

Refurbished Rotary Meters & Delta Meter Repair Service



General:

Schlumberger discontinued the sale of rotary meters in the US in 2001. Follin Flo-Controls bought all remaining stock and spare parts. The discontinued models included the Type A 3M-5M, the Type 2040 8C-2M US version, and the Side reading Light Weight index 2M – 16M and all Instrument Drive versions. We stock parts including bearings, impellers, and indexes. We also stock some un-used meters and refurbished meters to permit an exact changeout.

Refurbished commercial Rotary meters are ideal for sub-meters, replacing existing meters that have been discontinued or for fiscal measurement in gas field operations where the aggressive nature of the gas reduces the life of the meter, making repeated replacement with new meters cost prohibitive.

All refurbished meters are thoroughly rebuilt and are tested to the original meter manufacturer's specifications. All moving parts are repaired and/or replaced. The meters are then cleaned, primed and painted. Final testing is done on NIST traceable provers (NY State PUC approved).

Versions:

LW-CTR: Light Weight Counter
 LW-ETC: LW Elec. Temp. Compensated
 LW-PLS: LW CTR with Pulser
 HDID: Heavy Duty-Instrument Drive

For Sales & Service Contact:

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Doc. Ref: Refurb Rotary LMMA v. 1

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Makes and Models:

Schlumberger

Type A w/Front Reading Index:
 3M, 5M, 7M 2" or 3" FL

Type 2000 w/ Side Reading Index:
 8C-2040 1.5" NPT
 1M-2040 1.5" NPT
 1.5M-2040 1.5" NPT
 2M-2040 1.5" NPT
 2M-2050 2" FL
 3M-2050 2" FL
 5M-2050/2080 2" or 3" FL
 7M-2080 3" FL
 9M-2080 3" FL
 11M-2100 4" FL
 16M-2100 4" FL

Features & Benefits:

- *Cost Savings vs. New Meters*
- *Tried and proven Positive Displacement design*
- *Low Maintenance*
- *Rugged Aluminum Construction*
- *High pressure models available*
- *Easy to Read Odometer Index,*

Options:

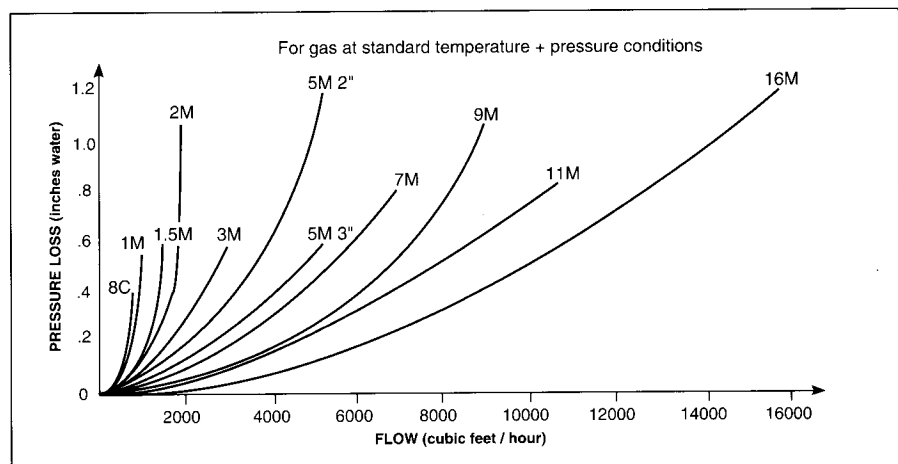
Pulse output
 Fixed factor indexes
 Electronic PT Correctors
 Data Loggers
 Strainers / Filters
 Regulators

Specifications

Meter Type	2040				2050		2080		2100	
Meter Model	8C	1M	1.5M	2M	3M	5M	7M	9M	11M	16M
Connection size	1 1/2" NPT				2" Flange		3" Flange		4" Flange	
Maximum pressure (PSIG)	175			125	175					
Temperature range	-40 to +140°F									
Inlet /outlet length	4.75"	4.75"	4.75"	4.75"	6.75"	6.75"	6.75"	9.5"	9.5"	9.5"
Weight (lbs)	5.6	5.6	6.9	6.9	24.3	33.0	39.0	41.2	49.6	57.8
Maximum flow rate (cfh)	800	1000	1500	2000	3000	5000	7000	9000	11000	16000
Flow at 0.5" wc, gas	800	900	1350	1350	2635	4170	5085	6280	7390	9625
Typical starting flow rate (cfh)	3	3	4	5	5	6	7	10	14	14
Rangeability										
- 10 % (max / startflow)	267	333	375	500	600	833	1000	900	785	1,142
± 2 % (max / flow ± 2 %)	25	35	65	85	70	80	100	60	80	100
± 1 % (max / flow ± 1 %)	10	15	45	60	40	50	70	30	50	60
Pressure loss, gas										
at max flow (in wc)	0.4	0.57	0.6	1.02	0.6	1.2 or 0.6	0.8	1.1	0.8	1.2
at startflow (in wc)	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05
Speed max flow (rev/mn)	2766	3458	3648	4864	2413	2508	2844	2394	2155	2067
Oil capacity										
Vertical position :	1.9	1.9	1.9	1.9						
Front (fl oz)					3.0	3.0	3.0	10.1	10.1	10.1
Rear (fl oz)					2.9	2.9	2.9	6.8	6.8	6.8
Horizontal position :	1.5	1.5	1.5	1.5						
Front (fl oz)					0.9	0.9	0.9	2.7	2.7	2.7
Rear (fl oz)					0.8	0.8	0.8	2.0	2.0	2.0
Reading capacity	99,999,999.9				999,999,999			9,999,999,999		
# of index drums	9	9	9	9	9	9	9	9	9	9
Smallest increment x (cfh)	0.02	0.02	0.02	0.02	0.2	0.2	0.2	2	2	2
HF frequency at max flow* (Hz)	277	346	365	487	71.82	119.70	167.58	61.05	74.61	108.53
HF pulse value* (cuft)	.0008033	.0008033	.0008033	.0008033	0.01160	0.01160	0.01160	0.04095	0.04095	0.04095
Calibration disc pulse* (cuft)	0.06	0.06	0.06	0.06	0.6	0.6	0.6	2.118	2.118	2.118
LF pulse value (cuft)	1	1	1	.1	10	10	10	100	100	100
Instrument drive (cuft/rev)	x	x	x	x	10	10	10	100	100	100
Cyclic volume/Rev (cuft)	0.0048	0.0048	0.0069	0.0069	0.0207	0.0332	0.0410	0.0628	0.0851	0.1290
Total gear down ratio*	207.48	207.48	145.92	145.92	482.63	300.96	243.753	1596	1175.72	775.2

* Depends on adjustment wheels ± 0.3 %

Pressure Drop



Construction

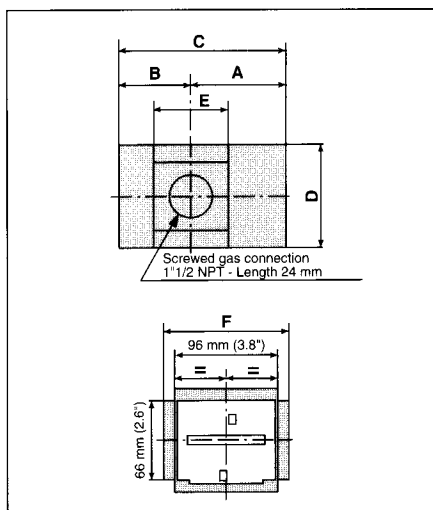
8C, 1M, 1.5M, 2M CTR (Type 2040)		3M, 5M, 7M LW-CTR (Types 2050, 2080)		9M, 11M, 16M LW-CTR (Types 2080, 2100)	
Body*	Extruded aluminum 6063T6	Body*	Extruded aluminum 6063T6	Body*	Sand molded aluminum alloy 356
End covers*	Die cast ASTM aluminum alloy	End covers*	Die cast ASTM aluminum alloy	End covers*	Chill molded aluminum alloy 356
Impellers	Glassfiber and carbon composite	Impellers	Extruded aluminum 6063T6	Impellers	Extruded aluminum 6063T6
Bearings	Stainless steel	Bearings	Stainless steel	Bearings	Stainless steel
O-rings	Nitrile	O-rings	Nitrile	O-rings	Nitrile
Timing gears	Steel ETG-100	Timing gears	Steel	Timing gears	Steel
Index	Under pressure in gas	Reduction	Polyacetal	Index	Identical to 3M - 7M (see left)
- Window	Polyamide (nylon)	Index	Magnetic driven, not in gas (3M -16M)		
- Gear plate	Polysulpher (PPS)	- Cover	Antistatic polycarbonate		
- Gear train	Polyacetal (delrin)	- Window	UV protected polycarbonate		
		- Gear plate	Polysulpher		
		- Gear train	Polyacetal (delrin)		

* Ductile iron and HP steel body models available for special applications. Please contact Schlumberger for details.

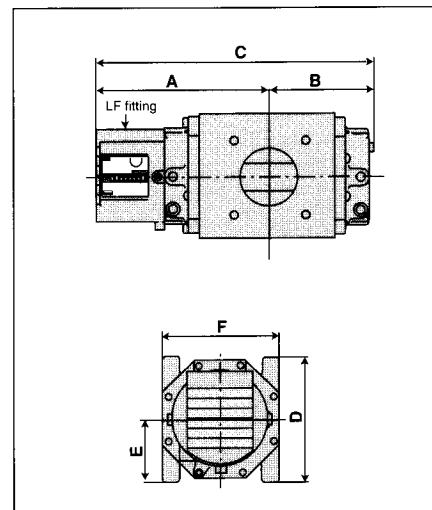
Dimensions

Model	English - inches						lbs Weight	Metric - mm						kg Weight
	A	B	C	D	E	F		A	B	C	D	E	F	
8C, 1M	3.6	2.6	6.2	3.8	2.8	4.8	5.5	91	66	157	96	70	121	2.5
1.5M, 2M	4.0	3.4	7.4	3.8	3.9	4.8	6.6	101	86	187	96	199	121	3.0
3M	8.4	4.6	13.0	7.2	3.6	6.75	24.3	213	118	331	182	91	171	11.0
5M	9.9	6.1	16.0	7.2	3.6	6.75	33.1	251	156	407	182	91	171	15.0
7M	10.8	7.1	17.9	7.2	3.6	6.75	39.0	275	180	455	182	91	171	15.0
9M	10.0	7.1	17.2	7.6	4.8	9.5	41.2	255	181	436	192	121	241	18.7
11M	11.4	8.5	19.9	8.9	4.8	9.5	49.6	290	215	505	226	121	241	22.5
16M	14.1	11.2	25.3	8.9	4.8	9.5	57.8	58	284	642	226	121	241	26.2

8C, 1M, 1.5M, 2M CTR



3M, 5M, 7M LW-CTR



9M, 11M, 16M LW-CTR

