

# DURA-CYL®

PREMIUM LIQUID CYLINDERS - FOOTRING

The Dura-Cyl 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 five-year vacuum warranty and you get the lowest cost of ownership — making the Dura-Cyl, the preferred choice in transportable liquid cylinders.

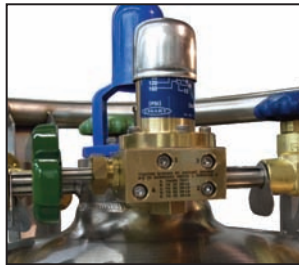
<sup>(1)</sup> See Caster Base specification sheet (PN 14336761).



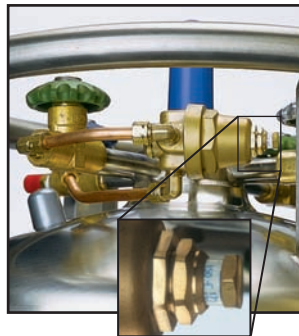
Patent no's • 4,548,335 • 5,136,852 • D344,572



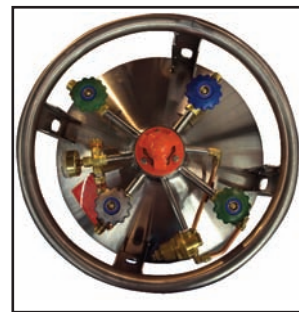
The Roto-Cal™ gauge features an easy-to-read dial liquid level indicator with swivel head design.



LCCM Models have an integral mounted combination pressure control regulator, isolation valve and a calibrated dome control knob.



MCR Models have a combination pressure control regulator with an exclusive, calibrated micrometer adjusting screw.



Top view plumbing of Dura-Cyl 180HP model.

## 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 Multi-functional Control Regulator (MCR) available
- Roto-Cal Liquid Level Gauge System
- Five-year vacuum warranty

# DURA-CYL®

PREMIUM LIQUID CYLINDERS - FOOTRING

## Footring Specifications

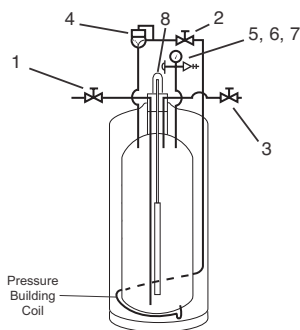
MODEL		160 L	160 L	180 L	180 L	180 L	200 L	200 L	200 L
	Pressure	MP	HP	LP	MP	HP	LP	MP	HP
LCCM	Part Number	10508748	10508756	—	10508764	10496433	—	10508772	10496417
MCR	Part Number	10783424	10783467	—	10783491	10783539	—	10783598	10783619
None <sup>(4)</sup>	Part Number	—	—	10648450	—	—	13277869	—	—
<b>CAPACITY<sup>(1)(2)</sup></b>									
Liquid (Gross)	(liters)	176	176	196	196	196	209	209	209
Liquid (Net)	(liters)	165	165	185	185	185	196	196	196
Gas (N <sub>2</sub> )	ft <sup>3</sup> / Nm <sup>3</sup>	3,685 / 97	3,464 / 91	—	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>	4,577 / 120	4,348 / 114	—	5,096 / 134	4,843 / 127	—	5,435 / 143	5,048 / 133
Gas (Ar)	ft <sup>3</sup> / Nm <sup>3</sup>	4,448 / 117	4,226 / 111	—	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>	—	3,382 / 89	—	—	3,766 / 99	—	—	4,011 / 105
Gas (N <sub>2</sub> O)	ft <sup>3</sup> / Nm <sup>3</sup>	—	3,207 / 84	—	—	3,574 / 94	—	—	3,810 / 100
<b>PERFORMANCE</b>									
NER (N <sub>2</sub> )	% per day	2.0	2.0	1.5	1.9	1.9	1.85	1.85	1.85
NER (O <sub>2</sub> - Ar)	% per day	1.4	1.4	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	—	—	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	—	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	—	—	110 / 2.9
<b>DIMENSIONS &amp; PRESSURE RATINGS</b>									
Relief Valve Setting	psig / barg	230 / 16	350 / 24	22 / 1.5	230 / 16	350 / 24	22 / 1.5	230 / 16	350 / 24
DOT/TC Rating		4L200	4L292	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	20 / 50.8	20 / 50.8
Height <sup>(3)</sup>	in / cm	59.8 / 151.9	59.8 / 151.9	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	250 / 113.4	280 / 126.9	210 / 95.2	260 / 117.9	300 / 136.1	210 / 95.2	280 / 126.9	320 / 145.1
Full Weight(N <sub>2</sub> )	lb / kg	517 / 234	531 / 241	540 / 245	557 / 253	580 / 263	559 / 253.5	597 / 271	618 / 280
(O <sub>2</sub> )	lb / kg	629 / 285	640 / 290	676 / 307	682 / 309	701 / 318	706 / 320.2	730 / 331	747 / 339
(Ar)	lb / kg	710 / 322	717 / 325	778 / 354	773 / 351	787 / 357	821 / 372.4	827 / 375	839 / 380
(CO <sub>2</sub> )	lb / kg	—	667 / 303	—	—	731 / 331	—	—	779 / 353

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

(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.

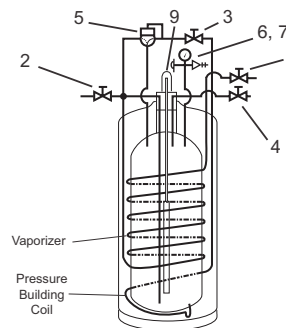
NER=Nominal Evaporation Rate



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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