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Pierburg

New electric actuator family for turbochargers

Pierburg GmbH meeting the latest technical requirements, has developed a new generation of rotary and linear turbo actuators suitable for turbochargers with wastegate or variable turbine geometry (VTG). A modular approach makes it possible to implement individual customer requirements, such as connector position or design, particularly cost-effectively and with little input.

In addition to the necessary force and torque specifications, the new actuators also provide improved operating times, allow a higher number of cycles and reduced weight.

The two and three-stage gear mechanisms used for this purpose are characterized by low noise and a high number of cycles. They offer up to 360° angularity and up to 15 millimeters stroke at the output end. This allows a larger operating range and extended options for various functions. The selection of the electric motors and the chosen design facilitate a constant quality of operation even at an ambient temperature of more than 160 degrees Celsius.

Depending on customer requirements, a return mechanism such as a torsion spring can also be used. A sensor system then enables fully variable control of the actuator over the entire adjustment range. The sensors can also send the present position signals to the engine controller in analog or digital form, depending on the requirements.