

# Small Volume Provers



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

Our provers are designed per API MPMS Chapter 4 standards to verify the accuracy of almost any liquid flow meter type, including Coriolis, Turbine, Helical Turbine, Positive Displacement, and Ultrasonic. Flow rate capabilities range from 142 BPH to 35,000 BPH.

FMD provers ensure accurate and repeatable proving performance and are compatible with most hydrocarbon products, such as crude, refined products, NGLs, cryogenic liquids, and hot bitumen.

Flow MD's patented prover design provides an accurate, repeatable, and fast measurement with minimal product displacement. Additionally, our provers are easy to operate, with self-diagnostics and long-wearing seals made of proprietary PTFE blends.

The piston-poppet assembly design minimizes flow disturbances, and the all-stainless-steel drive end holds up to harsh field proving conditions. Our chrome-lined flow tubes provide enhanced durability and better resistance to particulate and chemical damage.

Our unique and compact design utilizes pulse interpolation electronics, a patented drive end, a motor-driven piston with durable carbon fiber belts, a smooth-bore cylinder, a poppet valve, and optical position sensors.

Contact us today to discuss your proving application.

## Why Choose FMD Small Volume Provers?

- Uncertainty  $\leq 0.005\%$
- Repeatability  $\leq 0.02\%$  (ISO Cal Lab)
- Conforms to API MPMS Chapter 4 Standards
- Certifications:
  - Quality: ISO:9001, ISO:17025
  - Hazardous Area: CSA, ATEX, IECEx
  - Equipment: CE, PED, CRN, ABS
  - Customer Approvals: 9COM
- Easily handles heavy crude and other hydrocarbon liquids
- Chrome lined flow tubes
- All wetted parts stainless / PTFE
- Galvanized frame
- Smooth belt drive with clutch
- Metric switch bar option available
- 2" connections allow for rapid draining (FMD-025 to FMD-200)
- 2" vents for pressure and temperature verification (FMD-025 to FMD-200)
- Prover validation / self-test function

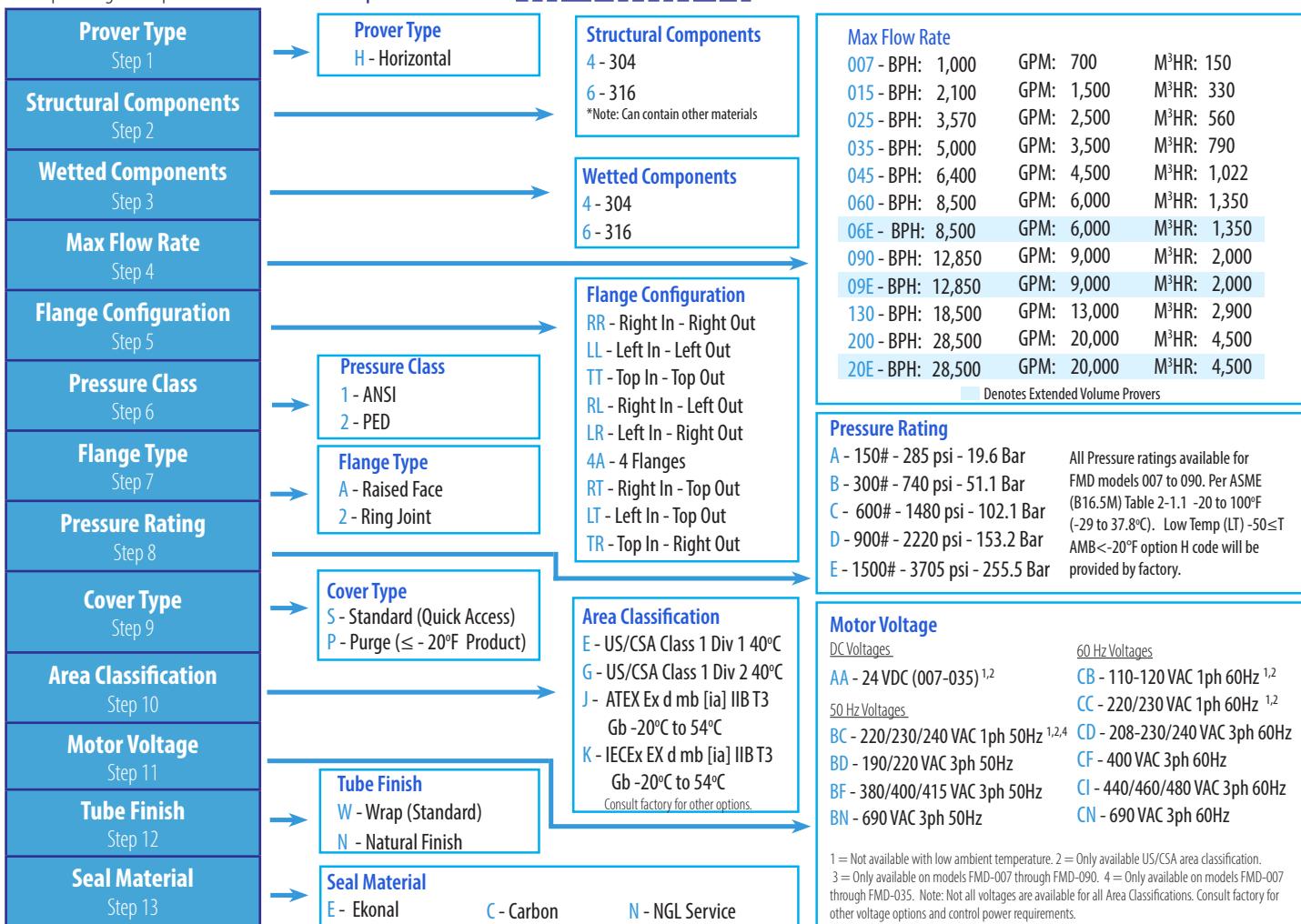
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SERVICE, EXPERIENCE,  
INNOVATION & EXCELLENCE

## FMD Prover Model Number Configuration



To build your FMD Prover Model Number please follow the steps on the left and choose one of each options on the right by using the blue letter(s) or number(s) next to the corresponding description and identifier. **Example FMD Model # : H 6 6 06ETT 1 A B S G BD W C**



Contact Factory for any Special Requests. Please always verify prover sizing with FMD as meter type, process fluid and operating conditions must be considered to properly size a prover. Note: Not all configurations shown on this table are available. Consult factory for details.

FMD Prover Flow Rates & Displaced Volumes													
FMD Model Number		FMD-007	FMD-015	FMD-025	FMD-035	FMD-045	FMD-060	FMD-060EV	FMD-090	FMD-090EV	FMD-130	FMD-200	FMD-200EV
* Max Flow	BPH	1,000	2,100	3,570	5,000	6,400	8,500	8,500	12,850	12,850	18,500	28,500	28,500
	GPM	700	1,500	2,500	3,500	4,500	6,000	6,000	9,000	9,000	13,000	20,000	20,000
	M <sup>3</sup> /HR	150	330	560	790	1,022	1,350	1,350	2,000	2,000	2,900	4,500	4,500
*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	Primary	5	10	20	25	35	50	75	80	120	90	140
		Secondary	4	8	15	20	25	40	60	60	90	60	100
	Liters	Primary	19	40	75	95	130	195	290	300	450	340	520
		Secondary	15	30	60	75	100	150	225	225	340	250	400
Inlet/Outlet Flange Size (ANSI B 16.5)		3"	4"	6"	6"	8"	10"	10"	12"	12"	16"	20"	20"

\*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.



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