

ISSUED BY  
ROYAL AIRCRAFT  
ESTABLISHMENT.

**TITLE:-** PIPE COUPLINGS,  
(LIGHT ALLOY) REDUCING UNION. <sup>SM</sup> 856

ISSUE NO	4	5	6	7	8
ALTER <sup>N</sup> NO	MOD N	A.S. NO	AS/AGS	AS/AGS	AS/AGS
	AGS 1029	AGS 417	663	969	988

DRAWN  
TRACED  
CHECKED  
APPROVED

MARK	O/DIA OF PIPES	Z	Y	X	W	V	U	T	S		P	M	L	K	J	H	G	F	E	D	C	B
		B.S.P. THREAD	+ .005 - .005	DIA. DRILL	+ .01 - .01	+ .015 - .015	+ .01 - .01	+ .01 - .01	MIN.	MAX.	+ 0 - .01	+ .005 - .005	B.S.P. THREAD	+ .005 - .005	DIA. DRILL	+ 0 - .01	+ .01 - 0	+ .005 - .005	+ 0 - .005	+ .01 - 0	+ 0 - .005	DIA. DRILL
A	3/4 x 5/8	3/4	.90	5/8	1.26	.75	1.75	.70	1.292	1.300	1.05	.04	5/8	.76	1/2	.91	.18	.04	.800	.18	.940	.076" (No.48)
B	7/8 x 5/8	7/8	1.04	3/4	1.37	.80	1.85	.70	1.382	1.390	1.19	.04	5/8	.76	1/2	.91	.18	.04	.800	.18	1.085	.076" (No.48)
C	7/8 x 3/4	7/8	1.04	3/4	1.37	.80	1.90	.75	1.382	1.390	1.19	.04	3/4	.90	5/8	1.05	.18	.04	.940	.18	1.085	.076" (No.48)
D	1" x 3/4	1"	1.13	7/8	1.68	.80	1.90	.75	1.658	1.670	1.31	.05	3/4	.90	5/8	1.05	.18	.04	.940	.23	1.180	.076" (No.48)
E	1" x 7/8	1"	1.13	7/8	1.68	.80	1.95	.80	1.658	1.670	1.31	.05	7/8	1.04	3/4	1.19	.18	.04	1.085	.23	1.180	.076" (No.48)
F	1 1/4 x 7/8	1 1/4	1.45	1 1/8	2.03	.83	2.03	.80	2.035	2.050	1.66	.05	7/8	1.04	3/4	1.19	.18	.04	1.085	.23	1.520	.076" (No.48)
G	1 1/4 x 1"	1 1/4	1.45	1 1/8	2.03	.83	2.03	.80	2.035	2.050	1.66	.05	1"	1.13	7/8	1.31	.23	.05	1.180	.23	1.520	.076" (No.48)
H	1 1/2 x 1"	1 1/2	1.68	1 3/8	2.14	.85	2.05	.80	2.200	2.220	1.89	.05	1"	1.13	7/8	1.31	.23	.05	1.180	.23	1.750	.076" (No.48)
J	1 1/2 x 1 1/4	1 1/2	1.68	1 3/8	2.14	.85	2.08	.83	2.200	2.220	1.89	.05	1 1/4	1.45	1 1/8	1.66	.23	.05	1.520	.23	1.750	.076" (No.48)
K	1 1/4 x 3/16	1 1/4	.41	5/32	.67	.45	1.15	.45	.705	.710	.52	.03	1/8	.295	3/32	.39	.10	.02	.330	.14	.440	1/16
L	3/8 x 1/4	3/8	.55	1/4	.92	.52	1.25	.45	.915	.920	.66	.03	1/4	.41	5/32	.52	.14	.03	.440	.14	.580	1/16
M	1/2 x 1/4	1/2	.69	3/8	.96	.65	1.38	.45	1.002	1.010	.83	.04	1/4	.41	5/32	.52	.14	.03	.440	.18	.720	1/16
N	5/8 x 1/2	5/8	.76	1/2	1.06	.70	1.65	.65	1.092	1.100	.91	.04	1/2	.69	3/8	.83	.18	.04	.720	.18	.800	1/16
P	1" x 5/8	1"	1.13	7/8	1.68	.80	1.85	.70	1.658	1.670	1.31	.05	5/8	.76	1/2	.91	.18	.04	.800	.23	1.180	.076" (No.48)
Q	5/16 x 1/4	19 T.P.I. 60% D	.48	3/16	.79	.52	1.22	.45	.815	.820	.60	.03	1/4	.41	5/32	.52	.14	.03	.440	.14	.525	1/16
R	1/2 x 3/8	1/2	.69	3/8	.96	.65	1.45	.52	1.002	1.010	.83	.04	3/8	.55	1/4	.66	.14	.03	.580	.18	.720	1/16
S	7/16 x 3/8	14 T.P.I. 75% D	.60	5/16	.96	.55	1.35	.52	1.002	1.010	.75	.04	3/8	.55	1/4	.66	.14	.03	.580	.18	.650	1/16

ISSUED BY  
ROYAL AIRCRAFT  
ESTABLISHMENT

TITLE:- PIPE COUPLINGS,  
(LIGHT ALLOY) REDUCING UNION.

DRAWN  
C.T. Reynolds.  
TRACED  
R.W.  
19.9.45.

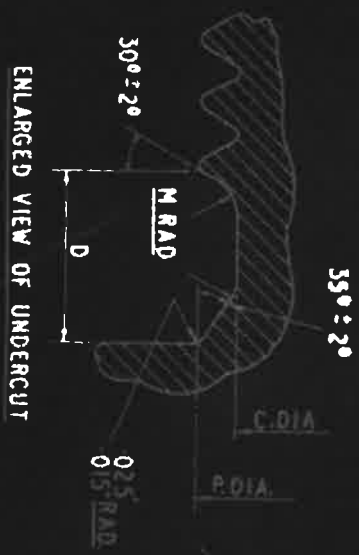
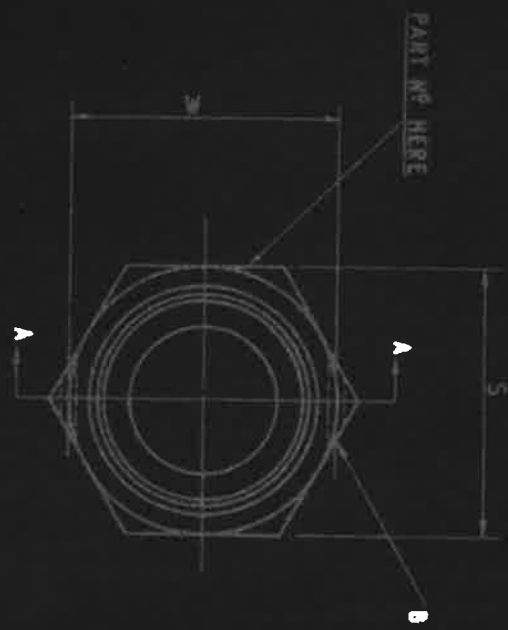
ISSUE No X 2  
ALTER No MOD No AS/ACS A.GS/609 969

CHECKED  
APPROVED  
29/10/45

A.G.S. 1109 SHEET 1.

REV	NO.	DATE	BY
10	F 2		
11	F 4		
12	F 500		
13	F 501		
14	F 25	SM 2026	

SEE A.G.S. 100 FOR GENERAL INFORMATION



30° ± 2° CHAMFER TO ROOT OF THREAD APPLIES TO BOTH ENDS.



FOR ARRANGEMENT OF PIPE JOINT SEE A.G.S. 1101  
 B.S.F. THREADS TO B.S. SPEC. 2779 MEDIUM FIT TRUNCATED.  
 WORKING PRESSURE 5000 LBS./SQ. IN FOR SIZES 1/2 TO 2 B.S.F.  
 500 LBS. SQ. IN FOR SIZES 3/8 TO 1 B.S.F.  
 200 LBS./SQ. IN FOR SIZES 1 1/4 AND 1 1/2 B.S.F.

SECTION A-A

15° ± 2° CHAMFER BOTH SIDES OF HEXAGON

ENLARGED VIEW OF UNDERCUT

DESIGNED BY THE SOCIETY OF BRITISH ASSOCIATED ENGINEERS LTD.  
 25 KING STREET LONDON E.C.2

DESIGNED A.C.  
 DRAWN A.C.  
 MADE F.A.C.  
 CHECKED F.A.C.

HT

DATE 1/7/27  
 DRAWING NO. R.S. 116  
 PART NO. NO PAINT  
 SCALE 1/16"  
 PRODUCING UNION

DESCRIPTION	ALUMINUM ALLOY
REMARKS	
THIRD ANGLE PROJECTION	

SM2027

A.G.S. 1109-SHEET 2

MARK	Q/D OF PIPE	Ø B DRILL DIA.	C	D	E	F	G	H	J DRILL DIA.	K	L B.S.P.F. THREAD	M	H (P)	S	T	U	V	W	X DRILL DIA.	Y	Z B.S.P.F. THREAD
A	2" x 1/8"	1.940	1.190	.800	.045	.190	.910	.900	1"	.765	8	.045	1.050	1.300	.710	.765	.760	1.270	5"	.905	3"
B	1 1/2" x 3/8"	1.085	1.190	.800	.045	.190	.910	.900	1"	.765	8	.045	1.190	1.390	.710	.765	.760	1.380	3"	1.045	7"
C	1 1/4" x 1/2"	1.085	1.190	.800	.045	.190	.910	.900	1"	.765	8	.045	1.190	1.390	.710	.765	.760	1.380	3"	1.045	7"
D	1" x 1/2"	1.180	1.230	.840	.045	.190	1.050	1.040	1"	.895	4	.045	1.180	1.382	.740	.885	.790	1.567	4"	1.055	8"
E	1" x 3/8"	1.175	1.230	.840	.045	.190	1.040	1.040	1"	.895	4	.045	1.300	1.658	.740	.885	.790	1.670	7"	1.125	1"
F	1" x 7/8"	1.520	1.240	1.085	.045	.190	1.190	1.180	1"	1.035	8	.045	1.510	2.050	.810	.965	.810	1.690	8"	1.135	1"
G	1" x 1"	1.515	1.230	1.080	.045	.180	1.180	1.180	1"	1.035	8	.045	1.660	2.050	.810	2.045	.840	2.040	1"	1.455	1 1/4"
H	1 1/2" x 1"	1.750	1.240	1.180	.045	.230	1.310	1.300	1"	1.125	8	.045	1.650	2.035	.790	2.015	.820	2.020	1"	1.445	1 1/4"
J	1 1/2" x 1 1/8"	1.750	1.240	1.180	.045	.230	1.310	1.300	1"	1.125	8	.045	1.890	2.220	.810	2.065	.860	2.150	1"	1.685	1 1/2"
K	1 1/4" x 1 1/8"	1.440	1.150	1.015	.025	.110	1.190	1.180	1"	.900	8	.035	1.440	1.880	.790	2.035	.840	2.150	1"	1.675	1 1/2"
L	1 1/8" x 1"	1.440	1.150	1.015	.025	.110	1.190	1.180	1"	.900	8	.035	1.660	2.220	.840	2.095	.860	2.150	1"	1.685	1 1/2"
M	1 1/4" x 1"	1.440	1.150	1.015	.025	.110	1.190	1.180	1"	.900	8	.035	1.890	2.220	.810	2.065	.860	2.150	1"	1.685	1 1/2"
N	1 1/8" x 1"	1.440	1.150	1.015	.025	.110	1.190	1.180	1"	.900	8	.035	1.660	2.220	.840	2.095	.860	2.150	1"	1.685	1 1/2"
P	1 1/8" x 1"	1.440	1.150	1.015	.025	.110	1.190	1.180	1"	.900	8	.035	1.890	2.220	.810	2.065	.860	2.150	1"	1.685	1 1/2"
Q	1 1/8" x 1"	1.440	1.150	1.015	.025	.110	1.190	1.180	1"	.900	8	.035	1.660	2.220	.840	2.095	.860	2.150	1"	1.685	1 1/2"
R	1 1/8" x 1"	1.440	1.150	1.015	.025	.110	1.190	1.180	1"	.900	8	.035	1.890	2.220	.810	2.065	.860	2.150	1"	1.685	1 1/2"
S	1 1/8" x 1"	1.440	1.150	1.015	.025	.110	1.190	1.180	1"	.900	8	.035	1.660	2.220	.840	2.095	.860	2.150	1"	1.685	1 1/2"

ON MARKS Q AND S. THREAD Z TO BE TO B.S. SPEC. 84 WHITWORTH FORM.

DESIGNED BY THE SOCIETY OF AUTOMOBILE ENGINEERS LTD., 28, KING STREET, ST. JAMES, LONDON, S.W. 1.

HT

PT

PIPE COUPLINGS (ALUM. ALLOY) REDUCING UNION

A.G.S. 1109 - SHEET 2

DATE 19.2.57

CONCEPTION

MATERIAL - REMARKS