NOVA SWISS

World leader with innovative products

NOVA WERKE AG is a Swiss technology company based in Effretikon with subsidiaries in France, Germany, Italy and Hong Kong.

The company develops and manufactures under the Nova Swiss quality brand across three product lines and production areas: High-Pressure Technology, Engine Components and Surface Technology.

Nova Swiss Group

- Founded in 1921
- Over 150 Employees
- CHF 50 million annual turnover Global (2025)
- Headquarter: Effretikon, CH
- 2 Productions sites:
  → Switzerland
  → France
- 3 Sales offices:
  → Germany
  → Italy
  → China

A company of KOWEMA

Quality and Reliability

Nova Swiss's strengths lie in development, production and quality assurance.

Our technical expertise and many years of experience ensure the highest standards of quality, safety and sustainability, underpinned by continuous development and proven reliability in practice.

Quality and continuous quality assurance are fundamental pillars of NOVA's philosophy. They shape not only our products and processes but also all operations and workflows across all companies within the group.

You can find all certificates at:
novaswiss.com/downloads

Research and Development

Continuously Improving: Flexible and Adaptable

We lay the foundations for new Nova Swiss products through constant development, the deepening of our expertise and an open-minded approach. A key component of this is the continuous improvement process.

Our materials and testing laboratories serve both to ensure the quality of our products and to support new product development. In addition to complex calculations, their tasks include assessing suitable materials and manufacturing processes.

Safe and completely reliable

Nova Swiss products meet the latest market requirements and relevant legal regulations. They meet the highest safety standards, even in sectors with particularly stringent requirements.

OUR PRODUCTS

3 Product Lines – 1 Brand: Nova Swiss

ENGINE COMPONENTS

EC

Common Rail Pressure Line Systems 11
Common Rail Products 12
Industries and Applications 13

HIGH PRESSURE TECHNOLOGY

HP

Components und Systems 15
Gas-High-Pressure Components 16
Liquid-High-Pressure Components 18
Systems und Installations 19
Customized Solutions 20
Industries and Applictions 21

SURFACE TECHNOLOGY

ST

Thermal Spraying 23
Our Processes 24
Supplementary Service 25
Surface Protection 26
Industries 27

ENGINE COMPONENTS

Nova Swiss supplies the world's leading diesel engine manufacturers with injection pressure lines, common rail pressure line systems and air starter components for innovative, heavyduty diesel engines.

Common Rail Pressure Line Systems

For years, leading global manufacturers of combustion engine have been turning to Nova Swiss for the right injection pressure lines, common rail pressure line systems and air starter components.

Whether they are used to power generators, ships, locomotives or large commercial vehicles, Nova Swiss common rail pressure line systems help to make these engines cleaner and safer while also protecting the environment.

HYDROGEN

AMMONIA

METHANOL

Common Rail Products

Fuel Injection Lines

High-quality fuel injection lines for diesel engines are developed and manufactured to the highest quality standards. Through close collaboration during the development phase, our engineers support engine manufacturers in implementing the most cost-effective and efficient solution.

Nova Swiss Shielding

These cladding systems enhance the safety of fuel lines by securely containing and diverting leaks, whilst also providing additional protection against external influences. The profiled cladding tube also allows for a larger flow cross-section and offers flexible installation options.

Accumulators and High Pressure Rails

Compact, modular high-pressure accumulators, designed for flexible use on any modern common rail engine up to 3,400 bar to compensate for pressure fluctuations.

Air Starter Components

Air Starter Components designed for pressures up to 40 bar are universally applicable and suitable for all diesel and gas engines with indirect or direct starting air supply. Thanks to their flexible design, they can be easily adapted to different engine designs.

Industries and Applications

Wherever the highest standards apply, our solutions deliver safety, reliability and precisely tailored systems.

Marine

Railroad

Mining

Power Stations

Nuclear Power

Data Center

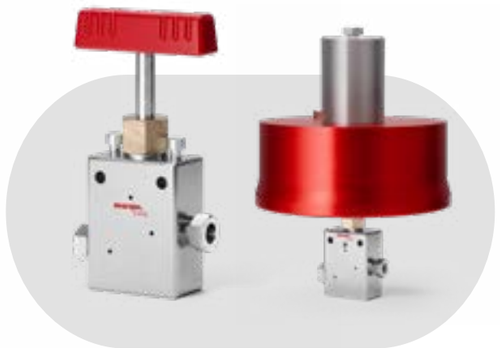
HIGH PRESSURE TECHNOLOGY

Nova Swiss develops and produces highpressure components and systems up to 10.000 bar. As a leading supplier, our solutions ensure reliability and performance in demanding industries.

Components and systems for the most demanding requirements.

In addition to our standard high-pressure components, we develop state-of-the-art systems and plants tailored precisely to our customers' requirements. As pioneers in high-pressure technology, we are helping to shape the path towards a sustainable future and provide forward-looking solutions to industries worldwide.

Gas-High-Pressure-Components



Needle valves with manual and pneumatic actuation

Valves for Extreme Temperatures

Fittings and Adapters

Safety Valves

Ball Valves

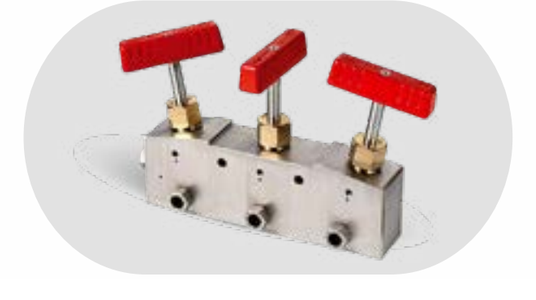
Check Valves

SP / SD Solenoid Valves

Tubes and Nipples

Coaxial Valves

Intensifier



Block Valves

Liquid-High-Pressure Components

Needle valves with manual and pneumatic actuation

Ball Valves

Check Valves

Systems and Installations

Diaphragm Compressors

Hand Pump Systems

Gas Injection Units

Pressure Generators

Customized Solutions for Special Requirements

Our Exclusive Products represent tailor-made solutions that meet the highest standards. We manufacture exclusive products according to individual customer requirements, with the utmost precision, technical excellence, and an uncompromising commitment to quality and safety.

Industries and Applications

Our technologies are used across a wide range of industries where precision, safety and efficiency are crucial.

Research and Development

Aeronautics and Aerospace

Food Processing

Waterjet Cutting

Mobility and Transport H_2

Storage and Refuelling H_2

SURFACE TECHNOLOGY

Nova Swiss offers a comprehensive portfolio of cutting-edge surface technology processes and services, providing tailored solutions for a wide range of industries. Our focus is on thermal spraying, complemented by precise layer development and post-processing.

ST

Thermal Spraying

Protection and Performance for Surfaces

Thermal spraying is a tried-and-tested process for surface finishing. By melting and applying coating materials, durable layers are created that offer wear protection, corrosion resistance or specific thermal and electrical conductivity, ideal for a wide range of industrial applications.

After heat transfer to the base material, they solidify and form a layer in successive passes. The desired thickness is achieved by repeatedly passing the torch over the surface.

Our Processes

Arc Spraying

- Very high deposition rates combined with low thermal stress on components
- Applications: Cathodic corrosion protection using zinc or aluminium materials

Plasma Spraying (APS)

- Ceramic coatings (Al_2O_3, Cr_2O_3, ZrO_2) with a thickness of 100–500 µm
- Applications: turbine components, pump components, valves; ideal for wear and high-temperature protection

High velocity oxygen fuel spraying (HVOF)

- Carbide coatings (WC-Co, WC-CoCr, Cr_3C_2-NiCr) with low porosity (<1–2%) and a hardness of 800–1,400 HV
- Applications: shafts, piston rods, hydraulic components; maximum protection against wear and corrosion

Supplementary Services

Coating Developments

Innovative solutions for maximum performance

We work on the development of new coatings for demanding industrial applications.

Laboratory

Ensuring excellence through advanced testing

To guarantee the highest quality and reliability, we rigorously test our coatings in our in-house laboratory, using cutting-edge analysis technology to ensure they meet specific requirements and can be optimized for optimal performance.

Grinding and Honing

Perfect finishing for maximum precision

After the coating process, mechanical finishing is crucial to achieve a perfect surface..

Surface protection

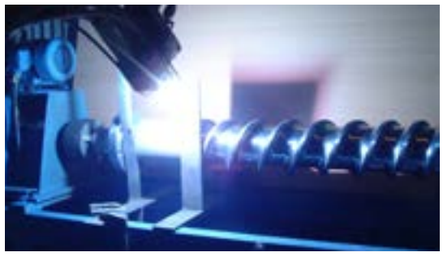
Thermal spraying is used to apply a high-performance protective coating to components, providing reliable protection against wear, corrosion, cavitation and thermal stress. The result: sustained maximum performance, extended service life and the highest level of operational reliability.

Wear Protection

Ensures increased durability by reducing mechanical wear in demanding applications.

Corrosion Protection

Prevents material degradation by shielding components from moisture, chemicals, and other environmental influences, ensuring longterm durability.



Cavitation protection

Prevents damage caused by vapor bubble collapse, extending the lifespan and efficiency of components exposed to high-pressure fluids.

Thermal Protection

Shields components from extreme temperatures, reducing heat-induced wear and enhancing durability.

Industries

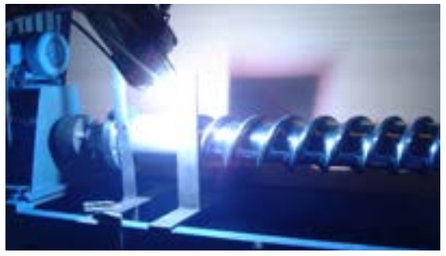
Our solutions are used in demanding industries with the highest standards of quality, safety and durability.

Energie Sector

Pump and Conveyor Technology

Paper / Wood / Recycling

Mechanical Engineering



Pharmaceutical and Chemical Industry

Nova Werke AG
Vogelsangstrasse 24
8307 Effretikon
Switzerland
Phone +41 52 354 16 16
Fax +41 52 354 16 90
info@novaswiss.com

Nova Werke Deutschland GmbH
Am Brambusch 22
44536 Lünen
Germany
Phone +49 231 42 57 78 10
Fax +49 231 42 57 78 13
sales@novaswiss.com

Nova Swiss SARL
31 Rue Denis-Papin
77240 Cesson
France
Phone +33 1 64 41 18 48
info@novaswiss.com

Nova Werke Italia SRL
Via Venegoni 28
21013 Gallarate (Varese)
Italy
Phone +39 375 737 87 81
salesitaly@novaswiss.com

Nova Werke China Co. Ltd.
Unit 6, 12/F, Prosperity Millennia Plaza
663 King's Road, North Point
Hongkong
Phone +852 531 839 88
Phone China +86 147 150 309 31
info@novaswiss.com

novaswiss.com