

PRESS-RELEASE

GSR Ventiltechnik, D – Vlotho-Exter

Extremely fast and accurate: new valve principle for the fluid technology

GSR Ventiltechnik GmbH & Co. KG developed a valve technology, which will open entirely new possibilities for many aspects of the fluid technology. Due to its design, the Rapid Reaction Valve technology (RRV[®]) offers clear advantages compared to the conventional valve designs and its first applications confirm this statement.

The RRV[®] Rapid Reaction Valve actually is a magnetically operated ball valve. In the medium flow, a magnetisable ball is positioned, which is maintained in the valve seat by the pressure difference between the valve inlet and outlet. The RRV[®] is opened smoothly by a magnetic field, which pulls the ball out of the valve seat.

This patented principle features, amongst other things, fast reaction times, which leads to short circuit times. The valve reacts within one millisecond to the control command with a high operational accuracy. It is suitable for high pressures, enables fine dosing and also offers advantages for applications requiring very high dynamics. Large flow volumes can be accurately regulated but very low flow volumes can be precisely dosed as well.

The new valve technology, furthermore, has a wear-free operating principle: no spring is required for the reset and the ball is the only moving part. The energy demand is extremely low and due to the operating principle, the shearing forces are highly restricted, so that a mild treatment of the medium is guaranteed. The RRV[®] valve therefore is suitable, e.g. for adjusting gas furnaces, for low-quantity lubrication in mechanical engineering and for handling high-viscosity media such as glues, paints and waxes.

GSR has acquired the exclusive rights of use for the valve principle, which was developed by DLR; meanwhile, the first customers are about to use this technology. For these projects, customer-specific solutions will be designed, as the geometry of the valve seat as well as the size and the weight of the ball are determined by the specifications of the application (medium, pressure, desired dynamics, etc.).

Especially in hydraulics and pneumatics the possibilities of this new valve technology have not been fully explored yet. The extremely short circuit times for instance can be used to set up highly "fast" controls, by means of which the holding forces or seal pressures of linear compressed air or hydraulic gears can be adjusted to the individual requirements.

Exhibitor at the trade fair:

ACHEMA 2009
D-Frankfurt am Main
11 - 15 May 2009

**Please visit us
in Hall 9 Booth D33-D34**

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Extrem schnell und hoch präzise: Neues Ventilprinzip für die Fluidtechnik / Extremely fast and accurate: new valve principle for the fluid technology

