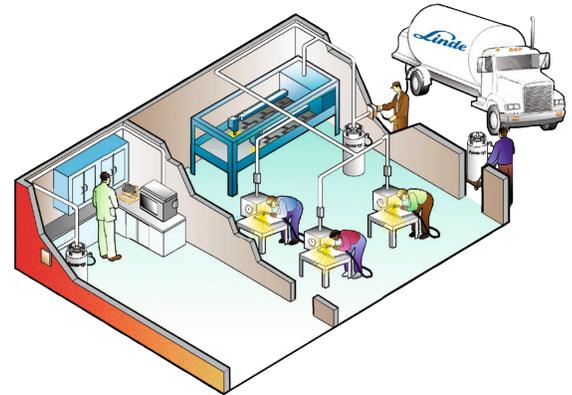




Microbulk Gas Delivery System

Linde bulk or microbulk on-site gas delivery system is a cost-effective cylinder alternative for your business. By replacing cylinders with an on-site supply of gas, Linde's delivery system may assist in maximizing profitability and improving efficiency.



- Convenience**
- Reduced inventory management
 - Eliminates downtime from cylinder changeouts
 - On-site local supply

- Increased Productivity and Savings**
- Eliminates downtime from cylinder changeouts
 - Avoid residual returned to supplier
 - Minimum inventory maintenance
 - Efficient use of production space
 - Lower maintenance costs

- Improved Safety**
- High-pressure cylinders replaced by low-pressure tanks

	Industry	Application
Carbon Dioxide	Beverage	Carbonation
	Food	Preservation, freezing
	Metal fabrication	MIG and TIG welding
	Water treatment	pH control
	Greenhouses	Plant growth
	Laboratories	Cell cultures
Nitrogen	Metal fabrication	Laser cutting, plasma cutting, inerting
	Laboratories	R&D, cryogen storage, analysis
	Biotech	Cryogen storage, analytical, blanketing, purging
	Electronics	Purging, thermal testing
	Food	Processing, transport, preservation, flash freezing
Argon	Wine	Blanketing, sparging, purging
	Metal fabrication	MIG and TIG welding
	Laboratories	Analysis, purging
Oxygen	Windows	IGU (insulated glass unit)
	Metal fabrication	Laser cutting, plasma cutting
	Food	Preservation



Whether you require an inside or outside installation, Linde can meet your specific needs.



Typical inside Argon/CO₂ installation complete with gas mixer.

Linde Microbulk Gas Delivery Systems

Model	450VHP	700HP	1000HP	1500VHP	2000VHP	3000VHP
Gross capacity (litres)	450	688	1,056	1,550	2,042	2,911
Net capacity (litres)	420	645	950	1,455	1,945	2,707
MAWP (Maximum Allowable Working Pressure)						
kPa	3450	2441	2441/3495	2441/3495	2441/3495	2441/3495
psig	500	350	350/500	350/500	350/500	350/500
Storage Capacity¹						
Nitrogen (Nm ³)	271/272	449	689	1,013	1,257	1,750
(scf)	7,922/10,332	15,860	24,350	35,790	47,847	66,592
Oxygen (Nm ³)	315/336	554	850	1,250	1,553	2,161
(scf)	11,124/12,760	19,600	30,070	44,220	59,089	82,239
Argon (Nm ³)	306/328	542	832	1,223	1,519	2,115
(scf)	10,812/12,478	19,160	29,400	43,220	57,786	80,425
Carbon Dioxide (Nm ³)	235/232	357	564	830	1,000	1,390
(scf)	8,312/8,200	12,608	19,960	29,340	38,048	52,954
Thermal Performance² (NER%/Day)						
Nitrogen	1.9%/1.6%	1%	1%	1%	1%	1%
Oxygen - Argon	1.2%/1%	0.62%	0.62%	0.62%	0.62%	0.62%
Carbon Dioxide	0.6%/0.5%	0.3%	0.3%	0.3%	0.3%	0.3%
Gas Delivery Rate						
N ₂ , Ar, O ₂ Nm ³ /h	15.1	18.6	25.2	35.4	52.4	52.4
(scf/h)	(575)	(660)	(960)	(1350)	(2000)	(2000)
CO ₂ Nm ³ /h (scf/h)	5.4	6.2	9.0	12.7	17.5	17.5
	(192)	(220)	(320)	(450)	(667)	(667)
Tank Dimensions						
Diameter [cm (in)]	76 (30)	107 (42)	107 (42)	122 (48)	122 (48)	150 (59)
Height [cm (in)]	175 (69)	159 (62.5)	208 (82)	231 (91)	303 (119.5)	311 (122.5)
Tare weight [kg (lb)]	368 (812*)	567 (1,250*)	680 (1,500*)	1,134 (2,500**)	1,338 (2,950**)	1,928 (4,250**)
Design specification	DOT/ASME	ASME	ASME	ASME	ASME	ASME

¹ Values are based on net capacity at 0 kPa (0 psig) for ASME vessels. CO₂ vessels are based on net capacity at 2068 kPa (300 psig). DOT vessels are per code.

² Values are based on gross capacity.

* Weights do not include lab base option. (base option: 120 kg / 265 lbs)

** Weights include lab bases.

Carbon Dioxide (CO₂)

Model	550	750
Liquid storage capacity [kg (lb)]	264.9 (584)	357.9 (789)
Net volume [ltr (gal)]	235 (62)	311 (82)
MAWP [bar (psig)]	20.7 (300)	20.7 (300)
Evaporation rate [kg/day (lb/day)]	1.1 (2.5)	1.4 (3.0)
CO ₂ delivery rate (continuous) ^{***} [kg/hr (lb/hr)]	2.9 (6.5)	6.8 (15.0)
Diameter [cm (in)]	55.8 (22)	66 (26)
Height with legs [cm (in)]	185.1 (72.9)	187.6 (73.9)
Empty weight [kg (lb)]	144.3 (318)	195 (430)
Design specification	ASME	ASME

^{***} 12 consecutive hours at room temperature



Contact Linde Today: To learn more about Linde and our commitment to improving our customers' economic and environmental performance, please visit us at www.lindecanda.ca or email us at applications.support@linde.com.

Linde Canada Inc
 1 City Centre Drive, Suite 1200, Mississauga, Ontario, L5B 1M2
 Phone 1-800-225-8247, www.lindecanda.ca