

Wheatland Tube Co. Mega-Thread Pipe

Table-1

Mega Thread (A-795-E) Pipe Properties													
Pipe NPS In.	Pipe 't' In.	Pipe ID 'd' In.	Pipe OD 'D' In.	Inside Area 'Ai' In. ²	Metal Area 'Am' In. ²	Wt Per ft. 'w ₁ ' Lb.	Wt of Water. 'w ₂ ' Lb.	Moment of Inertia 'I' In ⁴	Section Mod. 'S' In ³	Radius of Gyration 'r' In	Weight 'w' Lb/Ft w ₁ +w ₂	Hanger Span Ft. (max)	Trapeze Load P Lb. = w+250
1	0.118	1.079	1.315	0.914	0.444	1.51	0.40	0.08	0.12	0.43	1.91	15	279
1 1/4	0.125	1.410	1.660	1.561	0.603	2.05	0.68	0.18	0.22	0.54	2.73	15	291
1 1/2	0.129	1.642	1.900	2.118	0.718	2.44	0.92	0.28	0.30	0.63	3.36	15	300
2	0.133	2.109	2.375	3.493	0.937	3.19	1.51	0.59	0.50	0.79	4.70	15	320

Table-2

MegaThread Section Modulus Required (minimum) for Trapeze Members (in ³)				
Nominal Diameter of MegaThread Pipe Being Supported				
Span of Trapeze 'a' ↓	1 In.	1 ¼ In.	1 ½ In.	2 In.
1'-6"	0.08	0.09	0.09	0.10
2'-0"	0.11	0.12	0.12	0.13
2'-6"	0.14	0.15	0.15	0.16
3'-0"	0.17	0.17	0.18	0.19
4'-0"	0.22	0.23	0.24	0.26
5'-0"	0.28	0.29	0.30	0.32
6'-0"	0.33	0.35	0.36	0.38
7'-0"	0.39	0.41	0.42	0.45
8'-0"	0.45	0.47	0.48	0.51
9'-0"	0.50	0.52	0.54	0.58
10'-0"	0.56	0.58	0.60	0.64
The Table is based on a maximum bending stress of 15 ksi and a midspan concentrated load from 15 ft of water-filled pipe, plus 250 lb.				



Contact: Tiffany Dunworth, Technical Services Manager
1 Council Avenue, Wheatland, PA 16161 Ph: (724)-342-6851 Ext. 8441

Wheatland Tube Co. MegaThread Pipe
Table-3

ZONE OF INFLUENCE LOAD CAPACITY (Lb) AT THE CENTER OF THE SPAN					
Lateral Sway Brace Spacing (Ft)^a on MegaThread, (See Note 1 Table 1) Pipe, (Fy = 30 ksi)^f					
Pipe Diameter (In)	20^b	25^b	30^c	35^c	40^d
1	113	91	74	64	53
1 1/4	200	160	131	112	94
1 1/2	277	221	181	155	130
2^e	462	370	303	259	217

Notes:

^a The Tables for the maximum load Fpw in zone of influence (ZOI) are based on specific configurations of mains and branch lines.

^b Assumes branch lines at center of pipe span and near each support.

^c Assumes branch lines at third-points of pipe span and near each support.

^d Assumes branch lines at quarter-points of pipe span and near each support.

^e Larger diameter pipe may be used when justified by engineering analysis.

^f ASTM A795 has a minimum yield strength (Fy) = 30 ksi. Effect on overall stresses in the pipe due to operational stresses is not considered.