



Ensign Ribbon Burners LLC

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### Standard Pipe and Threads

Nominal Diameter	Wall Thickness Schedule 40	Wall Thickness Schedule 80	Actual Outside Diameter	Inside Area (Sq. In) Schedule 40	Net Wgt per foot (Lbs) Schedule 40	Threads per inch	Length of thread (engagement)
1/8"	0.068	0.095	0.405	0.057	0.244	27	
1/4"	0.088	0.119	0.540	0.104	0.424	18	
3/8"	0.091	0.126	0.675	0.191	0.567	18	0.360
1/2"	0.109	0.147	0.840	0.304	0.850	14	0.430
3/4"	0.113	0.154	1.050	0.533	1.130	14	0.546
1"	0.133	0.179	1.315	0.864	1.678	11-1/2	0.683
1-1/4"	0.140	0.191	1.660	1.496	2.272	11-1/2	0.707
1-1/2"	0.145	0.200	1.900	2.036	2.717	11-1/2	0.724
2"	0.154	0.218	2.375	3.356	3.652	11-1/2	0.756
2-1/2"	0.203	0.276	2.875	4.788	5.793	8	1.137
3"	0.216	0.300	3.500	7.383	7.575	8	1.200
3-1/2"	0.226	0.318	4.000	9.887	9.109	8	1.250
4"	0.237	0.337	4.500	12.730	10.709	8	1.300
5"	0.258	0.375	5.563	20.006	14.617	8	
6"	0.280	0.432	6.625	28.890	18.974	8	
8"	0.322	0.500	8.625	50.027	28.554	8	
10"	0.365	0.593	10.750	78.854	40.483	8	
12"	0.406	0.687	12.750	113.097	49.562	8	

#### Rules of thumb for piping

Adding up the cross sectional areas of multiple pipes will approximate the area of the required manifold pipe.

Manifolds should have 4-5 pipe diameters between outlets and at each end.

NEVER use street elbows, as their cross section is severely restricted.

Never use an elbow at the end of a manifold, as it will make it impossible to balance along the length.

Keep all pipe manifolds the same size along their length, never step down after each fitting.

It is illegal to install control valves in the piping between the mixer and the burner.

If balancing is required, then you must use orifice plates.