



PROVEN AND RELIABLE:

# PUMP-LINE-NOZZLE SYSTEMS

## OUR OVERRIDING PASSION IS PRECISION. ONE OF THE MANY WE SHARE WITH OUR CUSTOMERS

High injection pressures and the suitability for poorest heavy fuel oil qualities and other Biofuels are the major requirements of modern fuel injection systems. Therefore, conventional pump-line-nozzle injection systems have been favored for decades for high-speed off-highway and medium-speed heavy-fuel engines. The main focus is on rugged, durable systems with high injection pressures and the most accurate fuel metering possible.

Due to our long experience in designing and producing pump-line-nozzle injection systems, we are able to provide precise products specifically made to satisfy our customers' needs.



REDUCED EXHAUST AND NOISE EMISSIONS, LOWER FUEL CONSUMPTION, OUTSTANDING RELIABILITY AND DURABILITY ARE THE RESULT OF OUR DEVELOPMENT EXPERTISE.



## THE COMPONENTS:

### PUMPS

- Injection pressure up to 2,000 bar
- High efficiency due to smallest manufacturing tolerances
- Designed for engines from 100 up to 2,000 kW/cylinder
- Injection volume up to 50,000 mm<sup>3</sup>/injection
- Plungers coated with ultra-hard layers to avoid wear and scuffing
- Serial anti-sticking technology

### VALVES

- Cooled and uncooled nozzles
- Housings hardened at over 6,000 bar by autofrettage
- Optimized spray hole configuration for best results regarding emissions and fuel consumption

## SPARE PARTS SERVICE:

A wide range of high-quality components subject to wear, such as pump elements, pump heads and nozzles, as well as sealing kits including shock screws, are available ex stock at our service locations or through the global network of authorized distributors. We also offer a special remanufacturing service for several types of conventional injection pumps.

## YOUR BENEFITS:

- Superior wear resistance
- Proven reliability
- Easy maintenance
- Remanufacturing service available
- Technical support throughout system service life
- Spare parts service for all components

CONTACT OUR  
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WITH ANY  
QUESTIONS



OLD BECOMES NEW:  
OUR REMANUFACTURING SERVICE

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## ALWAYS INNOVATING FOR A BETTER FUTURE

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THIS PRODUCT IS PRINTED ON 100% RECYCLED MATERIAL.