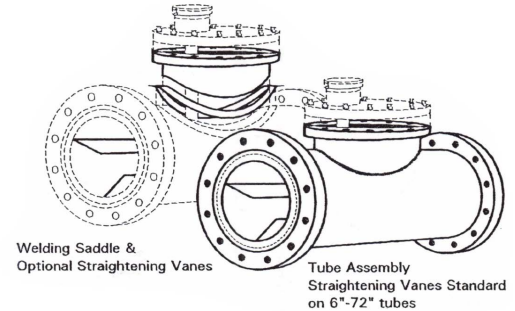




Product Data Sheet
PDS-110
2021-01-09

Propeller Meter Tubes and Saddles

Series 100 Meters and Accessories



Description

Sparling MainLine direct or magnetic drive propeller meters may be furnished with a flanged tube or with a saddle for field welding onto the customer's pipe

Tubes

Small tubes up to 3" are provided in heavy duty cast iron. Larger tubes are epoxy polyamide lined and coated fabricated steel. Meters 6" and larger are equipped with three integrally mounted straightening vanes. Flanges are as required.

150# or 250# AWWA

Saddles

Saddles for meterheads from 6" - 14" are provided in heavy duty cast steel with the Sparling standard bolt pattern. Saddles for meterheads from 16" - 72" are fabricated.

Construction Material

Tubes

Cast Iron (2" - 3")

Tube..... Fabricated Steel (4" - 36")

Flanges..... 150# or 250# AWWA

Sparling standard bolt pattern (2" - 14")

Bolt Pattern..... AWWA Flange Compliant (16" - 36")

Not Included (2" - 4")

Straightening vanes..... Integrally welded in tube (6" - 36")

Saddles

Cast Steel (6" - 14")

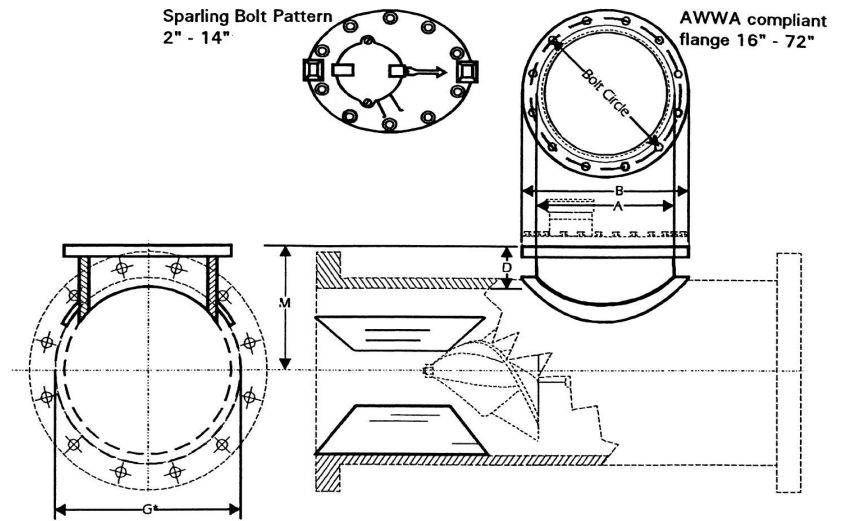
Saddle..... Fabricated Steel (16" - 72")

Sparling standard bolt pattern (2" - 14")

Bolt Pattern..... AWWA Flange Compliant (16" - 72")

Straightening vanes..... Fabricated Carbon Steel

Basic Welding Saddle



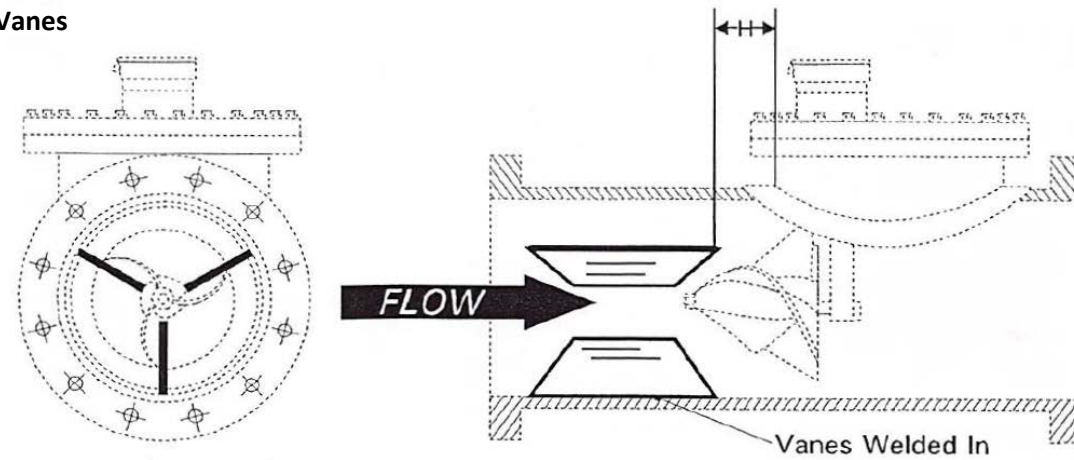
150 MWP Welding Saddles

Size	Weight (lbs)	A	B	D	G*	M	S	Bolt Circle	Size of Bolts	Number Of Bolts
6	20	$7\frac{5}{8}$	$9\frac{1}{4}$	*	$6\frac{5}{8}$	$4\frac{1}{4}$	$9\frac{1}{4}$	*	$\frac{7}{16}$	10
8	30	$8\frac{1}{4}$	$11\frac{3}{4}$	*	$8\frac{5}{8}$	$5\frac{5}{16}$	$11\frac{3}{4}$	*	$\frac{7}{16}$	10
10	35	$8\frac{1}{2}$	$11\frac{3}{4}$	*	$10\frac{3}{4}$	$6\frac{5}{16}$	$11\frac{3}{4}$	*	$\frac{7}{16}$	10
12	55	$8\frac{1}{2}$	$11\frac{3}{4}$	*	$12\frac{3}{4}$	$7\frac{5}{16}$	$11\frac{3}{4}$	*	$\frac{7}{16}$	10
14	70	$8\frac{1}{2}$	$11\frac{3}{4}$	*	14	8	$11\frac{3}{4}$	*	$\frac{7}{16}$	10
16	145	16	$23\frac{1}{2}$	4	16	$12\frac{1}{4}$	*	$21\frac{1}{4}$	1	16
18	150	16	$23\frac{1}{2}$	4	18	$13\frac{1}{2}$	26	$21\frac{1}{4}$	1	16
20	155	16	$23\frac{1}{2}$	4	20	$14\frac{1}{2}$	26	$21\frac{1}{4}$	1	16
24	165	16	$23\frac{1}{2}$	$4\frac{1}{2}$	24	$16\frac{1}{4}$	26	$21\frac{1}{4}$	1	16
30	185	16	$23\frac{1}{2}$	$4\frac{1}{2}$	30	$19\frac{1}{4}$	26	$21\frac{1}{4}$	1	16
36	275	24	32	5	36	23	$36\frac{1}{2}$	$29\frac{1}{2}$	$1\frac{1}{2}$	20
42	295	24	32	5	42	26	$36\frac{1}{2}$	$29\frac{1}{2}$	$1\frac{1}{2}$	20
48	550	30	$38\frac{3}{4}$	$5\frac{1}{2}$	48	$49\frac{1}{2}$	$46\frac{3}{4}$	36	$1\frac{1}{4}$	28
54	560	30	$38\frac{3}{4}$	$5\frac{1}{2}$	54	$32\frac{1}{2}$	$46\frac{3}{4}$	36	$1\frac{1}{4}$	28
60	580	30	$38\frac{3}{4}$	$5\frac{1}{2}$	60	$35\frac{1}{2}$	$46\frac{3}{4}$	36	$1\frac{1}{4}$	28
66	600	30	$38\frac{3}{4}$	$5\frac{1}{2}$	66	$38\frac{1}{2}$	$46\frac{3}{4}$	36	$1\frac{1}{4}$	28
72	625	30	$38\frac{3}{4}$	$5\frac{1}{2}$	72	41	$46\frac{3}{4}$	36	$1\frac{1}{4}$	28

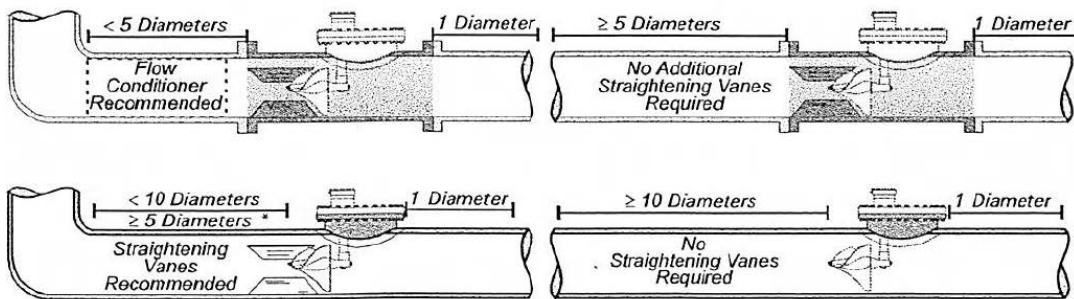
250 MWP Welding Saddles

Size	Weight (lbs)	A	B	D	G*	M	S	Bolt Circle	Size of Bolts	Number Of Bolts
6	20	$7\frac{5}{8}$	$9\frac{1}{4}$	*	$6\frac{5}{8}$	$4\frac{1}{4}$	$9\frac{1}{4}$	*	$\frac{7}{16}$	10
8	30	$8\frac{1}{4}$	$11\frac{3}{4}$	*	$8\frac{5}{8}$	$5\frac{5}{16}$	$11\frac{3}{4}$	*	$\frac{7}{16}$	10
10	30	$8\frac{1}{4}$	$11\frac{3}{4}$	*	$10\frac{3}{4}$	$6\frac{5}{16}$	$11\frac{3}{4}$	*	$\frac{7}{16}$	10
12	30	$8\frac{1}{4}$	$11\frac{3}{4}$	*	$12\frac{3}{4}$	$7\frac{5}{16}$	$11\frac{3}{4}$	*	$\frac{7}{16}$	10
14	30	$8\frac{1}{4}$	$11\frac{3}{4}$	*	14	8	$11\frac{3}{4}$	*	$\frac{7}{16}$	10
16	260	16	$25\frac{1}{2}$	5	16	$12\frac{1}{4}$	*	$22\frac{1}{2}$	$1\frac{1}{4}$	20
18	265	16	$25\frac{1}{2}$	5	18	$13\frac{1}{2}$	26	$22\frac{1}{2}$	$1\frac{1}{4}$	20
20	270	16	$25\frac{1}{2}$	5	20	$14\frac{1}{2}$	26	$22\frac{1}{2}$	$1\frac{1}{4}$	20
24	275	16	$25\frac{1}{2}$	5	24	$16\frac{1}{2}$	26	$22\frac{1}{2}$	$1\frac{1}{4}$	20
30	480	16	$25\frac{1}{2}$	5	30	$19\frac{1}{4}$	26	$22\frac{1}{2}$	$1\frac{1}{4}$	20
36	485	24	36	6	36	23	$36\frac{1}{2}$	32	$1\frac{1}{2}$	24
42	505	24	36	6	42	26	$36\frac{1}{2}$	32	$1\frac{1}{2}$	24
48	710	30	43	7	48	$49\frac{1}{2}$	$46\frac{3}{4}$	$39\frac{1}{4}$	$1\frac{3}{4}$	28
54	720	30	43	7	54	$32\frac{1}{2}$	$46\frac{3}{4}$	$39\frac{1}{4}$	$1\frac{3}{4}$	28
60	730	30	43	7	60	$35\frac{1}{2}$	$46\frac{3}{4}$	$39\frac{1}{4}$	$1\frac{3}{4}$	28
66	740	30	43	7	66	$38\frac{1}{2}$	$46\frac{3}{4}$	$39\frac{1}{4}$	$1\frac{3}{4}$	28
72	750	30	43	7	72	41	$46\frac{3}{4}$	$39\frac{1}{4}$	$1\frac{3}{4}$	28

Straightening Vanes



Pipe Dia. (in)	6	8	10	12	14	16	18	20	24	30	36	42	48	54	60	66	72
H	4	4	4	4	4	8	8	8	8	8	12	12	15	15	15	15	15



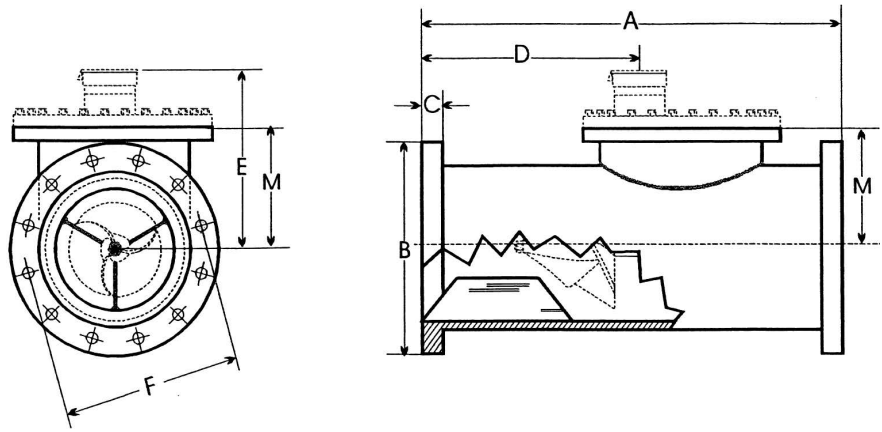
* < 5 Diameters Flow Conditioner recommended in addition to Straightening Vanes

How to Order

Table 1: Base Model Number							
MT1 - Basic Meter Tube							
Model MT1	Table 2: Size						
	02 - 2"	03 - 3"	04 - 4"	06 - 6"	08 - 8"	10 - 10"	12 - 12"
	14 - 14"	16 - 16"	18 - 18"	20 - 20"	24 - 24"	30 - 30"	36 - 36"
Size 02	Table 3: End Connections						
	1 - AWWA C1 D (125#)						
	1 - AWWA C1 D (250#)						
End Connections 1	Table 4: Flow Direction						
	1 - Forward						
	Table 5: Coating						
Flow Direction 1	1 - Standard						
	Coating						
	1						

Table 1: Base Model Number									
MS1 - Basic Welding Saddle									
Model MS1	Table 2: Size								
	06 - 6"	08 - 8"	10 - 10"	12 - 12"	14 - 14"	16 - 16"	18 - 18"	20 - 20"	24 - 24"
Size 06	30 - 30"	36 - 36"	42 - 42"	48 - 48"	54 - 54"	60 - 60"	66 - 66"	72 - 72"	
	Table 3: Pressure Rating								
Pressure 1	1 - 150 psi								
	2 - 250 psi								
M Dim 0	Table 4: "M" Dimension								
	0 - Standard								
Access. 0	Table 5: Accessories								
	0 - None								
	1 - Welding Vanes								
	2 - Bolting Vanes								

Basic Meter Tube



150 MWP Flanged Tubes, Flat Faced

Size	Weight (lbs)		A	B	C	D	E	F	M	Size of Bolts	Number Of Bolts
	Fabr. Steel	Cast Iron									
2	*	20	13 $\frac{1}{4}$	6	$\frac{5}{8}$	6 $\frac{1}{8}$	6 $\frac{1}{2}$	4 $\frac{3}{4}$	1 $\frac{3}{4}$	$\frac{5}{8}$	4
3	*	25	12 $\frac{3}{4}$	7 $\frac{1}{2}$	$\frac{3}{4}$	$\frac{3}{4}$	5 $\frac{7}{16}$	6	2 $\frac{3}{4}$	$\frac{5}{8}$	4
4	40	*	18	9	1	1	10 $\frac{3}{16}$	7 $\frac{1}{2}$	3 $\frac{7}{16}$	$\frac{5}{8}$	8
6	95	*	22	11	$\frac{11}{16}$	$\frac{11}{16}$	12	9 $\frac{1}{2}$	4 $\frac{1}{4}$	$\frac{3}{4}$	8
8	155	*	24	13 $\frac{1}{2}$	$\frac{11}{16}$	$\frac{11}{16}$	14 $\frac{1}{2}$	11 $\frac{3}{4}$	5 $\frac{5}{16}$	$\frac{3}{4}$	8
10	260	*	26	16	$\frac{11}{16}$	$\frac{11}{16}$	15 $\frac{1}{2}$	14 $\frac{1}{4}$	6 $\frac{5}{16}$	$\frac{7}{8}$	12
12	310	*	28	19	$\frac{13}{16}$	$\frac{13}{16}$	17 $\frac{1}{4}$	17	7 $\frac{5}{16}$	$\frac{7}{8}$	12
14	325	*	32	21	$\frac{15}{16}$	$\frac{15}{16}$	21 $\frac{1}{4}$	18 $\frac{3}{4}$	8	1	12
16	410	*	46	23 $\frac{1}{2}$	1	1	25 $\frac{7}{16}$	21 $\frac{1}{4}$	12 $\frac{1}{4}$	1	16
18	480	*	48	25	1 $\frac{1}{16}$	1 $\frac{1}{16}$	26 $\frac{15}{16}$	22 $\frac{3}{4}$	13 $\frac{1}{2}$	1 $\frac{1}{8}$	16
20	540	*	50	27 $\frac{1}{2}$	1 $\frac{1}{8}$	1 $\frac{1}{8}$	28 $\frac{7}{16}$	25	14 $\frac{1}{2}$	1 $\frac{1}{8}$	20
24	695	*	54	32	1 $\frac{1}{4}$	1 $\frac{1}{4}$	31 $\frac{15}{16}$	29 $\frac{1}{2}$	16 $\frac{1}{4}$	1 $\frac{1}{4}$	20
30	860	*	60	38 $\frac{3}{4}$	1 $\frac{3}{8}$	1 $\frac{3}{8}$	36 $\frac{15}{16}$	36	19 $\frac{1}{4}$	1 $\frac{1}{4}$	28
36	1180	*	80	46	1 $\frac{5}{8}$	1 $\frac{5}{8}$	49 $\frac{11}{16}$	42 $\frac{3}{4}$	23	1 $\frac{1}{2}$	32

250 MWP Flanged Tubes, Raised Faced

Size	Weight (lbs)		A	B	C	D	E	F	M	Size of Bolts	Number Of Bolts
	Fabr. Steel	Cast Iron									
2	*	35	13 $\frac{1}{4}$	6 $\frac{1}{2}$	$\frac{7}{8}$	6 $\frac{1}{8}$	6 $\frac{1}{2}$	5	1 $\frac{3}{4}$	$\frac{5}{8}$	8
3	*	40	12 $\frac{3}{4}$	8 $\frac{1}{4}$	1 $\frac{1}{8}$	$\frac{3}{4}$	7 $\frac{7}{16}$	6 $\frac{5}{8}$	2 $\frac{3}{4}$	$\frac{3}{4}$	8
4	60	*	18	10	1 $\frac{1}{4}$	1	8 $\frac{1}{4}$	7 $\frac{7}{8}$	3 $\frac{7}{16}$	$\frac{3}{4}$	8
6	13	*	22	12 $\frac{1}{2}$	1 $\frac{7}{16}$	$\frac{11}{16}$	9 $\frac{1}{4}$	10 $\frac{5}{8}$	4 $\frac{1}{4}$	$\frac{3}{4}$	12
8	285	*	24	15	1 $\frac{5}{8}$	$\frac{11}{16}$	10 $\frac{5}{16}$	13	5 $\frac{5}{16}$	$\frac{7}{8}$	12
10	290	*	26	17 $\frac{1}{2}$	1 $\frac{7}{8}$	$\frac{11}{16}$	11 $\frac{5}{16}$	15 $\frac{1}{4}$	6 $\frac{5}{16}$	1	16
12	360	*	28	20 $\frac{1}{2}$	2	$\frac{13}{16}$	12 $\frac{5}{16}$	17 $\frac{3}{4}$	7 $\frac{5}{16}$	1 $\frac{1}{8}$	16
14	420	*	32	23	2 $\frac{1}{8}$	$\frac{15}{16}$	12 $\frac{15}{16}$	20 $\frac{1}{4}$	8	1 $\frac{1}{8}$	20
16	530	*	46	25 $\frac{1}{2}$	2 $\frac{1}{4}$	1	18 $\frac{9}{16}$	22 $\frac{1}{2}$	12 $\frac{1}{4}$	1 $\frac{1}{4}$	20
18	600	*	48	28	2 $\frac{3}{8}$	1 $\frac{1}{16}$	19 $\frac{9}{16}$	24 $\frac{3}{4}$	13 $\frac{1}{2}$	1 $\frac{1}{4}$	24
20	680	*	50	30 $\frac{1}{2}$	2 $\frac{1}{2}$	1 $\frac{1}{8}$	20 $\frac{9}{16}$	27	14 $\frac{1}{2}$	1 $\frac{1}{4}$	24
24	825	*	54	36	2 $\frac{3}{4}$	1 $\frac{1}{4}$	22 $\frac{9}{16}$	32	16 $\frac{1}{4}$	1 $\frac{1}{2}$	24
30	990	*	60	43	3	1 $\frac{3}{8}$	25 $\frac{9}{16}$	39 $\frac{1}{4}$	19 $\frac{1}{4}$	1 $\frac{3}{4}$	28
36	1480	*	80	50	3 $\frac{3}{8}$	1 $\frac{5}{8}$	29 $\frac{3}{4}$	46	23	2	32