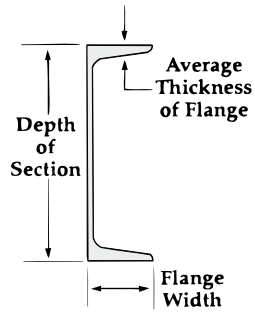
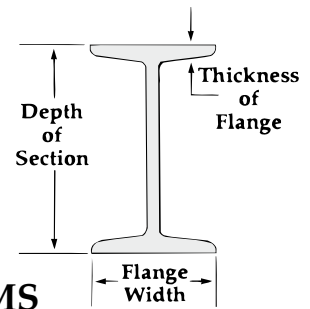


# TECHNICAL DATA



## CHANNELS AMERICAN STANDARD

Depth of section	Width of Flange	Average Thickness of Flange	Wt. Per Foot (in lbs.)
3	1 <sup>3</sup> / <sub>8</sub>	.273	4.1
	1 <sup>1</sup> / <sub>2</sub>		5.0
	1 <sup>5</sup> / <sub>8</sub>		6.0
4	1 <sup>5</sup> / <sub>8</sub>	.296	5.4
	1 <sup>3</sup> / <sub>4</sub>		7.25
5	1 <sup>3</sup> / <sub>4</sub>	.320	6.7
	1 <sup>7</sup> / <sub>8</sub>		9.0
6	1 <sup>7</sup> / <sub>8</sub>	.343	8.2
	2		10.5
7	2 <sup>1</sup> / <sub>8</sub>	.366	13.0
	2 <sup>1</sup> / <sub>4</sub>		9.8
8	2 <sup>1</sup> / <sub>4</sub>	.390	12.25
	2 <sup>3</sup> / <sub>8</sub>		14.75
	2 <sup>1</sup> / <sub>2</sub>		11.5
9	2 <sup>3</sup> / <sub>8</sub>	.413	13.75
	2 <sup>1</sup> / <sub>2</sub>		15
	2 <sup>5</sup> / <sub>8</sub>		18.75
10	2 <sup>5</sup> / <sub>8</sub>	.436	13.4
	2 <sup>3</sup> / <sub>4</sub>		20
	2 <sup>7</sup> / <sub>8</sub>		25
	3		30
12	3	.501	15.3
	3		20.7
	3 <sup>1</sup> / <sub>8</sub>		25
15	3 <sup>1</sup> / <sub>8</sub>	.650	30
	3 <sup>3</sup> / <sub>8</sub>		33.9
	3 <sup>3</sup> / <sub>4</sub>		50
18	3 <sup>3</sup> / <sub>4</sub>	.625	40
	4		42.7
	4 <sup>1</sup> / <sub>8</sub>		45.8
	4 <sup>1</sup> / <sub>4</sub>		51.9
			58



## I BEAMS AMERICAN STANDARD

Depth of section	Width of Flange	Average Thickness of Flange	Wt. Per Foot (in lbs.)
3	2 <sup>3</sup> / <sub>8</sub>	.260	5.7
	2 <sup>1</sup> / <sub>2</sub>		7.5
4	2 <sup>5</sup> / <sub>8</sub>	.293	7.7
	2 <sup>3</sup> / <sub>4</sub>		9.5
5	3	.326	10
	3 <sup>1</sup> / <sub>4</sub>		14.75
6	3 <sup>3</sup> / <sub>8</sub>	.359	12.5
	3 <sup>5</sup> / <sub>8</sub>		17.25
7	3 <sup>5</sup> / <sub>8</sub>	.392	15.3
	3 <sup>7</sup> / <sub>8</sub>		20
8	4	.425	18.4
	4 <sup>1</sup> / <sub>8</sub>		23
10	4 <sup>5</sup> / <sub>8</sub>	.491	25.4
	5		35
12	5	.544	31.8
	5 <sup>1</sup> / <sub>8</sub>		35
	5 <sup>1</sup> / <sub>4</sub>		40.8
15	5 <sup>1</sup> / <sub>2</sub>	.622	50
	5 <sup>5</sup> / <sub>8</sub>		42.9
18	6	.691	50
	6 <sup>1</sup> / <sub>4</sub>		54.7
20	6 <sup>1</sup> / <sub>4</sub>	.789	70
	6 <sup>3</sup> / <sub>8</sub>		65.4
	7		75
	7 <sup>1</sup> / <sub>4</sub>		85
24	7 <sup>1</sup> / <sub>4</sub>	.916	95
	7		79.9
	7 <sup>1</sup> / <sub>8</sub>		87.1
	7 <sup>1</sup> / <sub>4</sub>		90
	7 <sup>7</sup> / <sub>8</sub>		100
	8	1.102	105.9
		1.102	120

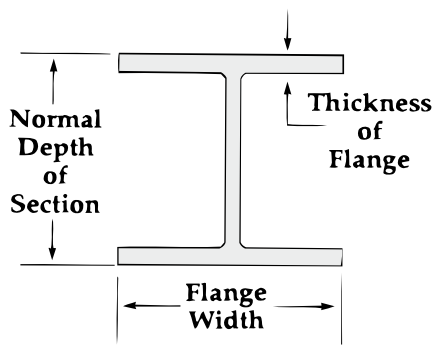


# TECHNICAL DATA

## WIDE FLANGE BEAMS

Nominal Depth of Section	Width of Flange	Thickness of Flange	Wt. Per Foot (in lbs.)
5	5	.360	16
	5	.430	19
6	4	.280	12
	4	.405	16
	6	.365	20
8	6 <sup>1</sup> / <sub>8</sub>	.455	25
	4	.255	13
	4	.315	15
	5 <sup>1</sup> / <sub>4</sub>	.330	18
	5 <sup>1</sup> / <sub>4</sub>	.400	21
	6 <sup>1</sup> / <sub>2</sub>	.400	24
	6 <sup>1</sup> / <sub>2</sub>	.465	28
	8	.435	31
	8	.495	35
	8 <sup>1</sup> / <sub>8</sub>	.560	40
10	8 <sup>1</sup> / <sub>8</sub>	.685	48
	8 <sup>1</sup> / <sub>4</sub>	.810	58
	8 <sup>1</sup> / <sub>4</sub>	.935	67
	4	.270	15
	4	.330	17
	4	.395	19
	5 <sup>3</sup> / <sub>4</sub>	.360	22
	5 <sup>3</sup> / <sub>4</sub>	.440	26
	5 <sup>3</sup> / <sub>4</sub>	.510	30
	8	.435	33
	8	.530	39
	8	.620	45
	10	.560	49
	10	.615	54
10 <sup>1</sup> / <sub>8</sub>	.680	60	
10 <sup>1</sup> / <sub>8</sub>	.770	68	
10 <sup>1</sup> / <sub>4</sub>	.870	77	
10 <sup>1</sup> / <sub>4</sub>	.990	88	
10 <sup>3</sup> / <sub>8</sub>	1.120	100	
10 <sup>3</sup> / <sub>8</sub>	1.250	112	
12	4	.265	16
	4	.350	19
	4	.425	22
	6 <sup>1</sup> / <sub>2</sub>	.380	26
	6 <sup>1</sup> / <sub>2</sub>	.440	30
	6 <sup>5</sup> / <sub>8</sub>	.520	35
	8	.515	40
	8	.575	45
	8 <sup>1</sup> / <sub>8</sub>	.640	50
	10	.575	53
	10	.640	58
	12	.605	65
	12	.670	72
	12 <sup>1</sup> / <sub>8</sub>	.735	79
	12 <sup>1</sup> / <sub>8</sub>	.810	87
	12 <sup>1</sup> / <sub>8</sub>	.900	96
12 <sup>1</sup> / <sub>4</sub>	.990	106	
12 <sup>3</sup> / <sub>8</sub>	1.100	120	
12 <sup>3</sup> / <sub>8</sub>	1.250	136	
12 <sup>1</sup> / <sub>2</sub>	1.400	152	
12 <sup>3</sup> / <sub>8</sub>	1.730	190	

Nominal Depth of Section	Width of Flange	Thickness of Flange	Wt. Per Foot (in lbs.)
14	5	.335	22
	5	.420	26
	6 <sup>3</sup> / <sub>4</sub>	.385	30
	6 <sup>3</sup> / <sub>4</sub>	.455	34
	6 <sup>3</sup> / <sub>4</sub>	.515	38
	8	.530	43
	8	.595	48
	8	.660	53
	10	.645	61
	10	.720	68
	10 <sup>1</sup> / <sub>8</sub>	.785	74
	10 <sup>1</sup> / <sub>8</sub>	.855	82
	14 <sup>1</sup> / <sub>2</sub>	.710	90
	14 <sup>5</sup> / <sub>8</sub>	.780	99
16	14 <sup>5</sup> / <sub>8</sub>	.860	109
	14 <sup>5</sup> / <sub>8</sub>	.940	120
	14 <sup>3</sup> / <sub>4</sub>	1.030	132
	15 <sup>1</sup> / <sub>2</sub>	1.090	145
	15 <sup>5</sup> / <sub>8</sub>	1.190	159
	15 <sup>5</sup> / <sub>8</sub>	1.310	176
	15 <sup>3</sup> / <sub>4</sub>	1.440	193
	15 <sup>3</sup> / <sub>4</sub>	1.560	211
	15 <sup>7</sup> / <sub>8</sub>	1.720	233
	16	1.890	257
	16 <sup>1</sup> / <sub>8</sub>	2.070	283
	16 <sup>1</sup> / <sub>4</sub>	2.260	311
	16 <sup>3</sup> / <sub>8</sub>	2.470	342
	16 <sup>1</sup> / <sub>2</sub>	2.660	370
16 <sup>5</sup> / <sub>8</sub>	2.840	398	
16 <sup>3</sup> / <sub>4</sub>	3.030	426	
18	5 <sup>1</sup> / <sub>2</sub>	.345	26
	5 <sup>1</sup> / <sub>2</sub>	.440	31
	7	.430	36
	7	.505	40
	7	.565	45
	7 <sup>1</sup> / <sub>8</sub>	.630	50
	7 <sup>1</sup> / <sub>8</sub>	.715	57
	10 <sup>1</sup> / <sub>4</sub>	.665	67
	10 <sup>1</sup> / <sub>4</sub>	.760	77
	10 <sup>3</sup> / <sub>8</sub>	.815	89
21	10 <sup>3</sup> / <sub>8</sub>	.985	100
	6	.425	35
	6	.525	40
	6 <sup>1</sup> / <sub>16</sub>	.605	46
	7 <sup>1</sup> / <sub>2</sub>	.570	50
	7 <sup>1</sup> / <sub>2</sub>	.630	55
	7 <sup>1</sup> / <sub>2</sub>	.695	60
	7 <sup>5</sup> / <sub>8</sub>	.750	65
	7 <sup>5</sup> / <sub>8</sub>	.810	71
	11	.680	76
	11 <sup>1</sup> / <sub>8</sub>	.770	86
	11 <sup>1</sup> / <sub>8</sub>	.870	97
	11 <sup>1</sup> / <sub>4</sub>	.940	106
	11 <sup>1</sup> / <sub>4</sub>	1.060	119
21	6 <sup>1</sup> / <sub>2</sub>	.450	44
	6 <sup>1</sup> / <sub>2</sub>	.535	50



Nominal Depth of Section	Width of Flange	Thickness of Flange	Wt. Per Foot (in lbs.)
21	6 <sup>1</sup> / <sub>2</sub>	.650	57
	8 <sup>1</sup> / <sub>4</sub>	.615	62
	8 <sup>1</sup> / <sub>4</sub>	.685	68
	8 <sup>1</sup> / <sub>4</sub>	.740	73
	8 <sup>3</sup> / <sub>8</sub>	.835	83
	8 <sup>3</sup> / <sub>8</sub>	.930	93
	12 <sup>3</sup> / <sub>8</sub>	.875	111
	12 <sup>3</sup> / <sub>8</sub>	.960	122
24	12 <sup>1</sup> / <sub>2</sub>	1.150	147
	7	.505	55
	7	.590	62
	9	.585	68
	9	.680	76
	9	.770	84
	9 <sup>1</sup> / <sub>8</sub>	.875	94
	12 <sup>3</sup> / <sub>4</sub>	.750	104
	12 <sup>3</sup> / <sub>4</sub>	.850	117
	12 <sup>7</sup> / <sub>8</sub>	.960	131
27	12 <sup>7</sup> / <sub>8</sub>	1.090	146
	13	1.220	162
	10	.640	84
	10	.745	94
	10	.830	102
	10 <sup>1</sup> / <sub>8</sub>	.930	114
	14	.975	146
	14	1.080	161
30	14 <sup>1</sup> / <sub>8</sub>	1.190	178
	10 <sup>1</sup> / <sub>2</sub>	.670	99
	10 <sup>1</sup> / <sub>2</sub>	.760	108
	10 <sup>1</sup> / <sub>2</sub>	.850	116
	10 <sup>1</sup> / <sub>2</sub>	.930	124
	10 <sup>1</sup> / <sub>2</sub>	1.000	132
	15	1.060	173
	15	1.180	191
33	15 <sup>1</sup> / <sub>8</sub>	1.310	211
	11 <sup>1</sup> / <sub>2</sub>	.740	118
	11 <sup>1</sup> / <sub>2</sub>	.855	130
36	11 <sup>1</sup> / <sub>2</sub>	.960	141
	12	.790	135
	12	.940	150
12	1.020	160	

# TECHNICAL DATA



## Steel Pipe Data SCHEDULE 40 & 80

Pipe Size	Schedule No.	O.D.	Wall Thickness	Wt. Per Foot (in lbs.)	
				Water	Pipe
3/8	40	.675	.091	.083	.567
	80		.126	.061	.738
1/2	40	.840	.109	.132	.850
	80		.147	.101	1.087
3/4	40	1.050	.113	.230	1.130
	80		.154	.186	1.473
1	40	1.315	.133	.374	1.678
	80		.179	.311	2.171
1 1/4	40	1.660	.140	.647	2.272
	80		.191	.555	2.996
1 1/2	40	1.900	.145	.882	2.717
	80		.200	.765	3.631
2	40	2.375	.154	1.452	3.652
	80		.218	1.279	5.022
2 1/2	40	2.875	.203	2.072	5.790
	80		.276	1.834	7.660
3	40	3.500	.216	3.200	7.570
	80		.300	2.860	10.250
3 1/2	40	4.000	.226	4.280	9.110
	80		.318	3.850	12.510
4	40	4.500	.237	5.510	10.790
	80		.337	4.980	14.980

Pipe Size	Schedule No.	O.D.	Wall Thickness	Wt. Per Foot (in lbs.)	
				Water	Pipe
5	40	5.563	.258	8.660	14.620
	80		.375	7.870	20.780
6	40	6.625	.280	12.510	18.970
	80		.432	11.920	28.570
8	40	8.625	.322	21.600	28.550
	80		.500	19.800	43.390
10	40	10.750	.365	34.100	40.480
	80		.593	31.100	64.400
12	40	12.750	.406	48.500	53.600
	80		.687	44.000	88.600
14	40	14.000	.437	58.500	63.000
	80		.750	51.200	107.000
16	40	16.000	.500	76.500	83.000
	80		.843	69.700	137.000
18	40	18.000	.563	97.200	105.000
	80		.937	88.500	171.000
20	40	20.000	.593	120.400	123.000
	80		1.031	109.400	209.000
24	40	24.000	.687	174.200	171.000
	80		1.218	158.200	297.000
30	20	30.000	.500	286.000	158.000
36	API	36.000	.500	417.000	190.000

## Spacing of Hangers For Steel Pipe

Nominal Pipe Size, Inches	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	5	6	8	10	12	14	16	18	20	24
	Maximum Span. Feet	7	7	7	7	9	10	11	12	13	14	16	17	19	22	23	25	27	28	30
Recommended Hanger Rod Sizes	3/8	3/8	3/8	3/8	3/8	3/8	1/2	1/2	1/2	5/8	5/8	3/4	3/4	7/8	7/8	1	1	1 1/8	1 1/4	1 1/4
																		OR TRAPEZE		

*Note:* Spacing and capacities are based on pipe filled with water. Additional valves and fittings increase the load and therefore closer hanger spacing is required.  
Taken from MSS ANSI/SP-69 and SP-58 Table 3 & 4.

\*Many Codes and specifications require pipe hangers to be spaced every 10 feet regardless of size. Check local codes.



# TECHNICAL DATA

## Copper Tube Data

### TYPE L

Tube Size	Tubing O.D.	Wall Thickness	Wt. Per Foot (in lbs.)	
			Water	Pipe
1/4	.375	.030	.034	.126
3/8	.500	.035	.062	.198
1/2	.625	.040	.100	.285
5/8	.750	.042	.151	.362
3/4	.875	.045	.209	.455
1	1.125	.050	.357	.655
1 1/4	1.375	.055	.546	.884
1 1/2	1.625	.060	.767	1.140
2	2.125	.070	1.341	1.750
2 1/2	2.625	.080	2.064	2.480
3	3.125	.090	2.949	3.330
3 1/2	3.625	.100	3.989	4.290
4	4.125	.110	5.188	5.380
5	5.125	.125	8.081	7.610
6	6.125	.140	11.616	10.200
8	8.125	.200	20.289	19.260
10	10.125	.250	31.590	30.100
12	12.125	.280	45.426	40.400

### TYPE K

Tube Size	Tubing O.D.	Wall Thickness	Wt. Per Foot (in lbs.)	
			Water	Pipe
1/4	.375	.035	.032	.145
3/8	.500	.049	.055	.269
1/2	.625	.049	.094	.344
5/8	.750	.049	.144	.418
3/4	.875	.065	.188	.641
1	1.125	.065	.337	.839
1 1/4	1.375	.065	.527	1.040
1 1/2	1.625	.072	.743	1.360
2	2.125	.083	1.310	2.060
2 1/2	2.625	.095	2.000	2.920
3	3.125	.109	2.960	4.000
3 1/2	3.625	.120	3.900	5.120
4	4.125	.134	5.060	6.510
5	5.125	.160	8.000	9.670
6	6.125	.192	11.200	13.870
8	8.125	.271	19.500	25.900
10	10.125	.338	30.423	40.300
12	12.125	.405	43.675	57.800

## Spacing of Hangers For Copper Tubing

Tubing Size	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	5	6	8	10	12
Span in Ft.	6	8	8	10	10	10	12	12	12	12	12	14	14	18	19

*Note: Spacing and capacities are based on pipe filled with water. Additional valves and fittings increase the load and therefore closer hanger spacing is required.*

## AWWA Ductile Iron Pipe Data

Based on AWWA C108-70, Table 8.2.  
Add flange weight for flanged cast iron pipe.

Nom. Pipe Size	Class	O.D. D.I. Pipe	Wall Thick.	Wt. Per Foot (in lbs.)	
				Pipe	Water
3	53	3.96	.31	11.20	3.80
4	53	4.80	.32	14.20	5.90
6	53	6.90	.34	22.00	13.10
8	53	9.05	.36	31.00	23.00
10	53	11.10	.38	40.40	36.40
12	53	13.20	.40	50.70	52.30
14	53	15.30	.42	62.40	71.10
16	53	17.40	.43	72.80	93.10
18	53	19.50	.44	83.60	117.90
20	53	21.60	.45	95.20	145.80
24	53	25.80	.47	119.20	210.20
30	53	32.00	.51	161.30	326.50
36	53	38.30	.58	219.50	469.30
42	53	44.50	.65	285.20	634.90
48	53	50.80	.72	360.30	828.90

## Glass Pipe Data

### REGULAR SCHEDULE

Nom. Pipe Size	O.D.	Wall Thickness	Wt. Per Foot (in lbs.)	
			Pipe	Water
1 1/2	1.84	.12	.64	.89
2	2.34	.14	.94	1.45
3	3.41	.17	1.60	3.19
4	4.53	.20	2.60	5.79
6	6.66	.24	4.70	12.78

### HEAVY SCHEDULE

1	1.31	.16	.60	.35
1 1/2	1.84	.17	.87	.76
2	2.34	.17	1.10	1.36
3	3.41	.20	2.00	3.06
4	4.53	.26	3.40	5.44
6	6.66	.33	6.30	12.42

Spacing of Hangers for glass pipe support every 8-10 ft. Pad all hangers. Use only clevis or trapeze, do not tie down pipe.

# TECHNICAL DATA



## PVC Plastic Pipe Data SCHEDULE 40 & 80

Pipe Size	Schedule No.	O.D.	Wall Thickness	Wt. Per Foot (in lbs.)	
				Water	Pipe
1/8	40	.405	.068	.025	.043
	80		.095	.016	.055
1/4	40	.540	.088	.045	.074
	80		.119	.031	.094
3/8	40	.675	.091	.083	.100
	80		.126	.061	.129
1/2	40	.840	.109	.132	.150
	80		.147	.101	.150
3/4	40	1.050	.113	.230	.199
	80		.154	.186	.259
1	40	1.315	.133	.374	.295
	80		.179	.311	.382
1 1/4	40	1.660	.140	.647	.400
	80		.191	.555	.527
1 1/2	40	1.900	.145	.882	.478
	80		.200	.765	.639
2	40	2.375	.154	1.452	.643
	80		.218	1.279	.884

Pipe Size	Schedule No.	O.D.	Wall Thickness	Wt. Per Foot (in lbs.)	
				Water	Pipe
2 1/2	40	2.875	.203	2.072	1.020
	80		.276	1.834	1.350
3	40	3.500	.216	3.200	1.333
	80		.300	2.860	1.804
3 1/2	40	4.000	.226	4.280	1.598
	80		.318	3.850	2.195
4	40	4.500	.237	5.510	1.899
	80		.337	4.980	2.636
5	40	5.563	.258	8.660	2.770
	80		.375	7.870	4.126
6	40	6.625	.280	12.150	3.339
	80		.432	11.290	5.028
8	40	8.625	.322	21.600	5.280
	80		.500	19.800	8.023
10	40	10.750	.366	34.100	7.505
	80		.593	31.100	11.894
12	40	12.750	.406	48.500	10.023
	80		.687	44.000	16.365

## Spacing of Hangers For PVC Plastic Pipe

Schedule 40 Pipe Size	Support Spacings (In Feet)									
	Temperature									
	20°F	40°F	60°F	80°F	100°F	110°F	120°F	130°F	140°F	150°F
1/2 to 3/4	5.00	4.75	4.50	4.25	4.00	3.75	3.33	3.00	2.66	2.00
1 to 1 1/4	5.50	5.25	5.00	4.66	4.33	4.00	3.75	3.33	2.80	2.25
1 1/2 to 2	5.80	5.50	5.25	5.00	4.66	4.33	3.80	3.50	3.00	2.50
2 1/2	6.66	6.33	6.00	5.50	5.25	4.80	4.50	4.00	3.50	2.80
3	6.80	6.50	6.25	5.80	5.50	5.25	4.75	4.25	3.66	3.00
4	7.33	7.00	6.50	6.25	5.80	5.50	5.00	4.50	3.80	3.25
6	7.80	7.50	7.00	6.80	6.33	5.80	5.33	4.80	4.25	3.50

Schedule 80 Pipe Size	Support Spacings (In Feet)									
	Temperature									
	20°F	40°F	60°F	80°F	100°F	110°F	120°F	130°F	140°F	150°F
1/2 to 3/4	5.75	5.50	5.25	4.80	4.50	4.33	3.80	3.50	3.00	2.50
1	6.33	6.00	5.75	5.33	5.00	4.60	4.33	3.80	3.33	2.75
1 1/4 to 1 1/2	6.66	6.33	6.00	5.66	5.25	4.80	4.50	4.00	3.50	3.00
2	7.00	6.50	6.25	6.00	5.50	5.12	4.75	4.33	3.66	3.12
2 1/2	7.80	7.50	7.00	6.66	6.33	5.80	5.33	4.75	4.25	3.33
3	8.20	7.75	7.33	7.00	6.50	6.00	5.50	5.00	4.33	3.50
4	8.66	8.25	7.80	7.33	6.80	6.33	5.80	5.25	4.66	3.75
6	9.80	9.33	8.80	8.33	7.80	7.33	6.50	6.00	5.12	4.25



# TECHNICAL DATA

## Conduit Data

### ELECTRICAL METALLIC TUBING DATA

Nominal Size EMT Conduit	O.D. Conduit	O.D. Coupling	Weight Conduit W/C Plg. lbs./ft.	Approx. Max. Weight Conduit and Conductor lbs./ft.	
				Lead Covered	Not Lead Covered
1/2	.706	N/A	.29	N/A	.54
3/4	.922	—	.45	—	1.16
1	1.163	—	.65	—	1.83
1 1/4	1.510	—	.96	—	2.96
1 1/2	1.740	—	1.11	—	3.68
2	2.197	—	1.41	—	4.45
2 1/2	2.875	—	2.15	—	6.41
3	3.500	—	2.60	—	9.30
3 1/2	4.000	—	3.25	—	12.15
4	4.500	—	3.90	—	15.40

Note: 2 1/2 through 4" EMT same as steel rigid conduit.

### STEEL RIGID CONDUIT DATA

Nominal Size EMT Conduit	O.D. Conduit	O.D. Coupling	Weight Conduit W/C Plg. lbs./ft.	Approx. Max. Weight Conduit and Conductor lbs./ft.	
				Lead Covered	Not Lead Covered
1/2	.840	1.010	.80	1.17	1.04
3/4	1.050	1.250	1.09	1.75	1.40
1	1.315	1.525	1.65	2.62	2.35
1 1/4	1.660	1.869	2.15	4.31	3.58
1 1/2	1.900	2.155	2.58	5.89	4.55
2	2.375	2.650	3.52	8.53	7.21
2 1/2	2.875	3.250	5.67	11.51	10.22
3	3.500	3.870	7.14	16.51	14.51
3 1/2	4.000	4.500	8.60	19.05	17.49
4	4.500	4.875	10.00	24.75	21.48
5	5.563	6.000	13.20	35.87	30.83
6	6.625	7.200	17.85	50.69	43.43

### INTERMEDIATE METAL CONDUIT DATA

Nominal Size EMT Conduit	O.D. Conduit	O.D. Coupling	Weight Conduit W/C Plg. lbs./ft.	Approx. Max. Weight Conduit and Conductor lbs./ft.	
				Lead Covered	Not Lead Covered
1/2	.815	1.010	.60	.97	.84
3/4	1.029	1.250	.82	1.48	1.13
1	1.290	1.525	1.16	2.13	1.86
1 1/4	1.638	1.869	1.50	3.66	2.93
1 1/2	1.883	2.155	1.82	5.13	3.79
2	2.360	2.650	2.42	7.43	6.11
2 1/2	2.857	3.250	4.28	10.12	8.83
3	3.476	3.870	5.26	14.63	12.63
3 1/2	3.971	4.500	6.12	16.57	15.01
4	4.466	4.875	6.82	21.57	18.30

## Threaded Rod Data

Nominal Rod Dia. (in inches)	Root Area Thread (in inches) <sup>2</sup>	Max. Rec. Load/lbs.	
		650°F	750°F
1/4	.027	240	210
3/8	.068	610	540
1/2	.126	1130	1010
5/8	.202	1810	1610
3/4	.302	2710	2420
7/8	.419	3770	3360
1	.552	4960	4420
1 1/8	.693	6230	5560
1 1/4	.889	8000	7140
1 1/2	1.293	11630	10370
1 3/4	1.744	15700	14000
2	2.300	20700	18460
2 1/4	3.023	27200	24260
2 1/2	3.719	33500	29880

## SERVICE WEIGHT CAST IRON SOIL PIPE DATA (Bell & Spigot Type)

Cast Iron Data

Nominal Pipe Size	O.D. of Cast Iron Pipe	Wall Thickness	Weight Per Foot (in lbs.)	
			Pipe	Water
2	2.25	.17	4.00	1.50
3	3.25	.17	6.00	3.40
4	4.25	.18	8.00	6.20
5	5.25	.18	10.40	12.30
6	6.25	.18	13.00	13.90
8	8.38	.23	20.00	25.70
10	10.50	.28	29.00	40.60
12	12.50	.28	38.00	58.20
15	15.62	.31	51.00	96.60

## EXTRA WEIGHT CAST IRON SOIL PIPE DATA (Bell & Spigot Type)

Nominal Pipe Size	O.D. of Cast Iron Pipe	Wall Thickness	Weight Per Foot (in lbs.)	
			Pipe	Water
2	2.38	.190	5.00	1.60
3	3.50	.250	9.00	3.70
4	4.50	.250	12.00	6.50
5	5.50	.250	15.00	10.20
6	6.50	.250	19.00	14.70
8	8.62	.310	30.00	26.10
10	10.75	.375	43.00	40.80
12	12.75	.375	54.00	58.80
15	15.88	.440	75.00	91.80

## NO-HUB CAST IRON SOIL PIPE DATA

Nominal Pipe Size	O.D. of Cast Iron Pipe	Wall Thickness	Weight Per Foot (in lbs.)	
			Pipe	Water
1½	1.90	.16	2.70	3.50
2	2.35	.16	3.60	5.00
3	3.35	.16	5.20	8.30
4	4.38	.19	7.40	12.80
5	5.30	.19	9.60	17.90
6	6.30	.19	11.00	23.00
8	8.38	.23	18.00	39.50
10	10.50	.28	26.20	43.34
12	12.50	.28	35.50	62.51



# FINISHES

## ZINC COATING

PHD offers 3 basic forms of zinc coating on its products:

- 1) **Electro-Plated Zinc** (Electro-galvanized)
- 2) **Pre-Galvanized Zinc**
- 3) **Hot Dipped Galvanized**

*Note: The corrosion resistance of zinc is based on its thickness, the environment and the coating process used.*

### ELECTRO-PLATED ZINC (ASTM B633 SC1)

This type of coating is recommended for use indoors in relatively dry areas. The steel is submerged in a bath of zinc salts, through the process of electrolysis, a coating of pure zinc adheres to the steel with a molecular bond. A maximum of .5 mills of zinc can be applied using this method.

### PRE-GALVANIZED ZINC (ASTM A653 COATING G90)

This type of coating is suitable for extended exposure in dry or mildly corrosive atmospheres but not generally recommended for use outdoors in industrial environments. Also known as “mill galvanized” or “hot-dipped mill galvanized” pre-galvanized zinc coatings are produced by rolling the steel coils or sheets through molten zinc, at the steel mill, the material is then cut or slit to size. Coating thickness is .90 ounces per square foot of steel surface. Zinc near the uncoated edges or weld areas becomes a sacrificial anode which protects the bare areas. PHD uses this type of material on our Fig. 141 and Fig. 151 swivel ring hangers.

### HOT-DIP GALVANIZED (ASTM 123)

Recommended for prolonged outdoor exposure and will usually protect steel in most atmospheric environments. After fabrication the part is immersed in a bath of molten zinc. A metallurgical bond is formed resulting in a zinc coating that coats all surfaces including edges. Please note that some items cannot be hot-dipped galvanized due to design, tolerances or threaded components. Check with the PHD factory or your local representative when questionable. Threaded components on hot dipped galvanized products will be electro-plated.

# FINISHES



## PRIMER COATING

PHD offers two types of primer coatings:

- 1) Red Primer
- 2) Yellow Primer

Both can be used indoors or outdoors and offer a degree of protection from the elements.

## PVC COATING

PVC coating helps reduce noise and protect the pipe or tubing from the metal surface of the hanger. Corrosion resistance protection is minimal.

## EPOXY COATING

PHD offers a variety of epoxy finishes in both commercial or military grades that offer a high degree of corrosion resistance. Contact factory for more detailed information.

## COPPER COLOR EPOXY FINISH (MSS-SP 58)

Designed for use with copper tubing. This coating provides a better level of corrosion resistance than the traditional copper plated finish. It also acts as a protective barrier, avoiding contact between dissimilar metals. During the coating process, the parts are zinc plated to a thickness of .0002", the copper color epoxy powder is applied by an electrostatic method, and the coated parts are baked at 180 degrees for 20 minutes.