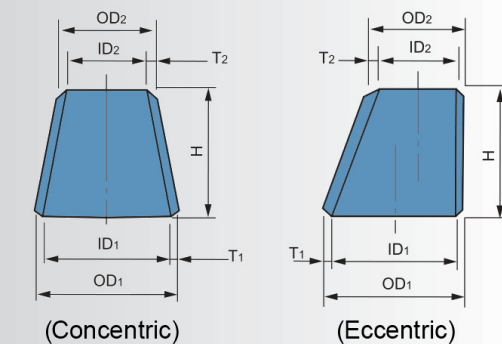
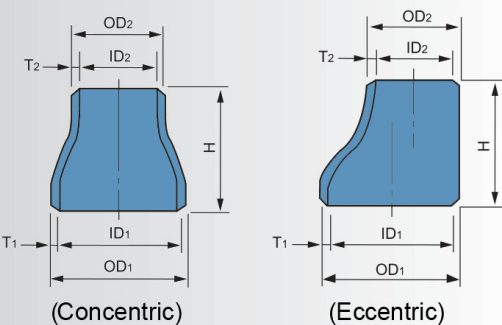


REDUCER Concentric & Eccentric Reducer

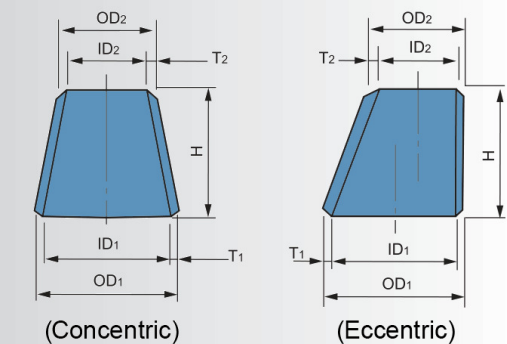
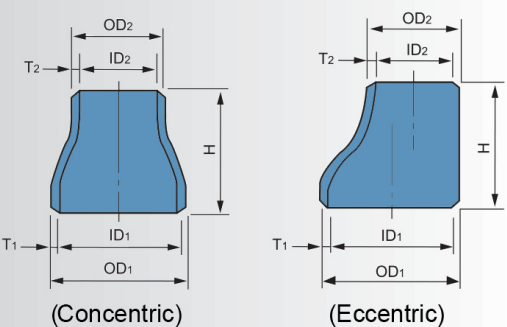
ASTM/ASME A234
ANSI B 16.9 / B 16.28
MSS SP-43



NOMINAL PIPE SIZE	DIMENSIONS			WALL THICKNESS									
	Outside Diameter at Bevel: D1/D2		End to End	Sch. 20		Sch. 30		Std		Sch. 40		Sch. 60	
inch	OD1 in	OD2 in	H in	t1 in	t2 in	t1 in	t2 in	t1 in	t2 in	t1 in	t2 in	t1 in	t2 in
1" x 3/4"	1.315"	1.050"	2.000"	-	-	-	-	0.133"	0.113"	0.133"	0.113"	-	-
1 1/2" x 1 1/4"	1.900"	1.660"	2.500"	-	-	-	-	0.145"	0.140"	0.145"	0.140"	-	-
1 1/2" x 1"	1.900"	1.315"	2.500"	-	-	-	-	0.145"	0.133"	0.145"	0.133"	-	-
1 1/2" x 3/4"	1.900"	1.050"	2.500"	-	-	-	-	0.145"	0.113"	0.145"	0.113"	-	-
2" x 1 1/2"	2.375"	1.900"	3.000"	-	-	-	-	0.154"	0.145"	0.154"	0.145"	-	-
2" x 1 1/4"	2.375"	1.660"	3.000"	-	-	-	-	0.154"	0.140"	0.154"	0.140"	-	-
2" x 1"	2.375"	1.315"	3.000"	-	-	-	-	0.154"	0.133"	0.154"	0.133"	-	-
2 1/2" x 2"	2.875"	2.375"	3.500"	-	-	-	-	0.203"	0.154"	0.203"	0.154"	-	-
2 1/2" x 1 1/2"	2.875"	1.900"	3.500"	-	-	-	-	0.203"	0.145"	0.203"	0.145"	-	-
2 1/2" x 1 1/4"	2.875"	1.660"	3.500"	-	-	-	-	0.203"	0.140"	0.203"	0.140"	-	-
3" x 2 1/2"	3.500"	2.875"	3.500"	-	-	-	-	0.216"	0.203"	0.216"	0.203"	-	-
3" x 2"	3.500"	2.375"	3.500"	-	-	-	-	0.216"	0.154"	0.216"	0.154"	-	-
3" x 1 1/2"	3.500"	1.900"	3.500"	-	-	-	-	0.216"	0.145"	0.216"	0.145"	-	-
4" x 3"	4.500"	3.500"	4.000"	-	-	-	-	0.237"	0.216"	0.237"	0.216"	-	-
4" x 2 1/2"	4.500"	2.875"	4.000"	-	-	-	-	0.237"	0.203"	0.237"	0.203"	-	-
4" x 2"	4.500"	2.375"	4.000"	-	-	-	-	0.237"	0.154"	0.237"	0.154"	-	-
5" x 4"	5.563"	4.500"	5.000"	-	-	-	-	0.258"	0.237"	0.258"	0.237"	-	-
5" x 3"	5.563"	3.500"	5.000"	-	-	-	-	0.258"	0.216"	0.258"	0.216"	-	-
5" x 2 1/2"	5.563"	2.875"	5.000"	-	-	-	-	0.258"	0.203"	0.258"	0.203"	-	-
6" x 5"	6.626"	5.563"	5.500"	-	-	-	-	0.280"	0.258"	0.280"	0.258"	-	-
6" x 4"	6.626"	4.500"	5.500"	-	-	-	-	0.280"	0.237"	0.280"	0.237"	-	-
6" x 3"	6.626"	3.500"	5.500"	-	-	-	-	0.280"	0.216"	0.280"	0.216"	-	-
8" x 6"	8.625"	6.626"	6.000"	-	-	-	-	0.322"	0.280"	0.322"	0.280"	-	-
8" x 5"	8.625"	5.563"	6.000"	-	-	-	-	0.322"	0.258"	0.322"	0.258"	-	-
8" x 4"	8.625"	4.500"	6.000"	-	-	-	-	0.322"	0.237"	0.322"	0.237"	-	-
10" x 8"	10.750"	8.625"	7.000"	0.250"	0.250"	0.307"	0.277"	0.365"	0.322"	0.365"	0.322"	0.500"	0.406"
10" x 6"	10.750"	6.626"	7.000"	-	-	-	-	0.365"	0.280"	0.365"	0.280"	-	-
10" x 5"	10.750"	5.563"	7.000"	-	-	-	-	0.365"	0.258"	0.365"	0.258"	-	-
12" x 10"	12.748"	10.750"	8.000"	0.250"	0.250"	0.330"	0.307"	0.375"	0.365"	0.406"	0.365"	0.562"	0.500"
12" x 8"	12.748"	8.625"	8.000"	0.250"	0.250"	0.330"	0.277"	0.375"	0.322"	0.406"	0.322"	0.562"	0.406"
12" x 6"	12.748"	6.626"	8.000"	-	-	-	-	0.375"	0.280"	0.406"	0.280"	-	-
14" x 12"	14.000"	12.748"	13.000"	0.312"	0.250"	0.375"	0.330"	0.375"	0.375"	0.438"	0.406"	0.594"	0.562"
14" x 10"	14.000"	10.750"	13.000"	0.312"	0.250"	0.375"	0.307"	0.375"	0.365"	0.438"	0.365"	0.594"	0.500"
14" x 8"	14.000"	8.625"	13.000"	0.312"	0.250"	0.375"	0.277"	0.375"	0.322"	0.438"	0.322"	0.594"	0.406"

REDUCER Concentric & Eccentric Reducer

ASTM/ASME A234
ANSI B 16.9 / B 16.28
MSS SP-43



NOMINAL PIPE SIZE	DIMENSIONS			WALL THICKNESS									
	Outside Diameter at Bevel: D1/D2		End to End	Sch. 20		Sch. 30		Std		Sch. 40		Sch. 60	
inch	OD1 in	OD2 in	H in	t1 in	t2 in	t1 in	t2 in	t1 in	t2 in	t1 in	t2 in	t1 in	t2 in
16" x 14"	16.000"	14.000"	14.000"	0.312"	0.312"	0.375"	0.375"	0.375"	0.375"	0.500"	0.438"	0.656"	0.594"
16" x 12"	16.000"	12.748"	14.000"	0.312"	0.250"	0.375"	0.330"	0.375"	0.375"	0.500"	0.406"	0.656"	0.562"
16" x 10"	16.000"	10.750"	14.000"	0.312"	0.250"	0.375"	0.307"	0.375"	0.365"	0.500"	0.365"	0.656"	0.500"
16" x 8"	16.000"	8.625"	14.000"	0.312"	0.250"	0.375"	0.277"	0.375"	0.322"	0.500"	0.322"	0.656"	0.406"
18" x 16"	18.000"	16.000"	15.000"	0.312"	0.312"	-	-	0.375"	0.375"	0.562"	0.500"	0.750"	0.656"
18" x 14"	18.000"	14.000"	15.000"	0.312"	0.312"	-	-	0.375"	0.375"	0.562"	0.438"	0.750"	0.594"
18" x 12"	18.000"	12.748"	15.000"	0.312"	0.250"	-	-	0.375"	0.375"	0.562"	0.406"	0.750"	0.562"
20" x 18"	20.000"	18.000"	20.000"	0.375"	0.312"	-	-	0.375"	0.375"	0.594"	0.562"	0.812"	0.750"
20" x 16"	20.000"	16.000"	20.000"	0.375"	0.312"	-	-	0.375"	0.375"	0.594"	0.500"	0.812"	0.656"
20" x 14"	20.000"	14.000"	20.000"	0.375"	0.312"	-	-	0.375"	0.375"	0.594"	0.438"	0.812"	0.594"
22" x 20"	22.000"	20.000"	20.000"	0.375"	0.375"	-	-	0.375"	0.375"	-	-	0.875"	0.812"
22" x 18"	22.000"	18.000"	20.000"	0.375"	0.312"	-	-	0.375"	0.375"	-	-	0.875"	0.750"
22" x 16"	22.000"	16.000"	20.000"	0.375"	0.312"	-	-	0.375"	0.375"	-	-	0.875"	0.656"
24" x 22"	24.000"	22.000"	20.000"	0.375"	0.375"	-	-	0.375"	0.375"	0.688"	-	0.969"	0.875"
24" x 20"	24.000"	20.000"	20.000"	0.375"	0.375"	-	-	0.375"	0.375"	0.688"	0.594"	0.969"	0.812"
24" x 18"	24.000"	18.000"	20.000"	0.375"	0.312"	-	-	0.375"	0.375"	0.688"	0.562"	0.969"	0.750"
26" x 22"	26.000"	22.000"	24.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
26" x 18"	26.000"	18.000"	24.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
26" x 16"	26.000"	16.000"	24.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
28" x 24"	28.000"	24.000"	24.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
28" x 24"	28.000"	20.000"	24.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
28" x 18"	28.000"	18.000"	24.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
30" x 26"	30.000"	26.000"	24.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
30" x 22"	30.000"	22.000"	24.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
30" x 20"	30.000"	20.000"	24.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
32" x 28"	32.000"	28.000"	24.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
32" x 24"	32.000"	24.000"	24.000"	-	-	-	-	0.375"	0.375"	0.688"	0.688"	-	-
32" x 22"	32.000"	22.000"	24.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
34" x 30"	34.000"	30.000"	24.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
34" x 26"	34.000"	26.000"	24.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
34" x 22"	34.000"	22.000"	24.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
36" x 32"	36.000"	32.000"	24.000"	-	-	-	-	0.375"	0.375"	0.750"	0.688"	-	-
36" x 28"	36.000"	28.000"	24.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
36" x 24"	36.000"	24.000"	24.000"	-	-	-	-	0.375"	0.375"	0.750"	0.688"	-	-

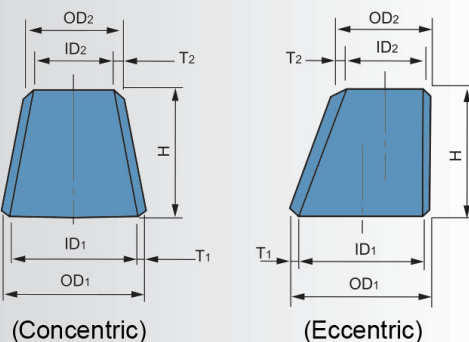
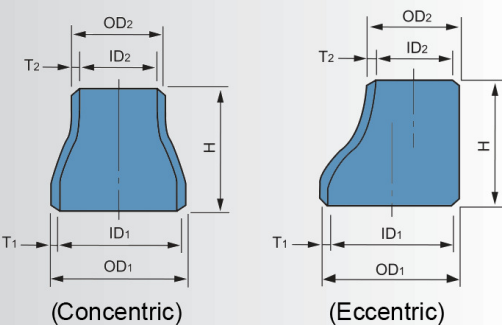
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Concentric & Eccentric Reducer

ASTM/ASME A234

ANSI B 16.9 / B 16.28

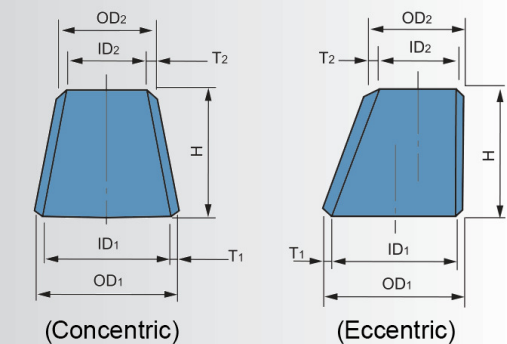
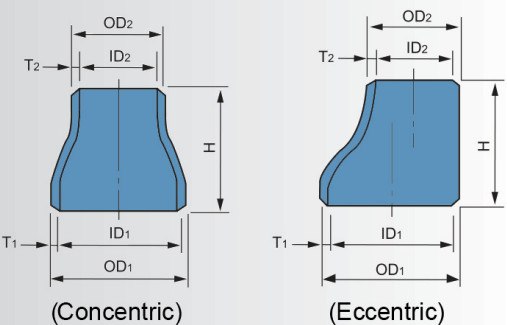
MSS SP-43



NOMINAL PIPE SIZE	DIMENSIONS			WALL THICKNESS									
	Outside Diameter at Bevel: D1/D2		End to End	Sch. 20		Sch. 30		Std		Sch. 40		Sch. 60	
inch	OD1 in	OD2 in	H in	t1 in	t2 in	t1 in	t2 in	t1 in	t2 in	t1 in	t2 in	t1 in	t2 in
38" x 34"	38.000"	34.000"	24.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
38" x 30"	38.000"	30.000"	24.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
38" x 26"	38.000"	26.000"	24.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
40" x 36"	40.000"	36.000"	24.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
40" x 32"	40.000"	32.000"	24.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
40" x 28"	40.000"	28.000"	24.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
42" x 38"	42.000"	38.000"	24.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
42" x 34"	42.000"	34.000"	24.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
42" x 30"	42.000"	30.000"	24.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
44" x 40"	44.000"	40.000"	24.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
44" x 36"	44.000"	36.000"	24.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
44" x 32"	44.000"	32.000"	24.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
46" x 42"	46.000"	42.000"	28.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
46" x 38"	46.000"	38.000"	28.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
46" x 34"	46.000"	34.000"	28.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
48" x 44"	48.000"	44.000"	28.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
48" x 40"	48.000"	40.000"	28.000"	-	-	-	-	0.375"	0.375"	-	-	-	-
48" x 36"	48.000"	36.000"	28.000"	-	-	-	-	0.375"	0.375"	-	-	-	-

REDUCER Concentric & Eccentric Reducer

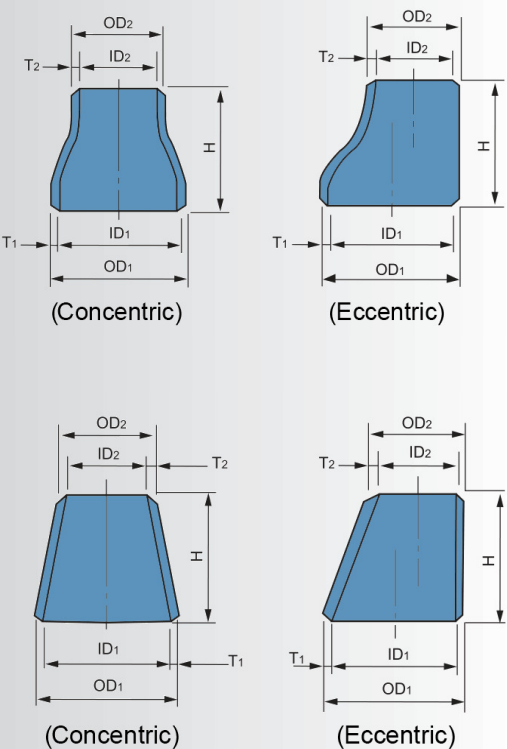
ASTM/ASME A234
ANSI B 16.9 / B 16.28
MSS SP-43



NOMINAL PIPE SIZE	WALL THICKNESS													
	XS		Sch. 80		Sch. 100		Sch. 120		Sch. 140		Sch. 160		XXS	
inch	t1 in	t2 in	t1 in	t2 in	t1 in	t2 in	t1 in	t2 in	t1 in	t2 in	t1 in	t2 in	t1 in	t2 in
1" x 3/4"	0.179"	0.154"	0.179"	0.154"	-	-	-	-	-	-	0.250"	0.219"	0.358"	0.308"
1 1/2" x 1 1/4"	0.200"	0.191"	0.200"	0.191"	-	-	-	-	-	-	0.281"	0.250"	0.400"	0.382"
1 1/2" x 1"	0.200"	0.179"	0.200"	0.179"	-	-	-	-	-	-	0.281"	0.250"	0.400"	0.358"
1 1/2" x 3/4"	0.200"	0.154"	0.200"	0.154"	-	-	-	-	-	-	0.281"	0.219"	0.400"	0.308"
2" x 1 1/2"	0.218"	0.200"	0.218"	0.200"	-	-	-	-	-	-	0.344"	0.281"	0.436"	0.400"
2" x 1 1/4"	0.218"	0.191"	0.218"	0.191"	-	-	-	-	-	-	0.344"	0.250"	0.436"	0.382"
2" x 1"	0.218"	0.179"	0.218"	0.179"	-	-	-	-	-	-	0.344"	0.250"	0.436"	0.358"
2 1/2" x 2"	0.276"	0.218"	0.276"	0.218"	-	-	-	-	-	-	0.375"	0.344"	0.552"	0.436"
2 1/2" x 1 1/2"	0.276"	0.200"	0.276"	0.200"	-	-	-	-	-	-	0.375"	0.281"	0.552"	0.400"
2 1/2" x 1 1/4"	0.276"	0.191"	0.276"	0.191"	-	-	-	-	-	-	0.375"	0.250"	0.552"	0.382"
3" x 2 1/2"	0.300"	0.276"	0.300"	0.276"	-	-	-	-	-	-	0.438"	0.375"	0.600"	0.552"
3" x 2"	0.300"	0.218"	0.300"	0.218"	-	-	-	-	-	-	0.438"	0.344"	0.600"	0.436"
3" x 1 1/2"	0.300"	0.200"	0.300"	0.200"	-	-	-	-	-	-	0.438"	0.281"	0.600"	0.400"
4" x 3"	0.337"	0.300"	0.337"	0.300"	-	-	-	-	-	-	0.531"	0.438"	0.674"	0.600"
4" x 2 1/2"	0.337"	0.276"	0.337"	0.276"	-	-	-	-	-	-	0.531"	0.375"	0.674"	0.552"
4" x 2"	0.337"	0.218"	0.337"	0.218"	-	-	-	-	-	-	0.531"	0.344"	0.674"	0.436"
5" x 4"	0.375"	0.337"	0.375"	0.337"	-	-	0.500"	0.438"	-	-	0.625"	0.531"	0.750"	0.674"
5" x 3"	0.375"	0.300"	0.375"	0.300"	-	-	-	-	-	-	0.625"	0.438"	0.750"	0.600"
5" x 2 1/2"	0.375"	0.276"	0.375"	0.276"	-	-	-	-	-	-	0.625"	0.375"	0.750"	0.552"
6" x 5"	0.432"	0.375"	0.432"	0.375"	-	-	0.562"	0.500"	-	-	0.719"	0.625"	0.864"	0.750"
6" x 4"	0.432"	0.337"	0.432"	0.337"	-	-	0.562"	0.438"	-	-	0.719"	0.531"	0.864"	0.674"
6" x 3"	0.432"	0.300"	0.432"	0.300"	-	-	-	-	-	-	0.719"	0.438"	0.864"	0.600"
8" x 6"	0.500"	0.432"	0.500"	0.432"	-	-	0.719"	0.562"	-	-	0.906"	0.719"	0.875"	0.864"
8" x 5"	0.500"	0.375"	0.500"	0.375"	-	-	0.719"	0.500"	-	-	0.906"	0.625"	0.875"	0.750"
8" x 4"	0.500"	0.337"	0.500"	0.337"	-	-	0.719"	0.438"	-	-	0.906"	0.531"	0.875"	0.674"
10" x 8"	0.500"	0.500"	0.594"	0.500"	0.719"	0.594"	0.844"	0.719"	1.000"	0.812"	1.125"	0.906"	1.000"	0.875"
10" x 6"	0.500"	0.432"	0.594"	0.432"	-	-	0.844"	0.562"	-	-	1.125"	0.719"	1.000"	0.864"
10" x 5"	0.500"	0.375"	0.594"	0.375"	-	-	0.844"	0.500"	-	-	1.125"	0.625"	1.000"	0.750"
12" x 10"	0.500"	0.500"	0.688"	0.594"	0.844"	0.719"	1.000"	0.844"	1.125"	1.000"	1.312"	1.125"	1.000"	1.000"
12" x 8"	0.500"	0.500"	0.688"	0.500"	0.844"	0.594"	1.000"	0.719"	1.125"	0.812"	1.312"	0.906"	1.000"	0.875"
12" x 6"	0.500"	0.432"	0.688"	0.432"	-	-	1.000"	0.562"	-	-	1.312"	0.719"	1.000"	0.864"
14" x 12"	0.500"	0.500"	0.750"	0.688"	0.938"	0.844"	1.094"	1.000"	1.250"	1.125"	1.406"	1.312"	-	-
14" x 10"	0.500"	0.500"	0.750"	0.594"	0.938"	0.719"	1.094"	0.844"	1.250"	1.000"	1.406"	1.125"	-	-
14" x 8"	0.500"	0.500"	0.750"	0.500"	0.938"	0.594"	1.094"	0.719"	1.250"	0.812"	1.406"	0.906"	-	-

REDUCER Concentric & Eccentric Reducer

ASTM/ASME A234
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MSS SP-43



NOMINAL PIPE SIZE	WALL THICKNESS													
	XS		Sch. 80		Sch. 100		Sch. 120		Sch. 140		Sch. 160		XXS	
inch	t1 in	t2 in	t1 in	t2 in	t1 in	t2 in	t1 in	t2 in	t1 in	t2 in	t1 in	t2 in	t1 in	t2 in
16" x 14"	0.500"	0.500"	0.844"	0.750"	1.031"	0.938"	1.219"	1.094"	1.438"	1.250"	1.594"	1.406"	-	-
16" x 12"	0.500"	0.500"	0.844"	0.688"	1.031"	0.844"	1.219"	1.000"	1.438"	1.125"	1.594"	1.312"	-	-
16" x 10"	0.500"	0.500"	0.844"	0.594"	1.031"	0.719"	1.219"	0.844"	1.438"	1.000"	1.594"	1.125"	-	-
16" x 8"	0.500"	0.500"	0.844"	0.500"	1.031"	0.594"	1.219"	0.719"	1.438"	0.812"	1.594"	0.906"	-	-
18" x 16"	0.500"	0.500"	0.938"	0.844"	1.156"	1.031"	1.375"	1.219"	1.562"	1.438"	1.781"	1.594"	-	-
18" x 14"	0.500"	0.500"	0.938"	0.750"	1.156"	0.938"	1.375"	1.094"	1.562"	1.250"	1.781"	1.406"	-	-
18" x 12"	0.500"	0.500"	0.938"	0.688"	1.156"	0.844"	1.375"	1.000"	1.562"	1.125"	1.781"	1.312"	-	-
20" x 18"	0.500"	0.500"	1.031"	0.938"	1.281"	1.156"	1.500"	1.375"	1.750"	1.562"	1.969"	1.781"	-	-
20" x 16"	0.500"	0.500"	1.031"	0.844"	1.281"	1.031"	1.500"	1.219"	1.750"	1.438"	1.969"	1.594"	-	-
20" x 14"	0.500"	0.500"	1.031"	0.750"	1.281"	0.938"	1.500"	1.094"	1.750"	1.250"	1.969"	1.406"	-	-
22" x 20"	0.500"	0.500"	1.125"	1.031"	1.375"	1.281"	1.625"	1.500"	1.875"	1.750"	2.125"	1.969"	-	-
22" x 18"	0.500"	0.500"	1.125"	0.938"	1.375"	1.156"	1.625"	1.375"	1.875"	1.562"	2.125"	1.781"	-	-
22" x 16"	0.500"	0.500"	1.125"	0.844"	1.375"	1.031"	1.625"	1.219"	1.875"	1.438"	2.125"	1.594"	-	-
24" x 22"	0.500"	0.500"	1.219"	1.125"	1.531"	1.375"	1.812"	1.625"	2.062"	1.875"	2.344"	2.125"	-	-
24" x 20"	0.500"	0.500"	1.219"	1.031"	1.531"	1.281"	1.812"	1.500"	2.062"	1.750"	2.344"	1.969"	-	-
24" x 18"	0.500"	0.500"	1.219"	0.938"	1.531"	1.156"	1.812"	1.375"	2.062"	1.562"	2.344"	1.781"	-	-
26" x 22"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
26" x 18"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
26" x 16"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
28" x 24"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
28" x 24"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
28" x 18"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
30" x 26"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
30" x 22"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
30" x 20"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
32" x 28"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
32" x 24"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
32" x 22"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
34" x 30"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
34" x 26"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
34" x 22"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
36" x 32"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
36" x 28"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
36" x 24"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-

REDUCER

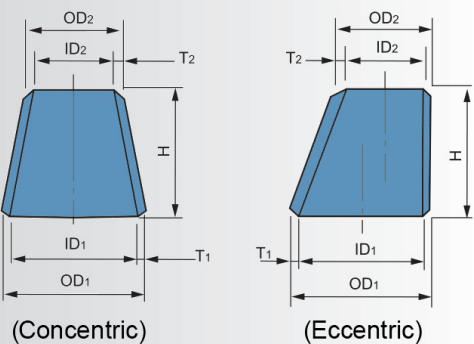
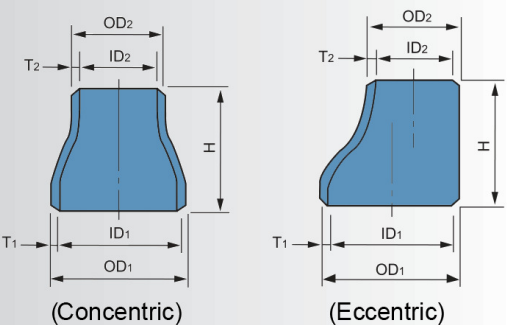
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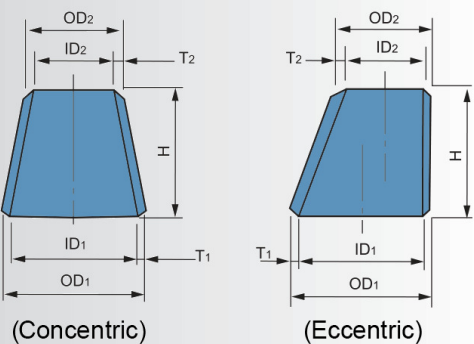
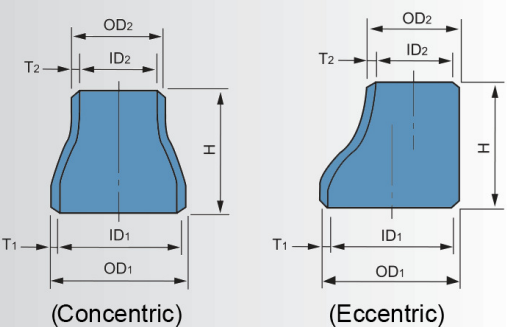
MSS SP-43



NOMINAL PIPE SIZE	WALL THICKNESS													
	XS		Sch. 80		Sch. 100		Sch. 120		Sch. 140		Sch. 160		XXS	
inch	t1 in	t2 in	t1 in	t2 in	t1 in	t2 in	t1 in	t2 in	t1 in	t2 in	t1 in	t2 in	t1 in	t2 in
38" x 34"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
38" x 30"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
38" x 26"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
40" x 36"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
40" x 32"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
40" x 28"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
42" x 38"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
42" x 34"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
42" x 30"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
44" x 40"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
44" x 36"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
44" x 32"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
46" x 42"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
46" x 38"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
46" x 34"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
48" x 44"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
48" x 40"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-
48" x 36"	0.500"	0.500"	-	-	-	-	-	-	-	-	-	-	-	-

REDUCER Concentric & Eccentric Reducer

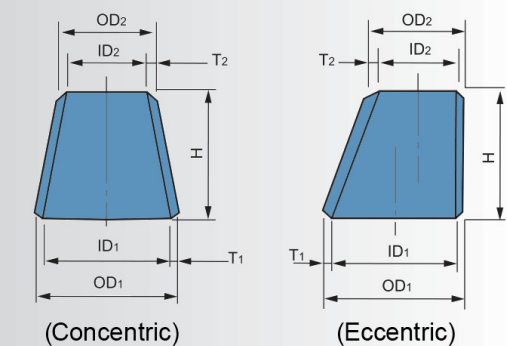
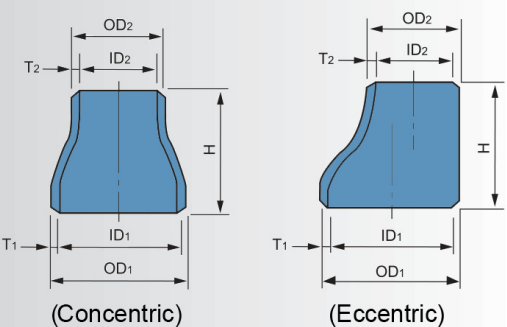
ASTM/ASME A234
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NOMINAL PIPE SIZE	DIMENSIONS			WALL THICKNESS			
	Outside Diameter at Bevel: D1/ D2		End to End	40s		80s	
inch	OD1 in	OD2 in	H in	t1 in	t2 in	t1 in	t2 in
3/4" x 1/2"	1.050"	0.840"	1.500"	0.113"	0.109"	0.154"	0.147"
1" x 3/4" 1" x 1/2"	1.315" 1.315"	1.050" 0.840"	2.000" 2.000"	0.133" 0.133"	0.113" 0.109"	0.179" 0.179"	0.154" 0.147"
1 1/4" x 1" 1 1/4" x 3/4" 1 1/4" x 1/2"	1.660" 1.660" 1.660"	1.315" 1.050" 0.840"	2.000" 2.000" 2.000"	0.140" 0.140" 0.140"	0.133" 0.113" 0.109"	0.191" 0.191" 0.191"	0.179" 0.154" 0.147"
1 1/2" x 1 1/4" 1 1/2" x 1" 1 1/2" x 3/4" 1 1/2" x 1/2"	1.900" 1.900" 1.900" 1.900"	1.660" 1.315" 1.050" 0.840"	2.500" 2.500" 2.500" 2.500"	0.145" 0.145" 0.145" 0.145"	0.140" 0.133" 0.113" 0.109"	0.200" 0.200" 0.200" 0.200"	0.191" 0.179" 0.154" 0.147"
2" x 1 1/2" 2" x 1 1/4" 2" x 1" 2" x 3/4"	2.375" 2.375" 2.375" 2.375"	1.900" 1.660" 1.315" 1.050"	3.000" 3.000" 3.000" 3.000"	0.154" 0.154" 0.154" 0.154"	0.145" 0.140" 0.133" 0.113"	0.218" 0.218" 0.218" 0.218"	0.200" 0.191" 0.179" 0.154"
2 1/2" x 2" 2 1/2" x 1 1/2" 2 1/2" x 1 1/4"	2.875" 2.875" 2.875"	2.375" 1.900" 1.660"	3.500" 3.500" 3.500"	0.203" 0.203" 0.203"	0.154" 0.145" 0.140"	0.276" 0.276" 0.276"	0.218" 0.200" 0.191"
3" x 2 1/2" 3" x 2" 3" x 1 1/2" 3" x 1 1/4"	3.500" 3.500" 3.500" 3.500"	2.875" 2.375" 1.900" 1.660"	3.500" 3.500" 3.500" 3.500"	0.216" 0.216" 0.216" 0.216"	0.203" 0.154" 0.145" 0.140"	0.300" 0.300" 0.300" 0.300"	0.276" 0.218" 0.200" 0.191"
3 1/2" x 3" 3 1/2" x 2 1/2" 3 1/2" x 2"	4.000" 4.000" 4.000"	3.500" 2.875" 2.375"	4.000" 4.000" 4.000"	0.226" 0.226" 0.226"	0.216" 0.203" 0.154"	0.318" 0.318" 0.318"	0.300" 0.276" 0.218"
4" x 3 1/2" 4" x 3" 4" x 2 1/2" 4" x 2"	4.500" 4.500" 4.500" 4.500"	4.000" 3.500" 2.875" 2.375"	4.000" 4.000" 4.000" 4.000"	0.237" 0.237" 0.237" 0.237"	0.226" 0.216" 0.203" 0.154"	0.337" 0.337" 0.337" 0.337"	0.318" 0.300" 0.276" 0.218"
5" x 4" 5" x 3 1/2" 5" x 3" 5" x 2 1/2"	5.563" 5.563" 5.563" 5.563"	4.500" 4.000" 3.500" 2.875"	5.000" 5.000" 5.000" 5.000"	0.258" 0.258" 0.258" 0.258"	0.237" 0.226" 0.216" 0.203"	0.375" 0.375" 0.375" 0.375"	0.337" 0.318" 0.300" 0.276"

REDUCER Concentric & Eccentric Reducer

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NOMINAL PIPE SIZE	DIMENSIONS			WALL THICKNESS							
	Outside Diameter at Bevel: D1/D2		End to End	40s/STD		40		80s/XH		80	
inch	OD1 in	OD2 in	H in	t1 in	t2 in	t1 in	t2 in	t1 in	t2 in	t1 in	t2 in
6" x 5"	6.626"	5.563"	5.500"	0.280"	0.258"	0.280"	0.258"	0.432"	0.375"	0.432"	0.375"
6" x 4"	6.626"	4.500"	5.500"	0.280"	0.237"	0.280"	0.237"	0.432"	0.337"	0.432"	0.337"
6" x 3 1/2"	6.626"	4.000"	5.500"	0.280"	0.226"	0.280"	0.226"	0.432"	0.318"	0.432"	0.318"
6" x 3"	6.626"	3.500"	5.500"	0.280"	0.216"	0.280"	0.216"	0.432"	0.300"	0.432"	0.300"
8" x 6"	8.625"	6.626"	6.000"	0.322"	0.280"	0.322"	0.280"	0.500"	0.432"	0.500"	0.432"
8" x 5"	8.625"	5.563"	6.000"	0.322"	0.258"	0.322"	0.258"	0.500"	0.375"	0.500"	0.375"
8" x 4"	8.625"	4.500"	6.000"	0.322"	0.237"	0.322"	0.237"	0.500"	0.337"	0.500"	0.337"
10" x 8"	10.750"	8.625"	7.000"	0.365"	0.322"	0.365"	0.322"	0.500"	0.500"	0.594"	0.500"
10" x 6"	10.750"	6.626"	7.000"	0.365"	0.280"	0.365"	0.280"	0.500"	0.432"	0.594"	0.432"
10" x 5"	10.750"	5.563"	7.000"	0.365"	0.258"	0.365"	0.258"	0.500"	0.375"	0.594"	0.375"
12" x 10"	12.748"	10.750"	8.000"	0.375"	0.365"	0.375"	0.365"	0.500"	0.500"	0.688"	0.594"
12" x 8"	12.748"	8.625"	8.000"	0.375"	0.322"	0.375"	0.322"	0.500"	0.500"	0.688"	0.500"
12" x 6"	12.748"	6.626"	8.000"	0.375"	0.280"	0.375"	0.280"	0.500"	0.432"	0.688"	0.432"
14" x 12"	14.000"	12.748"	13.000"	0.375"	0.375"	0.438"	0.406"	0.500"	0.500"	0.750"	0.688"
14" x 10"	14.000"	10.750"	13.000"	0.375"	0.365"	0.438"	0.365"	0.500"	0.500"	0.750"	0.594"
14" x 8"	14.000"	8.625"	13.000"	0.375"	0.322"	0.438"	0.322"	0.500"	0.500"	0.750"	0.500"
16" x 14"	16.000"	14.000"	14.000"	0.375"	0.375"	0.500"	0.438"	0.500"	0.500"	0.844"	0.750"
16" x 12"	16.000"	12.748"	14.000"	0.375"	0.375"	0.500"	0.406"	0.500"	0.500"	0.844"	0.688"
16" x 10"	16.000"	10.750"	14.000"	0.375"	0.365"	0.500"	0.365"	0.500"	0.500"	0.844"	0.594"
18" x 16"	18.000"	16.000"	15.000"	0.375"	0.375"	0.562"	0.500"	0.500"	0.500"	0.938"	0.844"
18" x 14"	18.000"	14.000"	15.000"	0.375"	0.375"	0.562"	0.438"	0.500"	0.500"	0.938"	0.750"
18" x 12"	18.000"	12.748"	15.000"	0.375"	0.375"	0.562"	0.406"	0.500"	0.500"	0.938"	0.688"
20" x 18"	20.000"	18.000"	20.000"	0.375"	0.375"	0.594"	0.562"	0.500"	0.500"	1.031"	0.938"
20" x 16"	20.000"	16.000"	20.000"	0.375"	0.375"	0.594"	0.500"	0.500"	0.500"	1.031"	0.844"
20" x 14"	20.000"	14.000"	20.000"	0.375"	0.375"	0.594"	0.438"	0.500"	0.500"	1.031"	0.750"
22" x 20"	22.000"	20.000"	20.000"	0.375"	0.375"	-	-	0.500"	0.500"	1.125"	1.031"
22" x 18"	22.000"	18.000"	20.000"	0.375"	0.375"	-	-	0.500"	0.500"	1.125"	0.938"
22" x 16"	22.000"	16.000"	20.000"	0.375"	0.375"	-	-	0.500"	0.500"	1.125"	0.844"
24" x 22"	24.000"	22.000"	20.000"	0.375"	0.375"	-	-	0.500"	0.500"	1.219"	1.125"
24" x 20"	24.000"	20.000"	20.000"	0.375"	0.375"	0.688"	0.594"	0.500"	0.500"	1.219"	1.031"
24" x 18"	24.000"	18.000"	20.000"	0.375"	0.375"	0.688"	0.562"	0.500"	0.500"	1.219"	0.938"
30" x 26"	30.000"	24.000"	24.000"	0.375"	0.375"	-	-	0.500"	0.500"	-	-
30" x 22"	30.000"	22.000"	24.000"	0.375"	0.375"	-	-	0.500"	0.500"	-	-
30" x 20"	30.000"	20.000"	24.000"	0.375"	0.375"	-	-	0.500"	0.500"	-	-