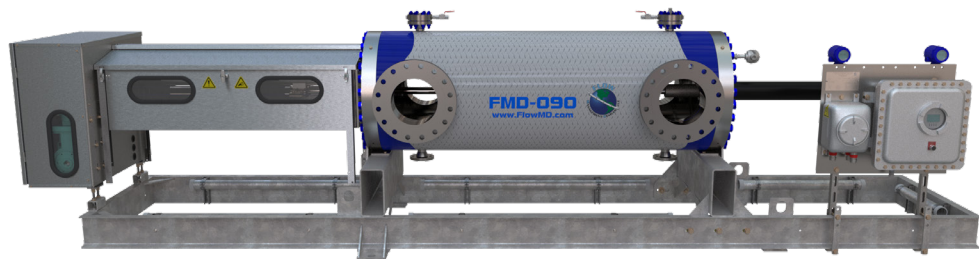


Flow MD Small Volume Prover Datasheet FMD-090



A Unit of IDEX Corporation



Flow MDs Small Volume Provers set the standard in small volume proving technology. With an innovative and patented design, the Flow MD line of provers provides superior performance, design, and functionality. All FMD Provers conform to API MPMS Chapter 4 Standards. The FMD-090 includes 12" ANSI B16.5 flanges on both the inlet and outlet, 2" drain flanges and 2" vents with thermowell and ports for temperature and pressure verification. The FMD-090 is an ideal choice for your small volume proving application.

Performance Specifications:

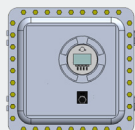
- Repeatability: < 0.02% - Exceeds API Standard
- Performance: Exceeds 0.02% (ISO17025 Calibration Lab)
- Uncertainty: Typically 0.008% (Water Draw)
- Pressure Drop: 5 psi at max flow rate of each prover (calculated with water)
- Turndown: 1200:1*

*1200:1 Turndown is typical of normal operations. Turndown ratio can vary significantly depending on installation and process conditions. Actual turndown may be much greater than 1200:1 in some conditions such as water draw, or much less in high pressure, dry product applications such as NGL service.

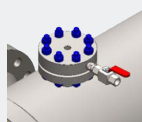
Included with Standard Prover Package:



Electrical Connections



P.I.M Electronics Module

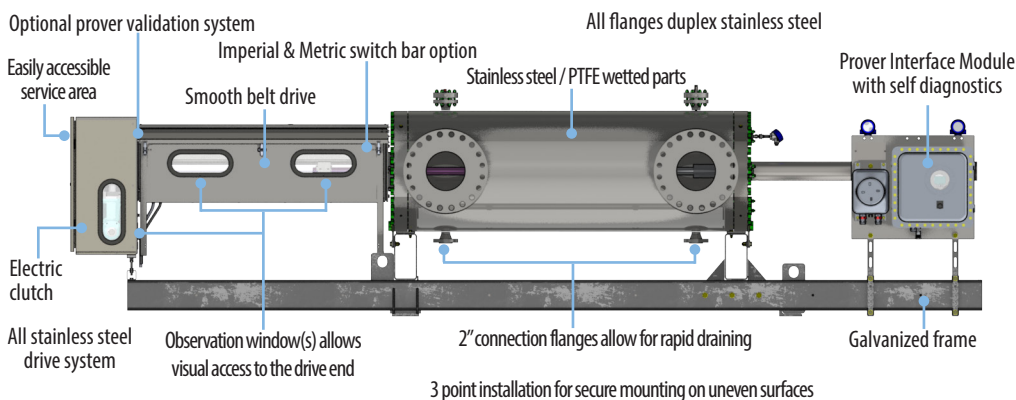


Vent Manifolds (2)

Proving calculations require switch bar temperature, tube temperature and tube pressure. FMD quotes these as standard options with the prover package.

Other Available Options: Spare Parts Kit - Drain Kit - Insulation Kit - Thermal Relief Kit - Leak Detector Kit - Shaft Seal Monitor Kit - Spectacle Blind Kit - Density Kit - Prover Validation Kit - PDAQ Kit

FMD Prover Features:



“Continuously Improving Liquid Measurement Technology”

Flow Management Devices raises the bar in Small Volume Prover performance and design with our comprehensive line of Unidirectional Captive Displacement Provers.

Prover Specifications

* Max Flow Rate

BPH	GPM	M ³ H
12,850	9,000	2,000

*We want to ensure that you get the proper FMD Small Volume Prover for your application. FMD Provers are compatible with most meter types, including Coriolis, Turbine, Helical Turbine, Positive Displacement, and, Ultrasonic. Meter type, operating conditions, and fluid characteristics will affect prover sizing. Please reach out to us to discuss your specific application and the optimal FMD Prover for your application.

**Displaced Volume

Gallons		*Liters	
Primary	Secondary	Primary	Secondary
80	60	302	227

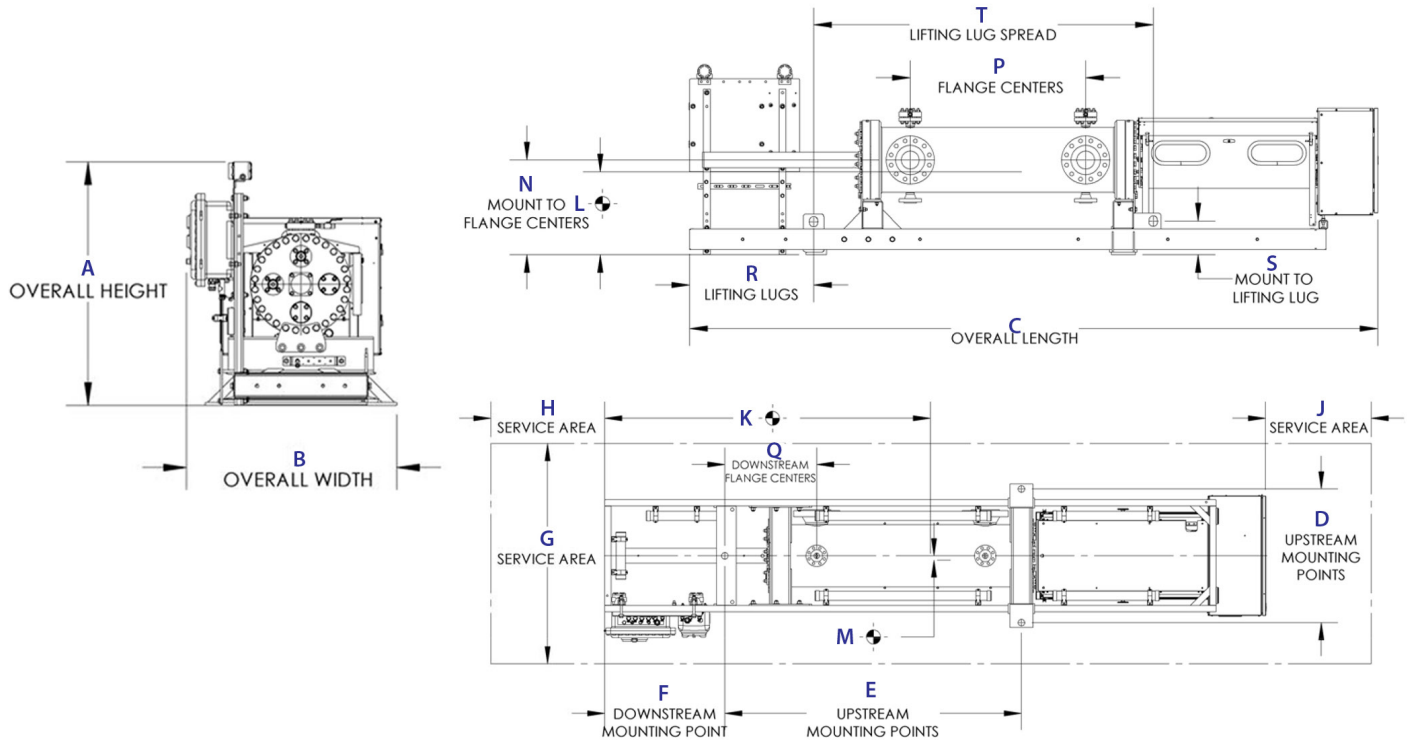
**Please Note: Standard prover volume is in gallons, liters are optional. Prover requires non-standard switchbar for liters. Alternate displaced volumes are available for liters, please contact factory for additional information. * Liters are a direct conversion and not indicative of Seraphin can sizes.

Approvals & Certifications

ISO	9001:2015 Cert# 0110-156-2, 17025:2005 Cert # L14240
EC	Mach Dir:2006/42/EC, EN 12100-2:2003, ATEX Directive 94/9/EC, EN 13463-1:2009, EN 13463-5:2003, EN 60079-0, EN 60079-7, EN 60079-11
CSA (US & Canada)	Class 3218 06, Class 1 Div 1 Group D; Class 1 Div 2 Group D / Clutch & Brake Assembly - EX m IIC T5
IECEX	USA /ETL/QAR 15.0014/00 , 101653329CRT-002
ABSA	CRN: 0F1072.2

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FMD-090 Data Sheet



FMD-090 Dimensions	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	
Pressure Rating																				
150#	59.25	58.38	236.75	51.50	100.50	49.25	120	30	30	114	34	2	37.75	65	25.13	49	14.50	106.78	19.13	
300#	59.25	58.38	236.75	51.50	100.50	49.25	120	30	30	114	34	2	37.75	65	25.13	49	14.50	106.78	19.75	
600#	59.25	58.38	236.75	51.50	100.50	49.25	120	30	30	114	34	2	37.75	65	25.13	49	14.50	106.78	21.25	
900#	63.13	63.44	240.25	56.50	93.63	58.57	124	30	30	155	34	2	39.13	63.75	18.57	51.19	12.50	108	24.00	

Drawing Notes: 1. Dimensions "K" and "L" are for center of gravity within 6 inches. 2. Spacial dimensions have a tolerance of 1.00 inches. 3. Dimension "P" is inlet-to-outlet flange distance, drains and vents may vary. 4. All FMD-130 600# and FMD-200 models have 8 lifting lugs. Table gives dimensions to outermost lugs. 5. All dimensions are subject to change without notice. 6. For TT configurations see specific outline.

FMD-090 - Weights	ANSI Pressure - 150#		ANSI Pressure - 300#		ANSI Pressure - 600#		ANSI Pressure - 900#	
	LBS	KGS	LBS	KGS	LBS	KGS	LBS	KGS
Weight (+/- 5%)	10,975	4,990	11,165	5,075	11,360	5,165	14,750	6,690
Weight with Crate (+/- 5%)	12,230	5,548	12,420	5,634	12,615	5,722	16,005	7,260
Weight Filled w/ Water (+/- 5%)	12,630	5,729	12,820	5,815	13,015	5,904	16,405	7,441

FMD-090 Energy Consumption	Motor Voltage / Phase Availability and Amperage Draw									
Motor Horsepower	120 VAC 50 or 60 Hz	208-230 VAC 50-60 Hz 3 Phase	220 VAC 50-60 Hz	220 VAC 50-60 Hz 3 Phase	240 VAC 50-60 Hz 3 Phase	380 VAC 50-60 Hz 3 Phase	400 VAC 50-60 Hz 3 Phase	440 VAC 50-60 Hz 3 Phase	460 VAC 50-60 Hz 3 Phase	480 VAC 50-60 Hz 3 Phase
2.00	22	5.8	11.6	5.8	5.8	5.2	5.2	2.9	2.9	2.9



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