

HYDROGEN SAFETY VALVES AND COMPONENTS FOR H2 MOBILITY AND GAS TRANSPORTATION



| GENERAL CATALOGUE



AT THE FOREFRONT OF INNOVATION

OMB Saleri is a leading manufacturing company of valves and components for alternative fuel vehicles.

The company main growth perspective is Hydrogen mobility. For almost 10 years OMB has been working with the world-leading manufacturers of fuel cell vehicles, not only car manufacturers, but also trucks, trains, aeroplanes and aerospace components.

OMB is a constantly evolving company, constantly oriented to innovation and capable of meeting the technological challenges of the future. The investments are therefore dedicated to developing new generations of increasingly innovative and competitive valves and to created automated infrastructures for a large-scale production.

- Leader manufacturer of components for the H2 mobility
- H2 storage system and fuel cell system components
- Different operating pressures 350 bar and 700 bar.
- Products for liquid hydrogen under development.
- Products approved worldwide and used on all types of vehicles (forklifts, cars, trucks, buses, trains, planes, off road vehicles)

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350 bar

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ICON CAPTION





1.HFR Hydrogen filling receptacle It is the charge valve. It is installed at the beginning of the hydrogen system and it is the valve from which one refuels.

2.HPR Hydrogen pressure regulator

It is the valve used to reduce the pressure of 700 or 350 bar of the cylinders at about 20 bar used in low pressure. The regulator is equipped with two safety valves that limit the flow of hydrogen in case of damage to the system and discharge any exceeding pressure in the environment.

3.OTV On tank valve

It is the valve that has to be mounted on the hydrogen cylinder, it has an electronically powered solenoid and a system of safety such as excess flow, TPRD and manual safety to insulate the valve.

4.END PLUG with tprd

It is a thermal safety installed on the bottom of the tank.

5. MIDDLE PLUG

It is a thermal safety positioned in the middle of the tank and connected to either OTV or END PLUG by a piping.

6.LPRV

It is a safety valve used to discharge pressure critical for the membranes contained in the Fuel Cell.

7.SOV Shut off valve

It is a safety valve opened when you start the vehicle. The valve acts as a slider and protects the elements in low pressure from any leakage of pressure when the vehicle is off. In case of malfunction while driving, this valve is closed and the H2 circuit of the Fuel Cell is isolated.

8.AWS Water separator

The waste product of the Fuel Cell is water vapor from hydrogen. The AWS condenses water that is evacuated by Drain Valves.

Then, by means of a cyclonic action, the AWS separates unburned hydrogen from water vapor by putting it back into circulation and increasing vehicle efficiency.

8a/b anode purge and drain valves

They are the valves mounted on the AWS. They allow to discharge the water produced by the vehicle and to recycle hydrogen separated in the AWS.

Some versions have heating elements, useful to accelerate the ignition of the vehicle in icy or cold conditions.

700 BAR OTV 700 GEN 2 ON TANK VALVE

INSTALLATION TOOL

The tool is necessary to install the valve on the tank and apply the proper torque according to the user manual. P/N 875.88.100

T-SENSOR: NOM. RESISTANCE 10 KOHM TPRD VENT HOLE: Ø = 3.3 MM KV VALUE: FUELING = 0.17 DEFUELING = 0.13 TPRD VENT LINE ADAPTER: 7/16-20 UNF - 2B



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Certification EC79, R134, EU535, HGV3.1, HPRD1

DESCRIPTION

OMB 700 bar H2 valve is a multifunctional valve to be assembled on a tank system, for stationary or automotive use. The valve is equipped with the following components:

- Single inlet/outlet port
- Improved solenoid valve endurance compare to Gen1
- Manual safety tap, to be used in order to isolate the automatic valve (in case of failure or maintenance);
- Bleed Valve, directly connected to the tank (in order to by-pass the excess flow, the manual valve and the solenoid valve)
- Thermal PRD (pressure relief device to prevent the explosion of the tank due to fire, based on a glass bulb concept)
- Two Filters 10 micron
- Fueling Check valve
- Temperature sensor
- Excess flow valve (flow limiter)
- Pressure Port
- Port for Middle TPRD



Boss [S-M]	Liveport [L-N]	Sensor Port [S-C-N]	Voltage [2-4]	Fitting connection [A-V6]	Code	BOM
S	L	S	2	V6	87588V-SLS2-V6	REV10
S	L	S	2	A	87588V-SLS2-A	REV09
S	L	С	2	A	87588V-SLC2-A	REV09
S	L	С	4	V6	87588V-SLC4-V6	REV08
М	L	С	2	A	87588V-MLC2-A	REV08
М	N	S	4	A	87588V-MNS4-A	REV07
S	N	С	4	V6	87588V-SNC4-V6	REV06
М	L	N	2	A	87588V-MLN2-A	REV04
М	N	С	4	A	87588V-MNC4-A	REV04
Μ	N	S	2	A	87588V-MNS2-A	REV03
S	N	N	4	V6	87588V-SNN4-V6	REV03
S	N	S	2	A	87588V-SNS2-A	REV01
S	N	N	2	Α	87588V-SNN2-A	REV01
S	N	N	2	V6	87588V-SNN2-V6	REV00
S	N	С	2	A	87588V-SNC2-A	REV00
S	L	С	2	V6	87588V-SLC2-V6	REV00

Boss Variant S: **1 1/2 - 12 UNF - 2A** M: **M4 5X2 - 6g** Live Port Variant N: NO L: YES Sensor Port Variant

S: with pressure sensor certified EC79

C: with cap

Voltage Variant 2: 12V 4: 24V Fitting connection Variant N: no sensor port A: AUTOCLAVE 9/16" PIPING 3/8" V6: VOSS LOK40-7/16"20 UNF-2A PIPING OD 6mm Applications

700 BAR END PLUG WITH TPRD HYDROGEN END PLUG



DESCRIPTION

- Thermal PRD (pressure relief device to prevent the explosion of the tank due to fire 110°C (+/-5°C)
- Adjustable defueling port with the possibility to connect defueling pipe
- Ø Orifices minimum orifice: diameter [mm] Ø2

Art. / Code Tank Connection		thread	TPRD	Adapter	Vent Hole
870.88.889A	1 1/2 - 12 UNF - 2A	40	Yes	No 7/16 - 20 UNF	Ø = 2 mm
870.88.920	M45x2	42,5	Yes	Yes 7/16 - 20 UNF	Ø = 2 mm



INSTALLATION TOOL

The tool is necessary to install the valve on the tank and apply the proper torque according to the user manual. P/N 870.88.413

Applications

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DESCRIPTION

- Thermal PRD (pressure relief device to prevent the explosion of the tank due to fire 110°C (+/-5°C)
- Adjustable defueling port with the possibility to connect defueling pipe
- Ø Orifices minimum orifice: diameter [mm] Ø 3,3
- -T-senstor short or long/probe

-P-sensor

Assembly code							
Boss [S-M]	Sensor Port [S-C-N]	T sensor [S-B-N]	Code	BOM			
S	S	В	87588E-SSB	REV03			
S	Ν	В	87588E-SNB	REV02			
М	S	S	87588E-MSS 87588145	REV01			
М	Ν	Ν	87588E-MNN	REV00			
S	Ν	N	87588E-SNN 87588800	REV00			
М	С	В	87588E-MCB	REV00			
М	С	S	87588E-MCS	REV00			
S	С	S	87588E-SCS 87588130	REV00			

Boss Variant

S: 1 1/2 - 12 UNF - 2A M: M4 5X2 - 6g Sensor Port Variant S: with pressure sensor certified EC79 C: with cap N: no sensor port

T Sensor Variant B: with Big and longer Probe

S: with short T-sensor

N: without T-sensor







DESCRIPTION

- Plug to close the tank





Art. / Code Homologation		Tank Connection	thread	TPRD
870.88.465	Not required	M45 x 2	42,5	No
870.88.795 Not required		1 1/2 - 12 UNF - 2A	40	No



INSTALLATION TOOL

The tool is necessary to install the valve on the tank and apply the proper torque according to the user manual. P/N 870.88.413



700 BAR MIDDLE PLUG HYDROGEN MIDDLE PLUG

DESCRIPTION

- Activation (glass bulb): 110°C
- Possibility to vent the gas
- Gas transportation trailer and fuel station



	MIDDLE PLUG 700 bar			
Art. / Code Certification		Certification	Configuration	TPRD
	87588245A	Validation according to ISO 19882:2018	VossLok40-1-1x TPRD vent 7/16	110°c
	87588280	Validation according to ISO 19882:2018	Autoclave-1-1x TPRD vent 7/16	110°c

Applications











DESCRIPTION

- 10 Microns filter protection
- In-line check valve

Art. / Code	Receptacle	Pipe Connection	Bracket Conn.	Kv.	Filter	Opening at	Description
870.88.334	"Adapter 9/16 -18 UNF - 2B AISI 316L"	"Adapter 9/16 -18 UNF 2B AISI 316L"	No Bracket	>0.22	10 µm	0.1 MPa	HCV 700 bar 3/16 UNF- 2B pipe 3/8"
872.88.845C	"Voss Lock 5/8 (Male) SUS 316L"	"Voss Lock 5/8 (Male) 1.4435"	No Bracket	>0.22	10 µm	0.1 MPa	HCV with Voss closing element



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Art. / Code	Pipe Connection	Bracket Connection	Kv.	Filter	Opening at	Receptacle	Dust Cap
870.88.335B	"Adapter 9/16 -18 UNF - 2B AISI 316L"	"n°3 M6 x 1 (0°-90°-135°)"	>0.22	10 µm	0.1 MPa	SAE J2600 ISO 17268	×
870.88.487C	"Voss Lock 5/8 (Male) SUS 316L"	"n°3 M6 x 1 (0°-90°-135°)"	>0.22	10 µm	0.1 MPa	SAE J2600 ISO 17268	~

Applications





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700 BAR / 350 BAR HPRIS HYDROGEN SINGLE STAGE REGULATOR

DESCRIPTION

700 BAR

350 BAR

The OMB 700/350 bar H2 Pressure Regulator (HPR) is a mechanical single stage regulator designed for light duties hydrogen applications with a compact shape, leightweight and cost effective

FEATURES

- Inlet / outlet port
- Inlet Filter 10 microns
- Pressure relief valve (PRV)
- Excess Flow Valve (EFV)
- Possibility to integrate high and low pressure sensors.







350 BAR

PR

HYDROGEN PRESSURE REGULATOR

700 BAR / 350 BAR

DESCRIPTION

The OMB 700/350 bar H2 Pressure Regulator (HPR) is a mechanical double stage regulator designed for fuel cell applications with the following components integrated:

- Inlet / outlet port
- Inlet Filter 10 microns
- Pressure relief valve (PRV)
- Excess Flow Valve (EFV)

The HPR can be requested with the following options:

- High Pressure sensors
- Low Pressure sensors (up to 2)
- Low Pressure Service Valve
- Outlet regulated pressure from 8bar to 16bar
- Inlet 700bar: Voss / Autoclave OD 3/8
- Inlet 350bar: SAEJ 1926
- PRV: customizable activation
- Possibility to install high- and low-pressure sensor



(3)07-2







700 BAR / 350 BAR H2 SMA EXTERNAL WIRE TPRD

DESCRIPTION

The SMA-TPRD is an innovative thermal relief device aimed at increasing the safety system by reducing complexity and cost. It is based on a double effect ignition technology which does alloy to detect thermal threats over the entire lenght of the tanks. In event of fire, the quickignition and the fast discharge of the SMA-TPRD reduce the risk of fuel tank faults

> Pipe length from 400 mm up to 3920mm



FEATURES

- Long distance thermal safety device
- Nominal working pressure: 350bar 700bar
- Temperature range: -40°C / +85°CTPRD
- Activation (glass bulb): $110^{\circ}C (\pm 5^{\circ}C)$
- Body material: AISI 316L
- Double triggering technology
- Pipe length from 400 mm up to 3920mm



700 BAR / 350 BAR MANIFOLD

DESCRIPTION

Multifunctional manifold, with the possibility to integrate:

- Inlet filter 10/50 microns
- Inlet check valve
- Gas dstribution to the tanks
- Gas distribution to the regulator
- Pressure sensors







350 BAR 350 HTV GEN 2 HYDROGEN TANK VALVE

DESCRIPTION

The OMB 350 bar H2 valve is a multifunctional valve to be assembled on a tank system, for stationary or automotive use. The valve is equipped with the following components:

- Inlet / outlet single or separated
- Solenoid valve electronically controlled
- Manual safety tap, to be used in order to isolate the automatic valve (in case of failure or maintenance)
- Bleed Valve, directly connected to the tank (in order to by-pass the excess flow, the manual valve and the solenoid valve)
- Thermal PRD (pressure relief device to prevent the explosion of the tank due to fire, based on a glass bulb concept)
- Filter 50 micron
- Excess flow valve (flow limiter)
- Temperature sensor
- Live port for pressure sensor or line middle TPRD (threaded connection directly connected to the tank)
- Pressure port (after pressure regulator)



INSTALLATION TOOL

The tool is necessary to install the valve on the tank and apply the proper torque according to the user manual. P/N 874.04.006





Excess flow

valve + filter

T-sensor

VENT PORT 7/16"-20 UNF 2B



Kv/ filling |0,18 defueling |0,16

Applications

Art./Code	Tank Connection	Inlet	Outlet	Coil	Pressure port	Live port
87488010	2"-12 UN 2A	9/16"-18 UNF 2B	9/16"-18 UNF 2B	12V; MQS 4 pol	7/16"-20 UNF 2B	No
87488015	1"1/8-12 UN 2A	9/16"-18 UNF 2B	9/16"-18 UNF 2B	12V; MQS 4 pol	7/16"-20 UNF 2B	No
87488100	"1"1/2-12 UNF 2A Radial"	9/16"-18 UNF 2B	9/16"-18 UNF 2B	24V; MQS 4 pol	7/16"-20 UNF 2B	No
87488140	"1"1/2-12 UNF 2A Radial"	9/16"-18 UNF 2B	9/16"-18 UNF 2B	24V; MQS 4 pol	No	7/16"-20 UNF 2B
87488165	1"1/8-12 UN 2A	9/16"-18 UNF 2B	9/16"-18 UNF 2B	12V; MQS 4 pol	No	7/16"-20 UNF 2B
87488275	2"-12 UN 2A	9/16"-18 UNF 2B	9/16"-18 UNF 2B	24V; MQS 4 pol	7/16"-20 UNF 2B	No
87488300	1"1/8-12 UN 2A	9/16"-18 UNF 2B	9/16"-18 UNF 2B	24V; MQS 4 pol	7/16"-20 UNF 2B	No
87488325	1"1/8-12 UN 2A	9/16"-18 UNF 2B	9/16"-18 UNF 2B	24V; MQS 4 pol	No	7/16"-20 UNF 2B
87488360	2"-12 UN 2A	9/16"-18 UNF 2B	9/16"-18 UNF 2B	12V; MQS 4 pol	No	7/16"-20 UNF 2B
87488400	2"-12 UN 2A	9/16"-18 UNF 2B	9/16"-18 UNF 2B	24V; MQS 4 pol	No	7/16"-20 UNF 2B

Tank connection Valve TPRD vent port vent

350 BAR ERA 350 HTV HYDROGEN TANK VALVE

DESCTRIPTION

The OMB 350 bar H2 valve is a multifunctional valve to be assembled on a tank system, for stationary or automotive use. The valve is equipped with the following components:

- Inlet fitting
- Outlet port
- Single inlet/outlet port without check valve
- Solenoid valve electronically controlled;
- Manual safety tap, to be used in order to isolate the automatic valve (in case of failure or maintenance);
- Bleed Valve, directly connected to the tank (in order to by-pass the excess flow, the manual valve and the solenoid valve);
- Thermal PRD (pressure relief device to prevent the explosion of the tank due to fire, based on a glass bulb concept)
- Filter 50 micron
- Tank connection

The valve can be requested with the following options:

- Check valve
- Excess flow valve (flow limiter)
- Temperature sensor
- Live ports for pressure sensor or line middle TPRD (threaded connection directly connected to the tank)
- Pressure port (after pressure regulator)
- 10 micron filter (regulator configuration)
- In-line pressure port (high pressure port)
- Pressure regulator with PRV
- Coil ATEX available





The tool is necessary to install the valve on the tank and apply the proper torque according to the user manual. P/N 870.04.697



Certification EC79, R134, GB/T35544, HPRD1, EU535, ATEX.



Art. / Code	Tank Connection	Inlet	Outlet	Check valve	Coil	T- sensor	Vent Hole	Live port
87288090C	2"-12 UN 2A	9/16"-18 UNF 2B	9/16"-18 UNF 2B	No	24V; AMP	2,7 kOhm; AMP	ø4	7/16"-20 UNF 2B
87288170C	2"-12 UN 2A	9/16"-18 UNF 2B	9/16"-18 UNF 2B	No	12V; AMP	2,7 kOhm; AMP	ø4	7/16"-20 UNF 2B
87088720	1"1/8-12 UN 2A	3/4"-16 UNF 2B	3/4"-16 UNF 2B	Yes	24V; AMP	2,7 kOhm; AMP	ø4	No
87088740	1"1/8-12 UN 2A	3/4"-16 UNF 2B	single in/out	No	24V; AMP	2,7 kOhm; Harting	ø4	No
87288265	2"-12 UN 2A	9/16"-18 UNF 2B	9/16"-18 UNF 2B	Yes	24; DT04-2P	2,7 kOhm; DT04-2P	ø4	7/16"-20 UNF 2B
87288520	2"-12 UN 2A	9/16"-18 UNF 2B	9/16"-18 UNF 2B	No	24; DT04-2P	2,7 kOhm; DT04-2P	ø4	7/16"-20 UNF 2B
87288440	1"1/8-12 UN 2A	3/4"-16 UNF 2B	single in/out	No	24; DT04-2P	2,7 kOhm; AMP	ø4	No





ERA HTV 350 WITH INTEGRATED REGULATOR



350 BAR

350 BAR END PLUG WITH TPRD END PLUG WITH TEMPERATURE PRESSURE RELIEF DEVICES

DESCRIPTION

- Nominal working pressure: 350 bar
- Temperature range: -40°C / +85°C
- TPRD activation (glass bulb): 110°C or 102,7°C (± 5°C)
- Body material: Al 6061 T6 anodized
- Weight: 325 g

350 BAR







Art. / Code	Homologation	Tank Connection	Outlet	TPRD	TPRD vent hole	O-ring
87288477	EC79	1"1/8 UN 2A	3/4"-16 UNF 2B	110°C	ø4	✓
87288135B	EC79	1"1/8 UN 2A	9/16"-18 UNF 2B	110°C	ø4	✓
87288140B	EC79	2"-12 UN 2A	9/16"-18 UNF 2B	110°C	ø4	✓



350 BAR REMOTE TPRD **MIDDLE PLUG WITH** TEMPERATURE **PRESSURE RELIEF DEVICES**

DESCRIPTION

Nominal working pressure: 350 bar Temperature range: -40°C / +85°C TPRD activation (glass bulb): 110°C or 102,7°C (± 5°C) Body material: AISI 316L Weight: 1050 g



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MIDDLE PLUG 350 bar

Art. / Code	Homologation	Inlet	Outlet	TPRD	TPRD vent hole
87088815F	EC79	2x 3/4"-16 UNF 2B	2x 3/4"-16 UNF 2B	110°C	ø4
87288125F	EC79	7/16"-20 UNF 2B	7/16"-20 UNF 2B	110°C	ø4
87288390	EC79	9/16"-18 UNF 2B	9/16"-18 UNF 2B	110°C	ø4



Certification EC79, R134, HPRD1, EU535

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Applications



- Max flow: 370 g/s @max deltaP 438 bar

	Art. / Code	Homologation	Receptacle profile	Outlet	Bracket connection	Filter	Operating pressure	Kv	Dust cap
Ĺ	87088700	EC79	SAE J2600	Pipe OD 3/8" (double ferrule)	Nut Hex 25 mm	50 µm	< 0,5 bar	0,69	~
	87088710	EC79	SAE J2600	7/16"-20 UNF 2B	Nut Hex 25 mm	50 µm	< 0,5 bar	0,69	<
	87288805	EC79 TBD	SAE J2600	Pipe OD 10 mm (double ferrule)	Nut Hex 25 mm	50 µm	< 0,5 bar	0,69	✓
	87288270	EC79 TBD	SAE J2600	Voss Lock	Nut Hex 25 mm	50 µm	< 0,5 bar	0,69	✓

Applications

350 BAR

HCV

HYDROGEN

CHECK VALVE



350 BAR

Certification EC79



Applications



Certification EC79



note:	
	- <
	— M

LOW PRESSURE SAFETIES COMPONENTS WATER SEPARATOR



DESCRIPTION

OMB has developed a water separator with anode and drain valves and level sensor integrated.

The integration allows to the final user to have a plug and play system reducing the assembly time. The water separator is characterized by a water

separation efficiency higher than 95%

Art. / Code	Connection	Anode Purge Valve	Anode Drain Valve
872.88.595	Swagelok	✓	~
871.88.817	Swagelok	×	✓

LOW PRESSURE SAFETIES COMPONENTS ADV & APV ANODE DRAIN & PURGE VALVE

DESCRIPTION

- Normally closed valve
- Cartridge solution or on body or integrate in the AWS
- Main Gasket material: EPDM
- Relative humidity: From 0 to 100%
- IP protection: IP5K4 for electrical parts
- Opening response time: < 100 ms
- Closing response time: < 100 ms
- Working fluids: Hydrogen, Air, Helium, Nitrogen, Water(pH4-7), Vapor, Ice, Hydrofluoric acid, Hydrogen peroxide

The valve can be requested

with the following options:

- Heaters (PTC or NTC)
- Fastening clip
- Dedicated connector
- Transil or thermal control in the coil
- Integration on the Water separator

ALVE		

Art. / Code	Coil	Heaters	Orifice Ø	External sealing (bar G)	Internal sealing (bar G)	Max outlet P (bar G)
872.88.349	20.7 W 12V	PTC	2 mm	3.56	2.82	2.07
871.88.800	20.7 W 24V	PTC	2 mm	3.56	2.82	2.07
871.88.801	20.7 W 24V	not available	2.4 mm	3.56	2.82	2.07
873.88.523	13 W 12V	possible integration	2.8 mm	3.56	2	0
873.88.524	13 W 12V	possible integration	3.2mm	3.56	2	0



Connector (Sumitomo p/n) 6181-6851 (Male, two ways)

> Mating part (Sumitomo p/n) 6189-7408 (Female, two ways

PTC heater Connector (Sumitomo p/n) 6188-4776 (Male, four ways)

Mating part (Sumitomo p/n) 6189-7039 (Female, four ways)

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LOW PRESSURE SAFETIES COMPONENTS SOV SHUT OFF VALVE

DESCRIPTION

Sov with manual valve On/off safety device Possible configuration 12 / 24v.



Art. / Code	Inlet Connection	Outlet Connection	Kv	Pin Max (bar G)	V Nom(V)
871.88.802	9/16-18 UNF - 2B	9/16-18 UNF - 2B	0,36	14	24
872.88.615	9/16-18 UNF - 2B	9/16-18 UNF - 2B	0,22	20	24
872.88.613	9/16-18 UNF - 2B	9/16-18 UNF - 2B	0,36	11	24
872.88.617	9/16-18 UNF - 2B	9/16-18 UNF - 2B	0,11	15	12
874.88.205	9/16-18 UNF - 2B	9/16-18 UNF - 2B	0,22	30	24
*874.85.310	3/4 - 16 UNF - 2B SAE 31926-1	3/4 - 16 UNF - 2B SAE 31926-1	0,25	20	12

*Manual valve integrated





DESCRIPTION

The pressure relief valve is a safety component which activates in case of overpressure, venting the gas from its outlet.

Art. / Code	Cracking bar G	Max flow bar G	Reset from P high flow DINAMIC	Max Flow	T [°C]	Inlet	Outlet
872.88.330A	2.0±0.2	2.7±0.2	1.8±0.2	430±15 NL/min Air	min-40° max+85°	SAE J1926 7/16-20 UNF 2A	Tube connection (SAE J1231) (Ø 11)
872.88.330B	2.0±0.2	2.7±0.2	< 2	430±15 NL/min Air	min-40° max+85°	SAE J1926 1/2-20 UNF 2B	SAE J1926 1/2-20 UNF 2B

LOW PRESSURE SAFETIES COMPONENTS STAND ALONE FILTER



DESCRIPTION

- 10 Micron mesh filter
- Inlet 3/4" 16 UNF 2A
- Outlet double ferrule
- connection for pipe OD 1/2" - Temp. -40°C , +65°C
- Max working pressure 20 bar G
- Nominal working pressure 9.7 bar G

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1.Clack Valve

The clack valve is an innovative needle manual valve designed to withstand high pressure and high flow according to the main gas transportation market demands.

2.Manifold

Multifunctional manifold, with the possibility to integrate:

- Inlet fi Iter 10/50 microns
- Inlet check valve
- Gas dstribution to the tanks
- Gas distribution to the regulator
- Pressure sensors
- -Pressure gauge
- Manual valve

3.SMA tprd

The SMA-TPRD is based on a double effect ignition technology which does alloy to detect thermal threats over the entire lenght of the tanks. In event of fire, the quickignition and the fast discharge of the SMA-TPRD reduce the risk of fuel tank faults

4.MTPRD

It is a thermal safety installed on the middle of the tank.

5.MTV

The MTV valve that has to be mounted on the hydrogen cylinder, it is a manual activated valve, thermal safety, filter and excess flow

350/700 BAR MTV MANUAL VALVE FOR GAS TRANSPORTATION & INDUSTRIAL

DESCRIPTION

The OMB 350 bar H2 valve is a multifunctional valve to be assembled on a tank system, for stationary or automotive use. The valve is equipped with the following components:

- Inlet / outlet single or separated
- Manual safety tap, to be used in order to isolate the automatic valve (in case of failure or maintenance)
- Thermal PRD (pressure relief device to prevent the explosion of the tank due to fire, based on a glass bulb concept)
- Filter 50 micron
- Excess flow valve (flow limiter)
- Temperature sensor





350/700 BAR CLACK VALVE MANUAL VALVE FOR GAS TRANSPORTATION & INDUSTRIAL

DESCRIPTION

The clack valve is an innovative needle manual valve designed to withstand high pressure and high flow according to the main gas transportation market demands.

The ergonomic handle allows the opening and closing with only one turn and a very low torque.

This valve integrates a visual indicator and an innovation patented solution with anti-overtorque system that avoids improper usage in the field.

The needle valve technology allows a progressive opening avoids the shocks in the system.





FEATURES

- NWP: 560 bar (upgradable to 700bar)
- H2 compatible
- Needle manual valve
- InLine connection (customizable)
- HOLE Ø13mm
- Less than 1 turn to open and close
- Open/close indicator
- Open/close torque at the opening: max 3 Nm

P H2

• Total weight estimation in SS: 3500 gr.





1000 BAR MIDDLE PLUG HYDROGEN MIDDLE PLUG

DESCRIPTION

- Activation (glass bulb): 110°C
- Possibility to vent the gas
- Gas transportation trailer and fuel station



MIDDLE PLUG 1000 bar				
Art. / Code	Inlet	Outlet	TPRD	
87388660	13/16"-16 UN 2B	13/16"-16 UN 2B	110°c	

Applications





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