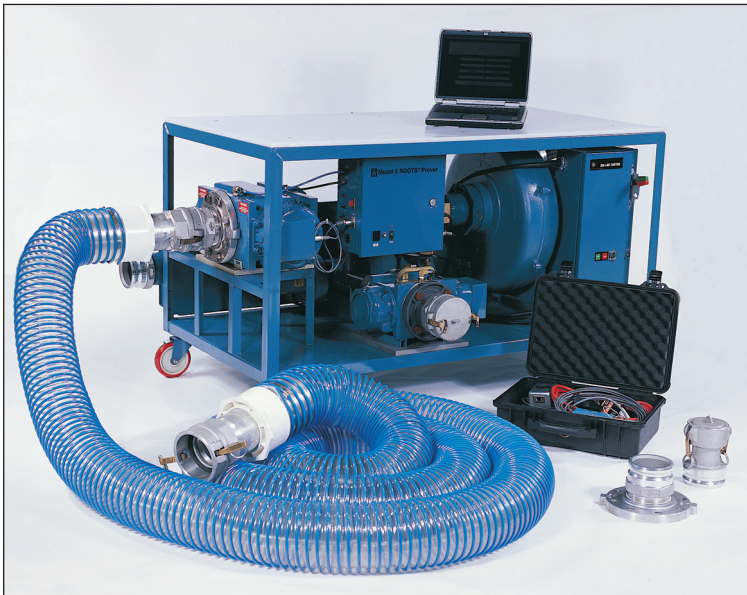# ROOTS® Proving System
Model 5 20M/5M

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 a Master Meter(s) for flow measurement reference, a flow rate Controller, and a Windows®-based Computer Software Package for calculations and presentation of the flow test data, and the required pressure and temperature transducers for accurate test results. The prover has provisions to test ROOTS® Meters equipped with certain electronic correctors.
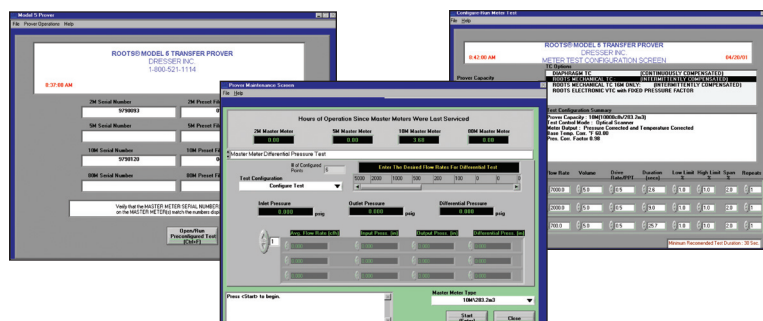
A laptop or personal computer (not provided) is needed to run the prover software.

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

ROOTS® Proving System Model 5 20M/5M

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 or 240 volts +/- 15%, 48 to 62 hertz
	20M Blower:	220 volts, +/- 15%, 50 or 60 hertz, 1-phase
	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

Roots Meters & Instruments (DRESSER)

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