



# ROOTS® Meters & Instruments

## DATA SHEET

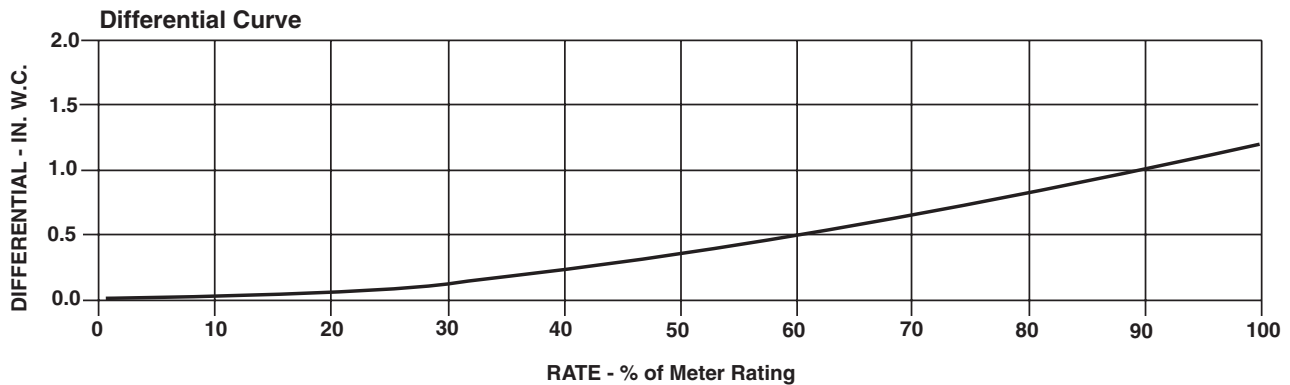
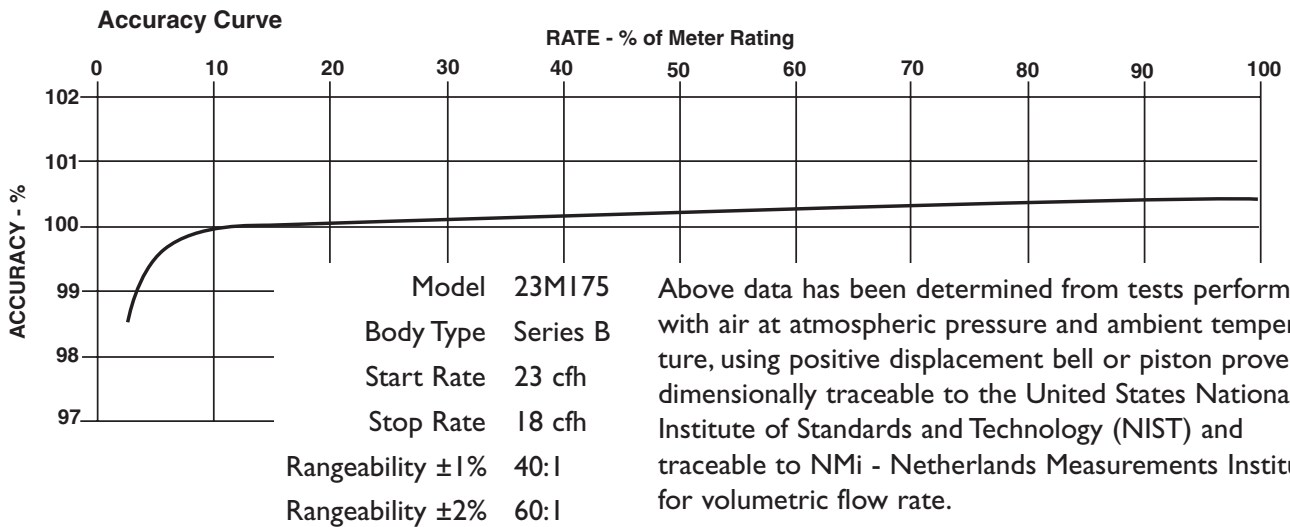
### SERIES B3: 23MI75 ROOTS® Meter

	UNITS	Imperial	UNITS	Metric
Temperature Range	deg. F	-40 to +140	deg. C	-40 to +60
Base Rating (Q Max.)	acfh	23000	m <sup>3</sup> /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 <sup>3</sup> /h	0,6513
Stop Rate	cfh	18	m <sup>3</sup> /h	0,5097
Flow Rate @ 0.5" w.c., Gas	cfh	14800	m <sup>3</sup> /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 <sup>3</sup>	0,01049
Drive Rate, CD	cf/rev	100	m <sup>3</sup>	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	125#FF	ANSI	125#FF
Bolts per Flange	qty.	8	qty.	8
Bolt Size <sup>1</sup>	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)<sup>2</sup></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)<sup>2</sup></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

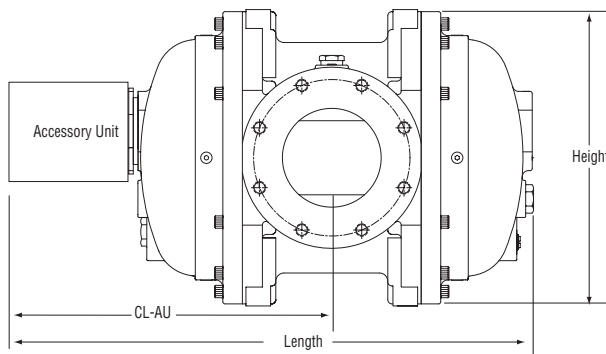
NOTES:

<sup>1</sup> Bolt Length varies by application.

<sup>2</sup> Weights and dimensions available for CPS upon request.



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

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