FEDERAL SUPPLY CLASS
4730

RATIONALE

THIS STANDARD IS BASED ON THE AS1010 FITTING. IT INTRODUCES THE IMPROVED TOLERANCE END FITTING DESIGN AS5863, AS5864 AND OTHER IMPROVEMENTS.

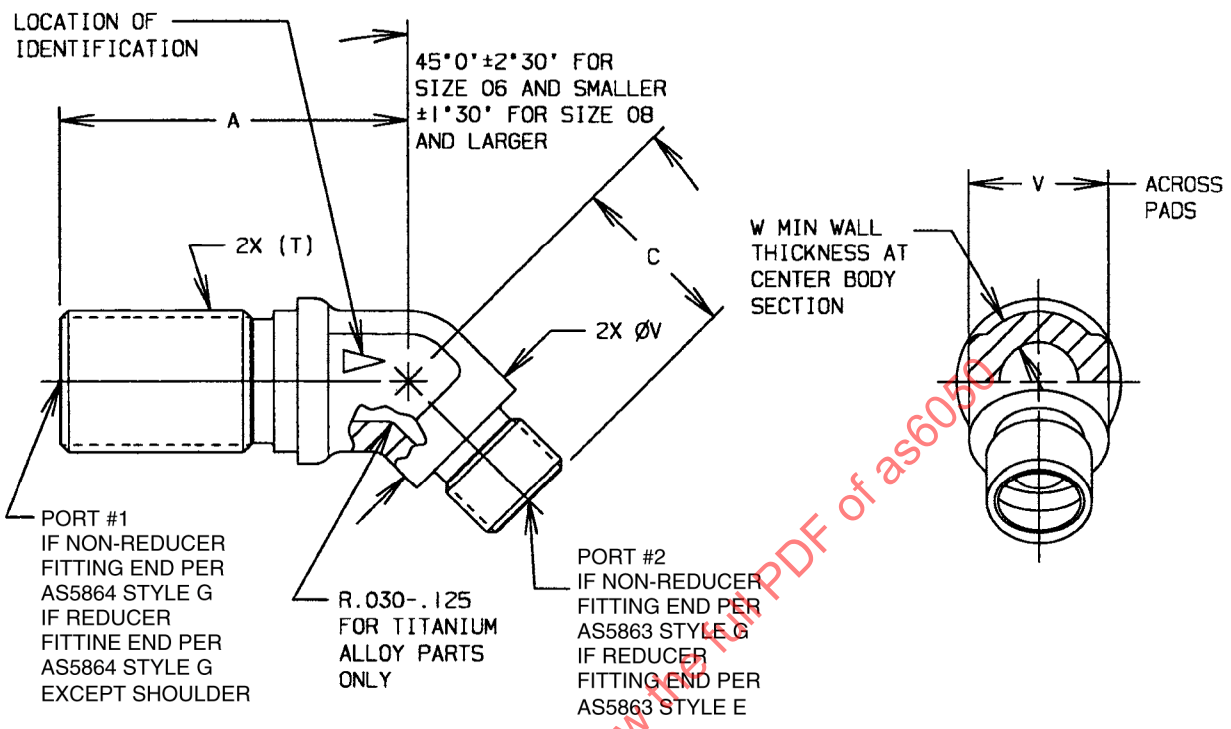


FIGURE 1 - FITTING, ELBOW, 45°, BULKHEAD END, PORT #1 SHOWN AS NON-REDUCER, PORT #2 SHOWN AS REDUCER

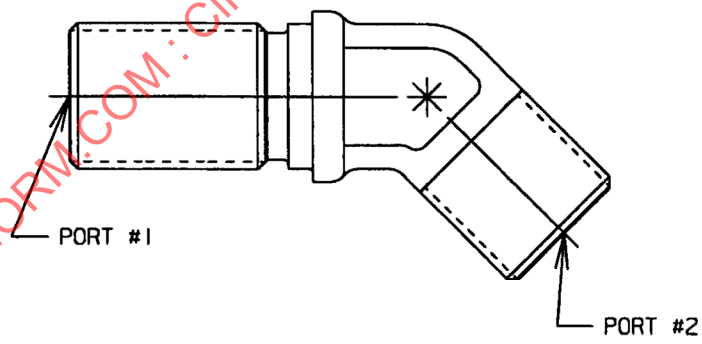
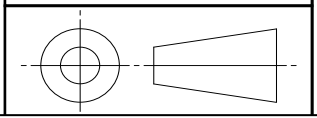


FIGURE 2 - FITTING, ELBOW, 45°, BULKHEAD END, NON-REDUCER SHOWN, SAME AS FIGURE 1 EXCEPT AS SHOWN

SAE values your input. To provide feedback on this Technical Report, please visit
http://www.sae.org/technical/standards/AS6050

THIRD ANGLE PROJECTION



ISSUED 2009-12

CUSTODIAN: SAE G-3/G-3B

PROCUREMENT SPECIFICATION: /5/ AS18280

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

FITTING, ELBOW, 45°,
STANDARD AND REDUCER,
BULKHEAD, FLARELESS, PRECISION TYPE

SAE AS6050

TABLE 1 - DIMENSIONS AND WEIGHTS /9/ /10/

BASIC NO. AS6050 /19/ SIZE CODE	V	W	LB/EA APPROX REF ALUM	LB/EA APPROX REF STEEL	LB/EA APPROX REF TI
02	.297- .314	.090	.0135	.0315	.0180
03	.360- .377	.100	.0162	.0459	.0261
04	.423- .440	.110	.0243	.0531	.0306
05	.485- .502	.120	.0315	.0882	.0504
06	.547- .565	.120	.0351	.0936	.054
08	.735- .753	.150	.0648	.191	.110
10	.860- .878	.170	.0981	.275	.158
12	1.047-1.065	.185	.157	.363	.256
14	1.173-1.191	.200	-	-	-
16	1.292-1.317	.205	.230	.603	.347
20	1.605-1.630	.240	.369	.990	.571
24	1.855-1.880	.250	-	-	-
32	2.542-2.572	.350	-	-	-

TABLE 2 - LEG LENGTH A /9/ /11/

FORGING SIZE	TUBE SIZE OF PORT #1												
	02	03	04	05	06	08	10	12	14	16	20	24	32
02	1.305	-	-	-	-	-	-	-	-	-	-	-	-
03	1.305	1.352	-	-	-	-	-	-	-	-	-	-	-
04	1.367	1.414	1.477	-	-	-	-	-	-	-	-	-	-
05	1.367	1.414	1.477	1.477	-	-	-	-	-	-	-	-	-
06	1.430	1.477	1.540	1.540	1.586	-	-	-	-	-	-	-	-
08	1.508	1.555	1.618	1.618	1.664	1.836	-	-	-	-	-	-	-
10	1.601	1.648	1.711	1.711	1.757	1.929	2.070	-	-	-	-	-	-
12	1.695	1.742	1.805	1.805	1.851	2.023	2.164	2.273	-	-	-	-	-
14	1.789	1.836	1.899	1.899	1.945	2.117	2.258	2.367	2.336	-	-	-	-
16	1.820	1.867	1.930	1.930	1.976	2.148	2.289	2.398	2.398	2.398	-	-	-
20	1.852	1.899	1.962	1.962	2.008	2.180	2.321	2.430	2.430	2.430	2.430	-	-
24	1.867	1.914	1.977	1.977	2.023	2.195	2.336	2.445	2.445	2.445	2.445	2.445	-
32	1.821	1.868	1.931	1.931	1.977	2.149	2.290	2.399	2.399	2.399	2.399	2.399	2.602

TABLE 3 - LEG LENGTH C /9/ /11/

FORGING SIZE	TUBE SIZE OF PORT #2												
	02	03	04	05	06	08	10	12	14	16	20	24	32
02	.649	-	-	-	-	-	-	-	-	-	-	-	-
03	.633	.680	-	-	-	-	-	-	-	-	-	-	-
04	.633	.680	.711	-	-	-	-	-	-	-	-	-	-
05	.664	.711	.742	.742	-	-	-	-	-	-	-	-	-
06	.742	.789	.820	.820	.836	-	-	-	-	-	-	-	-
08	.805	.852	.883	.883	.899	.992	-	-	-	-	-	-	-
10	.836	.883	.914	.914	.930	1.023	1.086	-	-	-	-	-	-
12	.960	1.007	1.038	1.038	1.054	1.147	1.210	1.273	-	-	-	-	-
14	1.023	1.070	1.101	1.101	1.117	1.210	1.273	1.336	1.305	-	-	-	-
16	1.054	1.101	1.132	1.132	1.148	1.241	1.304	1.367	1.367	1.367	-	-	-
20	1.148	1.195	1.226	1.226	1.243	1.335	1.398	1.461	1.461	1.461	1.461	-	-
24	1.242	1.289	1.320	1.320	1.336	1.429	1.492	1.555	1.555	1.555	1.555	1.555	-
32	1.523	1.570	1.601	1.601	1.617	1.710	1.773	1.836	1.836	1.836	1.836	1.836	1.836

TABLE 4 - TUBE SIZE AND CORRESPONDING THREAD

PORT SIZE	(NOMINAL TUBE SIZE)	T THREAD ISO 3161
02	.125	.3125-24 UNJF
03	.188	.3750-24 UNJF
04	.250	.4375-20 UNJF
05	.312	.5000-20 UNJF
06	.375	.5625-18 UNJF
08	.500	.7500-16 UNJF
10	.625	.8750-14 UNJF
12	.750	1.0625-12 UNJ
14	.875	1.1875-12 UNJ
16	1.000	1.3125-12 UNJ
20	1.250	1.6250-12 UNJ
24	1.500	1.8750-12 UNJ
32	2.000	2.5000-12 UNJ

NOTES:

NOTICE

THIS DOCUMENT REFERENCES A PART WHICH CONTAINS CADMIUM AS A PLATING MATERIAL. CONSULT LOCAL OFFICIALS IF YOU HAVE QUESTIONS CONCERNING CADMIUM'S USE.

/1/ MATERIAL:

a. CODE LETTER T – TYPE 6AL-4V TITANIUM ALLOY PER PROCUREMENT SPECIFICATION
b. CODE LETTER V – TYPE 15-5PH, CORROSION RESISTANT STEEL PER PROCUREMENT SPECIFICATION
c. CODE LETTER W – TYPE 7075 TYPE T73 ALUMINUM ALLOY BAR OR FORGING, OR TYPE 7075-T7351 ALUMINUM ALLOY BAR PER PROCUREMENT SPECIFICATION

2. HEAT TREATMENT:

a. MATERIAL CODE LETTER T – ANNEALED PER PROCUREMENT SPECIFICATION
b. MATERIAL CODE LETTER V – AGE TO CONDITION H1075 PER PROCUREMENT SPECIFICATION
c. MATERIAL CODE LETTER W – T73 OR T7351 PER PROCUREMENT SPECIFICATION

/3/ FINISH:

a. MATERIAL CODE LETTER T – ANODIZE OR FLUORIDE PHOSPHATE CONVERSION COAT PER PROCUREMENT SPECIFICATION
b. MATERIAL CODE LETTER V:
   1. V CODE PARTS TO BE PASSIVATED ONLY WILL HAVE NO FINISH CODE LETTER AFTER THE SIZE CODE IN THE PART NUMBER. THE FINISH WILL BE: PASSIVATE PER PROCUREMENT SPECIFICATION
   2. V CODE PARTS TO BE CADMIUM PLATED ONLY SHALL HAVE THE FINISH CODE LETTER "P" AFTER THE SIZE CODE IN THE PART NUMBER. THE FINISH WILL BE: CADMIUM PLATE PER PROCUREMENT SPECIFICATION
c. MATERIAL CODE LETTER W – ANODIZE PER PROCUREMENT SPECIFICATION

/4/ CLEANING AND PACKAGING FOR OXYGEN APPLICATIONS - CODE LETTER A /19/:

a. MATERIAL CODE LETTER V – CLEAN AND PACKAGE PER ARP1176 CATEGORY 1C
b. MATERIAL CODE LETTER W – CLEAN AND PACKAGE PER ARP1176 CATEGORY 2

/5/ PROCUREMENT SPECIFICATION: AS18280 UNLESS OTHERWISE SPECIFIED ON THIS STANDARD. PRODUCT SUPPLIED TO THIS SPECIFICATION SHALL BE MANUFACTURED BY AN ACCREDITED MANUFACTURER AS LISTED IN THE PERFORMANCE REVIEW INSTITUTE (PRI) QUALIFIED PRODUCTS LIST PRI-QPL-AS18280 FOR THIS STANDARD. SEE http://www.eauditnet.com FOR CURRENT QPL ONLINE.

6. INTENDED USE: THIS PART IS DESIGNED FOR USE IN TUBING CONNECTION SYSTEMS WITH NOMINAL OPERATING PRESSURES AS SPECIFIED IN AS18280. ADDITIONAL CRITERIA - FOR REDUCER CONFIGURATIONS THE PRESSURE RATING IS DETERMINED BY THE LARGEST PORT.