



Packaged Gas

TECHNICAL SPECIFICATION

PERMA-CYL® 24 & 37 bar M12 Standard

1. General

Type of tank:	Stationary liquid cylinder
Gas service:	LIN, LOX, LAR, CO ₂ , N ₂ O
Volume tolerance:	± 4%
MIN./MAX. ambient temperature:	-30 °C / +50 °C
Design regulation:	PED (EN 13458)
Module:	B+D
Notified body:	TÜV NORD

2. Pressure vessel

Design code:	PED (EN 13458)
Material:	Stainless steel 1.4301
MIN./MAX. allowable temperature:	-196 °C / +50 °C
Piping material:	Stainless steel

3. Outer jacket

Design code:	EN 13458
Material:	Stainless steel 1.4301
MIN./MAX. allowable temperature:	-196 °C / +50 °C

4. Insulation

Type of insulation:	Super insulation
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5. Plumbing

Piping material:	Stainless steel, copper
Pressure build-up vaporizer:	Copper piping soldered on the outer jacket
Product vaporizer:	Copper piping soldered on the outer jacket
DP Gauge:	Digital DP gauge Cyl-Tel (4-20 mA in standard)

6. Connection

Bottom Liquid Withdrawal:	1/2" NPT Female
Vent/Trycock:	1/2" NPT Female
Gas Use:	1/2" NPT Female
Top Fill:	1/2" NPT Female (Check Valve as standard, ball valve can be added as an option)

7. Documentation

Data Dossier:	Tank dossier in English electronically
Operation Manual:	Operating manual electronically either in English or <u>on request</u> in language of final



Cooler By Design.™

destination (may be subject of additional charges)

Paper Dossier & Operation Manual: Optional

8. Miscellaneous

Final surface:

Stainless steel buffed surface

Pallet Frame:

Galvanized carbon steel

Model		1000/24 M12	1000/37 M12	2000/24 M12	2000/37 M12
Capacity					
Liquid (gross)*	(liters)	997	997	2021	2021
Liquid (net)	(liters)	947	947	1920	1920
Gas**	(N ₂) (Nm ³)	612	612	1241	1241
	(O ₂) (Nm ³)	756	756	1533	1533
	(Ar) (Nm ³)	740	740	1500	1500
Performance & general information					
NER***	(N ₂) (% day)	0,9	0,9	0,8	0,8
Gas Flow	(N ₂ , O ₂ , Ar) (Nm ³ /hr)	27	27	32	32
Gas Flow	(CO ₂ & N ₂ O) (Nm ³ /hr)	9	9	10	10
Max. Primary Relief Valve Setting	(bar)	24	37	24	37
Code		PED (EN 13458)			
Dimensions & weight					
Tank Diameter	(mm)	1100	1100	1400	
Base Dimens. (LxW)	(mm)	1200 x 1200		1500 x 1500	
Base type		Pallet Base			
Height	(mm)	2150		2550	
Tare Weight (approx.)	(kg)	721	783	1129	1322

* Volume tolerance is ±4%

** At 0 barg pressure for N₂, O₂, Ar and 10 bar for CO₂, N₂O

*** NER: Nominal Evaporation Rate

Note: All models and specifications are conditional and subject to change without prior notice.