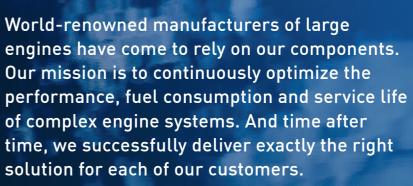
WOODWARD

LARGE ENGINE SYSTEM SOLUTIONS

THE FUTURE IS NOW!

FOR A CLEANER, DECARBONIZED WORLD





The current challenges we are facing call for the development of innovative system technology and new sustainable fuel solutions to meet increasingly stringent emissions legislation. Power-to-X (P2X) is a concept for using surplus renewable power to produce fuels and chemicals. It is considered a key solution to produce carbon-neutral fuels and we are at the forefront of these developments.

- HYDROGEN
- AMMONIA
- E-METHANE
- > METHANE, PROPANE ... METHANOL, ETHANOL ...
- → DIESEL-LIKE HC
- \rightarrow DME, OME

MORE:







SETTING THINGS IN MOTION IS WHAT DRIVES US

Engine control, gas, multi-fuel and diesel injection systems are required to deliver maximum performance under extreme conditions. Whether in the largest marine engines, in the biggest dump trucks or the world's fastest diesel locomotives – innovative technology from us is what they all have in common. As large as the engines and vehicles may be, the tolerances with which the systems are designed and produced are extremely small. High-precision manufacturing techniques – accurate to a thousandth of a millimeter – along with consistent quality controls are the prerequisites for the outstanding performance of our product solutions.

EVERYWHERE PEAK PERFORMANCE COUNTS: LARGE ENGINES WITH OUR SYSTEMS UNLEASH THEIR POWER WITH EXCEPTIONAL EFFICIENCY.











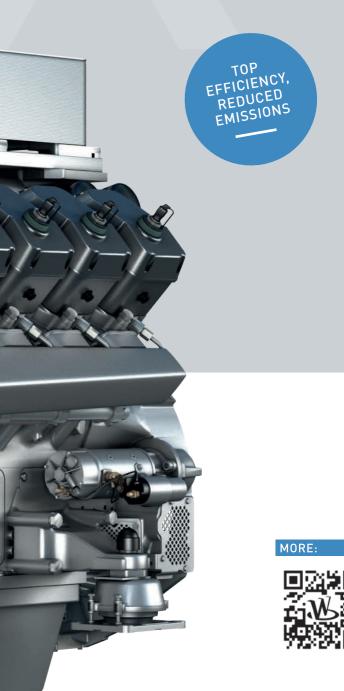


MORE:

WITH INNOVATIVE PRODUCTS, WE ARE MEETING YOUR FUTURE REQUIREMENTS TODAY

More efficiency, lower emissions – your objective is clear. As is what you demand from us. For our entire range of state-of-the-art products and technologies, these two criteria are the measure of all things: from complete injection systems to individual components and the smallest spare parts. This is how we set standards in terms of cost-effectiveness, availability and reliability. And this is how we developed a leading position in our market segment over many years.

INNOVATIVE STRENGTH, EXPERIENCE AND CAPABILITY ARE THE CORNERSTONES FOR OUR FORWARD-THINKING IDEAS AND PRODUCTS. 00000000000000



ENGINE MANAGEMENT SOLUTIONS

FUEL INJECTION SOLUTIONS



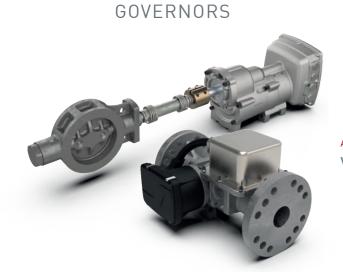
LARGE ENGINE CONTROL MODULES (LECM)

MODULAR FLEXIBLE CONTROLS





P2X MULTI-FUEL INJECTORS HIGH-PRESSURE DUAL-FUEL (HPDF) INJECTORS



GOVERNORS



AIR EXHAUST AND FUEL FLOW CONTROLS VALVES AND ACTUATORS





DUAL-FUEL INJECTORS SINGLE-NEEDLE DF INJECTORS

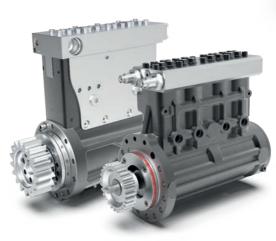
COMBUSTION DIAGNOSTICS AND IGNITION IGNITION SYSTEMS FOR HIGH- OR MEDIUM-SPEED

HYDRAULIC-MECHANICAL











sogav™ gas valves GAS ADMISSION SOLUTIONS



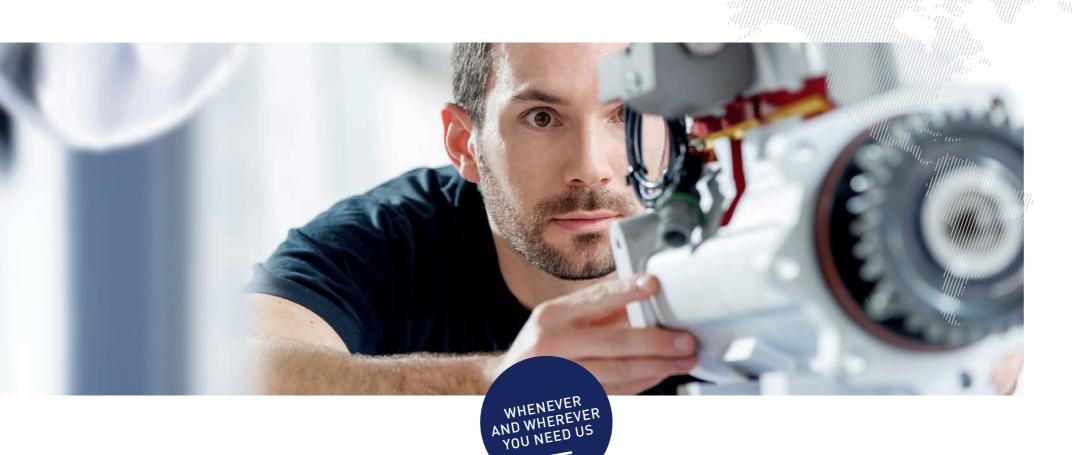


spare parts ORIGINAL SPARE PARTS









AT YOUR SIDE - WORLDWIDE

As an independent partner for industrial systems, we are strengthening ourselves for you all around the globe. With our worldwide distributor network, we ensure fast delivery of spare parts and reliable service throughout the entire product lifecycle.

Constructive exchange with our customers based on partnership and trust is our highest priority. Above all, it's about inspiring teamwork with you to find the right solution together. Through targeted task definition and implementation, we develop system solutions that are customized to your specific requirements. And more often than not, it is the interplay of customer wishes and our extensive experience that brings an even better idea to life.



YOUR PARTNER FOR ANY CHALLENGE: CONSTRUCTIVE DIALOGUE IS THE BASIS OF OUR JOINT SUCCESS.



IN OVER 60 COUNTRIES WORLDWIDE, OUR AND OUR DISTRIBUTION PARTNERS.





LARGE ENGINE SYSTEM SOLUTIONS FOR A CLEANER, DECARBONIZED WORLD



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IVS

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