

NOVA SWISS

ENGINE COMPONENTS

A large, stylized teal graphic on the right side of the page, resembling a complex engine component or a network of interconnected parts. It features several thick, rounded lines that branch out and connect at various points, forming a shape that could represent a piston, a valve, or a similar mechanical part.

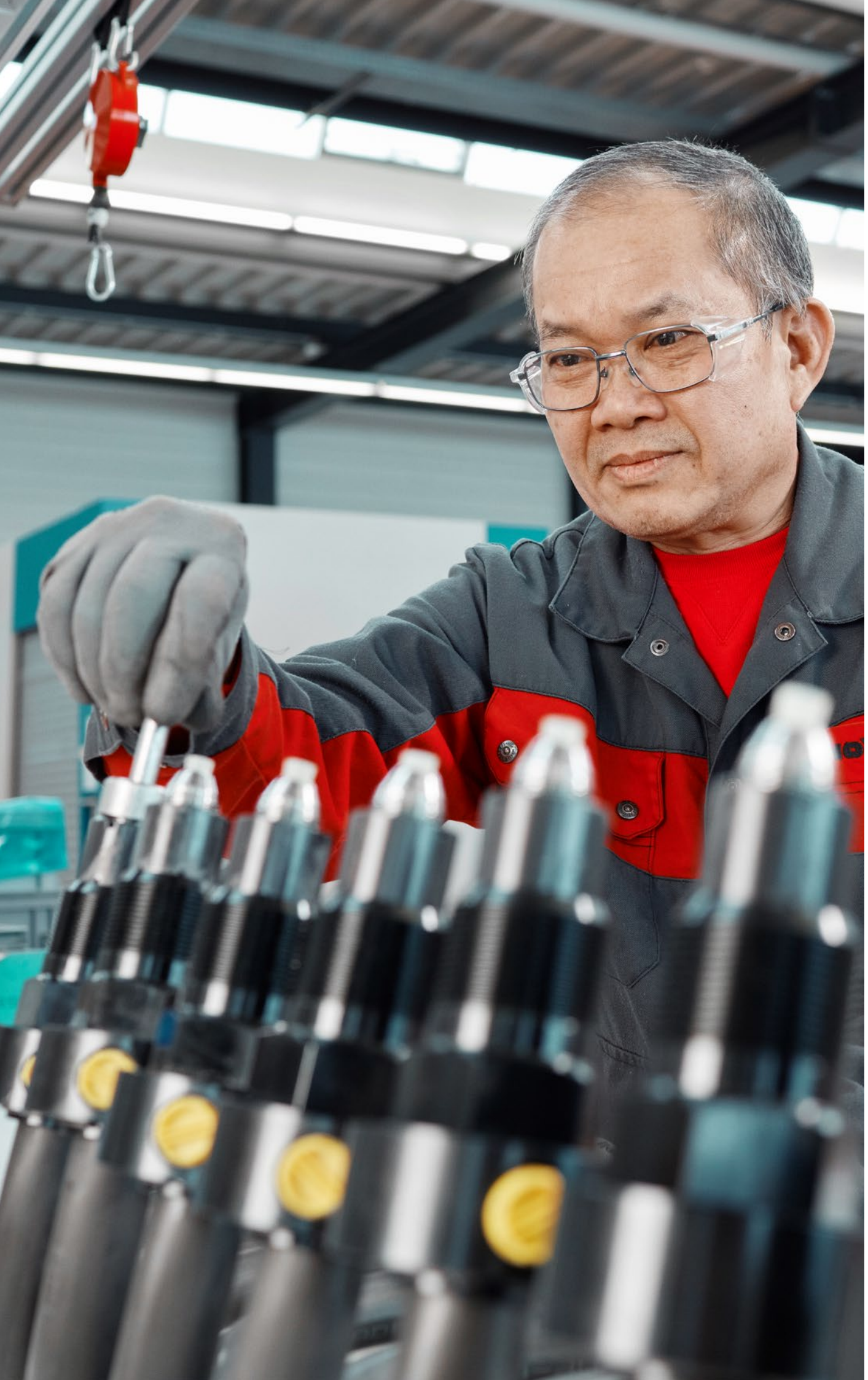
Engine Components

**CUSTOMIZED COMPONENTS
DEVELOPED AND PRODUCED
BY NOVA SWISS**

We supply the world's leading manufacturers with high-pressure fuel injection lines, common rail pressure line systems and air-start components for innovative, highly resilient diesel engines.

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Common Rail Pressure Line Systems

CLEANER, QUIETER AND ENVIRONMENTALLY COMPATIBLE

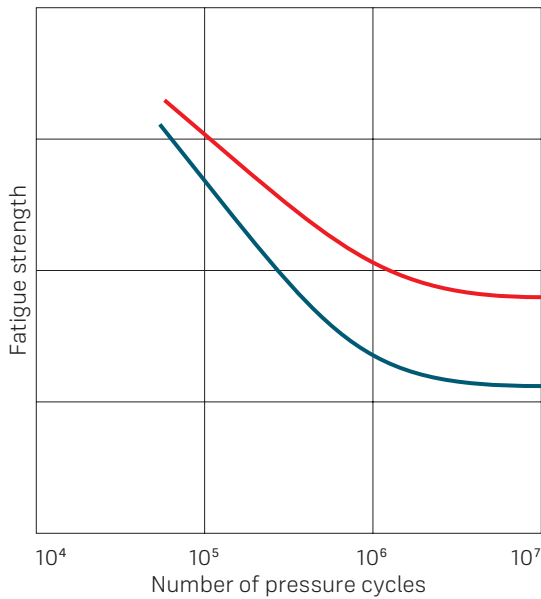
For many years, the world's leading diesel engine manufacturers have chosen Nova Swiss high-pressure fuel injection lines, common rail pressure line systems and air starting components.

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.

High-Pressure Fuel Lines

TAILOR-MADE SOLUTIONS FOR PRESSURES UP TO 3'400 BAR

Nova Swiss offers the perfect high-pressure fuel injection lines for diesel engines. Working in close partnership with the engine manufacturers during the development process, our engineers help to create the most cost-effective and efficient solution.



- Post-treatment according to NOVA NHP-110
- Without post-treatment

HIGH QUALITY IS ENSURED BY STRICT CRITERIA

Nova Swiss pressure pipes satisfy the most stringent requirements for materials, dimensional tolerances, strength and surface quality. When selecting material for our pressure pipes, we study both the operating conditions on the engine and the maximum pulsing injection pressures. For us, quality is also a question of fine tuning.

SPARKLING CLEAN

For our customers, the cleanliness of the injection components is of critical importance. In order to meet this requirement, we have developed a powerful cleaning concept based on an environmentally friendly medium.

VIRTUALLY ANY GEOMETRY IS POSSIBLE

Nova Swiss high-pressure fuel injection lines are individually designed on the basis of defined performance parameters and optimally matched to the injection system as a whole from the very start of development. Precise geometrical measurements are the first prerequisite for tension-free mounting and thus perfect operation of the system.





Nova Swiss Shielding

FOR MAXIMUM SAFETY

Nova Swiss shielding systems comply with all relevant provisions set out by the classification societies. A defect in a ship's fuel line system could, for example, trigger a fire in the engine compartment and thus render the ship unable to maneuver. Fuel leaks onto hot parts of the engine are the most common cause of engine room fires on board of ships.

Serious problems of this kind can be avoided with the special Nova Swiss shielding system. In the event of a leak, the shielding system prevents an uncontrolled spillage of fuel onto hot engine components. The jacket pipe is firmly attached to the end pieces. Any leakage remains inside the

jacket pipe and is safely discharged into a retention tank. In addition, the shielding provides increased resistance to external damage.

The Nova Swiss profiled jacket pipe significantly increases the flow cross-section compared to conventional shielding. Uniform contact with the pressure tube is distributed directly over the circumference, enabling complex bending geometries and a flexible choice of mounting points on the engine.





Accumulators and High-Pressure Rails

THE FLEXIBLE POWER PACKAGE

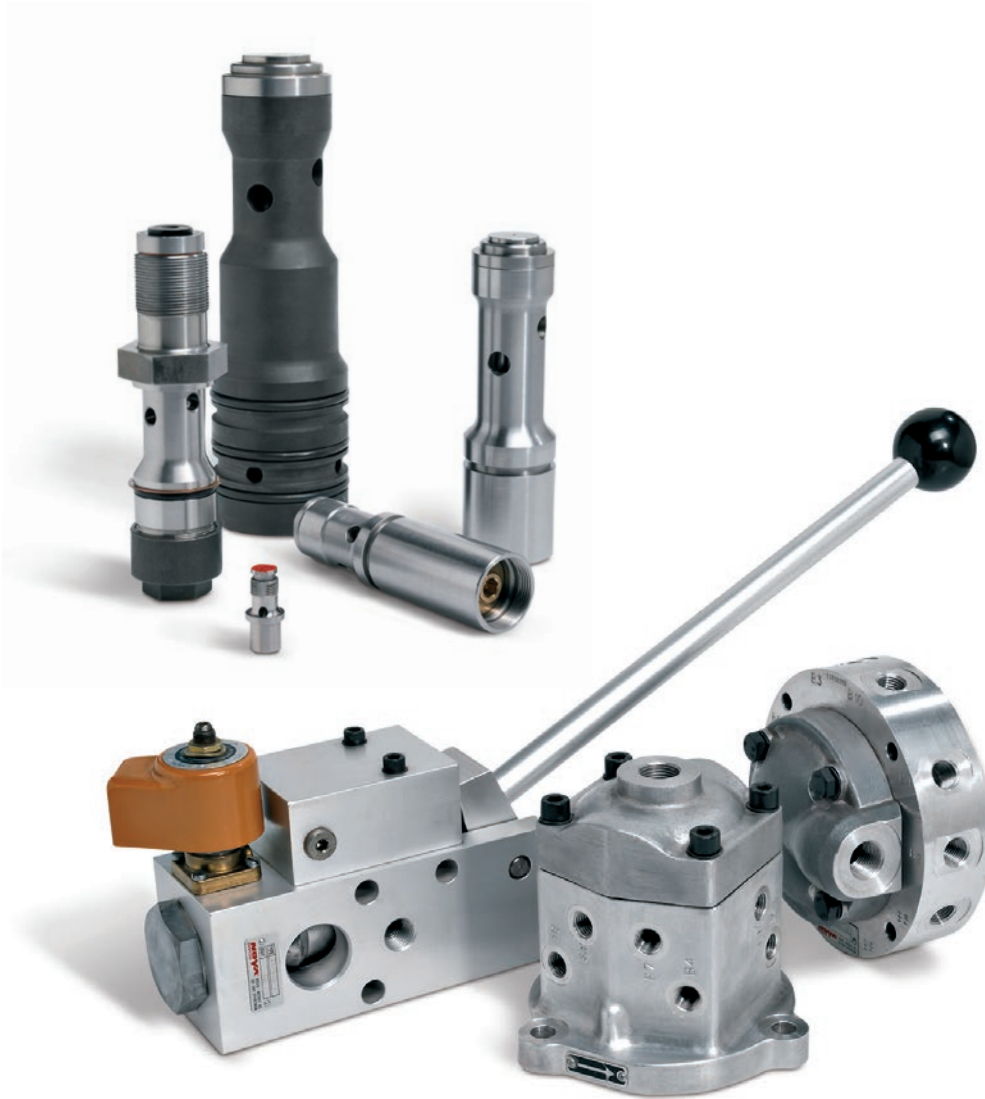
Compact, modular, high-pressure accumulators designed to compensate for pressure oscillations on all modern common rail engines up to 3'400 bar.

Other applications include hydraulic systems and static pressure applications. Our products' modular design ensures that they can be easily adapted for different volumes. In addition, they can be easily tailored to customer-specific connection geometries, and are available with integrated high-pressure fuel manifolds as well as Nova Swiss leakage detection technology. The design can be either unsheathed or sheathed, with or without leakage discharge.

CHARACTERISTICS

- Dynamic system pressure, max. 3'400 bar
- Individually customized volumes
- Fully sheathed
- Leakage pressure up to 200 bar
- Multiple leakage discharges are possible
- Various high pressure connections for pipes and sensors with minimal footprint





Air Starting Components

MARINE DIESEL AND GAS ENGINES CAN BE STARTED SAFELY AND RELIABLY EVERY TIME

Nova Swiss air starting components for up to 40 bar are universal and suitable for all marine diesel oil and gas engines with an indirect or direct air-start supply, because they can be easily adapted to suit any engine design.

Both components are precisely matched. Air starting distributors are mounted on the engine and driven synchronously by the camshaft end. They can be equipped with a movable cardan joint, which compensates for minor axial errors. Our air starting distributors – which incidentally consist of just two moving parts and are maintenance-free – are available for both directions of rotation



**WHAT MAKES YOU SUPER
IS NOVA**

**SURFACE
TECHNOLOGY**



**VALVE
SERVICE**



**HIGH PRESSURE
TECHNOLOGY**



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