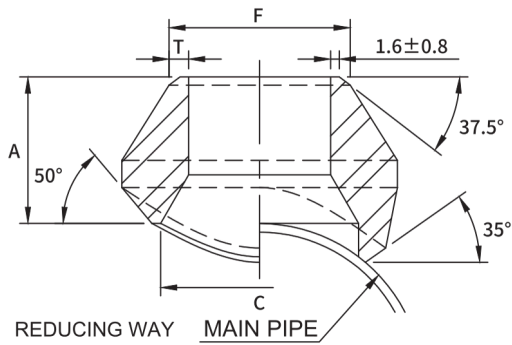


WELDOLET 90* BRANCH OUTLET
DIMENSIONS: MSS SP-97-2019 SCH-STD, 40, XS, 160, XXS

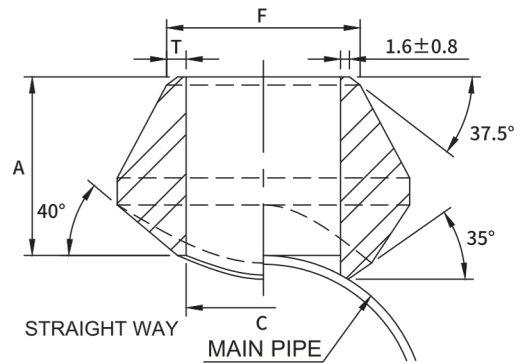


REDUCING WAY

MAIN PIPE

STANDARD

Dimensions are in millimeters.



STRAIGHT WAY

MAIN PIPE

Dimensions are in millimeters.

Reducing way				
OutLet Pipe (in)	A	C	F	T
1/8	16.0	13.7	10.3	1.73
1/4	16.0	13.7	13.7	2.24
3/8	19.0	17.1	17.1	2.31
1/2	19.0	21.3	21.3	2.77
3/4	22.0	26.7	26.7	2.87
1	27.0	33.4	33.4	3.38
1-1/4	32.0	42.2	42.2	3.56
1-1/2	33.0	48.3	48.3	3.68
2	38.0	60.3	60.3	3.91
2-1/2	41.0	73.0	73.0	5.16
3	44.0	88.9	88.9	5.49
3-1/2	48.0	101.6	101.6	5.74
4	51.0	114.3	114.3	6.02
5	57.0	141.3	141.3	6.55
6	60.0	168.3	168.3	7.11
8	70.0	219.1	219.1	8.11
10	78.0	273.1	273.1	9.27
12	86.0	323.9	323.9	9.53
14	89.0	355.6	355.6	9.53
16	94.0	406.4	406.4	9.53
18	97.0	457.0	457.0	9.53
20	102.0	508.0	508.0	9.53
24	116.0	610.0	610.0	9.53

Straight way				
OutLet Pipe (in)	A	C	F	T
1/4	16.0	11.5	13.7	2.24
3/8	19.0	14.5	17.1	2.31
1/2	19.0	16.5	21.3	2.77
3/4	22.0	21.5	26.7	2.87
1	27.0	27.2	33.4	3.38
1-1/4	32.0	36.0	42.2	3.56
1-1/2	33.0	42.0	48.3	3.68
2	38.0	53.0	60.3	3.91
2-1/2	41.0	65.0	73.0	5.16
3	44.0	80.0	88.9	5.49
4	51.0	104.0	114.3	6.02

(1) Weld Bevel in accordance with ASME B16.25.

- (1) Weld Bevel in Accordance with ASME B16.25.
- (2) Outlet size 4 and less fit a number of run pipe sizes and the fittings are marked accordingly. See page 36 for conventional run size combination.
- (3) Outlet sizes 5 and up order to specific size combination.

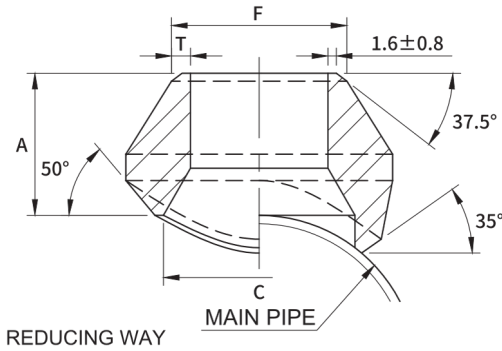
DIMENSIONAL TOLERANCE

MSS SP-97-2019

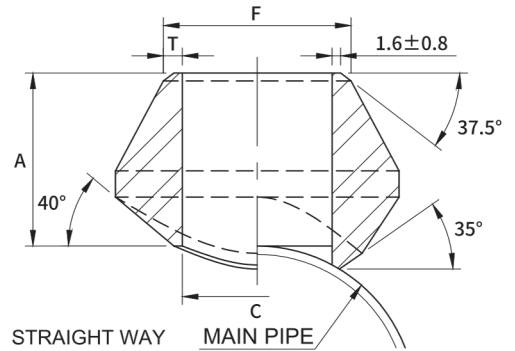
Unit : mm

Item	1/8"~3/4"	1"~4"	5"~12"	14"~24"
Face of fitting to Crotch (A)	±0.8	±1.6	±3.2	±4.8

WELDOLET 90* BRANCH OUTLET
DIMENSIONS: MSS SP-97-2019 SCH-STD, 40, XS, 160, XXS



REDUCING WAY



STRAIGHT WAY

EXTRA STRONG

Dimensions are in millimeters.

Dimensions are in millimeters.

Reducing way				
OutLet Pipe (in)	A	C	F	T
1/8	16.0	13.7	10.3	2.41
1/4	16.0	13.7	13.7	3.02
3/8	19.0	17.1	17.1	3.20
1/2	19.0	21.3	21.3	3.73
3/4	22.0	26.7	26.7	3.91
1	27.0	33.4	33.4	4.55
1-1/4	32.0	42.2	42.2	4.85
1-1/2	33.0	48.3	48.3	5.08
2	38.0	60.3	60.3	5.54
2-1/2	41.0	73.0	73.0	7.01
3	44.0	88.9	88.9	7.62
3-1/2	48.0	101.6	101.6	8.56
4	51.0	114.3	114.3	8.56
5	57.0	141.3	141.3	9.53
6	78.0	168.3	168.3	10.97
8	99.0	219.1	219.1	12.70
10	94.0	273.0	273.0	12.70
12	103.0	323.8	323.8	12.70
14	100.0	355.6	355.6	12.70
16	106.0	406.4	406.4	12.70
18	111.0	457.0	457.0	12.70
20	119.0	508.0	508.0	12.70
24	140.0	610.0	610.0	12.70

Straight way				
OutLet Pipe (in)	A	C	F	T
1/4	16.0	11.5	13.7	3.02
3/8	19.0	14.5	17.1	3.20
1/2	19.0	16.5	21.3	3.73
3/4	22.0	21.5	26.7	3.91
1	27.0	27.2	33.4	4.55
1-1/4	32.0	36.0	42.2	4.85
1-1/2	33.0	42.0	48.3	5.08
2	38.0	53.0	60.3	5.54
2-1/2	41.0	65.0	73.0	7.01
3	44.0	80.0	88.9	7.62
4	51.0	104.0	114.3	8.56

(1) Weld Bevel in accordance with ASME B16.25

- (1) Weld Bevel in accordance with ASME B16.25.
- (2) Outlet size 4 and less fit a number of run pipe sizes and the fittings are marked accordingly. See page 36 for conventional run pipe size combination.
- (3) Outlet sizes 5 and up order to specific size combination.

DIMENSIONAL TOLERANCE

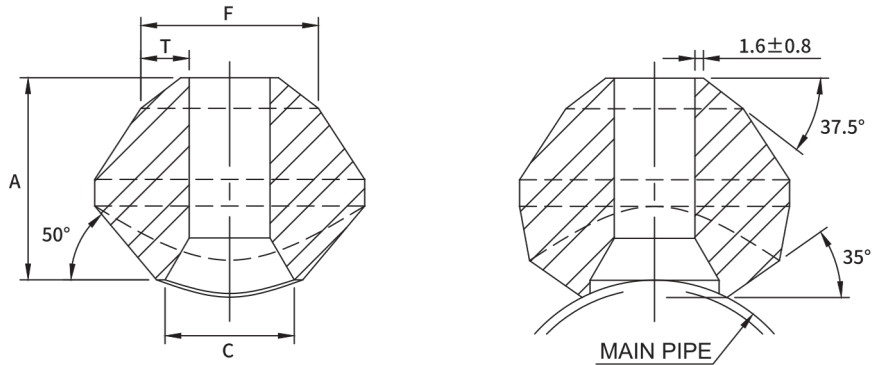
MSS SP-97-2019

Unit : mm

Item	1/8"~3/4"	1"~4"	5"~12"	14"~24"
Face of fitting to Crotch (A)	±0.8	±1.6	±3.2	±4.8

WELDOLET 90* BRANCH OUTLET

DIMENSIONS: MSS SP-97-2019 SCH-STD, 40, XS, 160, XXS



SCHEDULE 160 & DOUBLE EXTRA STRONG

Dimensions are in millimeters.

Reducing way					
OutLet Pipe (in)	A	C	F	T	
				S160	XXS
1/2	28.4	13.8	21.3	4.78	7.47
3/4	31.8	18.9	26.7	5.56	7.82
1	38.1	24.3	33.4	6.35	9.09
1-1/4	44.4	32.5	42.2	6.35	9.70
1-1/2	50.8	38.1	48.3	7.14	10.15
2	55.4	49.2	60.3	8.74	11.07
2-1/2	62.0	59.0	73.0	9.53	14.02
3	73.2	73.7	88.9	11.13	15.24
4	84.1	97.2	114.3	13.49	17.12
5	93.7	122.2	141.3	15.88	19.05
6	104.6	146.4	168.3	18.26	21.95

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

CONVENTIONAL RUN PIPE SIZE COMBINATIONS 3000Lb THREAD/SOCKET-WELD END STD/XS BUTT WELDING END

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"~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" 10"~36"	2-1/2" 3" 3-1/2" 4" 5"~6" 6"~10" 12"~18" 12"~36"	3" 3-1/2" 4" 5" 6" 8" 10"~14" 10"~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 sizes.