



CLASS 150 & CLASS 300 FORGED STEEL ANSI FLANGES

Forged Steel ANSI Flange Product Specifications



- ✘ *Forged Steel Flanges Stocked from 1/2" - 12"*
- ✘ *Dimensions Conform to ANSI B1.16.5*
- ✘ *Material Conforms to ASTM A105*



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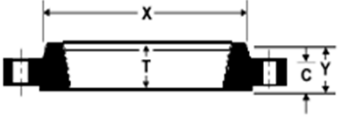
MSI Steel ANSI Flange Specifications

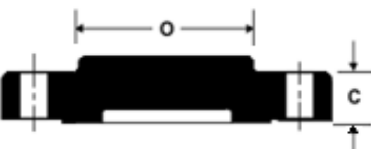
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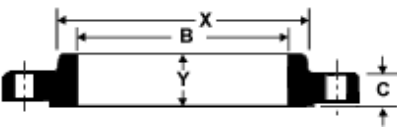
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ANSI B16.5 150lb Forged Steel Flanges Material Conforms to ASTM A105

Threaded Flanges	Size - OD"	Bolt Boles	Dia. Of Holes	"C" Thickness	"X" Diameter	"T" Thread Length	"Y" Length Thru Hub	Class 150 Item Number	Approx Weight Ea. lbs.
 <p>Threaded Flanges conform to ANSI/ASME B1.20.1</p>	1/2" - 3.500"	4	0.62	0.50	1.50	0.62	0.62	A2460008	2.00
	3/4" - 3.875"	4	0.62	0.56	1.88	0.62	0.62	A2460012	2.00
	1" - 4.250"	4	0.62	0.62	2.12	0.69	0.69	A2460016	2.00
	1 1/4" - 4.625"	4	0.62	0.69	2.50	0.81	0.81	A2460020	3.00
	1 1/2" - 5.000"	4	0.62	0.75	2.75	0.88	0.88	A2460024	3.00
	2" - 6.000"	4	0.75	0.81	3.31	1.00	1.00	A2460032	5.00
	2 1/2" - 7.000"	4	0.75	0.94	3.94	1.12	1.12	A2460040	7.00
	3" - 7.500"	4	0.75	1.06	4.62	1.19	1.19	A2460048	8.00
	4" - 9.000"	8	0.78	1.19	5.75	1.31	1.31	A2460064	13.00
	5" - 10.000"	8	0.88	1.31	7.00	1.44	1.44	A2460070	15.00
	6" - 11.000"	8	0.88	1.38	8.12	1.56	1.56	A2460072	19.00
	8" - 13.500"	8	0.88	1.56	10.25	1.75	1.75	A2460084	30.00
10" - 16.000"	12	1.00	1.19	12.00	1.94	2.00	A24600120	52.00	
12" - 19.000"	12	1.00	1.25	14.38	2.19	2.25	A24600144	80.00	

Blind Flanges	Size - OD"	Bolt Boles	Dia. Of Holes	"C" Thickness	"o" Diameter of RF	Class 150 Item Number	Approx Weight Ea. lbs.
	1/2" - 3.500"	4	0.62	0.50	1.38	A2460408	2.00
	3/4" - 3.875"	4	0.62	0.56	1.69	A2460412	2.00
	1" - 4.250"	4	0.62	0.62	2.00	A2460416	2.00
	1 1/4" - 4.625"	4	0.62	0.69	2.50	A2460420	3.00
	1 1/2" - 5.000"	4	0.62	0.75	2.88	A2460424	4.00
	2" - 6.000"	4	0.75	0.81	3.62	A2460432	4.00
	2 1/2" - 7.000"	4	0.75	0.94	4.12	A2460440	11.00
	3" - 7.500"	4	0.75	1.06	5.00	A2460448	14.00
	4" - 9.000"	8	0.78	1.19	6.19	A2460464	19.00
	5" - 10.000"	8	0.88	1.31	7.31	A2460470	21.00
	6" - 11.000"	8	0.88	1.38	8.50	A2460472	28.00
	8" - 13.500"	8	0.88	1.56	10.62	A2460484	48.00
10" - 16.000"	12	1.00	1.19	12.75	A24604120	70.00	
12" - 19.000"	12	1.00	1.25	15.00	A24604144	110.00	

Slip-On Flanges	Size - OD"	Bolt Boles	Dia. Of Holes	"C" Thickness	"X" Diameter	"B" Bore	"Y" Length Thru Hub	Class 150 Item Number	Approx Weight Ea. lbs.
	1/2" - 3.500"	4	0.62	0.50	1.38	0.88	0.56	A2460808	2.00
	3/4" - 3.875"	4	0.62	0.56	1.69	1.09	0.56	A2460812	2.00
	1" - 4.250"	4	0.62	0.62	2.00	1.36	0.62	A2460816	2.00
	1 1/4" - 4.625"	4	0.62	0.69	2.50	1.70	0.75	A2460820	3.00
	1 1/2" - 5.000"	4	0.62	0.75	2.88	1.95	0.81	A2460824	3.00
	2" - 6.000"	4	0.75	0.81	3.62	2.44	0.94	A2460832	5.00
	2 1/2" - 7.000"	4	0.75	0.94	4.12	2.94	1.06	A2460840	7.00
	3" - 7.500"	4	0.75	1.06	5.00	3.57	1.12	A2460848	8.00
	4" - 9.000"	8	0.78	1.19	6.19	4.57	1.25	A2460864	13.00
	5" - 10.000"	8	0.88	1.31	7.31	5.66	1.38	A2460870	15.00
	6" - 11.000"	8	0.88	1.38	8.50	6.72	1.50	A2460872	19.00
	8" - 13.500"	8	0.88	1.56	10.62	8.72	1.69	A2460884	30.00
10" - 16.000"	12	1.00	1.19	12.75	10.88	2.00	A24608120	43.00	
12" - 19.000"	12	1.00	1.25	15.00	12.88	2.19	A24608144	64.00	

All flanges shown comply with ANSI standard B16.15 and ASTM Specification A234, A105 and ASME SA105

Mill Test Reports (MTR's) are available upon request.

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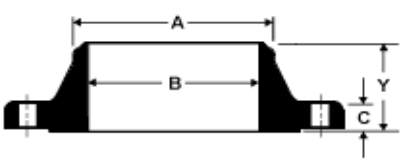
MSI Steel ANSI Flange Specifications

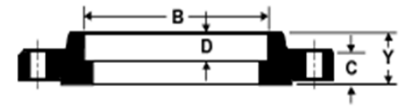
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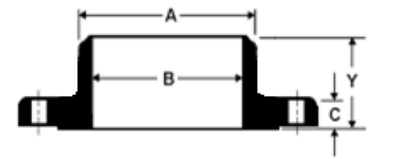
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ANSI B16.5 150lb Forged Steel Flanges Material Conforms to ASTM A105

Weld Neck Flanges	Size - OD"	Bolt Boles	Dia. Of Holes	"C" Thickness	"A" Diameter of Hub	"B" Bore	"Y" Length Thru Hub	Class 150 Item Number	Approx Weight Ea. lbs.
	1/2" - 3.500"	4	0.62	0.50	0.84	0.88	1.88	A2461308	2.00
	3/4" - 3.875"	4	0.62	0.56	1.05	1.09	2.06	A2461312	2.00
	1" - 4.250"	4	0.62	0.62	1.32	1.36	2.19	A2461316	2.00
	1 1/4" - 4.625"	4	0.62	0.69	1.66	1.70	2.25	A2461320	4.00
	1 1/2" - 5.000"	4	0.62	0.75	1.90	1.95	2.44	A2461324	5.00
	2" - 6.000"	4	0.75	0.81	2.38	2.44	2.50	A2461332	9.00
	2 1/2" - 7.000"	4	0.75	0.94	2.88	2.94	2.75	A2461340	11.00
	3" - 7.500"	4	0.75	1.06	3.50	3.57	2.75	A2461348	14.00
	4" - 9.000"	8	0.78	1.19	4.50	4.57	3.00	A2461364	16.00
	5" - 10.000"	8	0.88	1.31	5.56	5.66	3.50	A2461370	21.00
	6" - 11.000"	8	0.88	1.38	6.63	6.72	3.50	A2461372	25.00
	8" - 13.500"	8	0.88	1.56	8.63	8.72	4.00	A2461384	40.00
10" - 16.00"	12	1.00	1.19	10.75	10.02	4.00	A24613120	52.00	
12" - 19.00"	12	1.00	1.25	12.75	12.00	4.50	A24613144	80.00	

Socket Weld Flanges	Size - OD"	Bolt Boles	Dia. Of Holes	"C" Thickness	"D" Depth of Socket	"B" Bore	"Y" Length Thru Hub	Class 150 Item Number	Approx Weight Ea. lbs.
	1/2" - 3.500"	4	0.62	0.50	0.38	0.88	0.56	A2463208	2.00
	3/4" - 3.875"	4	0.62	0.56	0.44	1.09	0.56	A2463212	2.00
	1" - 4.250"	4	0.62	0.62	0.50	1.36	0.62	A2463216	2.00
	1 1/4" - 4.625"	4	0.62	0.69	0.56	1.70	0.75	A2463220	3.00
	1 1/2" - 5.000"	4	0.62	0.75	0.62	1.95	0.81	A2463224	3.00
	2" - 6.000"	4	0.75	0.81	0.69	2.44	0.94	A2463232	5.00
	2 1/2" - 7.000"	4	0.75	0.94	0.75	2.94	1.06	A2463240	7.00
	3" - 7.500"	4	0.75	1.06	0.81	3.57	1.12	A2463248	8.00
	4" - 9.000"	8	0.78	1.19	0.94	4.57	1.25	A2463264	13.00
	5" - 10.000"	8	0.88	1.31	0.04	5.66	1.38	A2463270	15.00
	6" - 11.000"	8	0.88	1.38	1.06	6.72	1.50	A2463272	19.00
	8" - 13.500"	8	0.88	1.56	1.25	8.72	1.69	A2463284	30.00
10" - 16.00"	12	1.00	1.19	N/A	10.88	1.88	A24632120	42.00	
12" - 19.00"	12	1.00	1.25	N/A	12.88	2.12	A24632144	64.00	

Flat Face Lap Joint Flanges	Size - OD"	Bolt Boles	Dia. Of Holes	"C" Thickness	"A" Diameter of Hub	"B" Bore	"Y" Length Thru Hub	Class 150 Item Number	Approx Weight Ea. lbs.
	1/2" - 3.500"	4	0.62	0.50	1.19	0.90	0.62	A2461708	2.00
	3/4" - 3.875"	4	0.62	0.56	1.50	1.11	0.62	A2461712	2.00
	1" - 4.250"	4	0.62	0.62	1.94	1.38	0.69	A2461716	2.00
	1 1/4" - 4.625"	4	0.62	0.69	2.31	1.72	0.81	A2461720	3.00
	1 1/2" - 5.000"	4	0.62	0.75	2.56	1.97	0.88	A2461724	3.00
	2" - 6.000"	4	0.75	0.81	3.06	2.46	1.00	A2461732	5.00
	2 1/2" - 7.000"	4	0.75	0.94	3.56	2.97	1.12	A2461740	7.00
	3" - 7.500"	4	0.75	1.06	4.25	3.60	1.19	A2461748	8.00
	4" - 9.000"	8	0.78	1.19	5.31	4.60	1.25	A2461764	13.00
	5" - 10.000"	8	0.88	1.31	6.44	5.69	1.44	A2461770	15.00
	6" - 11.000"	8	0.88	1.38	7.56	6.75	1.56	A2461772	19.00
	8" - 13.500"	8	0.88	1.56	9.69	8.75	1.75	A2461784	30.00
10" - 16.00"	12	1.00	1.19	12.00	10.92	2.00	A24617120	43.00	
12" - 19.00"	12	1.00	1.25	14.38	12.92	2.19	A24617144	64.00	

All flanges shown comply with ANSI standard B16.15 and ASTM Specification A234, A105 and ASME SA105

Mill Test Reports (MTR's) are available upon request.

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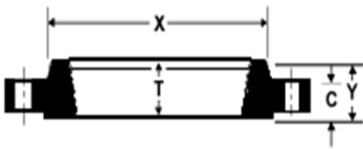
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ANSI B16.5 300lb Forged Steel Flanges Material Conforms to ASTM A105

300lb. Threaded Flanges

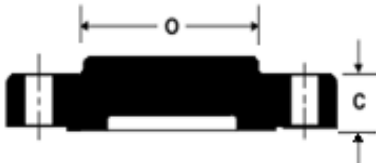


Class 300lb Threaded Flanges are manufactured with a counter-bore.

Threaded Flanges conform to ANSI/ASME B1.20.1

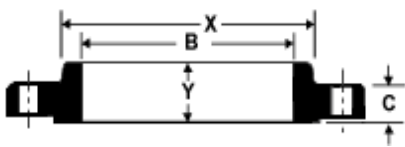
Size - OD"	Bolt Boles	Dia. Of Holes	"C" Thickness	"X" Diameter	"T" Thread Length	"Y" Length Thru Hub	Class 300 Item Number	Approx Weight Ea. lbs.
1/2" - 3.750"	4	0.62	0.50	1.50	0.62	0.81	A2960008	3.00
3/4" - 4.625"	4	0.62	0.56	1.88	0.62	0.94	A2960012	3.00
1" - 4.880"	4	0.62	0.62	2.12	0.69	1.00	A2960016	3.00
1 1/4" - 5.250"	4	0.62	0.69	2.50	0.81	1.00	A2960020	4.00
1 1/2" - 6.120"	4	0.62	0.75	2.75	0.88	1.12	A2960024	6.00
2" - 6.500"	4	0.75	0.81	3.31	1.00	1.31	A2960032	7.00
2 1/2" - 7.500"	4	0.75	0.94	3.94	1.12	1.50	A2960040	10.00
3" - 8.250"	4	0.75	1.06	4.62	1.19	1.69	A2960048	13.00
4" - 10.000"	8	0.78	1.19	5.75	1.31	1.88	A2960064	22.00
5" - 11.000"	8	0.88	1.31	7.00	1.44	2.00	A2960070	28.00
6" - 12.500"	8	0.88	1.38	8.12	1.56	2.06	A2960072	39.00
8" - 15.000"	8	0.88	1.56	10.25	1.75	2.44	A2960084	58.00
10" - 17.500"	12	1.00	1.94	12.63	2.19	2.69	A29600120	81.00
12" - 20.500"	12	1.00	2.07	14.75	2.63	2.94	A29600144	115.00

300lb. Blind Flanges



Size - OD"	Bolt Boles	Dia. Of Holes	"C" Thickness	"o" Diameter of RF	Class 300 Item Number	Approx Weight Ea. lbs.
1/2" - 3.500"	4	0.62	0.50	1.38	A2960408	2.00
3/4" - 3.875"	4	0.62	0.56	1.69	A2960412	3.00
1" - 4.250"	4	0.62	0.62	2.00	A2960416	4.00
1 1/4" - 4.625"	4	0.62	0.69	2.50	A2960420	6.00
1 1/2" - 5.000"	4	0.62	0.75	2.88	A2960424	7.00
2" - 6.000"	4	0.75	0.81	3.62	A2960432	8.00
2 1/2" - 7.000"	4	0.75	0.94	4.12	A2960440	15.00
3" - 7.500"	4	0.75	1.06	5.00	A2960448	16.00
4" - 9.000"	8	0.78	1.19	6.19	A2960464	27.00
5" - 10.000"	8	0.88	1.31	7.31	A2960470	41.00
6" - 11.000"	8	0.88	1.38	8.50	A2960472	50.00
8" - 13.500"	8	0.88	1.56	10.62	A2960484	80.00
10" - 17.500"	12	1.00	1.87	12.75	A29604120	125.00
12" - 20.500"	12	1.00	2.00	15.00	A29604144	185.00

300lb. Slip-On Flanges



Size - OD"	Bolt Boles	Dia. Of Holes	"C" Thickness	"X" Diameter	"B" Bore	"Y" Length Thru Hub	Class 300 Item Number	Approx Weight Ea. lbs.
1/2" - 3.500"	4	0.62	0.50	1.50	0.88	0.81	A2960808	3.00
3/4" - 3.875"	4	0.62	0.56	1.88	1.09	0.94	A2960812	3.00
1" - 4.250"	4	0.62	0.62	2.12	1.36	1.00	A2960816	3.00
1 1/4" - 4.625"	4	0.62	0.69	2.50	1.70	1.00	A2960820	4.00
1 1/2" - 5.000"	4	0.62	0.75	2.75	1.95	1.12	A2960824	6.00
2" - 6.000"	4	0.75	0.81	3.31	2.44	1.31	A2960832	7.00
2 1/2" - 7.000"	4	0.75	0.94	3.94	2.94	1.50	A2960840	10.00
3" - 7.500"	4	0.75	1.06	4.62	3.57	1.69	A2960848	13.00
4" - 9.000"	8	0.78	1.19	5.75	4.57	1.88	A2960864	22.00
5" - 10.000"	8	0.88	1.31	7.00	5.66	2.00	A2960870	28.00
6" - 11.000"	8	0.88	1.38	8.12	6.72	2.06	A2960872	39.00
8" - 13.500"	8	0.88	1.56	10.25	8.72	2.44	A2960884	58.00
10" - 17.500"	12	1.00	1.87	10.63	10.88	2.63	A29608120	81.00
12" - 20.500"	12	1.00	2.00	14.75	12.88	2.87	A29608144	115.00

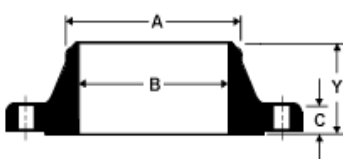
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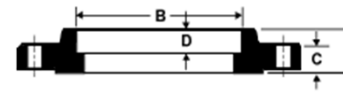
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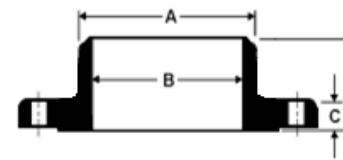
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ANSI B16.5 300lb Forged Steel Flanges Material Conforms to ASTM A105

300lb. Weld Neck Flanges	Size - OD"	Bolt Boles	Dia. Of Holes	"C" Thickness	"A" Diameter of Hub	"B" Bore	"Y" Length Thru Hub	Class 300 Item Number	Approx Weight Ea. lbs.
	1/2" - 3.500"	4	0.62	0.50	0.84	0.88	2.00	A2961308	4.00
	3/4" - 3.875"	4	0.62	0.56	1.05	1.09	2.19	A2961312	4.00
	1" - 4.250"	4	0.62	0.62	1.32	1.36	2.38	A2961316	5.00
	1 1/4" - 4.625"	4	0.62	0.69	1.66	1.70	2.50	A2961320	6.00
	1 1/2" - 5.000"	4	0.62	0.75	1.90	1.95	2.62	A2961324	9.00
	2" - 6.000"	4	0.75	0.81	2.38	2.44	2.75	A2961332	10.00
	2 1/2" - 7.000"	4	0.75	0.94	2.88	2.94	3.00	A2961340	13.00
	3" - 7.500"	4	0.75	1.06	3.50	3.57	3.12	A2961348	16.00
	4" - 9.000"	8	0.78	1.19	4.50	4.57	3.38	A2961364	26.00
	5" - 10.000"	8	0.88	1.31	5.56	5.66	3.88	A2961370	35.00
	6" - 11.000"	8	0.88	1.38	6.63	6.72	3.88	A2961372	45.00
	8" - 13.500"	8	0.88	1.56	8.63	8.72	4.38	A2961384	70.00
10" - 17.500"	12	1.00	1.87	10.75	10.02	4.62	A29613120	91.00	
12" - 20.500"	12	1.00	2.00	12.75	12.00	5.12	A29613144	140.00	

300lb. Socket Weld Flanges	Size - OD"	Bolt Boles	Dia. Of Holes	"C" Thickness	"D" Depth of Socket	"B" Bore	"Y" Length Thru Hub	Class 300 Item Number	Approx Weight Ea. lbs.
	1/2" - 3.500"	4	0.62	0.50	0.38	0.88	0.81	A2963208	3.00
	3/4" - 3.875"	4	0.62	0.56	0.44	1.09	0.94	A2963212	3.00
	1" - 4.250"	4	0.62	0.62	0.50	1.36	1.00	A2963216	3.00
	1 1/4" - 4.625"	4	0.62	0.69	0.56	1.70	1.00	A2963220	4.00
	1 1/2" - 5.000"	4	0.62	0.75	0.62	1.95	1.12	A2963224	6.00
	2" - 6.000"	4	0.75	0.81	0.69	2.44	1.31	A2963232	7.00
	2 1/2" - 7.000"	4	0.75	0.94	0.75	2.94	1.50	A2963240	10.00
	3" - 7.500"	4	0.75	1.06	0.81	3.57	1.69	A2963248	13.00
	4" - 9.000"	8	0.78	1.19	0.94	4.57	1.88	A2963264	22.00
	5" - 10.000"	8	0.88	1.31	0.04	5.66	2.00	A2963270	28.00
	6" - 11.000"	8	0.88	1.38	1.06	6.72	2.06	A2963272	39.00
	8" - 13.500"	8	0.88	1.56	1.25	8.72	2.44	A2963284	58.00
10" - 17.500"	12	1.00	1.87	N/A	10.88	2.63	A29632120	43.00	
12" - 20.500"	12	1.00	2.00	N/A	12.88	2.87	A29632144	64.00	

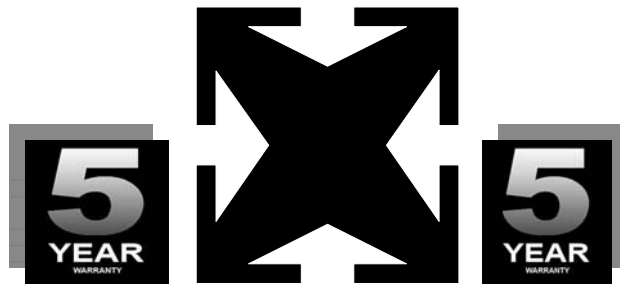
300 lb Lap Joint Flanges	Size - OD"	Bolt Boles	Dia. Of Holes	"C" Thickness	"A" Diameter of Hub	"B" Bore	"Y" Length Thru Hub	Class 300 Item Number	Weight Ea. /lbs.
	1/2" - 3.500"	4	0.62	0.50	1.19	0.90	0.62	A2961708	3.00
	3/4" - 3.875"	4	0.62	0.56	1.50	1.11	0.62	A2961712	3.00
	1" - 4.250"	4	0.62	0.62	1.94	1.38	0.69	A2961716	3.00
	1 1/4" - 4.625"	4	0.62	0.69	2.31	1.72	0.81	A2961720	4.00
	1 1/2" - 5.000"	4	0.62	0.75	2.56	1.97	0.88	A2961724	6.00
	2" - 6.000"	4	0.75	0.81	3.06	2.46	1.00	A2961732	7.00
	2 1/2" - 7.000"	4	0.75	0.94	3.56	2.97	1.12	A2961740	10.00
	3" - 7.500"	4	0.75	1.06	4.25	3.60	1.19	A2961748	13.00
	4" - 9.000"	8	0.78	1.19	5.31	4.60	1.25	A2961764	22.00
	5" - 10.000"	8	0.88	1.31	6.44	5.69	1.44	A2961770	28.00
	6" - 11.000"	8	0.88	1.38	7.56	6.75	1.56	A2961772	39.00
	8" - 13.500"	8	0.88	1.56	9.69	8.75	1.75	A2961784	58.00
10" - 17.500"	12	1.00	1.87	12.63	10.92	4.62	A29617120	91.00	
12" - 20.500"	12	1.00	2.00	14.75	12.92	5.12	A29617144	140.00	

1/16" RF NOT Included in Flange Thickness and Length Thru Hub

All flanges shown comply with ANSI standard B16.15 and ASTM Specification A234, A105 and ASME SA105

Mill Test Reports (MTR's) are available upon request.

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MSI 5 YEAR LIMITED WARRANTY

MSI warrants to its initial purchaser only, that its products which are delivered to the initial purchaser will be of the kind described in the order or price list and will be free of defects in workmanship or material for a period of (5) five years from the date of delivery to MSI's initial purchaser.

Should any failure to conform to this warranty appear within (5) five years after the date of the initial delivery to MSI's initial purchaser, MSI will, upon written notification thereof and substantiation that the goods have been stored, installed, maintained and operated in accordance with recognized engineering and piping practices and industry standards, correct such defects by suitable replacement of product at our expense upon return of the defective product to MSI.

This warranty applies only during normal use that meets the above referenced conditions of installation and operation and is absolutely void if the product has been damaged after purchase or if it has been misused, repaired, altered or modified in any manner whatsoever. MSI shall not warranty any of its products if any portion of the product including without limitation, any component, gasket, housing or bolt has been modified, altered, remanufactured or replaced in any manner by any customer, user of the product or third party.

Correction of non-conformities, in the manner and for the period of time provided above, shall constitute fulfillment of all liabilities of MSI to MSI's initial purchaser, with respect to the goods, whether based on contract, negligence, strict tort or otherwise. It is the intention of MSI that no warranty of any kind, whether expressed or implied shall pass through MSI's initial purchaser to any other person or corporation.

No returns will be permitted unless prior written permission of MSI is first obtained. Buyers shall be responsible for all costs of transportation as well as any applicable restocking fees.

This warranty is exclusively for the benefit of MSI's initial purchaser of the product from MSI and to the extent prohibited by applicable law, the foregoing warranty is in lieu of all other warranties, express or implied, including but not limited to warranties of fitness or merchantability.

LIMITATIONS OF LIABILITY

MSI shall not under any circumstances be liable for special or consequential damages such as, but not limited to, damage to loss of other property or equipment, loss of profits or revenue, cost of capital, cost of purchased or replacement goods, claims of customers of our initial purchaser, any labor cost or replacement of the product or damage caused by the product.

The remedies of MSI's initial purchaser and all others, set forth herein are exclusive and the liability of MSI with respect to same shall not, except as expressly provided herein, exceed the price of the MSI products on which such liability is based.