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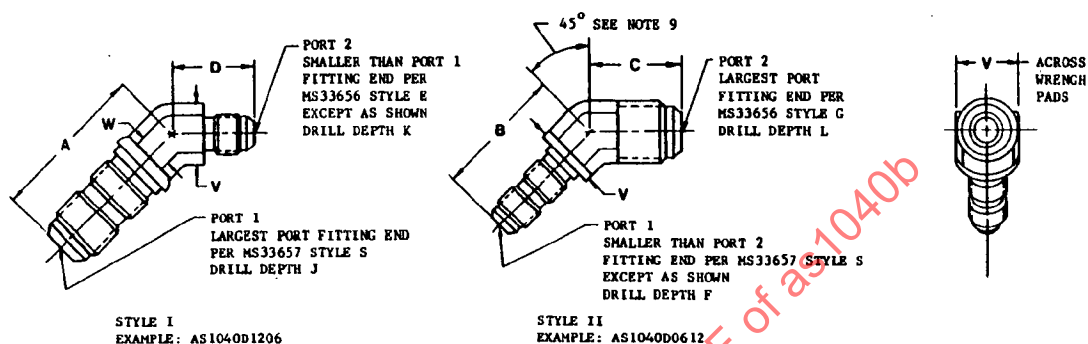
400 COMMONWEALTH DRIVE, WARRENDALE, PA 15096

AEROSPACE STANDARD

AS 1040B

Issued 8-15-62
Revised 4-4-83

ELBOW, 45° REDUCER, FLARED TUBE



FORGING SIZE	A ±.016	C ±.016	V ±.016	W APP	J ±.016	L ±.016
3	1.398	.664	.375	.219	1.406	.688
4	1.554	.726	.438	.312	1.562	.750
5	1.554	.773	.500	.312	1.562	.781
6	1.695	.836	.563	.375	1.719	.859
8	1.961	.992	.750	.500	2.000	1.031
10	2.195	1.117	.875	.625	2.250	1.172
12	2.461	1.289	1.063	.812	2.547	1.375
16	2.586	1.476	1.312	1.000	2.719	1.609
20	2.679	1.601	1.625	1.250	2.859	1.781
24	2.695	1.789	1.875	1.500	2.922	2.016
32	2.929	2.226	2.562	2.000	3.250	2.547

LEG LENGTH B ±.016											
FORGING SIZE											
3	4	5	6	8	10	12	16	20	24	32	
1.398	1.460	1.460	1.523	1.633	1.726	1.821	1.946	1.992	1.992	1.945	2
	1.460	1.460	1.523	1.633	1.726	1.821	1.946	1.992	1.992	1.945	3
		1.557	1.617	1.727	1.820	1.915	2.040	2.086	2.086	2.039	4
			1.617	1.727	1.820	1.915	2.040	2.086	2.086	2.039	5
				1.805	1.898	1.993	2.118	2.164	2.164	2.117	6
					2.054	2.149	2.274	2.320	2.320	2.273	8
						2.290	2.415	2.461	2.461	2.414	10
							2.586	2.632	2.632	2.585	12
								2.632	2.632	2.585	16
									2.679	2.632	20
										2.648	24

SIZE
OF
#1
PORT

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REATTAINED

APRIL 1993

LEG LENGTH D $\pm .016$

FORGING SIZE											SIZE OF #2 PORT
3	4	5	6	8	10	12	16	20	24	32	
.633	.633	.671	.728	.783	.807	.873	1.013	1.091	1.154	1.341	
	.655	.702	.759	.814	.838	.904	1.044	1.122	1.185	1.372	
		.773	.830	.885	.909	.975	1.115	1.193	1.256	1.443	
			.830	.885	.909	.975	1.115	1.193	1.256	1.443	
				.891	.915	.981	1.121	1.199	1.262	1.449	
					1.016	1.082	1.222	1.300	1.363	1.550	
						1.183	1.323	1.401	1.464	1.651	
							1.429	1.507	1.570	1.757	
								1.554	1.617	1.804	16
									1.664	1.851	20
										1.976	24

DRILL DEPTH F $\pm .016$

FORGING SIZE											SIZE OF #1 PORT
3	4	5	6	8	10	12	16	20	24	32	
1.469	1.531	1.531	1.594	1.703	1.797	1.891	2.016	2.062	2.062	2.016	
	1.531	1.531	1.594	1.703	1.797	1.891	2.016	2.062	2.062	2.016	
		1.625	1.688	1.797	1.891	1.984	2.109	2.156	2.156	2.109	
			1.719	1.828	1.922	2.016	2.141	2.188	2.188	2.141	
				1.906	2.000	2.094	2.219	2.266	2.266	2.219	
					2.156	2.250	2.375	2.422	2.422	2.375	
						2.391	2.516	2.562	2.562	2.516	
							2.750	2.797	2.797	2.750	
								2.797	2.797	2.750	16
									2.906	2.859	20
										2.875	24

DRILL DEPTH K $\pm .016$

FORGING SIZE											SIZE OF #2 PORT
3	4	5	6	8	10	12	16	20	24	32	
.703	.703	.734	.797	.859	.875	.938	1.078	1.156	1.219	1.406	
	.719	.766	.828	.891	.906	.969	1.109	1.188	1.250	1.438	
		.844	.906	.953	.984	1.046	1.188	1.266	1.328	1.516	
			.937	.984	1.016	1.078	1.219	1.297	1.359	1.547	
				1.000	1.016	1.078	1.219	1.297	1.359	1.547	
					1.125	1.187	1.328	1.406	1.469	1.656	
						1.281	1.422	1.500	1.562	1.750	
							1.594	1.672	1.734	1.922	
								1.719	1.781	1.969	16
									1.891	2.078	20
										2.203	24

- SPECIFY END SIZES IN THE FOLLOWING ORDER: (1) BULKHEAD END; (2) SHORT END.
- LARGEST TUBE SIZE DETERMINES FORGING SIZE.
- MATERIAL CODING:
 - STEEL 1137 OR 1141 PER QQ-S-637 (OPTIONAL: 4130/MIL-S-6758). FINISH CADMIUM PLATE PER QQ-P-416, TYPE II, CLASS 2. COLOR BLACK.
 - S CRES TYPE 347. CRES PER QQ-S-763 SURFACE TREAT PER MIL-S-5002.
 - J CRES TYPE 304. CRES PER QQ-S-763 SURFACE TREAT PER MIL-S-5002.
 - K CRES TYPE 316. CRES PER QQ-S-763 SURFACE TREAT PER MIL-S-5002.
 - D ALUMINUM ALLOY 2014-T6 PER QQ-A-367 (OR 2024-T851). ANODIZE PER MIL-A-8625, TYPE II, CLASS 2. DYE BLUE.
 - W ALUMINUM ALLOY 7075-T73 PER QQ-A-225/9 (OPTIONAL: QQ-A-367). ANODIZE PER MIL-A-8625. TYPE II, CLASS 2. DYE BROWN.
 - T TITANIUM ALLOY (6AL-4V) PER AMS 4928. FLUORIDE PHOSPHATE COAT PER AMS 2486.
- PART NUMBER EXAMPLE:

ALUMINUM ALLOY 1.313 WRENCH FLATS				
AS 1040 D 16 08	A	B	C	D
MS33656-8				1.222
MS33657-16	2.586			2.766

- PROC. SPEC. MIL-F-5509, LATEST REVISION, UNLESS OTHERWISE SPECIFIED ON PURCHASE ORDER BY PURCHASER.
- REMOVE ALL BURRS AND BREAK ALL SHARP EDGES.
- THIS STANDARD TAKES PRECEDENCE OVER REFERENCED DOCUMENTS HEREIN.
- MANUFACTURER'S TRADEMARK AND BASIC PART NUMBER (EXCLUSIVE OF SIZE) TO APPEAR PERMANENTLY ON FINISHED PARTS. BASIC PART NUMBER MAY BE REDUCED TO "AS" ON FORGINGS SIZE 6 AND SMALLER. PARTS PREVIOUSLY IMPRESSION STAMPED WITH AN, MS OR PROPRIETARY IDENTIFICATION SHALL BE ACCEPTABLE PROVIDED SUCH IDENTIFICATION IS OBLITERATED BY IMPRESSION STAMPING WITHOUT DAMAGING THE PART.
- TOLERANCE ON 90° ANGLE: $\pm 2-1/2^\circ$ FOR TUBE SIZE 6 AND SMALLER, $\pm 1-1/2^\circ$ FOR TUBE SIZE 8 AND LARGER.
- WHEN FITTING IS MADE FROM BAR, THE CONTOUR OF THE BODY SECTION SHALL BE PER AS 1376 FOR FORGING SIZES DASH 3 THROUGH DASH 8, AND AS 1376 CODE M FOR SIZES DASH 10 AND LARGER.