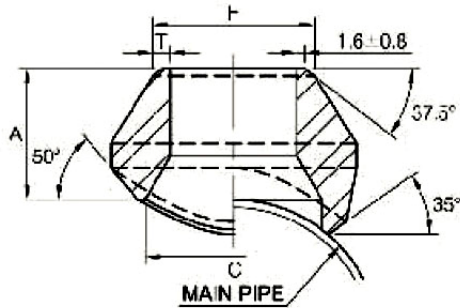
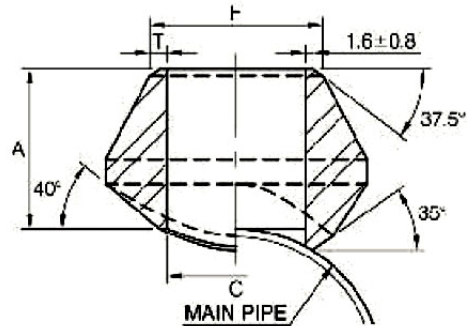


## Branch Outlet Butt Weld

Reducing Sizes MSS-SP-97-2006



**REDUCING WAY**



**STRAIGHT WAY**

### Standard Weight and Extra Strong

Out-Let Pipe NPS	Reducing Way				
	A	C	F	T	
				Standard Weight	Extra Strong
1/8"	16.0	13.7	10.3	1.73	2.41
1/4"	16.0	13.7	13.7	2.24	3.02
3/8"	19.0	17.1	17.1	2.31	3.20
1/2"	19.0	21.3	21.3	2.77	3.73
3/4"	22.0	26.7	26.7	2.87	3.91
1"	27.0	33.4	33.4	3.38	4.55
1-1/4"	32.0	42.2	42.2	3.56	4.85
1-1/2"	33.0	48.3	48.3	3.68	5.08
2"	38.0	60.3	60.3	3.91	5.54
2-1/2"	41.0	73.0	73.0	5.16	7.01
3"	44.0	88.9	88.9	5.49	7.62
3-1/2"	48.0	101.6	101.6	5.74	8.56
4"	51.0	114.3	114.3	6.02	8.56
5"	57.0	141.3	141.3	6.55	9.53
6"	78.0	168.3	168.3	7.11	10.97
8"	99.0	219.3	219.3	8.11	12.70
10"	94.0	273.1	273.1	9.27	12.70
12"	103.0	323.9	323.9	9.53	12.70
14"	100.0	355.6	355.6	9.53	12.70
16"	106.0	406.4	406.4	9.53	12.70
18"	111.0	457.2	457.2	9.53	12.70
20"	119.0	508.0	508.0	9.53	12.70
24"	140.0	609.6	609.6	9.53	12.70

Out-Let Pipe NPS	Straight Way				
	A	C	F	T	
				Standard Weight	Extra Strong
1/8"					
1/4"	16.0	11.5	13.7	2.24	3.02
3/8"	19.0	14.5	17.1	2.31	3.20
1/2"	19.0	16.5	21.3	2.77	3.73
3/4"	22.0	21.5	26.7	2.87	3.91
1"	27.0	27.2	33.4	3.38	4.55
1-1/4"	32.0	36.0	42.2	3.56	4.85
1-1/2"	33.0	42.0	48.3	3.68	5.08
2"	38.0	53.0	60.3	3.91	5.54
2-1/2"	41.0	65.0	73.0	5.16	7.01
3"	44.0	80.0	88.9	5.49	7.62
3-1/2"					
4"	51.0	104.0	114.3	6.02	8.56

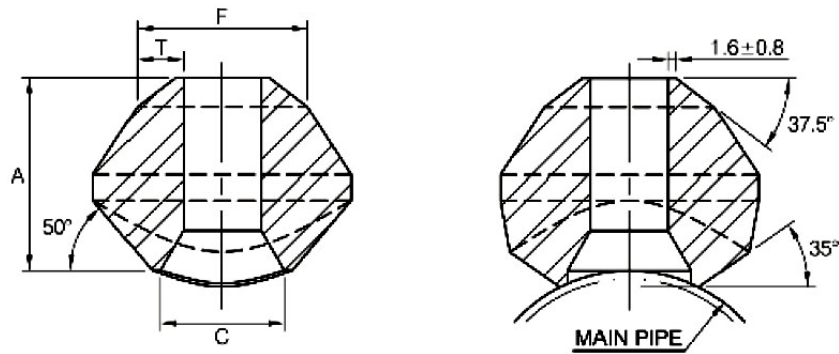
- (1) Dimensions in Millimeters.
- (2) Weld Bevel in accordance with ASME B16.25
- (3) Outside size 4 and less fit a number of run pipe sizes and the fitting are marked accordingly.
- (4) Outside size 5 and up order to specific size combination

### Dimensional Tolerance of MSS SP-97-2006

Item	1/8" to 3/4"	1" to 4"	5" to 12"	14" to 24"
Face of fitting to crotch (A)	± 0.76	± 1.52	± 3.05	± 4.83

## Branch Outlet Butt Weld

Reducing Sizes MSS-SP-97-2006



### Schedule 160 and Double Extra Strong

Out-Let Pipe	A	C	F	T	
				Sch.160	XXS
1/2"	28.0	13.8	21.3	4.78	7.47
3/4"	32.0	18.9	26.7	5.56	7.82
1"	38.0	24.3	33.4	6.35	9.09
1-1/4"	44.0	32.5	42.2	6.35	9.70
1-1/2"	51.0	38.1	48.3	7.14	10.15
2"	55.0	49.2	60.3	8.74	11.07
2-1/2"	62.0	59.0	73.0	9.53	14.02
3"	73.0	73.7	88.9	11.13	15.24
4"	84.0	97.2	114.3	13.49	17.12
5"	94.0	122.2	141.3	15.88	19.05
6"	105.0	146.4	168.3	18.26	21.95

- (1) Dimensions in Millimeters.
- (2) Weld Bevel in accordance with ASME B16.25
- (3) Outlet size by order to specific size combination.

### Conventional Run Size Combinations

		OUTLET SIZE										
		1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
RUN SIZE (Main Pipe)	Reducing way	3/8"~3/4" 1"~36"	1/2" 3/4"~1-1/4" 1-1/2"~36"	3/4" 1" 1-1/4" 1-1/2"~3" 3-1/2"~36"	1" 1-1/4" 1-1/2" 2"~3" 3-1/2"~6" 8"~36"	1-1/4" 1-1/2" 2" 2-1/2" 3" 3-1/2"~4" 5"~10" 12~36"	1-1/2" 2" 2-1/2" 3" 3-1/2"~5" 6"~8" 10"~36"	2" 2-1/2" 3" 3-1/2" 4"~5" 6"~10" 12"~36"	2-1/2" 3" 3-1/2" 4" 5"~6" 8"~10" 12"~18" 20"~36"	3" 3-1/2" 4" 5" 6" 8" 10"~14" 16"~36"	3-1/2" 4" 5" 6" 8" 10" 12"~16" 18"~36"	5" 6" 8" 10" 12"~14" 16"~18" 20"~24" 26"~36"
	Straight way	3/8"~36"	1/2"~36"	3/4"~36"	1"~36"	1-1/4"~1-1/2" 2"~36"	1-1/2" 2"~3" 3-1/2"~36"	2" 2-1/2"~4" 5"~36"	2-1/2" 3"~3-1/2" 4"~6" 8"~36"	3" 3-1/2"~4" 5"~8" 10"~36"	3-1/2" 4" 5" 6" 8"~12" 14"~36"	5" 6" 8" 10" 12"~16" 18"~36"

Each charted outlet size is designed to fit a number of run pipe size.