



PATENT PENDING

# 4th Generation

## UniDirectional Captive Displacement Prover

Flow Management Devices' 4th Generation

Unidirectional Captive Displacement Prover raises the bar for Small Volume Provers

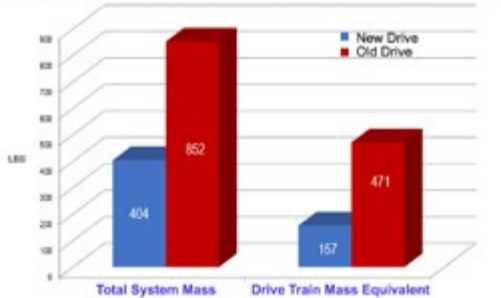


### 4th Generation Prover Upgrades Include:

- Decreased overall weight and redesigned piston and poppet assembly allows for minimal flow disturbance
  - Increased run-up time provides better accuracy for proving manufactured pulse meters
    - All stainless steel drive system
- 4th Gen PIM with upgraded features

#### Decreased Weight

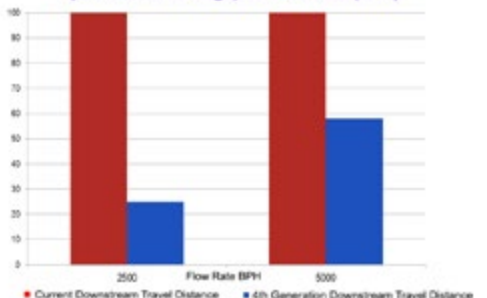
##### Drive Train Optimization - Mass Impact



The newly designed drive end reduces mass by close to 40%.

#### Less Flow Disturbance

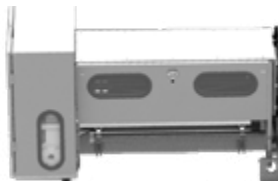
##### Poppet Close Distance (% of Current Design) vs. Flow Rate (BPH)



The redesign of the piston and poppet assembly increases measurement volume while providing smoother operation.

#### Improved Serviceability & Safety

Observation windows added as a safety feature to allow visual access to the drive end.

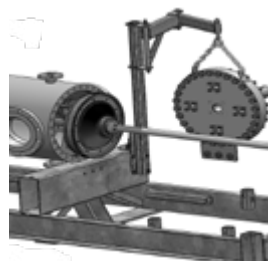


Longer seal life, fewer parts and less weight allows for ease of servicing.



Seal changes are simplified by readily accessible piston and poppet.

\*Davit arm option available



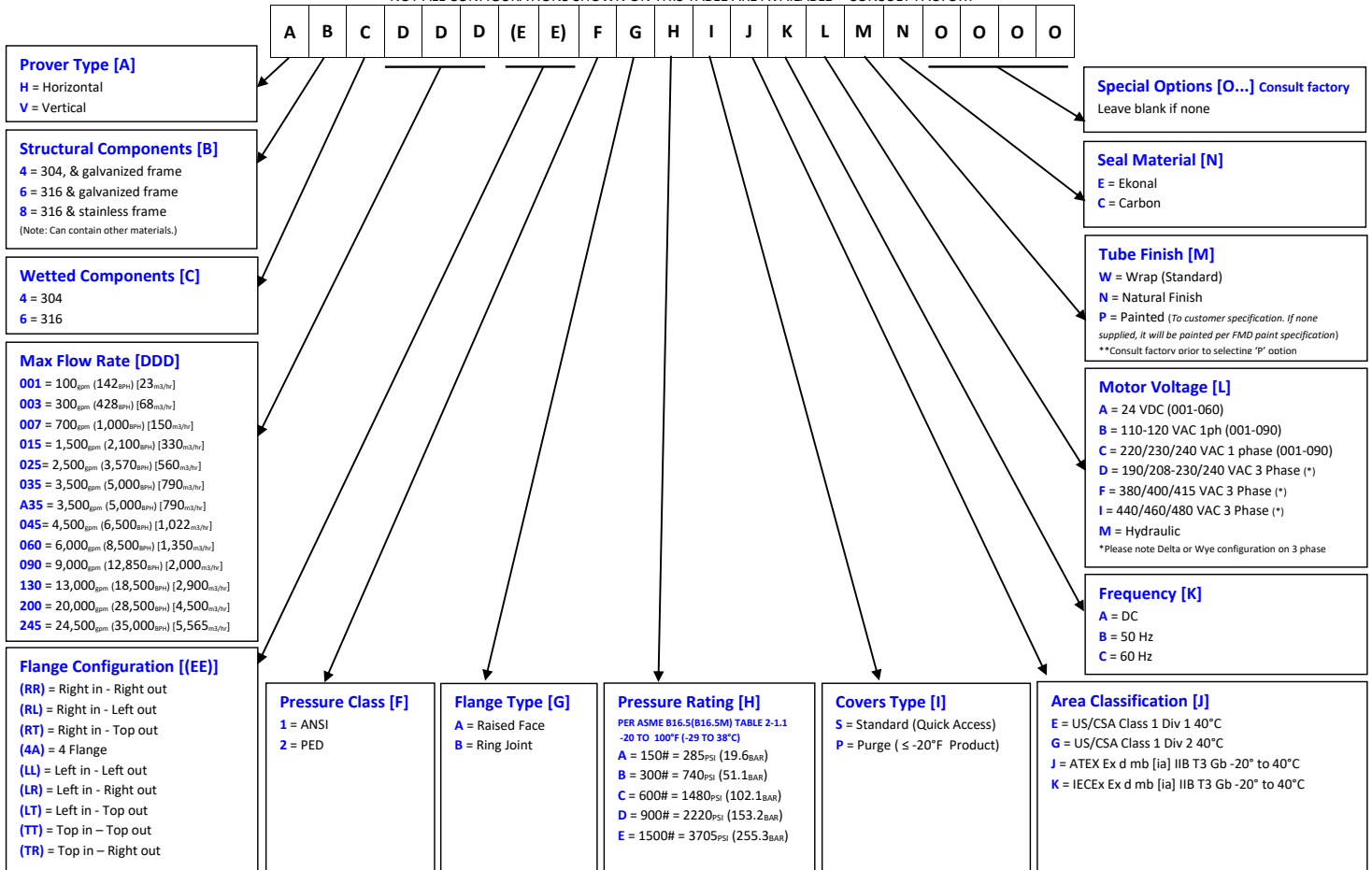
#### Advantages of FMD Provers:

- Uncertainty:
  - Typically exceeds 0.005%
- Repeatability:
  - ISO Cal Lab exceeds 0.02%
- Conforms to API 4.2 and API 4.6
- Easily handles heavy crude
- All wetted parts stainless/PTFE
- Galvanized frame per ASTM A123/123M-02
- Smooth belt drive with clutch
- Metric detector bar option
- Shock mounted isolation pads for independent drive and support
- 3 point installation for secure mounting on uneven surfaces
- 2" connections allow for rapid draining (FMD025 to 245)
- 2" vents for pressure and temp verification (FMD025 to 245)
- Prover validation /self-test function
- Four year warranty

# FMD 4th Generation Prover - Model Information

## 4<sup>TH</sup> GENERATION PROVER CONFIGURATION

NOT ALL CONFIGURATIONS SHOWN ON THIS TABLE ARE AVAILABLE – CONSULT FACTORY



### FMD Prover Flow Rates and Displaced Volume

FMD Model Number		FMD-001	FMD-003	FMD-007	FMD-015	FMD-025	FMD-035	FMD-045	FMD-060	FMD-090	FMD-130	FMD-200	FMD-245	
*Max Flow Rate	GPM	100	300	700	1,500	2,500	3,500	4,500	6,000	9,000	13,000	20,000	24,500	
	BPH	142	428	1,000	2,100	3,570	5,000	6,400	8,500	12,850	18,500	28,500	35,000	
	M3/HR	23	68	150	330	560	790	1,022	1,350	2,000	2,900	4,500	5,565	
**Displaced Volume	Gallons	Primary	0.75	2	5	10	20	25	35	50	80	90	140	168
		Secondary	0.35	1	4	8	15	20	25	40	60	60	100	126
	Litres	Primary	2.9	7.5	20	40	75	95	130	175	300	350	520	620
		Secondary	1.3	3.8	16	30	60	75	95	120	250	250	400	500
Inlet / Outlet Flange Size (ANSI B 16.5)		1"	2"	3"	4"	6"	6"	8"	10"	12"	16"	20"	24"	

\*Please contact FMD to verify prover sizing. Meter type, process fluid and operating conditions must be considered to properly size a prover.

\*\*Please note: Standard prover volume is in gallons, litres are optional \*\*\*Displaced litre value is not a direct conversion from gallon values. Prover requires non-standard switchbar for litres. Columns highlighted in gray denotes 3rd Generation design.

Contact Us Today to Discuss your Proving Application

5225 South 37th Street, Suite 4 - Phoenix, AZ 85040 -1.602.233.9885 - [sales@flowmd.com](mailto:sales@flowmd.com) - [www.flowmd.com](http://www.flowmd.com)

