

ROOTS® Proving System Model 5 20M/5M



Dresser's 20M/5M Model 5 Prover is the newest addition to the Model 5 ROOTS® prover family of transfer provers. The cart-mounted prover gives you the increased capability to prove rotary, turbine and diaphragm meters up to **20,000 acfh**, while occupying minimal floor space.

The prover system consists of one or two Master Meter(s) for flow measurement reference, a Controller, and a Windows®-based Computer Software Package for calculations and presentation of the flow, pressure and temperature transducers for data and test results. The prover has provisions to test ROOTS® Meters equipped with integral electronic correctors.

A laptop or personal computer (not provided) is needed to run the prover software.

Model 5 Prover Innovations

- Test air flow rate (up to 20,000 acfh) is automatically controlled by varying blower speed and automatic valve control
- Automatic controls start and stop the test run
- Small footprint, cart-mounted design makes transfer prover portable
- Lower blower speed requirement reduces noise level
- Network compatible for sharing data and printers

The Windows® Prover Software performs the smart functions of the system as follows:

- Stores unlimited predetermined filed meter test configurations
- Performs all calculations at the end of each test run to display field meter accuracy, data reasonability, and test reports
- Verifies that all temperature & pressure transducers are properly connected and are yielding reasonable values
- Provides a protected set-up screen which guides the technician through the factory or field calibration of the system
- Includes user friendly menu prompts and extensive help screens for operator assistance
- Accepts input from a bar code reader



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Specifications (excludes computer)

Accuracy:		+/- 0.55%
Repeatability:		+/- 0.15%
Ambient Operating Temperature:	Master Meter:	+32° to +140°F 0° to +60°C
	Controller, etc.:	-4° to +140°F -20° to +60°C
Ambient Storage Temperature:	Master Meter:	-40° to +140°F -40° to +60°C
	Controller, etc.:	-40° to +185°F -40° to +85°C
Humidity:		Up to 95% non-condensing
AC Power:	5M Blower:	120 volts +/- 15%, 48 to 62 hertz, 10 AMP 240 volts +/- 15%, 48 to 62 hertz, 5 AMP
	20M Blower:	120 volts, +/- 15%, 50 or 60 hertz, 1-phase, 50 AMP 240 volts, +/- 15%, 50 or 60 hertz, 1-phase, 25 AMP
	Electronics:	120 or 240 volts +/- 15%, 48 to 62 hertz
Blower Capacity:	5M Single:	0 to 6,000 acfh at 10 inch differential 0 to 170 m³/h at 25 milli-bar differential
Blower Capacity:	20M Dual:	0 to 22,000 acfh at 10 inch differential 0 to 623 m³/h at 25 milli-bar differential
Compliance:		Meets FCC Part-15 requirements NMI and NIST Traceable

Test Medium: Air

NOTE: Does not meet explosion proof or Intrinsic Safety requirements. Designed for testing air, only.

Test Flow Rate:	5M Master Meter:	50 to 5,600 acfh 1.42 to 158 m³/h
	20M Master Meter:	200 to 20,000 acfh 11.25 to 566 m³/h

Safety Rating: Complies with Underwriters Laboratory Requirements

Net Weight:	20M only	665 lbs.
	20M/5M	710 lbs.
	Accessory Carton	40 lbs.

Shipping Weight:	20M only	965 lbs.
	20M/5M	1010 lbs.
	Accessory Carton	40 lbs.

Overall Prover Dimensions (l x w x h): 60" x 30" x 36"

Prover Shipping Dimensions (l x w x h): 72" x 48" x 47"

Accessory Carton Shipping Dimensions (l x w x h): 14" x 20" x 11"

Minimum Computer System Requirements:

- Microsoft Windows® (100% IBM Compatible) - version 95 or greater
- Pentium 400Mhz processor with 128 Megabytes of RAM
- 1.44 MB floppy disk and CD drive
- 1 RS-232 serial port
- 1 Parallel port for printer operation

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