



ROOTS® Meters & Instruments

DATA SHEET

SERIES B3: 23MI75 ROOTS® Meter

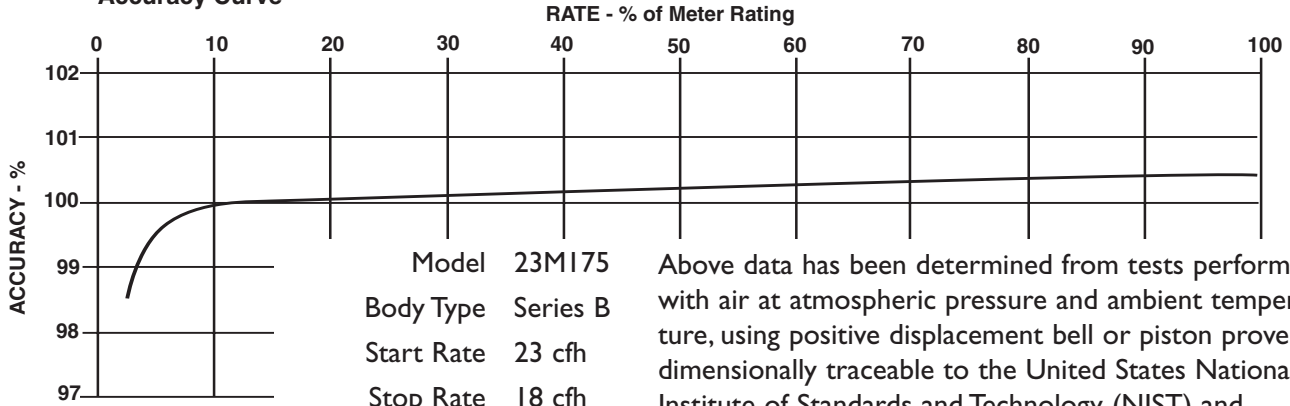
	UNITS	Imperial	UNITS	Metric
Temperature Range	deg. F	-40 to +140	deg. C	-40 to +60
Base Rating (Q Max.)	acfh	23000	m ³ /h	650,0
Max. Operating Pressure (MAOP)	psig	175	kPa	1200
Leak Test (125% MAOP)	psig	219	kPa	1510
Static Test (2 x MAOP)	psig	350	kPa	2400
Rangeability +/- 1%	ratio	40:1	ratio	40:1
Rangeability +/- 2%	ratio	60:1	ratio	60:1
Start Rate	cfh	23	m ³ /h	0,6513
Stop Rate	cfh	18	m ³ /h	0,5097
Flow Rate @ 0.5" w.c., Gas	cfh	14800	m ³ /h	419,1
Avg. Differential, 100% Flow	in. w.c.	1.3	mbar	3,1
Max. Pressurization Rate	psig/sec	5	kPa/sec	35
Max. Operating Speed	rpm	1035	rpm	1035
Gear Ratio	ratio	270:1	ratio	95,3323:1
Displaced Volume/Revolution	cf	0.37037	m ³	0,01049
Drive Rate, CD	cf/rev	100	m ³	1
Odometer Turnover	yrs.	5.0	yrs.	1,8
Nominal Pipe Size	in.	6	mm	150
Flange-to-Flange	in.	16	mm	406,4
Flange Connection	ANSI	150#FF	ANSI	150#FF
Bolts per Flange	qty.	8	qty.	8
Bolt Size ¹	in.	3/4 - 10	in.	3/4 - 10
Flange Bolt Hole Depth	in.	1- 5/8	mm	41,2
Bolt Torque: Lubricated/Non-Lub.	ft.-lb.	80	N-m	108
Restricting Orifice (120%)	in.	1-15/32	mm	37,306
Oil Capacity – Side Inlet	oz.	40.2	ml	1189
Oil Capacity – Top Inlet	oz.	154	ml	4554
<i>Counter Version (CTR)²</i>				
Net Weight	lbs.	202	kg	91,6
Shipping Weight	lbs.	232	kg	105,2
Carton Size	in.	42 x 25 x 25	cm	106 x 64 x 64
<i>Counter with Instrument Drive (CD)²</i>				
Net Weight	lbs.	205	kg	93,0
Shipping Weight	lbs.	235	kg	106,6
Carton Size	in.	42 x 25 x 25	cm	106 x 64 x 64

NOTES:

¹ Bolt Length varies by application.

² Weights and dimensions available for CPS upon request.

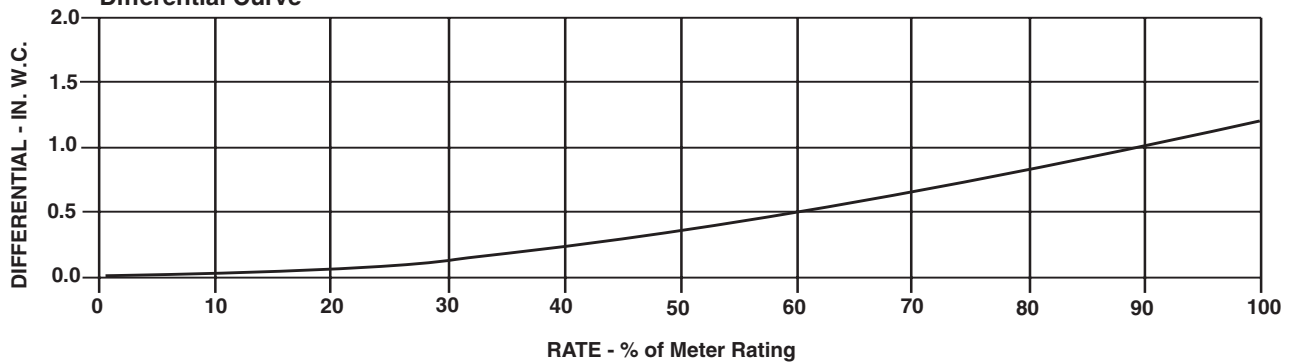
Accuracy Curve



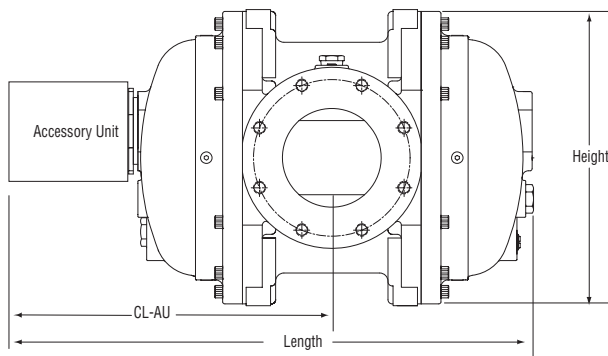
Model 23M175
 Body Type Series B
 Start Rate 23 cfh
 Stop Rate 18 cfh
 Rangeability $\pm 1\%$ 40:1
 Rangeability $\pm 2\%$ 60:1

Above data has been determined from tests performed with air at atmospheric pressure and ambient temperature, using positive displacement bell or piston provers dimensionally traceable to the United States National Institute of Standards and Technology (NIST) and traceable to NMI - Netherlands Measurements Institute for volumetric flow rate.

Differential Curve



23M175 Series B3	Overall Length		Overall Height		Width (Flange/Flange)		Centerline to Accessory End (CL-AU)		Request Detailed Drawing Number
	inches	mm	inches	mm	inches	mm	inches	mm	
CTR	29-3/16	741	18	457	16	406	12-1/16	306	D054750-001
CD	33	838	18	457	16	406	20-3/4	527	D054433-001
CPS	31-5/16	795	18	457	16	406	12-1/16	306	D054751-001



To order

Specify: Meter Series, Size and Type (i.e., ROOTS Meter Series B3 23M175 CD).

For CD, specify Inlet (Top or Side) and ID Rotation (CW-B or CCW-A).

For Pulsar, specify Single or Dual Connectors and Connector Type (MS Circular, Conduit or Cable Gland).

For more specific ordering information on the electronic products, request: TS:SSP or TS: MC.

Contact the factory for other available information, options, or special requests.



Dresser Roots Meters & Instruments

P. O. Box 42176
 Houston, TX USA 77242-2176
 website: www.dresser.com

Dresser, Inc.

Inside US Ph: 800.521.1114 Fax: 800.335.5224
 Outside US Ph: 832.590.2303 Fax: 832.590.2494
 www.rootsmeters.com