

# FLOWMASTERS<sup>®</sup>

## FLOW VS VELOCITY CHART

The following table shows the velocity that water travels in feet per second (ft/sec.) in various pipe sizes at different GPM rates.

Assuming the sensor is properly plumbed, the Fire Research paddlewheel flow sensor will deliver its most accurate readings when the velocity of the water being measured is greater than 1.5 ft/sec. and less than 60 ft/sec. The table is filled only with those values that reflect good accuracy so you get a very nice visual picture of the Fire Research paddlewheel's accuracy range.

Example: In a 1 1/2" pipe, the FRC paddlewheel sensor will give very accurate readings for flows between 10 and 400 GPM +/- 3gpm or +/- 1% of reading whichever is greater

FLOW RATE		VELOCITY (FT/SEC.)																				
LPM	GPM	PIPE SIZE (NOMINAL I.D. IN)																				
		1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10										
15	4	1.48																				
19	5	1.85	1.07																			
38	10	3.71	2.14	1.57																		
76	20	7.42	4.29	3.15	1.91	1.34																
151	40	14.85	8.58	6.30	3.82	2.68	1.74															
265	70	25.98	15.02	11.03	6.69	4.69	3.04	1.76														
379	100	37.12	21.45	15.76	9.56	6.70	4.34	2.52	1.60													
757	200	74.25	42.90	31.52	19.12	13.40	8.68	5.04	3.20	2.22												
1136	300	111.37	64.36	47.28	28.69	20.10	13.02	7.56	4.81	3.33	1.92											
1514	400		85.81	63.04	38.25	26.80	17.36	10.08	6.42	4.44	2.57	1.63										
1893	500			78.85	47.84	33.53	21.72	12.61	8.02	5.55	3.21	2.04										
3785	1000				95.62	67.02	43.40	25.20	16.04	11.11	6.41	4.07										
4921	1300					87.13	56.43	32.77	20.85	14.44	8.34	5.29										
6435	1700						73.79	42.85	27.27	18.88	10.90	6.92										
7570	2000							95.93	50.41	32.08	22.21	12.83	8.14									
11355	3000								75.61	48.12	33.32	19.24	12.21									
15140	4000								100.56	64.16	44.43	25.66	16.28									
18925	5000									80.20	55.53	32.07	20.35									
30280	8000										88.86	51.31	32.55									
37850	10000											64.14	40.69									



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