

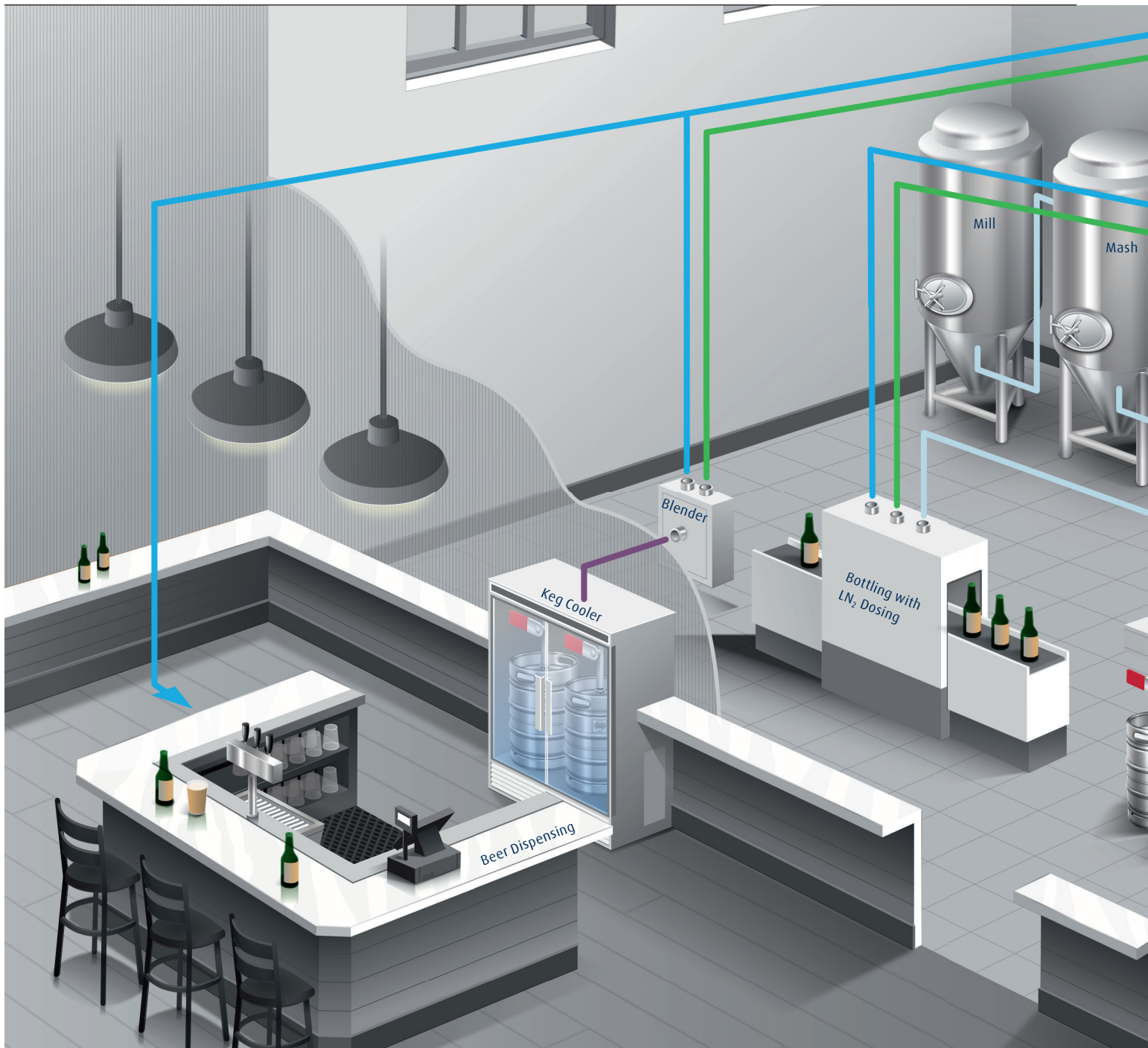
Making our world more productive



# Gases for Craft Beer Brewers

Master the craft of brewing with gases and equipment from Linde.





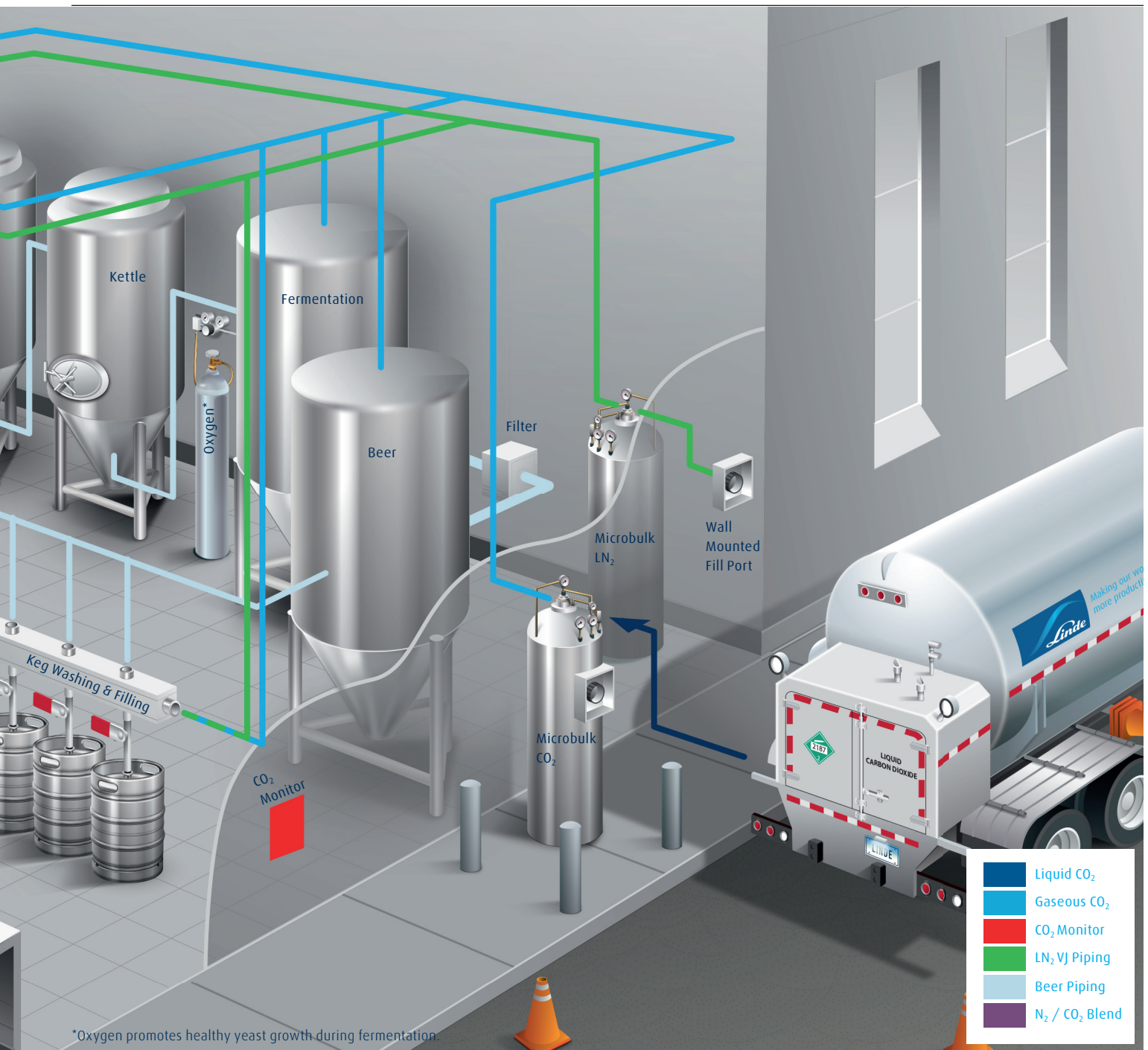
## Beverage Gas Systems for Carbon Dioxide and Nitrogen

Our gases provide the product characteristics that our customers need. Chilled, fresh, fizzy — it's all possible with Linde gases and application expertise. When you buy from Linde, you get our total system approach, ensuring that you receive products optimized for your operations and 24/7 support from our in-house beverage technologists and engineers.

With gases from Linde, every pint can be delivered at brewery quality with a better presentation and a longer lasting head. A high-quality gas supply can help kegs stay fresher and properly carbonated. It can also alleviate problems with waiting for foamy beer to settle and reduce waste associated with over-carbonation.

Linde microbulk and bulk CO<sub>2</sub> and nitrogen gas supply systems replace high-pressure gas cylinders with a high-quality continuous gas supply. Linde cellular telemetry minimizes the possibility of product runouts and cylinder handling that can interrupt your business. Replacing the on-hand cylinders with a single microbulk or bulk tank frees up valuable floor space and reduces the time spent with cylinder deliveries and cylinder inventory.

In addition to high-quality gas supply systems, you can depend upon Linde for the planning and installation expertise, gas delivery equipment and piping needed for your specific facility and processes.



**Beverage Gas Supply Systems Benefits**

Convenience	Quality	Safety	Savings
Cellular telemetry assists with the management of the CO <sub>2</sub> or nitrogen supply	Uninterrupted flow of CO <sub>2</sub> minimizes flat drinks and improves production quality	Gas stored at low operating pressure	Labor with cylinder changeouts
Minimize gas outages and maximize storage space	Nitrogen dosing reduces dissolved oxygen or DO	Minimize cylinder handling	Residual product
Maximize your gas flow requirements	CO <sub>2</sub> and nitrogen mixes provide a better quality draft beer		Minimize beer waste due to preruns and repours
			Supply shortage or runouts
			Damage to flooring, movement of cylinders

## Microbulk Tanks for Carbon Dioxide

	Perma-MAX® 2200 HP	Perma-MAX 3300 HP	Perma-MAX 4400 HP	Perma-MAX 6000 HP	Perma-MAX 12,000 VHP
Dimensions					
Diameter (in.)	42	48	48	59	80
Height (in.)	84	90	116	122	119
Net storage capacity					
CO <sub>2</sub> SCF	18,853	28,431	38,048	52,938	99,953
CO <sub>2</sub> liters	950	1,455	1,945	2,707	5,110
CO <sub>2</sub> pounds	2,126	3,252	4,353	6,056	11,435
Gas Del. date continuous					
SCFH	320	450	450	450	1,136
Lbs/Hr	37	51	51	51	130
Gas Del. rate tested peak flow					
SCFH	524 - 699	524 - 699	1,093	1,093	1,167
Lbs/Hr	60 - 80	60 - 80	125	125	130
Tank pressure (Psig)	300	300	300	300	300
Consecutive hours	12	12	12	12	12
Standard feature designs					
MAWP/ASME (Psig)	350	350	350	350	350
Internal pressure builder	x	x	x	x	x
Internal economizer	x	x	x	x	x

## Microbulk Tanks for Nitrogen

	1000L HP/VHP	1500L HP	2000L VHP	3000L HP/VHP	3000L HP/VHP	5500L MP/VHP	7000L VHP
Dimensions							
Diameter (in.)	42	48	48	58	58	80	98
Height (in.)	89	92/91	118.5/119.6	122/122.25	71	119	123
Net storage capacity							
Nitrogen liters	950	1455	1945	2707	2707	5262/5110	6662
Nitrogen gallons	251	384	513	715	715	1390/1350	1760
MAWP							
Psig	350/500	350/500	350/500	350/500	350/500	250/500	500
Bar G	24.1/34.5	24.1/34.5	24.1/34.5	24.1/34.5	24.1/34.5	17.2/34.5	34.5
Preset operating pressure							
Psig	300/450	300/450	300/450	300/450	300/450	125/450	450
Bar G	20.7/31	20.7/31	20.7/31	20.7/31	20.7/31	8.6/31	31
Design specification	ASME	ASME	ASME	ASME	ASME	ASME	ASME
Storage capacity							
SCF	24,350	35,790	47,847	66,592	66,592	128,700/125,000	163,800
Thermal Perf. (NER%/Day)	1%	1%	1%	1%	1%	.7%	.7%
Gas Del. rate (SCFH)	960	1,350	1,350/3,500	1,350/3,500	2,000	4,000	4,000
Gas Del. rate (SCFH) (with standalone vaporizer)	1,920	2,700	2,700	2,700	2,000	5,000	5,000/10,000

## Linde Inc.

10 Riverview Dr, Danbury, CT 06810, USA  
Phone 800.225.8247, [www.lindedirect.com](http://www.lindedirect.com)