HOFFER FLOW CONTROLS, INC.
Perfecting Measurement™
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TECHNICAL NOTES

API AND CT SERIES FLOWMETERS AND THE IMPACT OF SPECIFIC GRAVITY

Please use the following tables as a guide for flowmeter size selection for the Hoffer API and CT Series. Turbine flowmeter rangeability is impacted by specific gravity. The low end of the flowmeter range is increased as a function of specific gravity. The maximum flow rate may also be increased to provide the best rangeability possible.

Proper installation of flowmeters for use on low specific gravities is critical. Proper maintenance of "back pressure" on the meter to prevent flashing and cavitation is required. This will also prevent overranging of the flowmeter.

.70-1.0 LIQUID SPECIFIC GRAVITY
No Change in Standard API and CT Flow Ranges as Published

.55-.70 LIQUID SPECIFIC GRAVITY								
METER SIZE	MINIMUM LINEAR FLOWRATE				MAXIMUM LINEAR FLOWRATE			
	GAL/MIN	BBLS/HR	BBLS/DAY	M_3/HR	GAL/MIN	BBLS/HR	BBLS/DAY	M_3/HR
1"	13	18.6	445	3.0	85	120	2,915	20
11/2"	27	38.6	925	6.2	195	280	6,685	45
2"	46	65.7	1,575	10.5	300	430	10,285	70
21/2"	78	111	2,675	17.5	550	785	18,885	125
3"*	128	183	4,390	29.0	880	1,260	30,170	200
4"*	230	329	7,890	52.0	1,650	2,230	56,570	375
6"	330	471	11,310	75.0	3,960	5,660	135,770	900

.30-.55 LIQUID SPECIFIC GRAVITY								
METER SIZE	MINIMUM LINEAR FLOWRATE				MAXIMUM LINEAR FLOWRATE			
	GAL/MIN	BBLS/HR	BBLS/DAY	M_3/HR	GAL/MIN	BBLS/HR	BBLS/DAY	M_3/HR
1"	20	28.6	685	4.5	90	130	3,085	21
11/2"	40	57.1	1,370	9.1	210	300	7,200	48
2"	70	100	2,400	15.9	330	470	11,315	75
21/2"	120	171	4,115	27.3	600	860	20,570	135
3"*	200	286	6,860	45	960	1,370	32,915	220
4"*	375	536	12,860	85	1,800	2,570	61,715	410
6"	420	600	14,400	95	4,320	6,170	148,115	980

*NOTES: Rim type rotor not recommended. Use blade type rotor only.