

NOVA SWISS



HYDROGEN COMPONENTS

The Evolution of Technology

ENTER THE POST CARBON ERA

Like evolution, research and development is a continuous process of change, adaption and pursue for new approaches. Nova Swiss has developed high expertise and performed intensive in-house research in material research to mitigate and minimise embrittlement of high-pressure components in contact with hydrogen, being the market leader in this segment.

Therefore products and services from Nova Swiss are highly developed and extremely reliable.

Nova Swiss manufactures components for hydrogen from 350 bar (5'075 psi) up to 1'380 bar (20'000 psi).



DEVELOPMENT AND CONSULTING

We create the basis for sophisticated, new and optimized products in the areas of Hydrogen Technology via the continual expansion of our expertise and results-oriented research.

Our material laboratory is equipped with state-of-the-art technology, and it is here that we analyze a wide range of substances in our search for suitable materials and manufacturing processes. Our service spectrum also includes complex calculations of our customers' requirements. Furthermore, we

can also offer interdisciplinary partnerships in the area of surface technology in the form of complex analysis and test procedures for quality testing of coatings.

We constantly ensure that all Nova Swiss products meet the latest requirements of the market as well as all statutory regulations.

Focus on safety and reliability

COMPREHENSIVE SAFETY

Highest quality standards, deep knowledge and extensive testing are the indispensable pieces of the whole puzzle.

PEACE OF MIND

Swiss precision, many years of experience in high pressure technology lead to low failure probability and outstanding tightness.

PLUG AND PLAY

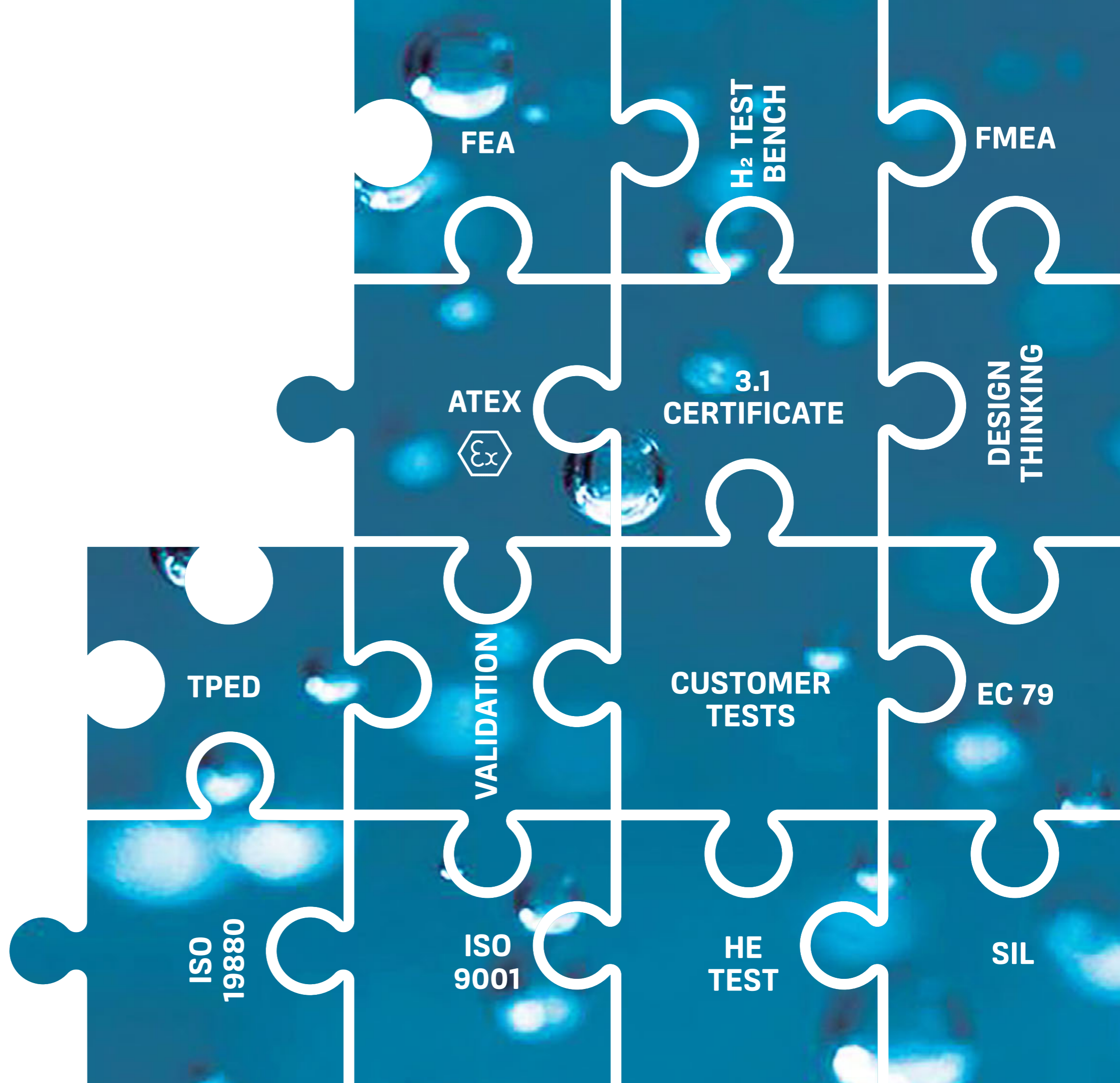
Nova Swiss products are validated and can be used without extra tests.

LOW COSTS OVER LIFESPAN




Less maintenance and a longer lifespan through a high number of open-close-cycles make Nova Swiss products more economic and sustainable.



Nova Swiss is proud member of Hydropole and Hydrogen Europe association.









	MANUAL NEEDLE VALVES	ACTUATED NEEDLE VALVES	SOLENOID VALVES
FLOW Kv [m³/h]	up to 4.5	up to 4.5	up to 0.6
MOBILITY AND TRANSPORTATION	✓	✓	✓
FILLING STATIONS	✓	✓	✓
RESEARCH AND DEVELOPMENT	✓	✓	✓
INDUSTRY	✓	✓	✓
	Manual valves are available in different body patterns with connections from ¼" up to 1" MPCT and MAWP 1'380 bar (20'000 psi). All valves allow bi-directional flow, have two-piece stem configuration and are available also for extreme temperature applications.	All manual valves are available with normally open (ATC) or normally close (ATO) actuation allowing remote control and actuation. Actuators can be equipped with proximity and micro-switches. All valves allow bi-directional flow.	Solenoid valves incorporate highest quality and the smallest possible footprint and weight (max. 1.5 kg). SP-valve with 5.2 mm orifice has 3/8" MPCT, SD-valve with 0.35 mm orifice has ¼" MPCT connection, both are normally closed and capable of MAWP of 1000 bar (14500 psi). SD valve allows bi-directional flow.
	Learn more: novaswiss.com/mnv	Learn more: novaswiss.com/anv	Learn more: novaswiss.com/sv
			

FITTINGS, ADAPTERS AND TUBING

Wide range from ¼" up to 1" MP tube O.D. with 1'380 bar (20'000 psi) MAWP, allow safe connection of all high-pressure components and have a leak free H₂ circuit.

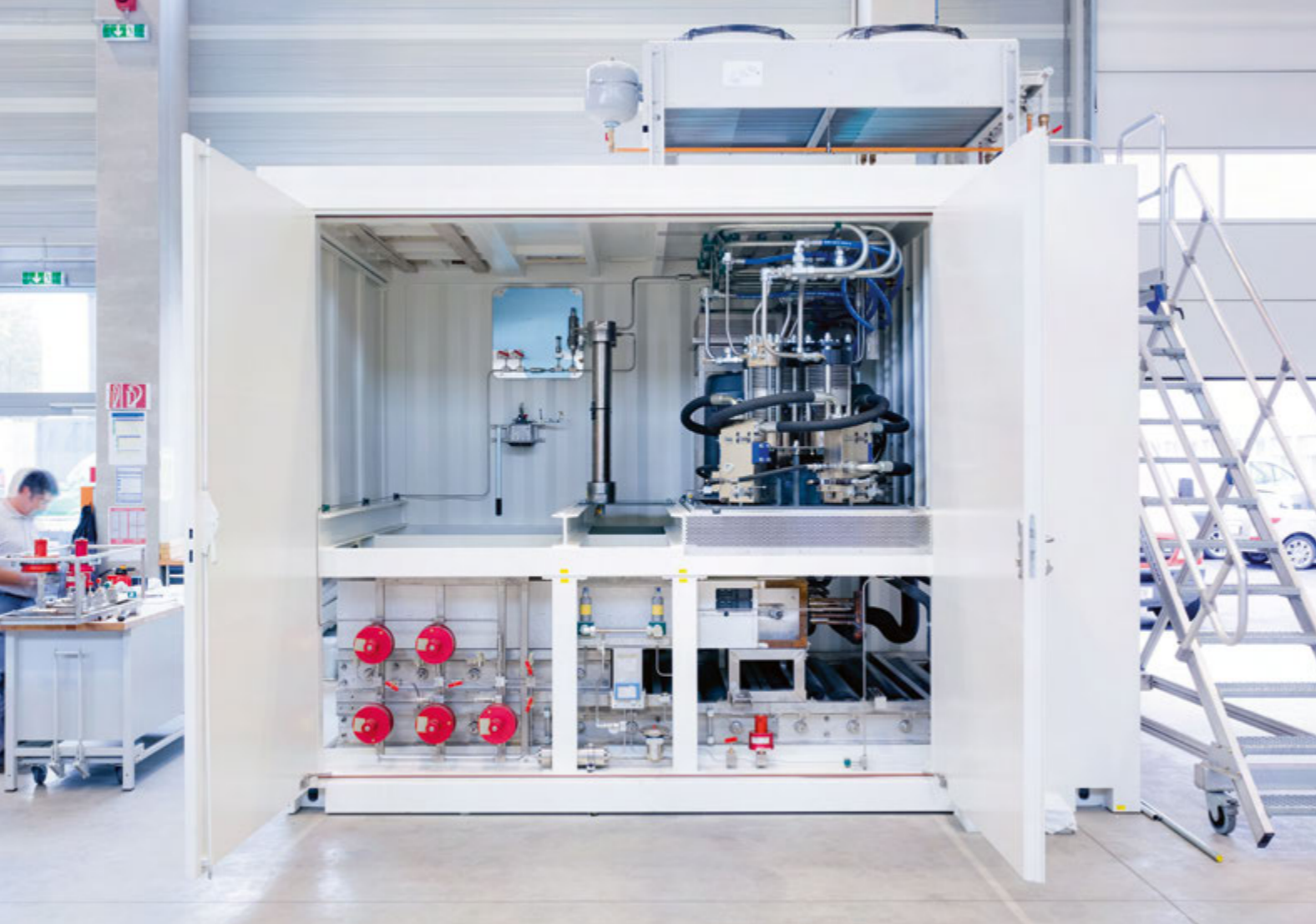


	CHECK VALVES	SAFETY VALVES	COMPRESSORS	ACCESSORIES
FLOW Kv [m³/h]	up to 1.47	N/A	N/A	N/A
MOBILITY AND TRANSPORTATION	✓	✓	✓	✓ 3 4
FILLING STATIONS	✓	✓	✓	✓ 1 2 3 4 5 6
RESEARCH AND DEVELOPMENT	✓	✓	✓	✓ 1 2 3 4 5 6
INDUSTRY	✓	✓	✓	✓ 1 2 3 4 5 6
	Check valves are available with connections from ¼" up to 1" MPCT and MAWP 1'380 bar (20'000psi). All valves are with semi-soft seat guaranteeing leak tight service.	CE marked Safety valves protect the circuit and operators vs. over-pressurisation. High-pressure process connection is ¼" HPCT and bleed connection is ¼" NPTF, MAWP is available up to 2'000 bar (29'000 psi).	Diaphragm Compressors with low operational cost and ease of maintenance are supplied as bare compressors or as units ready for use either with asynchronous- or servo motor drive. They are capable of pressurizing and maintaining the process gas clean from 20 bar up to MAWP of 3'000 bar (43'500 psi) with flow up to 4'800 NI/h at 1'000 bar (14'500 psi).	<ol style="list-style-type: none"> 1 Flexible hoses 2 Gas boosters 3 Pressure regulators 4 Gauges 5 Pressure transducers 6 Temperature transducers
	Learn more: novaswiss.com/cv	Learn more: novaswiss.com/sfv	Learn more: novaswiss.com/cp	Learn more: novaswiss.com
				

CUSTOMIZED SOLUTIONS

Contact Nova Swiss for customized products and solutions.

Applications



**WHAT MAKES YOU SUPER
IS NOVA**

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