

# DURA-CYL®

## PREMIUM LIQUID CYLINDERS - FOOTRING

The Dura-Cyl® Liquid Cylinder series is a premium transportable liquid cylinder for cryogenic service. The patented internal support system design and quality construction makes the Dura-Cyl series the most efficient yet rugged cylinder on the market today. Along with the patented Liquid Cylinder Control Manifold (LCCM) and our wide choice of caster base options <sup>(1)</sup>, the Dura-Cyl series is also the most user-friendly cylinder available. Adding our industry-leading seven-year vacuum warranty and you get the lowest cost of ownership – making the Dura-Cyl the preferred choice in transportable liquid cylinders.

<sup>(1)</sup> See Caster Base specification sheet (PN 14336761).

*\*Chart liquid cylinders are designed to be used in a full for empty exchange program. They are not designed to be permanently installed in mobile applications.*



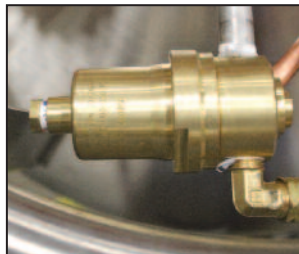
The Roto-Tel™ Liquid Level Gauge offers improved accuracy and expanded gauge ranges for better resolution.



LCCM models have an integral mounted combination pressure control regulator and an isolation valve. (MP & HP models only)



The Dura-Cyl LP models are now equipped with the Roto-Tel liquid level system. The liquid globe valve with an extended stem allows less ice build-up on the handle for easier operation.



MCR models have a combination pressure control regulator with an exclusive, calibrated micrometer adjusting screw. (MP & HP models only)

### PRODUCT HIGHLIGHTS

- Ideal for liquid nitrogen, oxygen, argon, CO<sub>2</sub> or nitrous oxide
- Different sizes, pressures, and features to meet your needs
- Stainless steel construction
- Thick, dent-resistant outer shell
- Patented durable, inner-vessel support system
- Heavy-duty footing and large diameter handling ring with four supports
- Optional Micrometer Controlled Regulator (MCR) or Liquid Cylinder Control Manifold (LCCM)
- Roto-Tel™ Liquid Level Gauge System
- Seven-year vacuum warranty



Innovation. Experience. Performance.®

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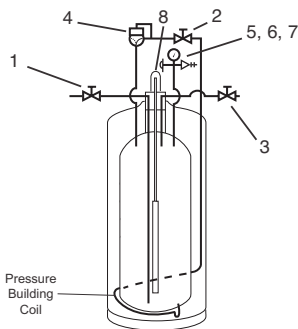
Footring Specifications							
MODEL		180 L	180 L	180 L	200 L	200 L	200 L
	Pressure	LP	MP	HP	LP	MP	HP
LCCM	Part Number	—	10508764	10496433	—	10508772	10496417
MCR	Part Number	—	10783491	10783539	—	10783598	10783619
None <sup>(4)</sup>	Part Number	10648450	—	—	13277869	—	—
<b>CAPACITY<sup>(1)(2)</sup></b>							
Liquid (Gross)	(liters)	196	196	196	209	209	209
Liquid (Net)	(liters)	185	185	185	196	196	196
Gas (N <sub>2</sub> )	ft <sup>3</sup> / Nm <sup>3</sup>	—	4,099 / 108	3,864 / 102	—	4,375 / 115	4,072 / 108
Gas (O <sub>2</sub> )	ft <sup>3</sup> / Nm <sup>3</sup>	—	5,096 / 134	4,843 / 127	—	5,435 / 143	5,048 / 133
Gas (Ar)	ft <sup>3</sup> / Nm <sup>3</sup>	—	4,961 / 130	4,709 / 124	—	5,290 / 139	4,932 / 130
Gas (CO <sub>2</sub> )	ft <sup>3</sup> / Nm <sup>3</sup>	—	—	3,766 / 99	—	—	4,011 / 105
Gas (N <sub>2</sub> O)	ft <sup>3</sup> / Nm <sup>3</sup>	—	—	3,574 / 94	—	—	3,810 / 100
<b>PERFORMANCE</b>							
NER (N <sub>2</sub> )	% per day	1.5	1.9	1.9	1.85	1.85	1.85
NER (O <sub>2</sub> - Ar)	% per day	1.0	1.3	1.3	1.2	1.2	1.2
NER (CO <sub>2</sub> - N <sub>2</sub> O)	% per day	—	—	0.5	—	—	0.5
Gas Flow (N <sub>2</sub> , O <sub>2</sub> , Ar)	SCFH/Nm <sup>3</sup> /hr	—	350 / 9.2	350 / 9.2	—	400 / 10.5	400 / 10.5
Gas Flow (CO <sub>2</sub> , N <sub>2</sub> O)	SCFH/Nm <sup>3</sup> /hr	—	—	110 / 2.9	—	—	110 / 2.9
<b>DIMENSIONS &amp; PRESSURE RATINGS</b>							
Relief Valve Setting	psig / barg	22 / 1.5	230 / 16	350 / 24	22 / 1.5	230 / 16	350 / 24
DOT/TC Rating		4L100	4L200	4L292	4L100	4L200	4L292
Diameter	in / cm	20 / 50.8	20 / 50.8	20 / 50.8	20 / 50.8	20 / 50.8	20 / 50.8
Height <sup>(3)</sup>	in / cm	64.3 / 163.3	64.3 / 163.3	64.3 / 163.3	66.6 / 169.2	66.6 / 169.2	66.6 / 169.2
Tare Weight	lb / kg	210 / 95.2	300 / 136.1	300 / 136.1	210 / 95.2	320 / 145.1	320 / 145.1
Full Weight(N <sub>2</sub> )	lb / kg	540 / 245	580 / 263	580 / 263	559 / 253.5	618 / 280	618 / 280
(O <sub>2</sub> )	lb / kg	676 / 307	701 / 318	701 / 318	706 / 320.2	747 / 339	747 / 339
(Ar)	lb / kg	778 / 354	787 / 357	787 / 357	821 / 372.4	839 / 380	839 / 380
(CO <sub>2</sub> )	lb / kg	—	—	731 / 331	—	—	779 / 353

(1) Gas capacities at DOT4L limits. See manual P/N 10642912 for details.

NER=Nominal Evaporation Rate

(2) Most of the Dura-Cyl models are available with permanently installed CGA fittings for medical applications. Contact Customer Service for details.

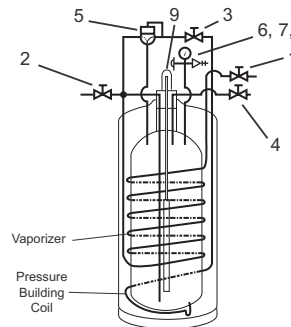
(3) Dimensions are measured from the floor to the top of the sight gauge protector. (4) Pressure building regulator optional on LP models.



Model: LP - Low Pressure (Liquid Use Only)

### Nomenclature

1. Fill / Liquid Valve
2. Pressure Building Valve
3. Vent Valve
4. Pressure Building Regulator (optional)
5. Pressure Gauge
6. Pressure Relief Valve
7. Rupture Disk
8. Liquid Level Gauge



Model: MP & HP - Medium & High Pressure (Liquid or Gas Use)

### Nomenclature

1. Gas Use Valve
2. Fill / Liquid Valve
3. Pressure Building Valve
4. Vent Valve
5. Combination Pressure Building Regulator
6. Pressure Gauge
7. Pressure Relief Valve
8. Rupture Disk
9. Liquid Level Gauge

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