



Packaged Gas
TECHNICAL SPECIFICATION
PERMA-CYL® 3000 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)
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
Outer diameter:	see table on page 4

4. Insulation

Type of insulation:	Super insulation
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5. Plumbing

Piping material:	Stainless steel, copper
Pressure build-up vaporizer:	External aluminum flat fin
Product vaporizer:	External aluminum star fins
DP Gauge:	Digital DP gauge Cyl-Tel (4-20 mA included) For Russia: Wika 712.15.100 (4-20 mA as an option) Other options available – see option list

6. Connection

Bottom Liquid Withdrawal:	½" NPT Female
Vent/Trycock:	½" NPT Female
Gas Use:	½" NPT Female
Top Fill:	½" NPT Female



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7. Documentation

Data Dossier:

Tank dossier in English electronically

Operation Manual:

Operating manual electronically either in English or on request in language of final 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



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Model		3000/18 ZX M12	3000/22 ZX M12	3000/37 ZX M12
Capacity				
Liquid (gross)*	(liters)	2900	2900	2900
Liquid (net)	(liters)	2755	2755	2755
Gas** (N ₂)	(Nm ³)	1781	1781	1781
	(O ₂)	2199	2199	2199
	(Ar)	2152	2152	2152
Performance & general information				
NER*** (N ₂)	(% day)	0,6		
Gas Flow (N ₂ , O ₂ , Ar)	(Nm ³ /hr)	50		130 [#]
Gas Flow (CO ₂ & N ₂ O)	(Nm ³ /hr)	15		42 [#]
Max. Primary Relief Valve Setting	(bar)	18	22	37
Design Regulation		PED (EN 13458)		
Dimensions & weight				
Tank Diameter	(mm)	1500		
Base Dimens (LxW)	(mm)	1950 x 1660		
Base type		Pallet Base		
Height	(mm)	2850		
Tare Weight (approx.)	(kg)	1430	1522	1847

* Volume tolerance is ±4%

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

*** NER: Nominal Evaporation Rate

Values indicate the maximum short peak flow rate, continuous flow rates are roughly at 60% of published values

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