B12	B11 (1/16")	5	C12	C11 (1/16")	5A		(1/16")	13	E12	E10 (1/16")
7/8"	—	A14	A13 (1/8")		B14	B13 (1/8")		C14	C13 (1/8")					E14	E12 (1/16")
1"	—	A16	A15 (1/16")	—	B16	B15 (1/16")	6	C16	C15 (1/16")				14	E16	E14 (1/16")
1 1/8"		A18	A17 (1/16")	—	B18	B17 (1/16")	—	C18	C17 (1/16")					E18	E16(2")
1 1/4"	—	A20	A19 (1/16")	—	B20	B19 (1/16")		C20	C19 (1/16")					E20	E18 (1/16")
1 3/8"	—	A24	A23 (1/16")	—	B24	B23 (1/16")		C24	C23 (1/16")					E24	E22 (1/16")

Overall Length Including Eye	Nominal Diameter 7/64"			1/8"			5/32"			3/16"			1/4"		
	AGS 784	SP 9	SP90	AGS 784	SP 9	SP90	AGS 784	SP 9	SP90	AGS 784	SP 9	SP90	AGS 784	SP 9	SP90
	Nominal Length Under Eye SP90 Only														
3/16"					G3			H3			K3			—	
1/4"					G4			H4			K4	—		L4	
5/16"	—	—			G5	G3 (1/16")		H5			K5	—		L5	
3/8"	—	—		18	G6	G4 (1/8")	26	H6	H3 (1/16")		K6	K3 (1/16")		L6	
1/2"	11A	—	(1/16")	19	G8	G6 (1/16")	27	H8	H5 (1/8")	35	K8	K5 (1/8")	43	L8	L4 (1/8")
5/8"				20	G10	G8 (1/8")	28	H10	H7 (1/16")	36	K10	K7 (1/16")	44	L10	L6 (1/16")
3/4"	13A		(1/16")	21	G12	G10 (1/16")	29	H12	H9 (1/16")	37	K12	K9 (1/16")	45	L12	L8 (1/8")
7/8"					G14	G12 (1/16")		H14	H11 (1/16")		K14	K11 (1/16")		L14	L10 (1/16")
1"				22	G16	G14 (1/16")	30	H16	H13 (1/16")	38	K16	K13 (1/16")	46	L16	L12 (1/16")
1 1/8"					G18	G16 (2")		H18	H15 (1/16")		K18	K15 (1/16")		L18	L14 (1/16")
1 1/4"				23	G20	G18 (2 1/16")	31	H20	H17 (2 1/16")	39	K20	K17 (2 1/16")	47	L20	L16 (2")
1 3/8"					G24	G22 (2 1/16")		H24	H21 (2 1/16")	40	K24	K21 (2 1/16")	48	L24	L20 (2 1/16")

AS 103-106 & 111 PULLEYS, BALL BEARING

Material: PLASTIC MOULDING



Single Row Ball Bearing

AS 103. 2″

A Rad.	B Dia.	C Dia.	D Dia.	E
0·08″	2″	2·4″	0·375″	0·5″

AS 104. 3″

A Rad.	B Dia.	C Dia.	D Dia.	E
0·1″	3″	3·5″	0·375″	0·5″

AS 105. 4″

A Rad.	B Dia.	C Dia.	D Dia.	E
0·125″	4″	4·6″	0·5″	0·625″

AS 106. 5″

A Rad.	B Dia.	C Dia.	D Dia.	E
0·125″	5″	5·6″	0·5″	0·625″

AS 111. 1·15″

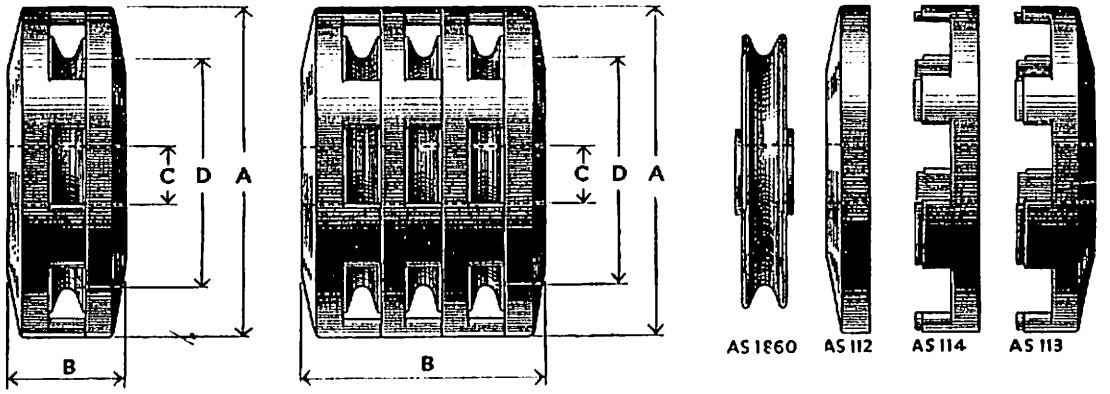
A Rad.	B Dia.	C Dia.	D Dia.	E
0·06″	1·15″	1·4″	0·25″	0·3125″

Brown Brothers Engineering Ltd

SHROUDED PULLEYS

Material : PULLEYS and SHROUDS : Plastic Moulding
BUSH : Brass (SELF-FINISH)

Cable size 5 cwt.



AS 107 & 1151 SINGLE
(PLAIN BEARING) (BALL BEARING)

DIMENSIONS			
A	B	C	D
1·687"	0·625"	0·25"	1·15"

NUMBER OF PARTS REQUIRED			
PLAIN BEARING	AS 1860	AS 112	AS 113
	1	1	1
BALL BEARING	AS 111	AS 112	AS 113
	1	1	1

AS 108 & 1152 DOUBLE
(PLAIN BEARING) (BALL BEARING)

DIMENSIONS			
A	B	C	D
1·687"	0·937"	0·25"	1·15"

NUMBER OF PARTS REQUIRED				
PLAIN BEARING	AS 1860	AS 112	AS 113	AS 114
	2	1	1	1
BALL BEARING	AS 111	AS 112	AS 113	AS 114
	2	1	1	1

AS 109 & 1153 TRIPLE
(PLAIN BEARING) (BALL BEARING)

DIMENSIONS			
A	B	C	D
1·687"	1·25"	0·25"	1·15"

NUMBER OF PARTS REQUIRED				
PLAIN BEARING	AS 1860	AS 112	AS 113	AS 114
	3	1	1	2
BALL BEARING	AS 111	AS 112	AS 113	AS 114
	3	1	1	2

AS 110 & 1154 QUADRUPLE
(PLAIN BEARING) (BALL BEARING)

DIMENSIONS			
A	B	C	D
1·687"	1·562"	0·25"	1·15"

NUMBER OF PARTS REQUIRED				
PLAIN BEARING	AS 1860	AS 112	AS 113	AS 114
	4	1	1	3
BALL BEARING	AS 111	AS 112	AS 113	AS 114
	4	1	1	3

AS 111 PULLEY, BALL BEARING

See page 183

AS 112, 113 & 114 PULLEY SHROUDS

ITEM	AS 112	AS 113	AS 114
DESCRIPTION	Cover	Cover with Spacer	Spacer

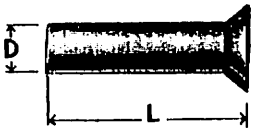
AS 155, 156, 157, 455, 457, 458, 459, 2227 & 4694 SOLID RIVETS—SNAP HEAD

AS 155 replaced by SP 77
AS 156 replaced by SP 78
AS 157 replaced by SP 79
AS 455 replaced by SP 76
AS 457 replaced by SP 81
AS 2227 replaced by SP 80
AS 4694 replaced by SP 82

AS 158, 159, 2228 SOLID RIVETS—MUSHROOM HEADS

AS 158 replaced by SP 83
AS 159 replaced by SP 84
AS 2228 replaced by SP 85

AS 160, 161, 162, 460, 462, 466, 467, 2229 & 4695 SOLID RIVETS—90° COUNTERSUNK HEAD

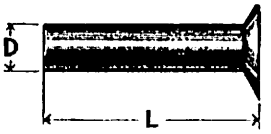


Part No.	Material	Min. Ult. Tensile Strength	Specification	Finish	Identification
		Tons per sq. in.			
AS 160	Aluminium	7	L.36	Anodic	Black
AS 161	Aluminium Alloy	25	L.37	Self	Natural Colour
AS 162	5% Magnesium Aluminium Alloy	16	L.58	Anodic	Green
AS 460	Mild Steel	20	BS1109	Cadmium	Magnetic
AS 462	High Nickel Copper Alloy—Monel	28	D.T.D. 201A	Self	Natural Colour
AS 466	Aluminium Nickel Silicon Brass—Tungum	28	D.T.D. 367	Cadmium	—
AS 467	Copper	14	—	Self	Natural Colour
AS 2229	Aluminium Alloy	17	L.86	Anodic	Violet
AS 4695	High Nickel Copper Alloy—Monel	28	D.T.D. 201A	Cadmium	—

Dia. D.	3/32"	1/8"	5/32"	3/16"	7/32"	1/4"	5/16"	3/8"
Depth of Head (in.)	0·023	0·035	0·047	0·059	0·070	0·082	0·094	0·117	0·141
Dia. of Head (in.)	0·109	0·161	0·218	0·273	0·328	0·383	0·437	0·547	0·656

Rivets are ordered by the last two figures of the part number denoting the length in 1/16" and the remaining figure or figures denoting the dia. in 1/32", *e.g.* the part reference for a 1/8" dia. Rivet 1/2" long in Mild Steel would be AS 460/408.

AS 163, 164, 165, 463, 465, 468, 2230 & 4696
SOLID RIVETS—120° COUNTERSUNK HEAD

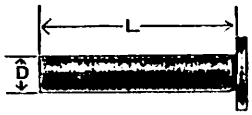


Part No.	Material	Min. Ult. Tensile Strength Tons per sq. in.	Specification	Finish	Identification
AS 163	Aluminium	7	L36	Anodic	Black
AS 164	Aluminium Alloy	25	L37	Self	Natural Colour
AS 165	5% Magnesium Aluminium Alloy	16	L58	Anodic	Green
AS 463	Mild Steel	20	BS1109	Cadmium	Magnetic
AS 465	High Nickel Copper Alloy—Monel	28	D.T.D. 204A	Self	Natural Colour
AS 468	Aluminium Nickel Silicon Brass—Tungum	28	D.T.D. 367	Cadmium	—
AS 2230	Aluminium Alloy	17	L86	Anodic	Violet
AS 4696	High Nickel Copper Alloy—Monel	28	D.T.D. 204A	Cadmium	—

Dia. D.	1/16"	5/32"	1/8"	5/32"	3/16"	5/32"	1/4"	5/16"	3/8"
Depth of Head (in.)	0·018	0·027	0·036	0·045	0·054	0·063	0·072	0·090	0·108
Dia. of Head (in.)	0·125	0·188	0·250	0·313	0·375	0·438	0·500	0·625	0·750

Rivets are ordered by the last two figures of the part number denoting the length in 1/16" and the remaining figure or figures denoting the dia. in 1/32", *e.g.* the part reference for a 1/8" dia. Rivet 1/2" long in Mild Steel would be AS 463/408.

AS 469 FLAT HEAD

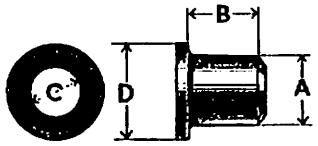


Material : COPPER

Diam. D.	1/16"	5/32"	1/8"	5/32"	3/16"	5/32"	1/4"
Depth of Head	0·016	0·023	0·031	0·039	0·047	0·055	0·063
Diam. of Head	0·125	0·198	0·250	0·313	0·375	0·438	0·500

Rivets are ordered by the last two figures of the part number denoting the length in 1/16" and the remaining figure or figures denoting the diameter in 1/32", *e.g.* the part reference for a 1/8" dia. Rivet 1/2" long would be AS 469/408.

AS 483 PARALLEL SHEAR BUSH

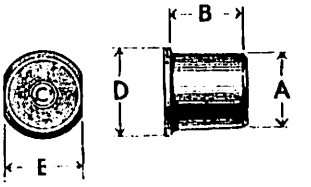


Material :
STAINLESS STEEL
(Self-finish)

Item	'A' Diam. −0·001" −0·002"	'B'	'C' Diam.	'D'
	in.	in.	in.	in.
G2	5/16 (0·3125)	0·25	3/16 (0·1875)	1/2
G4	5/16 (0·3125)	0·50	3/16 (0·1875)	1/2
J2	3/8 (0·375)	0·25	1/4 (0·25)	9/16
J4	3/8 (0·375)	0·50	1/4 (0·25)	9/16
L2	7/16 (0·4375)	0·25	5/16 (0·3125)	5/8
L4	7/16 (0·4375)	0·50	5/16 (0·3125)	5/8
L6	7/16 (0·4375)	0·75	5/16 (0·3125)	5/8
N3	1/2 (0·5)	0·38	3/8 (0·375)	11/16
N5	1/2 (0·5)	0·63	3/8 (0·375)	11/16
N7	1/2 (0·5)	0·88	3/8 (0·375)	11/16

AS 484 TAPER SHEAR BUSH

Item	'A'	'B'	Drill 'C'	'D'	'E'
	in.	in.	in.	in.	in.
J	$\frac{3}{8}$ (0·375) $^{-0\cdot0005}_{-0\cdot003}$	0·63	No. 13 (0·185)	$\frac{1}{2}$	$\frac{7}{16}$ (0·4375)
JA	$\frac{3}{8}$ (0·375) $^{-0\cdot0005}_{-0\cdot003}$	0·38	No. 13 (0·185)	$\frac{1}{2}$	$\frac{7}{16}$ (0·4375)
L	$\frac{7}{16}$ (0·4375) $^{-0\cdot0005}_{-0\cdot004}$	0·63	No. 13 (0·185)	$\frac{9}{16}$	$\frac{1}{2}$ (5)
LA	$\frac{7}{16}$ (0·4375) $^{-0\cdot0005}_{-0\cdot004}$	0·38	No. 13 (0·185)	$\frac{9}{16}$	$\frac{1}{2}$ (5)
N	$\frac{1}{2}$ (0·5) $^{-0\cdot0005}_{-0\cdot004}$	0·75	No. 13 (0·185)	$\frac{5}{8}$	$\frac{9}{16}$ (0·5625)
NA	$\frac{1}{2}$ (0·5) $^{-0\cdot0005}_{-0\cdot004}$	0·38	No. 13 (0·185)	$\frac{5}{8}$	$\frac{9}{16}$ (0·5625)
P	$\frac{9}{16}$ (0·5625) $^{-0\cdot001}_{-0\cdot005}$	0·75	No. 13 (0·185)	$\frac{11}{16}$	$\frac{5}{8}$ (0·625)
PA	$\frac{9}{16}$ (0·5625) $^{-0\cdot001}_{-0\cdot005}$	0·5	No. 13 (0·185)	$\frac{11}{16}$	$\frac{5}{8}$ (0·625)
Q	$\frac{5}{8}$ (0·625) $^{-0\cdot001}_{-0\cdot005}$	0·75	No. 13 (0·185)	$\frac{3}{4}$	$\frac{11}{16}$ (0·6875)
QA	$\frac{5}{8}$ (0·625) $^{-0\cdot001}_{-0\cdot005}$	0·5	No. 13 (0·185)	$\frac{3}{4}$	$\frac{11}{16}$ (0·6875)
S	$\frac{3}{4}$ (0·75) $^{-0\cdot001}_{-0\cdot005}$	0·88	No. 13 (0·185)	$\frac{7}{8}$	$\frac{13}{16}$ (0·8125)
SA	$\frac{3}{4}$ (0·75) $^{-0\cdot001}_{-0\cdot005}$	0·5	No. 13 (0·185)	$\frac{7}{8}$	$\frac{13}{16}$ (0·8125)
U	$\frac{7}{8}$ (0·875) $^{-0\cdot001}_{-0\cdot005}$	0·88	$\frac{1}{4}$	1	$\frac{15}{16}$ (0·9375)
W	1 (1·00) $^{-0\cdot001}_{-0\cdot005}$	1·00	$\frac{1}{4}$	$1\frac{1}{8}$	$1\frac{1}{16}$ (1·0625)



Material :
STAINLESS STEEL
(Self-finish)

AS 491, 492 & 493 CLIPS

Part No.	W	Size of Holes	S.W.G.
	in.		
AS 491	0·50	No. 25	20
AS 492	0·63	No. 10	20
AS 493	0·75	No. 10	18

Material : Aluminium (Anodised)

Clips are ordered by the part number followed by a number indicating the length "L" in $\frac{1}{10}$", *e.g.* a clip 0·5" wide with length "L" of 2·5" would be AS 491/25.

AS 1151 SINGLE BALL BEARING SHROUDED PULLEY

See page 184

AS 1152 DOUBLE BALL BEARING SHROUDED PULLEY

See page 184

AS 1153 TRIPLE BALL BEARING SHROUDED PULLEY

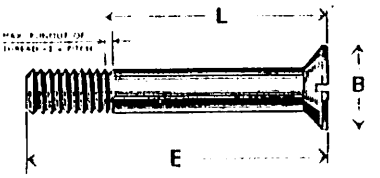
See page 184

AS 1154 QUADRUPLE BALL BEARING SHROUDED PULLEY

See page 184

AS 1242, 2920 & 4563
90° COUNTERSUNK HEAD BOLTS—SLOTTED

Material : AS 1242 HIGH TENSILE STEEL (CADMIUM)
AS 2920 STAINLESS STEEL (SELF)
AS 4563 ALUMINIUM ALLOY (ANODISED & DYED BLUE)



ITEM	THREAD SIZE	B DIA.		E MIN.	RANGE OF L PLAIN LENGTHS	
		MIN.	MAX.		MIN.	MAX.
		IN.	IN.	IN.	IN.	IN.
B	4 BA	0·242	0·252	L + 0·40	0·1	5·3
C	2 BA	0·314	0·326	L + 0·45	0·1	5·3
E	¼" BSF	0·427	0·442	L + 0·50	0·2	5·4
G	5/16" BSF	0·535	0·553	L + 0·55	0·2	5·4
J	⅜" BSF	0·641	0·664	L + 0·65	0·2	5·4
L	7/16" BSF	0·748	0·774	L + 0·70	0·2	5·4
N	½" BSF	0·855	0·885	L + 0·80	0·3	5·4

METHOD OF ORDERING

Bolts are ordered by the drawing number, followed by a numeral(s) representing the plain length "L" in tenths of an inch, followed by the item letter for the size of thread required, *e.g.* the complete part number for a ¼" BSF 90° countersunk head bolt in high tensile steel with a plain length of 1·6" would be AS 1242—16E.

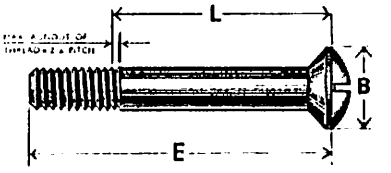
A bolt with "L" length 0·05" should be called up as ½" not 0·05", *e.g.* as 1212½C, and will be threaded up to the head.

AS 1244, 2921 & 4564

RAISED 90° COUNTERSUNK HEAD BOLTS—SLOTTED

Material: **AS 1244** HIGH TENSILE STEEL (CADMIUM)
AS 2921 STAINLESS STEEL (SELF)
AS 4564 ALUMINIUM ALLOY (ANODISED & DYED BLUE)

ITEM	THREAD SIZE	B DIA.	E MIN.	RANGE OF L PLAIN LENGTHS MIN.	RANGE OF L PLAIN LENGTHS MAX.
		IN.	IN.	IN.	IN.
B	4 BA	0·25	L + 0·40	0·1	5·3
C	2 BA	0·32	L + 0·45	0·1	5·3
E	¼" BSF	0·41	L + 0·50	0·2	5·4
G	5/16" BSF	0·55	L + 0·55	0·2	5·4
J	⅜" BSF	0·66	L + 0·65	0·2	5·4
L	7/16" BSF	0·76	L + 0·70	0·2	5·4
N	½" BSF	0·88	L + 0·80	0·3	5·4



METHOD OF ORDERING

Bolts are ordered by the drawing number, followed by a numeral(s) representing the plain length "L" in tenths of an inch, followed by the item letter for the size of thread required, *e.g.* the complete part number for a ¼" BSF raised countersunk 90° head bolt with a plain length of 1·6" would be AS 1244–16E.

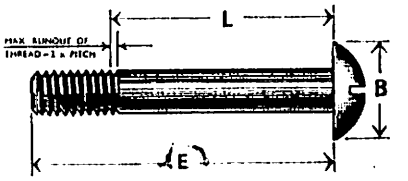
A bolt with "L" length 0·05" should be called up to as ½" not 0·05", *e.g.* AS 1244½C, and will be threaded up to the head.

AS 1246, 2922 & 4565

ROUND HEAD BOLTS—SLOTTED

Material: **AS 1246** HIGH TENSILE STEEL (CADMIUM)
AS 2922 STAINLESS STEEL (SELF)
AS 4565 ALUMINIUM ALLOY (ANODISED & DYED BLUE)

ITEM	THREAD	B DIA.	E MIN.	RANGE OF L PLAIN LENGTHS MIN.	RANGE OF L PLAIN LENGTHS MAX.
		IN.	IN.	IN.	IN.
B	4 BA	0·25	L + 0·40	0·05	5·3
C	2 BA	0·32	L + 0·45	0·05	5·3
E	¼" BSF	0·41	L + 0·50	0·05	5·4



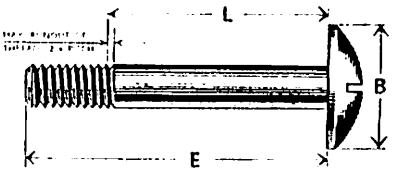
METHOD OF ORDERING

Bolts are ordered by the drawing number, followed by a numeral(s) representing the plain length "L" in tenths of an inch, followed by the item letter for the size of thread required, *e.g.* the complete part number for a ¼" BSF round-head bolt in high tensile steel with a plain length of 1·6" would be AS 1246–16E.

A bolt with a plain length "L" of 0·05" should be called up as ½" not 0·05", *e.g.* AS1246½C.

AS 1248, 2923 & 4566 MUSHROOM HEAD BOLTS—SLOTTED

Material: AS 1248 HIGH TENSILE STEEL (CADMIUM)
AS 2923 STAINLESS STEEL (SELF)
AS 4566 ALUMINIUM ALLOY
(ANODISED & DYED BLUE)



ITEM	THREAD SIZE	B DIA.	E MIN.	RANGE OF L PLAIN LENGTHS	
				MIN.	MAX.
		IN.	IN.	IN.	IN.
B	4 BA	0·375	L + 0·40	0·05	5·3
C	2 BA	0·4375	L + 0·45	0·05	5·3
E	¼" BSF	0·625	L + 0·50	0·05	5·4
G	5/16" BSF	0·75	L + 0·55	0·05	5·4

METHOD OF ORDERING

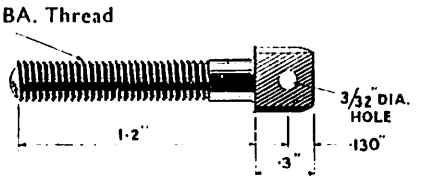
Bolts are ordered by the drawing number, followed by a numeral(s) representing the plain length "L" in tenths of an inch, followed by the item letter for the size of thread required, *e.g.* the complete part number for a ¼" BSF mushroom-head bolt in high tensile steel with a plain length of 1·6" would be AS 1248-16E.

A Bolt with an "L" length of 0·05" should be called up as ½" not 0·05", *e.g.* AS 1248—½C.

AS 1327 & 1328 4 BA CONNECTOR

Material : STEEL (CADMIUM)

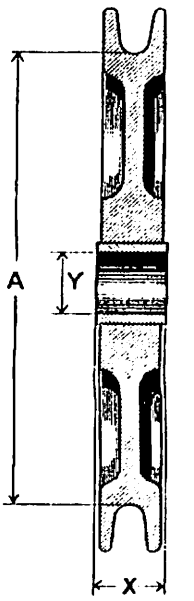
	THREAD
AS 1327	Right hand
AS 1328	Left hand



AS 1860 to 1864 CABLE TYPE PLAIN BEARING PULLEYS

Material : PULLEY, Plastic Moulding
BUSH, Steel (SELF-FINISH)

PART NO.	STEEL BUSH	ALTERNATIVE TO SBAC BALL BEARING PULLEY	CABLE SIZE CWT.	A	X	Y
				IN.	IN.	IN.
AS 1860	AS 1865	AS 111	5	1·25	0·3125	0·25
AS 1861	AS 1866	AS 103	5 & 10	2·0	0·5	0·375
AS 1862	AS 1866	AS 104	10, 15 & 20	3·0	0·5	0·375
AS 1863	AS 1867	AS 105	20, 25 & 35	4·0	0·625	0·5
AS 1864	AS 1867	AS 106	20, 25 & 35	5·0	0·625	0·5



AS1876 to 1879 HINGES
WITH SINGLE FLANGE PLATES

Material: ALUMINIUM ALLOY

Part No.	Plate Thickness	Width Open
AS 1876	20 S.W.G.	IN. 0·75
AS 1877	20 S.W.G.	1·0
AS 1878	18 S.W.G.	1·25
AS 1879	18 S.W.G.	1·50

METHOD OF ORDERING

Hinges are ordered by the part number, followed by the overall length required in inches and decimal of an inch. The overall length must be a multiple of 0·50" and the maximum length available is 72".

AS1880 & 1881 HINGES
WITH DOUBLE FLANGE PLATES

Material: ALUMINIUM ALLOY

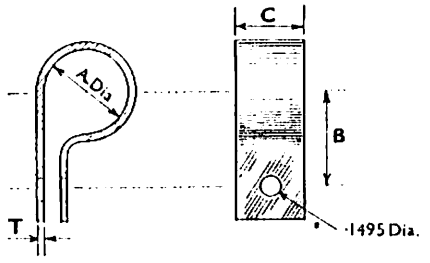
Part No.	Plate Thickness	Width Open
AS 1880	20 S.W.G.	IN. 1·5
AS 1881	20 S.W.G.	2·0

METHOD OF ORDERING

Hinges are ordered by the part number, followed by the overall length given in inches and fraction of an inch. The overall length must be a multiple of 1¼" and the maximum length available is 71¼".

AS 1900 CABLE CLIPS

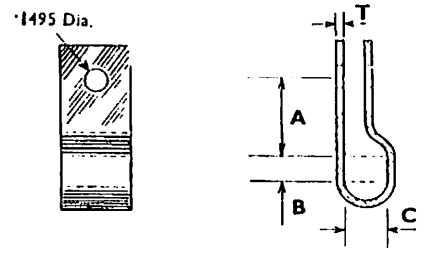
Material : ALUMINIUM (SELF)



Item No.	A	B	C	T
A	IN. 0·20	IN. 0·38	IN. 0·38	20 S.W.G.
B	0·25	0·41	0·38	20 S.W.G.
C	0·32	0·44	0·38	20 S.W.G.
D	0·38	0·47	0·38	20 S.W.G.
E	0·44	0·50	0·50	20 S.W.G.
F	0·50	0·56	0·50	20 S.W.G.
G	0·62	0·62	0·50	20 S.W.G.
H	0·75	0·68	0·50	18 S.W.G.
J	0·88	0·75	0·50	18 S.W.G.
K	1·0	0·81	0·50	18 S.W.G.

AS 1901 CABLE CLIPS

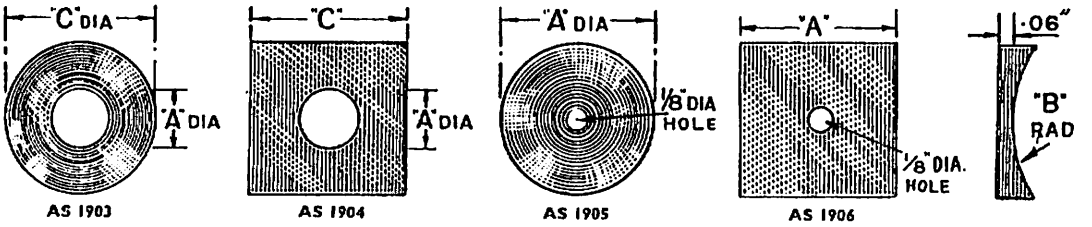
Material : ALUMINIUM (SELF)



Item No.	A	B	C	D	T
A	IN. 0·40	IN. 0·09	IN. 0·15	IN. 0·38	20 S.W.G.
B	0·41	0·10	0·18	0·38	20 S.W.G.
C	0·43	0·09	0·22	0·38	20 S.W.G.
D	0·45	0·12	0·25	0·38	20 S.W.G.
E	0·52	0·23	0·37	0·50	18 S.W.G.
F	0·59	0·42	0·50	0·50	18 S.W.G.

Brown Brothers Engineering Ltd

SADDLE WASHERS



AS 1903

Material: ALUM. ALLOY (Anodised)

ITEM	A Dia.	B Rad.	C Dia.
	IN.	IN.	IN.
C6	0·191	3/32	1/4
C7	0·191	7/64	1/4
C8	0·191	1/8	1/4
C9	0·191	9/64	1/4
C10	0·191	5/32	1/4
C11	0·191	11/64	1/4
C12	0·191	3/16	1/4
C13	0·191	13/64	1/4
C14	0·191	7/32	1/4
E7	1/4	7/64	5/16
E8	1/4	1/8	5/16
E9	1/4	9/64	5/16
E10	1/4	5/32	5/16
E11	1/4	11/64	5/16
E12	1/4	3/16	5/16
E13	1/4	13/64	5/16
E14	1/4	7/32	5/16
E15	1/4	15/64	5/16
E16	1/4	1/4	5/16
G8	5/16	1/8	7/16
G9	5/16	9/64	7/16
G10	5/16	5/32	7/16
G11	5/16	11/64	7/16
G12	5/16	3/16	7/16
G13	5/16	13/64	7/16
G14	5/16	7/32	7/16
G15	5/16	15/64	7/16
G16	5/16	1/4	7/16
J8	3/8	1/8	1/2
J9	3/8	9/64	1/2
J10	3/8	5/32	1/2
J11	3/8	11/64	1/2
J12	3/8	3/16	1/2
J13	3/8	13/64	1/2
J14	3/8	7/32	1/2
J15	3/8	15/64	1/2
J16	3/8	1/4	1/2

AS 1904

Material: ALUM. ALLOY (Anodised)

ITEM	A Dia.	B Rad.	C Dia.
	IN.	IN.	IN.
C6	0·191	3/32	1/4
C7	0·191	7/64	1/4
C8	0·191	1/8	1/4
C9	0·191	9/64	1/4
C10	0·191	5/32	1/4
C11	0·191	11/64	1/4
C12	0·191	3/16	1/4
C13	0·191	13/64	1/4
C14	0·191	7/32	1/4
E7	1/4	7/64	5/16
E8	1/4	1/8	5/16
E9	1/4	9/64	5/16
E10	1/4	5/32	5/16
E11	1/4	11/64	5/16
E12	1/4	3/16	5/16
E13	1/4	13/64	5/16
E14	1/4	7/32	5/16
E15	1/4	15/64	5/16
E16	1/4	1/4	5/16
G8	5/16	1/8	7/16
G9	5/16	9/64	7/16
G10	5/16	5/32	7/16
G11	5/16	11/64	7/16
G12	5/16	3/16	7/16
G13	5/16	13/64	7/16
G14	5/16	7/32	7/16
G15	5/16	15/64	7/16
G16	5/16	1/4	7/16
J8	3/8	1/8	1/2
J9	3/8	9/64	1/2
J10	3/8	5/32	1/2
J11	3/8	11/64	1/2
J12	3/8	3/16	1/2
J13	3/8	13/64	1/2
J14	3/8	7/32	1/2
J15	3/8	15/64	1/2
J16	3/8	1/4	1/2

AS 1905

Material: MILD STEEL (Cadmium)

ITEM	A Dia.	B Rad.
	IN.	IN.
C6	1/4	3/32
C7	1/4	7/64
C8	1/4	1/8
C9	1/4	9/64
C10	1/4	5/32
C11	1/4	11/64
C12	1/4	3/16
C13	1/4	13/64
C14	1/4	7/32
E7	5/16	7/64
E8	5/16	1/8
E9	5/16	9/64
E10	5/16	5/32
E11	5/16	11/64
E12	5/16	3/16
E13	5/16	13/64
E14	5/16	7/32
E15	5/16	15/64
E16	5/16	1/4
G8	7/16	1/8
G9	7/16	9/64
G10	7/16	5/32
G11	7/16	11/64
G12	7/16	3/16
G13	7/16	13/64
G14	7/16	7/32
G15	7/16	15/64
G16	7/16	1/4
J8	1/2	1/8
J9	1/2	9/64
J10	1/2	5/32
J11	1/2	11/64
J12	1/2	3/16
J13	1/2	13/64
J14	1/2	7/32
J15	1/2	15/64
J16	1/2	1/4

AS 1906

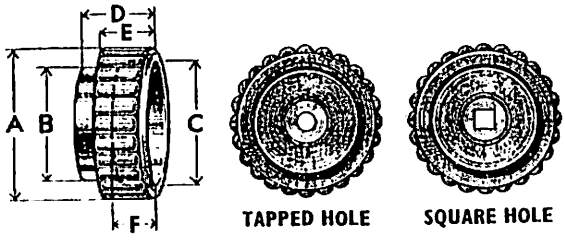
Material: MILD STEEL (Cadmium)

ITEM	A	B Rad.
	IN.	IN.
C6	1/4	3/32
C7	1/4	7/64
C8	1/4	1/8
C9	1/4	9/64
C10	1/4	5/32
C11	1/4	11/64
C12	1/4	3/16
C13	1/4	13/64
C14	1/4	7/32
E7	5/16	7/64
E8	5/16	1/8
E9	5/16	9/64
E10	5/16	5/32
E11	5/16	11/64
E12	5/16	3/16
E13	5/16	13/64
E14	5/16	7/32
E15	5/16	15/64
E16	5/16	1/4
G8	7/16	1/8
G9	7/16	9/64
G10	7/16	5/32
G11	7/16	11/64
G12	7/16	3/16
G13	7/16	13/64
G14	7/16	7/32
G15	7/16	15/64
G16	7/16	1/4
J8	1/2	1/8
J9	1/2	9/64
J10	1/2	5/32
J11	1/2	11/64
J12	1/2	3/16
J13	1/2	13/64
J14	1/2	7/32
J15	1/2	15/64
J16	1/2	1/4

METHOD OF ORDERING

Quote the Part No. followed by the Item No. of the required Washer. Example: A Saddle Washer for a ¼" B.S.F. Bolt to fit on to a 1½" Dia. Tube would be AS 1903. E12.

AS 2160 to 2168 HAND NUTS



Material : PLASTIC MOULDING
INSERT—BRASS OR STEEL
(SELF-FINISH)

PART NO.	DIMENSIONS						INSERT	
	A	B	C	D	E	F	TAPPED	SQ. BROACHED HOLE
	IN.	IN.	IN.	IN.	IN.	IN		IN.
AS 2160	1·0	0·7	0·8	0·5	0·37	0·25	4 BA	—
AS 2161	1·0	0·7	0·8	0·5	0·37	0·25	2 BA	—
AS 2162	1·0	0·7	0·8	0·5	0·37	0·25	—	0·15
AS 2163	1·37	0·7	1·12	0·7	0·5	0·37	¼" B.S.F.	—
AS 2164	1·37	0·7	1·12	0·7	0·5	0·37	—	0·2
AS 2165	1·75	0·87	1·5	0·8	0·6	0·45	⅜" B.S.F.	—
AS 2166	1·75	0·87	1·5	0·8	0·6	0·45	⅜" B.S.F.	—
AS 2167	1·75	0·87	1·5	0·8	0·6	0·45	—	0·25
AS 2168	1·41	0·56	1·12	0·5	0·38	0·22	¼" B.S.F.	—

AS 2227 SOLID RIVETS—SNAP HEAD

See page 185

AS 2228 SOLID RIVETS—MUSHROOM HEAD

See page 185

AS 2229 SOLID RIVETS—90° COUNTERSUNK HEAD

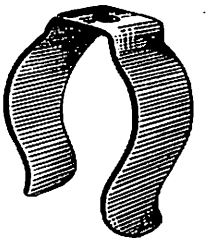
See page 185

AS 2230 SOLID RIVETS—120° COUNTERSUNK HEAD

See page 186

AS 2294 SPRING CLIP

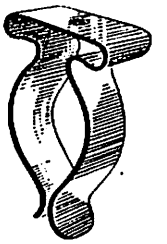
Note: Two Fixing Holes provided for items 10 to 13



Material: SPRING STEEL (CADMIUM)

ITEM	1	2	3	4	5	6	7	8	9	10	11	12	13
To Grip Dia.	¼"	⅜"	½"	⅝"	¾"	1"	1⅛"	1¼"	1⅜"	1½"	2¼"	2½"	2"

AS 2295 SPRING CLIP



Material: SPRING STEEL (CADMIUM)

ITEM	1	2	3	4	5	6	7	8	9		11
To Grip Dia.	¼"	⅜"	½"	⅝"	¾"	1"	1⅛"	1¼"	1½"		2"

AS 2296 SPRING CLIP (HEAVY GAUGE)

Material: SPRING STEEL (CADMIUM)

ITEM	5	6	8	9	10	12
To Grip Dia.	⅝"	¾"	1"	1⅛"	1¼"	1½"

Otherwise identical to AS 2295

AS 2297 to 2303. AS 2304 to 2310 DISTANCE TUBES

A.S. Drawing No. is obtained from table and the length is indicated by a stroke No. to the nearest ·01 of an inch. Use prefix "0" for lengths below 1·0".

Example:—
A $\frac{5}{16}$" 0/Dia. Distance Tube ·75" long is
AS 2300/075

AS 2297 to 2303

Material: MILD STEEL (CADMIUM)

PART NO.	0/DIA. D
AS 2297	$\frac{3}{16}$" 22 S.W.G.
AS 2298	$\frac{7}{32}$" 22 S.W.G.
AS 2299	¼" 22 S.W.G.
AS 2300	$\frac{5}{16}$" 18 S.W.G.
AS 2301	⅜" 18 S.W.G.
AS 2302	$\frac{7}{16}$" 18 S.W.G.
AS 2303	½" 18 S.W.G.

Example:—
A ½" 0/Dia. Distance Tube 1·65" long is
AS 2310/165

AS 2304 to 2310

Material: ALUMINIUM ALLOY (SELF-FINISH)

PART NO.	0/DIA. D
AS 2304	$\frac{3}{16}$" 22 S.W.G.
AS 2305	$\frac{7}{32}$" 22 S.W.G.
AS 2306	¼" 22 S.W.G.
AS 2307	$\frac{5}{16}$" 18 S.W.G.
AS 2308	⅜" 18 S.W.G.
AS 2309	$\frac{7}{16}$" 18 S.W.G.
AS 2310	½" 18 S.W.G.

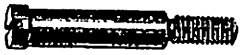
AS 2311 ROTATING KNOB

Material : PLASTIC

Size 1·19″ long

In BLACK, RED, GREEN or BLUE.

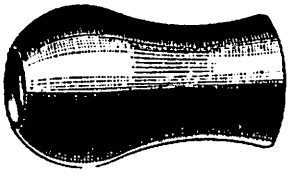
AS 2312 SCREW (FOR ROTATING KNOB AS 2311)



Material : STEEL (CADMIUM)

Size 2 BA × 1·7″ long

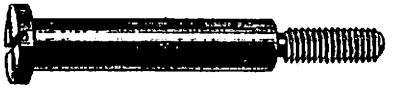
AS 2313 ROTATING KNOB



Material : PLASTIC

Size 1·91″ long

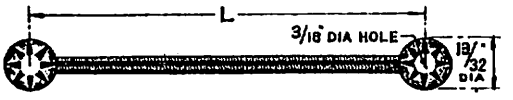
AS 2314 SCREW (FOR ROTATING KNOB AS 2313)



Material : STEEL (CADMIUM)

Size ¼″ BSF × 2·7″ long

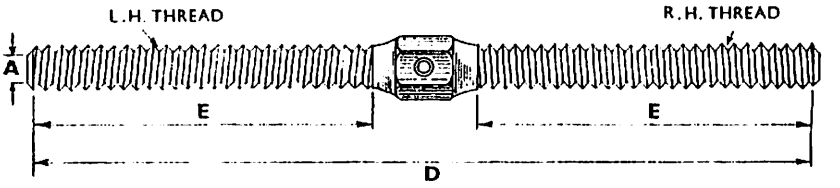
AS 2370 COPPER BONDING LEAD



ITEM	L
	IN.
A	3·0
B	4·5
C	6·0

AS 2381 to 2383 TENSION RODS

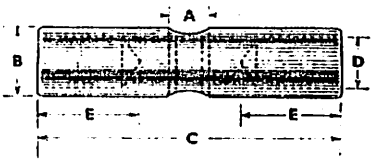
Material : HIGH TENSILE STEEL (CADMIUM)



PART No.	A THREAD	A/F		D	E
		MIN.	MAX.		
		IN.	IN.	IN.	IN.
AS 2381	¼" BSF	0·321	0·324	4·12	1·75
AS 2382	5/16" BSF	0·440	0·445	5·10	2·12
AS 2383	⅜" BSF	0·440	0·445	5·88	2·50

AS 2384 to 2392 TRUNNION

Material: HIGH TENSILE STEEL (CADMIUM)

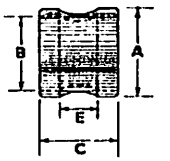


PART No.	A THREAD	B DIA.	C	D DIA.	E
		IN.	IN.	IN.	IN.
AS 2384	¼" BSF R.H.	0·44	1·50	0·312	0·44
AS 2385	5/16" BSF R.H.	0·57	2·50	0·375	0·80
AS 2386	⅜" BSF R.H.	0·69	3·00	0·500	1·00
AS 2387	¼" BSF L.H.	0·44	1·50	0·312	0·44
AS 2388	5/16" BSF L.H.	0·57	2·50	0·375	0·80
AS 2389	⅜" BSF L.H.	0·69	3·00	0·500	1·00
AS 2390	Drill F—0·257" dia.	0·44	1·50	0·312	0·44
AS 2391	Drill P—0·323" dia.	0·57	2·50	0·375	0·80
AS 2392	Drill W—0·386" dia.	0·69	3·00	0·500	1·00

AS 2393 to 2395 COLLAR

Material : ALUMINIUM ALLOY (ANODISED)

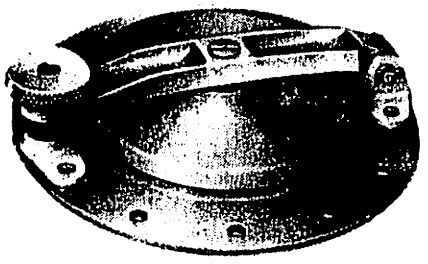
PART No.	A DIA.	B DIA.	C	E DIA.
	IN.		IN.	IN.
AS 2393	0·62	29/64"	0·49	0·206
AS 2394	0·75	37/64"	0·65	0·332
AS 2395	0·87	45/64"	0·79	0·397



AS 2398 & 2510 FILLER CAPS (Hinged 2″ and 2½″)

(WHITWORTH THREADS)

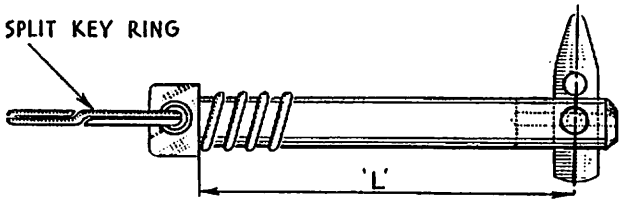
For Flush Type Filler Caps, see AS 2590, AS 4749 & AS 4750



Part No.	Dia. of Orifice	Fixing
	IN.	
AS 2398	2·5	12 Holes 0·1935″ dia. on 4·125″ P.C.D.
AS 2510	2·0	10 Holes 0·1935″ dia. on 3·6″ P.C.D.

AS 2434 to 2438, 2444, 2445 QUICK RELEASE PINS (With ring)
AS 2439 TO 2443 QUICK RELEASE PINS (Less ring)

Material : MILD STEEL (Cadmium)



To find length " L " for pin diameters of ¼″ to ½″ incl. add 0·6″ to length of work that pin is required to fit and for pin diameters ⅝″ and ¾″ add 0·7″ to length of work that pin is required to fit.

Part No.		Pin Dia.	Split Key Ring Internal Dia.
With Ring	Less Ring		
		IN.	IN.
AS 2434	AS 2439	¼	1
AS 2435	AS 2440	5/16	1⅛
AS 2436	AS 2441	⅜	1¼
AS 2437	AS 2442	7/16	1¼
AS 2438	AS 2443	½	1¼
AS 2444	—	⅝	2
AS 2445	—	¾	2

METHOD OF ORDERING

Quick release pins are ordered by the part number followed by a number representing length " L " in 1/10 of an inch, *e.g.* a ⅜″ dia. pin with calculated length " L " of 1·0″ + 0·60″ would be AS 2436/16 or a ⅝″ dia. pin with calculated length " L " of 1·20″ + 0·70″ would be AS 2444/19.

AS 2504 CLOSE TOLERANCE BOLTS

Material: HIGH TENSILE STEEL (HEAD & THREAD—CADMIUM; PLAIN SHANK & UNDERSIDE OF HEAD—SELF-TEMPORARY RUST PREVENTATIVE)

See also A30.

ITEM	THREAD SIZE	ACROSS FLATS		SHANK DIA.		MIN. THREAD LENGTH
		MIN.	MAX.	MIN.	MAX.	
		IN.	IN.	IN.	IN.	IN.
C	2 BA	0·245	0·248	0·18905	0·18955	0·40
E	$\frac{1}{4}$" BSF	0·321	0·324	0·24925	0·24975	0·45
G	$\frac{5}{16}$" BSF	0·440	0·445	0·31175	0·31225	0·50
J	$\frac{3}{8}$" BSF	0·520	0·525	0·37425	0·37475	0·60

METHOD OF ORDERING

Bolts are ordered by the drawing number followed by a numeral(s) representing the plain length in tenths of an inch, followed by the item letter for the size of thread required. The complete part number for a $\frac{5}{16}$" BSF bolt with a plain length of 1·6" would be AS2501/16G.

AS 2505 STUD

Material: PLASTIC MOULDING

AS 2506 FLEXIBLE STRIP

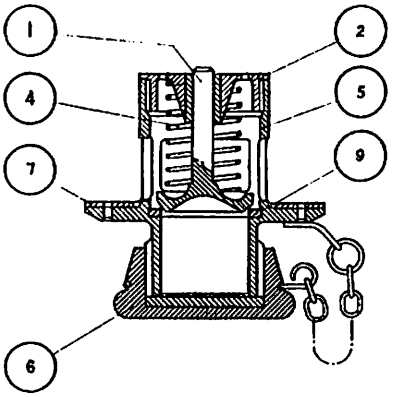
Material: P.V.C.

AS 2510 FILLER CAP

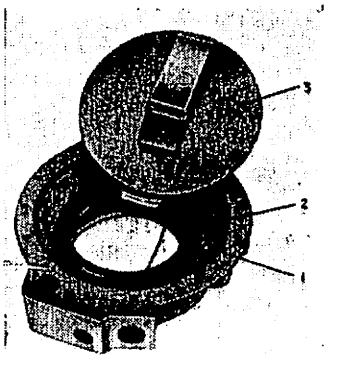
(See page 197)

AS 2573 DRAIN VALVE—1¼"

ITEM	DESCRIPTION	PART NO.	NO. OFF
1	Valve	AS 2579	1
2	Valve Guide	AS 403	1
4	Spring	AS 404	1
5	Body	AS 2574	1
6	Cap Assembly	AS 2588	1
7	Joint Washer	AS 410	1
9	Seating Ring	AS 2578	1



AS 2590 FILLER CAP (Flush—2½″)



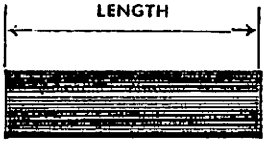
WHITWORTH THREADS

Item	Comprising	Part No.
1	Base	AS 2591
2	Sealing Ring	AS 5364
3	Cap	AS 2592

AS 2806 to 2808. AS 2809 to 2811

STEEL (Cadmium) (ALUM. ALLOY ANODISED)

SEAMLESS DISTANCE TUBES



METHOD OF ORDERING

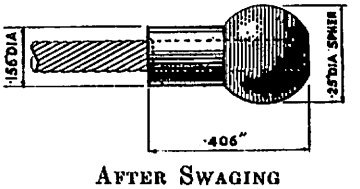
Seamless Distance Tubes are ordered by the part number followed by a number representing the outside diameter in $\frac{1}{16}$ of an inch, followed by the length required to the nearest 0·01 of an inch, *e.g.* a $\frac{7}{16}$″ O/dia. Distance Tube in 20 S.W.G. by 0·75″ long would be AS 2807/7/075.
N.B.: Use prefix "0" for lengths below 1 inch.

Part Nos.	Gauge S.W.G.
AS 2806 and AS 2809	22
AS 2807 and AS 2810	20
AS 2808 and AS 2811	17

AS 2902 & 2903 ¼″ BALL END

Material: STEEL (Self-finish)

Part No.	Cable Spec.	
	Constr.	Strength
AS 2902	4 × 7	3 cwt.
AS 2903	7 × 7	5 cwt.

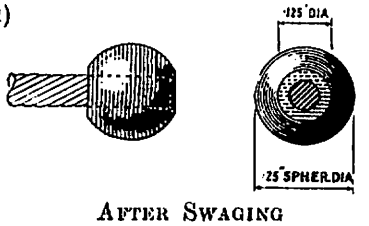


After Swaging

AS 2904 & 2905 ¼″ BALL END

Material: STEEL (Self-finish)

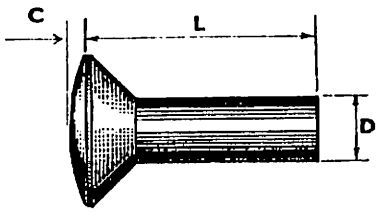
Part No.	Cable Spec.		Breaking Load of End
	Constr.	Strength	
AS 2904	4 × 7	3 cwt.	268 lbs.
AS 2905	7 × 7	5 cwt.	448 lbs.



After Swaging

AS 2918 & 3362 SOLID RIVETS—90° COUNTERSUNK HEAD (Close Tolerance)

Material : AS 2918 ALUMINIUM ALLOY—L37 (SELF)
AS 3362 ALUMINIUM ALLOY—L86 (ANODISED & DYED VIOLET)



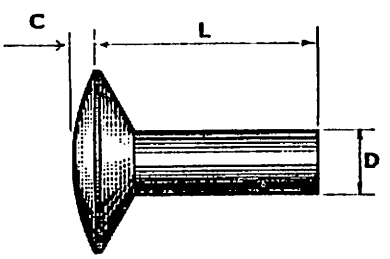
DIA. D. ± 0·001"	3/32"	1/8"	5/32"	3/16"	7/32"	1/4"	9/32"	5/16"
	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
Depth of head ± 0·0015"	0·035	0·046	0·058	0·070	0·082	0·094	0·106	0·118
Dia. of head ± 0·001"	0·157	0·212	0·267	0·322	0·377	0·432	0·487	0·542
$C^{+0\cdot003"}_{-0}$	0·003	0·003	0·003	0·004	0·004	0·005	0·005	0·006

METHOD OF ORDERING

Rivets are ordered by the last two figures of the part number denoting the length in 1/16" and the remaining figure or figures denoting the dia. in 1/32", *e.g.* the part reference for a 1/8" dia. rivet 1/2" long in L37 would be AS 2918/408.

AS 2919 & 3363 SOLID RIVETS—120° COUNTERSUNK HEAD (Close Tolerance)

Material : AS 2919 ALUMINIUM ALLOY—L37 (SELF)
AS 3363 ALUMINIUM ALLOY—L86 (ANODISED & DYED VIOLET)



DIA. D. ± 0·001"	3/32"	1/8"	5/32"	3/16"	7/32"	1/4"	9/32"	5/16"
	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
Depth of head ± 0·0015"	0·027	0·036	0·045	0·054	0·063	0·072	0·081	0·090
Dia. of head ± 0·001"	0·177	0·239	0·302	0·364	0·426	0·489	0·552	0·614
$C^{+0\cdot003"}_{-0}$	0·003	0·003	0·003	0·004	0·004	0·005	0·005	0·006

METHOD OF ORDERING

Rivets are ordered by the last two figures of the part number denoting the length in 1/16" and the remaining figure or figures denoting the dia. in 1/32", *e.g.* the part reference for a 1/8" dia. rivet 1/2" long in L37 would be AS 2919/408.

AS 2920 90° COUNTERSUNK HEAD BOLTS

See page 188

AS 2921 RAISED 90° COUNTERSUNK HEAD BOLTS

See page 189

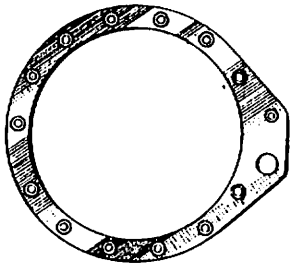
AS 2922 ROUND HEAD BOLTS

See page 189

AS 2923 MUSHROOM HEAD BOLTS

See page 190

AS 3031 to 3036 PACKING WASHERS



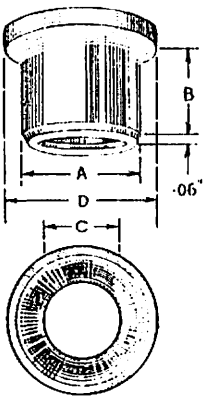
For use with Filler Cap AS 2590

Material : ALUMINIUM ALLOY (ANODISED)

PART NO.	S.W.G.	REQD. FOR
AS 3031	22	12 G. Skin
AS 3032	18	14 G. Skin
AS 3033	16	16 G. Skin
AS 3034	14	18 G. Skin
AS 3035	14	20 G. Skin
AS 3036	12	22 G. Skin

AS 3119 SHEAR BUSHES—PARALLEL

Material :
STAINLESS STEEL

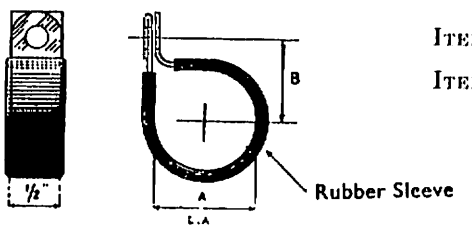


ITEM	A DIA. NEWALL "P" −0·00025" −0·00075"	B	C DIA.	D
	IN.	IN.	IN.	IN.
G2	$\frac{5}{16}$	0·25	$\frac{3}{8}$	$\frac{1}{2}$
G4	$\frac{5}{16}$	0·50	$\frac{3}{8}$	$\frac{1}{2}$
J2	$\frac{3}{8}$	0·25	$\frac{1}{2}$	$\frac{5}{16}$
J4	$\frac{3}{8}$	0·50	$\frac{1}{2}$	$\frac{5}{16}$
L2	$\frac{7}{16}$	0·25	$\frac{5}{8}$	$\frac{3}{4}$
L4	$\frac{7}{16}$	0·50	$\frac{5}{8}$	$\frac{3}{4}$
L6	$\frac{7}{16}$	0·75	$\frac{5}{8}$	$\frac{3}{4}$
N3	$\frac{1}{2}$	0·38	$\frac{3}{4}$	$\frac{11}{16}$
N5	$\frac{1}{2}$	0·63	$\frac{3}{4}$	$\frac{11}{16}$
N7	$\frac{1}{2}$	0·88	$\frac{3}{4}$	$\frac{11}{16}$

The figures denote the length of the shear bush in $\frac{1}{8}$ in.

AS 3180 "P" CLIPS—RUBBER COVERED

Material : ALUMINIUM (SELF-FINISH)



ITEMS 3–11 : 22 S.W.G.
ITEMS 12–20 : 20 S.W.G.

ITEM No.	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	20
DIA. A.	$\frac{3}{16}$"	$\frac{1}{4}$"	$\frac{5}{16}$"	$\frac{3}{8}$"	$\frac{7}{16}$"	$\frac{1}{2}$"	$\frac{9}{16}$"	$\frac{5}{8}$"	$\frac{11}{16}$"	$\frac{3}{4}$"	$\frac{13}{16}$"	$\frac{7}{8}$"	$\frac{15}{16}$"	1"	1$\frac{1}{8}$"	1$\frac{1}{4}$"
B. IN.	0·34	0·375	0·40	0·43	0·46	0·55	0·58	0·61	0·64	0·70	0·73	0·75	0·79	0·82	0·88	0·94

METHOD OF ORDERING

Clips are ordered by the item number followed by a symbol letter indicating the size of fixing hole, *e.g.* a $\frac{1}{2}$" internal diameter clip having a fixing hole suitable for a 2 BA bolt would be AS 3180/8C.

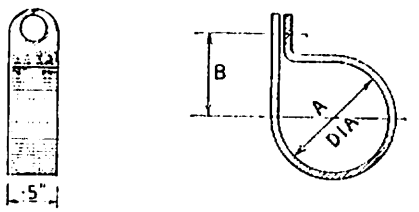
Drill No. 24 for 4 BA bolt or No. 6 UNC .. .. .. Symbol B
Drill 0·1935" dia. for 2 BA bolt or No. 10 UNF .. .. Symbol C
Clips of $\frac{1}{4}$" dia. and over can be drilled to suit $\frac{1}{4}$" BSF bolts (drill letter "F") .. .. Symbol E

AS 3181 "P" CLIPS

ITEM	A	B	MATERIAL S.W.G.
	IN.	IN.	
3	3/32	0·32	22
4	1/8	0·35	22
5	5/32	0·38	22
6	3/16	0·41	22
7	7/32	0·44	22
8	1/4	0·53	22
9	9/32	0·56	22
10	5/16	0·60	22
11	11/32	0·63	22
12	3/8	0·67	20
13	13/32	0·70	20
14	7/16	0·73	20
15	15/32	0·76	20
16	1/2	0·79	20
18	1 1/4	0·85	20
20	1 1/4	0·91	20
24	1 1/4	1·05	18
28	1 1/4	1·18	18
32	2	1·3	18

Material :

ALUMINIUM ALLOY (SELF)



METHOD OF ORDERING

Clips are ordered by the item number followed by a symbol letter indicating the size of fixing hole, *e.g.* a 1/2" internal diameter clip having a fixing hole suitable for a 2 BA bolt would be AS 3181/8C.

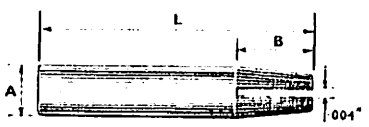
Drill 0·152" Dia. for 4 BA bolt or No. 6 UNC .. .. Symbol B

Drill 0·1935" dia. for 2 BA bolt or No. 10 UNF .. .. Symbol C

Clips of 1/2" dia. and over can be drilled to suit 1/4" bolts (drill 0·257" Dia.) Symbol E

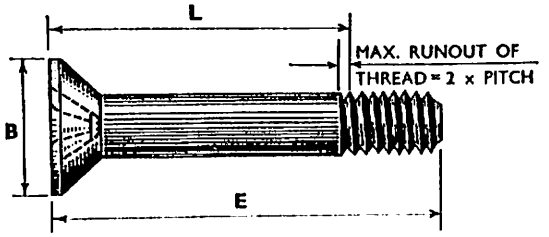
AS 3281 to 3284 ATTACHMENT PIN

Material: BERYLLIUM COPPER (SELF)



AS No.	A DIA.	B	L
	IN.	IN.	IN.
AS 3281	0·0409 0·0405	0·065	0·255 0·250
AS 3282	0·0644 0·0640	0·105	0·405 0·400
AS 3283	0·0944 0·0940	0·140	0·535 0·530
AS 3284	0·0944 0·0940	0·170	0·655 0·650

AS 3294 90° COUNTERSUNK RECESS HEAD BOLTS



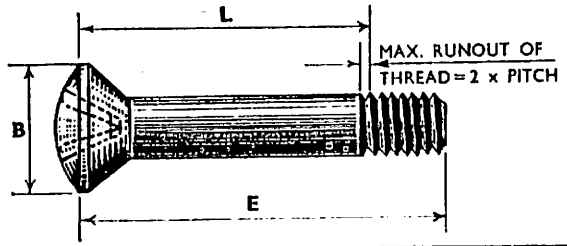
Material: HIGH TENSILE STEEL
(CADMIUM)

ITEM	THREAD SIZE	B DIA.		E MIN.	RANGE OF L PLAIN LENGTHS	
		MIN.	MAX.		MIN.	MAX.
		IN.	IN.	IN.	IN.	IN.
B	4 BA	0·236	0·252	L + 0·40	0·1	1·6
C	2 BA	0·306	0·324	L + 0·45	0·2	2·1
E	¼" BSF	0·419	0·440	L + 0·50	0·2	2·3
G	5/16" BSF	0·542	0·566	L + 0·55	0·3	2·2
J	⅜" BSF	0·621	0·648	L + 0·65	0·3	2·1

METHOD OF ORDERING

Bolts are ordered by the drawing number, followed by a numeral(s) representing the plain length "L" in tenths of an inch, followed by the item letter for the size of thread required, *e.g.* the complete part number for a ¼" BSF 90° countersunk head bolt, with a plain length of 1·6", would be AS 3294/16E.

AS 3295 RAISED 90° COUNTERSUNK RECESS HEAD BOLTS



Material: HIGH TENSILE STEEL
(CADMIUM)

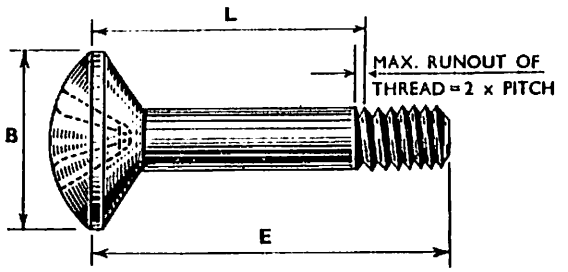
ITEM	THREAD SIZE	B DIA.		E MIN.	RANGE OF PLAIN LENGTHS L	
		MIN.	MAX.		MIN.	MAX.
		IN.	IN.	IN.	IN.	IN.
B	4 BA	0·236	0·252	L + 0·40	0·1	1·6
C	2 BA	0·306	0·324	L + 0·45	0·2	2·1
E	¼" BSF	0·419	0·440	L + 0·50	0·2	2·3
G	5/16" BSF	0·542	0·566	L + 0·55	0·3	2·2
J	⅜" BSF	0·621	0·648	L + 0·65	0·3	2·1

METHOD OF ORDERING

Bolts are ordered by the drawing number, followed by a numeral(s) representing the plain length "L" in tenths of an inch, followed by the item letter for the size of thread required, *e.g.* the complete part number for a ¼" BSF raised 90° countersunk head bolt, with a plain length of 1·6", would be AS 3295/16E.

AS 3296 RAISED 120° COUNTERSUNK RECESS HEAD BOLTS

Material: HIGH TENSILE STEEL
(CADMIUM)



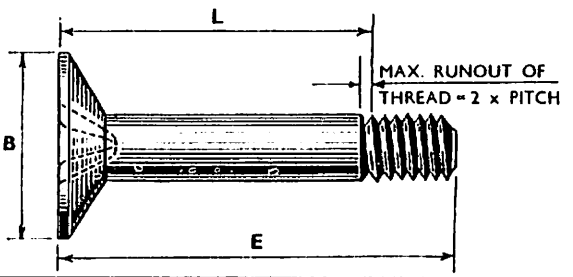
ITEM	THREAD SIZE	B DIA.		E MIN.	RANGE OF PLAIN LENGTHS L	
		MIN.	MAX.		MIN.	MAX.
		IN.	IN.	IN.	IN.	IN.
B	4 BA	0·268	0·284	L + 0·40	0·1	1·6
C	2 BA	0·352	0·370	L + 0·45	0·1	2·1
E	¼" BSF	0·479	0·500	L + 0·50	0·2	2·3
G	5/16" BSF	0·601	0·625	L + 0·55	0·2	2·2
J	⅜" BSF	0·723	0·750	L + 0·65	0·3	2·1

METHOD OF ORDERING

Bolts are ordered by the drawing number, followed by a numeral(s) representing the plain length "L" in tenths of an inch, followed by the item letter for the size of thread required, *e.g.* the complete part number for a ¼" BSF raised 120° countersunk head bolt, with a plain length of 1·6", would be AS 3296/16E.

AS 3297 120° COUNTERSUNK RECESS HEAD BOLTS

Material: HIGH TENSILE STEEL
(CADMIUM)

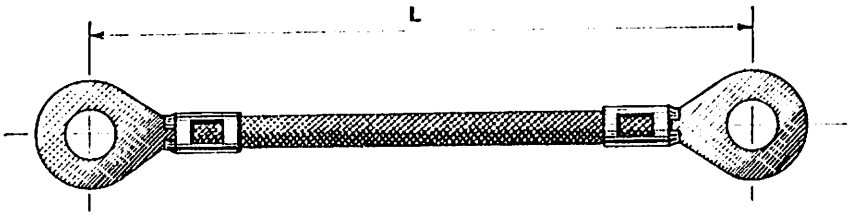


ITEM	THREAD SIZE	B DIA.		E MIN.	RANGE OF PLAIN LENGTHS L	
		MIN.	MAX.		MIN.	MAX.
		IN.	IN.	IN.	IN.	IN.
C	2 BA	0·352	0·370	L + 0·45	0·1	2·1
E	¼" BSF	0·479	0·500	L + 0·50	0·2	2·3
G	5/16" BSF	0·601	0·625	L + 0·55	0·2	2·2
J	⅜" BSF	0·723	0·750	L + 0·65	0·3	2·1

METHOD OF ORDERING

Bolts are ordered by the drawing number, followed by a numeral(s) representing the plain length "L" in tenths of an inch, followed by the item letter for the size of thread required, *e.g.* the complete part number for a ¼" BSF 120° countersunk head bolt with a plain length of 1·6" would be AS 3297/16E.

AS 3360 FLEXIBLE BONDING



Item Code	To Suit Bolt Size
B	4 BA or No. 6×32 UNC
C	2 BA or No. 10×32 UNF
E	$\frac{1}{4}$" BSF or $\frac{1}{4}$" UNF
G	$\frac{5}{16}$" BSF or $\frac{5}{16}$" UNF
J	$\frac{3}{8}$" BSF or $\frac{3}{8}$" UNF

METHOD OF ORDERING

Length " L " in 1" increments, minimum length 3". A 4" flexible bonding with 4BA ends is AS 3360/B4B; A 4" flexible bonding with 4BA or No. 6×32 UNC end and $\frac{1}{4}$" BSF or $\frac{1}{4}$" UNF end is AS 3360/B4E. The smaller end must always be quoted first.

AS 3362 SOLID RIVETS (90° Csk. Head)

(CLOSE TOLERANCE)

See page 200

AS 3363 SOLID RIVETS (120° Csk. Head)

(CLOSE TOLERANCE)

See page 200

AS 3365 & 3366 FILLER CAPS (Flush Types)

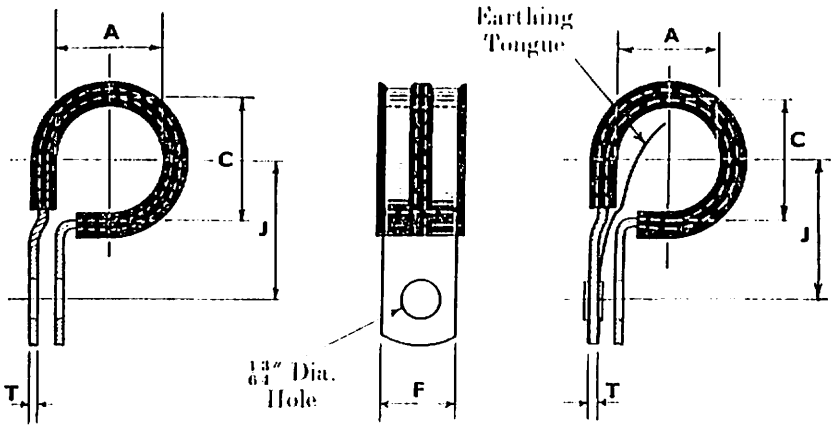
(WHITWORTH THREADS)

Replaced by AS 4641 and AS 4642

AS 4525 & 5418, AS 4526 & 5419 SUPPORT CLIPS

ALLUM. ALLOY (SELF) — STEEL (CADMIUM) — (RUBBER COVERED)

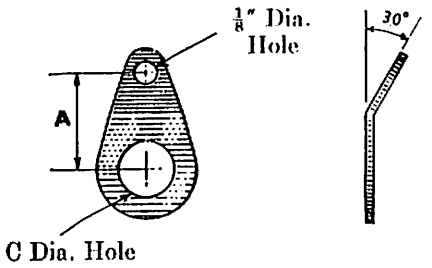
AS 4525 & 4526 With Earthing Tongue
AS 5418 & 5419 Without Earthing Tongue



Item	A Dia.	C Dia.	F	J	T S.W.G.
		IN.	IN.	IN.	
3	5/16"	0·31	0·38	0·50	22
4	1/4"	0·40	0·38	0·53	22
5	5/16"	0·46	0·38	0·56	22
6	3/8"	0·53	0·38	0·59	22
7	5/16"	0·59	0·38	0·62	22
8	1/2"	0·65	0·38	0·65	22
9	9/16"	0·71	0·50	0·74	20
10	5/8"	0·78	0·50	0·77	20
11	11/16"	0·84	0·50	0·80	20
12	3/4"	0·90	0·50	0·84	20
13	13/16"	0·96	0·50	0·87	20
14	7/8"	1·03	0·50	0·90	20
15	15/16"	1·09	0·50	0·93	20
16	1"	1·15	0·50	0·97	18
17	1 1/16"	1·21	0·50	1·00	18
18	1 1/8"	1·28	0·50	1·01	18
19	1 3/16"	1·34	0·50	1·07	18
20	1 1/4"	1·40	0·50	1·10	18
22	1 3/8"	1·53	0·50	1·16	18
24	1 1/2"	1·65	0·50	1·22	18
26	1 5/8"	1·78	0·50	1·34	18
28	1 3/4"	1·90	0·50	1·40	18
30	1 7/8"	2·03	0·50	1·46	18
32	2"	2·15	0·50	1·52	18
34	2 1/8"	2·28	0·50	1·59	18

AS 4561 WIRE LOCKING TABS

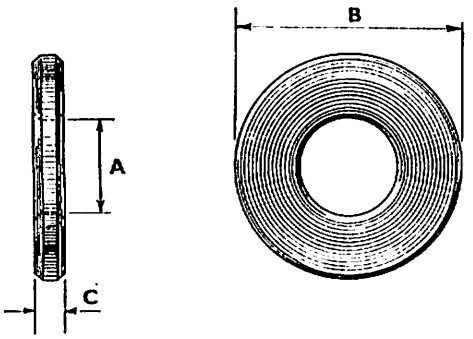
Material: 20 S.W.G. STAINLESS STEEL (SELF)



ITEM	SIZE	A BEFORE BENDING	C
		IN.	IN.
1	4 BA	0·35	0·152
2	2 BA No. 10 UNF	0·40	0·197
3	1/4"	0·45	0·265
4	5/16"	0·50	0·328
5	3/8"	0·55	0·390
6	7/16"	0·60	0·453

AS 4562 PRECISION WASHERS

Material: STEEL (CADMIUM)



ITEM	TO SUIT NOM. THREAD	A DIA.	B DIA.	C
		IN.	IN.	IN.
E	1/4"	0·259	0·625	0·07
G	5/16"	0·322	0·750	0·08
J	3/8"	0·385	0·875	0·09
L	7/16"	0·452	1·000	0·10
N	1/2"	0·515	1·125	0·11
P	9/16"	0·577	1·250	0·12
Q	5/8"	0·640	1·375	0·13

The locking faces of these washers are machined to be parallel within 0·002" and to give 100% circular and 75% (Min.) radial contact with surface plate.

AS 4563 90° COUNTERSUNK HEAD BOLTS (Slotted)

See page 188

AS 4564 RAISED 90° COUNTERSUNK HEAD BOLTS (Slotted)

See page 189

AS 4565 ROUND HEAD BOLTS (Slotted)

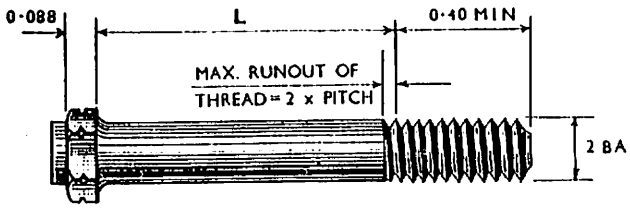
See page 189

AS 4566 MUSHROOM HEAD BOLTS (Slotted)

See page 190

AS 4569 2BA HEXAGON BOLTS (Close Tolerance Shank)

Material: HIGH TENSILE STEEL (CADMIUM)



ACROSS FLATS		SHANK DIA. AFTER PLATING	
MIN.	MAX.	MIN.	MAX.
IN. 0·215	IN. 0·248	IN. 0·18905	IN. 0·18955

METHOD OF ORDERING

Bolts are ordered by the drawing number, followed by a numeral(s) representing the plain length "L" required in tenths of an inch, *e.g.* the complete part number for a bolt with a plain length of 1·6" would be AS 4569/16.

AS 4580 CLIP

Material: NYLASTIC

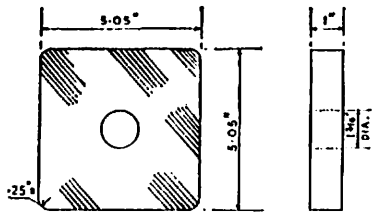
Details on application

AS 4581 CLIP WITH EARTHING TONGUE

Material: NYLASTIC

Details on application

AS 4589 BALLAST WEIGHT



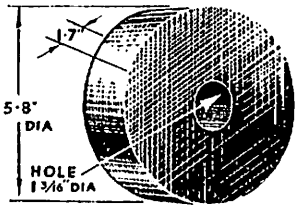
Replacing AGS 650.

Material: LEAD

Weight: 10 lb.

For 17·5 lb. Ballast Weight, see AS 4590 below

AS 4590 BALLAST WEIGHT



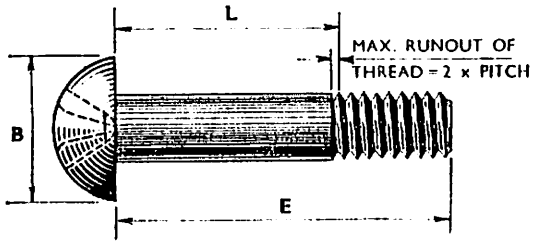
Replacing AGS 670.

Material: LEAD

Approx. Weight: 17·5 lb.

For 10 lb. Ballast Weight, see AS 4589 above

AS 4597 ROUNDHEAD RECESS HEAD BOLTS



Material: HIGH TENSILE STEEL
(CADMIUM)

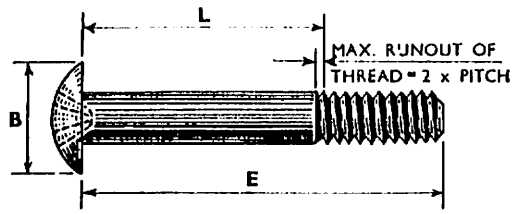
ITEM	THREAD SIZE	B DIA.		E MIN.	RANGE OF PLAIN LENGTHS L	
		MIN.	MAX.		MIN.	MAX.
		IN.	IN.		IN.	IN.
B	4 BA	0·252	0·268	L + 0·40"	0·1	1·6
C	2 BA	0·332	0·350	L + 0·45"	0·1	2·1
E	¼" BSF	0·451	0·472	L + 0·50"	0·1	2·3
G	5/16" BSF	0·567	0·591	L + 0·55"	0·1	2·2
J	⅜" BSF	0·681	0·708	L + 0·65"	0·1	2·1

METHOD OF ORDERING

Bolts are ordered by the drawing number, followed by a numeral(s) representing the plain length "L" in tenths of an inch, followed by the item letter for the size of thread required, *e.g.* the complete part number for a ¼" BSF round head bolt, with a plain length of 1·6", would be AS 4597/16E.

AS 4598 MUSHROOM RECESS HEAD BOLTS

Material: HIGH TENSILE STEEL (CADMIUM)



ITEM	THREAD SIZE	B DIA.		E MIN.	RANGE OF PLAIN LENGTHS L	
		MIN.	MAX.		MIN.	MAX.
		IN.	IN.		IN.	IN.
B	4 BA	0·305	0·321	L + 0·40″	0·1	1·6
C	2 BA	0·398	0·416	L + 0·45″	0·1	2·1
E	¼″ BSF	0·547	0·568	L + 0·50″	0·1	2·3
G	⅜″ BSF	0·669	0·693	L + 0·55″	0·1	2·2
J	⅜″ BSF	0·791	0·818	L + 0·65″	0·1	2·1

METHOD OF ORDERING

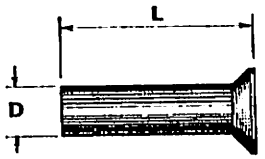
Bolts are ordered by the drawing number, followed by a numeral(s) representing the plain length "L" in tenths of an inch, followed by the item letter for the size of thread required, *e.g.* the complete part number for A ¼″ BSF mushroom head bolt, with a plain length of 1·6″, would be AS 4598/16E.

AS 4641 & 4642 FILLER CAPS (Flush Types)

(WHITWORTH THREADS)

Replaced by AS 6541 and AS 6542

AS 4645 & 4646
SOLID RIVETS 90° CSK. HEAD (Oversize Shank)



Part No.	Material	Min. Ult. Tensile Strength Tons Per Sq. in.	Specification	Finish	Identification
AS 4645	Aluminium Alloy	17	L 86	Anodic	Violet
AS 4646	Aluminium Alloy	25	L 37	Anodic	Plain

Nom. Dia.	Shank Dia. D		Depth of Head	Dia. of Head
	Min.	Max.		
	in.	in.	in.	in.
7/64"	0·108	0·112	0·030	0·164
9/64"	0·140	0·144	0·042	0·219
11/64"	0·171	0·175	0·054	0·273
13/64"	0·202	0·206	0·066	0·328

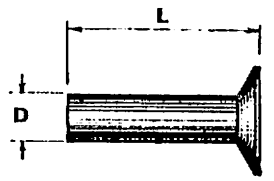
Nom. Dia.	Length L							
	1/8"	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	1"
7/64"	302	303	304	305	306	307	308	316
9/64"	402	403	404	405	406	407	408	416
11/64"	502	503	504	505	506	507	508	516
13/64"	602	603	604	605	606	607	608	616

METHOD OF ORDERING

A 9/64" Dia. rivet in L86, with a plain length of 1/2", is ordered as AS 4645/408.

AS 4647 & 4648

SOLID RIVETS 120° CSK. HEAD (Oversize Shank)



Part No.	Material	Min. Ult. Tensile Strength Tons. Per. Sq In.	Specification	Finish	Identification
AS 4647	Aluminium Alloy	17	L 86	Anodic	Violet
AS 4648	Aluminium Alloy	25	L 37	Anodic	Plain

Nom. Dia.	Shank Dia. D		Depth of Head	Dia. of Head
	Min.	Max.		
	in.	in.	in.	in.
$\frac{7}{64}$"	0·108	0·112	0·028	0·187
$\frac{9}{64}$"	0·140	0·144	0·037	0·250
$\frac{11}{64}$"	0·171	0·175	0·048	0·312
$\frac{13}{64}$"	0·202	0·206	0·055	0·375

Nom. Dia.	Length L							
	$\frac{1}{8}$"	$\frac{3}{16}$"	$\frac{1}{4}$"	$\frac{5}{16}$"	$\frac{3}{8}$"	$\frac{7}{16}$"	$\frac{1}{2}$"	1"
$\frac{7}{64}$"	302	303	304	305	306	307	308	316
$\frac{9}{64}$"	402	403	404	405	406	407	408	416
$\frac{11}{64}$"	502	503	504	505	506	507	508	516
$\frac{13}{64}$"	602	603	604	605	606	607	608	616

METHOD OF ORDERING

A $\frac{9}{64}$" dia. rivet in L86, with a plain length of $\frac{1}{2}$", is ordered as AS 4647/408.

AS 4676 to 4693 CLIPS (Bushed)

Material: NYLASTIC

Details on application

AS 4694 SOLID RIVETS (Snap Head)

See page 185

AS 4695 SOLID RIVETS (90° Csk. Head)

See page 185

AS 4696 SOLID RIVETS (120° Csk. Head)

See page 186

AS 4716 SOLID RIVETS (100° Csk. Head)

Material: 5% M/G ALUM. ALLOY (ANODISED)

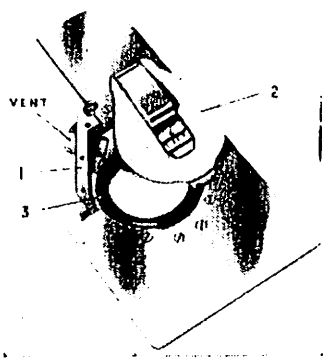
L58

AS 4749 & 4750 FILLER CAPS (Flush Types)

(WHITWORTH THREADS)

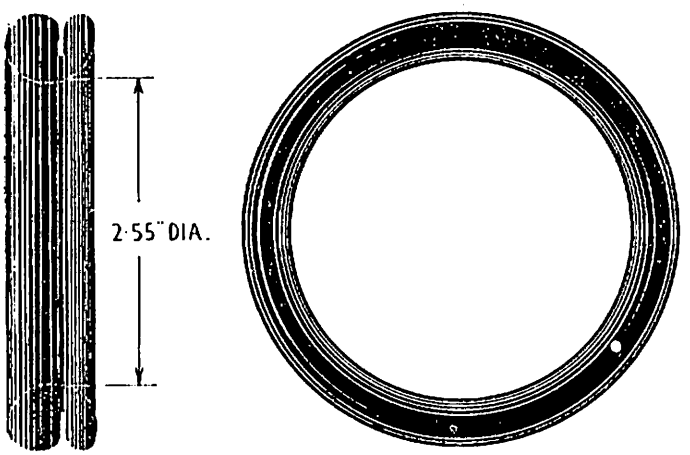
Replacing AS 6541 and AS 6542

ITEM	COMPRISING	PART NUMBERS	
		AS 4749 WITH VENT	AS 4750 WITHOUT VENT
1	Base	AS 6320	AS 6321
2	Cap	AS 4751	
3	Sealing Ring	AS 5364	



AS 5364 FILLER CAP SEALING RING

Used on Filler Caps AS 2590 AS 3365 AS 3366 AS 6318 AS 6319 AS 6541 AS 6542 AS 4611 AS 4642 AS 4749 AS 4750 AS 6742 AS 6743

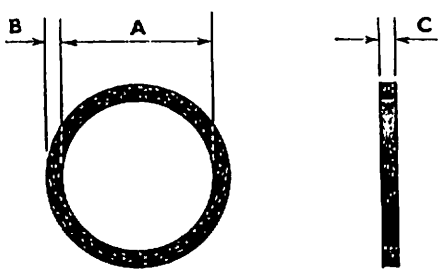


Material :
RUBBER MOULDING

DTD 560. Grade "C"
Quality "Q"

AS 5401 to 5415 SEALING RINGS

Material:
IMPREGNATED ASBESTOS
(GRAPHITED)



PART NO.	A DIA.	B	C
	IN.	IN.	IN.
AS 5401	1·15	0·130	0·105
AS 5402	1·65	0·130	0·105
AS 5403	2·15	0·130	0·105
AS 5404	2·65	0·130	0·105
AS 5405	2·90	0·130	0·105
AS 5406	3·10	0·155	0·155
AS 5407	3·60	0·155	0·155
AS 5408	4·10	0·155	0·155
AS 5409	4·30	0·155	0·155
AS 5410	4·60	0·155	0·155
AS 5411	5·10	0·155	0·155
AS 5412	5·60	0·155	0·155
AS 5413	6·10	0·155	0·155
AS 5414	6·60	0·155	0·155
AS 5415	7·10	0·155	0·155

AS 5418 & 5419 SUPPORT CLIPS (Rubber Covered)

ALLUM. ALLOY (SELF) STEEL (CADMIUM)

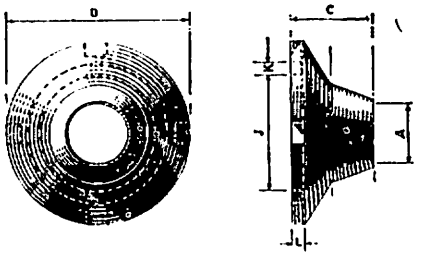
See AS 4525 and AS 4526

Brown Brothers Engineering Ltd

AS 5440 to 5457 GROOVED COUPLING FLANGE

AS 5459 to 5476 PLAIN COUPLING FLANGE

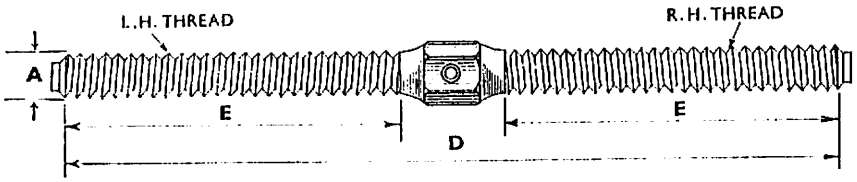
Material : ALUM. ALLOY
(SELF-FINISH)



PART NO.		FLANGE			SEAL GROOVE		
GROOVED COUPLING	PLAIN COUPLING	"A" DIA.	"B" DIA.	"C" DIA.	"J" DIA.	K	L
AS 5440	AS 5459	0·9"	1·75"	0·7"	1·15"	0·125" 0·135"	0·070" 0·080"
AS 5441	AS 5460	1·15"	2·25"	0·7"	1·65"	0·125" 0·135"	0·070" 0·080"
AS 5442	AS 5461	1·40"	2·25"	0·7"	1·65"	0·125" 0·135"	0·070" 0·080"
AS 5443	AS 5462	1·65"	2·75"	0·7"	2·15"	0·125" 0·135"	0·070" 0·080"
AS 5444	AS 5463	1·90"	2·75"	0·7"	2·15"	0·125" 0·135"	0·070" 0·080"
AS 5445	AS 5464	2·15"	3·25"	0·7"	2·65"	0·125" 0·135"	0·070" 0·080"
AS 5446	AS 5465	2·40"	3·25"	0·7"	2·65"	0·125" 0·135"	0·070" 0·080"
AS 5447	AS 5466	2·65"	3·50"	0·7"	2·90"	0·125" 0·135"	0·070" 0·080"
AS 5448	AS 5467	2·90"	4·00"	0·8"	3·10"	0·150" 0·160"	0·120" 0·130"
AS 5449	AS 5468	3·40"	4·50"	0·8"	3·60"	0·150" 0·160"	0·120" 0·130"
AS 5450	AS 5469	3·90"	5·00"	0·8"	4·10"	0·150" 0·160"	0·120" 0·130"
AS 5451	AS 5470	4·10"	5·20"	0·8"	4·30"	0·150" 0·160"	0·120" 0·130"
AS 5452	AS 5471	4·40"	5·50"	0·8"	4·60"	0·150" 0·160"	0·120" 0·130"
AS 5453	AS 5472	4·90"	6·00"	0·8"	5·10"	0·150" 0·160"	0·120" 0·130"
AS 5454	AS 5473	5·40"	6·50"	0·8"	5·60"	0·150" 0·160"	0·120" 0·130"
AS 5455	AS 5474	5·90"	6·90"	0·8"	6·10"	0·150" 0·160"	0·120" 0·130"
AS 5456	AS 5475	6·40"	7·50"	0·8"	6·60"	0·150" 0·160"	0·120" 0·130"
AS 5457	AS 5476	6·90"	7·90"	0·8"	7·10"	0·150" 0·160"	0·120" 0·130"

AS 6210 to 6212 TENSION RODS

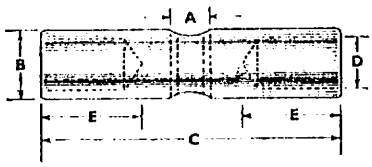
Replaced by B.S. SP118



Material: HIGH TENSILE STEEL (CADMIUM)

PART NO.	A THREAD	A/F MIN.	A/F MAX.	D	E
		IN.	IN.	IN.	IN.
AS 6210	¼" UNF	0·319	0·324	4·12	1·75
AS 6211	5/16" UNF	0·4305	0·4375	5·10	2·12
AS 6212	⅜" UNF	0·4305	0·4375	5·88	2·50

AS 6213 to 6218 TRUNNION

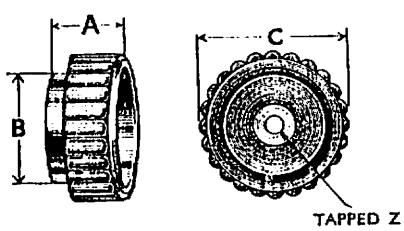


Material: HIGH TENSILE STEEL (CADMIUM)

PART NO.	A THREAD	B DIA.	C	D DIA.	E
		IN.	IN.	IN.	IN.
AS 6213	¼" UNF RH	0·44	1·50	0·312	0·44
AS 6214	5/16" UNF RH	0·57	2·50	0·375	0·80
AS 6215	⅜" UNF RH	0·69	3·00	0·500	1·00
AS 6216	¼" UNF LH	0·44	1·50	0·312	0·44
AS 6217	5/16" UNF LH	0·57	2·50	0·375	0·80
AS 6218	⅜" UNF LH	0·69	3·00	0·500	1·00

AS 6241, 6609 & 6610 HAND NUTS

Material: PLASTIC MOULDING (INSERT—BRASS OR STEEL)



PART NO.	Z THREAD	A	B DIA.	C DIA.
		IN.	IN.	IN.
AS 6241	¼" UNF	0·7	0·7	1·37
AS 6609	No. 6-32 UNC	0·5	0·7	1·0
AS 6610	No. 10-32 UNF	0·5	0·7	1·0

AS 6316 & 6317 WIRE THREAD INSERTS

For UNF Threads — For UNC Threads

Material : SPRING STEEL (SELF) Details on application.

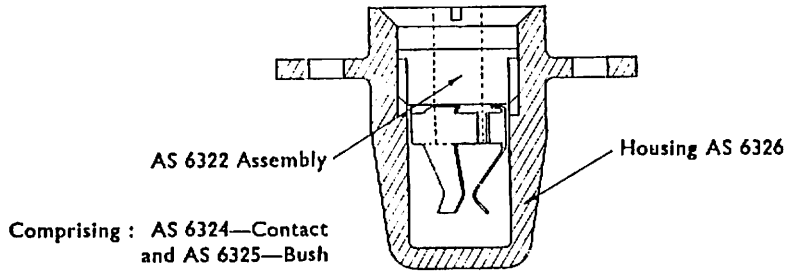
AS 6318 & 6319 FILLER CAP (Flush Type)

(WHITWORTH THREADS)

Replaced by AS 6541 and AS 6542.

AS 6322 ASSEMBLY OF BONDING SOCKET

AS 6323 ASSEMBLY OF HOUSING AND BONDING SOCKET



Comprising : AS 6324—Contact
and AS 6325—Bush

AS 6327 & 6328 WIRE THREAD INSERTS

For UNF Threads — For UNC Threads

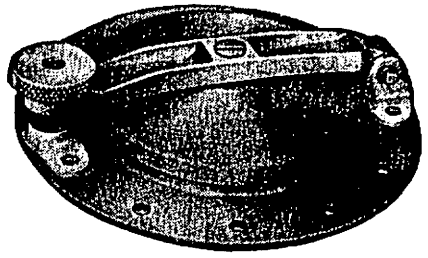
AS 6327 replaced by AS 6733

AS 6328 replaced by AS 6734

AS 6348 & 6357 FILLER CAPS (2″ & 2½″)

(UNIFIED THREADS)

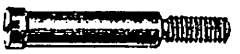
For Flush Type see AS 6742 and AS 6743



PART NO.	DIA. OF ORIFICE	FIXING
	IN.	
AS 6348	2·5	12 holes 0·1935″ dia. on 4·125″ P.C.D.
AS 6357	2·0	10 holes 0·1935″ dia. on 3·60″ P.C.D.

AS 6398 SCREW FOR ROTATING KNOB

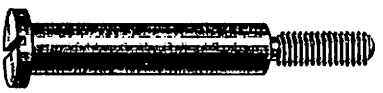
Material: STEEL (CADMIUM)



Size: No. 10–32 UNF × 1·7″ long

AS 6399 SCREW FOR ROTATING KNOB

Material: STEEL (CADMIUM)



Size: ¼″ UNF × 2·7″ long

AS 6541 & 6542 FILLER CAPS (Flush Type)
(WHITWORTH THREAD)

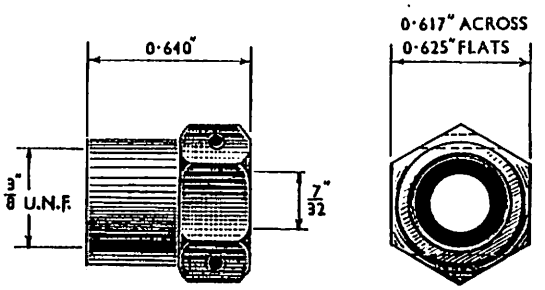
Replaced by AS 4749 and AS 4750

AS 6609 & 6610 HAND NUTS

See AS 6241

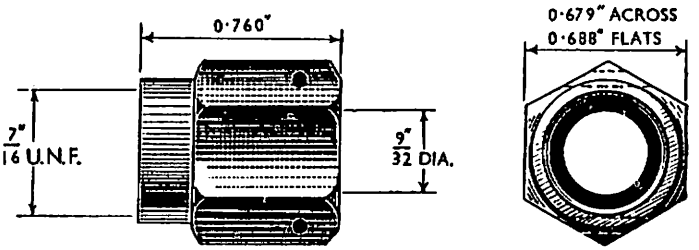
AS 6687 ⅜″ UNF OUTER SLEEVE

Material: ALUMINIUM ALLOY (ANODISED)



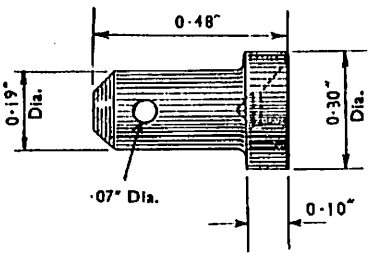
AS 6688 — 7/16" UNF OUTER SLEEVE

Material: ALUMINIUM ALLOY (ANODISED)



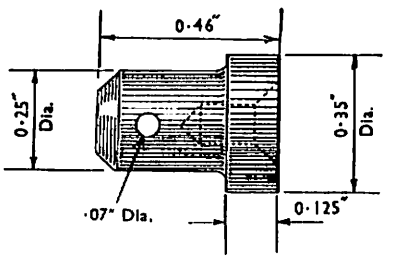
AS 6689 — CONE CAP FOR 3/8" UNF SLEEVE

Material: STEEL (CADMIUM)



AS 6690 — CONE CAP FOR 7/16" UNF SLEEVE

Material: STEEL (CADMIUM)

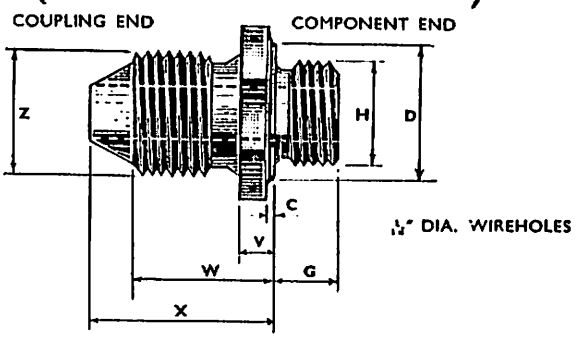


AS 6691 & 6693 — CONE UNION ADAPTOR (Unified Attachment End)

Material: ALUMINIUM ALLOY (ANODISED)

AS 6691 FOR USE WITH PARALLEL GASKETS (*e.g.* BONDED SEALS)

AS 6693 FOR USE WITH "O" RING GASKETS IN AMERICAN (AND 10050) OR EQUIVALENT AGS 3018 TAPPED BOSSES

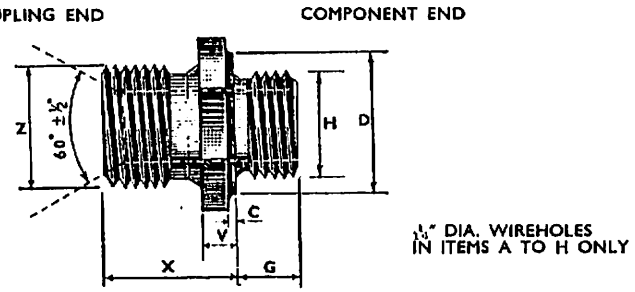


ITEM	O/D OF PIPE	Z THREAD SIZE	A/F MIN.	A/F MAX.	X	W	V	H THREAD SIZE	G	D	O
		COUPLING END—BSP						COMPONENT END—UNIFIED			
A	5/16"	1/4" BSP	IN. 0·6170	IN. 0·6250	IN. 0·855	IN. 0·635	IN. 0·20	5/8" UNF	IN. 0·35	IN. 0·610	IN. 0·025
B	1/2"	3/4" BSP	0·6759	0·6875	0·945	0·665	0·20	5/8" UNF	0·40	0·670	0·025
BB	5/8"	0·600" × 19 T.P.I. Whit. Form	0·7420	0·7500	1·005	0·685	0·20	3/4" UNF	0·40	0·730	0·025
C	3/4"	1" BSP	0·8045	0·8125	1·075	0·755	0·22	7/8" UNF	0·45	0·790	0·025
D	1"	1" BSP	0·9920	1·0000	1·145	0·825	0·22	1" UNF	0·50	0·980	0·025

AS 6692 & 6694 UNION ADAPTOR (Unified Attachment End)

Material: ALUMINIUM ALLOY (ANODISED)

AS 6692 FOR USE WITH PARALLEL GASKETS (*e.g.* BONDED SEALS)
AS 6694 FOR USE WITH "O" RING GASKETS IN AMERICAN (AND 10050) OR EQUIVALENT AGS 3018 TAPPED BOSSES

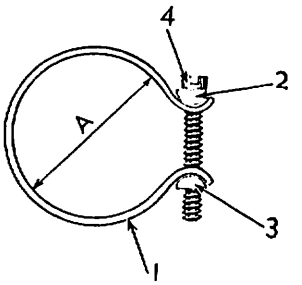


ITEM	O/D OF PIPE	Z THREAD SIZE	A/F MIN.	A/F MAX.	X	V	H THREAD SIZE	G	C	D
	COUPLING END—BSP						COMPONENT END—UNIFIED			
			IN.	IN.	IN.	IN.		IN.	IN.	IN.
A	3/16"	1/8" BSP	0·6170	0·6250	0·65	0·20	3/8" UNF	0·35	0·025	0·61
B	1/4"	1/4" BSP	0·6795	0·6875	0·65	0·20	7/16" UNF	0·40	0·025	0·67
BB	5/16"	0·600" × 19 T.P.I. Whit. Form	0·7420	0·7500	0·72	0·20	1/2" UNF	0·40	0·025	0·73
C	3/8"	3/8" BSP	0·8045	0·8125	0·74	0·22	9/16" UNF	0·45	0·025	0·79
D	1/2"	1/2" BSP	0·9920	1·0000	0·87	0·22	3/4" UNF	0·50	0·025	0·98
E	5/8"	5/8" BSP	1·1150	1·1250	0·94	0·24	7/8" UNF	0·55	0·035	1·10
F	3/4"	3/4" BSP	1·3005	1·3125	0·99	0·24	1 1/16" × 12 UNS	0·65	0·035	1·29
H	1"	1" BSP	1·6100	1·6250	1·06	0·26	1 5/16" × 12 UNS	0·65	0·035	1·60
			DIA.							
J	1 1/4"	1 1/4" BSP	2·14	2·16	1·11	0·26	1 5/8" × 12 UNS	0·65	0·045	2·00
K	1 1/2"	1 1/2" BSP	2 35	2·37	1·15	0·26	1 7/8" × 12 UNS	0·65	0·045	2·20
L	1 3/4"	1 3/4" BSP	2·83	2·85	1·25	0·26	2 1/4" × 12 UNS	0·65	0·045	2·70
M	2"	2" BSP	3·14	3·16	1·30	0·26	2 1/2" × 12 UNS	0·65	0·045	3·00

AS 6702 & 6703 BONDING CLIPS

AS 6702 WITH BRASS STRAP

AS 6703 WITH NON-CORRODIBLE STEEL STRAP



METHOD OF ORDERING

Bonding clips are ordered by the part number followed by the item number representing the "A" dia. in $\frac{1}{16}$ of an inch. (Minimum $\frac{1}{4}$" Dia.)

Item	AS 6702 Consisting of			AS 6703 Consisting of		
1	AS 6704	Strap	20 S.W.G. Brass	AS 6705	Strap	20 S.W.G. Non-Corrodible Steel
2	AS 6706	Plain Saddle	Non-Corrodible Steel	AS 6706	Plain Saddle	Non-Corrodible Steel
3	AS 6707	Tapped Saddle	Non-Corrodible Steel	AS 6707	Tapped Saddle	Non-Corrodible Steel
4	BS A207	Screw	Non-Corrodible Steel	BS A207	Screw	Non-Corrodible Steel

AS 6704 STRAP (for AS 6702)

Material: BRASS (20 S.W.G.)

AS 6705 STRAP (for AS 6703)

Material: NON-CORRODIBLE STEEL (20 S.W.G.)

AS 6706 SADDLE, PLAIN (for AS 6702 & 6703)

Material: NON-CORRODIBLE STEEL

AS 6707 SADDLE, TAPPED (for AS 6702 & 6703)

Material: NON-CORRODIBLE STEEL

AS 6709 LOW PRESSURE UNION ASSEMBLIES (for $\frac{3}{8}$" dia. tubing)

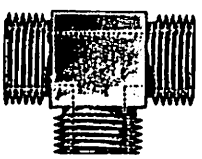
Straight Union	Elbow Union	Tee Union	Str. Union with Drain Trap
1 OFF **AS 6710**	1 OFF **AS 6712**	1 OFF **AS 6711**	1 OFF **AS 6711**
2 OFF **AS 8599**	2 OFF **AS 6599**	3 OFF **AS 8599**	2 OFF **AS 8599**
			1 OFF **AS 8595**
			2 OFF **AS 8596**

AS 6710 STRAIGHT UNION BODY

Material: ALUMINIUM ALLOY (ANODISED)

Across Flats = 0·679/0·688
Threads = $\frac{9}{16}$"—28 T.P.I. UNS
Overall Length = 0·675"

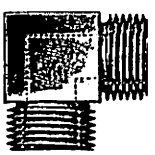
AS 6711 TEE UNION BODY



Material: ALUMINIUM ALLOY (ANODISED)

Threads = $\frac{9}{16}$"—28 T.P.I. UNS

AS 6712 ELBOW UNION BODY



Material: ALUMINIUM ALLOY (ANODISED)

Threads = $\frac{9}{16}$"—28 T.P.I. UNS

AS 6713 UNION NUT

(Replaced by AS 8599)

Material: ALUMINIUM ALLOY (ANODISED)

Threads = $\frac{9}{16}$"—28 T.P.I. UNS
Across Flats = 0·679"/0·688"
Overall Length = 0·44"

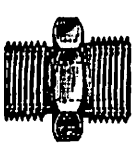
AS 6714 BUSH

(Replaced by AS 8599)

Material: RUBBER

Bore = 0·37" O/D = 0·51" Length = 0·25"

AS 6715 ADAPTOR UNION BODY

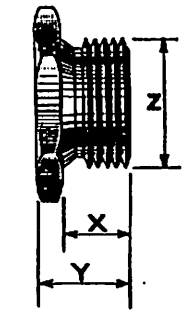


Material: ALUMINIUM ALLOY (ANODISED)

Threads = $\frac{1}{2}$"—26 T.P.I. Whitform; $\frac{9}{16}$"—28 T.P.I. UNS
Across Flats = 0·679"/0·688"
Overall Length = 0·675"

AS 6716 TRANSPORTATION PLUGS (Unified Threads)

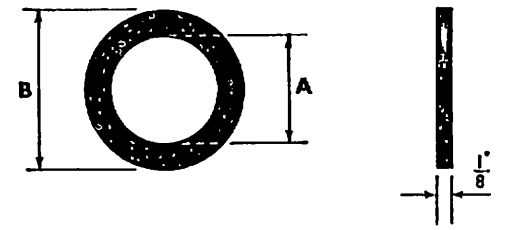
Item	Z Thread	Across Flats		Y	X
		Min.	Max.		
		in.	in.	in.	in.
A	$\frac{3}{8}$" UNF	0·617	0·625	0·46	0·30
B	$\frac{7}{16}$" UNF	0·680	0·688	0·50	0·32
BB	$\frac{1}{2}$" UNF	0·742	0·750	0·51	0·33
C	$\frac{9}{16}$" UNF	0·805	0·813	0·53	0·34
CC	$\frac{5}{8}$" UNF	0·867	0·875	0·57	0·37
D	$\frac{3}{4}$" UNF	0·992	1·000	0·62	0·41
E	$\frac{7}{8}$" UNF	1·115	1·125	0·64	0·42
F	$1\frac{1}{16}$"-12 UNS	1·301	1·313	0·67	0·43
G	$1\frac{3}{16}$"-12 UNS	1·423	1·438	0·72	0·46
H	$1\frac{5}{16}$"-12 UNS	1·610	1·625	0·80	0·53
J	$1\frac{7}{8}$"-12 UNS	2·140	2·160	0·86	0·55
K	$1\frac{1}{8}$"-12 UNS	2·350	2·370	0·91	0·59



Material:
BRASS (Self)

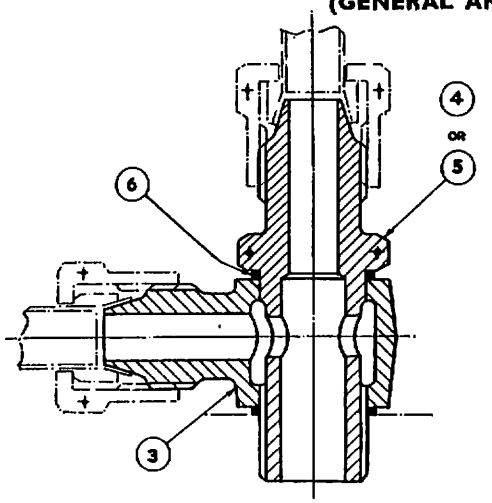
AS 6717 JOINTING WASHERS (For Unified Plugs)

Item	A	B
	in.	in.
A	0·39	0·63
B	0·45	0·69
BB	0·52	0·75
C	0·58	0·81
CC	0·64	0·88
D	0·77	1·00
E	0·89	1·13
F	1·08	1·31
G	1·20	1·44
H	1·33	1·63
J	1·64	2·16
K	1·89	2·37

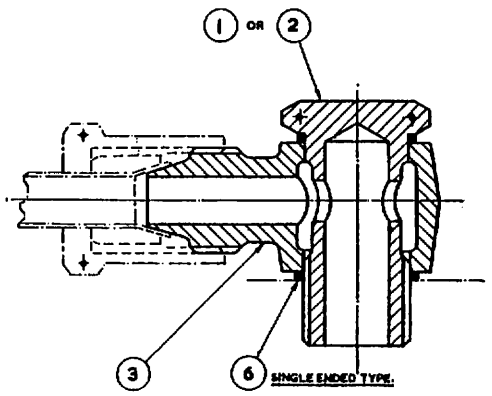


Material: VULCANISED FIBRE

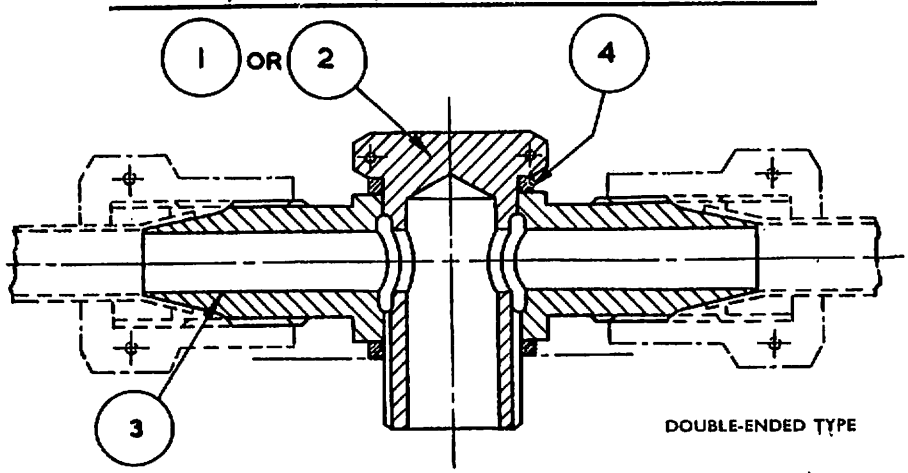
AS 6720 CONE & UNION BANJOS
(GENERAL ARRANGEMENTS)



SINGLE ENDED TYPE WITH END CONNECTION BOLT.



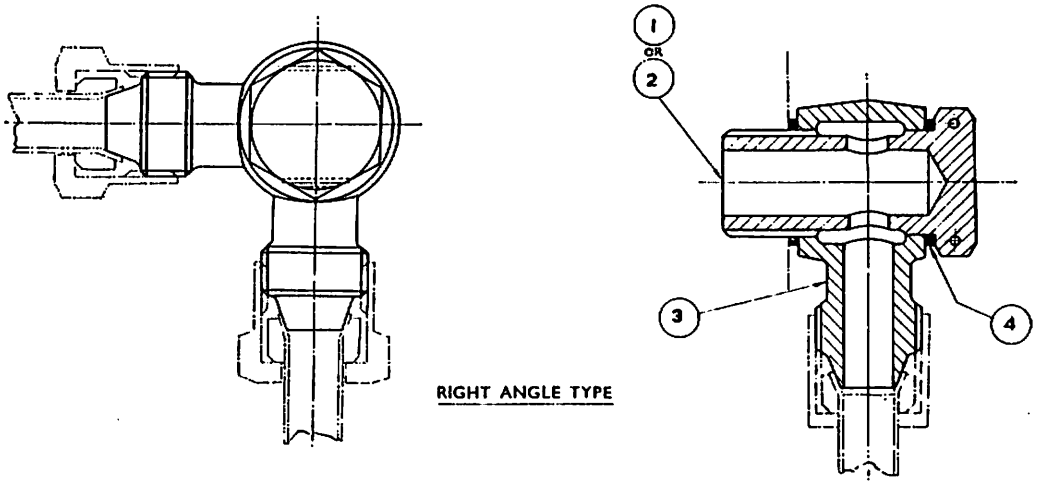
Item	Part No.	Description
1	AS 6721	Banjo Bolt (Alum. Alloy)
2	AS 6722	Banjo Bolt (Steel)
3	AS 6727	Single End Cone Banjo Body
4	AS 6723	Banjo Bolt with Cone End (Alum. Alloy)
5	AS 6724	Banjo Bolt with Cone End (Steel)
6	AGS 1186	Seal, Bonded Steel and Synthetic Rubber



DOUBLE-ENDED TYPE

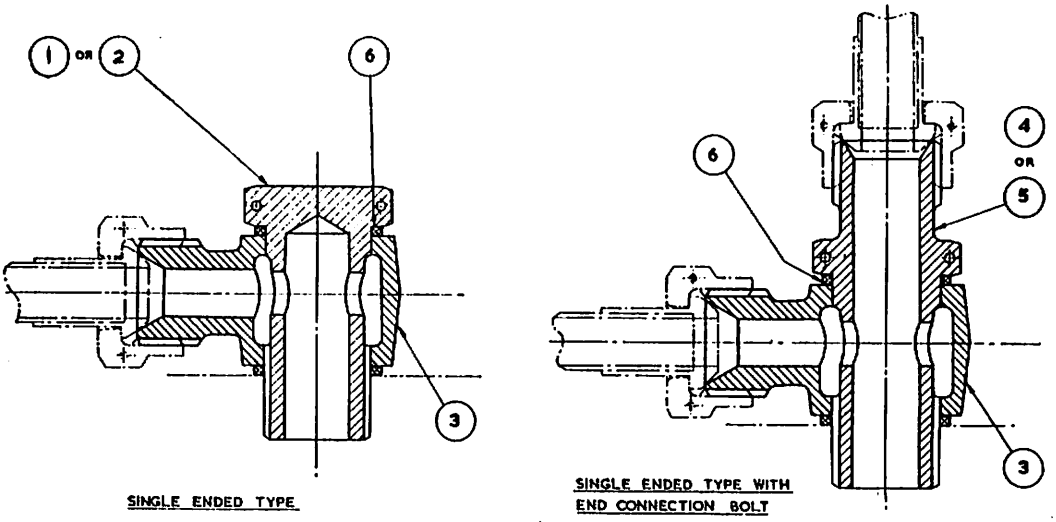
Item	Part No.	Description
1	AS 6721	Banjo Bolt (Alum. Alloy)
2	AS 6722	Banjo Bolt (Steel)
3	AS 6728	Double End Cone Banjo Body
4	AGS 1186	Seal, Bonded Steel and Synthetic Rubber

AS 6720 CONE & UNION BANJOS—continued
(GENERAL ARRANGEMENTS)



RIGHT ANGLE TYPE

Item	Part no.	Description
1	AS 6721	Banjo Bolt (Alum. Alloy)
2	AS 6722	Banjo Bolt (Steel)
3	AS 6720	Double R.A. Cone Banjo Body
4	AGS 1186	Seal, Bonded Steel and Synthetic Rubber

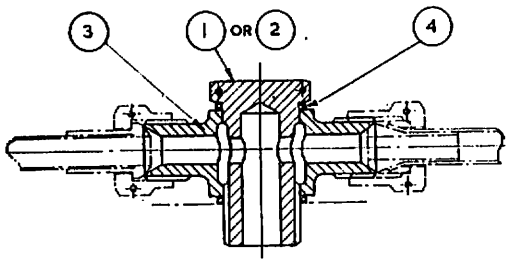


SINGLE ENDED TYPE

SINGLE ENDED TYPE WITH END CONNECTION BOLT

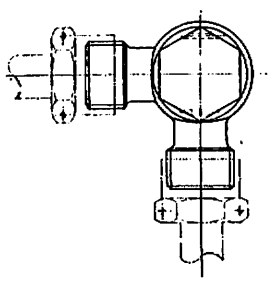
Item	Part No.	Description
1	AS 6721	Banjo Bolt (Alum. Alloy)
2	AS 6722	Banjo Bolt (Steel)
3	AS 6730	Single End Union Banjo Body
4	AS 6726	Banjo Bolt with Union Head Connection (Steel)
5	AS 6725	Banjo Bolt with Union Head Connection (Alum. Alloy)
6	AGS 1186	Seal, Bonded Steel and Synthetic Rubber

AS 6720 CONE & UNION BANJOS—continued
(GENERAL ARRANGEMENTS)

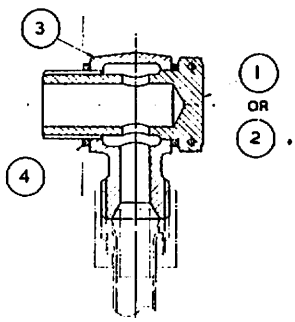


DOUBLE ENDED TYPE

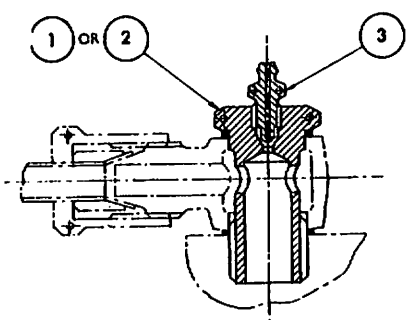
Item	Part No.	Description
1	AS 6721	Banjo Bolt (Alum. Alloy)
2	AS 6722	Banjo Bolt (Steel)
3	AS 6731	Double End Union Banjo Body
4	AGS 1186	Seal, Bonded Steel and Synthetic Rubber



RIGHT ANGLE TYPE



Item	Part No.	Description
1	AS 6721	Banjo Bolt (Alum. Alloy)
2	AS 6722	Banjo Bolt (Steel)
3	AS 6732	Double R.A. Union Banjo Body
4	AGS 1186	Seal, Bonded Steel and Synthetic Rubber



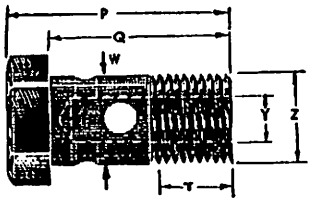
BANJO BOLTS WITH BLEEDER SCREWS

Item	Part No.	Description
1	AS 6758	Banjo Bolt (Steel)
2	AS 6759	Banjo Bolt (Alum. Alloy)
3	AGS 3049	Bleeder Screw

AS 6721 BANJO BOLT (Unified Adaptor)

Material: ALUMINIUM ALLOY (ANODISED)

Item A has one cross hole only



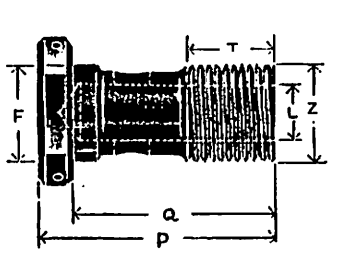
Working Pressures:

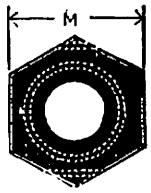
3,000 lb./sq. in. for sizes up to $\frac{3}{4}$" UNF
500 lb./sq. in. for sizes $\frac{7}{8}$" UNF to $1\frac{5}{16}$" UNS

ITEM	O/D OF PIPE	Z	M		P	Q	T	W	Y
			MIN.	MAX.			MIN.	DIA.	DRILL
			IN.	IN.	IN.	IN.	IN.	IN.	
A	$\frac{1}{16}$"	$\frac{1}{2}$" UNF	0·617	0·625	1·36	1·01	0·43	0·375	0·144"
B	$\frac{1}{4}$"	$\frac{9}{16}$" UNF	0·680	0·688	1·44	1·11	0·45	0·437	0·144"
BB	$\frac{5}{16}$"	$\frac{5}{8}$" UNF	0·742	0·750	1·60	1·26	0·45	0·500	$\frac{9}{64}$"
C	$\frac{3}{8}$"	$\frac{5}{16}$" UNF	0·805	0·813	1·70	1·36	0·49	0·562	$\frac{7}{32}$"
CC	$\frac{7}{16}$"	$\frac{3}{4}$" UNF	0·867	0·875	1·85	1·51	0·52	0·625	0·302"
D	$\frac{1}{2}$"	$\frac{7}{8}$" UNF	0·992	1·000	1·98	1·66	0·59	0·750	$\frac{5}{16}$"
E	$\frac{5}{8}$"	$\frac{1}{2}$" UNF	1·115	1·125	2·10	1·76	0·59	0·875	$\frac{11}{32}$"
F	$\frac{3}{4}$"	$1\frac{1}{16}$" UNS × 12	1·301	1·313	2·31	1·96	0·65	1·001	$\frac{13}{64}$"
G	$\frac{7}{8}$"	$1\frac{3}{16}$" UNS × 12	1·423	1·438	2·55	2·16	0·69	1·187	$\frac{21}{64}$"
H	1"	$1\frac{5}{16}$" UNS × 12	1·610	1·625	2·91	2·54	0·75	1·312	$\frac{21}{64}$"

AS 6722 BANJO BOLT (Unified Adaptor)

Material: STEEL (CADMIUM)





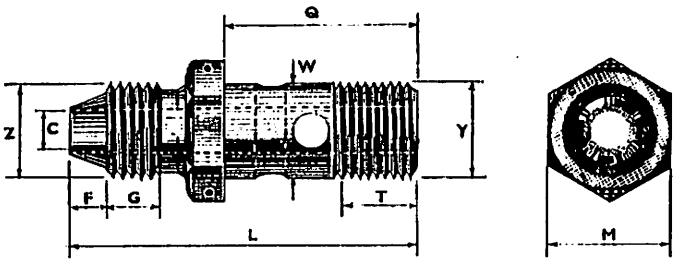
Working Pressures:

3,000 lb./sq. in. for sizes up to $\frac{3}{4}$" UNF
500 lb./sq. in. for sizes $\frac{7}{8}$" UNF to $1\frac{5}{16}$" UNS

ITEM	O/D OF PIPE	Z	M		F	L	P	Q	T
			MIN.	MAX.		DRILL			
			IN.	IN.	IN.		IN.	IN.	IN.
A	$\frac{1}{16}$"	$\frac{1}{2}$" UNF	0·617	0·625	0·375	0·144"	1·36	1·005	0·54
B	$\frac{1}{4}$"	$\frac{9}{16}$" UNF	0·680	0·688	0·437	0·144"	1·44	1·105	0·54
BB	$\frac{5}{16}$"	$\frac{5}{8}$" UNF	0·742	0·750	0·500	$\frac{9}{64}$"	1·60	1·255	0·61
C	$\frac{3}{8}$"	$\frac{5}{16}$" UNF	0·805	0·813	0·562	0·261"	1·70	1·355	0·61
CC	$\frac{7}{16}$"	$\frac{3}{4}$" UNF	0·867	0·875	0·625	0·339"	1·85	1·505	0·69
D	$\frac{1}{2}$"	$\frac{7}{8}$" UNF	0·992	1·000	0·750	$\frac{5}{16}$"	1·98	1·655	0·74
E	$\frac{5}{8}$"	$\frac{1}{2}$" UNF	1·115	1·125	0·875	$\frac{11}{32}$"	2·10	1·755	0·74
F	$\frac{3}{4}$"	$1\frac{1}{16}$" UNS × 12	1·301	1·313	1·061	$\frac{13}{64}$"	2·31	1·955	0·84
G	$\frac{7}{8}$"	$1\frac{3}{16}$" UNS × 12	1·423	1·438	1·187	$\frac{21}{64}$"	2·55	2·155	0·89
H	1"	$1\frac{5}{16}$" UNS × 12	1·610	1·625	1·312	$\frac{21}{64}$"	2·91	2·535	0·98

AS 6723 BANJO BOLT (Unified Adaptor)

Material: ALUMINIUM ALLOY (ANODISED)



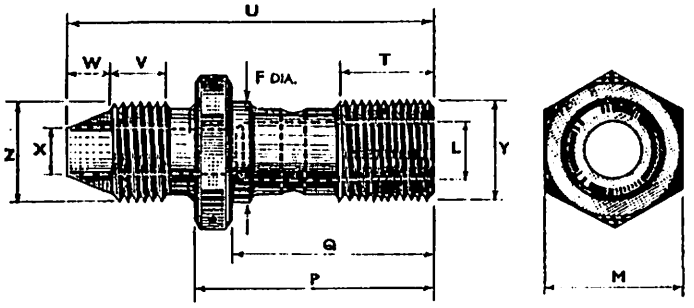
Working Pressure:
3,000 lb./sq. in.

Item A has one cross hole only

ITEM	O/D OF PIPE	Z	Y	M MIN.	M MAX.	O DRILL	F	G MIN.	L	Q	T MIN.	W
				IN.	IN.		IN.	IN.	IN.	IN.	IN.	IN.
A	3/16"	1/8" BSP	5/16" UNF	0·617	0·625	7/32"	0·225	0·36	1·98	1·01	0·43	0·375
B	1/4"	1/4" BSP	7/16" UNF	0·680	0·688	0·144"	0·285	0·39	2·22	1·11	0·45	0·437
BB	5/16"	0·600" × 19 T.P.I. Whit.	1/2" UNF	0·742	0·750	9/32"	0·325	0·40	2·41	1·26	0·45	0·500
C	3/8"	3/8" BSP	9/16" UNF	0·805	0·813	5/32"	0·325	0·42	2·54	1·36	0·49	0·562
CC	7/16"	0·75" × 14 T.P.I. Whit.	5/8" UNF	0·867	0·875	0·302"	0·325	0·47	2·83	1·51	0·52	0·625
D	1/2"	1/2" BSP	3/4" UNF	0·992	1·000	3/8"	0·325	0·48	2·99	1·66	0·59	0·750

AS 6724 BANJO BOLT (Unified Adaptor)

Material: STEEL (CADMIUM)



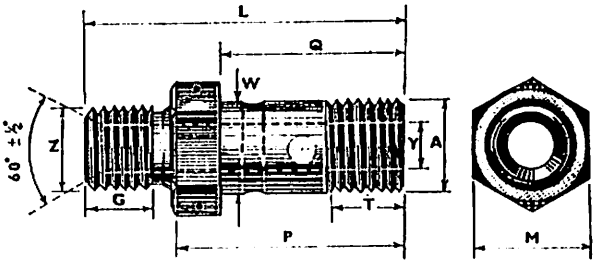
Working Pressure:
3,000 lb./sq. in.

ITEM	O/D OF PIPE	Z	Y	M	F	L DRILL	P	Q	T	U	X DRILL	W	V MIN.
				IN.	IN.		IN.	IN.	IN.	IN.		IN.	IN.
A	3/16"	1/8" BSP	5/16" UNF	0·617 0·625	0·375	0·144"	1·26	1·005	0·54	1·98	7/32"	0·225	0·36
B	1/4"	1/4" BSP	7/16" UNF	0·680 0·688	0·437	0·144"	1·30	1·105	0·54	2·22	0·144	0·285	0·39
BB	5/16"	0·600" × 19 T.P.I. Whit.	1/2" UNF	0·742 0·750	0·500	9/32"	1·51	1·255	0·61	2·41	5/16"	0·325	0·40
C	3/8"	3/8" BSP	9/16" UNF	0·805 0·813	0·562	0·281"	1·61	1·355	0·61	2·54	3/8"	0·325	0·42
CC	7/16"	0·75" × 14 T.P.I. Whit.	5/8" UNF	0·867 0·875	0·625	0·339"	1·79	1·505	0·69	2·83	7/16"	0·325	0·47
D	1/2"	1/2" BSP	3/4" UNF	0·992 1·000	0·750	11/32"	1·94	1·655	0·74	2·99	3/8"	0·325	0·48

AS 6725 BANJO BOLT (Unified Adaptor)

Material:
ALUMINIUM ALLOY (ANODISED)

Working Pressures:
3,000 lb./sq in. for sizes up to ½" BSP
500 lb./sq. in. for sizes ⅝" to 1" BSP
Item A has one cross hole only

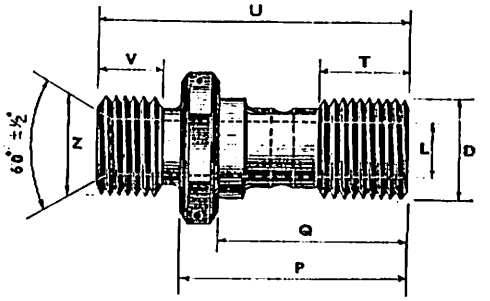


ITEM	O/D OF PIPE	Z	A	M MIN.	M MAX.	G MIN.	L	P	Q	T MIN.	Y DRILL	W
				IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
A	3/16"	1/4" BSP	5/16" UNF	0·617	0·625	0·35	1·75	1·260	1·01	0·43	0·144	0·375
B	1/4"	1/4" BSP	5/16" UNF	0·680	0·688	0·35	1·90	1·360	1·11	0·45	0·144	0·437
BB	5/16"	0·600" × 19 T.P.I. Whit.	1/2" UNF	0·742	0·750	0·40	2·09	1·510	1·26	0·45	7/64"	0·500
C	3/8"	3/8" BSP	7/16" UNF	0·805	0·813	0·40	2·19	1·610	1·36	0·49	9/64"	0·562
CC	5/16"	0·75" × 14 T.P.I. Whit.	5/8" UNF	0·867	0·875	0·45	2·53	1·790	1·51	0·52	0·302	0·625
D	1/2"	1/2" BSP	3/4" UNF	0·992	1·000	0·53	2·71	1·940	1·66	0·59	5/16"	0·750
E	5/8"	5/8" BSP	7/8" UNF	1·115	1·125	0·55	2·85	2·060	1·76	0·59	11/32"	0·875
F	3/4"	3/4" BSP	1 1/16" UNS × 12	1·301	1·313	0·55	3·05	2·260	1·96	0·65	11/64"	1·061
G	7/8"	7/8" BSP	1 3/16" UNS × 12	1·423	1·438	0·65	3·40	2·610	2·16	0·69	51/64"	1·187
H	1"	1" BSP	1 5/16" UNS × 12	1·610	1·625	0·70	3·89	2·910	2·51	0·76	51/64"	1·312

AS 6726 BANJO BOLT (Unified Adaptor)

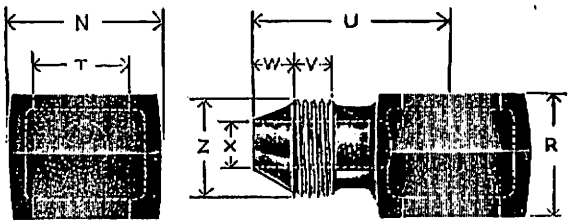
Material: STEEL (CADMIUM)

Working Pressures:
3,000 lb./sq. in. for sizes up to ½" BSP
500 lb./sq. in. for sizes ⅝" BSP to 1" BSP



ITEM	O/D OF PIPE	Z	D	M MIN.	M MAX.	L DRILL	P	Q	T	U	V MIN.
				IN.	IN.		IN.	IN.	IN.	IN.	IN.
A	3/16"	1/4" BSP	5/16" UNF	0·617	0·625	0·141"	1·26	1·005	0·54	1·75	0·35
B	1/4"	1/4" BSP	5/16" UNF	0·680	0·688	0·144"	1·36	1·105	0·54	1·90	0·35
BB	5/16"	0·600" × 19 T.P.I. Whit.	1/2" UNF	0·742	0·750	7/64"	1·51	1·255	0·61	2·09	0·40
C	3/8"	3/8" BSP	7/16" UNF	0·805	0·813	0·281"	1·61	1·355	0·61	2·19	0·40
CC	5/16"	0·75" × 14 T.P.I. Whit.	5/8" UNF	0·867	0·875	0·339"	1·79	1·505	0·69	2·53	0·45
D	1/2"	1/2" BSP	3/4" UNF	0·992	1·000	7/16"	1·94	1·655	0·74	2·71	0·53
E	5/8"	5/8" BSP	7/8" UNF	1·115	1·125	11/32"	2·06	1·755	0·74	2·85	0·55
F	3/4"	3/4" BSP	1 1/16" UNS × 12	1·301	1·313	11/64"	2·26	1·955	0·84	3·05	0·55
G	7/8"	7/8" BSP	1 3/16" UNS × 12	1·423	1·438	51/64"	2·51	2·155	0·89	3·40	0·65
H	1"	1" BSP	1 5/16" UNS × 12	1·610	1·625	51/64"	2·89	2·535	0·98	3·89	0·70

AS 6727 SINGLE-ENDED CONE BANJO BODY

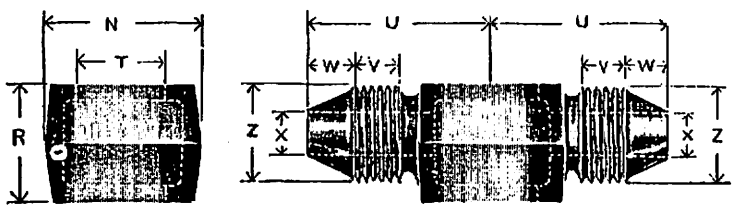


Material:
ALUMINIUM ALLOY (ANODISED)

Working Pressure: 3,000 lb./sq. in.

ITEM	O/D OF PIPE	Z	X DRILL	W	V	U	T DIA.	R	N
				IN.	IN.	IN.	IN.	IN.	IN.
A	3/16"	1/8" BSP	3/32"	0·225	0·30	1·05	0·3815	0·50	0·765
B	1/4"	1/4" BSP	5/32"	0·285	0·30	1·22	0·4435	0·60	0·915
BB	5/16"	0·600" × 19 T.P.I. Whit.	7/32"	0·325	0·34	1·35	0·5065	0·70	1·015
C	3/8"	3/8" BSP	1/4"	0·325	0·37	1·43	0·5685	0·80	1·115
CC	7/16"	0·75" × 14 T.P.I. Whit.	9/32"	0·325	0·39	1·56	0·6315	0·90	1·215
D	1/2"	1/2" BSP	3/8"	0·325	0·40	1·62	0·7565	1·00	1·315

AS 6728 DOUBLE-ENDED CONE BANJO BODY



Material:
ALUMINIUM ALLOY (ANODISED)

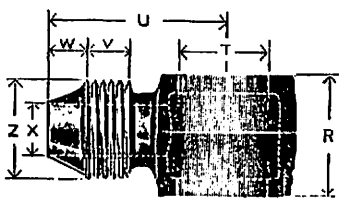
Working Pressure:
3,000 lb./sq. in.

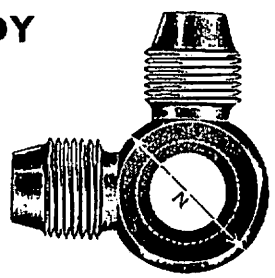
ITEM	O/D OF PIPE	Z	X DRILL	W	V	U	T DIA.	R	N
				IN.	IN.	IN.	IN.	IN.	IN.
A	3/16"	1/8" BSP	3/32"	0·225	0·30	1·05	0·3815	0·50	0·765
B	1/4"	1/4" BSP	5/32"	0·285	0·30	1·22	0·4435	0·60	0·915
BB	5/16"	0·600" × 19 T.P.I. Whit.	7/32"	0·325	0·34	1·35	0·5065	0·70	1·015
C	3/8"	3/8" BSP	1/4"	0·325	0·37	1·43	0·5685	0·80	1·115
CC	7/16"	0·75" × 14 T.P.I. Whit.	9/32"	0·325	0·39	1·56	0·6315	0·90	1·215
D	1/2"	1/2" BSP	3/8"	0·325	0·40	1·62	0·7565	1·00	1·315

AS 6729 DOUBLE R.A. CONE BANJO BODY

Material:
ALUMINIUM ALLOY (ANODISED)

Working Pressure: 3,000 lb./sq. in.





ITEM	O/D OF PIPE	Z	X DRILL	W	V	U	T DIA.	R	N
				IN.	IN.	IN.	IN.	IN.	IN.
A	3/16"	1/8" BSP	3/32"	0·225	0·30	1·05	0·3815	0·50	0·765
B	1/4"	1/4" BSP	5/32"	0·285	0·30	1·22	0·4435	0·60	0·915
BB	5/16"	0·600" × 19 T.P.I. Whit.	7/32"	0·325	0·34	1·35	0·5065	0·70	1·015
C	3/8"	3/8" BSP	1/4"	0·325	0·37	1·43	0·5685	0·80	1·115
CC	7/16"	0·75" × 14 T.P.I. Whit.	9/32"	0·325	0·39	1·56	0·6315	0·90	1·215
D	1/2"	1/2" BSP	3/8"	0·325	0·40	1·62	0·7565	1·00	1·315

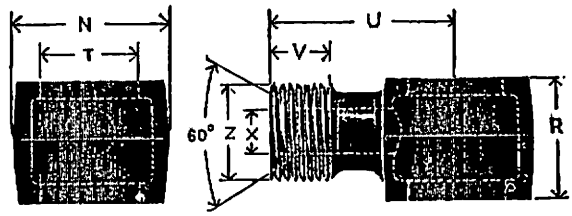
AS 6730 SINGLE-END BANJO BODY

Material: ALUMINIUM ALLOY (ANODISED)

Working Pressures:

3,000 lb./sq. in. for sizes up to ½" BSP

500 lb./sq. in. for sizes ⅝" BSP to 1" BSP



ITEM	O/D OF PIPE	Z	X DRILL	V	U	T DIA.	R	N
A	1/8"	¼" BSP	3/32"	IN. 0·35	IN. 0·87	IN. 0·3815	IN. 0·50	IN. 0·765
B	¼"	¼" BSP	9/32"	0·35	1·00	0·4435	0·60	0·915
BB	1/8"	0·600" × 19 T.P.I. Whit.	7/32"	0·40	1·10	0·5065	0·70	1·015
C	⅜"	⅜" BSP	¼"	0·40	1·15	0·5685	0·80	1·115
CC	7/32"	0·75" × 14 T.P.I. Whit.	1/8"	0·45	1·30	0·6315	0·90	1·215
D	½"	½" BSP	⅜"	0·50	1·40	0·7565	1·00	1·315
E	⅝"	⅝" BSP	7/16"	0·55	1·58	0·8815	1·10	1·565
F	¾"	¾" BSP	½"	0·61	1·79	1·0075	1·25	1·865
G	⅞"	⅞" BSP	5/8"	0·65	1·93	1·1935	1·40	2·065
H	1"	1" BSP	¾"	0·65	2·05	1·3185	1·65	2·215

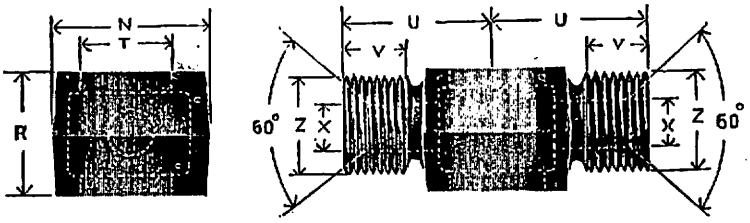
AS 6731 DOUBLE-ENDED BANJO BODY

Material: ALUMINIUM ALLOY (ANODISED)

Working Pressures:

3,000 lb./sq. in. for sizes up to ½" BSP

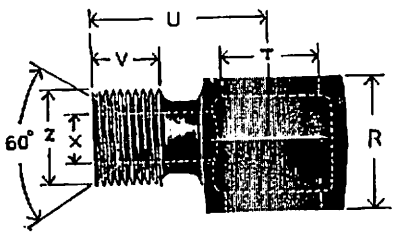
500 lb./sq. in. for sizes ⅝" BSP to 1" BSP

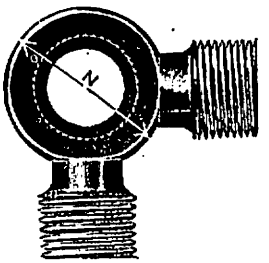


ITEM	O/D OF PIPE	Z	X DRILL	V	U	T DIA.	R	N
A	1/8"	¼" BSP	3/32"	IN. 0·35	IN. 0·87	IN. 0·3815	IN. 0·50	IN. 0·765
B	¼"	¼" BSP	9/32"	0·35	1·00	0·4435	0·60	0·915
BB	1/8"	0·600" × 19 T.P.I. Whit.	7/32"	0·40	1·10	0·5065	0·70	1·015
C	⅜"	⅜" BSP	¼"	0·40	1·15	0·5685	0·80	1·115
CC	7/32"	0·75" × 14 T.P.I. Whit.	1/8"	0·45	1·30	0·6315	0·90	1·215
D	½"	½" BSP	⅜"	0·50	1·40	0·7565	1·00	1·315
E	⅝"	⅝" BSP	7/16"	0·55	1·58	0·8815	1·10	1·565
F	¾"	¾" BSP	½"	0·61	1·79	1·0075	1·25	1·865
G	⅞"	⅞" BSP	5/8"	0·65	1·93	1·1935	1·40	2·065
H	1"	1" BSP	¾"	0·65	2·05	1·3185	1·65	2·215

AS 6732 DOUBLE R.A. UNION BANJO BODY

Material: ALUMINIUM ALLOY (ANODISED)





Working Pressures:

3,000 lb./sq.in. for sizes up to ½" BSP

500 lb./sq. in. for sizes ⅝" BSP to 1" BSP

ITEM	O/D OF PIPE	Z	X DRILL	V	U	T DIA.	R	N DIA.
				IN.	IN.	IN.	IN.	IN.
A	3/8"	¼" BSP	3/8"	0·35	0·87	0·3815	0·50	0·765
B	½"	¼" BSP	5/16"	0·35	1·00	0·4435	0·60	0·915
BB	5/16"	0·600" × 19 T.P.I. Whit.	5/16"	0·40	1·10	0·5065	0·70	1·015
C	½"	½" BSP	½"	0·40	1·15	0·5685	0·80	1·115
CC	7/16"	0·75" × 14 T.P.I. Whit.	5/16"	0·45	1·30	0·6315	0·90	1·215
D	½"	½" BSP	⅝"	0·50	1·40	0·7565	1·00	1·315
E	⅝"	⅝" BSP	½"	0·55	1·58	0·8815	1·10	1·505
F	¾"	¾" BSP	⅝"	0·61	1·79	1·0675	1·25	1·865
G	¾"	¾" BSP	½"	0·65	1·93	1·1055	1·40	2·065
H	1"	1" BSP	½"	0·65	2·05	1·3185	1·65	2·215

AS 6733 WIRE THREAD INSERTS (UNF)

Material: NON-CORRODIBLE STEEL (SELF)

Details and prices on application

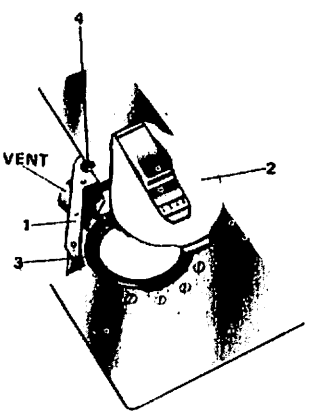
AS 6734 WIRE THREAD INSERTS (UNC)

Material: NON-CORRODIBLE STEEL (SELF)

Details and prices on application

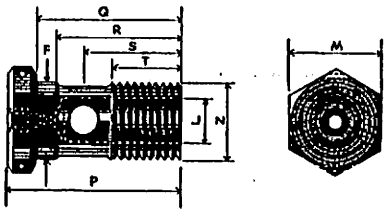
AS 6742 & 6743 FILLER CAPS MARK 2

(UNIFIED THREADS) (FLUSH TYPE)



ITEM	COMPRISING	PART NUMBERS	
		AS 6742 WITH VENT	AS 6743 WITHOUT VENT
1	Base	AS 6744	AS 6745
2	Cap	AS 6746	
3	Sealing Ring	AS 5364	
4	Bonding Socket	AS 6322	

AS 6758 BANJO BOLT

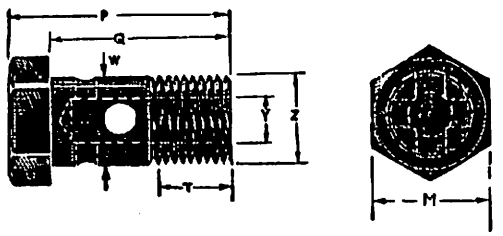


Material: HIGH TENSILE STEEL (CADMIUM)

Working pressures:
3,000 lb./sq. in. for sizes up to $\frac{3}{4}$" U.N.F.
500 lb./sq. in. for sizes $\frac{7}{8}$" U.N.F. to $1\frac{5}{16}$" U.N.S.

ITEM	O/DIA. OF PIPE	Z THREAD	F DIA.	L DIA.	M MAX.	M MIN.	P	Q	R	S	T
			IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
A	$\frac{1}{8}$"	$\frac{1}{2}$" U.N.F.	0·375	0·144	0·625	0·617	1·360	1·005	0·835	0·720	0·540
B	$\frac{1}{4}$"	$\frac{7}{16}$" U.N.F.	0·437	0·144	0·688	0·680	1·440	1·105	0·935	0·750	0·540
BB	$\frac{3}{8}$"	$\frac{1}{2}$" U.N.F.	0·500	$\frac{7}{16}$"	0·750	0·742	1·600	1·255	1·065	0·880	0·610
C	$\frac{1}{2}$"	$\frac{9}{16}$" U.N.F.	0·562	0·281	0·813	0·805	1·700	1·356	1·165	0·950	0·610
CC	$\frac{9}{16}$"	$\frac{1}{2}$" U.N.F.	0·625	0·339	0·875	0·867	1·850	1·505	1·285	1·050	0·690
D	$\frac{1}{2}$"	$\frac{3}{4}$" U.N.F.	0·750	$\frac{7}{16}$"	1·000	0·992	1·980	1·655	1·435	1·140	0·740
E	$\frac{5}{8}$"	$\frac{3}{4}$" U.N.F.	0·876	$\frac{11}{16}$"	1·125	1·115	2·000	1·755	1·535	1·200	0·740
F	$\frac{3}{4}$"	$1\frac{1}{16}$"–12 U.N.S.	1·061	$\frac{11}{16}$"	1·313	1·301	2·310	1·955	1·085	1·330	0·840
G	$\frac{7}{8}$"	$1\frac{1}{16}$"–12 U.N.S.	1·187	$\frac{13}{16}$"	1·438	1·423	2·550	2·155	1·885	1·480	0·890
H	1"	$1\frac{1}{16}$"–12 U.N.S.	1·312	$\frac{13}{16}$"	1·625	1·610	2·910	2·535	2·225	1·720	0·980

AS 6759 BANJO BOLT



Material: ALUMINIUM ALLOY (ANODISED)

Working pressures:
3,000 lb./sq. in. for sizes up to $\frac{3}{4}$" U.N.F.
5,000 lb./sq. in. for sizes $\frac{7}{8}$" U.N.F. to $1\frac{5}{16}$" U.N.S.

ITEM	O/DIA. OF PIPE	Z THREAD	M MAX.	M MIN.	P	Q	T MIN.	W DIA.	Y DIA.
			IN.	IN.	IN.	IN.	IN.	IN.	IN.
A	$\frac{1}{8}$"	$\frac{1}{2}$" U.N.F.	0·625	0·617	1·360	1·010	0·430	0·375	0·144
B	$\frac{1}{4}$"	$\frac{7}{16}$" U.N.F.	0·688	0·680	1·440	1·110	0·450	0·437	0·144
BB	$\frac{3}{8}$"	$\frac{1}{2}$" U.N.F.	0·750	0·742	1·600	1·260	0·450	0·500	$\frac{1}{4}$"
C	$\frac{1}{2}$"	$\frac{9}{16}$" U.N.F.	0·813	0·805	1·700	1·360	0·490	0·562	$\frac{5}{16}$"
CC	$\frac{9}{16}$"	$\frac{1}{2}$" U.N.F.	0·875	0·867	1·850	1·510	0·520	0·625	0·302
D	$\frac{1}{2}$"	$\frac{3}{4}$" U.N.F.	1·000	0·992	1·980	1·660	0·590	0·750	$\frac{3}{8}$"
E	$\frac{5}{8}$"	$\frac{3}{4}$" U.N.F.	1·125	1·115	2·100	1·760	0·590	0·875	$\frac{11}{16}$"
F	$\frac{3}{4}$"	$1\frac{1}{16}$"–12 U.N.S.	1·313	1·301	2·310	1·960	0·650	1·061	$\frac{11}{16}$"
G	$\frac{7}{8}$"	$1\frac{1}{16}$"–12 U.N.S.	1·438	1·423	2·550	2·160	0·690	1·187	$\frac{13}{16}$"
H	1"	$1\frac{1}{16}$"–12 U.N.S.	1·625	1·610	2·910	2·540	0·750	1·312	$\frac{13}{16}$"

AS 6760 to AS 6804

SMALL ROUND HEAD BOLTS

No. 10-32 U.N.F. THREAD

Material: HIGH TENSILE STEEL (CADMIUM)

Details available on request

AS 6850 to AS 6894

LARGE ROUND HEAD BOLTS

No. 10-32 U.N.F. THREAD

Material: HIGH TENSILE STEEL (CADMIUM)

Details available on request

AS 6895 to AS 6939

SMALL ROUND HEAD BOLTS

$\frac{1}{4}$" U.N.F. THREAD

Material: HIGH TENSILE STEEL (CADMIUM)

Details available on request

AS 6985 to AS 7032

LARGE ROUND HEAD BOLTS

$\frac{1}{4}$" U.N.F. THREAD

Material: HIGH TENSILE STEEL (CADMIUM)

Details available on request

AS 7033 to AS 7077

SMALL ROUND HEAD BOLTS

$\frac{5}{16}$" U.N.F. THREAD

Material: HIGH TENSILE STEEL (CADMIUM)

Details available on request

AS 7123 to AS 7170

LARGE ROUND HEAD BOLTS

$\frac{5}{16}$" U.N.F. THREAD

Material: HIGH TENSILE STEEL (CADMIUM)

Details available on request

AS 7171 to AS 7215

SMALL ROUND HEAD BOLTS

$\frac{3}{8}$" U.N.F. THREAD

Material: HIGH TENSILE STEEL (CADMIUM)

Details available on request

AS 7264 to AS 7308

LARGE ROUND HEAD BOLTS

$\frac{3}{8}$" U.N.F. THREAD

Material: HIGH TENSILE STEEL (CADMIUM)

Details available on request

AS 8451

WIRE THREAD INSERTS

FOR U.N.F. THREADS

Material: SPRING STEEL (CADMIUM)

Details available on request

AS 8452

WIRE THREAD INSERTS

FOR U.N.C. THREADS

Material: SPRING STEEL (CADMIUM)

Details available on request

AS 8455 WIRE THREAD INSERTS

FOR U.N.F. THREADS

Material: NON-CORRODIBLE STEEL (CADMIUM)

Details available on request

AS 8456 WIRE THREAD INSERTS

FOR U.N.C. THREADS

Material: NON-CORRODIBLE STEEL (CADMIUM)

Details available on request

AS 8589 CONE UNION ADAPTOR

(UNIFIED ATTACHMENT END)

Material: STAINLESS STEEL (SELF)

Dimensionally as AS 6691

AS 8590 UNION ADAPTOR

(UNIFIED ATTACHMENT END)

Material: STAINLESS STEEL (SELF)

Dimensionally as AS 6692

AS 8591 CONE UNION ADAPTOR

(UNIFIED ATTACHMENT END)

Material: STAINLESS STEEL (SELF)

Dimensionally as AS 6693

AS 8592 UNION ADAPTOR

(UNIFIED ATTACHMENT END)

Material: STAINLESS STEEL (SELF)

Dimensionally as AS 6694

AS 8595 DRAIN TRAP

Material: ALUMINIUM ALLOY (ANODISED)

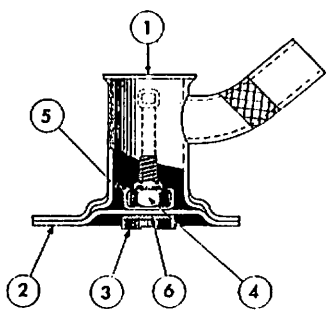
Across flats: 0·805″/0·813″
Threads: $\frac{9}{16}$″ × 28 T.P.I. U.N.S.
Overall length: 0·825″

AS 8596 WASHER

Material: RUBBER

Outside diameter: $\frac{9}{16}$″
Bore: $\frac{3}{8}$″
Thickness: $\frac{1}{16}$″

AS 8597 PITOT DRAIN



Material: ITEM 1, 2 and 5—TUNGUM & BRASS (CADMIUM)
ITEM 3—CORROSION RESISTANT STEEL (SELF)

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	AS 8598	Housing	4	A 125/D 66	Stiffnut—No. 10 UNF
2	AS 6614	Base	5	AS 6616	Anchor Clip
3	AS 6615	Special Bolt	6	AS 1186/3	Seal

AS 8599 UNION NUT

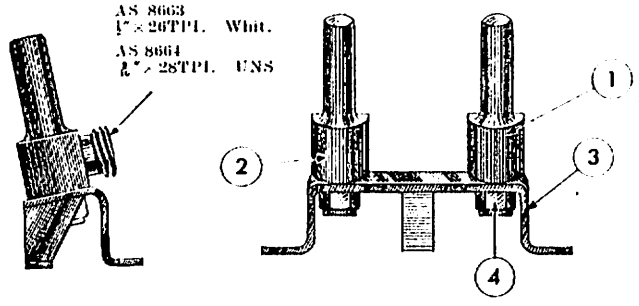
Material: ALUMINIUM ALLOY (ANODISED)
plus RUBBER BUSH

Across flats: 0·679″/0·688″
Threads: $\frac{9}{16}$″ × 28 T.P.I. U.N.S.
Overall length: 0·440″

AS 8646 CHANNEL

For use with Nylastic clips AS 4580 and 4581
Details on application

AS 8662 PITOT & STATIC MANIFOLD CONNECTION



Material:
ALUMINIUM ALLOY
(ANODISED)

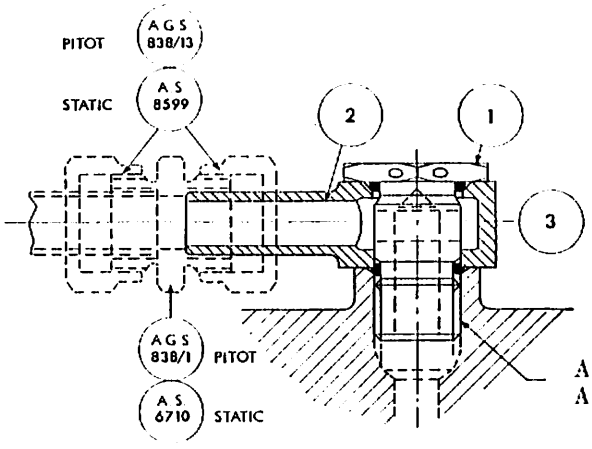
ITEM	PART No.	DESCRIPTION
1	AS 8663	Pitot connection
2	AS 8664	Static connection
3	AS 8665	Bracket
4	A 129/E	Stiffnut – $\frac{1}{2}$" UNF

AS 8666 BALLAST WEIGHT

Material: LEAD—
5 LBS. WEIGHT

DIMENSIONS:
5·8" O/D × 1·19" I/D × ·49" THICK

AS 8679 BANJO FITTINGS FOR PITOT/ STATIC SYSTEM



Material:
ALUMINIUM ALLOY
(ANODISED)

AS 8682 $\frac{7}{16}$" × 20 U.N.F.
AS 8683 $\frac{1}{2}$" × 20 U.N.F.

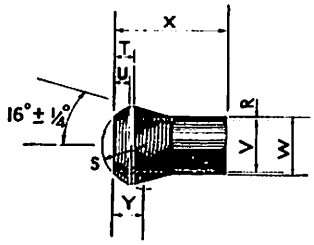
ITEM	PART NUMBER		DESCRIPTION
	PITOT	STATIC	
1	AS 8682	AS 8683	Banjo Bolt
2	AS 8680	AS 8681	Banjo Body
3	AGS 3098	AGS 3099	"O" Ring Seal

AS 8690-8699 WASHER, CUP, LOCK

Material: CORROSION RESISTANT STEEL (SELF)
Details on request

Brown Brothers Engineering Ltd

AS 10700 ADAPTOR NIPPLE



Material:

CORROSION RESISTING STEEL (SELF)

Working Pressure:

3,000 lb./sq. in. for sizes up to ½" B.S.P.

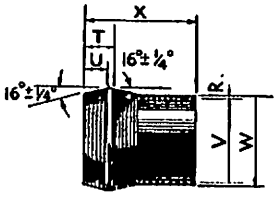
500 lb./sq. in. for sizes ⅝" to 1" B.S.P.

200 lb./sq. in. for sizes 1¼" to 2" B.S.P.

100 lb./sq. in. for size 2½" B.S.P.

Item	O/D of Pipe	Y	X	W	V	U	T	S	R
					Bore			Rad.	Min.
A	3/16"	0·10"	0·70"	0·118"	5/64"	0·005"	0·105"	0·13"	0·016"
B	¼"	0·14"	0·85"	0·181"	9/64"	0·070"	0·110"	0·20"	0·016"
BB	5/16"	0·17"	0·90"	0·227"	3/16"	0·070"	0·110"	0·24"	0·016"
C	⅜"	0·19"	0·95"	0·290"	¼"	0·100"	0·140"	0·27"	0·017"
CC	7/16"	0·21"	1·00"	0·352"	5/16"	0·110"	0·150"	0·30"	0·017"
D	½"	0·22"	1·02"	0·415"	⅜"	0·115"	0·155"	0·33"	0·017"
E	⅝"	0·29"	1·07"	0·540"	½"	0·140"	0·180"	0·41"	0·017"
F	¾"	0·30"	1·10"	0·665"	⅝"	0·175"	0·215"	0·46"	0·018"
G	⅞"	0·37"	1·15"	0·789"	¾"	0·150"	0·190"	0·56"	0·018"
H	1"	0·36"	1·20"	0·914"	⅞"	0·160"	0·200"	0·61"	0·018"
J	1¼"	0·48"	1·30"	1·163"	1·100"	0·170"	0·210"	0·77"	0·025"
K	1½"	0·55"	1·45"	1·412"	1·350"	0·190"	0·230"	0·91"	0·030"
M	2"	0·67"	2·00"	1·852"	1·780"	0·200"	0·250"	1·17"	0·035"
P	2½"	0·83"	2·00"	2·302"	2·220"	0·200"	0·250"	1·51"	0·040"

AS 10701 NIPPLE



Material:
CORROSION RESISTING STEEL (SELF)

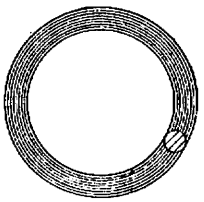
Working pressure:

3,000 lb./sq. in. for sizes 3/16″ to ½″ B.S.P.
500 lb./sq. in. for sizes ⅝″ to 1″ B.S.P.
200 lb./sq. in. for sizes 1¼″ to 2″ B.S.P.
100 lb./sq. in. for size 2½″ B.S.P.

ITEM	O/D. OF PIPE	X	W	V	U	T	R
				BORE			MIN.
A	3/16″	0·70″	0·118″	5/64″	0·142″	0·192″	0·016″
B	¼″	0·85″	0·181″	9/64″	0·185″	0·235″	0·016″
BB	5/16″	0·90″	0·227″	3/16″	0·235″	0·285″	0·016″
C	⅜″	0·95″	0·290″	¼″	0·235″	0·285″	0·017″
CC	7/16″	1·00″	0·352″	5/16″	0·235″	0·285″	0·017″
D	½″	1·02″	0·415″	⅜″	0·235″	0·285″	0·017″
E	⅝″	1·05″	0·540″	½″	0·235″	0·285″	0·017″
F	¾″	1·11″	0·665″	⅝″	0·235″	0·285″	0·018″
G	⅞″	1·13″	0·789″	¾″	0·235″	0·285″	0·018″
H	1″	1·16″	0·914″	⅞″	0·235″	0·285″	0·018″
J	1¼″	1·25″	1·163″	1·100″	0·235″	0·285″	0·025″
K	1½″	1·45″	1·412″	1·350″	0·285″	0·335″	0·030″
M	2″	2·25″	1·852″	1·780″	0·425″	0·525″	0·035″
P	2½″	2·45″	2·302″	2·220″	0·570″	0·670″	0·040″

AS 12800 & 12801

TORDIDAL SEALING RING



Material: FLUOROCARBON RUBBER (NATURAL)
Details on application

AS 12810-12839

SPRING CLIP-INNER

Material: SPRING STEEL (STOVE ENAMEL)
Details on application

AS 12840-12869

SPRING CLIP-OUTER

Material: SPRING STEEL (STOVE ENAMEL)
Details on application

AS 12870-12889

PLASTIC BUSHING

Material: P.T.F.E. (NATURAL)
For use with AS 12810–12869. Details on application

AS 12890-12939

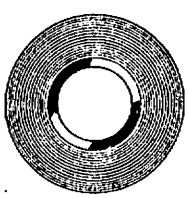
PLASTIC BUSHING

Material: P.T.F.E. (NATURAL)
For use with AS 12810–12869. Details on application

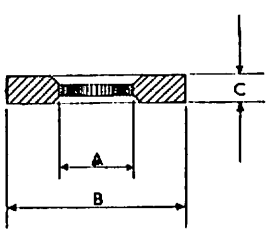
AS 12940-12959

PRECISION COUNTERSUNK WASHERS

Materials: CORROSION RESISTING STEEL (SELF)



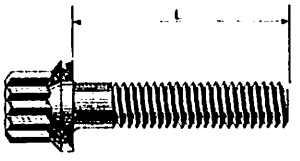
PART NO.	FASTENER DIA.	A	B	C
AS 12942	0·164"	0·166" 0·172"	0·375"	0·071"
AS 12943	0·190"	0·192" 0·200"	0·438"	0·080"
AS 12944	0·250"	0·252" 0·260"	0·625"	0·080"
AS 12945	0·312"	0·315" 0·324"	0·750"	0·100"
AS 12946	0·375"	0·378" 0·388"	0·875"	0·112"
AS 12947	0·437"	0·444" 0·451"	1·000"	0·125"
AS 12948	0·500"	0·504" 0·515"	1·188"	0·160"



AS 13000-14199

DOUBLE HEXAGON HEADED BOLT

EXTENDED WASHER FACE



Material:
SEE TABLE (SELF)

THREAD SIZE	MATERIAL		
	DTD 5066	DTD 5026	DTD 5077
0·187″ × 32 UNS	AS 13005 to AS 13062	AS 13405 to AS 13462	AS 13805 to AS 13862
0·247″ × 28 UNS	AS 13106 to AS 13196	AS 13506 to AS 13596	AS 13906 to AS 13996
0·3095″ × 24 UNS	AS 13207 to AS 13296	AS 13607 to AS 13696	AS 14007 to AS 14096
0·372″ × 24 UNS	AS 13308 to AS 13396	AS 13708 to AS 13796	AS 14108 to AS 14196

METHOD OF ORDERING

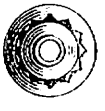
Double hexagon headed bolts should be ordered by the appropriate part number from the above table, dependent on the thread and material, the last two digits representing the "L" length in $\frac{1}{16}$ of an inch.

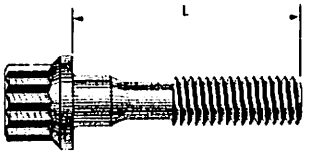
EXAMPLE: A bolt in DTD 5066 0·187″ × 32 UNS thread 0·812″ long would be AS 13013.

AS 14500-15699

DOUBLE HEXAGON HEADED BOLT

EXTERNALLY RELIEVED BODY. EXTENDED WASHER FACE





Material:
SEE TABLE (SELF)

THREAD SIZE	MATERIAL		
	DTD 5066	DTD 5026	DTD 5077
0·187″ × 32 UNS	AS 14511 to AS 14562	AS 14911 to AS 14962	AS 15311 to AS 15362
0·247″ × 28 UNS	AS 14612 to AS 14696	AS 15012 to AS 15096	AS 15412 to AS 15496
0·3095″ × 24 UNS	AS 14713 to AS 14796	AS 15113 to AS 15196	AS 15513 to AS 15596
0·372″ × 24 UNS	AS 14814 to AS 14896	AS 15214 to AS 15296	AS 15614 to AS 15696

METHOD OF ORDERING

Double hexagon headed bolts should be ordered by the appropriate part number from the above table, dependent on the thread and material, the last two digits representing the "L" length in $\frac{1}{16}$ of an inch.

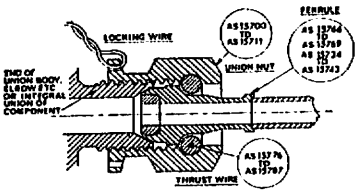
EXAMPLE: A bolt in DTD 5066, 0·187″ × 32 UNS thread 0·812″ long would be AS 14513.

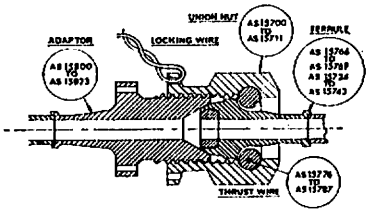
Brown Brothers Engineering Ltd

TYPICAL ASSEMBLIES OF PIPE JOINTS

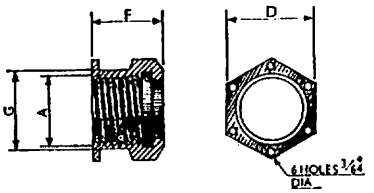
AS 15700 Series

UNIFIED THREADS—STAINLESS STEEL





AS 15700-15711 UNION NUT



Material:

STAINLESS STEEL

(Silver Plate)

AS 15700—AS 15705: Manufactured from hex. bar.

AS 15706—AS 15711: Manufactured from round bar.

PART NO.	O/D. of Pipe	A THREAD	D A/F		F	G DIA.
			MIN.	MAX.		
AS 15700	$\frac{3}{16}$"	$\frac{7}{16}$" × 20 UNJF	0·621"	0·625"	0·640"	0·515"
AS 15701	$\frac{1}{4}$"	$\frac{1}{2}$" × 20 UNJF	0·683"	0·687"	0·640"	0·585"
AS 15702	$\frac{5}{16}$"	$\frac{5}{8}$" × 18 UNJF	0·808"	0·812"	0·695"	0·720"
AS 15703	$\frac{3}{8}$"	$\frac{11}{16}$" × 16 UNJS	0·871"	0·875"	0·695"	0·795"
AS 15704	$\frac{7}{16}$"	$\frac{3}{4}$" × 16 UNJF	0·933"	0·937"	0·750"	0·865"
AS 15705	$\frac{1}{2}$"	$\frac{13}{16}$" × 16 UNJS	0·995"	1·000"	0·795"	0·935"
			DIA.			
AS 15706	$\frac{1}{2}$"	$\frac{7}{8}$" × 14 UNJF	1·246"	1·250"	0·925"	0·990"
AS 15707	$\frac{3}{4}$"	$1\frac{1}{16}$" × 12 UNJS	1·371"	1·375"	0·950"	1·175"
AS 15708	$\frac{3}{4}$"	$1\frac{1}{16}$" × 12 UNJS	1·496"	1·500"	1·000"	1·300"
AS 15709	1"	$1\frac{1}{16}$" × 12 UNJS	1·621"	1·625"	1·050"	1·425"
AS 15710	$1\frac{1}{4}$"	$1\frac{5}{8}$" × 12 UNJS	1·996"	2·000"	1·095"	1·800"
AS 15711	$1\frac{1}{2}$"	$1\frac{7}{8}$" × 12 UNJS	2·245"	2·250"	1·200"	2·050"

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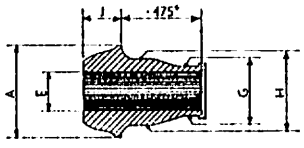
AS 15724-15743 FERRULE

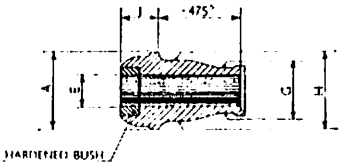
Material: STAINLESS STEEL (SELF)



PART NO.	TUBE		A	E	G	H	J
	O/DIA.	S.W.G.					
AS 15724	1/16"	22	0·515"	0·250"	0·312"	0·385"	0·220"
AS 15725	1/16"	20	0·515"	0·234"	0·312"	0·385"	0·220"
AS 15726	3/32"	22	0·567"	0·312"	0·375"	0·445"	0·220"
AS 15727	3/32"	20	0·567"	0·297"	0·375"	0·445"	0·220"
AS 15728	1/8"	22	0·635"	0·375"	0·438"	0·510"	0·250"
AS 15729	1/8"	20	0·635"	0·359"	0·438"	0·510"	0·250"
AS 15730	1/4"	22	0·713"	0·438"	0·500"	0·575"	0·250"
AS 15731	1/4"	20	0·713"	0·422"	0·500"	0·575"	0·250"
AS 15732	5/16"	22	0·785"	0·562"	0·625"	0·680"	0·275"
AS 15733	5/16"	20	0·785"	0·547"	0·625"	0·680"	0·275"
AS 15734	3/8"	22	0·945"	0·688"	0·750"	0·835"	0·275"
AS 15735	3/8"	20	0·945"	0·672"	0·750"	0·835"	0·275"
AS 15736	1/2"	22	1·065"	0·812"	0·875"	0·935"	0·340"
AS 15737	1/2"	20	1·065"	0·797"	0·875"	0·935"	0·340"
AS 15738	1"	22	1·190"	0·937"	1·000"	1·035"	0·370"
AS 15739	1"	20	1·190"	0·922"	1·000"	1·035"	0·370"
AS 15740	1 1/4"	22	1·525"	1.190"	1·250"	1·345"	0·430"
AS 15741	1 1/4"	20	1·525"	1·175"	1·250"	1·345"	0·430"
AS 15742	1 1/2"	22	1·760"	1·440"	1·500"	1·590"	0·505"
AS 15743	1 1/2"	20	1·760"	1·425"	1·500"	1·590"	0·505"

AS 15766-15769 FERRULE

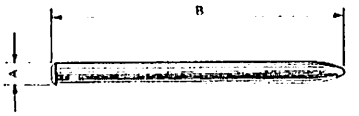
Material: STAINLESS STEEL (SELF)



PART NO.	TUBE O/DIA.	TUBE S.W.G.	A	E	G	H	J
AS 15766	3/16"	22	0·375"	0·109"	0·188"	0·260"	0·185"
AS 15767	3/16"	20	0·375"	0·113"	0·188"	0·260"	0·185"
AS 15768	1/4"	22	0·437"	0·188"	0·250"	0·325"	0·220"
AS 15769	1/4"	20	0·437"	0·172"	0·250"	0·325"	0·220"

AS 15776-15787 THRUST WIRE

Material: CORROSION RESISTANT STEEL (SELF)

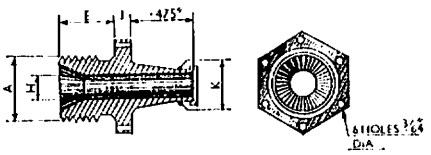


PART NO.	TUBE O/D	NUT THREAD SIZE	A DIA.	B
AS 15776	3/16"	7/16" × 20 UNF	0·110"	1·250"
AS 15777	1/4"	1/4" × 20 UNF	0·110"	1·435"
AS 15778	5/16"	5/16" × 18 UNF	0·125"	1·680"
AS 15779	3/8"	11/16" × 16 UN	0·125"	1·875"
AS 15780	7/16"	3/8" × 16 UNF	0·125"	2·085"
AS 15781	1/2"	13/16" × 16 UN	0·125"	2·295"
AS 15782	5/8"	7/8" × 14 UNF	0·125"	2·640"
AS 15783	3/4"	1 1/16" × 12 UN	0·125"	3·080"
AS 15784	7/8"	1 3/16" × 12 UN	0·125"	3·430"
AS 15785	1"	1 5/16" × 12 UN	0·155"	3·820"
AS 15786	1 1/4"	1 5/8" × 12 UN	0·155"	4·930"
AS 15787	1 1/2"	1 7/8" × 12 UN	0·155"	5·630"

Brown Brothers Engineering Ltd

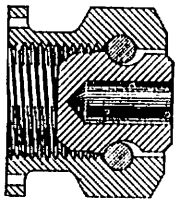
AS 15800-15823 ADAPTOR

Material: STAINLESS STEEL (SELF)



PART NO.	TUBE		A THREAD	B A/F		E	H	J	K DIA.
	O/DIA.	S.W.G.		MIN.	MAX.				
AS 15800	3/16"	22	3/16" × 20 UNF	0·559"	0·562"	0·440"	0·125"	0·120"	0·188"
AS 15801	3/16"	20	3/16" × 20 UNF	0·559"	0·562"	0·440"	0·109"	0·120"	0·188"
AS 15802	1/4"	22	1/4" × 20 UNF	0·621"	0·625"	0·440"	0·188"	0·120"	0·250"
AS 15803	1/4"	20	1/4" × 20 UNF	0·621"	0·625"	0·440"	0·172"	0·120"	0·250"
AS 15804	5/16"	22	5/8" × 18 UNF	0·683"	0·687"	0·490"	0·250"	0·140"	0·312"
AS 15805	5/16"	22	5/8" × 18 UNF	0·683"	0·687"	0·490"	0·234"	0·140"	0·312"
AS 15806	3/8"	22	11/16" × 16 UN	0·746"	0·750"	0·495"	0·312"	0·140"	0·375"
AS 15807	3/8"	20	11/16" × 16 UN	0·746"	0·750"	0·495"	0·297"	0·140"	0·375"
AS 15808	7/16"	22	3/4" × 16 UN	0·808"	0·812"	0·545"	0·375"	0·160"	0·438"
AS 15809	7/16"	20	3/4" × 16 UN	0·808"	0·812"	0·545"	0·359"	0·160"	0·438"
AS 15810	1/2"	22	13/16" × 16 UN	0·871"	0·875"	0·595"	0·438"	0·160"	0·500"
AS 15811	1/2"	20	13/16" × 16 UN	0·871"	0·875"	0·595"	0·422"	0·160"	0·500"
AS 15812	5/8"	22	7/8" × 14 UNF	0·933"	0·937"	0·680"	0·562"	0·180"	0·625"
AS 15813	5/8"	20	7/8" × 14 UNF	0·933"	0·937"	0·680"	0·547"	0·180"	0·625"
AS 15814	3/4"	22	1 1/16" × 12 UN	1·120"	1·125"	0·685"	0·688"	0·180"	0·750"
AS 15815	3/4"	20	1 1/16" × 12 UN	1·120"	1·125"	0·685"	0·672"	0·180"	0·750"
AS 15816	7/8"	22	1 3/16" × 12 UN	1·245"	1·250"	0·735"	0·812"	0·180"	0·875"
AS 15817	7/8"	20	1 3/16" × 12 UN	1·245"	1·250"	0·735"	0·797"	0·180"	0·875"
AS 15818	1"	22	1 5/16" × 12 UN	1·432"	1·437"	0·735"	0·938"	0·200"	1·000"
AS 15819	1"	20	1 5/16" × 12 UN	1·432"	1·437"	0·735"	0·922"	0·200"	1·000"
AS 15820	1 1/4"	22	1 5/8" × 12 UN	1·807"	1·812"	0·735"	1·190"	0·200"	1·250"
AS 15821	1 1/4"	20	1 5/8" × 12 UN	1·807"	1·812"	0·735"	1·175"	0·200"	1·250"
AS 15822	1 1/2"	22	1 7/8" × 12 UN	1·995"	2·000"	0·735"	1·440"	0·200"	1·500"
AS 15823	1 1/2"	20	1 7/8" × 12 UN	1·995"	2·000"	0·735"	1·425"	0·200"	1·500"

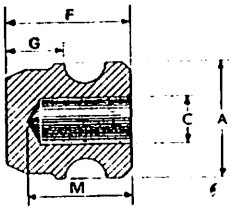
AS 15824-15835 NUT ASSEMBLY



Material:
STAINLESS STEEL
(SILVER PLATE—NUT ONLY)

NOM. TUBE O/DIA.	ASSEMBLY NUMBER	COMPONENT PARTS		
		UNION NUT	THRUST WIRE	BLANK FERRULE
3/16"	AS 15824	AS 15700	AS 15776	AS 15836
1/4"	AS 15825	AS 15701	AS 15777	AS 15837
5/16"	AS 15826	AS 15702	AS 15778	AS 15838
3/8"	AS 15827	AS 15703	AS 15779	AS 15839
7/16"	AS 15828	AS 15704	AS 15780	AS 15840
1/2"	AS 15829	AS 15705	AS 15781	AS 15841
5/8"	AS 15830	AS 15706	AS 15782	AS 15842
3/4"	AS 15831	AS 15707	AS 15783	AS 15843
7/8"	AS 15832	AS 15708	AS 15784	AS 15844
1"	AS 15833	AS 15709	AS 15785	AS 15845
1 1/4"	AS 15834	AS 15710	AS 15786	AS 15846
1 1/2"	AS 15835	AS 15711	AS 15787	AS 15847

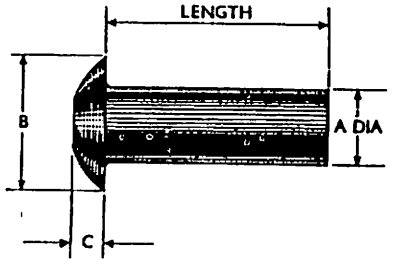
AS 15836-15847 BLANK FERRULE



Material:
STAINLESS STEEL (SELF)

PART NO.	O/D OF PIPE	A	C	F	G	M
AS 15836	3/16"	0·375"	0·120"	0·440"	0·185"	0·340"
AS 15837	1/4"	0·437"	0·185"	0·475"	0·220"	0·375"
AS 15838	5/16"	0·515"	0·245"	0·495"	0·220"	0·395"
AS 15839	3/8"	0·567"	0·310"	0·495"	0·220"	0·395"
AS 15840	7/16"	0·635"	0·360"	0·525"	0·250"	0·425"
AS 15841	1/2"	0·713"	0·435"	0·525"	0·250"	0·425"
AS 15842	5/8"	0·785"	0·560"	0·585"	0·275"	0·485"
AS 15843	3/4"	0·945"	0·685"	0·585"	0·275"	0·485"
AS 15844	7/8"	1·065"	0·810"	0·660"	0·350"	0·560"
AS 15845	1"	1·190"	0·935"	0·730"	0·370"	0·630"
AS 15846	1 1/4"	1·525"	1·185"	0·790"	0·430"	0·690"
AS 15847	1 1/2"	1·760"	1·435"	0·865"	0·505"	0·765"

AS 16000-16399 SOLID RIVET—UNIVERSAL HEAD



Material:

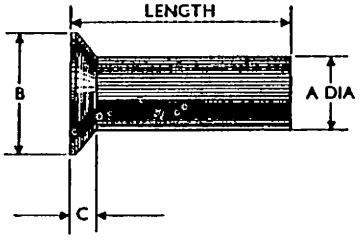
AS 16000-16199 CORROSION RESISTING STEEL (SELF)
AS 16200-16399 NIMONIC 75 (SELF)

BASIC PART NO.		NOM. DIA.	A	B	C	RANGE OF AVAILABLE LENGTHS
CORR. STL.	NIMONIC					
AS 16000	AS 16200	1/16"	0·061" 0·065"	0·125"	0·028"	4 m/m to 10 m/m
AS 16040	AS 16240	3/32"	0·093" 0·097"	0·188"	0·041"	4 m/m to 12 m/m
AS 16080	AS 16280	1/8"	0·124" 0·128"	0·250"	0·055"	4 m/m to 15 m/m
AS 16120	AS 16320	5/32"	0·155" 0·160"	0·313"	0·067"	6 m/m to 20 m/m
AS 16160	AS 16360	3/16"	0·186" 0·191"	0·375"	0·081"	8 m/m to 26 m/m

METHOD OF ORDERING

Universal headed rivets should be ordered by the basic part number dependent on the diameter and material, plus the shank length in millimetres. Example: a rivet 1/8" dia. in Nimonic 75 and 12 millimetres long would be AS 16292.

AS 16400-16799 SOLID RIVET—100° COUNTERSUNK HEAD



Material:

AS 16400-16599 CORROSION RESISTING STEEL (SELF)
AS 16600-16799 NIMONIC 75 (SELF)

BASIC PART NO.		NOM. DIA.	A	B	C	RANGE OF AVAILABLE LENGTHS
CORR. STL.	NIMONIC					
AS 16400	AS 16600	1/16"	0·061" 0·065"	0·110"	0·022"	4 m/m to 10 m/m
AS 16440	AS 16640	3/32"	0·093" 0·097"	0·170"	0·035"	4 m/m to 12 m/m
AS 16480	AS 16680	1/8"	0·124" 0·128"	0·210"	0·043"	4 m/m to 15 m/m
AS 16520	AS 16720	5/32"	0·155" 0·160"	0·270"	0·055"	6 m/m to 20 m/m
AS 16560	AS 16760	3/16"	0·186" 0·191"	0·330"	0·071"	8 m/m to 28 m/m

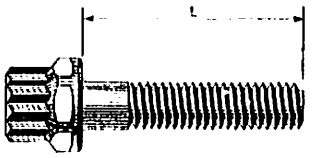
METHOD OF ORDERING

100° countersunk headed rivets should be ordered by the basic part number dependent on the diameter and material, plus the length in millimetres. Example: a rivet 1/8" dia. in Nimonic 75 and 8 millimetres long would be AS 16688.

AS 17000-18199

DOUBLE HEXAGON HEADED BOLT

EXTENDED WASHER FACE. CUPFACE LOCKED



Material:

SEE TABLE (SELF)

THREAD SIZE	MATERIAL		
	DTD 5066	DTD 5026	DTD 5077
0·187″ × 32 UNS	AS 17005 to AS 17062	AS 17405 to AS 17462	AS 17805 to AS 17862
0·247″ × 28 UNS	AS 17106 to AS 17196	AS 17506 to AS 17596	AS 17906 to AS 17996
0·3095″ × 24 UNS	AS 17207 to AS 17296	AS 17607 to AS 17696	AS 18007 to AS 18096
0·372″ × 24 UNS	AS 17308 to AS 17396	AS 17708 to AS 17796	AS 18108 to AS 18196

METHOD OF ORDERING

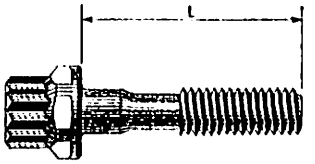
Double hexagon headed bolts should be ordered by the appropriate part number from the above table, dependent on the thread and material, the last two digits representing the "L" length in $\frac{1}{16}$ of an inch.

EXAMPLE: A bolt in DTD 5066, 0·187″ × 32 UNS thread 0·812″ long would be AS 17013.

AS 18200-19399

DOUBLE HEXAGON HEADED BOLT

EXTERNALLY RELIEVED BODY. EXTENDED WASHER FACE. CUPWASHER LOCKED



Material:

SEE TABLE (SELF)

THREAD SIZE	MATERIAL		
	DTD 5066	DTD 5026	DTD 5077
0·187″ × 32 UNS	AS 18211 to AS 18262	AS 18611 to AS 18662	AS 19011 to AS 19062
0·247″ × 28 UNS	AS 18312 to AS 18396	AS 18712 to AS 18796	AS 19112 to AS 19196
0·3095″ × 24 UNS	AS 18413 to AS 18496	AS 18813 to AS 18896	AS 19213 to AS 19296
0·372″ × 24 UNS	AS 18514 to AS 18596	AS 18914 to AS 18996	AS 19314 to AS 19396

Double hexagon headed bolts should be ordered by the appropriate part number from the above table, dependent on the thread and material, the last two digits representing the "L" length in $\frac{1}{16}$ of an inch.

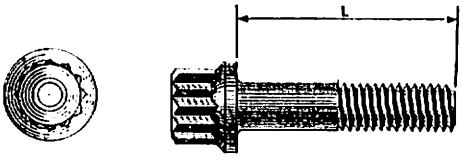
EXAMPLE: A bolt in DTD 5066, 0·187″ × 32 UNS thread 0·812″ long would be AS 18213.

AS 19400—20599 DOUBLE HEXAGON HEADED BOLT

CLOSE TOLERANCE SHANK. EXTENDED WASHER FACE

Material: SEE TABLE (SELF)

THREAD SIZE	MATERIAL		
	DTD 5066	DTD 5026	DTD 5077
0·187″ × 32 UNS	AS 19409 to AS 19462	AS 19809 to AS 19862	AS 20209 to AS 20262
0·247″ × 28 UNS	AS 19511 to AS 19596	AS 19911 to AS 19996	AS 20311 to AS 20396
0·3095″ × 24 UNS	AS 19612 to AS 19696	AS 20012 to AS 20096	AS 20412 to AS 20496
0·372″ × 24 UNS	AS 19714 to AS 19796	AS 20114 to AS 20196	AS 20514 to AS 20596



METHOD OF ORDERING

Double hexagon headed bolts should be ordered by the appropriate part number from the above table, dependent on the thread and material, the last two digits representing the 'L' length in $\frac{1}{16}$ of an inch. Example: A bolt in DTD 5066, 0·187″ × 32 UNS thread 0·812″ long would be AS 19413.

AS 20640-20739 HEADLESS PIN

Material: NIMONIC 80A (SELF)

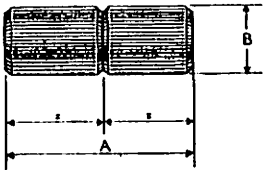
NOM. SIZE	A (p7)	RANGE OF LENGTHS AVAILABLE
3	3,00	6 to 20
4	4,00	8 to 28
5	5,00	10 to 36
6	6,00	12 to 40
8	8,00	14 to 50
10	10,00	16 to 70

ALL DIMENSIONS IN MILLIMETRES

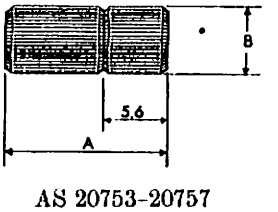
AS 20740-20759 HEADLESS PIN (GROOVED)

Material: NIMONIC 80A (SELF)

PART NO.	NOM. DIA.	A	B (p7)
AS 20740	4	12,0	4,00
AS 20741	4	16,0	4,00
AS 20742	5	12,0	5,00
AS 20743	5	16,0	5,00
AS 20744	6	12,0	6,00
AS 20745	6	16,0	6,00
AS 20746	8	12,0	8,00
AS 20747	8	16,0	8,00
AS 20748	10	12,0	10,00
AS 20749	10	16,0	10,00
AS 20753	4	14,00	4,00
AS 20754	5	14,00	5,00
AS 20755	6	14,00	6,00
AS 20756	8	14,00	8,00
AS 20757	10	14,00	10,00



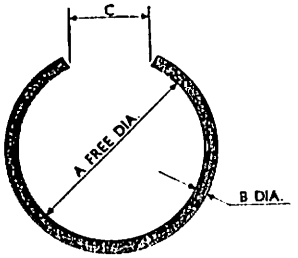
AS 20740-20749



AS 20753-20757

ALL DIMENSIONS IN MILLIMETRES

AS 20761-20765 RETAINING RINGS

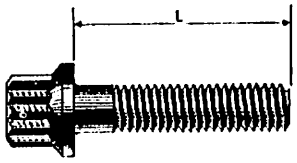


Material:
STAINLESS STEEL (SELF)
For use with AS 29640-20659

PART NUMBER	NOM. DIA.	A	B	C
AS 20761	4 mm.	0·136″	0·022″	0·065″
AS 20762	5 mm.	0·176″	0·022″	0·080″
AS 20763	6 mm.	0·215″	0·022″	0·100″
AS 20764	8 mm.	0·294″	0·022″	0·130″
AS 20765	10 mm.	0·367″	0·028″	0·160″

AS 20800-22299 DOUBLE HEXAGON HEADED BOLT
AS 30200-30799

EXTENDED WASHER FACE



Material:
SEE TABLE (SELF)

THREAD SIZE	MATERIAL		
	DTD 5066	DTD 5026	DTD 5077
0·164″ × 36 UNJF	AS 20804 to AS 20832	AS 21304 to AS 21332	AS 21804 to AS 21832
0·190″ × 32 UNJF	AS 20905 to AS 20962	AS 21405 to AS 21462	AS 21905 to AS 21962
0·250″ × 28 UNJF	AS 21006 to AS 21096	AS 21506 to AS 21596	AS 22006 to AS 22096
0·3125″ × 24 UNJF	AS 21107 to AS 21196	AS 21607 to AS 21696	AS 22107 to AS 22196
0·375″ × 24 UNJF	AS 21208 to AS 21296	AS 21708 to AS 21796	AS 22208 to AS 22296
0·4375″ × 20 UNJF	AS 30210 to AS 30296	AS 30410 to AS 30496	AS 30610 to AS 30696
0·500″ × 20 UNJF	AS 30312 to AS 30396	AS 30512 to AS 30596	AS 30712 to AS 30796

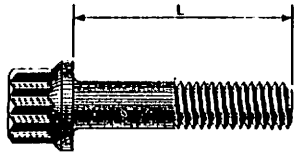
METHOD OF ORDERING

Double hexagon headed bolts should be ordered by the appropriate part number from the above table, dependent on the thread and material, the last two digits representing the "L" length in $\frac{1}{16}$ of an inch.

EXAMPLE: A bolt in DTD 5066, 0·190″ × 32 UNJF thread 0·812″ long would be AS 20913

AS 22400-23799 AS 30800-31399 DOUBLE HEXAGON HEADED BOLT

CLOSE TOLERANCE SHANK. EXTENDED WASHER FACE



Material:
SEE TABLE (SELF)

THREAD SIZE	MATERIAL		
	DTD 5066	DTD 5026	DTD 5077
0·190″ × 32 UNJF	AS 22409 to AS 22462	AS 22809 to AS 22962	AS 23409 to AS 23462
0·250″ × 28 UNJF	AS 22511 to AS 22596	AS 23011 to AS 23096	AS 23511 to AS 23596
0·3125″ × 24 UNJF	AS 22612 to AS 22696	AS 23112 to AS 23196	AS 23612 to AS 23696
0·375″ × 24 UNJF	AS 22714 to AS 22796	AS 23214 to AS 23296	AS 23714 to AS 23796
0·4375″ × 20 UNJF	AS 30816 to AS 30896	AS 31016 to AS 31096	AS 31216 to AS 31256
0·500″ × 20 UNJF	AS 30918 to AS 30996	AS 31118 to AS 31196	AS 31318 to AS 31396

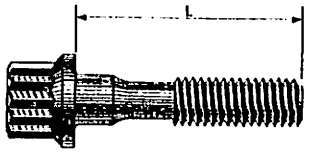
METHOD OF ORDERING

Double hexagon headed bolts should be ordered by the appropriate part number from the above table, dependent on the thread and material, the last two digits representing the "L" length in $\frac{1}{16}$ of an inch.

EXAMPLE: A bolt in DTD 5066, 0·190″ × 32 UNJF thread 0·812″ long would be AS 22413.

AS 23900-25296 AS 31400-31999 DOUBLE HEXAGON HEADED BOLT

EXTERNALLY RELIEVED BODY. EXTENDED WASHER FACE



Material:
SEE TABLE (SELF)

THREAD SIZE	MATERIAL		
	DTD 5066	DTD 5026	DTD 5077
0·190″ × 32 UNJF	AS 23911 to AS 23962	AS 24411 to AS 24462	AS 24911 to AS 24962
0·250″ × 28 UNJF	AS 24012 to AS 24096	AS 24512 to AS 24596	AS 25012 to AS 25096
0·3125″ × 24 UNJF	AS 24113 to AS 24196	AS 24613 to AS 24696	AS 25113 to AS 25196
0·375″ × 24 UNJF	AS 24214 to AS 24296	AS 24714 to AS 24796	AS 25214 to AS 25296
0·4375″ × 20 UNJF	AS 31415 to AS 31496	AS 31615 to AS 31696	AS 31815 to AS 31896
0·500″ × 20 UNJF	AS 31515 to AS 31596	AS 31715 to AS 31796	AS 31915 to AS 31996

METHOD OF ORDERING

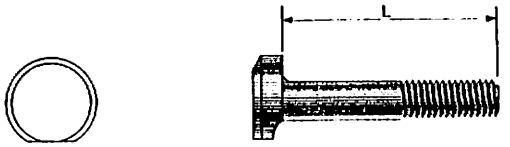
Double hexagon headed bolts should be ordered by the appropriate part number from the above table, dependent on the thread and material, the last two digits representing the "L" length on $\frac{1}{16}$ of an inch.

EXAMPLE: A bolt in DTD 5066, 0·190″ × 32 UNJF thread 0·812″ long would be AS 23913.

Brown Brothers Engineering Ltd

AS 26100-27299
AS 28100-28699
DEE HEADED BOLT

CLOSE TOLERANCE SHANK



Material:
SEE TABLE (SELF)

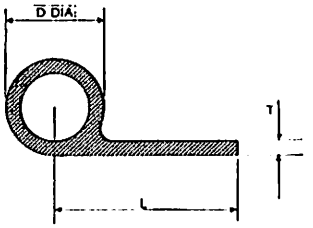
Bolts in material specification DTD 5026 have a larger head than shown

THREAD SIZE	MATERIAL		
	DTD 5066	DTD 5026	DTD 5077
0·190" × 32 UNJF	AS 26109 to AS 26162	AS 28109 to AS 28162	AS 26709 to AS 26762
0·250" × 28 UNJF	AS 26211 to AS 26296	AS 28211 to AS 28296	AS 26811 to AS 26896
0·3125" × 24 UNJF	AS 26312 to AS 26396	AS 28312 to AS 28396	AS 26912 to AS 26996
0·375" × 24 UNJF	AS 26414 to AS 26496	AS 28414 to AS 28496	AS 27014 to AS 27096
0·4375" × 20 UNJF	AS 26516 to AS 26596	AS 28516 to AS 28596	AS 27116 to AS 27196
0·500" × 20 UNJF	AS 26618 to AS 26696	AS 28618 to AS 28696	AS 27218 to AS 27296

METHOD OF ORDERING

Dee headed bolts should be ordered by the appropriate part number from the above table, dependent on the thread and material, the last two digits representing the "L" length in $\frac{1}{16}$ of an inch.
EXAMPLE: A bolt in DTD 5066, 0·190" × 32 UNJF thread 0·812" long would be AS 26113.

AS 28950-28959
'P' SECTION RUBBER



ITEM	D	L	T
1	0·15"	0·70"	0·04"
2	0·25"	0·75"	0·06"
3	0·35"	0·80"	0·06"
4	0·45"	0·85"	0·06"
5	0·55"	0·90"	0·06"
6	0·65"	0·95"	0·06"
7	0·75"	1·00"	0·06"

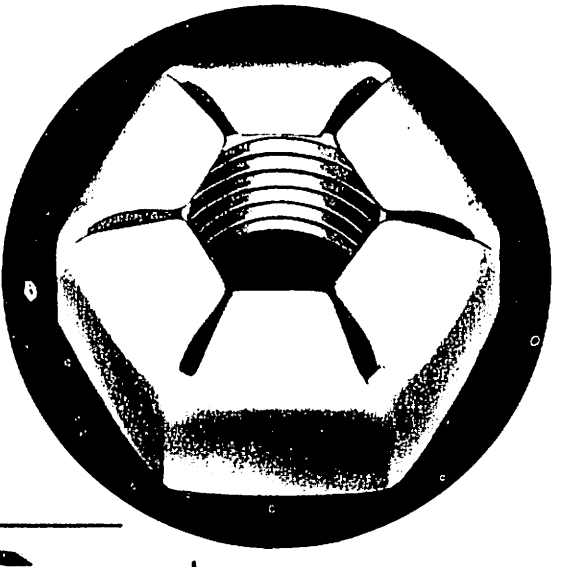
PART NO.	MATERIAL	SPECIFICATION	RELATIVE COSTS
AS 28950	Natural Rubber	BS 1154 Group Z	Low
AS 28951	Natural Rubber	BS 1155 Group T	Low
AS 28952	Neoprene	DTD 5514	Low
AS 28953	Silicone	DTD 5531	High
AS 28954	Viton	DTD 5543	High
AS 28955	Fluorosilicones	DTD 5583	Very High
AS 28956	Nitrile	DTD 5594	Low
AS 28957	Nitrile	DTD 5595	Low
AS 28958	Ethylenepropylene	DTD 5596	Moderate
AS 28959	Ethylenepropylene	DTD 5597	Moderate

METHOD OF ORDERING

Section to specification DTD 5596 Grade "C" and to the dimension for Item 4 in upper table would be AS 28958-4/55 (/55 being the hardness in ° I.R.H.).

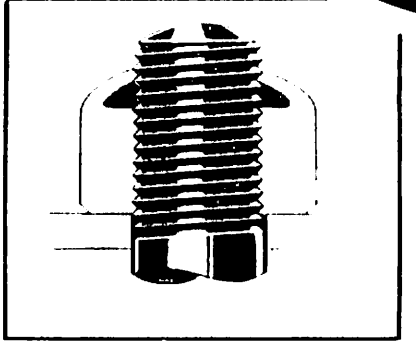
Oddie NUTS AND ANCHORAGES

MAXIMUM FASTENING EFFICIENCY
without auxiliary locking devices



- **Dispenses with the need for :—**
  Drilled Bolt, Slotted Nut and Split Pin, Flat, Spring or Tab Washers. Double Lock Nuts. Peening or Rivetting over of bolt.

- **Provides all the features desired in a nut :—**
  Ability to remain steadfast on the bolt without the aid of auxiliary locking devices. Completely unaffected by vibration, heat or oil. Precision one-piece construction, face square with thread. Easily and quickly fitted by hand or power—just as easily adjusted or removed. Can be used over and over again without impairing efficiency.



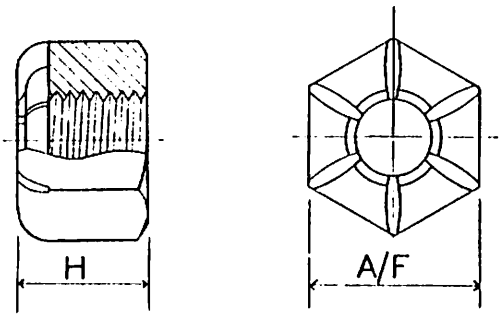
- *Available in ferrous and non-ferrous metals or with Special Anchorages as shown in the following pages.*

Patent Nos.
513344 and 551214

MINISTRY APPROVED

PAGES 255 TO 264

AGS 2001, 2002 & 2003
ODDIE AIRCRAFT HEXAGON NUTS BA & BSF THREADS



AGS 2001 THICK
AGS 2002 THIN
AGS 2003 COUNTERSUNK

PRINCIPAL DIMENSIONS

SUFFIX LETTER	THREAD SIZE	ACROSS FLATS		H	
		MIN.	MAX.	THICK AND COUNTERSUNK	THIN
		IN.	IN.	IN.	IN.
A	6 BA	0·190	0·193	0·170	0·130
B	4 BA	0·245	0·248	0·190	0·150
C	2 BA	0·321	0·324	0·250	0·190
E	$\frac{1}{4}$" BSF	0·440	0·445	0·300	0·230
G	$\frac{5}{16}$" BSF	0·520	0·525	0·380	0·310
J	$\frac{3}{8}$" BSF	0·595	0·600	0·450	0·340
L	$\frac{7}{16}$" BSF	0·705	0·710	0·510	0·390
N	$\frac{1}{2}$" BSF	0·815	0·820	0·580	0·450
Q	$\frac{5}{8}$" BSF	1·002	1·010	0·750	0·570
S	$\frac{3}{4}$" BSF	1·192	1·200	0·900	0·670

SUFFIX NUMBER	MATERIAL	FINISH
1	Mild Steel	Cadmium
2	Non-corrodible Steel	Cadmium
3	Light Alloy	Anodised and Dyed Blue
4	Brass or Bronze	Electro-Tinned

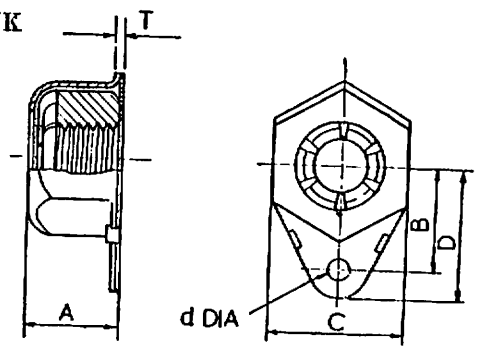
METHOD OF ORDERING

Oddie aircraft hexagon nuts are ordered by the part number for the type required, followed by the suffix letter indicating the thread, followed by the suffix number indicating the material, *i.e.* the complete part number for a 2BA thick hexagon nut in mild steel is AGS 2001/C/1 and for $\frac{5}{16}$" BSF countersunk nut in light alloy AGS 2003/G/3.

To ensure maximum locking it is recommended that a minimum of 2 threads protrude when nut is screwed on bolt.

AGS 2004, 2005 & 2006
ODDIE AIRCRAFT SINGLE ANCHOR NUTS
(Single Rivet Fixing)
BA & BSF THREADS

AGS 2004 THICK
AGS 2005 THIN
AGS 2006 COUNTERSUNK



PRINCIPAL DIMENSIONS

SUFFIX LETTER	THREAD	A		B	C	D MAX.	T	d
		THICK & COUNTERSUNK	THIN					
		IN.	IN.	IN.	IN.	IN.	IN.	IN.
A	0 BA	0·224	0·184	0·250	0·254	0·350	0·044	0·065
B	1 BA	0·269	0·227	0·350	0·315	0·470	0·044	0·096
C	2 BA	0·319	0·253	0·350	0·390	0·475	0·044	0·096
E	$\frac{1}{4}$" BSF	0·364	0·299	0·500	0·511	0·660	0·044	0·096
G	$\frac{5}{16}$" BSF	0·419	0·339	0·550	0·591	0·710	0·044	0·128
J	$\frac{3}{8}$" BSF	0·499	0·389	0·550	0·682	0·710	0·044	0·128
L	$\frac{7}{16}$" BSF	0·572	0·447	0·625	0·792	0·825	0·052	0·128
N	$\frac{1}{2}$" BSF	0·637	0·502	0·700	0·902	0·900	0·052	0·128

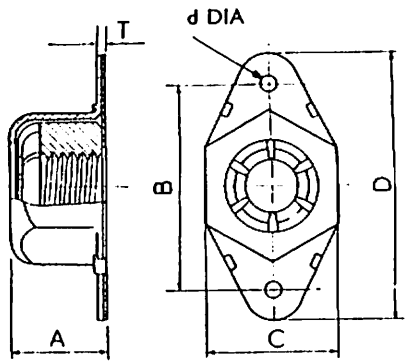
SUFFIX NUMBER	MATERIAL	FINISH
1	Mild Steel	Cadmium
2	Non-corrodible Steel	Cadmium
3	Light Alloy	Anodised and Dyed Blue

METHOD OF ORDERING

Single anchor nuts (single fixing) are ordered by the part number for the type required, followed by the suffix letter indicating the thread, followed by the suffix number indicating the material, *i.e.* the complete part number for a 2BA thick single anchor nut in mild steel is AGS 2004/C/1 and for a $\frac{5}{16}$" BSF countersunk single anchor nut in light alloy AGS 2006/G/3.

AGS 2007, 2008 & 2009
ODDIE AIRCRAFT DOUBLE ANCHOR NUTS
BA & BSF THREADS

AGS 2007 THICK
AGS 2008 THIN
AGS 2009 COUNTERSUNK



PRINCIPAL DIMENSIONS

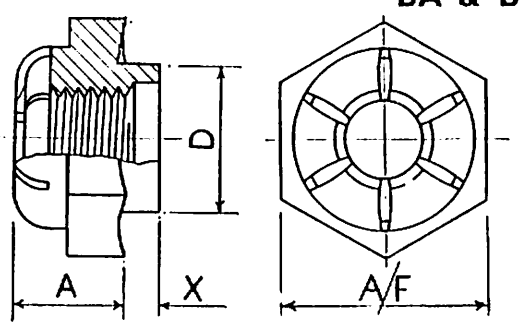
SUFFIX	THREAD	A THICK AND COUNTERSUNK	A THIN	B	C	D MAX.	T	d
		IN.	IN.	IN.	IN.	IN.	IN.	IN.
A	6 BA	0·224	0·184	0·500	0·254	0·700	0·044	0·065
B	4 BA	0·269	0·227	0·700	0·315	0·910	0·044	0·096
C	2 BA	0·319	0·253	0·700	0·390	0·950	0·044	0·096
E	1" BSF	0·408	0·343	1·000	0·527	1·320	0·052	0·096
G	5/16" BSF	0·419	0·339	1·100	0·591	1·420	0·044	0·128
J	3/8" BSF	0·499	0·389	1·100	0·682	1·420	0·044	0·128
L	7/16" BSF	0·572	0·417	1·250	0·792	1·650	0·052	0·128
N	1/2" BSF	0·637	0·502	1·400	0·902	1·800	0·052	0·128

SUFFIX NUMBER	MATERIAL	FINISH
1	Mild Steel	Cadmium
2	Non-corrodible Steel	Cadmium.
3	Light Alloy	Anodised and Dyed Blue

METHOD OF ORDERING

Double anchor nuts are ordered by the part number for the type required, followed by the suffix letter indicating the thread, followed by the suffix number indicating the material, *i.e.* the complete part number for a 2BA thick double anchor nut in mild steel is AGS 2007/C/1 and for a 5/16" BSF countersunk double anchor nut in light alloy AGS 2009/G/3.

AGS 2011 ODDIE AIRCRAFT CLINCH NUTS
BA & BSF THREADS



PRINCIPAL DIMENSIONS

SUFFIX LETTER	THREAD SIZE	A. MAX.	ACROSS FLATS MAX.	ACROSS FLATS MIN.	D MAX.	X MAX.	MAX. S.W.G.
		IN.	IN.	IN.	IN.	IN.	
A	6 BA	0·180	0·218	0·215	0·192	0·080	18
B	4 BA	0·218	0·324	0·321	0·255	0·085	18
C	2 BA	0·267	0·413	0·410	0·312	0·095	18
E	1" BSF	0·319	0·525	0·520	0·375	0·110	16
G	5/16" BSF	0·380	0·600	0·595	0·441	0·135	14
J	3/8" BSF	0·490	0·710	0·705	0·625	0·160	12

SUFFIX NUMBER	MATERIAL	FINISH
1	Mild Steel	Cadmium
2	Non-corrodible Steel	Cadmium
3	Aluminium Alloy	Anodised and Dyed Blue
4	Brass or Bronze	Electro-tinned

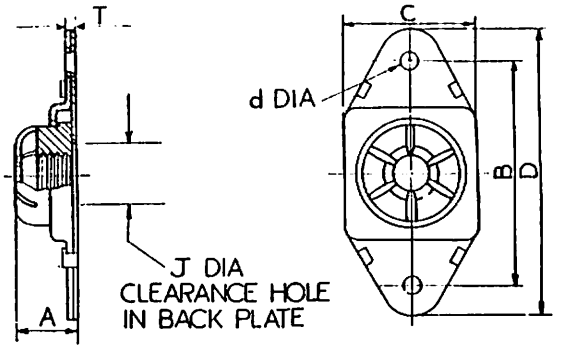
METHOD OF ORDERING

Clinch nuts are ordered by the part number, followed by the suffix letter indicating the size of thread, followed by the suffix number indicating the material, followed by the gauge of material in which the nut is to be used, *i.e.*, the complete part number for a 2BA clinch nut in mild steel for use in a 20 SWG plate is AGS 2011/C/1/20 and a 5/16" BSF clinch nut in light alloy for use in a 16 S.W.G. plate is AGS 2011/G/3/16.

Brown Brothers Engineering Ltd

AGS 2012, 2013 & 2014
ODDIE AIRCRAFT FLOATING ANCHOR NUTS
BA & BSF THREADS

AGS 2012 THICK
AGS 2013 THIN
AGS 2014 COUNTERSUNK



PRINCIPAL DIMENSIONS

SUFFIX LETTER	THREAD SIZE	A		B	C	D	J	T	d
		THICK & COUNTERSUNK	THIN						
		IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
A	6 BA	0·200	0·200	0·500	0·432	0·700	0·140	0·044	0·065
B	4 BA	0·205	0·205	0·700	0·442	0·940	0·252	0·044	0·096
C	2 BA	0·269	0·269	0·700	0·561	0·940	0·313	0·044	0·096
E	¼" BSF	0·330	0·263	1·000	0·643	1·312	0·408	0·052	0·096
G	5/16" BSF	0·473	0·390	1·100	1·020	1·420	0·360	0·052	0·128
J	⅜" BSF	0·490	0·450	1·200	1·115	1·562	0·420	0·052	0·128

MATERIAL FOR ATTACHMENT PLATE

SUFFIX NUMBER	MATERIAL	FINISH
1	Mild Steel	Cadmium
3	Light Alloy	Anodised and Dyed Blue

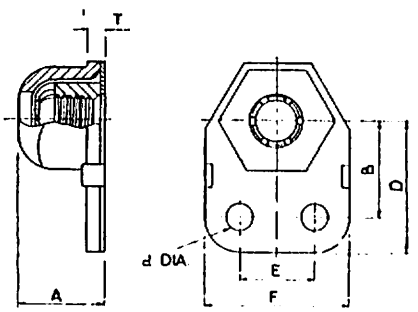
MATERIAL FOR NUT

SUFFIX NUMBER	MATERIAL	FINISH
1	Mild Steel	Cadmium
2	Non-corrodible Steel or Monel	Cadmium
3	Light Alloy	Anodised and Dyed Blue

METHOD OF ORDERING

Floating anchor nuts are ordered by the part number for the type required, followed by the suffix letter indicating the size of thread, followed by the suffix number indicating the material of the attachment plate followed by the suffix number indicating the material of the nut, *i.e.* the complete part number for a 2BA thick floating anchor nut with a mild steel base plate and mild steel nut is AGS 2012/C/11 and for a 5/16" BSF countersunk floating anchor nut with a mild steel base plate and a light alloy nut is AGS 2014/G/13.

AGS 2018, 2019 & 2020
ODDIE SINGLE ANCHOR NUTS (Double Rivet Fixing)
BA & BSF THREADS



AGS 2018 THICK
AGS 2019 THIN
AGS 2020 COUNTERSUNK

PRINCIPAL DIMENSIONS

SUFFIX LETTER	THREAD	A		B	D	E	F MAX.	T	d
		THICK & COUNTER-SUNK	THIN						
		IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
A	6 BA	0·224	0·184	0·250	0·340	0·190	0·370	0·044	0·065
B	4 BA	0·269	0·227	0·350	0·470	0·250	0·490	0·044	0·096
C	2 BA	0·319	0·253	0·350	0·470	0·300	0·540	0·044	0·096
E	$\frac{1}{4}$" BSF	0·364	0·299	0·500	0·620	0·480	0·720	0·044	0·096
G	$\frac{5}{16}$" BSF	0·419	0·339	0·550	0·675	0·570	0·820	0·044	0·128
J	$\frac{3}{8}$" BSF	0·499	0·389	0·550	0·675	0·660	0·910	0·044	0·128
L	$\frac{7}{16}$" BSF	0·572	0·447	0·625	0·800	0·700	1·050	0·052	0·128
N	$\frac{1}{2}$" BSF	0·637	0·502	0·700	0·875	0·840	1·190	0·052	0·128

SUFFIX NUMBER	MATERIAL	FINISH
1	Mild Steel	Cadmium
2	Non-corrodible Steel	Cadmium
3	Light Alloy	Anodised and Dyed Blue

METHOD OF ORDERING

Single anchor nuts (double rivet fixing) are ordered by the part number for the type required, followed by the suffix letter indicating the thread, followed by the suffix number indicating the material, *i.e.* the complete part number for a 2BA single anchor nut in mild steel is AGS 2018/C/1 and for a $\frac{5}{16}$" BSF countersunk single anchor nut in light alloy AGS 2020/G/3.

Brown Brothers Engineering Ltd

B.S. A122 to A124 UNIFIED CLINCH NUTS

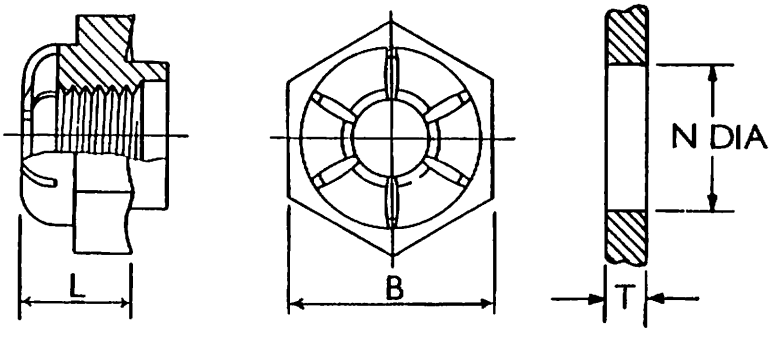
Material:

A122 STEEL (CADMIUM)

A123 BRASS or BRONZE (ELECTRO TINNED)

A124 ALUMINIUM ALLOY (ANODISED)

PART NO.	TEMPERATURE RANGE
A122	—75°C. to +200°C.
A123	—75°C. to +125°C.
A124	—75°C. to +125°C.



ITEM	THREAD SIZE	B A/F		L	N DIA.	SPIGOT LENGTHS TO SUIT 'T' THICKNESS PLATES. GROUP 1		GROUP 2		GROUP 3	
		MAX.	MIN.	MAX.	NOM.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.
A	No. 4 × 40 UNC	0·250"	0·245"	0·145"	0·192"	19 S.W.G.	22 S.W.G.	16 S.W.G.	18 S.W.G.	—	—
B	No. 6 × 32 UNC	0·312"	0·307"	0·185"	0·254"	19 S.W.G.	22 S.W.G.	16 S.W.G.	18 S.W.G.	—	—
C	No. 8 × 32 UNC	0·344"	0·339"	0·233"	0·285"	17 S.W.G.	21 S.W.G.	14 S.W.G.	16 S.W.G.	10 S.W.G.	12 S.W.G.
D	No. 10 × 32 UNF	0·438"	0·431"	0·241"	0"316"	17 S.W.G.	21 S.W.G.	14 S.W.G.	16 S.W.G.	10 S.W.G.	12 S.W.G.
E	$\frac{1}{4}$" UNF	0·500"	0·493"	0·273"	0·379"	15 S.W.G.	18 S.W.G.	12 S.W.G.	14 S.W.G.	8 S.W.G.	10 S.W.G.
G	$\frac{5}{16}$" UNF	0·562"	0·554"	0·326"	0·442"	13 S.W.G.	16 S.W.G.	10 S.W.G.	12 S.W.G.	6 S.W.G.	8 S.W.G.
J	$\frac{3}{8}$" UNF	0·688"	0·679"	0·386"	0·566"	11 S.W.G.	13 S.W.G.	8 S.W.G.	10 S.W.G.	6 S.W.G.	7 S.W.G.

METHOD OF ORDERING:

All nuts are ordered by the British Standard Number, followed by the item letter for the size of the thread required, followed by the number representing the group providing the spigot length required.

When it is necessary to differentiate between clinch nuts with metallic or non-metallic friction elements, the suffix /66 for metallic or /77 for non-metallic friction element should be added to the part number.

BRITISH STANDARD UNIFIED AIRCRAFT STIFFNUTS

STIFF NUT TYPES, PART NUMBERS, MATERIALS AND TEMPERATURE CLASSIFICATION

Stiff Nut Types			Temperature Classification				
			−75° C. to +200° C.	−75° C. to +200° C.	−75° C. to +425° C.	−75° C. to +125° C.	−75° C. to +125° C.
			British Standard Numbers				
			Steel Nuts Cadmium Plated	Corrosion-Resisting Steel Nuts		Aluminium Alloy Nuts Anodised and Dyed Blue	Brass or Bronze Nuts Tinned
				Cadmium Plated	Silver Plated		
Hexagon		Ordinary	2A125	2A127	2A180	2A129	2A131
		Thin	2A126	2A128	2A181	2A130	2A132
		Cap	A213	—	—	A214	—
Double-lug Fixed Anchor		Ordinary	2A136	2A138	2A186	2A140	2A142
		Thin	2A137	2A139	2A187	2A141	2A143
		Cap	A215	—	—	A216	—
Double-lug Floating Anchor	With Steel Attachment Plate	Ordinary	2A117	—	—	—	—
		Thin	2A118	—	—	—	—
	With Corrosion Resisting Steel Attachment Plate	Ordinary	—	2A149	2A192	—	—
		Thin	—	2A150	2A193	—	—
	With Aluminium Alloy Attachment Plate	Ordinary	2A151	—	—	2A153	—
		Thin	2A152	—	—	2A154	—
	With Brass Attachment Plate	Ordinary	—	—	—	—	2A155
		Thin	—	—	—	—	2A156
Single-lug Fixed Anchor		Ordinary	2A157	2A159	2A200	2A161	2A163
		Thin	2A158	2A160	2A201	2A162	2A164
Strip		Ordinary	2A165	—	—	2A167	—
		Thin	2A166	—	—	2A168	—

METHOD OF ORDERING

When it is necessary to differentiate between metallic and non-metallic nuts in the steel and corrosion-resisting steel (−75° C. to + 200° C.) ranges, the suffix /66 for metallic or /77 for non-metallic should be added to the part number, *i.e.* a ¼" UNF metallic ordinary hexagon nut should be ordered as A125/E/66.

When corrosion-resisting steel nuts in the −75° C. to + 425° C. range are required self-finish, /UP should be added to the part number, *i.e.* a standard ¼" UNF corrosion-resisting steel ordinary hexagon nut for temperature range −75° C. to + 425° C. silver-plated should be ordered as A180/E, but if required self-finish should be ordered as A180/E/UP.

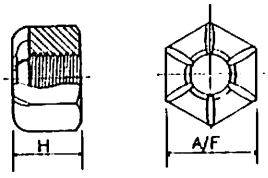
All nuts are ordered by the British Standard Number, followed by the part reference letter indicating the thread required.

For Part Reference numbers and Principle Dimensions see pages 263 and 264

UNIFIED ODDIE STIFFNUTS

PART REFERENCES AND PRINCIPAL DIMENSIONS FOR HEXAGON ORDINARY AND THIN NUTS

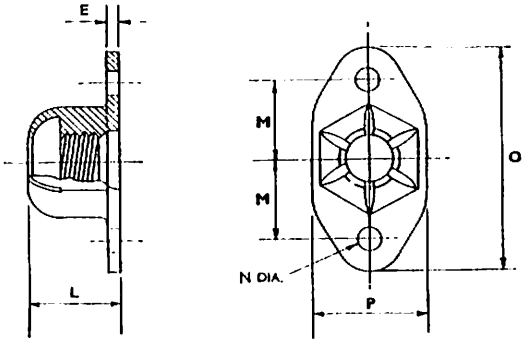
FOR PART NUMBERS SEE PAGE 262



PART REF.	THREAD	ACROSS FLATS		H	
		MIN.	MAX.	ORDINARY	THIN
		IN.	IN.	IN.	IN.
A	No. 4-40 UNC	0·183	0·188	0·175	0·143
B	No. 6-32 UNC	0·245	0·250	0·215	0·179
C	No. 8-32 UNC	0·307	0·312	0·275	0·233
D	No. 10-32 UNF	0·339	0·344	0·285	0·241
E	¼" UNF	0·431	0·438	0·340	0·273
G	5/16" UNF	0·493	0·500	0·410	0·326
J	⅜" UNF	0·554	0·562	0·490	0·386
L	7/16" UNF	0·679	0·688	0·570	0·445
N	½" UNF	0·741	0·750	0·660	0·514
P	9/16" UNF	0·866	0·875	0·725	0·558
Q	⅝" UNF	0·929	0·938	0·810	0·623
S	¾" UNF	1·052	1·062	0·975	0·746
U	⅞" UNF	1·240	1·250	1·085	0·835
W	1" UNF	1·426	1·428	1·245	0·953

PART REFERENCES AND PRINCIPAL DIMENSIONS FOR ORDINARY AND THIN DOUBLE LUG FIXED ANCHOR NUTS

FOR PART NUMBERS SEE PAGE 262

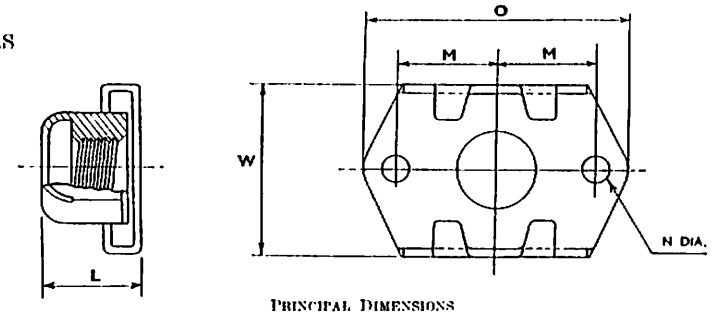


PART REF.	THREAD	L MAX.		M	N	O MAX.	P MAX.	E MAX.
		ORDINARY	THIN					
		IN.	IN.	IN.	IN.	IN.	IN.	IN.
A	No. 4-40 UNC	0·233	0·201	0·220	0·065	0·613	0·220	0·058
B	No. 6-32 UNC	0·273	0·237	0·250	0·065	0·673	0·290	0·058
C	No. 8-32 UNC	0·333	0·291	0·300	0·096	0·843	0·360	0·058
D	No. 10-32 UNF	0·343	0·299	0·325	0·096	0·893	0·390	0·058
E	¼" UNF	0·398	0·331	0·375	0·096	0·993	0·505	0·058
G	5/16" UNF	0·468	0·384	0·425	0·128	1·163	0·577	0·058
J	⅜" UNF	0·548	0·444	0·475	0·128	1·263	0·650	0·058
L	7/16" UNF	0·628	0·503	0·550	0·128	1·413	0·794	0·058
N	½" UNF	0·718	0·572	0·600	0·128	1·513	0·866	0·058

UNIFIED ODDIE STIFFNUTS

PART REFERENCES AND PRINCIPAL DIMENSIONS FOR ORDINARY AND THIN DOUBLE—LUG FLOATING ANCHOR NUTS

FOR PART NUMBERS SEE PAGE 262

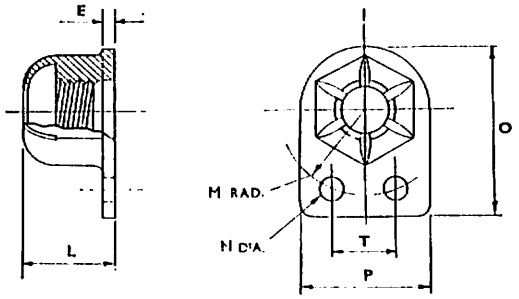


PRINCIPAL DIMENSIONS

PART REF.	THREAD	L MAX. ORDINARY	L MAX. THIN	W MAX.	M	N	O MAX.
		IN.	IN.	IN.	IN.	IN.	IN.
B	No. 6-32 UNC	0·285	0·249	0·424	0·250	0·065	0·673
C	No. 8-32 UNC	0·353	0·311	0·496	0·300	0·096	0·813
D	No. 10-32 UNF	0·363	0·319	0·532	0·325	0·096	0·893
E	¼" UNF	0·419	0·352	0·610	0·375	0·096	0·993
G	5/16" UNF	0·497	0·413	0·720	0·425	0·128	1·163
J	⅜" UNF	0·577	0·473	0·780	0·475	0·128	1·263

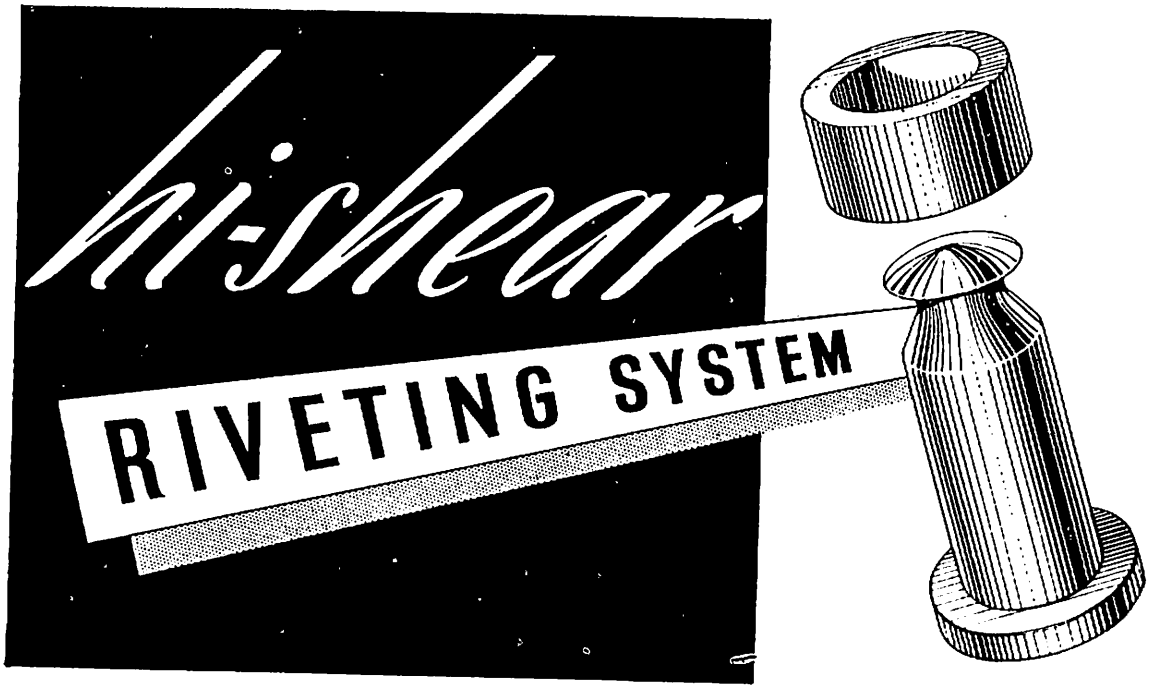
PART REFERENCES AND PRINCIPAL DIMENSIONS FOR ORDINARY AND THIN SINGLE—LUG FIXED ANCHOR NUTS

FOR PART NUMBERS SEE PAGE 262



PRINCIPAL DIMENSIONS

PART REF.	THREAD	L MAX. ORDINARY	L MAX. THIN	M	N	T	O MAX.	P MAX.	E MAX.
		IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
A	No. 4-40 UNC	0·233	0·201	0·220	0·065	0·140	0·422	0·313	0·058
B	No. 6-32 UNC	0·237	0·273	0·250	0·065	0·160	0·491	0·333	0·058
C	No. 8-32 UNC	0·333	0·291	0·300	0·096	0·190	0·614	0·433	0·058
D	No. 10-32 UNF	0·313	0·299	0·325	0·096	0·215	0·653	0·458	0·058
E	¼" UNF	0·398	0·331	0·375	0·096	0·300	0·740	0·510	0·058
G	5/16" UNF	0·468	0·384	0·425	0·128	0·310	0·865	0·620	0·058
J	⅜" UNF	0·572	0·468	0·475	0·128	0·380	0·910	0·690	0·082
L	7/16" UNF	0·652	0·527	0·550	0·128	0·530	1·060	0·840	0·082
N	½" UNF	0·742	0·596	0·600	0·128	0·610	1·135	0·920	0·082



HI-SHEAR, proved and extensively used in this country and in the U.S.A., is a method of attachment designed to replace normal rivets and shear bolts. Joints made with HI-SHEAR effect an appreciable saving in space, weight and time of assembly over the older methods.

Exhaustive tests both here and in the U.S.A. show that HI-SHEAR PINS have a shear value equal to that of bolts in the same material and a tensile strength approximately 60 per cent. of the shear strength.

The accuracy of the heads on HI-SHEAR Countersunk Pins, coupled with the fact that fewer HI-SHEAR are required than normal rivets, enables maximum surface smoothness to be obtained.

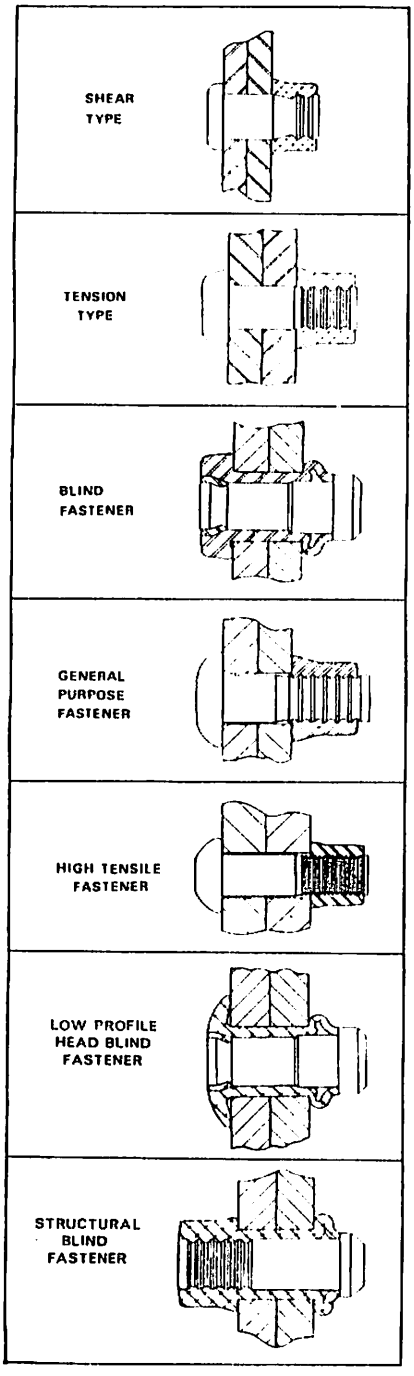
HI-SHEAR are available in High Tensile, Stainless Steel and other materials that cannot be satisfactorily headed.

BRITISH PATENT
Nos.
567446 & 601693

In the meantime if you have any query or special application for HI-SHEAR our Technical Department will be pleased to give you every assistance.

Technical Data Publication on the HI SHEAR Riveting System is available on request.

Brown Brothers Engineering Ltd



HUCK FASTENING SYSTEM

The Huck Fastening System offers users in all types of industry the widest possible choice of fasteners and tooling for severe service applications.

Designers, buyers and production engineers can save money, trouble and time by consulting us first.

Huck fastener materials range from inexpensive mild steel to sophisticated alloys and titanium: the fasteners themselves have the inherent characteristics of high strength-to-weight ratio, low installation cost, wide variety of head styles and finishes, and diameters from $\frac{1}{8}$" to 1".

Huck tooling is simple and straightforward, as is work preparation. Tools range from lightweight hand tools, manually operated, to rugged high pressure hydraulic tools that take all the hard work out of installing the larger diameter high tensile fasteners.

Already well established in the Aircraft Industry throughout the world, the Huck Fastening System is becoming increasingly accepted for new industries such as containers, and traditional industries such as shipbuilding and heavy engineering.

Write or telephone for Huck Fastening System information to meet your particular requirements or help solve your problem.

HUCK HUCK FASTENING SYSTEM