



# Bulk CO<sub>2</sub> Applications & Storage Systems

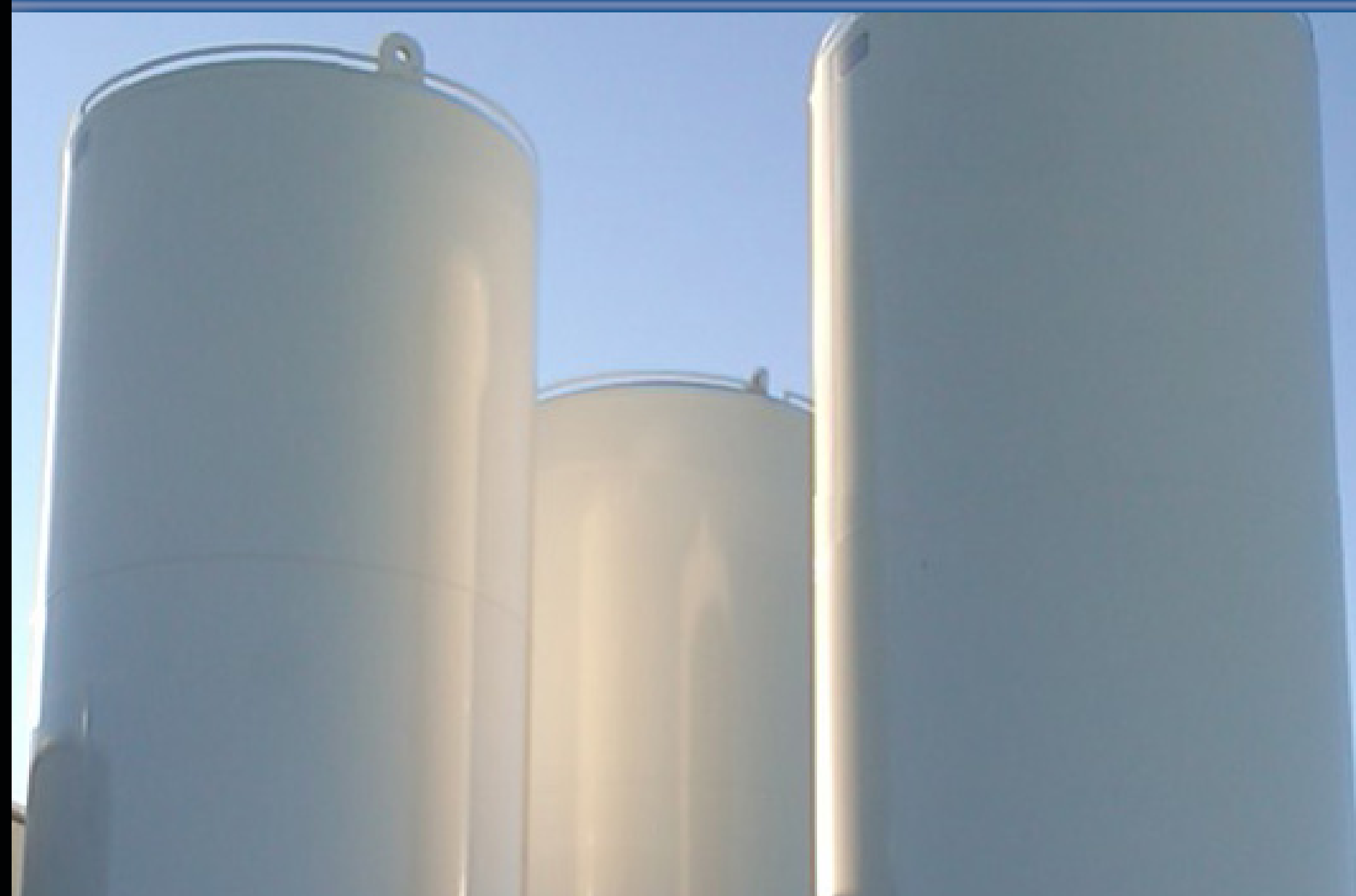


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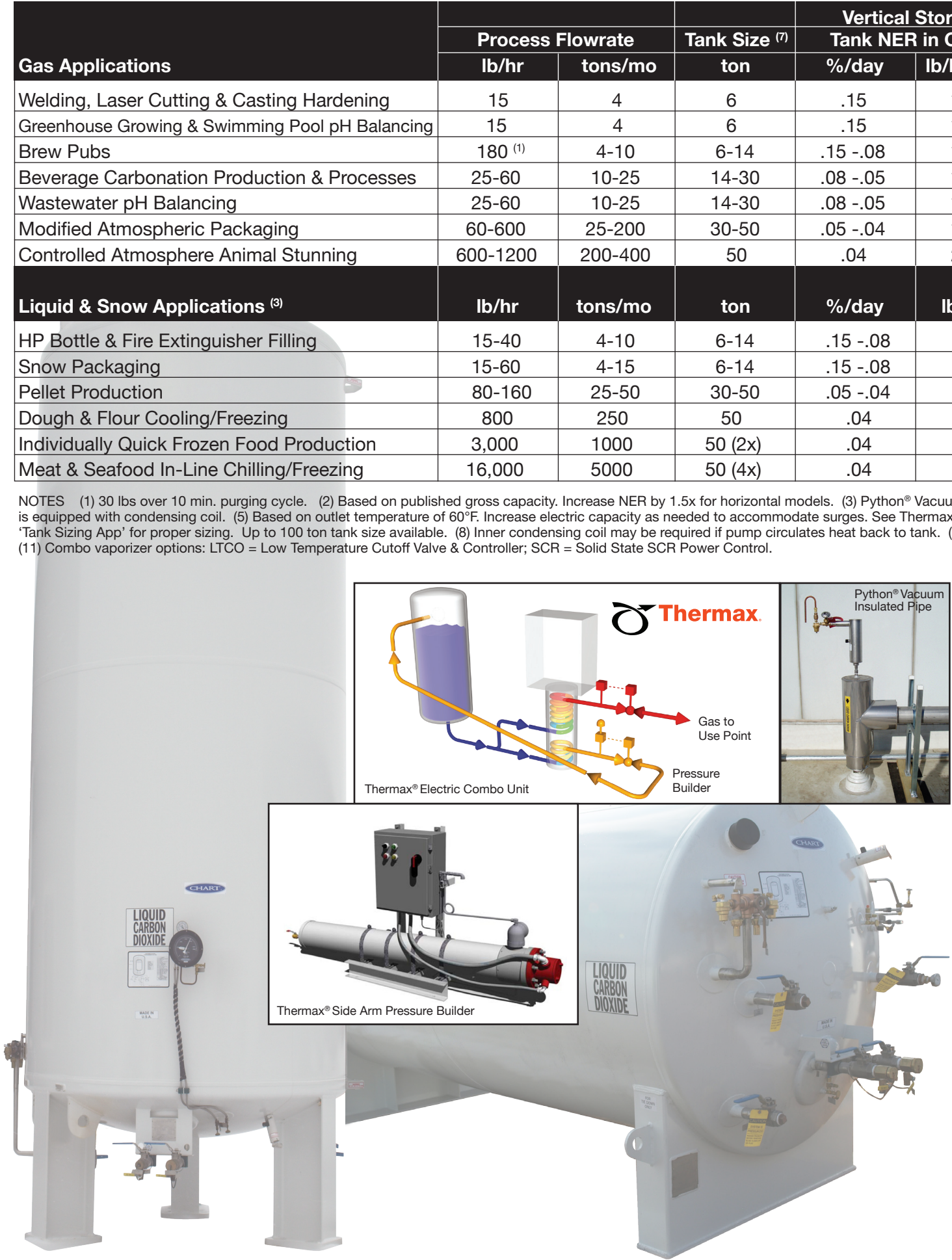
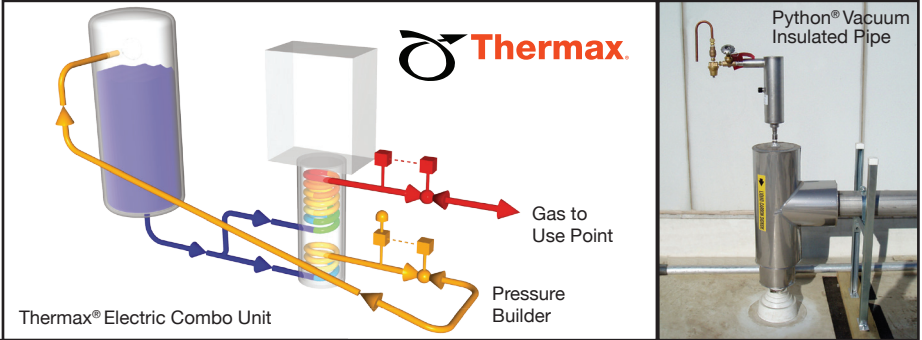
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Gas Applications				Vertical Storage		Tank/System Options				
	Process Flowrate		Tank Size <sup>(7)</sup>	Tank NER in CO <sub>2</sub> <sup>(2)</sup>		Inner Condensing Coil <sup>(4)</sup>	Thermax® Electric Vaporizer Systems <sup>(5)</sup>			Python® VIP <sup>(9)</sup>
	lb/hr	tons/mo	ton	%/day	lb/hr		Combo Model <sup>(11)</sup>	lb/hr <sup>(10)</sup>	Power kW	
Welding, Laser Cutting & Casting Hardening	15	4	6	.15	1	Optional	H3A-CMB	200	9	Recommended
Greenhouse Growing & Swimming Pool pH Balancing	15	4	6	.15	1	Optional	H3A-CMB	200	9	Recommended
Brew Pubs	180 <sup>(1)</sup>	4-10	6-14	.15 -.08	1	Optional	H3L-CMB	335	15	Recommended
Beverage Carbonation Production & Processes	25-60	10-25	14-30	.08 -.05	1-1.5	Not Required	H3L-CMB	335	15	Recommended
Wastewater pH Balancing	25-60	10-25	14-30	.08 -.05	1-1.5	Not Required	H3L-CMB	335	15	Recommended
Modified Atmospheric Packaging	60-600	25-200	30-50	.05 -.04	1.5-2	Not Required	H6L-CMB	675	30	Recommended
Controlled Atmosphere Animal Stunning	600-1200	200-400	50	.04	2	Not Required	H12-CMB	1350	60	Recommended
Liquid & Snow Applications <sup>(3)</sup>	lb/hr	tons/mo	ton	%/day	lb/hr	Inner Condensing Coil <sup>(4)</sup>	Side Arm PBU	lb/hr <sup>(6)</sup>	Power kW	Python® VIP <sup>(3)</sup>
HP Bottle & Fire Extinguisher Filling	15-40	4-10	6-14	.15 -.08	1	Optional <sup>(8)</sup>	None or L224-6	155	6	Recommended
Snow Packaging	15-60	4-15	6-14	.15 -.08	1	Not Required	None or L224-6	155	6	Recommended
Pellet Production	80-160	25-50	30-50	.05 -.04	1.5-2	Not Required	L224-18	450	18	Recommended
Dough & Flour Cooling/Freezing	800	250	50	.04	2	Not Required	L224-18	450	18	Recommended
Individually Quick Frozen Food Production	3,000	1000	50 (2x)	.04	2	Not Required	L224-30	750	30	Recommended
Meat & Seafood In-Line Chilling/Freezing	16,000	5000	50 (4x)	.04	2	Not Required	L224-50	1250	50	Recommended

NOTES (1) 30 lbs over 10 min. purging cycle. (2) Based on published gross capacity. Increase NER by 1.5x for horizontal models. (3) Python® Vacuum Insulated Pipe required to increase snow yield. (4) To prevent relief valve discharging to atmosphere, Freon® chiller can be added to installation anytime in field providing tank is equipped with condensing coil. (5) Based on outlet temperature of 60°F. Increase electric capacity as needed to accommodate surges. See Thermax literature 1.6 & 2.2 for details. (6) PBU capacity required is 1/10 of liquid flowrate @ 300 psig (Safety Factor included). Multiple tank installation is per tank PBU data. (7) Use 'Tank Sizing App' for proper sizing. Up to 100 ton tank size available. (8) Inner condensing coil may be required if pump circulates heat back to tank. (9) Python VIP recommended for vaporized gas to application if ambient temperature drops anytime below 20°F. (10) Process gas flowrate at 90% of vaporizer total capacity. (11) Combo vaporizer options: LTCO = Low Temperature Cutoff Valve & Controller; SCR = Solid State SCR Power Control.



## VSCO<sub>2</sub> & HSCO<sub>2</sub> Vertical and Horizontal Bulk CO<sub>2</sub> Storage Systems

Our VSCO<sub>2</sub> and HSCO<sub>2</sub> Series of Bulk Storage Tanks are engineered for the efficient storage supply of carbon dioxide. For maximum lifetime thermal efficiency, the VSCO<sub>2</sub> and HSCO<sub>2</sub> systems are manufactured with an all-welded outer container to contain our proprietary Composite Super Insulation™ system and superior vacuum technology. The stainless steel inner vessel and piping eliminates dry ice safety concerns and complies with food grade standards.

### VERTICAL STORAGE

Model	Gross Capacity		Net Capacity		MAWP*		Diameter	Height		Weight**		NER %/day in CO <sub>2</sub>	
	Ton	Tonne	Ton	Tonne	psig	bar		in	mm	in	mm		lbs
6 Ton	6.9	6.3	6.6	6.0	350	24.1	66	1,727	196	4,969	7,400	3,357	.15
14 Ton	13.2	12.0	12.6	11.4	350	24.1	86	2,184	228	5,791	13,700	6,214	.08
30 Ton	30.7	27.8	29.1	26.4	350	24.1	114	2,900	291	7,391	31,700	14,379	.05
50 Ton	47.7	43.3	45.4	41.1	350	24.1	114	2,900	406	10,312	44,300	20,094	.04

### HORIZONTAL STORAGE

Model	Gross Capacity		Net Capacity		MAWP*		Width	Height	Length	Weight**		NER %/day			
	Ton	Tonne	Ton	Tonne	psig	bar	in	mm	in	mm	in	mm	lbs	Kg	in CO <sub>2</sub>
6 Ton	6.9	6.3	6.6	6.0	350	24.1	68	1,728	80	2,032	188	4,775	8,500	3,856	.24
14 Ton	13.2	12.0	12.6	11.4	350	24.1	86	2,184	95	2,413	233	5,913	17,400	7,890	.12
30 Ton	32.9	29.8	31.2	28.3	350	24.1	114	2,900	127	3,226	280	7,112	31,900	14,470	.08
50 Ton	51.1	46.3	48.5	44.0	350	24.1	114	2,900	127	3,226	396	10,058	43,300	19,641	.06

\* MAWP - Maximum Allowable Working Pressure. \*\* Weights are for ASME design. (NER) = Normal Evaporation Rate  
For more information, see the Chart Bulk Storage Systems Product Catalog, P/N 13608592.