



## Iron Pipe Size (IPS) and Dimension Data

Pressure Ratings are calculated using 0.63 design factor for HDS at 73°F as listed in PPI TR-4 for PE 4710 materials. HDPE can accommodate up to 1.5 times the pipe pressure rating for a recurring surge and up to 2.0 times the pipe pressure rating for an occasional surge. Temperature, Chemical, and Environmental use considerations may require use of additional design factors.

Pressure Rating		335 PSI   DR 7			250 PSI   DR 9			200 PSI   DR 11			160 PSI   DR 13.5			Nominal Pipe Size
Nominal Pipe Size	IPS OD (in)	Minimum Wall (in)	Average ID (in)	Weight (lbs/ft)	Minimum Wall (in)	Average ID (in)	Weight (lbs/ft)	Minimum Wall (in)	Average ID (in)	Weight (lbs/ft)	Minimum Wall (in)	Average ID (in)	Weight (lbs/ft)	Nominal Pipe Size
3/4"	1.050	0.150	0.732	0.185	0.117	0.803	0.150	0.095	0.848	0.126				3/4"
1"	1.315	0.188	0.917	0.291	0.146	1.005	0.235	0.120	1.062	0.197				1"
1 1/4"	1.660	0.237	1.158	0.463	0.184	1.270	0.374	0.151	1.340	0.314	0.123	1.399	0.261	1 1/4"
1 1/2"	1.900	0.271	1.325	0.607	0.211	1.453	0.490	0.173	1.533	0.411	0.141	1.601	0.342	1 1/2"
2"	2.375	0.339	1.656	0.948	0.264	1.815	0.767	0.216	1.917	0.643	0.176	2.002	0.532	2"
3"	3.500	0.500	2.440	2.058	0.389	2.675	1.663	0.318	2.826	1.394	0.259	2.951	1.159	3"
4"	4.500	0.643	3.137	3.402	0.500	3.440	2.751	0.409	3.633	2.307	0.333	3.794	1.914	4"
6"	6.625	0.946	4.619	7.373	0.736	5.065	5.961	0.602	5.349	4.994	0.491	5.584	4.151	6"
8"	8.625	1.232	6.013	12.498	0.958	6.594	10.108	0.784	6.963	8.468	0.639	7.270	7.035	8"
10"	10.750	1.536	7.494	19.417	1.194	8.219	15.699	0.977	8.679	13.158	0.796	9.062	10.931	10"
12"	12.750	1.821	8.889	27.315	1.417	9.746	22.089	1.159	10.293	18.513	0.944	10.749	15.377	12"
14"	14.000	2.000	9.760	32.930	1.556	10.701	26.629	1.273	11.301	22.314	1.037	11.802	18.538	14"
16"	16.000	2.286	11.154	43.012	1.778	12.231	34.772	1.455	12.915	29.149	1.185	13.488	24.213	16"
18"	18.000	2.571	12.549	54.435	2.000	13.760	44.017	1.636	14.532	36.897	1.333	15.174	30.644	18"
20"	20.000	2.857	13.943	67.211	2.222	15.289	54.351	1.818	16.146	45.535	1.481	16.860	37.832	20"
22"	22.000	3.143	15.337	81.308	2.444	16.819	65.752	2.000	17.760	55.105	1.630	18.544	45.777	22"
24"	24.000	3.429	16.731	96.767	2.667	18.346	78.261	2.182	19.374	65.586	1.778	20.231	54.478	24"
26"	26.000				2.889	19.875	91.832	2.364	20.988	76.952	1.926	21.917	63.936	26"
28"	28.000				3.111	21.405	106.517	2.545	22.605	89.255	2.074	23.603	74.182	28"
30"	30.000				3.333	22.934	122.260	2.727	24.219	102.470	2.222	25.289	85.155	30"
32"	32.000				3.556	24.462	139.116	2.909	25.833	116.597	2.370	26.976	96.885	32"
34"	34.000				3.778	25.991	157.049	3.091	27.447	131.600	2.519	28.660	109.372	34"
36"	36.000				4.000	27.520	176.069	3.273	29.061	147.549	2.667	30.346	122.616	36"
42"	42.000										3.111	35.405	166.886	42"
48"	48.000													48"

This size and dimension chart is intended for reference purposes. It should not be used in place of the advice from a licensed Professional Engineer. Pipe weights are calculated in accordance with PPI TR-7. Average inside diameter is calculated using IPS OD and Minimum wall plus 6% for use in estimating fluid flows. Actual ID will vary. When designing components to fit the pipe ID, refer to pipe dimension and tolerances in the applicable pipe manufacturing specification.



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Pressure Rating		125 PSI   DR 17			100 PSI   DR 21			80 PSI   DR 26			63 PSI   DR 32.5			Nominal Pipe Size
Nominal Pipe Size	IPS OD (in)	Minimum Wall (in)	Average ID (in)	Weight (lbs/ft)	Minimum Wall (in)	Average ID (in)	Weight (lbs/ft)	Minimum Wall (in)	Average ID (in)	Weight (lbs/ft)	Minimum Wall (in)	Average ID (in)	Weight (lbs/ft)	Nominal Pipe Size
3/4"	1.050													3/4"
1"	1.315													1"
1 1/4"	1.660													1 1/4"
1 1/2"	1.900													1 1/2"
2"	2.375	0.140	2.079	0.431										2"
3"	3.500	0.206	3.063	0.936										3"
4"	4.500	0.265	3.938	1.548	0.214	4.046	1.268							4"
6"	6.625	0.390	5.798	3.354	0.315	5.957	2.747	0.255	6.084	2.243	0.204	6.193	1.811	6"
8"	8.625	0.507	7.550	5.689	0.411	7.754	4.658	0.332	7.921	3.808	0.265	8.063	3.066	8"
10"	10.750	0.632	9.410	8.834	0.512	9.665	7.247	0.413	9.874	5.905	0.331	10.048	4.772	10"
12"	12.750	0.750	11.160	12.427	0.607	11.463	10.193	0.490	11.711	8.315	0.392	11.919	6.709	12"
14"	14.000	0.824	12.253	14.984	0.667	12.586	12.288	0.538	12.859	10.026	0.431	13.086	8.092	14"
16"	16.000	0.941	14.005	19.576	0.762	14.385	16.042	0.615	14.696	13.084	0.492	14.957	10.564	16"
18"	18.000	1.059	15.755	24.767	0.857	16.183	20.313	0.692	16.533	16.567	0.554	16.826	13.364	18"
20"	20.000	1.176	17.507	30.575	0.952	17.982	25.077	0.769	18.370	20.443	0.615	18.696	16.494	20"
22"	22.000	1.294	19.257	37.004	1.048	19.778	30.318	0.846	20.206	24.748	0.677	20.565	19.979	22"
24"	24.000	1.412	21.007	44.018	1.143	21.577	36.083	0.923	22.043	29.439	0.738	22.435	23.769	24"
26"	26.000	1.529	22.759	51.675	1.238	23.375	42.362	1.000	23.880	34.565	0.800	24.304	27.887	26"
28"	28.000	1.647	24.508	59.934	1.333	25.174	49.119	1.077	25.717	40.103	0.862	26.173	32.335	28"
30"	30.000	1.765	26.258	68.812	1.429	26.971	56.389	1.154	27.554	46.016	0.923	28.043	37.111	30"
32"	32.000	1.882	28.010	78.266	1.524	28.769	64.169	1.231	29.390	52.374	0.985	29.912	42.255	32"
34"	34.000	2.000	29.760	88.367	1.619	30.568	72.434	1.308	31.227	59.102	1.046	31.782	47.692	34"
36"	36.000	2.118	31.510	99.081	1.714	32.366	81.208	1.385	33.064	66.267	1.108	33.651	53.457	36"
42"	42.000	2.471	36.761	134.852	2.000	37.760	110.542	1.615	38.576	90.181	1.292	39.261	72.778	42"
48"	48.000	2.824	42.013	176.126	2.286	43.154	144.389	1.846	44.086	117.812	1.477	44.869	95.074	48"

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