

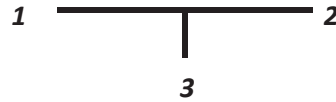
# 45° Flare Fittings



## Features:

- Recommended Design Pressure (DP/ Maximum abnormal pressure (MAP): 700 psig, 48 bar
- In conformance with Refrigeration Fitting Standards SAE J513, Military Standards MS-35867 through MS-35873 inclusive, MS-35919, MS-24815 and MS-16993
- Fabricated from brass forgings or drawn brass rod eliminating the possibility of seepage by porosity
- Accurately machined and fully protected against damage during shipping, handling and storage to assure tight leak-proof joints
- Smooth interior finish provides unrestricted flow and reduced pressure drop

Tees are described by first sizing the run (1 to 2) and then the branch (3).



The letter in the first position of the catalog number is derived from the name of the fitting. Examples:

- T - Tees
- B - Bonnets
- E - Elbows
- N - Nuts
- U - Unions
- F - Fuse Plugs

The numeral in the second position of the catalog number designates the combination of threads on the fitting.

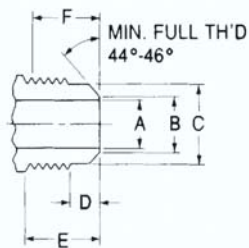
- 4 - Forged Nut
- 2 - Flare to Flare Fitting (U2, E2, T2)
- 1 - External Pipe Thread (U1, E1, T1)

Indicators preceding the numeral in the second position of the catalog number designate the following:

- S - Short (forged nuts)
- R - Internal pipe to flare fitting (excludes tees)
- R - Reducing flare nut (forged nuts)
- R - Pipe thread to flare on the run (tees)

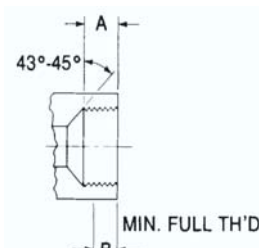
The last two characters in the catalog number designate the size. (Flare sizes are designated by numerals, pipe sizes are designated by letters.)

- |          |         |
|----------|---------|
| 3 - 3/16 | A - 1/8 |
| 4 - 1/4  | B - 1/4 |
| 5 - 5/16 | C - 3/8 |
| 6 - 3/8  | D - 1/2 |
| 8 - 1/2  | E - 3/4 |
| 10 - 5/8 | F - 1   |
| 12 - 3/4 |         |



### External Flare:

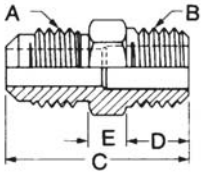
Size	A (in)	B (in)	C (in)	D (in)	E (in)	Min Rull Thread F (in)	Size Thread
3/16	0.13	0.16	0.30	0.13	0.44	0.43	3/8 - 24
1/4	0.19	0.22	0.34	0.16	0.50	0.41	7/16 - 20
5/16	0.22	0.25	0.41	0.19	0.56	0.47	1/2 - 20
3/8	0.28	0.31	0.53	0.22	0.53	0.53	5/8 - 18
1/2	0.41	0.44	0.64	0.25	0.75	0.66	3/4 - 16
5/8	0.50	0.53	0.75	0.28	0.88	0.75	7/8 - 14
3/4	0.63	0.72	0.94	0.28	1.00	0.91	1 1/16 - 14



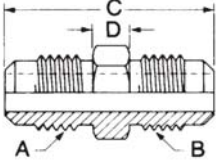
### Internal Flare:

Size	A (in)	Min Rull Thread F (in)	Size Thread
3/16	0.28	0.22	3/8 - 24
1/4	0.34	0.27	7/16 - 20
5/16	0.38	0.30	1/2 - 20
3/8	0.44	0.34	5/8 - 18
1/2	0.53	0.44	3/4 - 16
5/8	0.66	0.55	7/8 - 14
3/4	0.78	0.67	1 1/16 - 14

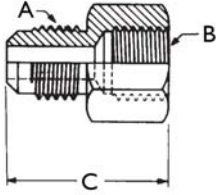
# 45° Flare Fittings Connectors



Half Union - Flare to NPTFE



Union - Flare to Flare



Half Union - Flare to NPTFI

**Half Union - Flare to NPTFE**

Cat Number	Part Number	A (in) Flare	B (in) NPTFE	C (in)	D (in)	E (in)	Hex	Box Qty	Wt(lb)
U1-3A	A 01117	3/16	1/8	1.00	0.38	0.19	7/16	15	0.025
U1-4A	A 00330	1/4	1/8	1.06	0.38	0.19	7/16	25	0.028
U1-4B	A 04585	1/4	1/4	1.25	0.56	0.19	9/16	25	0.047
U1-4C	A 01197	1/4	3/8	1.31	0.56	0.25	11/16	25	0.071
U1-4D	A 04628	1/4	1/2	1.56	0.75	0.31	7/8	25	0.114
U1-5A	A 00331	5/16	1/8	1.16	0.38	0.31	1/2	25	0.040
U1-5B	A 05036	5/16	1/4	1.34	0.56	0.22	9/16	25	0.055
U1-5C	A 01198	5/16	3/8	1.38	0.56	0.25	11/16	25	0.075
U1-6A	A 05003	3/8	1/8	1.25	0.38	0.25	5/8	25	0.065
U1-6B	A 00332	3/8	1/4	1.44	0.56	0.25	5/8	25	0.075
U1-6C	A 01199	3/8	3/8	1.44	0.56	0.25	11/16	25	0.090
U1-6D	A 04993	3/8	1/2	1.69	0.75	0.31	7/8	25	0.135
U1-8A	A 05034	1/2	1/8	1.44	0.38	0.31	3/4	10	0.094
U1-8B	A 04439	1/2	1/4	1.63	0.56	0.31	3/4	10	0.108
U1-8C	A 00334	1/2	3/8	1.63	0.56	0.31	3/4	10	0.119
U1-8D	A 04780	1/2	1/2	1.81	0.75	0.31	7/8	10	0.155
U1-8E	A 05066	1/2	3/4	1.94	0.75	0.44	1 1/16	10	0.228
U1-10B	A 05035	5/8	1/4	1.81	0.56	0.38	7/8	10	0.155
U1-10C	A 01195	5/8	3/8	1.81	0.56	0.38	7/8	10	0.168
U1-10D	A 04540	5/8	1/2	2.00	0.75	0.38	7/8	10	0.180
U1-10E	A 04827	5/8	3/4	2.06	0.75	0.44	1 1/16	5	0.250
U1-12C	A 05005	3/4	3/8	2.00	0.56	0.44	1 1/16	10	0.265
U1-12D	A 04739	3/4	1/2	2.19	0.75	0.44	1 1/16	5	0.286
U1-12E	A 04740	3/4	3/4	2.19	0.75	0.44	1 1/16	5	0.290

**Unions - Flare to Flare**

Cat Number	Part Number	A (in) Flare	B (in) Flare	C (in)	D (in)	E (in)	Hex	Box Qty	Wt(lb)
U2-4	A 00325	1/4	1/4	1.19	0.19		7/16	25	0.026
U2-5	A 00326	5/16	5/16	1.34	0.22		1/2	25	0.050
U2-6	A 00327	3/8	3/8	1.50	0.25		5/8	25	0.092
U2-8	A 00329	1/2	1/2	1.81	0.31		3/4	15	0.141
U2-10	A 04845	5/8	5/8	2.13	0.38		7/8	10	0.215
U2-12	A 04733	3/4	3/4	2.44	0.44		1 1/16	10	0.368

**Half Union - Flare to NPTFI**

Cat Number	Part Number	A (in) Flare	B (in) NPTFI	C (in)	D (in)	E (in)	Hex	Box Qty	Wt(lb)
U3-4A	A 04622	1/4	1/8	1.03			9/16	25	0.042
U3-4B	A 04625	1/4	1/4	1.25			11/16	25	0.065
U3-4C	A 04961	1/4	3/8	1.28			13/16	15	0.081
U3-6A	A 04927	3/8	1/8	1.13			5/8	10	0.065
U3-6B	A 04624	3/8	1/4	1.31			11/16	25	0.083
U3-6C	A 04627	3/8	3/8	1.38			13/16	15	0.100
U3-6D	A 08104	3/8	1/2	1.63			1	15	0.163
U3-8B	A 04928	1/2	1/4	1.41			3/4	15	0.112
U3-8C	A 04727	1/2	3/8	1.50			13/16	15	0.115
U3-8D	A 04728	1/2	1/2	1.75			1	15	0.181
U3-10C	A 04929	5/8	3/8	1.59			7/8	10	0.160
U3-10D	A 04819	5/8	1/2	1.81			1	10	0.195
U3-10E	A 04977	5/8	3/4	1.91			1 1/4	10	0.286

\* 2 Gaskets Furnished

# Competitive Cross Reference

## 45° Flare Fittings

Universal	Mueller	Universal	Mueller	Universal	Mueller	Universal	Mueller
B1-3	A 04737	N4-6	A 00441	T2-8	A 00344	U3-10C	A 04929
B1-4	A 00414	N4-8	A 00442	T2-10	A 04541	U3-10D	A 04819
B1-5	A 04935	N4-10	A 01112	T2-12	A 04749	U3-10E	A 04977
B1-6	A 00415	N4-12	A 04731	T3-4A	A 00127	U3-8C	A 04727
B1-8	A 00416	N5-4	A 04544	T3-4B	A 04998	U3-8D	A 04728
B1-10	A 00485	N5-5	A 04758	T3-6B	A 00133	U4-4	A 00385
B1-12	A 04738	N5-6	A 04545	T3-6C	A 04941	U4-6	A 00386
B2-3	A 05156	N5-8	A 04546	T3-8C	A 04778	U4-8	A 00387
B2-4	A 00401	N5-10	A 04560	T3-8D	A 04944	UR2-106	A 05334
B2-5	A 04811	N5-12	A 04951	T3-10D	A 04779	UR2-108	A 04846
B2-6	A 00402	NFT5-4	A 16447	T6-4	A 06330	UR2-1210	A 04784
B2-8	A 00403	NFT5-6	A 16448	TR2-46	A 04994	UR2-128	A 04734
B2-10	A 05186	NRS4-43	A 05132	TR2-64	A 04574	UR2-43	A 05270
B2-12	A 04822	NRS4-54	A 05247	TR2-68	A 04547	UR2-54	A 08730
E1-4A	A 00335	NRS4-64	A 05140	TR2-84	A 04558	UR2-64	A 01171
E1-4B	A 04890	NRS4-65	A 05282	TR2-86	A 04559	UR2-65	A 04981
E1-4C	A 04812	NRS4-86	A 05141	TR2-810	A 04991	UR2-84	A 00356
E1-6A	A 04937	NRS4-108	A 05228	U1-3A	A 01117	UR2-86	A 00149
E1-6B	A 00337	NS4-3	A 05238	U1-4A	A 00330	UR3-1012	A 04878
E1-6C	A 04889	NS4-4	A 05051	U1-4B	A 04585	UR3-108	A 04770
E1-6D	A 04886	NS4-5	A 05239	U1-4C	A 01197	UR3-1210	A 04826
E1-8B	A 05044	NS4-6	A 05052	U1-4D	A 04628	UR3-43	A 05147
E1-8C	A 00339	NS4-8	A 05053	U1-5A	A 00331	UR3-46	A 05041
E1-8D	A 04887	NS4-10	A 05157	U1-5B	A 05036	UR3-48	A 08127
E1-8E	A 05072	NS4-12	A 05222	U1-5C	A 01198	UR3-64	A 00479
E1-10C	A 04856	P2-3	A 05045	U1-6A	A 05003	UR3-68	A 04888
E1-10D	A 04538	P2-4	A 00121	U1-6B	A 00332	UR3-810	A 04879
E1-10E	A 05054	P2-5	A 00124	U1-6C	A 01199	UR3-84	A 00480
E1-12D	A 04776	P2-6	A 00122	U1-6D	A 04993	UR3-86	A 00481
E1-12E	A 04746	P2-8	A 00123	U1-8A	A 05034	US3-1010	A 02258
E2-4	A 00147	P2-10	A 04536	U1-8B	A 04439	US3-1012	A 02272
E2-6	A 00146	P2-12	A 04757	U1-8C	A 00334	US3-1014	A 02378
E2-8	A 00145	P3-A	A 00250	U1-8D	A 04780	US3-108	A 03519
E2-10	A 04539	P3-B	A 00249	U1-8E	A 05066	US3-1212	A 05307
E2-12	A 04745	P3-C	A 00425	U1-10B	A 05035	US3-1214	A 05425
E3-4A	A 04630	P3-D	A 04759	U1-10C	A 01195	US3-44	A 03431
E3-4B	A 05007	P3-E	A 05004	U1-10D	A 04540	US3-45	A 03466
E3-6B	A 04632	P3-F	A 04850	U1-10E	A 04827	US3-46	A 03494
E4-44	A 04898	R1-AB	A 08756	U1-12C	A 05005	US3-610	A 06601
E4-66	A 08082	R1-BA	A 00630	U1-12D	A 04739	US3-64	A 03443
E4-88	A 04897	R1-CB	A 00631	U1-12E	A 04740	US3-65	A 03464
ES2-44	A 03449	R1-DB	A 00492	U2-3	A 04621	US3-66	A 03492
ES2-66	A 03511	R1-DC	A 00632	U2-4	A 00325	US3-68	A 03547
ES2-68	A 07852	R1-EC	A 00493	U2-5	A 00326	US3-810	A 02259
ES2-88	A 07851	R1-ED	A 00633	U2-6	A 00327	US3-86	A 03504
ES2-1010	A 06611	T1-4A	A 00345	U2-8	A 00329	US3-88	A 03546
ES4-44	A 15940	T1-4B	A 04859	U2-10	A 04845	US4-10	A 13568
ES4-66	A 15941	T1-4C	A 04771	U2-12	A 04733	US4-4	A 13563
ES4-88	A 15943	T1-6B	A 00347	U3-4A	A 04622	US4-5	A 13564
ES4-1010	A 15944	T1-6C	A 04922	U3-4B	A 04625	US4-6	A 13565
K1-1	A 08073	T1-8B	A 05246	U3-4C	A 04961	US4-8	A 13567
K1-3	A 08274	T1-8C	A 00349	U3-6A	A 04927	US5-1010	A 15728
K1-5	A 08276	T1-8D	A 04924	U3-6B	A 04624	US5-1212	A 15729
K1-8	A 08166	T1-10D	A 04754	U3-6C	A 04627	US5-44	A 15725
N4-4	A 00440	T2-4	A 00340	U3-6D	A 08104	US5-66	A 15726
N4-5	A 01110	T2-6	A 00342	U3-8B	A 04928	US5-88	A 15727