



WyCarrier

High-pressure transport systems

Wystrach

Customized solutions in high pressure





Pressure Level	Size	Cylinder Type	H ₂ Capacity at 15°C in kg	Water Volume in l	Total Weight in kg (Tare Weight + H ₂ Capacity)	Number of Sections (According to ADR 6.8)
300 bar	10 ft	Type IV	178	8,400	4,846	2
	20 ft	Type II	298	14,076	20,770	3
		Type III	379	17,860	13,859	4
	30 ft	Type IV	401	18,900	9,156	4
		Type II	464	21,879	27,828	5
		Type IV	623	29,400	14,773	6
	40 ft	Type IV	846	39,900	19,796	9
45 ft	Type IV	958	45,150	22,258	10	
380 bar ¹	10 ft	Type IV	215	8,400	4,883	2
	20 ft		485	18,900	9,240	4
	30 ft		754	29,400	14,904	6
	40 ft		1,024	39,900	18,154	9
	45 ft		1,159	45,150	22,459	10
500 bar	10 ft	Type IV	254	8,050	7,004	2
	20 ft		542	17,150	14,042	4
	30 ft		851	26,950	21,851	6
	40 ft		1,150	36,400	27,670	8
	45 ft		1,294	40,950	33,294	9

¹ Receptacles type approved as per Section 6.2.4 of ADR in conjunction with EN 17339:2020 and German recognized technical code as per Section 6.2.5 of ADR - ATR D 1/21. Acceptance of the recognized technical code ATR D 1/21 to be checked with your national competent authority.

Our systems are available for UN 1046 HELIUM, compressed; UN 1049 HYDROGEN, compressed; UN 1971 METHANE, compressed or NATURAL GAS, compressed, with high Methane content. Please contact us for further information.

MEGCS and Battery-vehicles type approved according subsection 1.8.7.2 in conjunction with chapter 6.8 of ADR and Directive 2010/35/EC (TPED).



General Description	
WyCarrier size	10 ft / 20 ft / 30 ft / 40 ft / 45 ft
WyCarrier type	MEGC (multi-element gas container) or battery vehicle
WyCarrier height	Type III / IV: 2,743 mm Type II: 2,335 mm ¹
Pressure level	300 bar / 380 bar / 500 bar
Cylinder type	Type II / Type III / Type IV
Cylinder fixing	Neck mounting with dedicated WyCarrier bearing
Piping material	Stainless steel
Type approval certification	according Subsection 1.8.7.2 of ADR in conjunction with Subsection 6.8.2.3 of ADR and EN 13807:2017 normative standard
Type approval certification - others	ADN / RID / IMDG on request
Container frame certification	CSC, ISO 668 for corner casting position
Leak test	Helium or hydrogen leak test N ₂ /He or H ₂
Documentation	Tank file and user manual in local language
Training	Training on system operation

¹ dimension valid for MEGCs only

Standard Features	Description
Container material	High-tensile steel
Frame corrosion protection	Hot-dip galvanization (equivalent to Level C3 as per ISO 12944-2)
Container side walls	Flame retardant as per e.g. EN 13501-1
Container front wall	Powder coated (white RAL 9010), including ladder
Container rear wall	Powder coated (white RAL 9010), including double cabinet door
Residual moisture content	< 100 ppm
Size of section shutoff manual spindle valves	DN 11
Number of section valves	One per section
Size of main shutoff manual spindle valve(s)	DN 11
Number of main valves	One valve for 10 ft & 20 ft Two valves for 30 ft and larger
Filling & discharge coupling(s)	M36 x 2LH (300 bar) M36 x 2LH (380 bar) M52 x 2LH (500 bar)
Number of venting spindle valves	One per WyCarrier
Main pressure gauge (one per WyCarrier)	Calibrated pressure gauge / 160 mm diameter
Section pressure gauges (one per section)	Pressure gauge / 63 mm diameter
Earthing reel	Earthing reel for container mounted to chassis
Pneumatically activated immobilizer	Activation of the parking brake in the event that a main cabinet door is open
Reflector line	Reflector line on rear side and on top corner Points in accordance with ECE R104 Class C



Optional Features	Description	Benefits
Cylinder valve	One manual valve per cylinder	For flexible / efficient service and maintenance
Main / section shutoff manual spindle valve(s) DN 15	Increased diameter for main / section valve	For improved flow rates (faster charge / discharge) / recommended for 380/500 bar
Pneumatically actuated main / section valves (closed when depressurized), includes multiconductor pneumatics	Valves per section controlled by external air pressure	<ul style="list-style-type: none"> • for externally controlled charge / discharge • as extra safety features (auto-close function / slam-shut function)
ESD (emergency shutdown) button (front left & rear right)	To shut all pneumatic valves Min. one pneumatic valve per main valve required	For extra safety / recommended by Wystrach as per binding legal regulations
Cabinet light	ATEX-approved cabin light with external power supply	For improved visibility in the cabinet in dark conditions
TPRD per section	Temperature-activated pressure relief device --> Release of H ₂ at temperature > 110°C	For extra safety
Low-pressure switch	<ul style="list-style-type: none"> • only relevant for Type IV • switch to protect cylinder against low pressure • min. one pneumatic valve per main valve required 	Safety switch to protect cylinders against pressures < 10 bar --> to protect Type IV cylinders against low pressure
Pressure regulator (300 --> 200 bar), high-pressure valve if pressure regulator is installed	Additional discharge line limited to 200 bar including pressure switch	To supply gas to customers that still use 200-bar infrastructure.
Pressure sensor (4-20 mA)	Per container or per section / incl. multi-connector electronics	For external control of container / section pressure
Temperature sensor (PT100)	Per container or per section / incl. multi-connector electronics	For external control of container / section temperature
Calibrated mass flow meter	Calibrated mass flow measurement at discharge coupling	For accurate measuring of the amount of gas delivered to the customer
Logo or full 4-color print of the tarpaulins	Digital print on tarpaulins	For advertising and/or customer logo name
Safety line	Anti-drop line on roof of container	Anti-drop safety line as per DIN EN 795:2012 To connect a safety harness when a person works on top of the container
Purge with hydrogen (up to 15 bar)	Cylinders get purged and charged with 15 bar hydrogen / includes drying of moisture < 20 ppm	System is ready for use upon delivery to customer
Residual moisture content < 20 ppm	Additional drying process to remove moisture from the cylinder to < 20 ppm	Additional drying of cylinders when customer wants to purge with hydrogen
Different color for powder-coated front / rear side	Standard color is white (RAL 9010), other color options possible	Visible parts only
Full frame powder coating	Powder coating to reach equivalent to Level C4 as per ISO 12944-2	Powder coating on full frame, not only visible parts, for better corrosion protection
Chassis	ADR chassis compatible with WyCarrier System	