

# **KNA**

## **FLUID POWER**

### STEEL ADAPTER CATALOG



**SAE J514&1453 STANDARDS**

**USA 866-485-1577**

**CAN 918-836-8041**

6910 East Virgin Street  
Tulsa, Ok. 74115

**[sales@knafluidpower.com](mailto:sales@knafluidpower.com)**

---

# INDEX

<b>HYDRAULIC ADAPTER CROSS REFERENCE.....</b>	<b>1-4</b>
<b>Female pipe swivel.....</b>	<b>5-7</b>
<b>37° JIC Fittings.....</b>	<b>8-20</b>
<b>37° JIC Bulkhead Fittings.....</b>	<b>21-23</b>
<b>Hose Barbs.....</b>	<b>24-29</b>
<b>Pipe Fittings.....</b>	<b>30-39</b>
<b>O-ring Boss Fittings.....</b>	<b>40-56</b>
<b>O-ring Face Seal.....</b>	<b>57-69</b>
<b>Ferrule Lock Fittings.....</b>	<b>70-79</b>

# HYDRAULIC ADAPTER CROSS-REFERENCE

**Note: Numbers with the asterisk (\*) will have the dash sizes reversed.**

**Example: OUR REF 2404-06-04 would equal an Aeroquip 2021-04-06.**

OUR REF	Aeroquip	Imperial	Parker Tube	Parker Hose	Stratoflex	Trident	United Tech	W-Head
0302	-	-	-	-	1286	1326	-	-
0304	221000	-	-	-	1287	1327	-	C5115
0304-C	210292	830FS	FNTX	06CP	1229	1329	820	C5129
0306	210212	711BHFS	WLN	53N	1284	1332	894	C5624
0306N	210295	711FSO	-	-	1296	1330	-	-
0318	1290	841FS	BTX	06B	1253	1311	818	C5105
0319	900605	840FS	TX	06S	1244	1253	819	C5165
0403	73014	-	-	-	2333	1403	-	-
0404	73056	-	-	-	-	1404	-	-
0405	FF1131	-	-	-	-	1405	-	-
0500	FF1131	-	-	-	-	1500	-	-
0600	FF1404	-	-	-	-	1600	-	-
1404	2045*	60SA	0107	0107	1210	-	42*	9205*
1405	2046*	60SG	0207	0207	1029	1212	23*	9255*
1406	-	-	-	-	-	1222	-	-
1501	2047*	60UA	2107	2107	1037	1218	44*	9405*
1502	-	60UG	2207	2207	1030	1216	45*	9455*
1503	2049*	60TA	3107	3107	1036	1214	35*	9355*
1504	2050*	60TG	-	-	15854	1249	37*	9385*
1601	2254*	60VC	-	-	15855	1258	46	9406*
1602	2253*	60VH	-	-	15856	1259	47	9456*
1603	2255	60VJ	-	-	15857	1223	48	-
1700	500025	63SB	-	-	-	6100	-	500
1703	500023	63TB	-	-	-	6145	-	545
1704	500024	63UB	-	-	-	9190	-	590
2403	2027	842FS	HTX	0303	1019	1204	811	C5305
2403LH	202712	842HFS	LHTX	03L3	-	1204H	815	C5306
2404	2021*	848FS	FTX	0103*	1012*	1202*	816	C5205
2404L	202114*	848LFS	-	-	1091*	1202LO	-	-
2404LL	202114*	-	-	-	1098*	1202LL	-	-
2405	2022*	846FS	GTX	0203*	1015*	1230*	887	C5255

<b>OUR REF</b>	<b>Aeroquip</b>	<b>Imperial</b>	<b>Parker Tube</b>	<b>Parker Hose</b>	<b>Stratoflex</b>	<b>Trident</b>	<b>United Tech</b>	<b>W-Head</b>
<b>2406</b>	2215	883FS	TRTX	0603	-	1246	892	C5015
<b>2408</b>	900599	839FS	PNTX	03CP	1227	1254	806	C5229
<b>2500</b>	2039	855FS	ETX	2303	1039	1234	821	C5505
<b>2501</b>	2024*	849FS	CTX	2103*	1039	1208*	822	C5405
<b>2501L</b>	202411*	849LFS	CCTX	5603*	1092*	1208L*	875	C5425
<b>2501LL</b>	202413*	849LLFS	CCCTX	5703*	1099*	1208LL*	876	C5435
<b>2501LLL</b>	202414*	-	-	-	16969	-	-	-
<b>2502</b>	2025*	850FS	DTX	2203*	1027*	1242*	886	C5455
<b>2503</b>	2023*	854FS	VTX	3103*	1021*	1206*	823	C5365
<b>2504</b>	-	-	-	-	-	-	-	-
<b>2505</b>	2044*	-	-	-	-	-	-	-
<b>2601</b>	2030*	845FS	STX	213T*	1033*	1221*	825	C5605
<b>2602</b>	2031*	858FS	OTX	223T*	1034*	1228*	889	C5655
<b>2603</b>	2033	844FS	JTX	033T	1031	1220	824	C5705
<b>2605</b>	2028*	851FS	RTX	013T*	1032*	1224*	826	C5755
<b>2606</b>	2029*	857FS	MTX	023T*	1035*	1226*	888	C5805
<b>2607</b>	203007*	-	-	-	-	-	-	-
<b>2608</b>	203006*	-	-	-	-	-	-	-
<b>2609</b>	203104*	-	-	-	-	-	-	-
<b>2610</b>	202832*	-	-	-	-	-	-	-
<b>2611</b>	203103*	-	-	-	-	-	-	-
<b>2612</b>	202901	-	-	-	-	-	-	-
<b>2613</b>	203301	-	-	-	-	-	-	-
<b>2650</b>	2020	832FS	KTX	033X	1009	1229	827	C5955
<b>2700</b>	2041	855BHFS	WTX	0353	1000	1260	832	C5325
<b>2701</b>	2043	854BHFS	WETX	2353	1002	1262	833	C5525
<b>2702</b>	2042	870FS	WNTX	3353	1001	1261	837	C5375
<b>2703</b>	203002	-	WJT	543T	1003	1283	834	C5725
<b>2704</b>	203008	-	WJJT	533T	-	1284	804	C5726
<b>2705</b>	2239	-	WGTX	0253	-	-	870*	C5725
<b>2706</b>	2240	-	-	-	-	-	-	-
<b>3051</b>	-	-	-	-	-	1243C	-	-
<b>3474</b>	-	-	F50F50	0505	-	1286	-	-
<b>4000</b>	22617	710FSO	-	711509	1249	2030	629	7629
<b>4404</b>	-	-	-	-	15851	1041*	840	-
<b>4501</b>	FF1162*	-	-	-	15853	1045*	842	-
<b>4503</b>	-	-	-	-	15852	1043*	844	-
<b>4601</b>	FF1167*	-	-	-	-	1046*	845	-

<b>OUR REF</b>	<b>Aeroquip</b>	<b>Imperial</b>	<b>Parker Tube</b>	<b>Parker Hose</b>	<b>Stratoflex</b>	<b>Trident</b>	<b>United Tech</b>	<b>W-Head</b>
4603	FF1168*	-	-	-	-	1040*	846	-
4604	-	-	-	-	-	1044*	-	-
5000	2096	24SJ	GG	0202	1008	1273	847	C3309
5404	2083	24SA	FF	0101	1042	1252	910	C3069
5404N	2084	-	FFF	-	-	-	911	-
5405	2042	24SG*	FG*	0201*	1050	1274	920*	C3209*
5406	2081	24SB	PTR	0102	1093	1250	912	C3109
5406HP	2222	24SR	HHP	01HP	-	-	-	C3169
5406P	2082	-	HP	01CP	1219	1251	933	C3159
5500	2085	25UA	CR	2101	1094	1275	919	C3529
5501	2247	-	-	-	-	1243*	-	-
5502	2089	25UG	CD	2102	1095	1243*	914	C3409
5503	2088	25TG	CD45	3102	1096	1244	915	C3359
5504	2087	25UJ	DD	2202	1097	1245	916	C3509
5505	-	-	DD45	4202	-	1241	928	C3559
5600	2257	-	RRS	-	-	-	-	-
5601	2256	-	-	-	15861	-	-	-
5602	2092	25VK	MRO	012T	16970	1276	902	C3759
5603	2093	-	MMO	-	16913	1277	-	-
5604	2091	25VC	KMMOO	212T	15862	1278	904	C3609
5605	2090	25VJ	-	022T	-	1225	917	C3709
5651	208004	-	-	-	-	-	-	-
5652	2080	25WJ	-	022X	15850	1279	918	C3959
5655	208007	-	-	-	-	-	-	-
5700	2251	-	-	-	-	-	-	-
5701	2249*	-	-	-	-	-	-	9453
5702	2252	833FS	-	-	-	-	-	-
6000	-	-	-	-	-	-	-	-
6400	202702*	848FSO	F50X	0503*	1040*	1231	850	C5312
6400L	202713*	848LFSO	FF50X	E503	15867*	1231LO	851	C5316
6400LL	-	-	-	-	-	1231LL	-	-
6401	-	-	F5F	-	-	1264*	29	C3249
6402	2266	-	F65X	-	-	1213	-	9316
6404	2246*	-	FHG5	-	-	1267*	31	C3239
6405	2216*	720FSO	F50G	502	16339*	1268*	32	C3269
6408	900598	721FSO	P50N	05CP	1228	1255	33	7237
6408H	FF2138	-	HP50N	05HP	-	1256	-	7238
6410	FF1010	719FSO	F50G5	510	-	1270	-	7033

<b>OUR REF</b>	<b>Aeroquip</b>	<b>Imperial</b>	<b>Parker Tube</b>	<b>Parker Hose</b>	<b>Stratoflex</b>	<b>Trident</b>	<b>United Tech</b>	<b>W-Head</b>
<b>6500</b>	2071*	879FS	C6X	3903	1005	1236	863	C5506
<b>6501</b>	2250	-	-	-	-	1247*	-	TF5406
<b>6502</b>	2070*	889FS	V6X	3703	1004	1237	874	C5356
<b>6504</b>	-	-	-	-	-	1205	862	-
<b>6505</b>	2018	881FS*	F6X	-	-	1211	-	9100*
<b>6506</b>	2242	882FS	-	-	-	1215	-	-
<b>6600</b>	203101*	872FS	S6X	393T	1006	1227	865	C5707
<b>6602</b>	203102*	871FS	R6X	063T	1007	1248	864	C5706
<b>6801</b>	2062*	849FSO	C50X	2503*	1048*	1238*	853	C5515
<b>6801L</b>	-	-	-	-	-	1238LO*	-	-
<b>6801LL</b>	206209*	-	-	-	-	1238LL*	-	-
<b>6802</b>	2061*	854FSO	V50X	3503*	1047*	1240*	852	C5365
<b>6803</b>	203003*	845FSO	S50X	253T	1089	1265*	855	C5715
<b>6804</b>	203005*	851FSO	R50X	053T	1090	1266*	854	C5716
<b>6805</b>	206801*	-	AEOG	2502	-	1269	56	C3459
<b>6805L</b>	206804*	-	AE40G	5502	-	-	-	C3469
<b>6806</b>	-	-	-	-	-	1263	57	TF3569
<b>6807</b>	-	-	-	-	-	-	-	-
<b>6809</b>	-	-	-	-	-	-	-	-
<b>6900</b>	2066*	60SB	-	507	15858*	1235	38	9315
<b>6901</b>	2068*	60UB	-	2507	15860*	1271	39	9515
<b>6902</b>	2067*	60TB	-	.507	15859*	1272	40	9365

**Male Pipe Adapter**

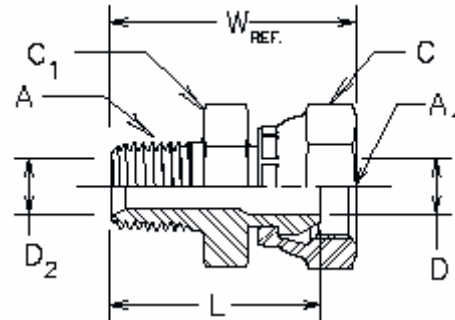
**1404**

NPSM swivel / male pipe thread  
SAE 140130

Part Number Information

0107 - Body only

All dimensions are in inches



TUBE FITTING PART #	A PIPE THD NPTF	A1 SWIVEL THD NPSM	C HEX (inch)	C1 HEX (inch)	D DRILL (inch)	D2 DRILL (inch)	L (inch)	W (inch)
1404-2-2	1/8-27	1/8-27	9/16	9/16	0.156	0.188	0.94	1.09
1404-2-4	1/8-27	1/4-18	11/16	5/8	0.219	0.188	1.06	1.24
1404-4-2	1/4-18	1/8-27	9/16	11/16	0.156	0.281	1.24	1.39
1404-4-4	1/4-18	1/4-18	11/16	11/16	0.219	0.281	1.25	1.43
1404-4-6	1/4-18	3/8-18	7/8	13/16	0.344	0.281	1.25	1.45
1404-4-8	1/4-18	1/2-14	1	15/16	0.469	0.281	1.44	1.44
1404-6-4	3/8-18	1/4-18	11/16	11/16	0.219	0.406	1.31	1.49
1404-6-6	3/8-18	3/8-18	7/8	7/8	0.344	0.406	1.31	1.51
1404-6-8	3/8-18	1/2-14	1	15/16	0.469	0.406	1.44	1.73
1404-8-6	1/2-14	3/8-18	7/8	7/8	0.344	0.531	1.50	1.70
1404-8-8	1/2-14	1/2-14	1	1	0.469	0.531	1.62	1.91
1404-8-12	1/2-14	3/4-14	1 1/4	1 1/4	0.641	0.531	1.69	2.04
1404-12-8	3/4-14	1/2-14	1	1 1/8	0.469	0.719	1.62	1.91
1404-12-12	3/4-14	3/4-14	1 1/4	1 1/4	0.641	0.719	1.69	2.04
1404-12-16	3/4-14	1-11 1/2	1 1/2	1 1/2	0.844	0.719	1.80	2.17
1404-16-12	1-11 1/2	3/4-14	1 1/2	1 3/8	0.641	0.938	1.94	2.29
1404-16-16	1-11 1/2	1-11 1/2	1 1/2	1 1/2	0.844	0.938	2.00	2.37
1404-16-20	1-11 1/2	1 1/4-11 1/2	1 7/8	1 3/4	1.141	0.938	2.00	2.38
1404-20-16	1 1/4-11 1/2	1-11 1/2	1 1/2	1 7/8	0.844	1.250	2.09	2.46
1404-20-20	1 1/4-11 1/2	1 1/4-11 1/2	1 7/8	1 7/8	1.141	1.250	2.09	2.47
1404-24-20	1 1/2-11 1/2	1 1/4-11 1/2	1 7/8	2 1/8	1.141	1.500	2.13	2.51
1404-24-24	1 1/2-11 1/2	1 1/2-11 1/2	2 1/8	2 1/8	1.359	1.500	2.19	2.61
1404-32-32	2-11 1/2	2-11 1/2	2 5/8	2 5/8	1.813	1.938	2.37	2.80

**Female Pipe Adapter**

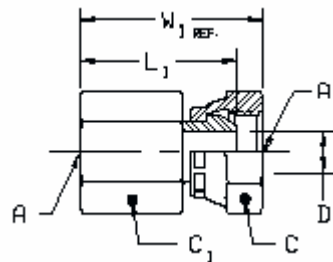
**1405**

NPSM swivel / female pipe thread  
SAE 140131

Part Number Information

1405 - Body only

All dimensions are in inches



TUBE FITTING PART #	A PIPE THD NPTF	A1 SWIVEL THD NPSM	C HEX (inch)	C1 HEX (inch)	D DRILL (inch)	L1 (inch)	W1 (inch)
1405-2-2	1/8-27	1/8-27	9/16	9/16	0.156	0.870	1.02
1405-4-4	1/4-18	1/4-18	11/16	11/16	0.219	1.25	1.43
1405-6-4	3/8-18	1/4-18	11/16	7/8	0.219	1.31	1.49
1405-6-6	3/8-18	3/8-18	7/8	7/8	0.344	1.31	1.51
1405-8-6	1/2-14	3/8-18	7/8	1	0.344	1.45	1.65
1405-8-8	1/2-14	1/2-14	1	1	0.469	1.50	1.79
1405-12-12	3/4-14	3/4-14	1 1/4	1 1/4	0.641	1.62	1.97
1405-16-16	1-11 1/2	1-11 1/2	1 1/2	1 1/2	0.844	2.00	2.37
1405-20-20	1 1/4-11 1/2	1 1/4-11 1/2	1 7/8	1 7/8	1.141	2.00	2.38
1405-24-24	1 1/2-11 1/2	1 1/2-11 1/2	2 1/8	2 1/8	1.359	2.00	2.42
1405-32-32	2-11 1/2	2-11 1/2	2 5/8	2 5/8	1.813	2.12	2.55

**Male Pipe Elbow**

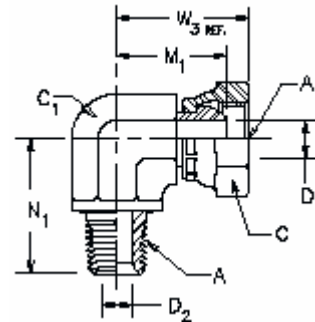
**1501**

**NPSM swivel / male pipe thread  
SAE 140230**

Part Number Information

2107 - Body only

All dimensions are in inches



TUBE FITTING PART #	A PIPE THD NPTF	A1 SWIVEL THD NPSM	C HEX (inch)	C1 HEX (inch)	D DRILL (inch)	D2 DRILL (inch)	M1 (inch)	N1 (inch)	W3 (inch)
1501-2-2	1/8-27	1/8-27	9/16	7/16	0.156	0.188	0.70	0.72	0.85
1501-4-2	1/4-18	1/8-27	9/16	9/16	0.219	0.188	0.88	0.90	1.05
1501-4-4	1/4-18	1/4-18	11/16	9/16	0.219	0.281	0.88	1.09	1.06
1501-4-6	1/4-18	3/8-18	7/8	3/4	0.344	0.281	0.99	1.09	1.28
1501-6-4	3/8-18	1/4-18	11/16	3/4	0.219	0.406	0.99	1.22	1.17
1501-6-6	3/8-18	3/8-18	7/8	3/4	0.344	0.406	0.99	1.22	1.28
1501-6-8	3/8-18	1/2-14	1	3/4	0.469	0.406	1.04	1.22	1.33
1501-8-6	1/2-14	3/8-18	7/8	7/8	0.344	0.531	1.06	1.47	1.35
1501-8-8	1/2-14	1/2-14	1	7/8	0.469	0.531	1.11	1.47	1.40
1501-8-12	1/2-14	3/4-14	1 1/4	1 1/16	0.641	0.531	1.30	1.47	1.65
1501-12-6	3/4-14	3/8-18	7/8	1 1/16	0.344	0.719	1.19	1.59	1.48
1501-12-8	3/4-14	1/2-14	1	1 1/16	0.469	0.719	1.24	1.59	1.53
1501-12-12	3/4-14	3/4-14	1 1/4	1 1/16	0.641	0.719	1.30	1.59	1.65
1501-16-12	1-11 1/2	3/4-14	1 1/4	1 5/16	0.641	0.938	1.47	1.97	1.82
1501-16-16	1-11 1/2	1-11 1/2	1 1/2	1 5/16	0.844	0.938	1.54	1.97	1.91
1501-20-20	1 1/4-11 1/2	1 1/4-11 1/2	1 7/8	1 5/8	1.141	1.250	1.73	2.38	2.11
1501-24-24	1 1/2-11 1/2	1 1/2-11 1/2	2 1/8	1 7/8	1.359	1.500	1.89	2.64	2.31
1501-32-32	2-11 1/2	2-11 1/2	2 5/8	2 1/2	1.813	1.938	2.27	3.00	2.70

**Female Pipe Elbow**

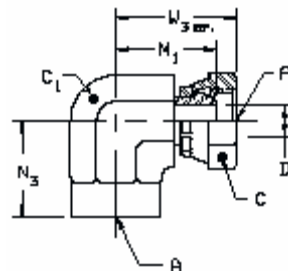
**1502**

**NPSM swivel / female pipe thread  
SAE 140231**

Part Number Information

2207 - Body only

All dimensions are in inches



TUBE FITTING PART #	A PIPE THD NPTF	A1 SWIVEL THD NPSM	C HEX (inch)	C1 HEX (inch)	D DRILL (inch)	M1 (inch)	N3 (inch)	W3 (inch)
1502-2-2	1/8-27	1/8-27	9/16	9/16	0.156	0.80	0.66	0.95
1502-4-4	1/4-18	1/4-18	11/16	3/4	0.219	0.99	0.88	1.17
1502-4-6	1/4-18	3/8-18	7/8	7/8	0.344	1.06	1.01	1.26
1502-6-6	3/8-18	3/8-18	7/8	7/8	0.344	1.06	1.02	1.26
1502-8-8	1/2-14	1/2-14	1	1 1/16	0.469	1.24	1.23	1.53
1502-12-12	3/4-14	3/4-14	1 1/4	1 5/16	0.641	1.47	1.36	1.82
1502-16-16	1-11 1/2	1-11 1/2	1 1/2	1 5/8	0.844	1.73	1.62	2.10
1502-20-20	1 1/4-11 1/2	1 1/4-11 1/2	1 7/8	1 7/8	1.141	1.83	1.70	2.21
1502-24-24	1 1/2-11 1/2	1 1/2-11 1/2	2 1/8	2 1/2	1.359	2.41	2.08	2.83
1502-32-32	2-11 1/2	2-11 1/2	2 5/8	2 13/16	1.813	2.57	2.39	3.00



**45° Male Pipe Elbow**

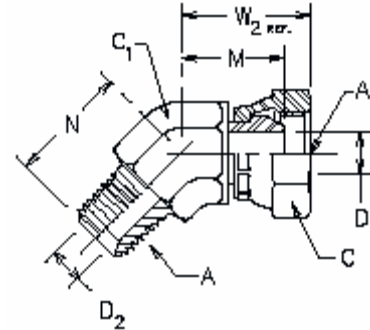
**1503**

**NPSM swivel / male pipe thread  
SAE 140330**

Part Number Information

3107 - Body only

All dimensions are in inches



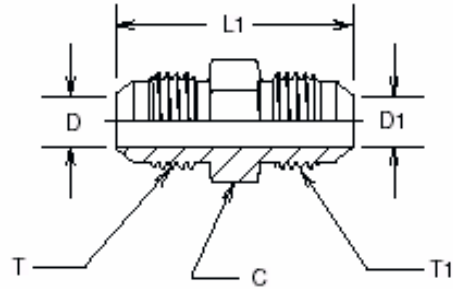
TUBE FITTING PART #	A PIPE THD NPTF	A1 SWIVEL THD NPSM	C HEX (inch)	C1 HEX forg (inch)	D DRILL (inch)	D2 DRILL (inch)	M (inch)	N (inch)	W2 (inch)
1503-2-2	1/8-27	1/8-27	9/16	7/16	0.156	0.188	0.62	0.52	0.77
1503-4-4	1/4-18	1/4-18	11/16	9/16	0.219	0.281	0.73	0.86	0.91
1503-6-6	3/8-18	3/8-18	7/8	3/4	0.344	0.406	0.81	0.95	1.10
1503-8-6	1/2-14	3/8-18	7/8	7/8	0.344	0.531	0.81	1.17	1.10
1503-8-8	1/2-14	1-2/14	1	7/8	0.469	0.531	0.88	1.17	1.17
1503-8-12	1/2-14	3/4-14	1 1/4	1 1/16	0.641	0.531	0.87	1.20	1.22
1503-12-8	3/4-14	1/2-14	1	1 1/16	0.469	0.719	0.94	1.20	1.23
1503-12-12	3/4-14	3/4-14	1 1/4	1 1/16	0.641	0.719	1.02	1.20	1.37
1503-16-12	1-11 1/2	3/4-14	1 1/4	1 5/16	0.641	0.938	1.12	1.48	1.47
1503-16-16	1-11 1/2	1-11 1/2	1 1/2	1 5/16	0.844	0.938	1.15	1.48	1.52
1503-20-20	1 1/4-11 1/2	1 1/4-11 1/2	1 7/8	1 5/8	1.141	1.250	1.23	1.67	1.61
1503-24-24	1 1/2-11 1/2	1 1/2-11 1/2	2 1/8	1 7/8	1.359	1.500	1.35	1.77	1.77
1503-32-32	2-11 1/2	2-11 1/2	2 5/8	2 1/2	1.813	1.938	1.46	2.11	1.89

**Union**

**2403**

Flare tube end / flare tube end  
SAE 070101

All dimensions are in inches



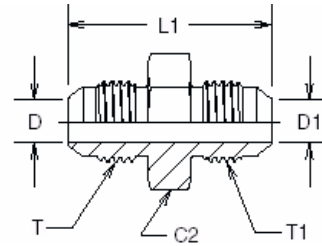
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T1 TUBE END UN/UNF-2A	C HEX (inch)	D DRILL (inch)	D1 DRILL (inch)	L1 (inch)
2403-2-2	1/8	5/16-24	5/16-24	7/16	0.062	0.062	1.17
2403-3-3	3/16	3/8-24	3/8-24	7/16	0.125	0.125	1.23
2403-4-4	1/4	7/16-20	7/16-20	1/2	0.172	0.172	1.38
2403-2-4	1/4	7/16-20	5/16-24	1/2	0.172	0.062	1.27
2403-3-4	1/4	7/16-20	3/8-24	1/2	0.172	0.125	1.30
2403-5-5	5/16	1/2-20	1/2-20	9/16	0.234	0.234	1.38
2403-4-5	5/16	1/2-20	7/16-20	9/16	0.234	0.172	1.38
2403-6-6	3/8	9/16-18	9/16-18	5/8	0.297	0.297	1.41
2403-4-6	3/8	9/16-18	7/16-20	5/8	0.297	0.297	1.41
2403-5-6	3/8	9/16-18	1/2-20	5/8	0.297	0.234	1.41
2403-8-8	1/2	3/4-16	3/4-16	13/16	0.391	0.391	1.62
2403-4-8	1/2	3/4-16	7/16-20	13/16	0.391	0.172	1.52
2403-6-8	1/2	3/4-16	9/16-18	13/16	0.391	0.297	1.52
2403-10-10	5/8	7/8-14	7/8-14	15/16	0.484	0.484	1.88
2403-8-10	5/8	7/8-14	3/4-16	15/16	0.484	0.391	1.78
2403-12-12	3/4	1 1/16-12	1 1/16-12	1 1/8	0.609	0.609	2.16
2403-8-12	3/4	1 1/16-12	3/4-16	1 1/8	0.609	0.391	1.95
2403-10-12	3/4	1 1/16-12	7/8-14	1 1/8	0.609	0.484	2.05
2403-14-14	7/8	1 3/16-12	1 3/16-12	1 1/4	0.718	0.718	2.22
2403-16-16	1	1 5/16-12	1 5/16-12	1 3/8	0.844	0.844	2.25
2403-12-16	1	1 5/16-12	1 1/16-12	1 3/8	0.844	0.609	2.20
2403-20-20	1 1/4	1 5/8-12	1 5/8-12	1 11/16	1.078	1.078	2.44
2403-24-24	1 1/2	1 7/8-12	1 7/8-12	2	1.312	1.312	2.75
2403-10-24	1 1/2	1 7/8-12	7/8-14	2	1.312	0.484	2.42
2403-12-24	1 1/2	1 7/8-12	1 1/16-12	2	1.312	0.609	2.53
2403-16-24	1 1/2	1 7/8-12	1 5/16-12	2	1.312	0.844	2.58
2403-32-32	2	2 1/2-12	2 1/2-12	2 5/8	1.781	1.781	3.41
2403-24-32	2	2 1/2-12	1 7/8-12	2 5/8	1.781	1.312	2.81

**Large Hex Union**

**2403LH**

Flare tube end / flare tube end  
SAE 070119

All dimensions are in inches



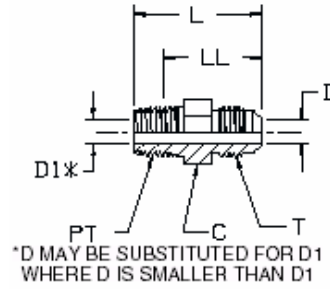
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T1 TUBE END UN/UNF-2A	C2 HEX (inch)	D DRILL (inch)	D1 DRILL (inch)	L1 (inch)
2403LH--4-4	1/4	7/16-20	7/16-20	11/16	0.172	0.172	1.38
2403LH-3-4	1/4 to 3/16	7/16-20	3/8-24	11/16	0.172	0.125	1.30
2403LH-5-5	5/16	1/2-20	1/2-20	3/4	0.234	0.234	1.38
2403LH-6-6	3/8	9/16-18	9/16-18	13/16	0.297	0.297	1.41
2403LH-4-6	3/8 to 1/4	9/16-18	7/16-20	13/16	0.297	0.172	1.41
2403LH-8-8	1/2	3/4-16	3/4-16	1	0.391	0.391	1.62
2403LH-4-8	1/2 to 1/4	3/4-16	7/16-20	1	0.391	0.172	1.52
2403LH-6-8	1/2 to 3/8	3/4-16	9/16-18	1	0.391	0.297	1.52
2403LH-10-10	5/8	7/8-14	7/8-14	1 1/8	0.484	0.484	1.88
2403LH-12-12	3/4	1 1/16-12	1 1/16-12	1 3/8	0.609	0.609	2.16
2403LH-8-12	3/4 to 1/2	1 1/16-12	3/4-16	1 3/8	0.609	0.391	1.95
2403LH-16-16	1	1 5/16-12	1 5/16-12	1 5/8	0.844	0.844	2.25
2403LH-32-32	2	2 1/2-12	2 1/2-12	2 3/4	1.781	1.781	3.41

**Male Connector**

**2404**

Flare tube end / male pipe end  
SAE 070102

All dimensions are in inches



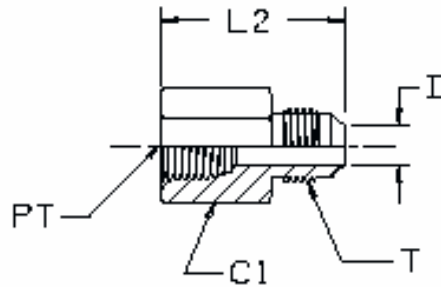
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	PT PORT THD NPTF	C HEX (inch)	D DRILL (inch)	D1 DRILL (inch)	L (inch)
2404-2-2	1/8	5/16-24	1/8-27	7/16	0.062	0.188	1.11
2404-3-2	3/16	3/8-24	1/8-27	7/16	0.125	0.188	1.14
2404-4-2	1/4	7/16-20	1/8-27	1/2	0.172	0.188	1.22
2404-4-4	1/4	7/16-20	1/4-18	9/16	0.172	0.281	1.42
2404-4-6	1/4	7/16-20	3/8-18	3/4	0.172	0.406	1.44
2404-4-8	1/4	7/16-20	1/2-14	7/8	0.172	0.531	1.69
2404-5-2	5/16	1/2-20	1/8-27	9/16	0.234	0.188	1.22
2404-5-4	5/16	1/2-20	1/4-18	9/16	0.234	0.281	1.42
2404-5-6	5/16	1/2-20	3/8-18	3/4	0.234	0.406	1.44
2404-6-4	3/8	9/16-18	1/4-18	5/8	0.297	0.281	1.43
2404-6-2	3/8	9/16-18	1/8-27	5/8	0.297	0.188	1.24
2404-6-6	3/8	9/16-18	3/8-18	3/4	0.297	0.406	1.44
2404-6-8	3/8	9/16-18	1/2-14	7/8	0.297	0.531	1.69
2404-6-12	3/8	9/16-18	3/4-14	1 1/8	0.297	0.719	1.75
2404-8-6	1/2	3/4-16	3/8-18	13/16	0.391	0.406	1.53
2404-8-2	1/2	3/4-16	1/8-27	1 3/16	0.391	0.188	1.34
2404-8-4	1/2	3/4-16	1/4-18	13/16	0.391	0.281	1.53
2404-8-8	1/2	3/4-16	1/2-14	7/8	0.391	0.531	1.78
2404-8-12	1/2	3/4-16	3/4-14	1 1/8	0.391	0.719	1.85
2404-8-16	1/2	3/4-16	1-11 1/2	1 3/8	0.391	0.938	2.05
2404-10-8	5/8	7/8-14	1/2-14	15/16	0.484	0.531	1.89
2404-10-6	5/8	7/8-14	3/8-18	15/16	0.484	0.406	1.70
2404-10-12	5/8	7/8-14	3/4-14	1 1/8	0.484	0.719	1.95
2404-12-12	3/4	1 1/16-12	3/4-14	1 1/8	0.609	0.719	2.06
2404-12-6	3/4	1 1/16-12	3/8-18	1 1/8	0.609	0.406	1.88
2404-12-8	3/4	1 1/16-12	1/2-14	1 1/8	0.609	0.531	2.06
2404-12-16	3/4	1 1/16-12	1-11 1/2	1 3/8	0.609	0.938	2.25
2404-12-20	3/4	1 1/16-12	1 1/4-11 1/2	1 11/16	0.609	1.25	2.36
2404-14-12	7/8	1 3/16-12	3/4-14	1 1/4	0.718	0.719	2.09
2404-16-16	1	1 5/16-12	1-11 1/2	1 3/8	0.844	0.938	2.30
2404-16-8	1	1 5/16-12	1/2-14	1 3/8	0.844	0.531	2.11
2404-16-12	1	1 5/16-12	3/4-14	1 3/8	0.844	0.719	2.11
2404-16-20	1	1 5/16-12	1 1/4-11 1/2	1 11/16	0.844	1.250	2.41
2404-16-24	1	1 5/16-12	1 1/2-11 1/2	2	0.844	1.500	2.50
2404-20-20	1 1/4	1 5/8-12	1 1/4-11 1/2	1 11/16	1.078	1.250	2.45
2404-20-16	1 1/4	1 5/8-12	1-11 1/2	1 11/16	1.078	0.938	2.42
2404-20-24	1 1/4	1 5/8-12	1 1/2-11 1/2	2	1.078	1.500	2.55
2404-24-24	1 1/2	1 7/8-12	1 1/2-11 1/2	2	1.312	1.500	2.67
2404-24-16	1 1/2	1 7/8-12	1-11 1/2	2	1.312	0.938	2.62
2404-24-20	1 1/2	1 7/8-12	1 1/4-11 1/2	2	1.312	1.250	2.66
2404-24-32	1 1/2	1 7/8-12	2-11 1/2	2 5/8	1.312	1.312	2.86
2404-32-32	2	2 1/2-12	2-11 1/2	2 5/8	1.781	1.938	3.11
2404-32-24	2	2 1/2-12	1 1/2-11 1/2	2 5/8	1.781	1.500	3.08

**Female Connector**

**2405**

Flare tube end / female pipe end  
SAE 072404

All dimensions are in inches



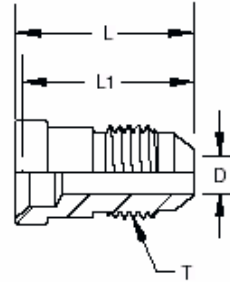
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	PT PORT THD NPTF	C1 HEX (inch)	D DRILL (inch)	L2 (inch)
2405-2-2	1/8	5/16-24	1/8-27	9/16	0.062	1.13
2405-3-2	3/16	3/8-24	1/8-27	9/16	0.125	1.13
2405-4-2	1/4	7/16-20	1/8-27	9/16	0.172	1.19
2405-4-4	1/4	7/16-20	1/4-18	3/4	0.172	1.39
2405-4-6	1/4	7/16-20	3/8-18	7/8	0.172	1.44
2405-4-8	1/4	7/16-20	1/2-14	1 1/8	0.172	1.45
2405-5-2	5/16	1/2-20	1/8-27	9/16	0.234	1.17
2405-5-4	5/16	1/2-20	1/4-18	3/4	0.234	1.39
2405-6-4	3/8	9/16-18	1/4-18	3/4	0.297	1.41
2405-6-2	3/8	9/16-18	1/8-27	5/8	0.297	1.13
2405-6-6	3/8	9/16-18	3/8-18	7/8	0.297	1.47
2405-6-8	3/8	9/16-18	1/2-14	1 1/8	0.297	1.75
2405-8-6	1/2	3/4-16	3/8-18	7/8	0.391	1.56
2405-8-4	1/2	3/4-16	1/4-18	13/16	0.391	1.41
2405-8-8	1/2	3/4-16	1/2-14	1 1/8	0.391	1.79
2405-8-12	1/2	3/4-16	3/4-14	1 3/8	0.391	1.88
2405-10-8	5/8	7/8-14	1/2-14	1 1/8	0.484	1.89
2405-10-12	5/8	7/8-14	3/4-14	1 3/8	0.484	2.00
2405-12-12	3/4	1 1/16-12	3/4-14	1 3/8	0.609	2.06
2405-12-8	3/4	1 1/16-12	1/2-14	1 1/8	0.609	1.91
2405-12-16	3/4	1 1/16-12	1-11 1/2	1 5/8	0.609	2.30
2405-14-12	7/8	1 3/16-12	3/4-14	1 3/8	0.718	2.06
2405-16-16	1	1 5/16-12	1-11 1/2	1 5/8	0.844	2.34
2405-16-12	1	1 5/16-12	3/4-14	1 3/8	0.844	2.00
2405-16-20	1	1 5/16-12	1 1/4-11 1/2	2	0.844	2.43
2405-20-20	1 1/4	1 5/8-12	1 1/4-11 1/2	2	1.078	2.48
2405-20-16	1 1/4	1 5/8-12	1-11 1/2	1 3/4	1.078	2.47
2405-24-24	1 1/2	1 7/8-12	1 1/2-11 1/2	2 3/8	1.312	2.63
2405-32-32	2	2 1/2-12	2-11 1/2	2 7/8	1.781	2.97

**Tube End Reducer**

**2406**

Assembles to 37°JIC FLARE end to reduce size  
SAE 070123

All dimensions are in inches



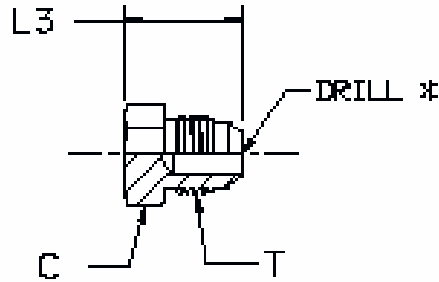
PART#	TUBE O.D. REDUCTION	TUBE END UN/UNF-2A	D DRILL	L	L1
2406-4-2	1/4 to 1/8	5/16-24	0.062	0.75	0.75
2406-6-4	3/8 to 1/4	7/16-20	0.172	0.97	0.97
2406-8-4	1/2 to 1/4	7/16-20	0.172	1.00	1.00
2406-8-6	1/2 to 3/8	9/16-18	0.297	1.00	1.00
2406-10-4	5/8 to 1/4	7/16-20	0.172	1.03	1.03
2406-10-6	5/8 to 3/8	9/16-18	0.297	1.03	1.03
2406-12-4	3/4 to 1/4	7/16-20	0.172	1.09	1.09
2406-12-6	3/4 to 3/8	9/16-18	0.297	1.09	1.09
2406-12-8	3/4 to 1/2	3/4-16	0.391	1.19	1.19
2406-14-6	7/8 to 3/8	9/16-18	0.297	1.13	1.13
2406-14-10	7/8 to 5/8	7/8-14	0.484	1.33	1.33
2406-16-4	1 to 1/4	7/16-20	0.172	1.22	1.22
2406-16-6	1 to 3/8	9/16-18	0.297	1.22	1.22
2406-16-8	1 to 1/2	3/4-16	0.391	1.27	1.26
2406-16-10	1 to 5/8	41828	0.484	1.38	1.38
2406-16-12	1 to 3/4	1 1/16-12	0.609	1.47	1.47
2406-20-12	1 1/4 to 3/4	1 1/16-12	0.609	1.53	1.53
2406-20-16	1 1/4 to 1	1 5/16-12	0.844	1.59	1.59
2406-24-8	1 1/2 to 1/2	3/4-16	0.391	1.41	1.56
2406-24-12	1 1/2 to 3/4	1 1/16-12	0.609	1.63	1.63
2406-24-16	1 1/2 to 1	1 5/16-12	0.844	1.63	1.63
2406-24-20	1 1/2 to 1 1/4	1 5/8-12	1.078	1.69	1.69
2406-32-24	2 to 1 1/2	1 7/8-12	1.312	1.91	1.91

**Plug**

**2408**

Flare tube / hose swivel plug  
SAE 070109

All dimensions are in inches



\*DRILL MAY BE PRESENT DUE TO MANUFACTURING OPTION PER SAE J517

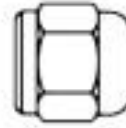
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	C HEX (inch)	L3 (inch)
2408-2	1/8	5/16-24	7/16	0.70
2408-3	3/16	3/8-24	7/16	0.73
2408-4	1/4	7/16-20	1/2	0.80
2408-5	5/16	1/2-20	9/16	0.80
2408-6	3/8	9/16-18	5/8	0.84
2408-8	1/2	3/4-16	13/16	0.94
2408-10	5/8	7/8-14	15/16	1.10
2408-12	3/4	1 1/16-12	1 1/8	1.28
2408-14	7/8	1 3/16-12	1 1/4	1.31
2408-16	1	1 5/16-12	1 3/8	1.33
2408-20	1 1/4	1 5/8-12	1 11/16	1.45
2408-24	1 1/2	1 7/8-12	2	1.66
2408-32	2	2 1/2-12	2 5/8	2.05

**CAP**

**0304C**

Flare tube / hose swivel plug  
SAE 070112

All dimensions are in inches



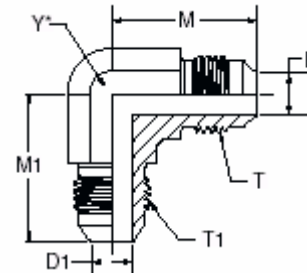
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	C HEX (inch)
0304C-02	1/8	5/16-24	7/16
0304C-03	3/16	3/8-24	7/16
0304C-04	1/4	7/16-20	1/2
0304C-05	5/16	1/2-20	9/16
0304C-06	3/8	9/16-18	5/8
0304C-08	1/2	3/4-16	13/16
0304C-10	5/8	7/8-14	15/16
0304C-12	3/4	1 1/16-12	1 1/8
0304C-14	7/8	1 3/16-12	1 1/4
0304C-16	1	1 5/16-12	1 3/8
0304C-20	1 1/4	1 5/8-12	1 11/16
0304C-24	1 1/2	1 7/8-12	2
0304C-32	2	2 1/2-12	2 5/8

**Union Elbow**

**2500**

Flare tube end / flare tube end  
SAE 070201

All dimensions are in inches  
\*Y—ACROSS WRENCH FLATS



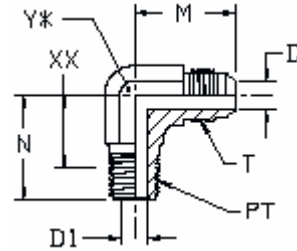
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T1 TUBE END UN/UNF-2A	D DRILL (inch)	D1 DRILL (inch)	M (inch)	M1 (inch)	Y (inch)
2500-2-2	1/8	5/16-24	5/16-24	0.062	0.062	0.78	0.78	7/16
2500-3-3	3/16	3/8-24	3/8-24	0.125	0.125	0.83	0.83	7/16
2500-4-4	1/4	7/16-20	7/16-20	0.172	0.172	0.89	0.89	7/16
2500-5-5	5/16	1/2-20	1/2-20	0.234	0.234	0.95	0.95	9/16
2500-6-6	3/8	9/16-18	9/16-18	0.297	0.297	1.06	1.06	9/16
2500-4-6	3/8 to 1/4	9/16-18	7/16-20	0.297	0.172	1.06	1.05	9/16
2500-8-8	1/2	3/4-16	3/4-16	0.391	0.391	1.25	1.25	3/4
2500-6-8	1/2 to 3/8	3/4-16	9/16-18	0.391	0.297	1.25	1.14	3/4
2500-10-10	5/8	7/8-14	7/8-14	0.484	0.484	1.45	1.45	7/8
2500-8-10	5/8 to 1/2	7/8-14	3/4-16	0.484	0.391	1.45	1.33	7/8
2500-12-12	3/4	1 1/16-12	1 1/16-12	0.609	0.609	1.66	1.66	1 1/16
2500-8-12	3/4 to 1/2	1 1/16-12	3/4-16	0.609	0.391	1.66	1.42	1 1/16
2500-10-12	3/4 to 5/8	1 1/16-12	7/8-14	0.609	0.484	1.66	1.54	1 1/16
2500-14-14	7/8	1 3/16-12	1 3/16-12	0.718	0.718	1.73	1.73	1 3/16
2500-16-16	1	1 5/16-12	1 5/16-12	0.844	0.844	1.81	1.81	1 5/16
2500-12-16	1 to 3/4	1 5/16-12	1 1/16-12	0.844	0.609	1.81	1.77	1 5/16
2500-20-20	1 1/4	1 5/8-12	1 5/8-12	1.078	1.078	2.06	2.06	1 5/8
2500-24-24	1 1/2	1 7/8-12	1 7/8-12	1.312	1.312	2.33	2.33	1 7/8
2500-32-32	2	2 1/2-12	2 1/2-12	1.781	1.781	3.06	3.06	2 1/2

**Male Elbow**

**2501**

Flare tube end / male pipe end  
SAE 070202

All dimensions are in inches  
\*Y — ACROSS WRENCH FLATS



TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	PT PORT THD NPTF	D DRILL (inch)	D1 DRILL (inch)	M (inch)	N (inch)	Y (inch)
2501-2-2	1/8	5/16-24	1/8-27	0.062	0.188	0.77	0.72	5/16
2501-3-2	3/16	3/8-24	1/8-27	0.125	0.188	0.83	0.72	3/8
2501-4-2	1/4	7/16-20	1/8-27	0.172	0.188	0.89	0.78	7/16
2501-4-4	1/4	7/16-20	1/4-18	0.172	0.281	1.05	1.09	9/16
2501-4-6	1/4	7/16-20	3/8-18	0.172	0.406	1.13	1.22	3/4
2501-4-8	1/4	7/16-20	1/2-14	0.172	0.531	1.23	1.44	7/8
2501-5-2	5/16	1/2-20	1/8-27	0.234	0.188	0.95	0.78	9/16
2501-5-4	5/16	1/2-20	1/4-18	0.234	0.281	1.05	1.09	9/16
2501-5-6	5/16	1/2-20	3/8-18	0.234	0.406	1.13	1.22	3/4
2501-6-4	3/8	9/16-18	1/4-18	0.297	0.281	1.06	1.09	9/16
2501-6-2	3/8	9/16-18	1/8-27	0.297	0.188	1.06	0.90	9/16
2501-6-6	3/8	9/16-18	3/8-18	0.297	0.406	1.14	1.22	3/4
2501-6-8	3/8	9/16-18	1/2-14	0.297	0.531	1.22	1.47	7/8
2501-6-12	3/8	9/16-18	3/4-14	0.297	0.719	1.31	1.59	1 1/16
2501-8-6	1/2	3/4-16	3/8-18	0.391	0.406	1.25	1.22	3/4
2501-8-4	1/2	3/4-16	1/4-18	0.391	0.281	1.25	1.22	3/4
2501-8-8	1/2	3/4-16	1/2-14	0.391	0.531	1.33	1.47	7/8
2501-8-12	1/2	3/4-16	3/4-14	0.391	0.719	1.42	1.59	1 1/16
2501-8-16	1/2	3/4-16	1-11 1/2	0.391	0.938	1.52	1.97	1 5/16
2501-10-8	5/8	7/8-14	1/2-14	0.484	0.531	1.45	1.47	7/8
2501-10-6	5/8	7/8-14	3/8-18	0.484	0.406	1.45	1.28	7/8
2501-10-12	5/8	7/8-14	3/4-14	0.484	0.719	1.53	1.59	1 1/16
2501-10-16	5/8	7/8-14	1-11 1/2	0.484	0.938	1.64	1.97	1 5/16
2501-12-12	3/4	1 1/16-12	3/4-14	0.609	0.719	1.66	1.59	1 1/16
2501-12-6	3/4	1 1/16-12	3/8-18	0.609	0.406	1.66	1.41	1 1/16
2501-12-8	3/4	1 1/16-12	1/2-14	0.609	0.531	1.66	1.59	1 1/16
2501-12-16	3/4	1 1/16-12	1-11 1/2	0.609	0.938	1.76	1.97	1 5/16
2501-14-12	7/8	1 3/16-12	3/4-14	0.718	0.719	1.80	1.69	1 5/16
2501-16-16	1	1 5/16-12	1-11 1/2	0.844	0.938	1.81	1.97	1 5/16
2501-16-8	1	1 5/16-12	1/2-14	0.844	0.531	1.81	1.66	1 5/16
2501-16-12	1	1 5/16-12	3/4-14	0.844	0.719	1.81	1.78	1 5/16
2501-16-20	1	1 5/16-12	1 1/4-11 1/2	0.844	1.250	2.13	2.38	1 5/8
2501-20-20	1 1/4	1 5/8-12	1 1/4-11 1/2	1.078	1.250	2.06	2.38	1 5/8
2501-20-16	1 1/4	1 5/8-12	1-11 1/2	1.078	0.938	2.06	2.06	1 5/8
2501-20-24	1 1/4	1 5/8-12	1 1/2-11 1/2	1.078	1.500	2.20	2.64	1 7/8
2501-24-24	1 1/2	1 7/8-12	1 1/2-11 1/2	1.312	1.500	2.33	2.64	1 7/8
2501-24-20	1 1/2	1 7/8-12	1 1/4-11 1/2	1.312	1.250	2.33	2.25	1 7/8
2501-24-32	1 1/2	1 7/8-12	2-11 1/2	1.312	1.938	2.81	3.00	2 1/2
2501-32-32	2	2 1/2-12	2-11 1/2	1.781	1.938	3.06	3.00	2 1/2
2501-32-24	2	2 1/2-12	1 1/2-11 1/2	1.781	1.500	3.06	2.97	2 1/2
2501-40-40	2 1/2	3-12	2 1/2-8	2.281	2.312	2.86	3.57	3 1/4

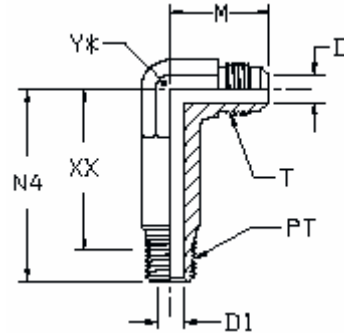


**Extra Long Male Elbow**

**2501LL**

Flare tube end / extra long male pipe end  
SAE 071602

All dimensions are in inches  
\*Y — ACROSS WRENCH FLATS



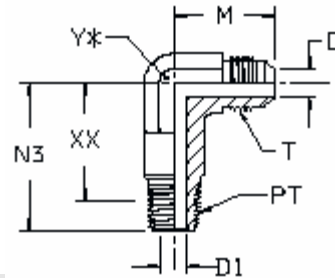
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	PT PORT THD NPTF	D DRILL (inch)	D1 DRILL (inch)	M (inch)	N4 (inch)	Y (inch)
2501LL-4-2	1/4	7/16-20	1/8-27	0.172	0.188	0.89	1.56	7/16
2501LL-4-4	1/4	7/16-20	1/4-18	0.172	0.281	1.05	2.03	9/16
2501LL-5-2	5/16	1/2-20	1/8-27	0.234	0.188	0.97	1.63	9/16
2501LL-6-4	3/8	9/16-18	1/4-18	0.297	0.281	1.06	2.07	9/16
2501LL-6-6	3/8	9/16-18	3/8-18	0.297	0.406	1.14	2.34	3/4
2501LL-8-6	1/2	3/4-16	3/8-18	0.391	0.406	1.25	2.34	3/4
2501LL-8-8	1/2	3/4-16	1/2-14	0.391	0.531	1.34	2.84	7/8
2501LL-10-8	5/8	7/8-14	1/2-14	0.484	0.531	1.45	2.84	7/8
2501LL-12-12	3/4	1 1/16-12	3/4-14	0.609	0.719	1.66	3.22	1 1/16
2501LL-16-16	1	1 5/16-12	1-11 1/2	0.844	0.938	1.81	3.97	1 5/16
2501LL-20-20	1 1/4	1 5/8-12	1 1/4-11 1/2	1.078	1.250	2.06	4.94	1 5/8

**Long Male Elbow**

**2501L**

Flare tube end / long male pipe end  
SAE 071502

All dimensions are in inches  
\*Y — ACROSS WRENCH FLATS



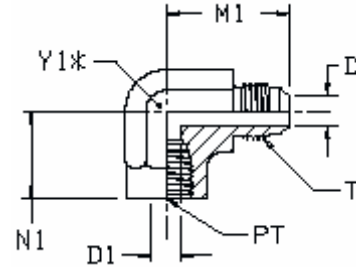
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	PT PORT THD NPTF	D DRILL (inch)	D1 DRILL (inch)	M (inch)	N3 (inch)	Y (inch)
2501L-4-2	1/4	7/16-20	1/8-27	0.172	0.188	0.89	1.19	7/16
2501L-4-4	1/4	7/16-20	1/4-18	0.172	0.281	1.05	1.44	9/16
2501L-5-2	5/16	1/2-20	1/8-27	0.234	0.188	0.95	1.17	9/16
2501L-6-4	3/8	9/16-18	1/4-18	0.297	0.281	1.06	1.56	9/16
2501L-6-6	3/8	9/16-18	3/8-18	0.297	0.406	1.14	1.81	3/4
2501L-8-6	1/2	3/4-16	3/8-18	0.391	0.406	1.25	1.78	3/4
2501L-8-8	1/2	3/4-12	1/2-14	0.391	0.531	1.34	2.16	7/8
2501L-8-12	1/2	3/4-12	3/4-14	0.391	0.719	1.42	2.44	1 1/16
2501L-10-8	5/8	7/8-14	1/2-14	0.484	0.531	1.45	2.16	7/8
2501L-12-12	3/4	1 1/16-12	3/4-14	0.609	0.719	1.66	2.41	1 1/16
2501L-14-14	7/8	1 3/16-12	3/4-14	0.718	0.719	1.80	2.59	1 5/16
2501L-16-16	1	1 5/16-12	1-11 1/2	0.844	0.938	1.81	2.97	1 5/16
2501L-20-20	1 1/4	1 5/8-12	1 1/4-11 1/2	1.078	1.250	2.06	3.66	1 5/8

**Female Elbow**

**2502**

Flare tube end / female pipe end  
SAE 070203

All dimensions are in inches  
\*Y1 —ACROSS WRENCH FLATS



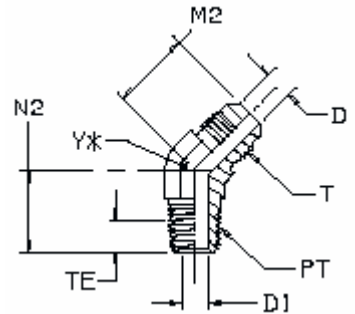
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	PT PORT THD NPTF	D DRILL (inch)	D1 DRILL REF (inch)	M1 (inch)	N1 (inch)	Y1 (inch)
2502-4-2	1/4	7/16-20	1/8-27	0.172	0.328	1.08	0.66	9/16
2502-4-4	1/4	7/16-20	1/4-18	0.172	0.422	1.22	0.88	3/4
2502-5-2	5/16	1/2-20	1/8-27	0.234	0.328	1.08	0.66	9/16
2502-5-4	5/16	1/2-20	1/4-18	0.234	0.422	1.13	0.88	3/4
2502-6-4	3/8	9/16-18	1/4-18	0.297	0.422	1.23	0.88	3/4
2502-6-2	3/8	9/16-18	1/8-27	0.297	0.328	1.23	0.67	9/16
2502-6-6	3/8	9/16-18	3/8-18	0.297	0.563	1.31	1.02	7/8
2502-8-6	1/2	3/4-16	3/8-18	0.391	0.563	1.42	1.02	7/8
2502-8-4	1/2	3/4-16	1/4-18	0.391	0.422	1.42	1.01	3/4
2502-8-8	1/2	3/4-16	1/2-14	0.391	0.688	1.52	1.23	1 1/16
2502-10-8	5/8	7/8-14	1/2-14	0.484	0.688	1.64	1.23	1 1/16
2502-12-12	3/4	1 1/16-12	3/4-14	0.609	0.891	1.89	1.36	1 5/16
2502-12-8	3/4	1 1/16-12	1/2-14	0.609	0.688	1.89	1.35	1 1/16
2502-14-12	7/8	1 3/16-12	3/4-14	0.718	0.891	1.86	1.42	1 5/16
2502-16-16	1	1 5/16-12	1-11 1/2	0.844	1.125	2.17	1.63	1 5/8
2502-20-20	1 1/4	1 5/8-12	1 1/4-11 1/2	1.078	1.469	2.33	1.70	1 7/8
2502-24-24	1 1/2	1 7/8-12	1 1/2-11 1/2	1.312	1.703	2.89	2.08	2 1/2

**45° Male Elbow**

**2503**

Flare tube end / male pipe end  
SAE 070302

All dimensions are in inches  
\*Y — ACROSS WRENCH FLATS



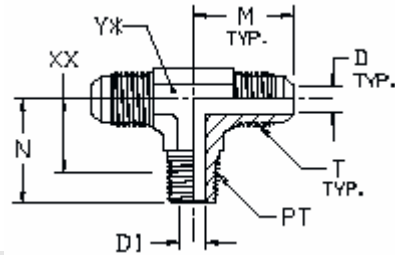
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	PT PORT THD NPTF	D DRILL (inch)	D1 DRILL (inch)	M2 (inch)	N2 (inch)	TE (inch)	Y (inch)
2503-2-2	1/8	5/16-24	1/8-27	0.062	0.188	0.69	0.53	0.24	7/16
2503-3-2	3/16	3/8-24	1/8-27	0.125	0.188	0.69	0.53	0.24	7/16
2503-4-2	1/4	7/16-20	1/8-27	0.172	0.188	0.72	0.64	0.24	7/16
2503-4-4	1/4	7/16-20	1/4-18	0.172	0.281	0.82	0.86	0.34	9/16
2503-4-6	1/4	7/16-20	3/8-18	0.172	0.406	0.92	0.95	0.46	3/4
2503-5-2	5/16	1/2-20	1/8-27	0.234	0.188	0.77	0.64	0.24	9/16
2503-5-4	5/16	1/2-20	1/4-18	0.234	0.281	0.82	0.86	0.34	9/16
2503-6-4	3/8	9/16-18	1/4-18	0.297	0.281	0.83	0.86	0.34	9/16
2503-6-2	3/8	9/16-18	1/8-27	0.297	0.188	0.83	0.67	0.24	9/16
2503-6-6	3/8	9/16-18	3/8-18	0.297	0.406	0.87	0.95	0.35	3/4
2503-6-8	3/8	9/16-18	1/2-14	0.297	0.531	1.06	1.17	0.46	7/8
2503-8-6	1/2	3/4-16	3/8-18	0.391	0.406	0.98	0.95	0.35	3/4
2503-8-4	1/2	3/4-16	1/4-18	0.391	0.281	0.98	0.95	0.34	3/4
2503-8-8	1/2	3/4-16	1/2-14	0.391	0.531	0.99	1.17	0.46	7/8
2503-8-12	1/2	3/4-16	3/4-14	0.391	0.719	1.04	1.20	0.48	1 1/16
2503-10-8	5/8	7/8-14	1/2-14	0.484	0.531	1.11	1.17	0.46	7/8
2503-10-6	5/8	7/8-14	3/8-18	0.484	0.406	1.11	0.98	0.35	7/8
2503-10-12	5/8	7/8-14	3/4-14	0.484	0.719	1.28	1.20	0.48	1 1/16
2503-12-12	3/4	1 1/16-12	3/4-14	0.609	0.719	1.28	1.20	0.48	1 1/16
2503-12-8	3/4	1 1/16-12	1/2-14	0.609	0.531	1.28	1.20	0.46	1 1/16
2503-12-16	3/4	1 1/16-12	1-11 1/2	0.609	0.938	1.42	1.48	0.57	1 5/16
2503-14-12	7/8	1 3/16-12	3/4-14	0.718	0.719	1.39	1.27	0.48	1 5/16
2503-16-16	1	1 5/16-12	1-11 1/2	0.844	0.938	1.47	1.48	0.57	1 5/16
2503-16-12	1	1 5/16-12	3/4-14	0.844	0.719	1.47	1.29	0.48	1 5/16
2503-16-20	1	1 5/16-12	1 1/4-11 1/2	0.844	1.250	1.59	1.67	0.59	1 5/8
2503-20-20	1 1/4	1 5/8-12	1 1/4-11 1/2	1.078	1.250	1.59	1.67	0.59	1 5/8
2503-20-16	1 1/4	1 5/8-12	1-11 1/2	1.078	0.938	1.59	1.63	0.57	1 5/8
2503-24-24	1 1/2	1 7/8-12	1 1/2-11 1/2	1.312	1.500	1.78	1.77	0.59	1 7/8
2503-32-32	2	2 1/2-12	2-11 1/2	1.781	1.938	2.22	2.11	0.61	2 1/2

**Male Branch Tee**

**2601**

Flare tube ends / male pipe end  
SAE 070425

All dimensions are in inches  
\*Y — ACROSS WRENCH FLATS



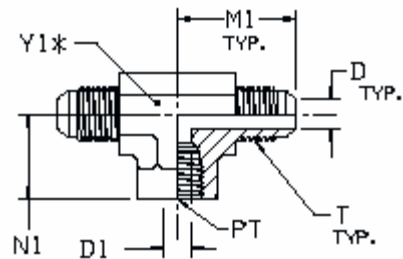
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	PT PORT THD NPTF	D DRILL (inch)	D1 DRILL (inch)	M (inch)	N (inch)	Y (inch)
2601-3-3-2	3/16	3/8-24	1/8-27	0.125	0.188	0.83	0.72	7/16
2601-4-4-2	1/4	7/16-20	1/8-27	0.172	0.188	0.89	0.78	7/16
2601-4-4-4	1/4	7/16-20	1/4-18	0.172	0.281	1.05	1.09	9/16
2601-4-4-6	1/4	7/16-20	3/8-18	0.172	0.406	1.13	1.22	3/4
2601-5-5-2	5/16	1/2-20	1/8-27	0.234	0.188	0.95	0.78	9/16
2601-5-5-4	5/16	1/2-20	1/4-18	0.234	0.281	1.05	1.09	9/16
2601-6-6-4	3/8	9/16-18	1/4-18	0.297	0.281	1.06	1.09	9/16
2601-6-6-6	3/8	9/16-18	3/8-18	0.297	0.406	1.14	1.22	3/4
2601-8-8-6	1/2	3/4-16	3/8-18	0.391	0.406	1.25	1.22	3/4
2601-8-8-8	1/2	3/4-16	1/2-14	0.391	0.531	1.34	1.47	7/8
2601-10-10-8	5/8	7/8-14	1/2-14	0.484	0.531	1.45	1.47	7/8
2601-12-12-12	3/4	1 1/16-12	3/4-14	0.609	0.719	1.66	1.59	1 1/16
2601-14-14-12	7/8	1 3/16-12	3/4-14	0.718	0.719	1.80	1.69	1 5/16
2601-16-16-16	1	1 5/16-12	1-11 1/2	0.844	0.938	1.81	1.97	1 5/16
2601-20-20-20	1 1/4	1 5/8-12	1 1/4-11 1/2	1.078	1.250	2.06	2.38	1 5/8
2601-24-24-24	1 1/2	1 7/8-12	1 1/2-11 1/2	1.312	1.500	1.33	2.64	1 7/8

**Female Branch Tee**

**2602**

Flare tube end / female pipe end  
SAE 070427

All dimensions are in inches  
\*Y1 — ACROSS WRENCH FLATS



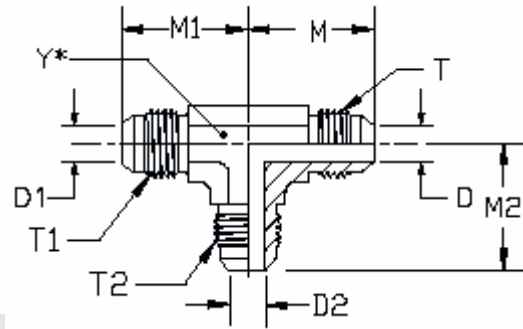
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	PT PORT THD NPTF	D DRILL (inch)	D1 DRILL REF (inch)	M1 (inch)	N1 (inch)	Y1 (inch)
2602-4-4-2	1/4	7/16-20	1/8-27	0.172	0.328	1.08	0.66	9/16
2602-4-4-4	1/4	7/16-20	1/4-18	0.172	0.422	1.13	0.88	3/4
2602-5-5-2	5/16	1/2-20	1/8-27	0.234	0.328	1.08	0.66	9/16
2602-6-6-4	3/8	9/16-18	1/4-18	0.297	0.422	1.24	0.88	3/4
2602-6-6-6	3/8	9/16-18	3/8-18	0.297	0.563	1.23	1.02	7/8
2602-8-8-6	1/2	3/4-16	3/8-18	0.391	0.563	1.42	1.02	7/8
2602-8-8-8	1/2	3/4-16	1/2-14	0.391	0.688	1.42	1.23	1 1/16
2602-10-10-8	5/8	7/8-14	1/2-14	0.484	0.688	1.64	1.24	1 1/16
2602-12-12-12	3/4	1 1/16-12	3/4-14	0.609	0.891	1.89	1.36	1 5/16
2602-14-14-12	7/8	1 3/16-12	3/4-14	0.718	0.891	1.86	1.42	1 5/16
2602-16-16-16	1	1 5/16-12	1-11 1/2	0.844	1.125	2.17	1.63	1 5/8
2602-20-20-20	1 1/4	1 5/8-12	1 1/4-11 1/2	1.078	1.469	2.33	1.70	1 7/8
2602-24-24-24	1 1/2	1 7/8-12	1 1/2-11 1/2	1.312	1.703	2.89	2.08	2 1/2

**Union Tee**

**2603**

Flare tube end (all three ends)  
SAE 070401

All dimensions are in inches  
\*Y—ACROSS WRENCH FLATS



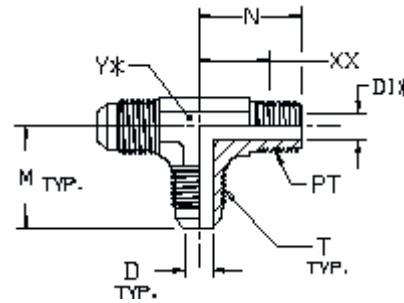
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2 A	T1 TUBE END UN/UNF-2 A	T2 TUBE END UN/UNF-2 A	D DRILL (inch)	DRILL (inch)	DRILL (inch)	M (inch)	M1 (inch)	M2 (inch)	Y (inch)
2603-2-2-2	1/8	5/16-24	5/16-24	5/16-24	0.062	0.062	0.062	0.78	0.78	0.78	5/16
2603-3-3-3	3/16	3/8-24	3/8-24	3/8-24	0.125	0.125	0.125	0.83	0.83	0.83	7/16
2603-4-4-4	1/4	7/16-20	7/16-20	7/16-20	0.172	0.172	0.172	0.89	0.89	0.89	7/16
2603-3-3-4	1/4 to 3/16	7/16-20	7/16-20	3/8-24	0.172	0.172	0.125	0.89	0.89	0.81	7/16
2603-5-5-5	5/16	1/2-20	1/2-20	1/2-20	0.234	0.234	0.234	0.95	0.95	0.95	9/16
2603-6-6-6	3/8	9/16-18	9/16-18	9/16-18	0.297	0.297	0.297	1.06	1.06	1.06	9/16
2603-8-8-8	1/2	3/4-16	3/4-16	3/4-16	0.391	0.391	0.391	1.25	1.25	1.25	3/4
2603-10-10-10	5/8	7/8-14	7/8-14	7/8-14	0.484	0.484	0.484	1.45	1.45	1.45	7/8
2603-12-12-12	3/4	1 1/16-12	1 1/16-12	1 1/16-12	0.609	0.609	0.609	1.66	1.66	1.66	1 1/16
2603-12-12-8	3/4 to 1/2	1 1/16-12	1 1/16-12	3/4-16	0.609	0.609	0.391	1.66	1.66	1.42	1 1/16
2603-12-16-12	1 to 3/4	1 1/16-12	1 5/16-12	1 1/16-12	0.609	0.844	0.609	1.77	1.81	1.77	1 5/16
2603-14-14-14	7/8	1 3/16-12	1 3/16-12	1 3/16-12	0.718	0.718	0.718	1.73	1.73	1.73	1 5/16
2603-16-16-16	1	1 5/16-12	1 5/16-12	1 5/16-12	0.844	0.844	0.844	1.81	1.81	1.81	1 5/16
2603-20-20-20	1 1/4	1 5/8-12	1 5/8-12	1 5/8-12	1.078	1.078	1.078	2.06	2.06	2.06	1 5/8
2603-24-24-24	1 1/2	1 7/8-12	1 7/8-12	1 7/8-12	1.312	1.312	1.312	2.33	2.33	2.33	1 7/8
2603-24-16-16	1 1/2 to 1	1 7/8-12	1 5/16-12	1 5/16-12	1.312	0.844	0.844	2.33	2.16	2.16	1 7/8
2603-32-32-32	2	2 1/2-12	2 1/2-12	2 1/2-12	1.781	1.781	1.781	3.06	3.06	3.06	2 1/2

**Male Run Tee**

**2605**

Flare tube ends / male pipe end  
SAE 070424

All dimensions are in inches  
\*Y — ACROSS WRENCH FLATS  
D1\* DRILL MAY BE PRESENT DUE TO MANUFACTURING OPTION PER SAE J514



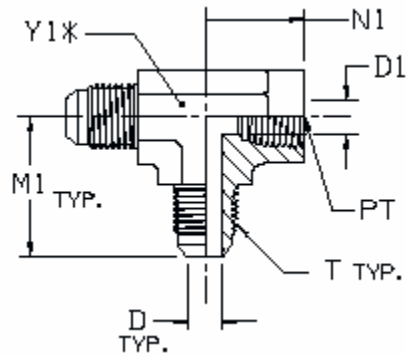
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	PT PORT THD NPTF	D DRILL (inch)	D1 DRILL (inch)	M (inch)	N (inch)	Y (inch)
2605-3-2-3	3/16	3/8-24	1/8-27	0.125	0.188	0.83	0.72	7/16
2605-4-2-4	1/4	7/16-20	1/8-27	0.172	0.188	0.89	0.78	7/16
2605-4-4-4	1/4	7/16-20	1/4-18	0.172	0.281	1.05	1.09	9/16
2605-5-2-5	5/16	1/2-20	1/8-27	0.234	0.188	0.97	0.81	9/16
2605-5-4-5	5/16	1/2-20	1/4-18	0.234	0.281	1.05	1.09	9/16
2605-6-4-6	3/8	9/16-18	1/4-18	0.297	0.281	1.06	1.09	9/16
2605-6-6-6	3/8	9/16-18	3/8-18	0.297	0.406	1.14	1.22	3/4
2605-8-6-8	1/2	3/4-16	3/8-18	0.391	0.406	1.25	1.22	3/4
2605-8-8-8	1/2	3/4-16	1/2-14	0.391	0.531	1.34	1.47	7/8
2605-10-8-10	5/8	7/8-14	1/2-14	0.484	0.531	1.45	1.47	7/8
2605-12-12-12	3/4	1 1/16-12	3/4-14	0.609	0.719	1.66	1.59	1 1/16
2605-12-8-12	3/4	1 1/16-12	1/2-14	0.609	0.531	1.66	1.59	1 1/16
2605-14-14-14	7/8	1 3/16-12	3/4-14	0.718	0.719	1.80	1.69	1 5/16
2605-16-16-16	1	1 5/16-12	1-11 1/2	0.844	0.938	1.81	1.97	1 5/16
2605-20-20-20	1 1/4	1 5/8-12	1 1/4-11 1/2	1.078	1.250	2.06	2.38	1 5/8
2605-24-24-24	1 1/2	1 7/8-12	1 1/2-11 1/2	1.312	1.500	2.33	2.64	1 7/8

**Female Run Tee**

**2606**

Flare tube ends / female pipe end  
SAE 070426

All dimensions are in inches  
\*Y1 —ACROSS WRENCH FLATS



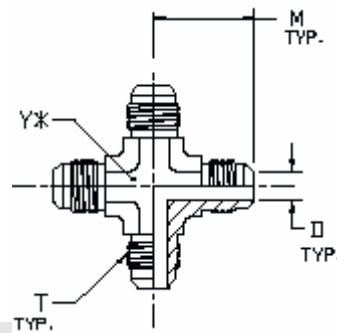
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	PT PORT THD NPTF	D DRILL (inch)	D1 DRILL REF (inch)	M1 (inch)	N1 (inch)	Y1 (inch)
2606-4-4-4	1/4	7/16-20	1/4-18	0.172	0.422	1.13	0.88	3/4
2606-6-4-6	3/8	9/16-18	1/4-18	0.297	0.422	1.24	0.88	3/4
2606-8-6-8	1/2	3/4-16	3/8-18	0.391	0.563	1.42	1.02	7/8
2606-8-8-8	1/2	3/4-16	1/2-14	0.391	0.688	1.42	1.23	1 1/16
2606-10-8-10	5/8	7/8-14	1/2-14	0.484	0.688	1.64	1.24	1 1/16
2606-12-12-12	3/4	1 1/16-12	3/4-14	0.609	0.891	1.89	1.36	1 5/16
2606-14-12-14	7/8	1 3/16-12	3/4-14	0.718	0.891	1.86	1.42	1 5/16
2606-16-16-16	1	1 5/16-12	1-11 1/2	0.844	1.125	2.17	1.63	1 5/8
2606-20-20-20	1 1/4	1 5/8-12	1 1/4-11 1/2	1.078	1.469	2.33	1.70	1 7/8
2606-24-24-24	1 1/2	1 7/8-12	1 1/2-11 1/2	1.312	1.703	2.89	2.08	2 1/2

**Union Cross**

**2650**

Flare tube end (all four ends)  
SAE 070501

All dimensions are in inches  
\*Y—ACROSS WRENCH FLATS



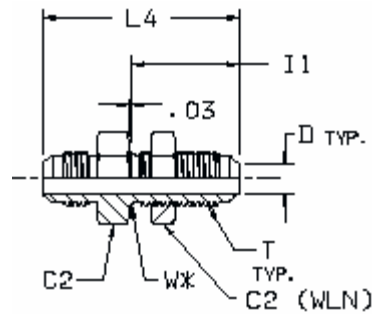
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	D DRILL (inch)	M (inch)	Y (inch)
2650-4-4-4-4	1/4	7/16-20	0.172	0.89	7/16
2650-5-5-5-5	5/16	1/2-20	0.234	0.95	9/16
2650-6-6-6-6	3/8	9/16-18	0.297	1.06	9/16
2650-8-8-8-8	1/2	3/4-16	0.391	1.25	3/4
2650-10-10-10-10	5/8	7/8-14	0.484	1.45	7/8
2650-12-12-12-12	3/4	1 1/16-12	0.609	1.66	1 1/16
2650-16-16-16-16	1	1 5/16-12	0.844	1.81	1 5/16

**Bulkhead Union**

**2700**

Flare tube end / flare tube end  
SAE 070601

All dimensions are in inches  
W\*— BULKHEAD PILOT DIA.  
RECOMMENDED CLEARANCE  
HOLE +.015 OVER W DIA.



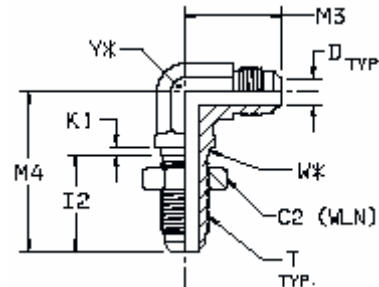
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	C2 HEX (inch)	D DRILL (inch)	I1 (inch)	L4 (inch)	W DIA (inch)
2700-3-3	3/16	3/8-24	5/8	0.125	1.11	1.91	0.38
2700-4-4	1/4	7/16-20	11/16	0.172	1.20	2.08	0.44
2700-5-5	5/16	1/2-20	3/4	0.234	1.20	2.08	0.50
2700-6-6	3/8	9/16-18	13/16	0.297	1.28	2.19	0.56
2700-8-8	1/2	3/4-16	1	0.391	1.44	2.44	0.75
2700-10-10	5/8	7/8-14	1 1/8	0.484	1.58	2.75	0.88
2700-12-12	3/4	1 1/16-12	1 3/8	0.609	1.75	3.09	1.06
2700-14-14	7/8	1 3/16-12	1 1/2	0.718	1.75	3.13	1.19
2700-16-16	1	1 5/16-12	1 5/8	0.844	1.75	3.14	1.31
2700-20-20	1 1/4	1 5/8-12	1 7/8	1.078	1.80	3.31	1.63
2700-24-24	1 1/2	1 7/8-12	2 1/8	1.312	1.81	3.52	1.88
2700-32-32	2	2 1/2-12	2 3/4	1.781	2.09	4.20	2.50

**Bulkhead Union Elbow**

**2701**

Flare tube end / flare tube end  
SAE 070701

All dimensions are in inches  
Y\* — ACROSS WRENCH FLATS  
W\*— BULKHEAD PILOT DIA.  
RECOMMENDED CLEARANCE  
HOLE +.015 OVER W DIA.



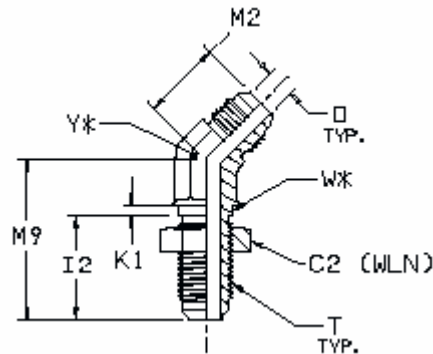
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	C2 HEX (inch)	D DRILL (inch)	I2 (inch)	K1 (inch)	M3 (inch)	M4 (inch)	W DIA (inch)	Y (inch)
2701-3-3	3/16	3/8-24	5/8	0.125	0.92	0.09	0.94	1.50	0.38	7/16
2701-4-4	1/4	7/16-20	11/16	0.172	1.02	0.09	0.97	1.59	0.44	7/16
2701-5-5	5/16	1/2-20	3/4	0.234	1.02	0.09	1.06	1.72	0.50	9/16
2701-6-6	3/8	9/16-18	13/16	0.297	1.09	0.09	1.09	1.81	0.56	9/16
2701-8-8	1/2	3/4-16	1	0.391	1.25	0.13	1.36	2.11	0.75	3/4
2701-10-10	5/8	7/8-14	1 1/8	0.484	1.39	0.13	1.56	2.39	0.88	7/8
2701-12-12	3/4	1 1/16-12	1 3/8	0.609	1.56	0.13	1.78	2.67	1.06	1 1/16
2701-14-14	7/8	1 3/16-12	1 1/2	0.718	1.56	0.13	1.92	2.80	1.19	1 5/8
2701-16-16	1	1 5/16-12	1 5/8	0.844	1.56	0.13	1.94	2.80	1.31	1 5/8
2701-20-20	1 1/4	1 5/8-12	1 7/8	1.078	1.61	0.13	2.17	3.13	1.63	1 5/8

## 45° Bulkhead Union Elbow

# 2702

Flare tube end / flare tube end  
SAE 070801

All dimensions are in inches  
Y\* — ACROSS WRENCH FLATS  
W\* — BULKHEAD PILOT DIA.  
RECOMMENDED CLEARANCE  
HOLE +.015 OVER W DIA.



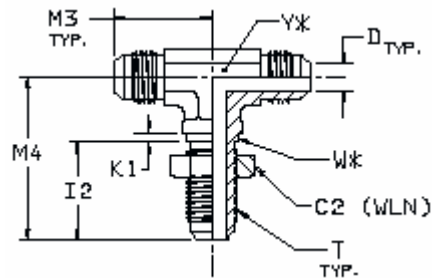
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	C2 HEX (inch)	D DRILL (inch)	I2 (inch)	K1 (inch)	M2 (inch)	M9 (inch)	W DIA (inch)	Y (inch)
2702-4-4	1/4	7/16-20	11/16	0.172	1.02	0.09	0.72	1.53	0.44	7/16
2702-5-5	5/16	1/2-20	3/4	0.234	1.02	0.09	0.78	1.66	0.56	9/16
2702-6-6	3/8	9/16-18	13/16	0.297	1.09	0.09	0.83	1.67	0.56	9/16
2702-8-8	1/2	3/4-16	1	0.391	1.25	0.13	0.98	1.94	0.75	3/4
2702-10-10	5/8	7/8-14	1 1/8	0.484	1.39	0.13	1.11	2.17	0.82	7/8
2702-12-12	3/4	1 1/16-12	1 3/8	0.609	1.56	0.13	1.28	2.44	1.06	1 1/16
2702-16-16	1	1 5/16-12	1 5/8	0.844	1.56	0.13	1.47	2.56	1.31	1 5/16
2702-20-20	1 1/4	1 5/8-12	1 7/8	1.078	1.61	0.13	1.59	2.65	1.63	1 5/8

## Bulkhead Branch Tee

# 2703

Flare tube end (all three ends)  
SAE 070959

All dimensions are in inches  
Y\* — ACROSS WRENCH FLATS  
W\* — BULKHEAD PILOT DIA.  
RECOMMENDED CLEARANCE  
HOLE +.015 OVER W DIA.



TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	C2 HEX (inch)	D DRILL (inch)	I2 (inch)	K1 (inch)	M3 (inch)	M4 (inch)	W DIA (inch)	Y (inch)
2703-4-4	1/4	7/16-20	11/16	0.172	1.02	0.09	0.97	1.59	0.44	7/16
2703-6-6	3/8	9/16-18	13/16	0.297	1.09	0.09	1.09	1.81	0.56	9/16
2703-8-8	1/2	3/4-16	1	0.391	1.25	0.13	1.36	2.11	0.75	3/4
2703-12-12	3/4	1 1/16-12	1 3/8	0.609	1.56	0.13	1.78	2.67	1.06	1 1/16
2703-16-16	1	1 5/16-12	1 5/8	0.844	1.56	0.13	1.94	2.80	1.31	1 5/16
2703-20-20	1 1/4	1 5/8-12	1 7/8	1.078	1.61	0.13	2.17	3.12	1.63	1 5/8

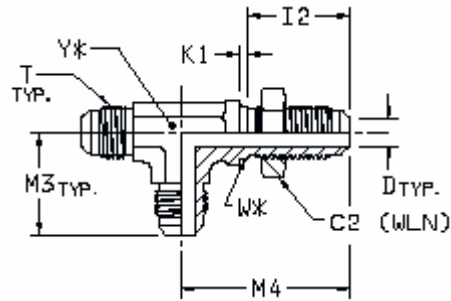


**Bulkhead Run Tee**

**2704**

**Flare tube end (all three ends)  
SAE 070958**

All dimensions are in inches  
Y\* — ACROSS WRENCH FLATS  
W\* — BULKHEAD PILOT DIA.  
RECOMMENDED CLEARANCE  
HOLE  $\pm .015$  OVER W DIA.



HOSE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	C2 HEX (inch)	D DRILL (inch)	I2 (inch)	K1 (inch)	M3 (inch)	M4 (inch)	W DIA (inch)	Y (inch)
2704-4-4	1/4	7/16-20	11/16	0.172	1.02	0.09	0.97	1.59	0.44	7/16
2704-6-6	3/8	9/16-18	13/16	0.297	1.09	0.09	1.09	1.81	0.56	9/16
2704-8-8	1/2	3/4-16	1	0.391	1.25	0.13	1.36	2.11	0.75	3/4
2704-10-10	5/8	7/8-14	1 1/8	0.484	1.39	0.13	1.56	2.39	0.88	7/8
2704-12-12	3/4	1 1/16-12	1 3/8	0.609	1.56	0.13	1.78	2.67	1.06	1 1/16
2704-16-16	1	1 5/16-12	1 5/8	0.844	1.56	0.13	1.94	2.80	1.31	1 7/16
2704-20-20	1 1/4	1 5/8-12	1 7/8	1.078	1.61	0.13	2.17	3.12	1.63	1 5/8

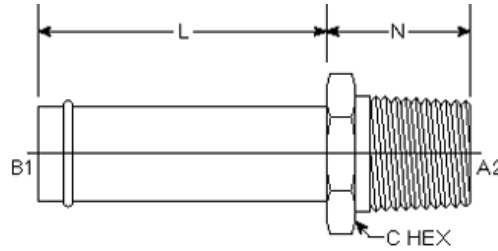
**Beaded Male Connector**

**4404**

**Hose Barb/ male pipe thread**

All dimensions are in inches

HB-MP STRAIGHT



HB-MP STRAIGHT

Product ID	Description	B1 TUBE O.D.	A2 NPTF	L LGTH	N LGTH	C HEX
4404-04-02	HB-MP STRAIGHT	1/4	1/8-27	2.078	0.578	9/16
4404-04-04	HB-MP STRAIGHT	1/4	1/4-18	2.350	0.860	9/16
4404-05-02	HB-MP STRAIGHT	5/16	1/8-27	2.090	0.580	7/16
4404-06-04	HB-MP STRAIGHT	3/8	1/4-18	2.310	0.843	5/8
4404-06-06	HB-MP STRAIGHT	3/8	3/8-18	2.260	0.770	3/4
4404-08-04	HB-MP STRAIGHT	1/2	1/4-18	2.370	0.880	5/8
4404-08-06	HB-MP STRAIGHT	1/2	3/8-18	2.375	0.875	3/4
4404-08-08	HB-MP STRAIGHT	1/2	1/2-14	2.580	1.070	15/16
4404-08-12	HB-MP STRAIGHT	1/2	3/4-14	2.680	1.170	1 1/8
4404-10-06	HB-MP STRAIGHT	5/8	3/8-18	2.375	0.897	7/8
4404-10-08	HB-MP STRAIGHT	5/8	1/2-14	2.578	1.078	15/16
4404-10-12	HB-MP STRAIGHT	5/8	3/4-14	2.660	1.160	1 1/8
4404-12-06	HB-MP STRAIGHT	3/4	3/8-18	2.410	0.920	1
4404-12-08	HB-MP STRAIGHT	3/4	1/2-14	2.570	1.170	15/16
4404-12-12	HB-MP STRAIGHT	3/4	3/4-14	2.671	1.171	1 1/8
4404-12-16	HB-MP STRAIGHT	3/4	1-11 1/2	1.496	1.353	1 3/8
4404-16-12	HB-MP STRAIGHT	1	3/4-14	2.625	1.125	1 1/4
4404-16-16	HB-MP STRAIGHT	1	1-11 1/2	2.859	1.359	1 3/8
4404-20-12	HB-MP STRAIGHT	1 1/4	3/4-14	2.600	1.120	1 3/8
4404-20-16	HB-MP STRAIGHT	1 1/4	1-11 1/2	2.800	1.310	1 3/8
4404-20-20	HB-MP STRAIGHT	1 1/4	1 1/4-11 1/2	2.968	1.468	1 3/4
4404-20-24	HB-MP STRAIGHT	1 1/4	1 1/2-11 1/2	1.500	1.584	2
4404-24-20	HB-MP STRAIGHT	1 1/2	1 1/4-11 1/2	2.968	1.468	1 3/4
4404-24-24	HB-MP STRAIGHT	1 1/2	1 1/2-11 1/2	3.078	1.570	2
4404-32-32	HB-MP STRAIGHT	2	2-11 1/2	2.937	1.437	2 1/2

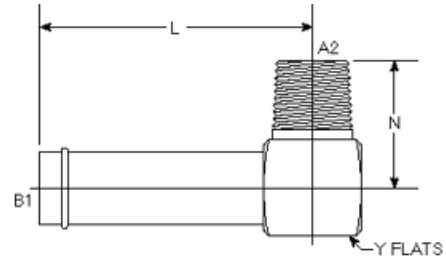
**Beaded Male Elbow**

**4501**

SAE 140260

Hose Barb end/ male pipe thread

All dimensions are in inches



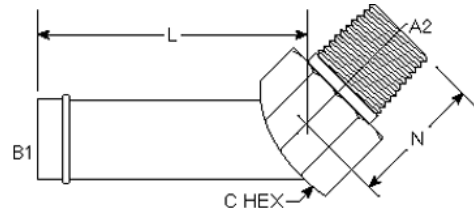
HB-MP 90°

Product ID	Description	B1 TUBE O.D.	A2 NPTF	L LGTH	N LGTH	Y FLATS
4501-04-02	HB-MP 90°	1/4	1/8-27	1.750	0.781	1/2
4501-04-04	HB-MP 90°	1/4	1/4-18	1.810	1.060	5/8
4501-05-02	HB-MP 90°	5/16	1/8-27	1.750	0.780	1/2
4501-06-04	HB-MP 90°	3/8	1/4-18	1.812	1.093	5/8
4501-06-06	HB-MP 90°	3/8	3/8-18	1.890	1.220	13/16
4501-06-08	HB-MP 90°	3/8	1/2-14	1.970	1.460	15/16
4501-08-04	HB-MP 90°	1/2	1/4-18	1.810	1.100	5/8
4501-08-06	HB-MP 90°	1/2	3/8-18	1.906	1.218	13/16
4501-08-08	HB-MP 90°	1/2	1/2-14	1.980	1.470	15/16
4501-08-12	HB-MP 90°	1/2	3/4-14	1.968	2.062	1 1/8
4501-10-06	HB-MP 90°	5/8	3/8-18	1.968	1.278	15/16
4501-10-08	HB-MP 90°	5/8	1/2-14	1.968	1.468	15/16
4501-10-12	HB-MP 90°	5/8	3/4-14	2.060	1.600	1 1/8
4501-12-06	HB-MP 90°	3/4	3/8-18	1.900	1.220	13/16
4501-12-08	HB-MP 90°	3/4	1/2-14	1.470	1.970	15/16
4501-12-12	HB-MP 90°	3/4	3/4-14	2.062	1.593	1 1/8
4501-12-16	HB-MP 90°	3/4	1-11 1/2	2.190	1.980	1 3/8
4501-16-08	HB-MP 90°	1	1/2-14	2.053	1.561	1 1/8
4501-16-12	HB-MP 90°	1	3/4-14	2.080	1.600	1 1/8
4501-16-16	HB-MP 90°	1	1-11 1/2	2.187	1.968	1 3/8
4501-16-20	HB-MP 90°	1	1 1/4-11 1/2	2.380	2.380	1 3/4
4501-16-24	HB-MP 90°	1	1 1/2-11 1/2	2.520	2.640	2
4501-20-16	HB-MP 90°	1 1/4	1-11 1/2	1.200	1.980	1 3/8
4501-20-20	HB-MP 90°	1 1/4	1 1/4-11 1/2	2.375	2.375	1 3/4
4501-20-24	HB-MP 90°	1 1/4	1 1/2-11 1/2	2.500	2.640	2
4501-24-16	HB-MP 90°	1 1/2	1-11-1/2	2.380	2.160	1 3/4
4501-24-20	HB-MP 90°	1 1/2	1 1/4-11 1/2	2.380	2.380	1 3/4
4501-24-24	HB-MP 90°	1 1/2	1 1/2-11 1/2	2.500	2.640	2
4501-32-32	HB-MP 90°	2	2-11 1/2	2.812	3.000	2 5/8

**45° Beaded Male Elbow**

**4503**

**SAE 140360**  
**Hose Barb end/ male pipe thread**  
All dimensions are in inches



HB-MP 45°

Product ID	Description	B1 TUBE O.D.	A2 NPTF	L LGTH	N LGTH	C HEX
4503-04-02	HB-MP 45°	1/4	1/8-27	0.640	1.562	1/2
4503-04-04	HB-MP 45°	1/4	1/4-18	0.830	1.810	5/8
4503-05-02	HB-MP 45°	5/16	1/8-27	0.640	1.650	1/2
4503-06-04	HB-MP 45°	3/8	1/4-18	0.859	1.625	5/8
4503-06-06	HB-MP 45°	3/8	3/8-18	0.950	1.710	13/16
4503-08-04	HB-MP 45°	1/2	1/4-18	0.830	1.710	5/8
4503-08-06	HB-MP 45°	1/2	3/8-18	0.953	1.687	13/16
4503-08-08	HB-MP 45°	1/2	1/2-14	1.180	1.740	15/16
4503-10-06	HB-MP 45°	5/8	3/8-18	0.981	1.718	15/16
4503-10-08	HB-MP 45°	5/8	1/2-14	1.171	1.718	15/16
4503-10-12	HB-MP 45°	5/8	3/4-14	1.220	1.830	1 1/8
4503-12-08	HB-MP 45°	3/4	1/2-14	1.170	1.760	15/16
4503-12-12	HB-MP 45°	3/4	3/4-14	1.203	1.718	1 1/8
4503-12-16	HB-MP 45°	3/4	1-11 1/2	1.540	2.100	1 3/8
4503-16-12	HB-MP 45°	1	3/4-14	1.203	1.750	1 1/8
4503-16-16	HB-MP 45°	1	1-11 1/2	1.484	1.750	1 3/8
4503-16-20	HB-MP 45°	1	1 1/4-11 1/2	1.620	2.070	1 3/4
4503-20-16	HB-MP 45°	1 1/4	1-11 1/2	1.570	1.740	1 3/8
4503-20-20	HB-MP 45°	1 1/4	1 1/4-11 1/2	1.671	1.812	1 3/4
4503-24-20	HB-MP 45°	1 1/2	1 1/4-11 1/2	1.620	1.930	1 3/4
4503-24-24	HB-MP 45°	1 1/2	1 1/2-11 1/2	1.765	1.875	2
4503-32-32	HB-MP 45°	2	2-11 1/2	2.109	2.000	2 1/2

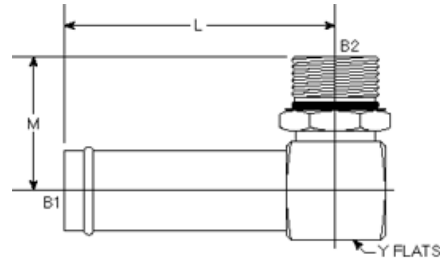
**Beaded Boss Elbow**

**4601**

SAE 090292

Hose Barb end/ straight thread o-ring

All dimensions are in inches



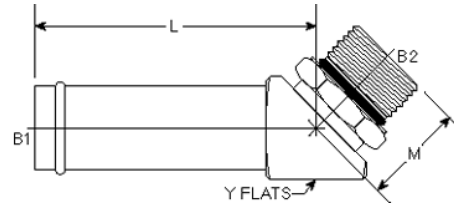
HB-MAORB 90°

Product ID	Description	B1 TUBE O.D.	B2 AORB	L LGTH	M LGTH	Y FLATS
4601-04-04	HB-MAORB 90°	1/4	7/16-20	1.750	1.031	1/2
4601-04-06	HB-MAORB 90°	1/4	9/16-18	1.810	1.270	5/8
4601-05-04	HB-MAORB 90°	5/16	7/16-20	1.770	1.010	1/2
4601-06-04	HB-MAORB 90°	3/8	7/16-20	1.810	1.190	7/16
4601-06-06	HB-MAORB 90°	3/8	9/16-18	1.812	1.250	5/8
4601-06-08	HB-MAORB 90°	3/8	3/4-16	1.890	1.470	13/16
4601-08-06	HB-MAORB 90°	1/2	9/16-18	1.906	1.812	13/16
4601-08-08	HB-MAORB 90°	1/2	3/4-16	1.906	1.453	13/16
4601-10-08	HB-MAORB 90°	5/8	3/4-16	1.900	1.450	13/16
4601-10-10	HB-MAORB 90°	5/8	7/8-14	1.968	1.703	15/16
4601-10-12	HB-MAORB 90°	5/8	1 1/16-12	2.070	1.930	1 1/8
4601-12-08	HB-MAORB 90°	3/4	3/4-16	1.890	1.450	13/16
4601-12-10	HB-MAORB 90°	3/4	7/8-14	1.930	1.680	15/16
4601-12-12	HB-MAORB 90°	3/4	1 1/16-12	2.062	1.937	1 1/8
4601-12-16	HB-MAORB 90°	3/4	1 5/16-12	2.190	2.040	1 3/8
4601-14-14	HB-MAORB 90°	7/8	1 3/16-12	2.125	2.000	1 1/4
4601-16-08	HB-MAORB 90°	1	3/4-16	2.050	1.600	1 1/8
4601-16-10	HB-MAORB 90°	1	7/8-14	2.375	2.000	1 5/16
4601-16-12	HB-MAORB 90°	1	1 1/16-12	2.020	1.950	1 1/8
4601-16-14	HB-MAORB 90°	1	1 3/16-12	2.110	2.000	1 1/4
4601-16-16	HB-MAORB 90°	1	1 5/16-12	2.187	2.046	1 3/8
4601-16-20	HB-MAORB 90°	1	1 5/8-12	2.340	2.250	1 3/4
4601-16-24	HB-MAORB 90°	1	1 7/8-12	2.470	2.400	2
4601-20-12	HB-MAORB 90°	1 1/4	1 1/16-12	2.400	2.000	1 5/8
4601-20-16	HB-MAORB 90°	1 1/4	1 5/16-12	2.200	2.040	1 3/8
4601-20-20	HB-MAORB 90°	1 1/4	1 5/8-12	2.375	2.250	1 3/4
4601-20-24	HB-MAORB 90°	1 1/4	1 7/8-12	2.500	2.400	2
4601-24-16	HB-MAORB 90°	1 1/2	1 5/16-12	2.320	2.170	1 5/8
4601-24-20	HB-MAORB 90°	1 1/2	1 5/8-12	2.370	2.240	1 3/4
4601-24-24	HB-MAORB 90°	1 1/2	1 7/8-12	2.500	2.390	2
4601-32-32	HB-MAORB 90°	2	2 1/2-12	2.812	2.890	2 5/8

**45° Beaded Boss Elbow**

**4603**

**SAE 090392**  
**Hose Barb end/ straight thread o-ring**  
**HB-MAORB 45°**  
All dimensions are in inches



HB-MAORB 45°

Product ID	Description	B1 TUBE O.D.	B2 AORB	L LGTH	M LGTH	Y FLATS
4603-04-04	HB-MAORB 45°	1/4	7/16-20	1.562	1.046	1/2
4603-06-06	HB-MAORB 45°	3/8	9/16-18	1.593	1.140	5/8
4603-08-08	HB-MAORB 45°	1/2	3/4-16	1.625	1.296	13/16
4603-08-10	HB-MAORB 45°	1/2	7/8-14	1.870	1.520	15/16
4603-10-08	HB-MAORB 45°	5/8	3/4-16	1.700	1.320	13/16
4603-10-10	HB-MAORB 45°	5/8	7/8-14	1.609	1.515	15/16
4603-10-12	HB-MAORB 45°	5/8	1 1/16-12	1.880	1.740	1 1/8
4603-12-08	HB-MAORB 45°	3/4	3/4-16	1.643	1.300	13/16
4603-12-10	HB-MAORB 45°	3/4	7/8-14	1.650	1.590	15/16
4603-12-12	HB-MAORB 45°	3/4	1 1/16-12	1.703	1.734	1 1/8
4603-16-12	HB-MAORB 45°	1	1 1/16-12	1.780	1.720	1 1/8
4603-16-14	HB-MAORB 45°	1	1 3/16-12	1.850	1.830	1 1/4
4603-16-16	HB-MAORB 45°	1	1 5/16-12	0.859	1.859	1 3/8
4603-20-16	HB-MAORB 45°	1 1/4	1 5/16-12	1.870	1.900	1 3/8
4603-20-20	HB-MAORB 45°	1 1/4	1 5/8-12	1.921	1.906	1 3/4
4603-24-20	HB-MAORB 45°	1 1/2	1 5/8-12	1.990	1.857	1 3/4
4603-24-24	HB-MAORB 45°	1 1/2	1 7/8-12	1.968	1.906	2
4603-32-32	HB-MAORB 45°	2	2 1/2-12	2.180	1.859	2 5/8

**45° Beaded Boss Elbow**

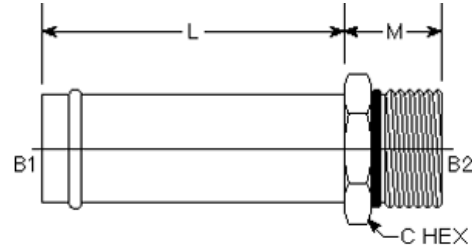
**4604**

SAE 090192

Hose Barb end/ straight thread o-ring

HB-MORB STRAIGHT

All dimensions are in inches



HB-MORB STRAIGHT

Product ID	Description	B1 TUBE O.D.	B2 ORB	L LGTH	M LGTH	C HEX
4604-04-04	HB-MORB STRAIGHT	1/4	7/16-20	1.500	0.600	9/16
4604-05-05	HB-MORB STRAIGHT	5/16	1/2-20	1.500	0.670	5/8
4604-06-04	HB-MORB STRAIGHT	3/8	7/16-20	1.500	0.670	9/16
4604-06-06	HB-MORB STRAIGHT	3/8	9/16-18	1.500	0.730	11/16
4604-08-06	HB-MORB STRAIGHT	1/2	9/16-18	1.500	0.730	11/16
4604-08-08	HB-MORB STRAIGHT	1/2	3/4-16	1.500	0.800	7/8
4604-10-08	HB-MORB STRAIGHT	5/8	3/4-16	1.500	0.800	7/8
4604-10-10	HB-MORB STRAIGHT	5/8	7/8-14	1.500	0.940	1
4604-10-12	HB-MORB STRAIGHT	5/8	1 1/16-12	1.500	1.090	1 1/4
4604-12-08	HB-MORB STRAIGHT	3/4	3/4-16	1.500	0.800	7/8
4604-12-10	HB-MORB STRAIGHT	3/4	7/8-14	1.500	0.940	1
4604-12-12	HB-MORB STRAIGHT	3/4	1 1/16-12	1.500	1.090	1 1/4
4604-12-16	HB-MORB STRAIGHT	3/4	1 5/16-12	1.500	1.130	1 1/2
4604-16-10	HB-MORB STRAIGHT	1	7/8-14	1.500	0.940	1 1/4
4604-16-12	HB-MORB STRAIGHT	1	1 1/16-12	1.500	1.090	1 1/4
4604-16-16	HB-MORB STRAIGHT	1	1 5/16-12	1.500	1.130	1 1/2
4604-16-20	HB-MORB STRAIGHT	1	1 5/8-12	1.500	1.200	1 7/8
4604-20-10	HB-MORB STRAIGHT	1 1/4	7/8-14	1.500	1.075	1 1/2
4604-20-12	HB-MORB STRAIGHT	1 1/4	1 1/16-12	1.500	1.100	1 3/8
4604-20-16	HB-MORB STRAIGHT	1 1/4	1 5/16-12	1.500	1.130	1 1/2
4604-20-20	HB-MORB STRAIGHT	1 1/4	1 5/8-12	1.500	1.200	1 7/8
4604-20-24	HB-MORB STRAIGHT	1 1/4	1 7/8-12	1.500	1.270	2 1/8
4604-24-16	HB-MORB STRAIGHT	1 1/2	1 5/16-12	1.500	1.130	1 11/16
4604-24-20	HB-MORB STRAIGHT	1 1/2	1 5/8-12	1.500	1.200	1 7/8
4604-24-24	HB-MORB STRAIGHT	1 1/2	1 7/8-12	1.500	1.270	2 1/8
4604-32-32	HB-MORB STRAIGHT	2	2 1/2-12	1.500	1.440	2 3/4

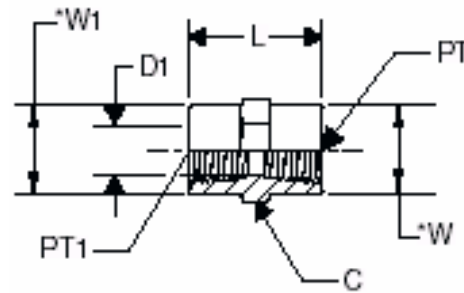
Pipe Coupling

**5000**

Female pipe thread / female pipe thread  
SAE 140138

All dimensions are in inches

\*Turn down is optional per SAE J514.



TUBE FITTING PART #	PT PORT THD NPTF	PT1 PORT THD NPTF	C HEX (inch)	D1 DRILL (inch)	L (inch)	W (inch)	W1 (inch)
5000-2-2	1/8-27	1/8-27	5/8	0.328	0.75	0.63	0.63
5000-2-4	1/4-18	1/8-27	3/4	0.328	0.94	0.75	0.63
5000-4-4	1/4-18	1/4-18	3/4	0.422	1.13	0.75	0.75
5000-2-6	3/8-18	1/8-27	7/8	0.328	1.03	0.88	0.63
5000-4-6	3/8-18	1/4-18	7/8	0.422	1.13	0.88	0.75
5000-6-6	3/8-18	3/8-18	7/8	0.563	1.13	0.88	0.88
5000-2-8	1/2-14	1/8-27	1 1/8	0.328	1.06	1.13	0.63
5000-4-8	1/2-14	1/4-18	1 1/8	0.422	1.38	1.13	0.75
5000-6-8	1/2-14	3/8-18	1 1/8	0.563	1.50	1.13	0.88
5000-8-8	1/2-14	1/2-14	1 1/8	0.688	1.50	1.13	1.13
5000-4-12	3/4-14	1/4-18	1 3/8	0.422	1.55	1.36	0.75
5000-8-12	3/4-14	1/2-14	1 3/8	0.688	1.88	1.36	1.13
5000-12-12	3/4-14	3/4-14	1 3/8	0.891	1.53	1.38	1.38
5000-16-16	1-11 1/2	1-11 1/2	1 5/8	1.125	1.89	1.63	1.63
5000-8-16	1-11 1/2	1/2-14	1 5/8	0.688	1.77	1.63	1.13
5000-12-16	1-11 1/2	3/4-14	1 5/8	0.891	1.77	1.63	1.38
5000-20-20	1 1/4-11 1/2	1 1/4-11 1/2	2	1.469	1.94	2.00	2.00
5000-16-20	1 1/4-11 1/2	1-11 1/2	2	1.125	1.94	2.00	1.63
5000-24-24	1 1/2-11 1/2	1 1/2-11 1/2	2 3/8	1.703	1.94	2.38	2.38
5000-20-24	1 1/2-11 1/2	1 1/4-11 1/2	2 3/8	1.469	1.93	2.37	2.37
5000-32-32	2-11 1/2	2-11 1/2	2 7/8	2.188	1.97	2.88	2.88

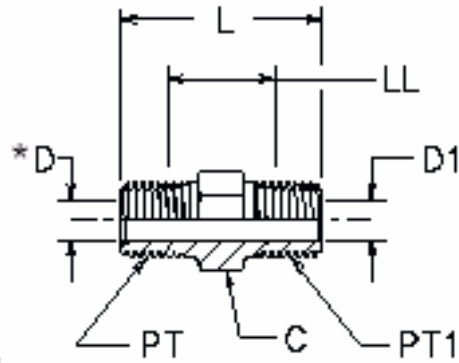


Pipe Nipple

**5404**

Male pipe thread / male pipe thread  
SAE 140137

All dimensions are in inches  
\* D1 may be substituted for D where  
D1 is smaller than D.



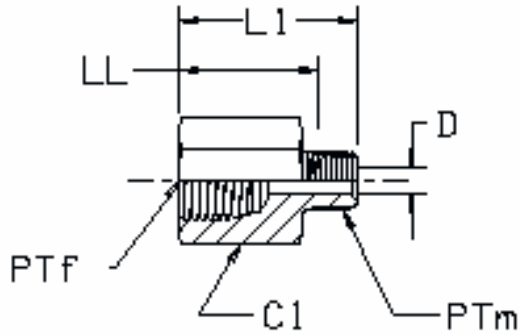
TUBE FITTING PART #	PT PORT THD NPTF	PT1 PORT THD NPTF	HEX (inch)	DRILL (inch)	D1 DRILL (inch)	L (inch)
5404-2-2	1/8-27	1/8-27	7/16	0.188	0.188	1.06
5404-2-4	1/4-18	1/8-27	5/8	0.281	0.188	1.25
5404-4-4	1/4-18	1/4-18	5/8	0.281	0.281	1.45
5404-2-6	3/8-18	1/8-27	3/4	0.406	0.188	1.45
5404-4-6	3/8-18	1/4-18	3/4	0.406	0.281	1.45
5404-6-6	3/8-18	3/8-18	3/4	0.406	0.406	1.45
5404-2-8	1/2-14	1/8-27	7/8	0.531	0.188	1.52
5404-6-8	1/2-14	3/8-18	7/8	0.531	0.406	1.70
5404-4-8	1/2-14	1/4-18	7/8	0.531	0.281	1.70
5404-8-8	1/2-14	1/2-14	7/8	0.531	0.531	1.89
5404-4-12	3/4-14	1/4-18	1 1/8	0.719	0.281	1.78
5404-6-12	3/4-14	1/4-18	1 1/8	0.719	0.406	1.78
5404-8-12	3/4-14	1/2-14	1 1/8	0.719	0.281	1.96
5404-12-12	3/4-14	3/4-14	1 1/8	0.719	0.719	1.96
5404-16-16	1-11 1/2	1-11 1/2	1 3/8	0.938	0.938	2.34
5404-4-16	1-11 1/2	1/4-18	1 3/8	0.938	0.281	1.96
5404-6-16	1-11 1/2	3/8-18	1 3/8	0.938	0.406	1.96
5404-8-16	1-11 1/2	1/2-14	1 3/8	0.938	0.531	2.09
5404-12-16	1-11 1/2	3/4-14	1 3/8	0.719	0.719	2.09
5404-16-20	1 1/4-11 1/2	1-11 1/2	1 3/4	1.250	0.938	2.45
5404-20-20	1 1/4-11 1/2	1 1/4-11 1/2	1 3/4	1.250	1.250	2.48
5404-16-24	1 1/2-11 1/2	1-11 1/2	2	1.500	0.938	2.55
5404-24-24	1 1/2-11 1/2	1 1/2-11 1/2	2	1.500	1.500	2.61
5404-32-32	2-11 1/2	2-11 1/2	2 1/2	1.938	1.938	2.83
5404-24-32	2-11 1/2	1 1/2-11 1/2	2 1/2	1.500	1.500	2.79

Expander / Adapter

**5405**

Female pipe thread / male pipe thread  
SAE 140139

All dimensions are in inches



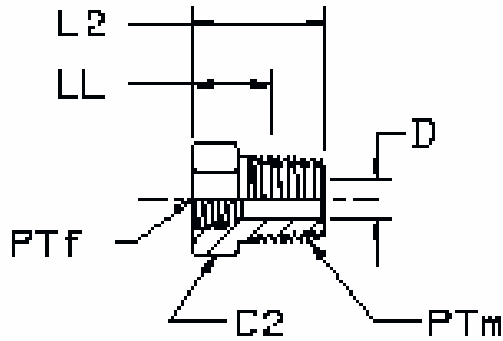
TUBE FITTING PART #	PTm PORT THD NPTF	PTf PORT THD NPTF	C1 HEX (inch)	D DRILL (inch)	L1 (inch)	LL (inch)
5405-2-2	1/8-27	1/8-27	5/8	0.188	1.03	0.80
5405-4-2	1/8-27	1/4-18	3/4	0.188	1.20	0.97
5405-4-4	1/4-18	1/4-18	3/4	0.281	1.39	1.05
5405-6-2	1/8-27	3/8-18	7/8	0.188	1.25	1.02
5405-6-4	1/4-18	3/8-18	7/8	0.281	1.44	1.10
5405-6-6	3/8-18	3/8-18	7/8	0.406	1.44	1.09
5405-8-2	1/8-27	1/2-14	1 1/8	0.188	1.50	1.27
5405-8-4	1/4-18	1/2-14	1 1/8	0.281	1.69	1.35
5405-8-6	3/8-18	1/2-14	1 1/8	0.406	1.69	1.34
5405-8-8	1/2-14	1/2-14	1 1/8	0.531	1.87	1.23
5405-12-12	3/4-14	3/4-14	1 3/8	0.719	1.93	1.45
5405-12-4	1/4-18	3/4-14	1 3/8	0.281	1.75	1.41
5405-12-6	3/8-18	3/4-14	1 3/8	0.406	1.75	1.40
5405-16-16	1/2-14	3/4-14	1 3/8	0.531	1.94	1.48
5405-16-4	1-11 1/2	1-11 1/2	1 5/8	0.938	2.37	1.80
5405-16-8	1/4-18	1-11 1/2	1 5/8	0.281	2.01	1.67
5405-20-20	1/2-14	1-11 1/2	1 5/8	0.531	2.19	1.73
5405-24-16	3/4-14	1-11 1/2	1 5/8	0.719	2.19	1.71
5405-24-24	1 1/4-11 1/2	1 1/4-11 1/2	2	1.250	2.50	1.91
5405-20-20	1-11 1/2	1 1/4-11 1/2	2	0.938	2.47	1.90
5405-16-24	1-11 1/2	1 1/2-11 1/2	2 3/8	0.938	2.47	1.90
5405-24-24	2-11 1/2	2-11 1/2	2 7/8	1.938	2.66	2.06

Pipe Thread Reducer

**5406**

Male pipe thread / female pipe thread  
SAE 140140

All dimensions are in inches



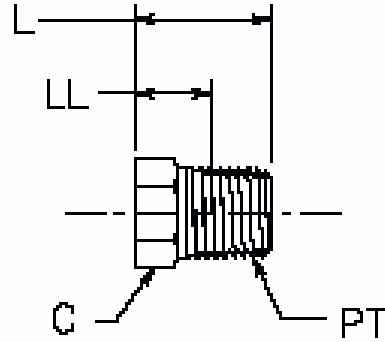
TUBE FITTING PART #	PTM PORT THD NPTF	PTf PORT THD NPTF	C2 HEX (inch)	D DRILL (inch)	L2 (inch)	LL (inch)
5406-4-2	1/4-18	1/8-27	5/8	0.328	0.86	0.52
5406-6-2	3/8-18	1/8-27	3/4	0.328	0.86	0.51
5406-6-4	3/8-18	1/4-18	3/4	0.422	0.86	0.51
5406-8-2	1/2-14	1/8-27	7/8	0.328	1.11	0.65
5406-8-4	1/2-14	1/4-18	7/8	0.422	1.11	0.65
5406-8-6	1/2-14	3/8-18	7/8	0.563	1.11	0.65
5406-12-2	3/4-14	1/8-18	1 1/8	0.328	1.17	0.69
5406-12-4	3/4-14	1/4-18	1 1/8	0.422	1.17	0.69
5406-12-6	3/4-14	3/8-18	1 1/8	0.563	1.17	0.69
5406-12-8	3/4-14	1/2-14	1 1/8	0.688	1.17	0.69
5406-16-2	1-11 1/2	1/8-18	1 3/8	0.328	1.36	0.79
5406-16-4	1-11 1/2	1/4-18	1 3/8	0.422	1.36	0.79
5406-16-6	1-11 1/2	3/8-18	1 3/8	0.563	1.36	0.79
5406-16-8	1-11 1/2	1/2-14	1 3/8	0.688	1.36	0.79
5406-16-12	1-11 1/2	3/4-14	1 3/8	0.891	1.36	0.79
5406-20-4	1 1/4-11 1/2	1/4-18	1 3/4	0.328	1.47	0.53
5406-20-6	1 1/4-11 1/2	3/8-18	1 3/4	0.563	1.47	0.87
5406-20-8	1 1/4-11 1/2	1/2-14	1 3/4	0.688	1.47	0.87
5406-20-12	1 1/4-11 1/2	3/4-14	1 3/4	0.891	1.47	0.88
5406-20-16	1 1/4-11 1/2	1-11 1/2	1 3/4	1.125	1.47	0.88
5406-24-12	1 1/2-11 1/2	1/4-18	2	0.328	1.52	0.92
5406-24-6	1 1/2-11 1/2	3/8-18	2	0.563	1.58	0.98
5406-24-8	1 1/2-11 1/2	1/2-14	2	0.688	1.58	0.98
5406-24-12	1 1/2-11 1/2	3/4-14	2	0.891	1.58	0.98
5406-24-16	1 1/2-11 1/2	1-11 1/2	2	1.125	1.58	0.99
5406-24-20	1 1/2-11 1/2	1 1/4-11 1/2	2	1.469	1.58	0.99
5406-32-8	2-11 1/2	1/2-14	2 1/2	0.688	1.75	1.14
5406-32-12	2-11 1/2	3/4-14	2 1/2	0.891	1.75	1.14
5406-32-16	2-11 1/2	1-11 1/2	2 1/2	1.125	1.75	1.14
5406-32-20	2-11 1/2	1 1/4-11 1/2	2 1/2	1.719	1.75	1.14
5406-32-24	2-11 1/2	1 1/2-11 1/2	2 1/2	1.719	1.75	1.14

**Hex Head Pipe Plug**

**5406P**

Male pipe thread  
SAE 130109E

All dimensions are in inches



TUBE FITTING PART #	PT PORT THD NPTF	C HEX (inch)	L (inch)	LL (inch)
5406P-2	1/8-27	7/16	0.56	0.33
5406P-4	1/4-18	9/16	0.75	0.41
5406P-6	3/8-18	11/16	0.78	0.43
5406P-8	1/2-14	7/8	0.97	0.51
5406P-12	3/4-14	1 1/16	1.06	0.58
5406P-16	1-11 1/2	1 3/8	1.25	0.68
5406P-20	1 1/4-11 1/2	1 3/4	1.41	0.82
5406P-24	1 1/2-11 1/2	2	1.50	0.86
5406P-32	2-11 1/2	2 1/2	1.69	1.08

**Male Pipe Elbow**

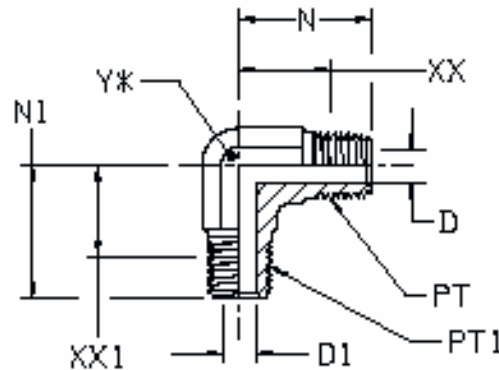
**5500**

Male pipe thread / male pipe thread  
SAE 140237\*

\*Not shown in SAE J514, but coded per SAE J846.

All dimensions are in inches

\*Y—ACROSS WRENCH FLATS



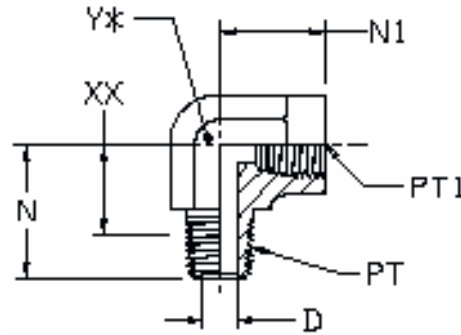
TUBE FITTING PART #	PT PORT THD NPTF	PT1 PORT THD NPTF	D DRILL (inch)	D1 DRILL (inch)	N (inch)	N1 (inch)	Y (inch)
5500-2-2	1/8-27	1/8-27	0.187	0.187	0.78	0.78	7/16
5500-4-4	1/4-18	1/4-18	0.281	0.281	1.09	1.09	9/16
5500-6-6	3/8-18	3/8-18	0.406	0.406	1.22	1.22	3/4
5500-6-4	3/8-18	1/4-18	0.406	0.281	1.22	1.22	3/4
5500-8-8	1/2-14	1/2-14	0.531	0.531	1.47	1.47	7/8
5500-8-6	1/2-14	3/8-18	0.531	0.406	1.47	1.28	7/8
5500-12-12	3/4-14	3/4-14	0.719	0.719	1.59	1.59	1 1/16
5500-12-8	3/4-14	1/2-14	0.719	0.531	1.59	1.47	1 1/16
5500-16-16	1-11 1/2	1-11 1/2	0.938	0.938	1.97	1.97	1 5/8
5500-16-12	1-11 1/2	3/4-14	0.938	0.719	1.97	1.78	1 5/16
5500-20-20	1 1/4-11 1/2	1 1/4-11 1/2	1.250	1.250	2.22	2.22	1 7/8
5500-24-24	1 1/2-11 1/2	1 1/2-11 1/2	1.500	1.500	2.34	2.34	1 7/8

**Street Elbow**

**5502**

Male pipe thread / female pipe thread  
SAE 140239

All dimensions are in inches  
\*Y—ACROSS WRENCH FLATS



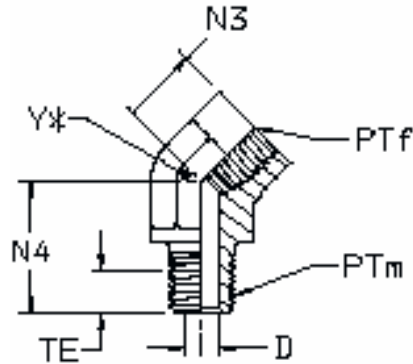
TUBE FITTING PART #	PT PORT THD NPTF	PT1 PORT THD NPTF	D DRILL (inch)	N (inch)	N1 (inch)	Y (inch)
5502-2-2	1/8-27	1/8-27	0.188	0.78	0.66	9/16
5502-2-4	1/8-27	1/4-18	0.188	0.88	0.88	9/16
5502-4-4	1/4-18	1/4-18	0.281	1.09	0.88	3/4
5502-4-2	1/4-18	1/8-27	0.281	1.09	0.66	9/16
5502-4-8	1/4-18	1/2-14	0.281	1.28	1.23	1 1/16
5502-4-6	1/4-18	3/8-18	0.281	1.22	1.01	7/8
5502-6-6	3/8-18	3/8-18	0.406	1.22	1.02	7/8
5502-6-4	3/8-18	1/4-18	0.406	1.22	0.88	3/4
5502-6-8	3/8-18	1/2-14	0.406	1.28	1.23	1 1/16
5502-8-8	1/2-14	1/2-14	0.531	1.47	1.23	1 1/16
5502-8-6	1/2-14	3/8-18	0.531	1.48	1.25	7/8
5502-8-12	1/2-14	3/4-14	0.531	1.59	1.36	1 5/16
5502-12-12	3/4-14	3/4-14	0.719	1.59	1.36	1 5/16
5502-12-8	3/4-14	1/2-14	0.719	1.59	1.23	1 1/16
5502-16-16	1-11 1/2	1-11 1/2	0.938	1.97	1.63	1 5/8
5502-20-20	1 1/4-11 1/2	1 1/4-11 1/2	1.250	2.38	1.70	1 7/8
5502-24-24	1 1/2-11 1/2	1 1/2-11 1/2	1.500	2.64	2.08	2 1/2

**45° Street Elbow**

**5503**

Male pipe thread / female pipe thread  
SAE 140339

All dimensions are in inches  
\*Y—ACROSS WRENCH FLATS



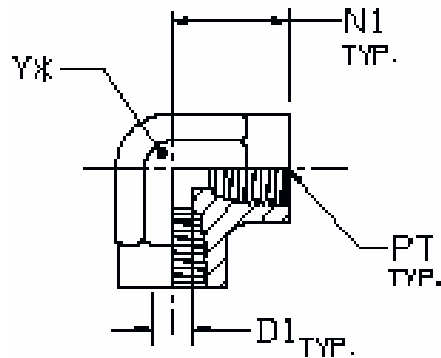
TUBE FITTING PART #	PTm PORT THD NPTF	PTf PORT THD NPTF	N3 (inch)	N4 (inch)	N4 (inch)	Y (inch)
5503-2-2	1/8-27	1/8-27	0.188	0.47	0.72	9/16
5503-4-4	1/4-18	1/4-18	0.281	0.63	1.05	3/4
5503-6-6	3/8-18	3/8-18	0.406	0.72	1.06	7/8
5503-8-8	1/2-14	1/2-14	0.531	0.91	1.34	1 1/16
5503-12-12	3/4-14	3/4-14	0.719	0.97	1.38	1 5/16
5503-16-16	1-11 1/2	1-11 1/2	0.938	1.13	1.72	1 5/8
5503-20-20	1 1/4-11 1/2	1 1/4-11 1/2	1.250	1.63	1.80	1 7/8

**Female Pipe Elbow**

**5504**

Female pipe thread / female pipe thread  
SAE 140238

All dimensions are in inches  
\*Y—ACROSS WRENCH FLATS



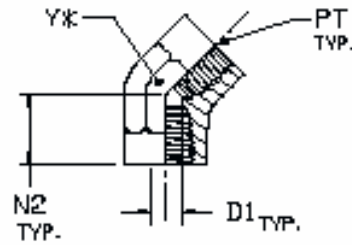
TUBE FITTING PART #	PT PORT THD NPTF	REF D1 DRILL (inch)	N1 (inch)	Y (inch)
5504-2-2	1/8-27	0.328	0.66	9/16
5504-4-4	1/4-18	0.422	0.88	3/4
5504-6-6	3/8-18	0.563	1.02	7/8
5504-8-8	3/8-18	0.688	1.23	1 1/16
5504-8-6	1/2-14	0.688	1.23	1 1/16
5504-12-12	3/4-14	0.891	1.36	1 5/8
5504-16-16	1-11 1/2	1.125	1.63	1 7/8
5504-20-20	1 1/4-11 1/2	1.469	1.70	1 7/8
5504-24-24	1 1/2-11 1/2	1.703	2.08	2 1/2

## 45° Female Pipe Elbow

# 5505

Female pipe thread / female pipe thread  
SAE 140338

All dimensions are in inches  
\*Y—ACROSS WRENCH FLATS



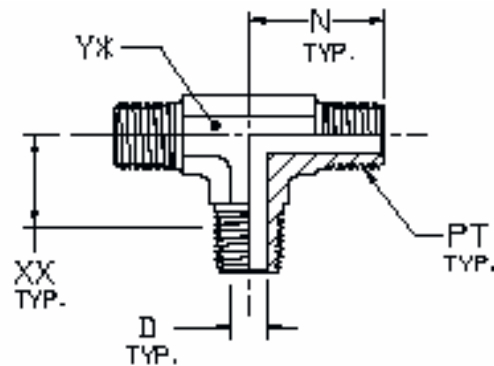
TUBE FITTING PART #	PT PORT THD NPTF	REF D1 DRILL (inch)	N2 (inch)	Y (inch)
5505-4-4	1/4-18	0.422	0.69	3/4
5505-6-6	3/8-18	0.563	0.75	7/8
5505-8-8	1/2-14	0.688	0.94	1 1/16
5505-12-12	3/4-14	0.891	1.00	1 5/16
5505-16-16	1-11 1/2	1.125	1.19	1 5/8

## Male Pipe Tee

# 5600

Male pipe thread (all three ends)  
SAE 140437

All dimensions are in inches  
\*Y—ACROSS WRENCH FLATS



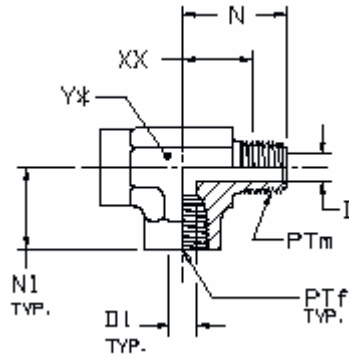
TUBE FITTING PART #	PT PORT THD NPTF	D DRILL (inch)	N (inch)	Y (inch)
5600-2-2-2	1/8-27	0.188	0.78	7/16
5600-4-4-4	1/4-18	0.281	1.09	9/16
5600-6-6-6	3/8-18	0.406	1.22	3/4
5600-8-8-8	1/2-14	0.531	1.47	7/8
5600-12-12-12	3/4-14	0.719	1.59	1 1/16

**Male Run Tee**

**5602**

Male pipe thread / female pipe thread  
SAE 140424

All dimensions are in inches  
\*Y—ACROSS WRENCH FLATS



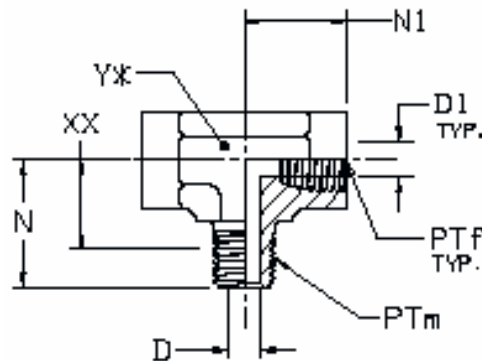
TUBE FITTING PART #	PTm PORT THD NPTF	PTf PORT THD NPTF	D DRILL (inch)	REF D1 DRILL (inch)	N (inch)	N1 (inch)	Y (inch)
5602-2-2-2	1/8-27	1/8-27	0.188	0.328	0.78	0.66	9/16
5602-4-4-4	1/4-18	1/4-18	0.281	0.422	1.09	0.88	3/4
5602-6-6-6	3/8-18	3/8-18	0.406	0.563	1.22	1.02	7/8
5602-8-8-8	1/2-14	1/2-14	0.531	0.688	1.47	1.23	1 1/16
5602-10-10-10	3/4-14	3/4-14	0.719	0.891	1.59	1.36	1 5/16
5602-16-16-16	1-11 1/2	1-11 1/2	0.938	1.125	1.97	1.63	1 5/8
5602-20-20-20	1 1/4-11 1/2	1 1/4-11 1/2	1.250	1.469	2.38	1.70	1 7/8
5602-24-24-24	1 1/2-11 1/2	1 1/2-11 1/2	1.500	1.719	2.64	2.08	2 1/2

**Male Branch Tee**

**5604**

Male pipe thread / female pipe thread  
SAE 140425

All dimensions are in inches  
\*Y—ACROSS WRENCH FLATS



TUBE FITTING PART #	PTm PORT THD NPTF	PTf PORT THD NPTF	D DRILL (inch)	REF D1 DRILL (inch)	N (inch)	N1 (inch)	Y (inch)
5604-2-2-2	1/8-27	1/8-27	0.188	0.328	0.78	0.66	9/16
5604-4-4-4	1/4-18	1/4-18	0.281	0.422	1.09	0.88	3/4
5604-6-6-6	3/8-18	3/8-18	0.406	0.563	1.22	1.02	7/8
5604-8-8-8	1/2-14	1/2-14	0.531	0.688	1.47	1.23	1 1/16
5604-12-12-12	3/4-14	3/4-14	0.719	0.891	1.59	1.36	1 5/16
5604-16-16-16	1-11 1/2	1-11 1/2	0.938	1.125	1.97	1.63	1 5/8

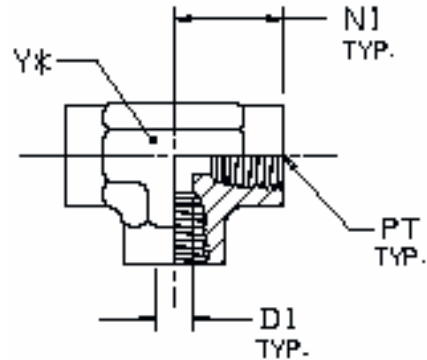


## Female Pipe Tee

# 5605

Female pipe thread (all three ends)  
SAE 140438

All dimensions are in inches  
\*Y—ACROSS WRENCH FLATS



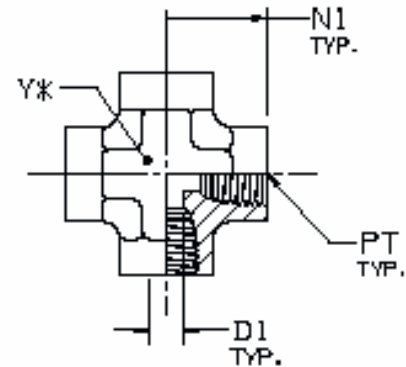
TUBE FITTING PART #	PT PORT THD NPTF	REF D1 DRILL (inch)	N1 (inch)	Y (inch)
5605-2-2-2	1/8-27	0.328	0.66	9/16
5605-4-4-4	1/4-18	0.422	0.88	3/4
5605-6-6-6	3/8-18	0.563	1.02	7/8
5605-8-8-8	1/2-14	0.688	1.23	1 1/16
5605-12-12-12	3/4-14	0.891	1.36	1 5/16
5605-16-16-16	1-11 1/2	1.125	1.63	1 5/8
5605-20-20-20	1 1/4-11 1/2	1.469	1.70	1 7/8
5605-24-24-24	1 1/2-11 1/2	1.703	2.08	2 1/2

## Female Pipe Cross

# 5652

Female pipe thread (all four ends)  
SAE 140538

All dimensions are in inches  
\*Y—ACROSS WRENCH FLATS



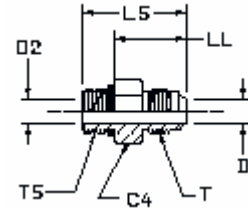
TUBE FITTING PART #	PT PORT THD NPTF	D1 DRILL (inch)	N1 (inch)	Y (inch)
5652-2-2-2-2	1/8-27	0.328	0.66	9/16
5652-4-4-4-4	1/4-18	0.422	0.88	3/4
5652-6-6-6-6	3/8-18	0.563	1.02	7/8
5652-8-8-8-8	1/2-14	0.688	1.23	1 1/16
5652-12-12-12-12	3/4-14	0.891	1.36	1 5/16
5652-16-16-16-16	1-11 1/2	1.125	1.63	1 5/8

**Straight Thread Connector**

**6400**

Flare tube end / straight thread O-ring  
SAE 070120

All dimensions are in inches



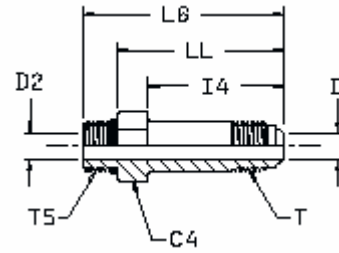
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T5 PORT THD UN/UNF-2A	C4 HEX (inch)	D DRILL (inch)	D2 DRILL (inch)	L5 (inch)	LL (inch)
6400-2-2	1/8	5/16-24	5/16-24	7/16	0.062	0.062	1.06	0.76
6400-3-3	3/16	3/8-24	3/8-24	1/2	0.125	0.125	1.10	0.80
6400-3-2	3/16	3/8-24	5/16-24	1/2	0.125	0.062	1.10	0.80
6400-4-4	1/4	7/16-20	7/16-20	9/16	0.172	0.172	1.23	0.87
6400-4-3	1/4	7/16-20	3/8-24	9/16	0.172	0.125	1.19	0.89
6400-4-5	1/4	7/16-20	1/2-20	5/8	0.172	0.234	1.23	0.87
6400-4-6	1/4	7/16-20	9/16-18	11/16	0.172	0.297	1.28	0.89
6400-4-8	1/4	7/16-20	3/4-16	7/8	0.172	0.391	1.38	0.94
6400-4-10	1/4	7/16-20	7/8-14	1	0.172	0.172	1.49	0.99
6400-5-5	5/16	1/2-20	1/2-20	5/8	0.234	0.234	1.23	0.87
6400-5-4	5/16	1/2-20	7/16-20	9/16	0.234	0.172	1.23	0.87
6400-5-6	5/16	1/2-20	9/16-18	11/16	0.234	0.234	1.30	0.91
6400-5-8	5/16	1/2-20	3/4-16	7/8	0.234	0.234	1.37	0.93
6400-6-6	3/8	9/16-18	9/16-18	11/16	0.297	0.297	1.30	0.91
6400-6-4	3/8	9/16-18	7/16-20	5/8	0.297	0.172	1.27	0.91
6400-6-5	3/8	9/16-18	1/2-20	5/8	0.297	0.234	1.27	0.91
6400-6-8	3/8	9/16-18	3/4-16	7/8	0.297	0.391	1.38	0.94
6400-6-10	3/8	9/16-18	7/8-14	1	0.297	0.484	1.50	1.00
6400-6-12	3/8	9/16-18	1 1/16-12	1 1/4	0.297	0.609	1.66	1.07
6400-8-8	1/2	3/4-16	3/4-16	7/8	0.391	0.391	1.48	1.04
6400-8-4	1/2	3/4-16	7/16-20	13/16	0.391	0.172	1.50	1.14
6400-8-6	1/2	3/4-16	9/16-18	13/16	0.391	0.297	1.44	1.05
6400-8-10	1/2	3/4-16	7/8-14	1	0.391	0.484	1.59	1.09
6400-8-12	1/2	3/4-16	1 1/16-12	1 1/4	0.391	0.609	1.77	1.18
6400-8-16	1/2	3/4-16	1 5/16-12	1 1/2	0.391	0.391	1.78	1.19
6400-10-10	5/8	7/8-14	7/8-14	1	0.484	0.484	1.70	1.20
6400-10-6	5/8	7/8-14	9/16-18	11/16	0.484	0.297	1.71	1.32
6400-10-8	5/8	7/8-14	3/4-16	15/16	0.484	0.391	1.64	1.17
6400-10-12	5/8	7/8-14	1 1/16-12	1 1/4	0.484	0.609	1.86	1.27
6400-10-16	5/8	7/8-14	1 5/16-12	1 1/2	0.484	0.484	1.89	1.30
6400-12-12	3/4	1 1/16-12	1 1/16-12	1 1/4	0.609	0.609	1.97	1.38
6400-12-8	3/4	1 1/16-12	3/4-16	1 1/8	0.609	0.391	1.94	1.50
6400-12-10	3/4	1 1/16-12	7/8-14	1 1/8	0.609	0.484	1.88	1.38
6400-12-14	3/4	1 1/16-12	1 3/16-12	1 3/8	0.609	0.609	1.96	1.37
6400-12-16	3/4	1 1/16-12	1 5/16-12	1 1/2	0.609	0.609	1.99	1.40
6400-12-20	3/4	1 1/16-12	1 5/8-12	1 7/8	0.609	0.609	2.08	1.49
6400-14-14	7/8	1 3/16-12	1 3/16-12	1 3/8	0.718	0.718	1.99	1.40
6400-14-16	7/8	1 3/16-12	1 5/16-12	1 1/2	0.718	0.844	2.02	1.43
6400-16-16	1	1 5/16-12	1 5/16-12	1 1/2	0.844	0.844	2.05	1.46
6400-16-8	1	1 5/16-12	3/4-16	1 3/8	0.844	0.391	1.78	1.34
6400-16-10	1	1 5/16-12	7/8-14	1 3/8	0.844	0.484	2.08	1.57
6400-16-12	1	1 5/16-12	1 1/16-12	1 3/8	0.844	0.609	1.99	1.40
6400-16-14	1	1 5/16-12	1 3/16-12	1 3/8	0.844	0.718	2.05	1.46
6400-16-20	1	1 5/16-12	1 5/8-12	1 7/8	0.844	1.078	2.13	1.54
6400-16-24	1	1 5/16-12	1 7/8-12	2 1/8	0.844	0.844	2.20	1.61
6400-20-20	1 1/4	1 5/8-12	1 5/8-12	1 7/8	1.078	1.078	2.17	1.58
6400-20-12	1 1/4	1 5/8-12	1 1/16-12	1 11/16	1.078	0.609	2.30	1.71
6400-20-16	1 1/4	1 5/8-12	1 5/16-12	1 11/16	1.078	0.844	2.33	1.74
6400-20-24	1 1/4	1 5/8-12	1 7/8-12	2 1/8	1.078	1.078	2.24	1.65
6400-24-24	1 1/2	1 7/8-12	1 7/8-12	2 1/8	1.312	1.312	2.38	1.79
6400-24-20	1 1/2	1 7/8-12	1 5/8-12	2	1.312	1.078	2.53	1.94
6400-24-32	1 1/2	1 7/8-12	2 1/2-12	2 3/4	1.312	1.312	2.53	1.94
6400-32-32	2	2 1/2-12	2 1/2-12	2 3/4	1.781	1.781	2.78	2.19
6400-32-24	2	2 1/2-12	1 7/8-12	2 5/8	1.781	1.312	2.94	2.35

**Long Straight Thread Connector**

**6400L**

Flare tube end / straight thread O-ring  
SAE 071720

All dimensions are in inches



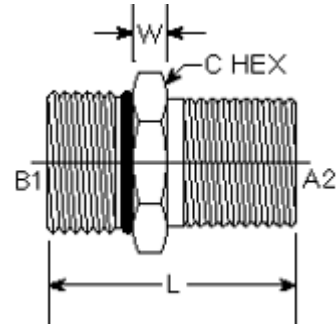
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T5 PORT THD UN/UNF-2A	C4 HEX (inch)	D DRILL (inch)	D2 DRILL (inch)	I4 (inch)	L6 (inch)
6400L-4-4	1/4	7/16-20	7/16-20	9/16	0.172	0.172	1.39	2.08
6400L-6-6	3/8	9/16-18	9/16-18	11/16	0.297	0.297	1.56	2.31
6400L-8-8	1/2	3/4-16	3/4-16	7/8	0.391	0.391	1.88	2.70
6400L-10-10	5/8	7/8-14	7/8-14	1	0.484	0.484	2.09	3.03
6400L-12-12	3/4	1 1/16-12	1 1/16-12	1 1/4	0.609	0.609	2.50	3.61
6400L-16-16	1	1 5/16-12	1 5/16-12	1 1/2	0.844	0.844	2.84	3.98
6400L-20-20	1 1/4	1 5/8-12	1 5/8-12	1 7/8	1.078	1.078	3.47	4.69

**Straight Thread Connector**

**6401**

Male pipe thread / straight thread O-ring

All dimensions are in inches



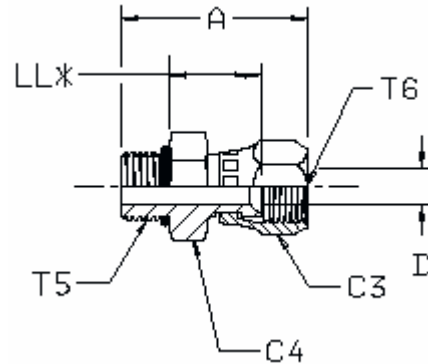
TUBE FITTING PART #	TUBE O.D. (inch)	B1 PORT THD UN/UNF-2A	A2 PORT THD NPTF	W WIDTH (inch)	C HEX (inch)	L LENGTH (inch)
6401-04-02	1/4	7/16-20	1/8-27	0.280	9/16	1.070
6401-04-04	1/4	7/16-20	1/4-18	0.310	9/16	1.230
6401-05-02	5/16	1/2-20	1/8-27	0.290	5/8	1.050
6401-05-04	5/16	1/2-20	1/8-27	0.210	5/8	1.152
6401-06-02	3/8	9/16-18	1/8-27	0.340	11/16	1.110
6401-06-04	3/8	9/16-18	1/4-18	0.310	11/16	1.290
6401-06-06	3/8	9/16-18	3/8-18	0.330	11/16	1.300
6401-06-08	3/8	9/16-18	1/2-14	0.240	7/8	1.390
6401-08-04	1/2	3/4-16	1/4-18	0.240	7/8	1.240
6401-08-06	1/2	3/4-16	3/8-18	0.340	7/8	1.360
6401-08-08	1/2	3/4-16	1/2-14	0.410	7/8	1.550
6401-08-12	1/2	3/4-16	3/4-14	0.260	1 1/8	1.590
6401-10-04	5/8	7/8-14	1/4-18	0.400	1	1.450
6401-10-06	5/8	7/8-14	3/8-18	0.450	1	1.560
6401-10-08	5/8	7/8-14	1/2-14	0.410	1	1.690
6401-10-12	5/8	7/8-14	3/4-14	0.410	1 1/8	1.770
6401-12-06	3/4	1 1/16-12	3/8-18	0.500	1 1/4	1.680
6401-12-08	3/4	1 1/16-12	1/2-14	0.500	1 1/4	1.840
6401-12-12	3/4	1 1/16-12	3/4-14	0.380	1 1/4	1.730
6401-12-16	3/4	1 1/16-12	1-11 1/2	0.460	1 3/8	2.120
6401-14-12	7/8	1 3/16-12	3/4-14	0.490	1 3/8	1.850
6401-14-16	7/8	1 3/16-12	1-11 1/2	0.440	1 3/8	1.980
6401-16-12	1	1 5/16-12	3/4-14	0.540	1 1/2	2.070
6401-16-16	1	1 5/16-12	1-11 1/2	0.500	1 1/2	1.900
6401-16-20	1	1 5/16-12	1 1/4-11 1/2	0.540	1 3/4	2.340
6401-20-12	1 1/4	1 5/8-12	3/4-14	0.540	1 7/8	1.900
6401-20-20	1 1/4	1 5/8-12	1 1/4-11 1/2	0.580	1 7/8	2.170
6401-24-16	1 1/2	1 7/8-12	1-11 1/2	0.670	2 1/8	2.220
6401-24-20	1 1/2	1 7/8-12	1 1/4-11 1/2	0.670	2 1/8	2.250
6401-24-24	1 1/2	1 7/8-12	1 1/2-11 1/2	0.650	2 1/8	2.280
6401-32-32	2	2 1/2-12	2-11 1/2	0.810	2 3/4	2.480

**Swivel Straight Thread Connector**

**6402**

**Swivel nut end / straight thread O-ring**

All dimensions are in inches, except as noted  
\*LL — PORT FACE TO BASE OF FLARE SEAT



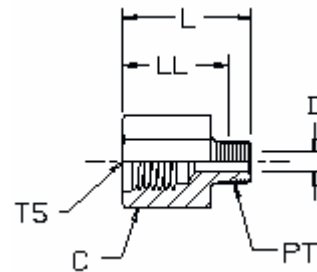
TUBE FITTING PART #	TUBE O.D. (inch)	T5 TUBE END UN/UNF-2A	T6 SWIVEL UN/UNF-2B	A (inch)	C3 HEX (inch)	C4 HEX (inch)	D DRILL (inch)	LL (inch)
6402-4-4	1/4	7/16-20	7/16-20	1.31				
6402-4-4	1/4	7/16-20	7/16-20	1.31	9/16	9/16	0.172	0.56
6402-6-6	5/16	1/2-20	1/2-20	1.35				
6402-6-6	3/8	9/16-18	9/16-18	1.43	11/16	11/16	0.297	0.61
6402-8-6	3/8	3/4-16	9/16-18	1.50	11/16	7/8	0.297	0.62
6402-8-8	1/2	3/4-16	3/4-16	1.61	7/8	7/8	0.391	0.62
6402-6-8	1/2	9/16-18	3/4-16	1.54	7/8	13/16	0.297	0.73
6402-10-10	5/8	7/8-14	7/8-14	1.84	1	1 1/16	0.484	0.72
6402-12-12	3/4	1 1/16-12	1 1/16-12	2.07	1 1/4	1 1/4	0.609	0.76
6402-16-16	1	1 5/16-12	1 5/16-12	2.28				
6402-16-16	1	1 5/16-12	1 5/16-12	2.28	1 1/2	1 1/2	0.846	0.83
6402-20-20	1 1/4	1 5/8-12	1 5/8-12	2.49				
6402-20-20	1 1/4	1 5/8-12	1 5/8-12	2.49	2	2	1.078	1.01

**Female Straight Thread Adapter**

**6404**

**Male Pipe / Female SAE Straight Thread**

All dimensions are in inches



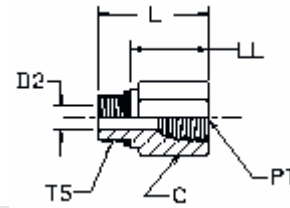
TUBE FITTING PART #	PT PORT THD NPTF	T5 PORT THD UN/UNF-2A	C HEX (inch)	D DRILL (inch)	L (inch)
6404-2-4	1/8-27	7/16-20	11/16	0.187	1.06
6404-2-5	1/8-27	1/2-20	3/4	0.187	1.09
6404-4-6	1/4-18	9/16-18	3/4	0.281	1.36
6404-6-8	3/8-18	3/4-16	1	0.391	1.50
6404-8-10	1/2-14	7/8-14	1 1/4	0.484	1.75
6404-12-8	3/4-14	3/4-16	1 1/8	0.672	1.13

**Female Pipe Adapter**

**6405**

**Male Straight thread O-ring / Female pipe thread**

All dimensions are in inches



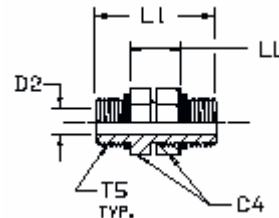
TUBE FITTING PART #	PT PORT THD NPTF	T5 PORT THD UN/UNF-2A	C HEX (inch)	D2 DRILL	L (inch)
6405-2-2	1/8-27	5/16-24	9/16	0.094	0.91
6405-2-4	1/8-27	7/16-20	9/16	0.172	1.00
6405-4-4	1/4-18	7/16-20	3/4	0.172	1.16
6405-4-5	1/4-18	1/2-20	3/4	0.234	1.19
6405-4-6	1/4-18	9/16-18	3/4	0.297	1.16
6405-6-6	3/8-18	9/16-18	7/8	0.297	1.28
6405-8-6	1/2-14	9/16-18	1 1/8	0.297	1.53
6405-2-8	1/8-27	3/4-16	7/8	0.391	0.80
6405-4-8	1/4-18	3/4-16	7/8	0.391	1.13
6405-6-8	3/8-18	3/4-16	7/8	0.391	1.28
6405-8-8	1/2-14	3/4-16	1 1/8	0.391	1.50
6405-5-10	1/4-18	7/8-14	1	0.500	0.81
6405-6-10	3/8-18	7/8-14	1	0.500	1.31
6405-8-10	1/2-14	7/8-14	1 1/8	0.500	1.53
6405-12-10	3/4-14	7/8-14	1 3/8	0.500	1.63
6405-4-12	1/4-18	1 1/16-12	1 1/4	0.656	1.00
6405-6-12	3/8-18	1 1/16-12	1 1/4	0.656	1.00
6405-8-12	1/2-14	1 1/16-12	1 1/4	0.656	1.41
6405-12-12	3/4-14	1 1/16-12	1 3/8	0.656	1.72
6405-8-14	1/2-14	1 3/16-12	1 3/8	0.719	1.06
6405-12-14	3/4-14	1 3/16-12	1 3/8	0.719	1.69
6405-8-16	1/2-14	1 5/16-12	1 1/2	0.844	1.00
6405-12-16	3/4-14	1 5/16-12	1 1/2	0.844	1.50
6405-16-16	1-11 1/2	1 5/16-12	1 5/8	0.875	1.88
6405-16-20	1-11 1/2	1 5/8-12	1 7/8	1.078	1.00
6405-24-20	1 1/2-14	1 5/8-12	2 1/4	1.078	2.16
6405-20-20	1 1/4-11 1/2	1 5/8-12	2	1.078	1.97
6405-16-24	1-11 1/2	1 7/8-12	2 1/8	1.344	1.00
6405-20-24	1 1/4-11 1/2	1 7/8-12	2 1/8	1.312	1.94
6405-24-24	1 1/2-11 1/2	1 7/8-12	2 1/4	1.344	2.00
6405-32-32	2-11 1/2	2 1/2-12	2 7/8	1.781	2.06

**Straight Thread Union**

**6407/3474**

**Straight thread O-ring / straight thread O-ring adjustable**

All dimensions are in inches



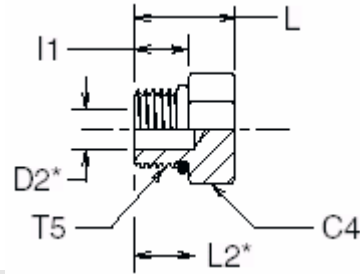
TUBE FITTING PART #	T5m PORT THD UN/UNF-2A	C4 HEX (inch)	D2 DRILL	L1 (inch)
6407-4-4	7/16-20	9/16	0.203	1.22
6407-6-6	9/16-18	11/16	0.297	1.41
6407-8-8	3/4-16	7/8	0.422	1.56
6407-10-10	7/8-14	1	0.484	1.81
6407-12-12	1 1/16-12	1 1/4	0.656	2.13
6407-16-16	1 5/16-12	1 1/2	0.875	2.13
6407-20-20	1 5/8-12	1 7/8	1.078	2.13
6407-24-24	1 7/8-12	2 1/8	1.344	2.13
6407-32-32	2 1/2-12	2 3/4	1.813	2.13

**Hex Head Plug**

**6408**

Hex head / straight thread O-ring  
SAE 090109A

\*D2 DRILL & L2 DRILL  
DEPTHS ARE OPTIONAL



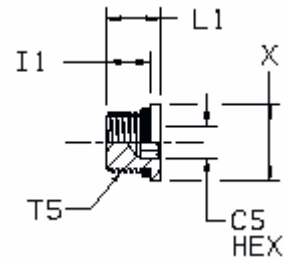
TUBE FITTING PART #	T5 PORT THD UN/UNF-2A	C4 HEX (inch)	D2 DRILL (inch)	I1 (inch)	L (inch)	L2 (inch)
6408-2	5/16-24	7/16	0.094	0.30	0.61	0.38
6408-3	3/8-24	1/2	0.125	0.30	0.61	0.34
6408-4	7/16-20	9/16	0.203	0.36	0.67	0.41
6408-5	1/2-20	5/8	0.234	0.36	0.67	0.39
6408-6	9/16-18	11/16	0.297	0.39	0.73	0.44
6408-8	3/4-16	7/8	0.422	0.44	0.80	0.44
6408-10	7/8-14	1	0.500	0.50	0.94	0.47
6408-12	1 1/16-12	1 1/4	0.656	0.59	1.09	0.59
6408-14	1 3/16-12	1 3/8	0.718	0.59	1.09	0.56
6408-16	1 5/16-12	1 1/2	0.875	0.59	1.13	0.50
6408-20	1 5/8-12	1 7/8	1.094	0.59	1.20	0.41
6408-24	1 7/8-12	2 1/8	1.344	0.59	1.27	0.34
6408-32	2 1/2-12	2 3/4	1.812	0.59	1.44	0.13

**Hollow Hex Plug**

**6408H**

Hollow hex / straight thread O-ring  
SAE 090109B

All dimensions are in inches  
C5—ACROSS INTERNAL  
HEX FLATS



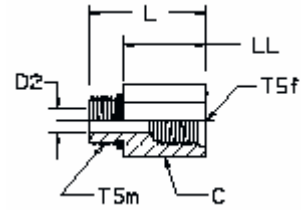
TUBE FITTING PART #	T5 PORT THD UN/UNF-2A	C5 HEX (inch)	I1 (inch)	L1 (inch)	X DIA (inch)
6408H-2	5/16-24	1/8	0.30	0.39	0.44
6408H-3	3/8-24	1/8	0.30	0.39	0.50
6408H-4	7/16-20	3/16	0.36	0.46	0.56
6408H-5	1/2-20	3/16	0.36	0.46	0.63
6408H-6	9/16-18	1/4	0.40	0.49	0.69
6408H-8	3/4-16	5/16	0.44	0.57	0.88
6408H-10	7/8-14	3/8	0.50	0.63	1.00
6408H-12	1 1/16-12	9/16	0.59	0.75	1.25
6408H-14	1 3/16-12	9/16	0.59	0.75	1.38
6408H-16	1 5/16-12	5/8	0.59	0.75	1.50
6408H-20	1 5/8-12	3/4	0.59	0.75	1.88
6408H-24	1 7/8-12	3/4	0.59	0.77	2.13

**Straight Thread Reducer / Expander**

**6410**

**Straight thread O-ring / female straight thread O-ring boss  
SAE 090136**

All dimensions are in inches



TUBE FITTING PART #	T5m PORT THD UN/UNF-2A	T5f PORT THD UN/UNF-2B	C HEX (inch)	D2 DRILL	L1 (inch)
6410-4-4	7/16-20	7/16-20	11/16	0.172	1.08
6410-4-6	7/16-20	9/16-18	13/16	0.172	1.16
6410-6-4	9/16-18	7/16-20	11/16	0.297	1.03
6410-6-8	9/16-18	3/4-16	1 1/16	0.297	1.38
6410-8-6	3/4-16	9/16-18	7/8	0.438	1.13
6410-8-10	3/4-16	7/8-14	1 1/8	0.391	1.56
6410-10-6	7/8-14	9/16-18	1	0.484	0.81
6410-10-8	7/8-14	3/4-16	1	0.563	1.31
6410-10-12	7/8-14	1 1/16-12	1 3/8	0.484	1.69
6410-12-8	1 1/16-12	3/4-16	1 1/4	0.625	1.00
6410-12-10	1 1/16-12	7/8-14	1 1/4	0.625	1.53
6410-12-16	1 1/16-12	1 5/16-12	1 5/8	0.625	1.88
6410-16-8	1 5/16-12	3/4-16	1 1/2	0.750	1.00
6410-16-10	1 5/16-12	7/8-14	1 1/2	0.797	1.00
6410-16-12	1 5/16-12	1 1/16-12	1 1/2	0.750	1.75
6410-16-20	1 5/16-12	1 5/8-12	2 1/8	0.875	1.97
6410-20-6	1 5/8-12	9/16-18	1 7/8	1.063	1.00
6410-20-12	1 5/8-12	1 1/16-12	1 7/8	1.063	1.00
6410-20-16	1 5/8-12	1 5/16-12	1 7/8	1.063	1.00
6410-20-24	1 5/8-12	1 7/8-12	2 1/2	1.063	1.88
6410-24-12	1 7/8-12	1 1/16-12	2 1/8	1.250	1.00
6410-24-16	1 7/8-12	1 5/16-12	2 1/8	1.250	1.00
6410-24-20	1 7/8-12	1 5/8-12	2 1/8	1.250	1.75
6410-32-24	2 1/2-12	1 7/8-12	2 3/4	1.780	1.00

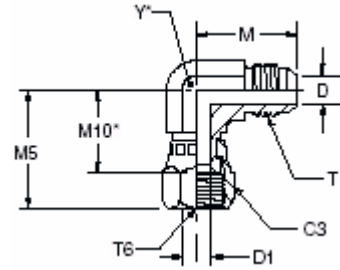


**Swivel Nut Elbow**

**6500**

Flare tube end / swivel nut end  
SAE 070221

All dimensions are in inches  
Y\* — ACROSS WRENCH FLATS  
M10\* — CENTER TO BASE OF FLARE SEAT



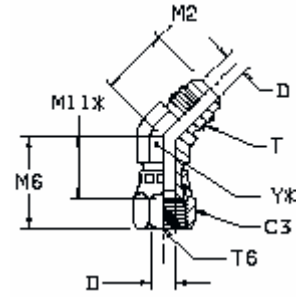
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T6 SWIVEL UN/UNF-2B	C3 HEX (inch)	D DRILL (inch)	D1 DRILL (inch)	M (inch)	M5 (inch)	M10 (inch)	Y (inch)
6500-3-3	3/16	3/8-24	3/8-24	1/2	0.125	0.125	0.83	1.00	0.63	7/16
6500-4-4	1/4	7/16-20	7/16-20	9/16	0.172	0.172	0.89	1.00	0.66	7/16
6500-5-5	5/16	1/2-20	1/2-20	5/8	0.234	0.234	0.95	1.06	0.78	9/16
6500-6-6	3/8	9/16-18	9/16-18	11/16	0.297	0.297	1.06	1.25	0.88	9/16
6500-8-8	1/2	3/4-16	3/4-16	7/8	0.391	0.391	1.25	1.38	0.95	3/4
6500-10-10	5/8	7/8-14	7/8-14	1	0.484	0.484	1.45	1.62	1.13	7/8
6500-12-12	3/4	1 1/16-12	1 1/16-12	1 1/4	0.609	0.609	1.66	1.75	1.19	1 3/16
6500-12-24	3/4	1 1/16-12	1 7/8-12	2 1/4	0.609	1.312	2.11	2.59	1.86	1 7/8
6500-14-14	7/8	1 3/16-12	1 3/16-12	1 3/8	0.718	0.718	1.80	1.78	1.33	1 5/16
6500-16-16	1	1 5/16-12	1 5/16-12	1 1/2	0.844	0.844	1.81	2.00	1.41	1 5/16
6500-16-12	1	1 5/16-12	1 1/16-12	1 1/4	0.844	0.609	1.81	1.87	1.31	1 5/16
6500-20-20	1 1/4	1 5/8-12	1 5/8-12	2	1.078	1.078	2.06	2.31	1.69	1 5/8
6500-24-24	1 1/2	1 7/8-12	1 7/8-12	2 1/4	1.312	1.312	2.33	2.59	1.86	1 7/8
6500-32-32	2	2 1/2-12	2 1/2-12	2 7/8	1.781	1.781	3.06	3.51	2.44	2 1/2

**45° Swivel Nut Elbow**

**6502**

**Flare tube end / swivel nut end  
SAE 070321**

All dimensions are in inches  
Y\* — ACROSS WRENCH FLATS  
M11\* — CENTER TO BASE OF FLARE SEAT



TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T6 SWIVEL UN/UNF-2B	C3 HEX (inch)	D DRILL (inch)	M2 (inch)	M6 (inch)	M11 (inch)	Y (inch)
6502-4-4	1/4	7/16-20	7/16-20	9/16	0.172	0.72	0.94	0.59	7/16
6502-5-5	5/16	1/2-20	1/2-20	5/8	0.234	0.77	1.00	0.63	9/16
6502-6-6	3/8	9/16-18	9/16-18	11/16	0.297	0.83	1.12	0.75	9/16
6502-8-8	1/2	3/4-16	3/4-16	7/8	0.391	0.98	1.28	0.86	3/4
6502-10-10	5/8	7/8-14	7/8-14	1	0.484	1.11	1.44	0.94	7/8
6502-12-12	3/4	1 1/16-12	1 1/16-12	1 1/4	0.609	1.28	1.50	0.94	1 3/16
6502-14-14	7/8	1 3/16-12	1 3/16-12	1 3/8	0.718	1.39	1.62	1.09	1 3/16
6502-16-16	1	1 5/16-12	1 5/16-12	1 1/2	0.844	1.47	1.75	1.16	1 5/16
6502-20-20	1 1/4	1 5/8-12	1 5/8-12	2	1.078	1.59	2.03	1.41	1 5/8
6502-24-24	1 1/2	1 7/8-12	1 7/8-12	2 1/4	1.312	1.78	2.27	1.52	1 7/8
6502-32-32	2	2 1/2-12	2 1/2-12	2 7/8	1.781	2.22	2.76	1.97	2 1/2

**Swivel Connector**

**6505**

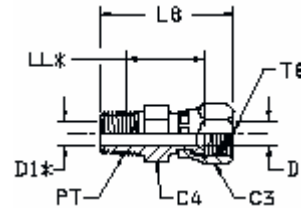
**Swivel nut end / male pipe end**

All dimensions are in inches

LL\* — PORT FACE TO BASE OF FLARE SEAT

D1\* DRILL MAY BE PRESENT DUE TO

MANUFACTURING OPTION PER SAE J514



TUBE FITTING PART #	TUBE O.D. (inch)	T6 SWIVEL UN/UNF-2B	PT PORT THD NPTF	C3 (inch)	C4 (inch)	D DRILL (inch)	D1 DRILL (inch)	L8 (inch)	LL (inch)
6505-2-4	1/4	7/16-20	1/8-27	9/16	9/16	0.172	0.172	1.13	0.63
6505-4-4	1/4	7/16-20	1/4-18	9/16	9/16	0.172	0.172	1.46	0.85
6505-4-5	5/16	1/2-20	1/4-18	5/8	5/8	0.234	0.281	1.57	0.88
6505-4-6	3/8	9/16-18	1/4-18	11/16	11/16	0.297	0.297	1.59	0.94
6505-6-6	3/8	9/16-18	3/8-18	11/16	3/4	0.281	0.281	1.59	0.95
6505-6-8	1/2	3/4-16	3/8-18	7/8	7/8	0.391	0.391	1.69	0.95
6505-8-8	1/2	3/4-16	1/2-14	7/8	7/8	0.391	0.391	1.92	1.07
6505-8-10	5/8	7/8-14	1/2-14	1	1	0.484	0.484	2.05	1.07
6505-6-10	5/8	7/8-14	3/8-18	1	1	0.484	0.406	1.87	0.99
6505-12-12	3/4	1 1/16-12	3/4-14	1 1/4	1 1/4	0.609	0.609	2.15	1.15
6505-8-12	3/4	1 1/16-12	1/2-14	1 1/4	1 1/4	0.594	0.531	2.15	1.17
6505-16-16	1	1 5/16-12	1-11 1/2	1 1/2	1 1/2	0.844	0.844	2.50	1.90
6505-12-16	1	1 5/16-12	3/4-14	1 1/2	1 1/2	0.844	0.719	2.33	1.21
6505-20-20	1 1/4	1 5/8-12	1 1/4-11 1/2	2	2	1.078	1.078	2.76	1.47
6505-24-24	1 1/2	1 7/8-12	1 1/2-11 1/2	2 1/4	2 1/4	1.312	1.312	3.05	1.71
6505-32-32	2	2 1/2-12	2-11 1/2	2 7/8	2 5/8	1.781	1.781	3.38	1.98

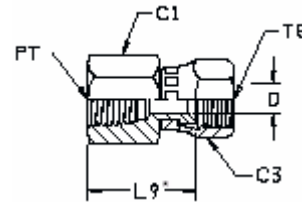
**Female Pipe Swivel Connector**

**6506**

**Swivel Nut end / Female pipe end**

All dimensions are in inches

\*L9 -PORT FACE TO BASE OF FLARE SEAT



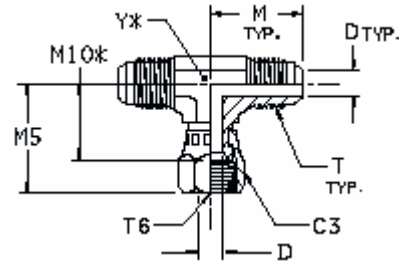
TUBE FITTING PART #	TUBE O.D. (inch)	T6 SWIVEL UN/UNF-2B	PT PORT THD NPTF	C1 (inch)	C3 HEX (inch)	D (inch)	L9 (inch)
6506-2-4	1/4	7/16-20	1/8-27	9/16	9/16	0.172	0.92
6506-4-4	1/4	7/16-20	1/4-18	3/4	9/16	0.172	1.08
6506-4-6	3/8	9/16-18	1/4-18	3/4	11/16	0.297	1.06
6506-6-6	3/8	9/16-18	3/8-18	7/8	11/16	0.267	1.16
6506-8-6	3/8	9/16-18	1/2-14	1 1/8	11/16	0.297	1.42
6506-6-8	1/2	3/4-16	3/8-18	7/8	7/8	0.391	1.23
6506-8-8	1/2	3/4-16	1/2-14	1 1/8	7/8	0.391	1.48
6506-8-10	5/8	7/8-14	1/2-14	1 1/8	1	0.484	1.47
6506-12-12	3/4	1 1/16-12	3/4-14	1 3/8	1 1/4	0.609	1.51
6506-8-12	3/4	1 1/16-12	1/2-14	1 1/4	1 1/4	0.609	1.50
6506-16-16	1	1 5/16-12	1-11 1/2	1 5/8	1 1/2	0.844	1.85
6506-20-20	1 1/4	1 5/8-12	1 1/4-11 1/2	2	2	1.078	2.17
6506-24-24	1 1/2	1 7/8-12	1 1/2-11 1/2	2 3/8	2 1/4	1.312	2.26
6506-32-32	2	2 1/2-12	2-11 1/2	2 7/8	2 7/8	1.781	2.45

**Swivel Nut Branch Tee**

**6600**

Flare tube ends / swivel nut end  
SAE 070433

All dimensions are in inches  
Y\* — ACROSS WRENCH FLATS  
M10\* — CENTER TO BASE OF FLARE SEAT



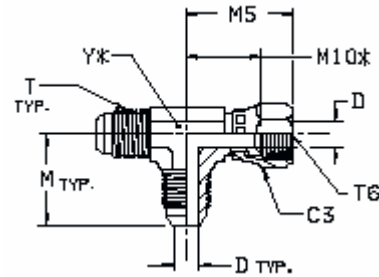
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T6 SWIVEL UN/UNF-2B	C3 HEX (inch)	D DRILL (inch)	M (inch)	M5 (inch)	M10 (inch)	Y (inch)
6600-4-4-4	1/4	7/16-20	7/16-20	9/16	0.172	0.89	1.00	0.66	7/16
6600-5-5-5	5/16	1/2-20	1/2-20	5/8	0.234	0.95	1.16	0.68	9/16
6600-6-6-6	3/8	9/16-18	9/16-18	11/16	0.297	1.06	1.25	0.88	9/16
6600-8-8-8	1/2	3/4-16	3/4-16	7/8	0.391	1.25	1.38	0.95	3/4
6600-10-10-10	5/8	7/8-14	7/8-14	1	0.484	1.45	1.62	1.13	7/8
6600-12-12-12	3/4	1 1/16-12	1 1/16-12	1 1/4	0.609	1.66	1.75	1.19	1 1/16
6600-14-14-14	7/8	1 3/16-12	1 3/16-12	1 3/8	0.718	1.80	1.78	1.33	1 5/16
6600-16-16-16	1	1 5/16-12	1 5/16-12	1 1/2	0.844	1.81	2.00	1.41	1 5/16
6600-20-20-20	1 1/4	1 5/8-12	1 5/8-12	2	1.078	2.06	2.31	1.69	1 5/8
6600-24-24-24	1 1/2	1 7/8-12	1 7/8-12	2 1/4	1.312	2.33	2.67	1.92	1 7/8

**Swivel Nut Run Tee**

**6602**

Flare tube ends / swivel nut end  
SAE 070432

All dimensions are in inches  
Y\* — ACROSS WRENCH FLATS  
M10\* — CENTER TO BASE OF FLARE SEAT



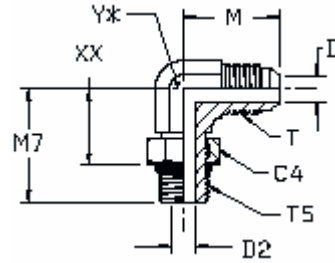
HOSE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T6 SWIVEL UN/UNF-2B	C3 HEX (inch)	D DRILL (inch)	M (inch)	M5 (inch)	M10 (inch)	Y (inch)
6602-4-4-4	1/4	7/16-20	7/16-20	9/16	0.172	0.89	1.00	0.66	7/16
6602-5-5-5	5/16	1/2-20	1/2-20	5/8	0.234	0.95	1.06	0.78	9/16
6602-6-6-6	3/8	9/16-18	9/16-18	11/16	0.297	1.06	1.25	0.88	9/16
6602-8-8-8	1/2	3/4-16	3/4-16	7/8	0.391	1.25	1.38	0.95	3/4
6602-10-10-10	5/8	7/8-14	7/8-14	1	0.484	1.45	1.62	1.13	7/8
6602-12-12-12	3/4	1 1/16-12	1 1/16-12	1 1/4	0.609	1.66	1.75	1.19	1 1/16
6602-14-14-14	7/8	1 3/16-12	1 3/16-12	1 3/8	0.718	1.80	1.78	1.33	1 5/16
6602-16-16-16	1	1 5/16-12	1 5/16-12	1 1/2	0.844	1.81	2.00	1.41	1 5/16
6602-20-20-20	1 1/4	1 5/8-12	1 5/8-12	2	1.078	2.06	2.31	1.69	1 5/8
6602-24-24-24	1 1/2	1 7/8-12	1 7/8-12	2 1/4	1.312	2.33	2.59	1.86	1 7/8

**Straight Thread Elbow**

**6801**

Flare tube end / straight thread O-ring  
SAE 070220

All dimensions are in inches  
\*Y—ACROSS WRENCH FLATS



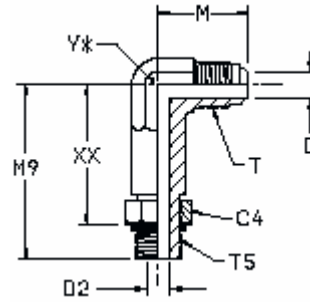
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T5 PORT THD UN/UNF-2A	C4 HEX (inch)	D DRILL (inch)	D2 DRILL (inch)	M (inch)	M7 (inch)	Y (inch)
6801-2-2	1/8	5/16-24	5/16-24	7/16	0.062	0.062	0.78	0.94	7/16
6801-3-3	3/16	3/8-24	3/8-24	1/2	0.125	0.125	0.83	0.94	7/16
6801-4-4	1/4	7/16-20	7/16-20	9/16	0.172	0.172	0.89	1.03	7/16
6801-4-6	1/4	7/16-20	9/16-18	11/16	0.172	0.297	1.05	1.25	9/16
6801-5-5	5/16	1/2-20	1/2-20	5/8	0.234	0.234	0.95	1.13	9/16
6801-5-4	5/16	1/2-20	7/16-18	9/16	0.234	0.172	0.95	1.13	9/16
6801-5-6	5/16	1/2-20	9/16-18	11/16	0.234	0.297	0.94	1.25	9/16
6801-6-6	3/8	9/16-18	9/16-18	11/16	0.297	0.297	1.06	1.25	9/16
6801-6-4	3/8	9/16-18	7/16-20	9/16	0.297	0.172	1.06	1.19	9/16
6801-6-5	3/8	9/16-18	1/2-20	5/8	0.297	0.234	1.06	1.19	9/16
6801-6-8	3/8	9/16-18	3/4-16	7/8	0.297	0.391	1.14	1.45	3/4
6801-6-10	3/8	9/16-18	7/8-14	1	0.297	0.484	1.23	1.70	7/8
6801-8-8	1/2	3/4-16	3/4-16	7/8	0.391	0.391	1.25	1.45	3/4
6801-8-4	1/2	3/4-16	7/16-20	9/16	0.391	0.172	1.25	1.27	3/4
6801-8-6	1/2	3/4-16	9/16-18	11/16	0.391	0.297	1.25	1.36	3/4
6801-8-10	1/2	3/4-16	7/8-14	1	0.391	0.484	1.34	1.70	7/8
6801-8-12	1/2	3/4-16	1 1/16-12	1 1/4	0.391	0.609	1.42	1.94	1 1/16
6801-8-16	1/2	3/4-16	1 5/16-12	1 1/2	0.391	0.844	1.54	2.05	1 5/16
6801-10-10	5/8	7/8-14	7/8-14	1	0.484	0.484	1.45	1.70	7/8
6801-10-6	5/8	7/8-14	9/16-18	11/16	0.484	0.297	1.45	1.41	7/8
6801-10-8	5/8	7/8-14	3/4-16	7/8	0.484	0.391	1.45	1.55	7/8
6801-10-12	5/8	7/8-14	1 1/16-12	1 1/4	0.484	0.609	1.53	1.94	1 1/16
6801-10-16	5/8	7/8-14	1 5/16-12	1 1/2	0.484	0.844	1.64	2.05	1 5/16
6801-12-12	3/4	1 1/16-12	1 1/16-12	1 1/4	0.609	0.609	1.66	1.94	1 1/16
6801-12-8	3/4	1 1/16-12	3/4-16	7/8	0.609	0.391	1.66	1.63	1 1/16
6801-12-10	3/4	1 1/16-12	7/8-14	1	0.609	0.484	1.66	1.78	1 1/16
6801-12-14	3/4	1 1/16-12	1 3/16-12	1 3/8	0.609	0.718	1.77	2	1 5/16
6801-12-16	3/4	1 1/16-12	1 5/16-12	1 1/2	0.609	0.844	1.81	2.05	1 5/16
6801-12-20	3/4	1 1/16-12	1 5/8-12	1 7/8	0.609	1.078	1.97	2.25	1 5/8
6801-14-14	7/8	1 3/16-12	1 3/16-12	1 3/8	0.718	0.718	1.73	2.00	1 5/16
6801-16-16	1	1 5/16-12	1 5/16-12	1 1/2	0.844	0.844	1.81	2.05	1 5/16
6801-16-12	1	1 5/16-12	1 1/16-12	1 1/4	0.844	0.609	1.81	2.05	1 5/16
6801-16-14	1	1 5/16-12	1 3/16-12	1 3/8	0.844	0.718	1.81	2.07	1 5/16
6801-16-20	1	1 5/16-12	1 5/8-12	1 7/8	0.844	1.078	2.01	2.25	1 5/8
6801-16-24	1	1 5/16-12	1 7/8-12	2 1/8	0.844	1.312	2.16	2.39	1 7/8
6801-20-20	1 1/4	1 5/8-12	1 5/8-12	1 7/8	1.078	1.078	2.06	2.25	1 5/8
6801-20-16	1 1/4	1 5/8-12	1 5/16-12	1 1/2	1.078	0.844	2.06	2.25	1 5/8
6801-20-24	1 1/4	1 5/8-12	1 7/8-12	2 1/8	1.078	1.312	2.20	2.39	1 7/8
6801-24-24	1 1/2	1 7/8-12	1 7/8-12	2 1/8	1.312	1.312	2.33	2.39	1 7/8
6801-24-20	1 1/2	1 7/8-12	1 5/8-12	1 7/8	1.312	1.078	2.33	2.39	1 7/8
6801-32-32	2	2 1/2-12	2 1/2-12	2 3/4	1.781	1.781	3.06	2.89	2 1/2

**Extra Long Straight Thread Elbow**

**6801LL**

Flare tube end / straight thread O-ring  
SAE 071520

All dimensions are in inches



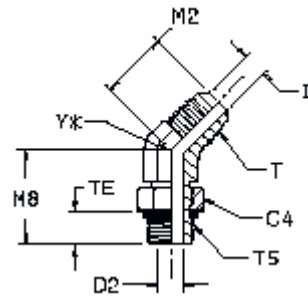
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T5 PORT THD UN/UNF-2A	C4 HEX (inch)	D DRILL (inch)	D2 DRILL (inch)	M (inch)	M9 (inch)	Y (inch)
6801LL-4-4	1/4	7/16-20	7/16-20	9/16	0.172	0.172	1.00	1.73	9/16
6801LL-6-6	3/8	9/16-18	9/16-18	11/16	0.297	0.297	1.06	2.08	9/16
6801LL-8-8	1/2	3/4-16	3/4-16	7/8	0.391	0.391	1.25	2.50	7/8
6801LL-10-10	5/8	7/8-14	7/8-14	1	0.484	0.484	1.45	2.89	7/8
6801LL-12-12	3/4	1 1/16-12	1 1/16-12	1 1/4	0.609	0.609	1.66	3.34	1 1/16
6801LL-16-16	1	1 5/16-12	1 5/16-12	1 1/2	0.844	0.844	1.81	3.72	1 5/16

**45° Straight Thread Elbow**

**6802**

Flare tube end / straight thread O-ring  
SAE 070320

All dimensions are in inches  
\*Y—ACROSS WRENCH FLATS



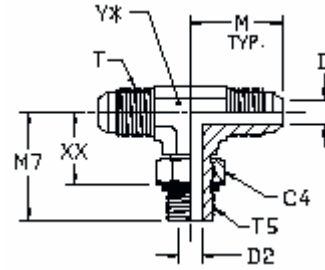
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T5 PORT THD UN/UNF-2A	C4 HEX (inch)	D DRILL (inch)	D2 DRILL (inch)	M2 (inch)	M8 (inch)	TE (inch)	Y (inch)
6802-4-4	1/4	7/16-20	7/16-20	9/16	0.172	0.172	0.72	1.05	0.39	7/16
6802-4-6	1/4	7/16-20	9/16-18	11/16	0.172	0.297	0.82	1.14	0.43	9/16
6802-5-5	5/16	1/2-20	1/2-20	5/8	0.234	0.234	0.77	1.05	0.39	9/16
6802-6-6	3/8	9/16-18	9/16-18	11/16	0.297	0.297	0.83	1.14	0.43	9/16
6802-6-4	3/8	9/16-18	7/16-20	9/16	0.297	0.172	0.83	1.08	0.39	9/16
6802-6-8	3/8	9/16-18	3/4-16	7/8	0.297	0.391	0.86	1.30	0.49	3/4
6802-8-8	1/2	3/4-16	3/4-16	7/8	0.391	0.391	0.98	1.30	0.49	3/4
6802-8-6	1/2	3/4-16	9/16-18	11/16	0.391	0.297	0.98	1.09	0.43	3/4
6802-8-10	1/2	3/4-16	7/8-14	1	0.391	0.484	1.00	1.52	0.56	7/8
6802-8-12	1/2	3/4-16	1 1/16-12	1 1/4	0.391	0.609	1.06	1.66	0.65	1 1/16
6802-10-10	5/8	7/8-14	7/8-14	1	0.484	0.484	1.11	1.52	0.56	7/8
6802-10-8	5/8	7/8-14	3/4-16	7/8	0.484	0.391	1.11	1.38	0.49	7/8
6802-10-12	5/8	7/8-14	1 1/16-12	1 1/4	0.484	0.609	1.16	1.73	0.65	1 1/16
6802-12-12	3/4	1 1/16-12	1 1/16-12	1 1/4	0.609	0.609	1.28	1.73	0.65	1 1/16
6802-12-10	3/4	1 1/16-12	7/8-14	1	0.609	0.484	1.28	1.58	0.56	1 1/16
6802-12-16	3/4	1 1/16-12	1 5/16-12	1 1/2	0.609	0.844	1.42	1.86	0.65	1 5/16
6802-14-14	7/8	1 3/16-12	1 3/16-12	1 3/8	0.718	0.718	1.45	1.86	0.65	1 5/16
6802-16-16	1	1 5/16-12	1 5/16-12	1 1/2	0.844	0.844	1.47	1.86	0.65	1 5/16
6802-16-12	1	1 5/16-12	1 1/16-12	1 1/2	0.844	0.609	1.47	1.86	0.65	1 5/16
6802-16-20	1	1 5/16-12	1 5/8-12	1 7/8	0.844	1.078	1.55	1.91	0.65	1 5/8
6802-20-20	1 1/4	1 5/8-12	1 5/8-12	1 7/8	1.078	1.078	1.59	1.91	0.65	1 5/8
6802-20-16	1 1/4	1 5/8-12	1 5/16-12	1 1/2	1.078	0.844	1.59	1.91	0.65	1 5/8
6802-24-24	1 1/2	1 7/8-12	1 7/8-12	2 1/8	1.312	1.312	1.78	1.91	0.65	1 7/8
6802-32-32	2	2 1/2-12	2 1/2-12	2 3/4	1.781	1.781	2.22	1.86	0.65	2 1/2

**Straight Thread Branch Tee**

**6803**

Flare tube ends / straight thread O-ring  
SAE 070429

All dimensions are in inches



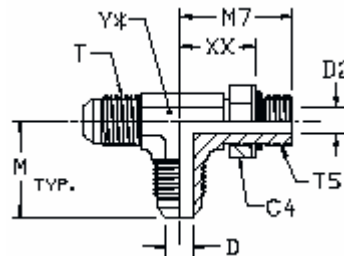
HOSE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T5 PORT THD UN/UNF-2A	C4 HEX (inch)	D DRILL (inch)	D2 DRILL (inch)	M (inch)	M7 (inch)	Y (inch)
6803-4-4-4	1/4	7/16-20	7/16-20	9/16	0.172	0.172	0.89	1.03	7/16
6803-5-5-5	5/16	1/2-20	1/2-20	5/8	0.234	0.234	0.97	1.13	9/16
6803-6-6-6	3/8	9/16-18	9/16-18	11/16	0.297	0.297	1.06	1.25	9/16
6803-6-6-8	3/8	9/16-18	3/4-16	7/8	0.297	0.391	1.14	1.45	3/4
6803-8-8-8	1/2	3/4-16	3/4-16	7/8	0.391	0.391	1.25	1.45	3/4
6803-10-10-10	5/8	7/8-14	7/8-14	1	0.484	0.484	1.45	1.70	7/8
6803-12-12-12	3/4	1 1/16-12	1 1/16-12	1 1/4	0.609	0.609	1.66	1.94	1 1/16
6803-16-16-16	1	1 5/16-12	1 5/16-12	1 1/2	0.844	0.844	1.81	2.05	1 5/16
6803-20-20-20	1 1/4	1 5/8-12	1 5/8-12	1 7/8	1.078	1.078	2.06	2.25	1 5/8
6803-24-24-24	1 1/2	1 7/8-12	1 7/8-12	2 1/8	1.312	1.312	2.33	2.39	1 7/8
6803-32-32-32	2	2 1/2-12	2 1/2-12	2 3/4	1.781	1.781	3.06	2.89	2.50

**Straight Thread Run Tee**

**6804**

Flare tube ends / straight thread O-ring  
SAE 070428

All dimensions are in inches



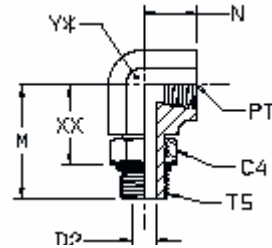
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T5 PORT THD UN/UNF-2A	C4 HEX (inch)	D DRILL (inch)	D2 DRILL (inch)	M (inch)	M7 (inch)	Y (inch)
6804-4-4-4	1/4	7/16-20	7/16-20	9/16	0.172	0.172	0.89	1.03	7/16
6804-5-5-5	5/16	1/2-20	1/2-20	5/8	0.234	0.234	0.97	1.13	9/16
6804-6-6-6	3/8	9/16-18	9/16-18	11/16	0.297	0.297	1.06	1.25	9/16
6804-8-8-8	1/2	3/4-16	3/4-16	7/8	0.391	0.391	1.25	1.45	3/4
6804-10-10-10	5/8	7/8-14	7/8-14	1	0.484	0.484	1.45	1.70	7/8
6804-12-12-12	3/4	1 1/16-12	1 1/16-12	1 1/4	0.609	0.609	1.66	1.94	1 1/16
6804-16-16-16	1	1 5/16-12	1 5/16-12	1 1/2	0.844	0.844	1.81	2.05	1 5/16
6804-20-20-20	1 1/4	1 5/8-12	1 5/8-12	1 7/8	1.078	1.078	2.06	2.25	1 5/8
6804-24-24-24	1 1/2	1 7/8-12	1 7/8-12	2 1/8	1.312	1.312	2.33	2.39	1 7/8
6804-32-32-32	2	2 1/2-12	2 1/2-12	2 3/4	1.781	1.781	3.06	2.89	2 1/2

**Female Pipe Elbow**

**6805**

**Straight thread O-ring / Female pipe thread**

All dimensions are in inches  
\*Y—ACROSS WRENCH FLATS



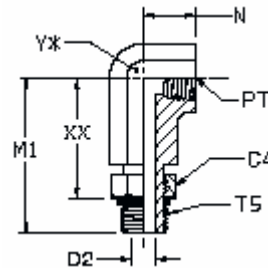
TUBE FITTING PART #	PT PORT THD NPTF	T5 PORT THD UN/UNF-2A	C4 HEX (inch)	D2 DRILL	M (inch)	N (inch)	Y (inch)
6805-6-4	1/4-18	9/16-18	11/16	0.297	1.34	0.63	3/4
6805-8-6	3/8-18	3/4-16	7/8	0.391	1.47	0.63	7/8
6805-10-8	1/2-14	7/8-14	1	0.484	1.81	0.75	1 1/16
6805-12-12	3/4-14	1 1/16-12	1 1/4	0.609	2.00	0.81	1 5/16
6805-16-16	1-11 1/2	1 5/16-12	1 1/2	0.844	2.25	1.00	1 5/8

**Extra Long Female Pipe Elbow**

**6805LL**

**Straight thread O-ring / Female pipe thread**

All dimensions are in inches  
\*Y—ACROSS WRENCH FLATS



TUBE FITTING PART #	PT PORT THD NPTF	T5 PORT THD UN/UNF-2A	C4 HEX (inch)	D2 DRILL	M1 (inch)	N (inch)	Y (inch)
6805LL-8-6	3/8-18	3/4-16	7/8	0.391	2.94	0.63	7/8
6805LL-10-8	1/2-14	7/8-14	1	0.484	3.56	0.75	1 1/16
6805LL-12-12	3/4-14	1 1/16-12	1 1/4	0.609	4.06	0.81	1 5/16
6805LL-16-16	1-11 1/2	1 5/16-12	1 1/2	0.844	4.63	1.00	1 5/8



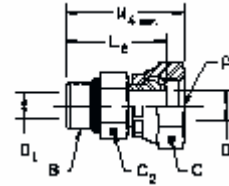
**Straight Thread Adapter**

**6900**

**NPSM swivel / SAE O-ring boss**

SAE 140157

All dimensions are in inches



TUBE FITTING PART #	B PORT THD UN/UNF-2A	A1 SWIVEL THD NPSM	C HEX (inch)	C2 HEX BODY (inch)	D DRILL (inch)	D1 DRILL PORT (inch)	L2 (inch)	W4 (inch)
6900-4-4	7/16-20	1/4-18	11/16	9/16	0.219	0.219	1.14	1.32
6900-6-4	9/16-18	1/4-18	11/16	11/16	0.219	0.219	1.17	1.35
6900-6-6	9/16-18	3/8-18	7/8	11/16	0.344	0.344	1.17	1.37
6900-6-8	9/16-18	1/2-14	1	3/4	0.297	0.297	1.28	1.57
6900-8-4	3/4-16	1/4-18	11/16	7/8	0.219	0.391	1.25	1.43
6900-8-6	3/4-16	3/8-18	7/8	7/8	0.344	0.344	1.25	1.45
6900-8-8	3/4-16	1/2-14	1	7/8	0.391	0.391	1.27	1.56
6900-8-12	3/4-16	3/4-14	1 1/4	1	0.641	0.391	1.44	1.79
6900-10-8	7/8-14	1/2-14	1	1	0.469	0.469	1.44	1.73
6900-10-12	7/8-14	3/4-14	1 1/4	1 1/4	0.484	0.484	1.62	1.97
6900-12-8	1 1/16-12	1/2-14	1	1 1/4	0.469	0.469	1.59	1.88
6900-12-12	1 1/16-12	3/4-14	1 1/4	1 1/4	0.641	0.641	1.62	1.97
6900-16-16	1 5/16-12	1-11 1/2	1 1/2	1 1/2	0.844	0.844	1.75	2.12
6900-20-20	1 5/8-12	1 1/4-11 1/2	1 7/8	1 7/8	1.078	1.078	1.83	2.21
6900-24-24	1 7/8-12	1 1/2-11 1/2	2 1/8	2 1/8	1.312	1.312	1.97	2.39
6900-32-32	2 1/2-12	2-11 1/2	2 5/8	2 3/4	1.781	1.781	2.06	2.49

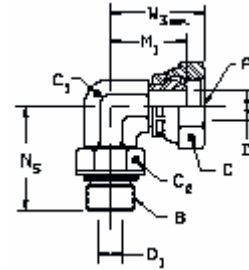
**Straight Thread Adapter**

**6901**

**NPSM swivel / SAE O-ring boss**

SAE 140257

All dimensions are in inches



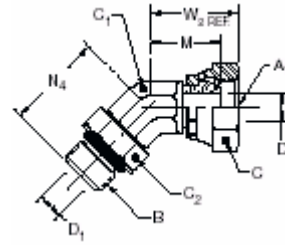
TUBE FITTING PART #	B PORT THD UN/UNF-2A	A1 SWIVEL THD NPSM	C HEX (inch)	C1 HEX (inch)	C2 HEX (inch)	D DRILL (inch)	D1 DRILL (inch)	M1 (inch)	N5 (inch)	W3 (inch)
6901-4-4	7/16-20	1/4-18	11/16	7/16	9/16	0.219	0.172	0.79	1.03	0.97
6901-6-4	9/16-18	1/4-18	11/16	9/16	11/16	0.219	0.297	0.88	1.25	1.06
6901-6-6	9/16-18	3/8-18	7/8	9/16	11/16	0.344	0.297	0.90	1.25	1.10
6901-6-8	9/16-18	1/2-14	1	9/16	11/16	0.469	0.297	1.04	1.36	1.33
6901-8-6	3/4-16	3/8-18	7/8	3/4	7/8	0.344	0.391	0.99	1.45	1.19
6901-8-8	3/4-16	1/2-14	1	3/4	7/8	0.469	0.391	1.04	1.45	1.33
6901-8-12	3/4-16	3/4-14	1 1/4	3/4	7/8	0.641	0.391	1.30	1.62	1.65
6901-10-6	7/8-14	3/8-18	7/8	7/8	1	0.344	0.484	1.06	1.70	1.26
6901-10-8	7/8-14	1/2-14	1	7/8	1	0.469	0.484	1.11	1.70	1.40
6901-10-12	7/8-14	3/4-14	1 1/4	7/8	1	0.641	0.484	1.27	1.78	1.62
6901-12-8	1 1/16-12	1/2-14	1	1 1/16	1 1/4	0.469	0.609	1.21	1.94	1.50
6901-12-12	1 1/16-12	3/4-14	1 1/4	1 1/16	1 1/4	0.641	0.609	1.30	1.94	1.65
6901-16-16	1 5/16-12	1-11 1/2	1 1/2	1 5/16	1 1/2	0.844	0.844	1.54	2.05	1.91
6901-20-20	1 5/8-12	1 1/4-11 1/2	1 7/8	1 5/8	1 7/8	1.141	1.078	1.78	2.25	2.16
6901-24-24	1 7/8-12	1 1/2-11 1/2	2 1/8	1 7/8	2 1/8	1.359	1.312	1.89	2.39	2.31

**45° Straight Thread Adapter**

**6902**

**NPSM swivel / SAE O-ring boss**  
**SAE 140357**

All dimensions are in inches



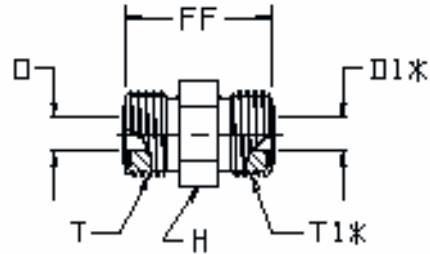
TUBE FITTING PART #	B PORT THD UN/UNF-2A	A1 SWIVEL THD NPSM	C HEX (inch)	C1 HEX (inch)	C2 HEX (inch)	D DRILL (inch)	D1 DRILL (inch)	M (inch)	N4 (inch)	W2 (inch)
6902-4-4	7/16-20	1/4-18	11/16	7/16	9/16	0.219	0.172	0.61	1.05	0.79
6902-6-6	9/16-18	3/8-18	7/8	9/16	11/16	0.344	0.297	0.83	1.14	1.03
6902-8-6	3/4-16	3/8-18	7/8	3/4	7/8	0.344	0.391	0.82	1.3	1.02
6902-8-8	3/4-16	1/2-14	1	3/4	7/8	0.469	0.391	0.89	1.30	1.18
6902-8-12	3/4-16	3/4-16	1 1/4	3/4	7/8	0.641	0.391	1.02	1.41	1.37
6902-10-8	7/8-14	1/2-14	1	7/8	1	0.469	0.484	0.88	1.52	1.17
6902-12-12	1 1/16-12	3/4-14	1 1/4	1 1/16	1 1/4	0.641	0.609	1.02	1.73	1.37
6902-16-16	1 5/16-12	1-11 1/2	1 1/2	1 5/16	1 1/2	0.844	0.844	1.15	1.86	1.52

**Union**

**FS2403**

**ORFS tube end / ORFS tube end  
SAE 520101**

All dimensions are in inches  
\*D1 & T1 ARE FOR JUMP SIZES ONLY.  
OTHERWISE D & T ARE TYPICAL

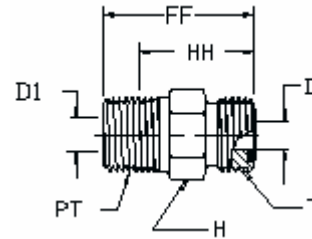


TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T1 TUBE END UN/UNF-2A	D DRILL (inch)	D1 DRILL (inch)	FF (inch)	H HEX (inch)
FS2403-4-4	1/4	9/16-18	9/16-18	0.172	0.172	1.08	5/8
FS2403-6-6	3/8	11/16-16	11/16-16	0.264	0.264	1.22	3/4
FS2403-6-4	3/8 to 1/4	11/16-16	9/16-18	0.264	0.172	1.17	3/4
FS2403-8-8	1/2	13/16-16	13/16-16	0.378	0.378	1.39	7/8
FS2403-8-6	1/2 to 3/8	13/16-16	11/16-16	0.378	0.264	1.33	7/8
FS2403-10-10	5/8	1-14	1-14	0.484	0.484	1.68	1 1/16
FS2403-10-8	5/8 to 1/2	1-14	13/16-16	0.484	0.378	1.57	1 1/16
FS2403-12-12	3/4	1 3/16-12	1 3/16-12	0.609	0.609	1.85	1 1/4
FS2403-12-10	3/4 to 5/8	1 3/16-12	1-14	0.609	0.484	1.80	1 1/4
FS2403-16-16	1	1 7/16-12	1 7/16-12	0.811	0.811	1.94	1 1/2
FS2403-16-12	1 to 3/4	1 7/16-12	1 3/16-12	0.811	0.609	1.92	1 1/2
FS2403-20-20	1 1/4	1 11/16-12	1 11/16-12	1.024	1.024	2.02	1 3/4
FS2403-24-24	1 1/2	2-12	2-12	1.260	1.260	2.09	2 1/8

**Male Pipe Connector**

**FS2404**

ORFS tube end / male pipe end  
All dimensions are in inches

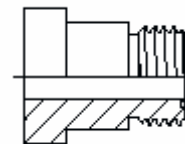


TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	PT PORT THD NPTF	D DRILL (inch)	D1 DRILL (inch)	FF (inch)	H HEX (inch)
FS2404-4-2	1/4	9/16-18	1/8-27	0.172	0.188	1.07	5/8
FS2404-4-4	1/4	9/16-18	1/4-18	0.172	0.281	1.26	5/8
FS2404-4-6	1/4	9/16-18	3/8-18	0.172	0.172	1.32	3/4
FS2404-6-4	3/8	11/16-16	1/4-18	0.264	0.281	1.25	3/4
FS2404-6-6	3/8	11/16-16	3/8-18	0.264	0.406	1.34	3/4
FS2404-6-8	3/8	11/16-16	1/2-14	0.264	0.531	1.55	7/8
FS2404-8-6	1/2	13/16-16	3/8-18	0.378	0.406	1.48	7/8
FS2404-8-4	1/2	13/16-16	1/4-18	0.378	0.281	1.48	7/8
FS2404-8-8	1/2	13/16-16	1/2-14	0.378	0.531	1.64	7/8
FS2404-8-12	1/2	13/16-16	3/4-14	0.378	0.719	1.69	1 1/8
FS2404-10-8	5/8	1-14	1/2-14	0.484	0.531	1.82	1 1/16
FS2404-10-12	5/8	1-14	3/4-14	0.484	0.719	1.82	1 1/8
FS2404-12-12	3/4	1 3/16-12	3/4-14	0.609	0.719	1.93	1 1/4
FS2404-12-8	3/4	1 3/16-12	1/2-14	0.609	0.531	1.93	1 1/4
FS2404-12-16	3/4	1 3/16-12	1-11 1/2	0.609	0.938	2.13	1 3/8
FS2404-16-16	1	1 7/16-12	1-11 1/2	0.811	0.938	2.19	1 1/2
FS2404-16-12	1	1 7/16-12	3/4-14	0.811	0.719	2.00	1 1/2
FS2404-16-20	1	1 7/16-12	1 1/16-11 1/4	0.811	1.250	2.30	1 3/4
FS2404-20-20	1 1/4	1 11/16-12	1 1/4-11 1/2	1.024	1.250	2.30	1 7/8
FS2404-20-16	1 1/4	1 11/16-12	1-11 1/2	0.937	0.938	2.27	1 7/8
FS2404-24-24	1 1/2	2-12	1 1/2-11 1/2	1.260	1.500	2.40	2 1/8

**Tube End Reducer**

**FS2407**

ORFS swivel / ORFS tube end  
SAE 520123 (Body only);  
All dimensions are in inches



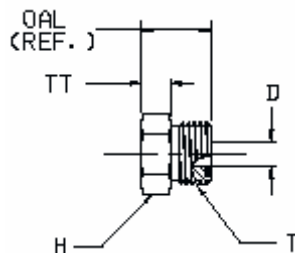
FS2407 Body Only (For Two-Piece Design Only)	TUBE O.D.	T TUBE END UN/UNF-2A	D DRILL	F
FS2407-8-4	1/2 to 1/4	9/16-18	0.172	0.86
FS2407-10-4	5/8 to 1/4	9/16-18	0.172	0.90
FS2407-10-6	5/8 to 3/8	11/16-16	0.264	0.95
FS2407-10-8	5/8 to 1/2	13/16-16	0.378	1.02
FS2407-12-4	3/4 to 1/2	9/16-18	0.172	0.98
FS2407-12-6	3/4 to 3/8	11/16-16	0.264	1.03
FS2407-12-8	3/4 to 1/2	13/16-16	0.378	1.09
FS2407-16-8	1 to 1/2	13/16-16	0.378	1.15
FS2407-16-10	1 to 5/8	1-14	0.484	1.26
FS2407-20-12	1 1/4 to 3/4	1 3/16-12	0.609	1.32
FS2407-24-16	1 1/2 to 1	1 7/16-12	0.812	1.23
FS2407-24-20	1 1/2 to 1 1/4	1 11/16-12	1.024	1.35

**Plug**

**FS2408**

ORFS tube end plug  
SAE 520109

All dimensions are in inches



TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	D DRILL (inch)	H HEX (inch)	OAL (REF) (inch)	TT (inch)
FS2408-4	1/4	9/16-18	0.172	5/8	0.66	0.20
FS2408-6	3/8	11/16-16	0.264	3/4	0.76	0.32
FS2408-8	1/2	13/16-16	0.378	7/8	0.86	0.35
FS2408-10	5/8	1-14	0.484	1 1/16	1.02	0.41
FS2408-12	3/4	1 3/16-12	0.609	1 1/4	1.08	0.41
FS2408-16	1	1 7/16-12	0.811	1 1/2	1.10	0.41
FS2408-20	1 1/4	1 11/16-12	1.024	1 3/4	1.10	0.41
FS2408-24	1 1/2	2-12	1.260	2 1/8	1.10	0.41

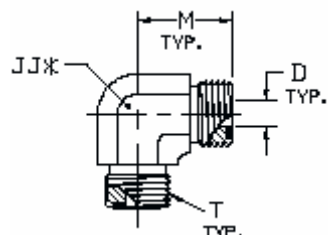
**Union Elbow**

**FS2500**

ORFS tube end / ORFS tube end  
SAE 520201

All dimensions are in inches

\*JJ — ACROSS WRENCH FLATS



TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	D DRILL (inch)	JJ (inch)	M (inch)
FS2500-4-4	1/4	9/16-18	0.172	9/16	0.85
FS2500-6-6	3/8	11/16-16	0.264	3/4	0.98
FS2500-8-8	1/2	13/16-16	0.378	3/4	1.10
FS2500-10-10	5/8	1-14	0.484	1 1/16	1.31
FS2500-12-12	3/4	1 3/16-12	0.609	1 3/16	1.47
FS2500-16-16	1	1 7/16-12	0.811	1 7/16	1.64
FS2500-20-20	1 1/4	1 11/16-12	1.024	1 5/8	1.76
FS2500-24-24	1 1/2	2-12	1.260	1 7/8	1.92

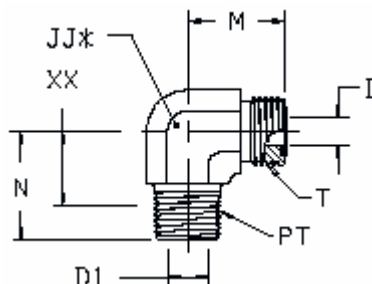
**Male Pipe Elbow**

**FS2501**

**ORFS tube end / male pipe end**

All dimensions are in inches

\*JJ — ACROSS WRENCH FLATS



TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	PT PORT THD NPTF	D DRILL (inch)	D1 DRILL (inch)	JJ (inch)	M (inch)	N (inch)
FS2501-4-2	1/4	9/16-18	1/8-27	0.172	0.188	9/16	0.85	0.80
FS2501-4-4	1/4	9/16-18	1/4-18	0.172	0.281	9/16	0.85	1.12
FS2501-4-6	1/4	9/16-18	3/8-18	0.172	0.406	3/4	0.97	1.22
FS2501-6-4	3/8	11/16-16	1/4-18	0.264	0.281	3/4	0.98	1.09
FS2501-6-6	3/8	11/16-16	3/8-18	0.264	0.406	3/4	0.98	1.22
FS2501-6-8	3/8	11/16-16	1/2-14	0.264	0.531	7/8	1.15	1.47
FS2501-8-6	1/2	13/16-16	3/8-18	0.378	0.406	3/4	1.10	1.22
FS2501-8-4	1/2	13/16-16	1/4-18	0.378	0.281	3/4	1.10	1.22
FS2501-8-8	1/2	13/16-16	1/2-14	0.378	0.531	7/8	1.10	1.47
FS2501-8-12	1/2	13/16-16	3/4-14	0.378	0.719	1 1/16	1.32	1.59
FS2501-10-8	5/8	1-14	1/2-14	0.484	0.531	1 1/16	1.31	1.47
FS2501-10-12	5/8	1-14	3/4-14	0.484	0.719	1 3/16	1.41	1.59
FS2501-12-12	3/4	1 3/16-12	3/4-14	0.609	0.719	1 3/16	1.47	1.59
FS2501-12-8	3/4	1 3/16-12	1/2-14	0.609	0.531	1 3/16	1.47	1.59
FS2501-12-16	3/4	1 3/16-12	1-11 1/2	0.609	0.938	1 5/16	1.62	1.97
FS2501-16-16	1	1 7/16-12	1-11 1/2	0.811	0.938	1 7/16	1.64	1.97
FS2501-16-12	1	1 7/16-12	3/4-14	0.811	0.719	1 7/16	1.64	1.78
FS2501-20-20	1 1/4	1 11/16-12	1 1/4-11 1/2	1.024	1.250	1 5/8	1.76	2.38
FS2501-24-24	1 1/2	2-12	1 1/2-11 1/2	1.260	1.500	1 7/8	1.92	2.64
FS2501-24-20	1 1/2	2-12	1 1/4-11 1/2	1.260	1.250	1 7/8	1.92	2.61

**45° Bulkhead Union Elbow**

**FS2702**

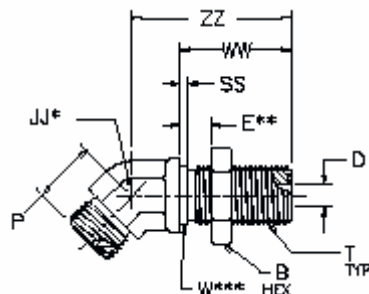
**ORFS tube end / ORFS tube end  
SAE 520801**

All dimensions are in inches

\* Across wrench flats.

\*\* Maximum bulkhead thickness.

\*\*\* Bulkhead pilot diameter. Recommended clearance hole is W + C



TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	B HEX (inch)	D DRILL (inch)	E MAX (inch)	JJ (inch)	P (inch)	S2 (inch)	W DIA (inch)	WW (inch)	ZZ (inch)
FS2702-4-4	1/4	9/16-18	13/16	0.172	0.53	9/16	0.63	0.06	0.56	1.24	1.73
FS2702-6-6	3/8	11/16-16	1	0.264	0.53	3/4	0.74	0.06	0.69	1.34	1.91
FS2702-8-8	1/2	13/16-16	1 1/8	0.378	0.53	3/4	0.80	0.06	0.81	1.44	2.01
FS2702-10-10	5/8	1-14	1 5/16	0.484	0.52	1 1/16	0.92	0.06	1.00	1.60	2.23
FS2702-12-12	3/4	1 3/16-12	1 1/2	0.609	0.50	1 3/16	1.02	0.06	1.19	1.64	2.39
FS2702-16-16	1	1 7/16-12	1 3/4	0.811	0.51	1 7/16	1.18	0.06	1.44	1.66	2.57
FS2702-20-20	1 1/4	1 11/16-12	2	1.024	0.51	1 5/8	1.26	0.06	1.69	1.66	2.64
FS2702-24-24	1 1/2	2-12	2 3/8	1.260	0.51	1 7/8	1.45	0.06	2.00	1.66	2.64

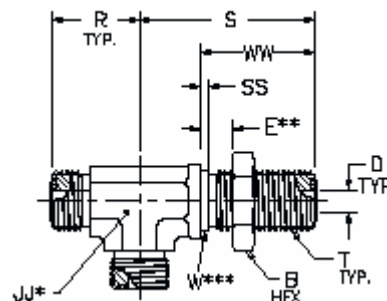
**Bulkhead Run Tee**

**FS2704**

ORFS tube end (all three ends)

SAE 520958

All dimensions are in inches



TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	B HEX (inch)	D DRILL (inch)	E MAX (inch)	JJ (inch)	R (inch)	S1 (inch)	S2 (inch)	W DIA (inch)	WW (inch)
FS2704-4-4-4	1/4	9/16-18	13/16	0.172	0.53	9/16	0.89	1.85	0.06	0.56	1.24
FS2704-6-6-6	3/8	11/16-16	1	0.264	0.53	3/4	1.02	2.05	0.06	0.69	1.34
FS2704-8-8-8	1/2	13/16-16	1 1/8	0.378	0.53	3/4	1.14	2.18	0.06	0.81	1.44
FS2704-10-10-10	5/8	1-14	1 5/16	0.484	0.52	1 1/16	1.36	2.48	0.06	1.00	1.60
FS2704-12-12-12	3/4	1 3/16-12	1 1/2	0.609	0.50	1 3/16	1.52	2.65	0.06	1.19	1.64
FS2704-16-16-16	1	1 7/16-12	1 3/4	0.811	0.51	1 7/16	1.67	2.80	0.06	1.44	1.66
FS2704-20-20-20	1 1/4	1 11/16-12	2	1.024	0.51	1 5/8	1.79	2.97	0.06	1.69	1.66
FS2704-24-24-24	1 1/2	2-12	2 3/8	1.260	0.51	1 7/8	1.95	3.13	0.06	2.00	1.66

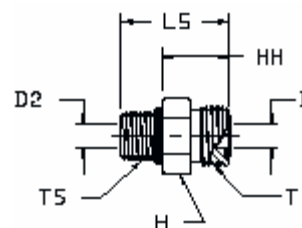
**Straight Thread Connector**

**FS6400**

ORFS tube end / straight thread O-ring

SAE 520120

All dimensions are in inches



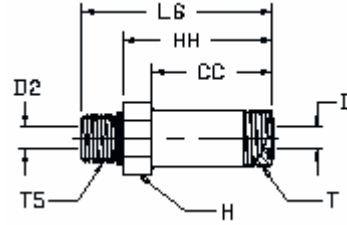
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T5 PORT THD UN/UNF-2A	D** DRILL (inch)	D2** DRILL (inch)	H HEX (inch)	L5 (inch)
FS6400-4-4	1/4	9/16-18	7/16-20	0.172	0.172	5/8	1.13
FS6400-4-5	1/4	9/16-18	1/2-20	0.172	0.236	3/8	1.13
FS6400-4-6	1/4	9/16-18	9/16-18	0.172	0.264	3/4	1.20
FS6400-4-8	1/4	9/16-18	3/4-16	0.172	0.378	7/8	1.32
FS6400-6-6	3/8	11/16-16	9/16-18	0.264	0.264	3/4	1.25
FS6400-6-4	3/8	11/16-16	7/16-20	0.264	0.172	3/4	1.34
FS6400-6-5	3/8	11/16-16	1/2-20	0.264	0.234	3/4	1.22
FS6400-6-8	3/8	11/16-16	3/4-16	0.264	0.378	7/8	1.38
FS6400-6-10	3/8	11/16-16	7/8-14	0.264	0.484	1	1.53
FS6400-8-8	1/2	13/16-16	3/4-16	0.378	0.378	7/8	1.44
FS6400-8-6	1/2	13/16-16	9/16-18	0.378	0.264	7/8	1.47
FS6400-8-10	1/2	13/16-16	7/8-14	0.378	0.484	1	1.59
FS6400-8-12	1/2	13/16-16	1 1/16-12	0.378	0.609	1 1/4	1.75
FS6400-8-16	1/2	13/16-16	1 5/16-12	0.378	0.811	1 1/2	1.79
FS6400-10-10	5/8	1-14	7/8-14	0.484	0.484	1 1/16	1.70
FS6400-10-8	5/8	1-14	3/4-16	0.484	0.378	1 1/16	1.78
FS6400-10-12	5/8	1-14	1 1/16-12	0.484	0.609	1 1/4	1.86
FS6400-12-12	3/4	1 3/16-12	1 1/16-12	0.609	0.609	1 1/4	1.92
FS6400-12-8	3/4	1 3/16-12	3/4-16	0.609	0.378	1 1/4	1.91
FS6400-12-10	3/4	1 3/16-12	7/8-14	0.609	0.484	1 1/4	1.99
FS6400-12-16	3/4	1 3/16-12	1 5/16-12	0.609	0.811	1 1/2	1.96
FS6400-16-16	1	1 7/16-12	1 5/16-12	0.811	0.811	1 1/2	1.98
FS6400-16-12	1	1 7/16-12	1 1/16-12	0.811	0.609	1 1/2	2.14
FS6400-16-20	1	1 7/16-12	1 5/8-12	0.811	1.024	1 7/8	2.06
FS6400-20-20	1 1/4	1 11/16-12	1 5/8-12	1.024	1.024	1 7/8	2.06
FS6400-20-16	1 1/4	1 11/16-12	1 5/16-12	1.024	0.811	1 7/8	2.28
FS6400-20-24	1 1/4	1 11/16-12	1 7/8-12	1.024	1.260	2 1/8	2.13
FS6400-24-24	1 1/2	2-12	1 7/8-12	1.260	1.260	2 1/8	2.13
FS6400-24-20	1 1/2	2-12	1 5/8-12	1.260	1.024	2 1/8	2.35

**Long Straight Thread Connector**

**FS6400L**

ORFS tube end / straight thread O-ring  
SAE 521720 (Previously 520122)

All dimensions are in inches



TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T5 PORT THD UN/UNF-2A	CC (inch)	D DRILL (inch)	D2 DRILL (inch)	H HEX (inch)	L6 (inch)
FS6400L-4-4	1/4	9/16-18	7/16-20	1.33	0.172	0.172	5/8	2.07
FS6400L-6-6	3/8	11/16-16	9/16-18	1.45	0.264	0.264	3/4	2.27
FS6400L-8-8	1/2	13/16-16	3/4-16	1.74	0.378	0.378	7/8	2.68
FS6400L-10-10	5/8	1-14	7/8-14	2.04	0.484	0.484	1 1/16	3.13
FS6400L-12-12	3/4	1 3/16-12	1 1/16-12	2.05	0.609	0.609	1 5/16	3.76
FS6400L-16-16	1	1 7/16-12	1 5/16-12	2.85	0.811	0.811	1 5/8	4.14
FS6400L-20-20	1 1/4	1 11/16-12	1 5/8-12	3.39	1.024	1.024	1 7/8	4.76
FS6400L-24-24	1 1/2	2-12	1 7/8-12	3.82	1.26	1.260	2 1/8	5.26

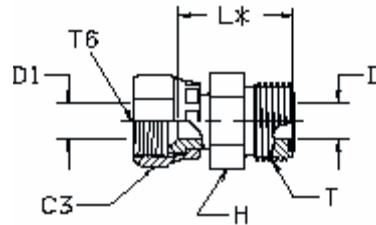
**37° Swivel Adapter**

**FS6402**

37° swivel / ORFS tube end

All dimensions are in inches

\*L — END TO BASE OF FLARE



TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T6 SWIVEL UN/UNF-2B	C3 HEX (inch)	D DRILL (inch)	D1 DRILL (inch)	H HEX (inch)	L (inch)
FS6402-4-4	1/4	9/16-18	7/16-20	9/16	0.172	0.172	5/8	1.04
FS6402-6-6	3/8	11/16-16	9/16-18	11/16	0.264	0.264	3/4	1.14
FS6402-8-8	1/2	13/16-16	3/4-16	7/8	0.378	0.378	7/8	1.32
FS6402-10-10	5/8	1-14	7/8-14	1	0.484	0.484	1 1/16	1.52
FS6402-12-12	3/4	1 3/16-12	1 1/16-12	1 1/4	0.609	0.609	1 1/4	1.63
FS6402-16-16	1	1 7/16-12	1 5/16-12	1 1/2	0.811	0.811	1 1/2	1.79

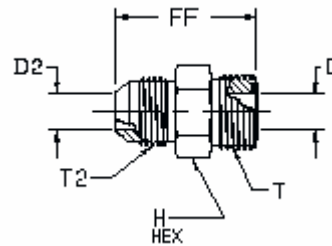


**37° Male Adapter**

**FS6403**

37° tube end / ORFS tube end

All dimensions are in inches



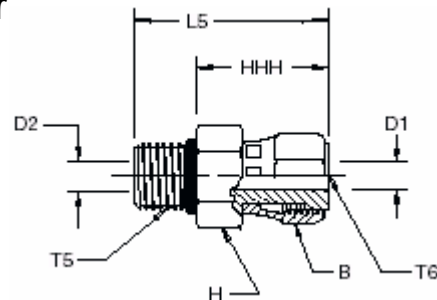
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T2 TUBE END UN/UNF-2A	D DRILL (inch)	D2 DRILL (inch)	FF (inch)	H HEX (inch)
FS6403-4-4	¼	9/16-18	7/16-20	0.172	0.172	1.25	5/8
FS6403-6-6	3/8	11/16-16	9/16-18	0.264	0.264	1.34	3/4
FS6403-8-8	½	13/16-16	3/4-16	0.378	0.378	1.55	7/8
FS6403-10-10	5/8	1-14	7/8-14	0.484	0.484	1.83	1 1/16
FS6403-12-12	¾	1 3/16-12	1 1/16-12	0.609	0.609	2.05	1 1/4
FS6403-16-16	1	1 7/16-12	1 5/16-12	0.811	0.811	2.16	1 1/2
FS6403-20-20	1 ¼	1 11/16-12	1 5/8-12	1.024	1.024	2.29	1 3/4
FS6403-24-24	1 ½	2-12	1 7/8-12	1.260	1.260	2.48	2 1/8

**Straight Thread Swivel Connector**

**FS6412**

ORFS swivel / Straight thread O-ring SAE 520181

All dimensions are in inches



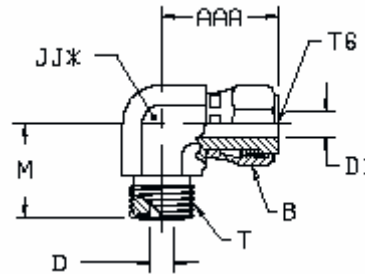
TUBE FITTING PART #	TUBE O.D. (inch)	T5 PORT END UN/UNF-2A	T6 SWIVEL UN/UNF-2B	B HEX (inch)	D1 DRILL (inch)	D2 DRILL (inch)	H HEX (inch)	L5 (inch)
FS6412-4-4	¼	7/16-20	9/16-18	11/16	0.165	0.172	5/8	1.46
FS6412-6-6	3/8	9/16-18	11/16-16	13/16	0.264	0.264	3/4	1.58
FS6412-8-8	½	3/4-16	13/16-16	15/16	0.358	0.378	7/8	1.95
FS6412-10-10	5/8	7/8-14	1-14	1 1/8	0.453	0.484	1 1/16	2.13
FS6412-12-12	¾	1 1/16-12	1 3/16-12	1 3/8	0.547	0.609	1 1/4	2.34
FS6412-16-16	1	1 5/16-12	1 7/16-12	1 5/8	0.783	0.811	1 1/2	2.66
FS6412-20-20	1 9/16	1 5/8-12	1 11/16-12	1 7/8	1.024	1.024	1 3/4	2.66

**Female swivel 90 Deg**

**FS6500**

**ORFS swivel / ORFS tube end  
SAE 520221**

All dimensions are in inches  
\*JJ — ACROSS WRENCH FLATS

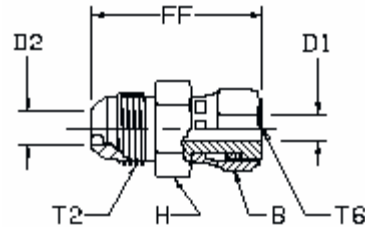


TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T6 SWIVEL UN/UNF-2B	AAA (inch)	B HEX (inch)	D DRILL (inch)	D1 DRILL (inch)	JJ (inch)	M (inch)
FS6500-4-4	1/4	9/16-18	9/16-18	1.07	11/16	0.172	0.165	9/16	0.85
FS6500-6-6	3/8	11/16-16	11/16-16	1.17	13/16	0.264	0.264	3/4	0.98
FS6500-8-8	1/2	13/16-16	13/16-16	1.49	15/16	0.378	0.358	3/4	1.10
FS6500-10-10	5/8	1-14	1-14	1.65	1 1/8	0.484	0.453	1 1/16	1.31
FS6500-12-12	3/4	1 3/16-12	1 3/16-12	1.82	1 3/8	0.609	0.547	1 3/16	1.47
FS6500-16-16	1	1 7/16-12	1 7/16-12	2.10	1 5/8	0.811	0.783	1 7/16	1.64
FS6500-20-20	1 1/4	1 11/16-12	1 11/16-12	2.29	1 7/8	1.024	1.024	1 5/8	1.76
FS6500-24-24	1 1/2	2-12	2-12	2.41	2 1/4	1.260	1.260	1 7/8	1.92

**37° Male Swivel Adapter**

**FS6504**

**ORFS swivel / 37° tube end**  
All dimensions are in inches

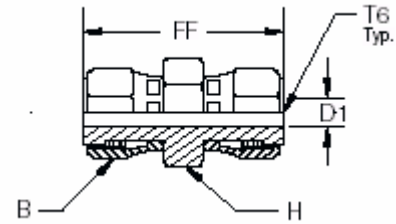


TUBE FITTING PART #	TUBE O.D. (inch)	T2 TUBE END UN/UNF-2A	T6 SWIVEL UN/UNF-2B	B HEX (inch)	D1 DRILL (inch)	D2 (inch)	FF (inch)	H HEX (inch)
FS6504-4-4	1/4	7/16-20	9/16-18	11/16	0.165	0.165	1.50	5/8
FS6504-6-6	3/8	9/16-18	11/16-16	13/16	0.264	0.264	1.61	3/4
FS6504-8-8	1/2	3/4-16	13/16-16	15/16	0.358	0.358	1.90	7/8
FS6504-10-10	5/8	7/8-14	1-14	1 1/8	0.453	0.453	2.20	1 1/16
FS6504-12-12	3/4	1 1/16-12	1 3/16-12	1 3/8	0.547	0.547	2.50	1 1/4
FS6504-16-16	1	1 5/16-12	1 7/16-12	1 5/8	0.783	0.783	2.66	1 1/2
FS6504-20-20	1 1/4	1 5/8-12	1 11/16-12	1 7/8	1.024	1.024	2.80	1 11/16

**Swivel Nut Union**

**FS6565**

ORFS swivel / ORFS swivel  
All dimensions are in inches



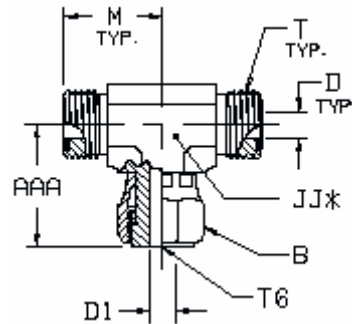
TUBE FITTING PART #	TUBE O.D. (inch)	T6 SWIVEL UN/UNF-2B	B HEX (inch)	D1 DRILL (inch)	FF (inch)	H HEX (inch)
FS6565-4-4	1/4	9/16-18	11/16	0.165	1.59	5/8
FS6565-6-6	3/8	11/16-16	13/16	0.264	1.77	3/4
FS6565-8-8	1/2	13/16-16	15/16	0.358	2.12	7/8
FS6565-10-10	5/8	1-14	1 1/8	0.453	2.42	1 1/16
FS6565-12-12	3/4	1 3/16-12	1 3/8	0.547	2.74	1 1/4

**Swivel Nut Branch Tee**

**FS6600**

ORFS swivel / ORFS tube ends  
SAE 520433

All dimensions are in inches  
\*JJ — ACROSS WRENCH FLATS



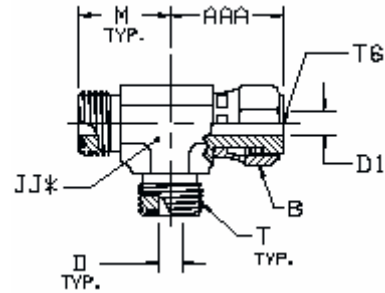
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T6 SWIVEL UN/UNF-2B	AAA (inch)	B HEX (inch)	D DRILL (inch)	D1 DRILL (inch)	JJ (inch)	M (inch)
FS6600-4-4-4	1/4	9/16-18	9/16-18	1.07	11/16	0.172	0.165	9/16	0.85
FS6600-6-6-6	3/8	11/16-16	11/16-16	1.17	13/16	0.264	0.264	3/4	0.98
FS6600-8-8-8	1/2	13/16-16	13/16-16	1.49	15/16	0.378	0.358	3/4	1.10
FS6600-10-10-10	5/8	1-14	1-14	1.65	1 1/8	0.484	0.453	1 1/16	1.31
FS6600-12-12-12	3/4	1 3/16-12	1 3/16-12	1.82	1 3/8	0.609	0.547	1 3/16	1.47
FS6600-16-16-16	1	1 7/16-12	1 7/16-12	2.10	1 5/8	0.811	0.783	1 7/16	1.64
FS6600-20-20-20	1 1/4	1 11/16-12	1 11/16-12	2.29	1 7/8	1.024	1.024	1 5/8	1.76
FS6600-24-24-24	1 1/2	2-12	2-12	2.41	2 1/4	1.260	1.260	1 7/8	1.92

**Swivel Nut Run Tee**

**FS6602**

**ORFS swivel / ORFS tube ends  
SAE 520432**

All dimensions are in inches  
\*JJ — ACROSS WRENCH FLATS



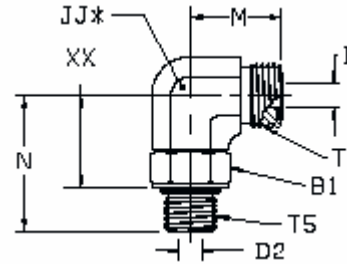
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T6 SWIVEL UN/UNF-2B	AAA (inch)	B HEX (inch)	D DRILL (inch)	D1 DRILL (inch)	JJ (inch)	M (inch)
FS6602-4-4	1/4	9/16-18	9/16-18	1.07	11/16	0.172	0.165	9/16	0.85
FS6602-6-6	3/8	11/16-16	11/16-16	1.17	13/16	0.264	0.264	3/4	0.98
FS6602-8-8	1/2	13/16-16	13/16-16	1.49	15/16	0.378	0.358	3/4	1.10
FS6602-10-10	5/8	1-14	1-14	1.65	1 1/8	0.484	0.453	1 1/16	1.31
FS6602-12-12	3/4	1 3/16-12	1 3/16-12	1.82	1 3/8	0.609	0.547	1 3/16	1.47
FS6602-16-16	1	1 7/16-12	1 7/16-12	2.10	1 5/8	0.811	0.783	1 7/16	1.64
FS6602-20-20	1 1/4	1 11/16-12	1 11/16-12	2.29	1 7/8	1.024	1.024	1 5/8	1.76
FS6602-24-24	1 1/2	2-12	2-12	2.41	2 1/4	1.260	1.260	1 7/8	1.92

**Straight Thread Elbow**

**FS6801**

ORFS Tube end / straight thread O-ring  
SAE 520220

All dimensions are in inches  
\*JJ — ACROSS WRENCH FLATS



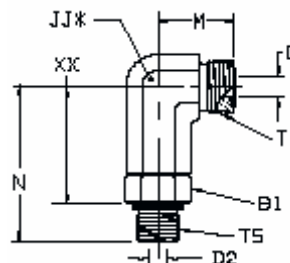
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T5 PORT THD UN/UNF-2A	B1 HEX (inch)	D DRILL (inch)	D2 DRILL (inch)	JJ (inch)	M (inch)	N (inch)
FS6801-4-4	1/4	9/16-18	7/16-20	5/8	0.172	0.172	9/16	0.85	1.29
FS6801-4-6	1/4	9/16-18	9/16-18	3/4	0.172	0.264	3/4	0.92	1.45
FS6801-4-8	1/4	9/16-18	3/4-16	15/16	0.172	0.378	3/4	0.97	1.60
FS6801-6-6	3/8	11/16-16	9/16-18	3/4	0.264	0.264	3/4	0.98	1.45
FS6801-6-4	3/8	11/16-16	7/16-20	5/8	0.264	0.172	3/4	0.98	1.37
FS6801-6-8	3/8	11/16-16	3/4-16	15/16	0.264	0.378	3/4	1.04	1.60
FS6801-6-10	3/8	11/16-16	7/8-14	1 1/16	0.264	0.484	1 1/16	1.15	1.97
FS6801-6-12	3/8	11/16-16	1 1/16-12	1 3/8	0.264	0.609	1 1/16	1.28	2.17
FS6801-8-8	1/2	13/16-16	3/4-16	15/16	0.378	0.378	3/4	1.10	1.60
FS6801-8-6	1/2	13/16-16	9/16-18	3/4	0.378	0.264	3/4	1.10	1.44
FS6801-8-10	1/2	13/16-16	7/8-14	1 1/16	0.378	0.484	1 1/16	1.21	1.97
FS6801-8-12	1/2	13/16-16	1 1/16-12	1 3/8	0.378	0.609	1 3/16	1.32	2.17
FS6801-10-10	5/8	1-14	7/8-14	1 1/16	0.484	0.484	1 1/16	1.31	1.97
FS6801-10-8	5/8	1-14	3/4-16	15/16	0.484	0.378	1 1/16	1.31	1.80
FS6801-10-12	5/8	1-14	1 1/16-12	1 3/8	0.484	0.609	1 3/16	1.41	2.17
FS6801-12-12	3/4	1 3/16-12	1 1/16-12	1 3/8	0.609	0.609	1 3/16	1.47	2.17
FS6801-12-8	3/4	1 3/16-12	3/4-16	15/16	0.609	0.378	1 3/16	1.47	1.84
FS6801-12-10	3/4	1 3/16-12	7/8-14	1 1/16	0.609	0.484	1 3/16	1.47	2.01
FS6801-12-16	3/4	1 3/16-12	1 5/16-12	1 5/8	0.609	0.811	1 7/16	1.62	2.35
FS6801-16-16	1	1 7/16-12	1 5/16-12	1 5/8	0.811	0.811	1 7/16	1.64	2.35
FS6801-16-12	1	1 7/16-12	1 1/16-12	1 3/8	0.811	0.609	1 7/16	1.64	2.32
FS6801-16-20	1	1 7/16-12	1 5/8-12	1 7/8	0.811	1.024	1 5/8	1.76	2.45
FS6801-20-20	1 1/4	1 11/16-12	1 5/8-12	1 7/8	1.024	1.024	1 5/8	1.76	2.45
FS6801-20-16	1 1/4	1 11/16-12	1 5/16-12	1 5/8	1.024	0.811	1 5/8	1.76	2.42
FS6801-20-24	1 1/4	1 11/16-12	1 7/8-12	2 1/8	1.024	1.260	1 7/8	1.92	2.59
FS6801-24-24	1 1/2	2-12	1 7/8-12	2 1/8	1.260	1.260	1 7/8	1.92	2.59
FS6801-24-20	1 1/2	2-12	1 5/8-12	1 7/8	1.260	1.024	1 7/8	1.92	2.59

**Long Straight Thread Elbow**

**FS6801L**

ORFS Tube end / straight thread O-ring  
SAE 521520

All dimensions are in inches  
\*JJ — ACROSS WRENCH FLATS



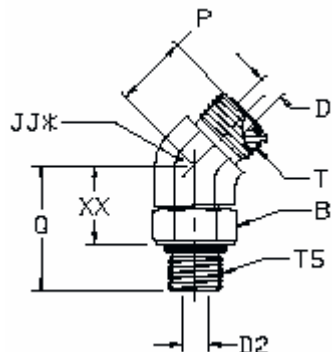
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T5 PORT THD UN/UNF-2A	B1 HEX (inch)	D DRILL (inch)	D2 DRILL (inch)	JJ (inch)	M (inch)	N (inch)
FS6801L-4-4	1/4	9/16-18	7/16-20	5/8	0.172	0.172	9/16	0.85	2.23
FS6801L-6-6	3/8	11/16-16	9/16-18	3/4	0.264	0.264	3/4	0.98	2.61
FS6801L-8-8	1/2	13/16-16	3/4-16	15/16	0.378	0.378	3/4	1.10	2.95
FS6801L-10-10	5/8	1-14	7/8-14	1 1/16	0.484	0.484	1 1/16	1.31	3.51
FS6801L-12-12	3/4	1 3/16-12	1 1/16-12	1 3/8	0.609	0.609	1 3/16	1.47	3.97
FS6801L-16-16	1	1 7/16-12	1 5/16-12	1 5/8	0.811	0.811	1 7/16	1.64	4.51

**45° Straight Thread Elbow**

**FS6802**

ORFS tube end / straight thread O-ring  
SAE 520320

All dimensions are in inches



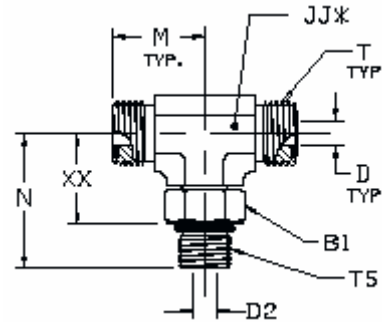
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T5 PORT THD UN/UNF-2A	B1 HEX (inch)	D DRILL (inch)	D2 DRILL (inch)	JJ (inch)	P (inch)	Q (inch)
FS6802-4-4	1/4	9/16-18	7/16-20	5/8	0.172	0.172	9/16	0.63	1.18
FS6802-4-6	1/4	9/16-18	9/16-18	3/4	0.172	0.264	3/4	0.68	1.30
FS6802-6-6	3/8	11/16-16	9/16-18	3/4	0.264	0.264	3/4	0.74	1.30
FS6802-6-4	3/8	11/16-16	7/16-20	5/8	0.264	0.172	3/4	0.74	1.22
FS6802-6-8	3/8	11/16-16	3/4-16	15/16	0.264	0.378	3/4	0.74	1.43
FS6802-8-8	1/2	13/16-16	3/4-16	15/16	0.378	0.378	3/4	0.80	1.43
FS6802-8-6	1/2	13/16-16	9/16-18	3/4	0.378	0.264	3/4	0.80	1.27
FS6802-8-10	1/2	13/16-16	7/8-14	1 1/16	0.378	0.484	3/4	0.82	1.76
FS6802-10-10	5/8	1-14	7/8-14	1 1/16	0.484	0.484	1 1/16	0.92	1.76
FS6802-10-8	5/8	1-14	3/4-16	15/16	0.484	0.378	1 1/16	0.92	1.59
FS6802-10-12	5/8	1-14	1 1/16-12	1 3/8	0.484	0.609	1 3/16	0.96	1.97
FS6802-12-12	3/4	1 3/16-12	1 1/16-12	1 3/8	0.609	0.609	1 3/16	1.02	1.97
FS6802-12-10	3/4	1 3/16-12	7/8-14	1 1/16	0.609	0.484	1 3/16	1.02	1.81
FS6802-12-16	3/4	1 3/16-12	1 5/16-12	1 5/8	0.609	0.811	1 7/16	1.16	2.06
FS6802-16-16	1	1 7/16-12	1 5/16-12	1 5/8	0.811	0.811	1 7/16	1.18	2.06
FS6802-16-12	1	1 7/16-12	1 1/16-12	1 3/8	0.811	0.609	1 7/16	1.18	2.03
FS6802-16-20	1	1 7/16-12	1 5/8-12	1 7/8	0.811	1.024	1 5/8	1.26	2.11
FS6802-20-20	1 1/4	1 11/16-12	1 5/8-12	1 7/8	1.024	1.024	1 5/8	1.26	2.11
FS6802-24-24	1 1/2	2-12	1 7/8-12	2 1/8	1.260	1.260	1 7/8	1.45	2.11

**Straight Thread Branch Tee**

**FS6803**

ORFS tube ends / straight thread O-ring  
SAE 520429

All dimensions are in inches  
\*JJ — ACROSS WRENCH FLATS



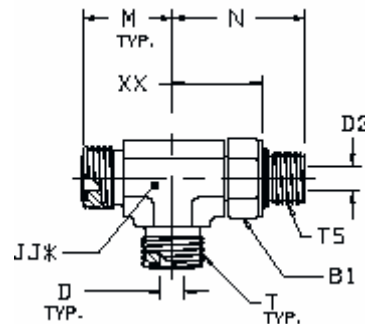
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T5 PORT THD UN/UNF-2A	B1 HEX (inch)	D DRILL (inch)	D2 DRILL (inch)	JJ (inch)	M (inch)	N (inch)
FS6803-4-4-4	1/4	9/16-18	7/16-20	5/8	0.172	0.172	9/16	0.85	1.29
FS6803-6-6-6	3/8	11/16-16	9/16-18	3/4	0.264	0.264	3/4	0.98	1.45
FS6803-6-6-8	3/8	11/16-16	3/4-16	15/16	0.264	0.378	3/4	1.04	1.60
FS6803-8-8-8	1/2	13/16-16	3/4-16	15/16	0.378	0.378	3/4	1.10	1.60
FS6803-10-10-10	5/8	1-14	7/8-14	1 1/16	0.484	0.484	1 1/16	1.31	1.97
FS6803-12-12-12	3/4	1 3/16-12	1 1/16-12	1 3/8	0.609	0.609	1 3/16	1.47	2.17
FS6803-12-12-16	3/4	1 3/16-12	1 5/16-12	1 5/8	0.709	0.811	1 7/16	1.62	2.35
FS6803-16-16-16	1	1 7/16-12	1 5/16-12	1 5/8	0.811	0.811	1 7/16	1.64	2.35
FS6803-20-20-20	1 1/4	1 11/16-12	1 5/8-12	1 7/8	1.024	1.024	1 5/8	1.76	2.45
FS6803-24-24-24	1 1/2	2-12	1 7/8-12	2 1/8	1.260	1.260	1 7/8	1.92	2.59

**Straight Thread Run Tee**

**FS6804**

ORFS tube ends / straight thread O-ring  
SAE 520428

All dimensions are in inches  
\*JJ — ACROSS WRENCH FLATS



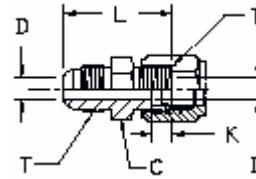
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T5 PORT THD UN/UNF-2A	B1 HEX (inch)	D DRILL (inch)	D2 DRILL (inch)	JJ (inch)	M (inch)	N (inch)
FS6804-4-4-4	1/4	9/16-18	7/16-20	5/8	0.172	0.172	9/16	0.85	1.29
FS6804-6-6-6	3/8	11/16-16	9/16-18	3/4	0.264	0.264	3/4	0.98	1.45
FS6804-8-8-8	1/2	13/16-16	3/4-16	15/16	0.378	0.378	3/4	1.10	1.60
FS6804-10-10-10	5/8	1-14	7/8-14	1 1/16	0.484	0.484	1 1/16	1.31	1.97
FS6804-12-12-12	3/4	1 3/16-12	1 1/16-12	1 3/8	0.609	0.609	1 3/16	1.47	2.17
FS6804-12-16-12	3/4	1 3/16-12	1 5/16-12	1 5/8	0.609	0.811	1 7/16	1.62	2.35
FS6804-16-16-16	1	1 7/16-12	1 5/16-12	1 5/8	0.811	0.811	1 7/16	1.64	2.35
FS6804-20-20-20	1 1/4	1 11/16-12	1 5/8-12	1 7/8	1.024	1.024	1 5/8	1.76	2.45
FS6804-24-24-24	1 1/2	2-12	1 7/8-12	2 1/8	1.260	1.260	1 7/8	1.92	2.59

**Union Adapter**

**C2000**

Flareless tube end / 37° flare tube end

All dimensions are in inches



TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	C HEX (inch)	D DRILL (inch)	K (inch)	L (inch)
C2000-4-4	1/4	7/16-20	1/2	0.172	0.24	1.19
C2000-6-6	3/8	9/16-18	5/8	0.297	0.26	1.28
C2000-8-8	1/2	3/4-16	13/16	0.391	0.31	1.47
C2000-10-10	5/8	7/8-14	15/16	0.484	0.36	1.69
C2000-12-12	3/4	1 1/16-12	1 1/8	0.609	0.36	1.94
C2000-16-16	1	1 5/16-12	1 5/8	0.844	0.42	1.97
C2000-20-20	1 1/4	1 5/8-12	1 3/4	1.078	0.42	2.00
C2000-24-24	1 1/2	1 7/8-12	2 1/8	1.312	0.49	2.16

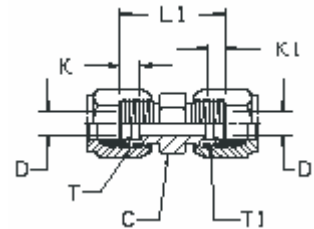
**Union**

**C2403**

Flareless tube end / flareless tube end

SAE 080101

All dimensions are in inches



TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T1 TUBE END UN/UNF-2A	C HEX (inch)	D DRILL (inch)	D1 DRILL (inch)	K (inch)	K1 (inch)	L1 (inch)
C2403-2-2	1/8	5/16-24	5/16-24	7/16	0.094	0.094	0.19	0.19	1.02
C2403-3-3	3/16	3/8-24	3/8-24	7/16	0.125	0.125	0.24	0.24	1.11
C2403-4-4	1/4	7/16-20	7/16-20	1/2	0.203	0.203	0.24	0.24	1.19
C2403-5-5	5/16	1/2-20	1/2-20	9/16	0.234	0.234	0.26	0.26	1.19
C2403-6-6	3/8	9/16-18	9/16-18	5/8	0.281	0.281	0.26	0.26	1.24
C2403-6-4	3/8	9/16-18	7/16-20	5/8	0.281	0.203	0.26	0.24	1.22
C2403-8-8	1/2	3/4-16	3/4-16	13/16	0.422	0.422	0.31	0.31	1.42
C2403-10-10	5/8	7/8-14	7/8-14	15/16	0.500	0.500	0.36	0.36	1.61
C2403-12-12	3/4	1 1/16-12	1 1/16-12	1 1/8	0.656	0.656	0.36	0.36	1.81
C2403-14-14	7/8	1 3/16-12	1 3/16-12	1 1/4	0.718	0.718	0.36	0.36	1.81
C2403-16-16	1	1 5/16-12	1 5/16-12	1 3/8	0.875	0.875	0.42	0.42	1.81
C2403-20-20	1 1/4	1 5/8-12	1 5/8-12	1 11/16	1.093	1.093	0.42	0.42	1.89
C2403-24-24	1 1/2	1 7/8-12	1 7/8-12	2	1.344	1.344	0.49	0.49	1.96
C2403-32-32	2	2 1/2-12	2 1/2-12	2 5/8	1.812	1.812	0.49	0.49	2.11

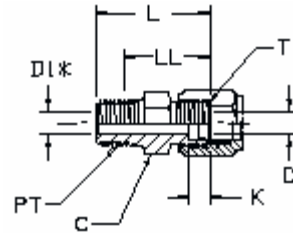


**Male Connector**

**C2404**

Flareless tube end / male pipe end  
SAE 080102

All dimensions are in inches  
\*D1—DRILL MAY BE PRESENT  
DUE TO MANUFACTURERS  
OPTION PER SAE J514



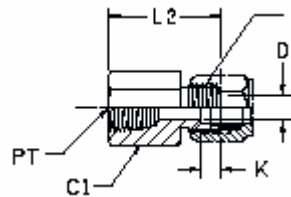
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	PT PORT THD NPTF	C HEX (inch)	D DRILL (inch)	D1 DRILL (inch)	K (inch)	L (inch)
C2404-2-2	1/8	5/16-24	1/8-27	7/16	0.094	0.187	0.19	1.03
C2404-2-4	1/8	5/16-24	1/4-18	9/16	0.094	0.281	0.19	1.25
C2404-4-4	1/4	7/16-20	1/4-18	9/16	0.203	0.281	0.24	1.33
C2404-4-6	1/4	7/16-20	3/8-18	3/4	0.203	0.406	0.24	1.33
C2404-4-8	1/4	7/16-20	1/2-14	7/8	0.203	0.531	0.24	1.58
C2404-6-4	3/8	9/16-18	1/4-18	5/8	0.281	0.281	0.26	1.34
C2404-6-2	3/8	9/16-18	1/8-27	5/8	0.281	0.187	0.26	1.16
C2404-6-6	3/8	9/16-18	3/8-18	3/4	0.281	0.406	0.26	1.34
C2404-6-8	3/8	9/16-18	1/2-14	15/16	0.281	0.531	0.26	1.60
C2404-8-6	1/2	3/4-16	3/8-18	13/16	0.422	0.406	0.31	1.44
C2404-8-4	1/2	3/4-16	1/4-18	13/16	0.422	0.281	0.31	1.44
C2404-8-8	1/2	3/4-16	1/2-14	7/8	0.422	0.531	0.31	1.69
C2404-8-12	1/2	3/4-16	3/4-14	1 1/8	0.422	0.718	0.31	1.75
C2404-10-8	5/8	7/8-14	1/2-14	15/16	0.500	0.531	0.36	1.75
C2404-10-6	5/8	7/8-14	3/8-18	15/16	0.500	0.406	0.36	1.56
C2404-10-12	5/8	7/8-14	3/4-14	1 1/8	0.500	0.718	0.36	1.83
C2404-12-12	3/4	1 1/16-12	3/4-14	1 1/8	0.656	0.718	0.36	1.88
C2404-12-8	3/4	1 1/16-12	1/2-14	1 1/8	0.656	0.531	0.36	1.88
C2404-14-12	7/8	1 3/16-12	3/4-14	1 1/4	0.718	0.718	0.36	1.88
C2404-16-16	1	1 5/16-12	1-11 1/2	1 3/8	0.875	0.937	0.42	2.08
C2404-16-12	1	1 5/16-12	3/4-14	1 3/8	0.875	0.718	0.42	1.88
C2404-20-20	1 1/4	1 5/8-12	1 1/4-11 1/2	1 11/16	1.093	1.250	0.42	2.19
C2404-24-24	1 1/2	1 7/8-12	1 1/2-11 1/2	2	1.344	1.500	0.49	2.28
C2404-32-32	2	2 1/2-12	2-11 1/2	2 3/4	1.812	1.937	0.49	2.47

**Female Connector**

**C2405**

Flareless tube end / female pipe end

All dimensions are in inches



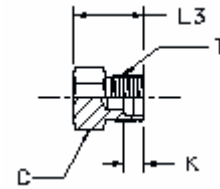
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	PT PORT THD NPTF	C1 HEX (inch)	D DRILL (inch)	K (inch)	L2 (inch)
C2405-2-2	1/8	5/16-24	1/8-27	9/16	0.094	0.19	1.05
C2405-4-2	1/4	7/16-20	1/8-27	9/16	0.203	0.24	1.09
C2405-4-4	1/4	7/16-20	1/4-18	3/4	0.203	0.24	1.29
C2405-5-2	5/16	1/2-20	1/8-27	9/16	0.234	0.26	1.08
C2405-6-4	3/8	9/16-18	1/4-18	3/4	0.281	0.26	1.31
C2405-6-6	3/8	9/16-18	3/8-18	7/8	0.281	0.26	1.34
C2405-6-8	3/8	9/16-18	1/2-14	1 1/8	0.281	0.26	1.59
C2405-8-6	1/2	3/4-16	3/8-18	7/8	0.422	0.31	1.47
C2405-8-4	1/2	3/4-16	1/4-18	7/8	0.422	0.31	1.46
C2405-8-8	1/2	3/4-16	1/2-14	1 1/8	0.422	0.31	1.69
C2405-10-8	5/8	7/8-14	1/2-14	1 1/8	0.500	0.36	1.77
C2405-12-12	3/4	1 1/16-12	3/4-14	1 3/8	0.656	0.36	1.89
C2405-14-12	7/8	1 3/16-12	3/4-14	1 3/8	0.718	0.36	1.86
C2405-16-16	1	1 5/16-12	1-11 1/2	1 5/8	0.875	0.42	2.13
C2405-20-20	1 1/4	1 5/8-12	1 1/4-11 1/2	2	1.093	0.42	2.22
C2405-24-24	1 1/2	1 7/8-12	1 1/2-11 1/2	2 3/8	1.344	0.49	2.23

**Plug**

**C2408**

**Flareless tube end plug  
SAE 080109**

All dimensions are in inches



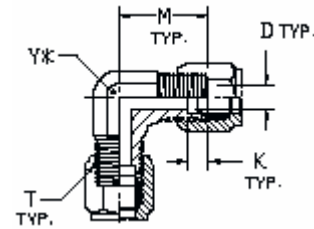
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	C HEX (inch)	K (inch)	L3 (inch)
C2408-2	1/8	5/16-24	7/16	0.19	0.63
C2408-4	1/4	7/16-20	1/2	0.24	0.72
C2408-5	5/16	1/2-20	9/16	0.26	0.72
C2408-6	3/8	9/16-18	5/8	0.26	0.75
C2408-8	1/2	3/4-16	13/16	0.31	0.84
C2408-10	5/8	7/8-14	15/16	0.36	0.97
C2408-12	3/4	1 1/16-12	1 1/8	0.36	1.09
C2408-16	1	1 5/16-12	1 3/8	0.42	1.09

**Union Elbow**

**C2500**

**Flareless tube end / flareless tube end  
SAE 080201**

All dimensions are in inches  
\*Y—ACROSS WRENCH FLATS



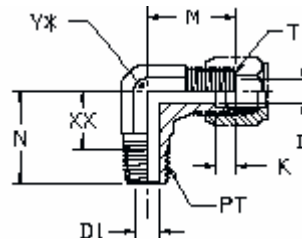
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	D DRILL (inch)	K (inch)	M (inch)	Y (inch)
C2500-2-2	1/8	5/16-24	0.094	0.19	0.78	7/16
C2500-4-4	1/4	7/16-20	0.203	0.24	0.89	7/16
C2500-5-5	5/16	1/2-20	0.234	0.26	0.95	9/16
C2500-6-6	3/8	9/16-18	0.282	0.26	1.05	9/16
C2500-8-8	1/2	3/4-16	0.422	0.31	1.25	3/4
C2500-10-10	5/8	7/8-14	0.500	0.36	1.42	7/8
C2500-12-12	3/4	1 1/16-12	0.656	0.36	1.58	1 1/16
C2500-14-14	7/8	1 3/16-12	0.718	0.36	1.66	1 5/16
C2500-16-16	1	1 5/16-12	0.875	0.42	1.73	1 5/16
C2500-20-20	1 1/4	1 5/8-12	1.093	0.42	1.89	1 5/8
C2500-24-24	1 1/2	1 7/8-12	1.344	0.49	2.02	1 7/8
C2500-32-32	2	2 1/2-12	1.813	0.49	2.45	2 1/2

**Male Elbow**

**C2501**

Flareless tube end / male pipe end  
SAE 080202

All dimensions are in inches  
\*Y—ACROSS WRENCH FLATS



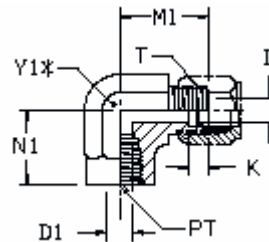
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	PT PORT THD NPTF	D DRILL (inch)	D1 DRILL (inch)	K (inch)	M (inch)	N (inch)	Y (inch)
C2501-2-2	1/8	5/16-24	1/8-27	0.094	0.188	0.19	0.78	0.72	7/16
C2501-3-2	3/16	3/8-24	1/8-27	0.125	0.188	0.24	0.84	0.72	7/16
C2501-4-2	1/4	7/16-20	1/8-27	0.203	0.188	0.24	0.89	0.78	7/16
C2501-4-4	1/4	7/16-20	1/4-18	0.203	0.281	0.24	1.03	1.09	9/16
C2501-4-6	1/4	7/16-20	3/8-18	0.203	0.406	0.24	1.13	1.22	3/4
C2501-5-2	5/16	1/2-20	1/8-27	0.234	0.188	0.26	0.95	0.81	9/16
C2501-5-4	5/16	1/2-20	1/4-18	0.234	0.281	0.26	1.03	1.09	9/16
C2501-6-4	3/8	9/16-18	1/4-18	0.282	0.281	0.26	1.05	1.09	9/16
C2501-6-2	3/8	9/16-18	1/8-27	0.282	0.188	0.26	1.05	0.88	9/16
C2501-6-6	3/8	9/16-18	3/8-18	0.282	0.406	0.26	1.14	1.22	3/4
C2501-6-8	3/8	9/16-18	1/2-14	0.282	0.531	0.26	1.23	1.47	7/8
C2501-8-6	1/2	3/4-16	3/8-18	0.422	0.406	0.31	1.25	1.22	3/4
C2501-8-4	1/2	3/4-16	1/4-18	0.422	0.281	0.31	1.25	1.16	3/4
C2501-8-8	1/2	3/4-16	1/2-14	0.422	0.531	0.31	1.34	1.47	7/8
C2501-8-12	1/2	3/4-16	3/4-14	0.422	0.719	0.31	1.42	1.59	1 1/16
C2501-10-8	5/8	7/8-14	1/2-14	0.500	0.531	0.36	1.42	1.47	7/8
C2501-10-6	5/8	7/8-14	3/8-18	0.500	0.406	0.36	1.42	1.28	7/8
C2501-12-12	3/4	1 1/16-12	3/4-14	0.656	0.719	0.36	1.58	1.59	1 1/16
C2501-12-8	3/4	1 1/16-12	1/2-14	0.656	0.531	0.36	1.58	1.59	1 1/16
C2501-14-12	7/8	1 3/16-12	3/4-14	0.718	0.719	0.36	1.66	1.69	1 5/16
C2501-16-16	1	1 5/16-12	1-11 1/2	0.875	0.938	0.42	1.73	1.97	1 5/16
C2501-16-12	1	1 5/16-12	3/4-14	0.875	0.719	0.42	1.73	1.78	1 5/16
C2501-20-24	1 1/4	1 5/8-12	1 1/4-11 1/2	1.094	1.250	0.42	1.89	2.38	1 5/8
C2501-24-24	1 1/2	1 7/8-12	1 1/2-11 1/2	1.344	1.500	0.49	2.02	2.64	1 7/8
C2501-32-32	2	2 1/2-12	2-11 1/2	1.813	1.938	0.49	2.45	3.00	2 1/2

**Female Elbow**

**C2502**

Flareless tube end / female pipe end  
SAE 080203

All dimensions are in inches  
\*Y1—ACROSS WRENCH FLATS



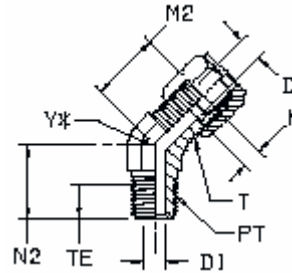
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	PT PORT THD NPTF	D DRILL (inch)	D1 DRILL (inch)	K (inch)	M1 (inch)	N1 (inch)	Y1 (inch)
C2502-4-2	1/4	7/16-20	1/8-27	0.203	0.328	0.24	0.89	0.66	9/16
C2502-4-4	1/4	7/16-20	1/4-18	0.203	0.422	0.24	1.03	0.88	3/4
C2502-5-2	5/16	1/2-20	1/8-27	0.234	0.328	0.26	0.95	0.66	9/16
C2502-6-4	3/8	9/16-18	1/4-18	0.282	0.422	0.26	1.05	0.88	3/4
C2502-6-6	3/8	9/16-18	3/8-18	0.282	0.563	0.26	1.13	1.02	7/8
C2502-8-6	1/2	3/4-16	3/8-18	0.422	0.563	0.31	1.23	1.02	7/8
C2502-8-4	1/2	3/4-16	1/4-18	0.422	0.422	0.31	1.23	0.88	3/4
C2502-8-8	1/2	3/4-16	1/2-14	0.422	0.688	0.31	1.34	1.23	1 1/16
C2502-10-8	5/8	7/8-14	1/2-14	0.500	0.688	0.36	1.42	1.23	1 1/16
C2502-12-12	3/4	1 1/16-12	3/4-14	0.656	0.906	0.36	1.58	1.36	1 5/16
C2502-14-12	7/8	1 3/16-12	3/4-14	0.718	0.906	0.36	1.62	1.42	1 5/16
C2502-16-16	1	1 5/16-12	1-11 1/2	0.875	1.125	0.42	1.73	1.63	1 5/8
C2502-20-20	1 1/4	1 5/8-12	1 1/4-11 1/2	1.093	1.469	0.42	2.08	1.70	1 7/8
C2502-24-24	1 1/2	1 7/8-12	1 1/2-11 1/2	1.344	1.719	0.49	2.58	2.08	2 1/2

**45° Male Elbow**

**C2503**

Flareless tube end / male pipe end  
SAE 080302

All dimensions are in inches  
\*Y—ACROSS WRENCH FLATS



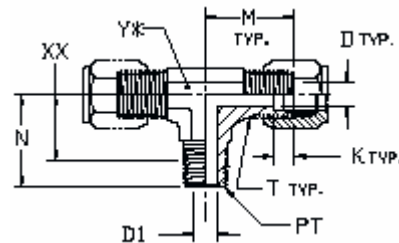
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	PT PORT THD NPTF	D DRILL (inch)	D1 DRILL (inch)	K (inch)	M2 (inch)	N2 (inch)	Y (inch)
C2503-3-2	3/16	3/8-24	1/8-27	0.125	0.188	0.24	0.64	0.53	7/16
C2503-4-2	1/4	7/16-20	1/8-27	0.203	0.188	0.24	0.70	0.64	7/16
C2503-4-4	1/4	7/16-20	1/4-18	0.203	0.281	0.24	0.81	0.86	9/16
C2503-5-2	5/16	1/2-20	1/8-27	0.234	0.188	0.26	0.75	0.66	9/16
C2503-6-4	3/8	9/16-18	1/4-18	0.282	0.281	0.26	0.83	0.86	9/16
C2503-8-6	1/2	3/4-16	3/8-18	0.422	0.406	0.31	0.98	0.95	3/4
C2503-10-8	5/8	7/8-14	1/2-14	0.500	0.531	0.36	1.08	1.17	7/8
C2503-12-12	3/4	1 1/16-12	3/4-14	0.656	0.719	0.36	1.27	1.20	1 1/16
C2503-14-12	7/8	1 3/16-12	3/4-14	0.718	0.719	0.36	1.34	1.30	1 5/16
C2503-16-16	1	1 5/16-12	1-11 1/2	0.875	0.938	0.42	1.36	1.48	1 5/16
C2503-20-20	1 1/4	1 5/8-12	1 1/4-11 1/2	1.093	1.250	0.42	1.45	1.67	1 5/8

**Male Branch Tee**

**C2601**

Flareless tube ends / male pipe end  
SAE 080425

All dimensions are in inches  
\*Y—ACROSS WRENCH FLATS



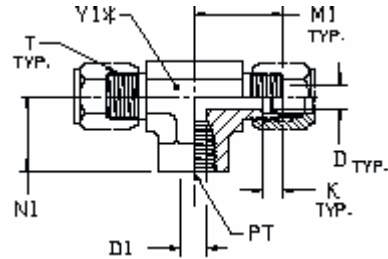
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	PT PORT THD NPTF	D DRILL (inch)	D1 DRILL (inch)	K (inch)	M (inch)	N (inch)	Y (inch)
C2601-2-2-2	1/8	5/16-24	1/8-27	0.094	0.188	0.20	0.78	0.72	7/16
C2601-4-4-2	1/4	7/16-20	1/8-27	0.203	0.188	0.24	0.89	0.78	7/16
C2601-4-4-4	1/4	7/16-20	1/4-18	0.203	0.281	0.24	1.03	1.09	9/16
C2601-5-5-2	5/16	1/2-20	1/8-27	0.234	0.188	0.26	0.95	0.81	9/16
C2601-6-6-4	3/8	9/16-18	1/4-18	0.282	0.281	0.26	1.05	1.09	9/16
C2601-8-8-6	1/2	3/4-16	3/8-18	0.422	0.406	0.31	1.25	1.22	3/4
C2601-8-8-8	1/2	3/4-16	1/2-14	0.422	0.531	0.31	1.34	1.47	7/8
C2601-10-10-8	5/8	7/8-14	1/2-14	0.500	0.531	0.36	1.42	1.47	7/8
C2601-12-12-12	3/4	1 1/16-12	3/4-14	0.656	0.719	0.36	1.58	1.59	1 1/16
C2601-14-14-12	7/8	1 3/16-12	3/4-14	0.718	0.719	0.36	1.66	1.66	1 5/16
C2601-16-16-16	1	1 5/16-12	1-11 1/2	0.875	0.938	0.42	1.73	1.97	1 5/16

**Female Branch Tee**

**C2602**

Flareless tube ends / female pipe end  
SAE 080427

All dimensions are in inches  
\*Y—ACROSS WRENCH FLATS



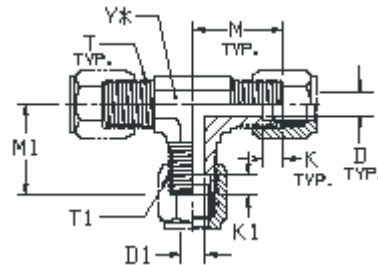
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	PT PORT THD NPTF	D DRILL (inch)	D1 DRILL (inch)	K (inch)	M1 (inch)	N1 (inch)	Y1 (inch)
C2602-4-4-2	1/4	7/16-20	1/8-27	0.203	0.328	0.24	0.89	0.66	9/16
C2602-4-4-4	1/4	7/16-20	1/4-18	0.203	0.422	0.24	1.03	0.88	3/4
C2602-6-6-4	3/8	9/16-18	1/4-18	0.282	0.422	0.26	1.05	0.88	3/4
C2602-8-8-6	1/2	3/4-16	3/8-18	0.422	0.563	0.31	1.23	1.02	7/8
C2602-10-10-8	5/8	7/8-14	1/2-14	0.500	0.688	0.36	1.42	1.23	1 1/16
C2602-12-12-12	3/4	1 1/16-12	3/4-14	0.656	0.906	0.36	1.58	1.36	1 5/16
C2602-14-12-14	7/8	1 3/16-12	3/4-14	0.718	0.906	0.36	1.62	1.42	1 5/16
C2602-16-16-16	1	1 5/16-12	1-11 1/2	0.875	1.125	0.42	1.73	1.62	1 5/8
C2602-20-20-20	1 1/4	1 5/8-12	1 1/4-11 1/2	1.093	1.469	0.42	2.08	1.70	1 7/8

**Union Tee**

**C2603**

Flareless tube end (all three ends)  
SAE 080401

All dimensions are in inches  
\*Y—ACROSS WRENCH FLATS



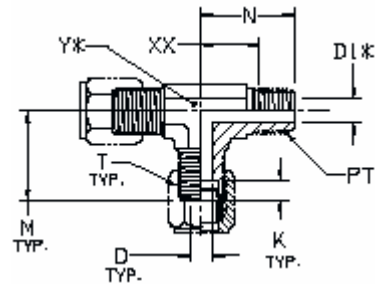
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T1 TUBE END UN/UNF-2A	D DRILL (inch)	D1 DRILL (inch)	K (inch)	K1 (inch)	M (inch)	M1 (inch)	Y (inch)
C2603-2-2-2	1/8	5/16-24	5/16-24	0.094	0.094	0.19	0.19	0.77	0.77	7/16
C2603-3-3-3	3/16	3/8-24	3/8-24	0.125	0.125	0.24	0.24	0.84	0.84	7/16
C2603-4-4-4	1/4	7/16-20	7/16-20	0.203	0.203	0.24	0.24	0.89	0.89	7/16
C2603-5-5-5	5/16	1/2-20	1/2-20	0.234	0.234	0.26	0.26	0.95	0.95	9/16
C2603-6-6-6	3/8	9/16-18	9/16-18	0.282	0.282	0.26	0.26	1.05	1.05	9/16
C2603-8-8-8	1/2	3/4-16	3/4-16	0.422	0.422	0.31	0.31	1.25	1.25	3/4
C2603-8-6-8	1/2	3/4-16	9/16-18	0.422	0.281	0.31	0.26	1.25	1.14	3/4
C2603-10-10-10	5/8	7/8-14	7/8-14	0.500	0.500	0.36	0.36	1.42	1.42	7/8
C2603-12-12-12	3/4	1 1/16-12	1 1/16-12	0.656	0.656	0.36	0.36	1.58	1.58	1 1/16
C2603-14-14-14	7/8	1 3/16-12	1 3/16-12	0.718	0.718	0.36	0.36	1.66	1.66	1 5/16
C2603-16-16-16	1	1 5/16-12	1 5/16-12	0.875	0.875	0.42	0.42	1.73	1.73	1 5/16
C2603-20-20-20	1 1/4	1 5/8-12	1 5/8-12	1.093	1.093	0.42	0.42	1.89	1.89	1 5/8
C2603-24-24-24	1 1/2	1 7/8-12	1 7/8-12	1.344	1.344	0.49	0.49	2.02	2.02	1 7/8

**Male Run Tee**

**C2605**

Flareless tube ends / male pipe end  
SAE 080424

All dimensions are in inches  
\*D1—DRILL MAY BE PRESENT  
DUE TO MANUFACTURERS  
OPTION PER SAE J514



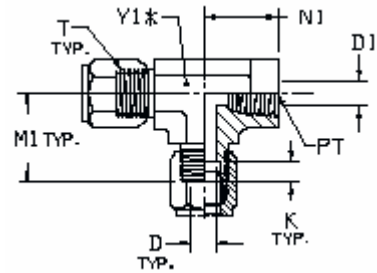
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	PT PORT THD NPTF	D DRILL (inch)	D1 DRILL (inch)	K (inch)	M (inch)	N (inch)	Y (inch)
C2605-4-2-4	1/4	7/16-20	1/8-27	0.203	0.188	0.24	0.89	0.78	7/16
C2605-4-4-4	1/4	7/16-20	1/4-18	0.203	0.281	0.24	1.03	1.09	9/16
C2605-5-2-5	5/16	1/2-20	1/8-27	0.234	0.188	0.26	0.95	0.81	9/16
C2605-6-4-6	3/8	9/16-18	1/4-18	0.282	0.281	0.26	1.05	1.09	9/16
C2605-8-6-8	1/2	3/4-16	3/8-18	0.422	0.406	0.31	1.25	1.22	3/4
C2605-8-8-8	1/2	3/4-16	1/2-14	0.422	0.531	0.31	1.34	1.47	7/8
C2605-10-8-10	5/8	7/8-14	1/2-14	0.500	0.531	0.36	1.42	1.47	7/8
C2605-12-12-12	3/4	1 1/16-12	3/4-14	0.656	0.719	0.36	1.58	1.59	1 1/16
C2605-14-12-14	7/8	1 3/16-12	3/4-14	0.718	0.719	0.36	1.62	1.69	1 5/16
C2605-16-16-16	1	1 5/16-12	1-11 1/2	0.875	0.938	0.42	1.73	1.97	1 5/16

**Female Run Tee**

**C2606**

Flareless tube ends / female pipe end  
SAE 080426

All dimensions are in inches  
\*Y—ACROSS WRENCH FLATS



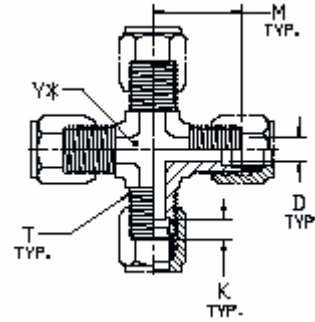
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	PT PORT THD NPTF	D DRILL (inch)	D1 DRILL (inch)	K (inch)	M1 (inch)	N1 (inch)	Y1 (inch)
C2606-4-2-4	1/4	7/16-20	1/8-27	0.203	0.328	0.24	0.89	0.66	9/16
C2606-6-4-6	3/8	9/16-18	1/4-18	0.282	0.422	0.26	1.05	0.88	3/4
C2606-8-6-8	1/2	3/4-16	3/8-18	0.422	0.563	0.31	1.23	1.02	7/8
C2606-10-8-10	5/8	7/8-14	1/2-14	0.500	0.688	0.36	1.42	1.23	1 1/16
C2606-12-12-12	3/4	1 1/16-12	3/4-14	0.656	0.906	0.36	1.58	1.36	1 5/16
C2606-16-16-16	1	1 5/16-12	1-11 1/2	0.875	1.125	0.42	1.73	1.62	1 5/8

**Union Cross**

**C2650**

**Flareless tube end (all four ends)  
SAE 080501**

All dimensions are in inches  
\*Y—ACROSS WRENCH FLATS



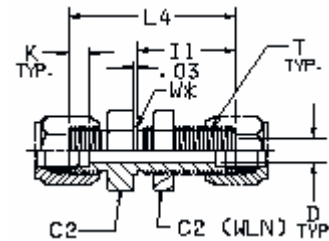
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	D DRILL (inch)	K (inch)	M (inch)	Y (inch)
C2650-4-4-4-4	¼	7/16-20	0.203	0.24	0.89	7/16
C2650-6-6-6-6	3/8	9/16-18	0.282	0.26	1.05	9/16
C2650-8-8-8-8	½	3/4-16	0.422	0.31	1.25	3/4
C2650-12-12-12-12	¾	1 1/16-12	0.656	0.36	1.58	1 1/16

**Bulkhead Union**

**C2700**

**Flareless tube end / flareless tube end  
SAE 080601**

All dimensions are in inches  
\*W— BULKHEAD PILOT DIA.  
RECOMMENDED CLEARANCE  
HOLE +.015 OVER W DIA.



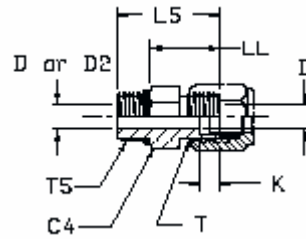
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	C2 HEX (inch)	D DRILL (inch)	I1 (inch)	K (inch)	L4 (inch)	W (inch)
C2700-4-4	1/4	7/16-20	11/16	0.203	1.13	0.24	1.89	0.44
C2700-6-6	3/8	9/16-18	13/16	0.281	1.17	0.26	1.98	0.56
C2700-8-8	1/2	3/4-16	1	0.422	1.31	0.31	2.22	0.75
C2700-10-10	5/8	7/8-14	1 1/8	0.500	1.45	0.36	2.48	0.88
C2700-12-12	3/4	1 1/16-12	1 3/8	0.656	1.56	0.36	2.72	1.06
C2700-16-16	1	1 5/16-12	1 5/8	0.875	1.56	0.42	2.72	1.31

**Straight Thread Connector**

**C6400**

Flareless tube end / straight thread O-ring  
SAE 080120

All dimensions are in inches



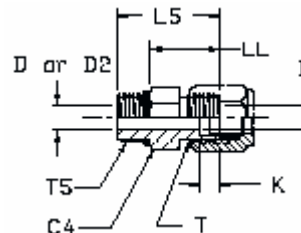
TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T5 PORT THD UN/UNF-2A	C4 HEX (inch)	D DRILL (inch)	D2 DRILL (inch)	K (inch)	L5 (inch)
C6400-2-2	1/8	5/16-24	5/16-24	7/16	0.094	0.094	0.19	1.00
C6400-3-3	3/16	3/8-24	3/8-24	1/2	0.125	0.125	0.24	1.05
C6400-4-4	1/4	7/16-20	7/16-20	9/16	0.203	0.203	0.24	1.13
C6400-4-5	1/4	7/16-20	1/2-20	5/8	0.203	0.234	0.24	1.13
C6400-4-6	1/4	7/16-20	9/16-18	11/16	0.203	0.281	0.24	1.20
C6400-4-10	1/4	7/16-20	7/8-14	1	0.203	0.500	0.24	1.40
C6400-5-5	5/16	1/2-20	1/2-20	5/8	0.234	0.234	0.26	1.13
C6400-6-6	3/8	9/16-18	9/16-18	11/16	0.281	0.281	0.26	1.22
C6400-6-8	3/8	9/16-18	3/4-16	7/8	0.281	0.422	0.26	1.28
C6400-8-8	1/2	3/4-16	3/4-16	7/8	0.422	0.422	0.31	1.38
C6400-8-6	1/2	3/4-16	9/16-18	13/16	0.422	0.281	0.31	1.28
C6400-8-10	1/2	3/4-16	7/8-14	1	0.422	0.500	0.31	1.50
C6400-8-12	1/2	3/4-16	1 1/16-12	1 1/4	0.422	0.656	0.31	1.67
C6400-10-10	5/8	7/8-14	7/8-14	1	0.500	0.500	0.36	1.56
C6400-12-12	3/4	1 1/16-12	1 1/16-12	1 1/4	0.656	0.656	0.36	1.78
C6400-12-8	3/4	1 1/16-12	3/4-16	1 1/8	0.656	0.422	0.36	1.75
C6400-12-16	3/4	1 1/16-12	1 5/16-12	1 1/2	0.656	0.875	0.36	1.81
C6400-16-16	1	1 5/16-12	1 5/16-12	1 1/2	0.875	0.875	0.42	1.81
C6400-16-12	1	1 5/16-12	1 1/16-12	1 3/8	0.875	0.656	0.42	1.81
C6400-16-20	1	1 5/16-12	1 5/8-12	1 7/8	0.875	1.093	0.42	1.91
C6400-20-20	1 1/4	1 5/8-12	1 5/8-12	1 7/8	1.093	1.093	0.42	1.91
C6400-24-24	1 1/2	1 7/8-12	1 7/8-12	2 1/8	1.344	1.344	0.49	1.97
C6400-32-32	2	2 1/2-12	2 1/2-12	2 3/4	1.813	1.813	0.49	2.13

**Straight Thread Elbow**

**C6801**

Flareless tube end / straight thread O-ring

All dimensions are in inches



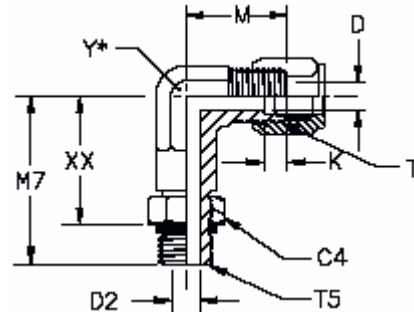
TUBE FITTING PART#	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T5 PORT THD UN/UNF-2A	C4 HEX (inch)	D DRILL (inch)	D2 DRILL (inch)	K (inch)	M (inch)	M7 (inch)	Y (inch)
C6801-3-3	3/16	3/8-24	3/8-24	1/2	0.125	0.125	0.24	0.84	0.94	7/16
C6801-4-4	1/4	7/16-20	7/16-20	9/16	0.203	0.203	0.24	0.89	1.03	7/16
C6801-5-5	5/16	1/2-20	1/2-20	5/8	0.234	0.234	0.26	0.95	1.13	9/16
C6801-6-6	3/8	9/16-18	9/16-18	11/16	0.282	0.282	0.26	1.05	1.25	9/16
C6801-6-8	3/8	9/16-18	3/4-16	7/8	0.282	0.422	0.26	1.14	1.45	3/4
C6801-8-8	1/2	3/4-16	3/4-16	7/8	0.422	0.422	0.31	1.25	1.45	3/4
C6801-8-6	1/2	3/4-16	9/16-18	11/16	0.422	0.282	0.31	1.27	1.33	3/4
C6801-8-10	1/2	3/4-16	7/8-14	1	0.422	0.500	0.31	1.34	1.70	7/8
C6801-8-12	1/2	3/4-16	1 1/16-12	1 1/4	0.422	0.6565	0.31	1.43	1.94	1 1/16
C6801-10-10	5/8	7/8-14	7/8-14	1	0.500	0.500	0.36	1.42	1.70	7/8
C6801-12-12	3/4	1 1/16-12	1 1/16-12	1 1/4	0.656	0.656	0.36	1.58	1.94	1 1/16
C6801-12-8	3/4	1 1/16-12	3/4-16	7/8	0.656	0.422	0.36	1.58	1.63	1 1/16
C6801-12-10	3/4	1 1/16-12	7/8-14	1	0.656	0.500	0.36	1.58	1.78	1 1/16
C6801-12-16	3/4	1 1/16-12	1 5/16-12	1 1/2	0.656	0.875	0.36	1.73	2.05	1 5/16
C6801-16-16	1	1 5/16-12	1 5/16-12	1 1/2	0.875	0.875	0.42	1.73	2.05	1 5/16
C6801-16-12	1	1 5/16-12	1 1/16-12	1 1/4	0.875	0.656	0.42	1.73	2.05	1 5/16
C6801-20-20	1 1/4	1 5/8-12	1 5/8-12	1 7/8	1.093	1.093	0.42	1.89	2.25	1 5/8
C6801-24-24	1 1/2	1 7/8-12	1 7/8-12	2 1/8	1.344	1.344	0.49	2.02	2.39	1 7/8
C6801-32-32	2	2 1/2-12	2 1/2-12	2 3/4	1.813	1.813	0.49	2.45	2.89	2 1/2



**Straight Thread Elbow**

**C6801L**

Flareless tube end / straight thread O-ring  
All dimensions are in inches



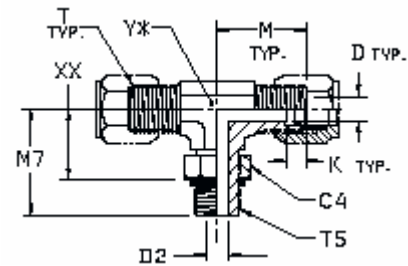
TUBE FITTING PART#	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T5 PORT THD UN/UNF-2A	C4 HEX (inch)	D DRILL (inch)	D2 DRILL (inch)	K (inch)	M (inch)	M7 (inch)	Y (inch)
C6801L-4-4	1/4	7/16-20	7/16-20	9/16	0.203	0.203	0.24	0.89	1.43	7/16
C6801L-6-6	3/8	9/16-18	9/16-18	11/16	0.282	0.282	0.26	1.05	1.72	9/16
C6801L-8-8	1/2	3/4-16	3/4-16	7/8	0.422	0.422	0.31	1.25	2.02	3/4
C6801L-10-10	5/8	7/8-14	7/8-14	1	0.500	0.500	0.36	1.42	2.39	7/8
C6801L-12-12	3/4	1 1/16-12	1 1/16-12	1 1/4	0.656	0.656	0.36	1.58	2.69	1 1/16
C6801L-16-16	1	1 5/16-12	1 5/16-12	1 1/2	0.875	0.875	0.42	1.73	3.13	1 5/16

**Straight Thread Branch Tee**

**C6803**

Flareless tube ends / straight thread O-ring  
O-ring on branch  
SAE 080429

All dimensions are in inches  
\*Y—ACROSS WRENCH FLATS



TUBE FITTING PART #	TUBE O.D. (inch)	T TUBE END UN/UNF-2A	T5 PORT THD UN/UNF-2A	C4 HEX (inch)	D DRILL (inch)	D2 DRILL (inch)	K (inch)	M (inch)	M7 (inch)	Y (inch)
C6803-4-4-4	1/4	7/16-20	7/16-20	9/16	0.203	0.203	0.24	0.89	1.03	7/16
C6803-6-6-6	3/8	9/16-18	9/16-18	11/16	0.282	0.282	0.26	1.05	1.25	9/16
C6803-8-8-8	1/2	3/4-16	3/4-16	7/8	0.422	0.422	0.31	1.25	1.45	3/4
C6803-12-12-12	3/4	1 1/16-12	1 1/16-12	1 1/4	0.656	0.656	0.36	1.58	1.94	1 1/16
C6803-16-16-16	1	1 5/16-12	1 5/16-12	1 1/2	0.875	0.875	0.42	1.73	2.05	1 5/16

# **KNA**

## **FLUID POWER**

KNA Fluid Power  
6910 East Virgin Street  
Tulsa, Ok. 74115

USA 866-485-1577  
CAN 918-836-8041  
FAX 918-836-8048

[Sales@knafluidpower.com](mailto:Sales@knafluidpower.com)

[www.knafluidpower.com](http://www.knafluidpower.com)