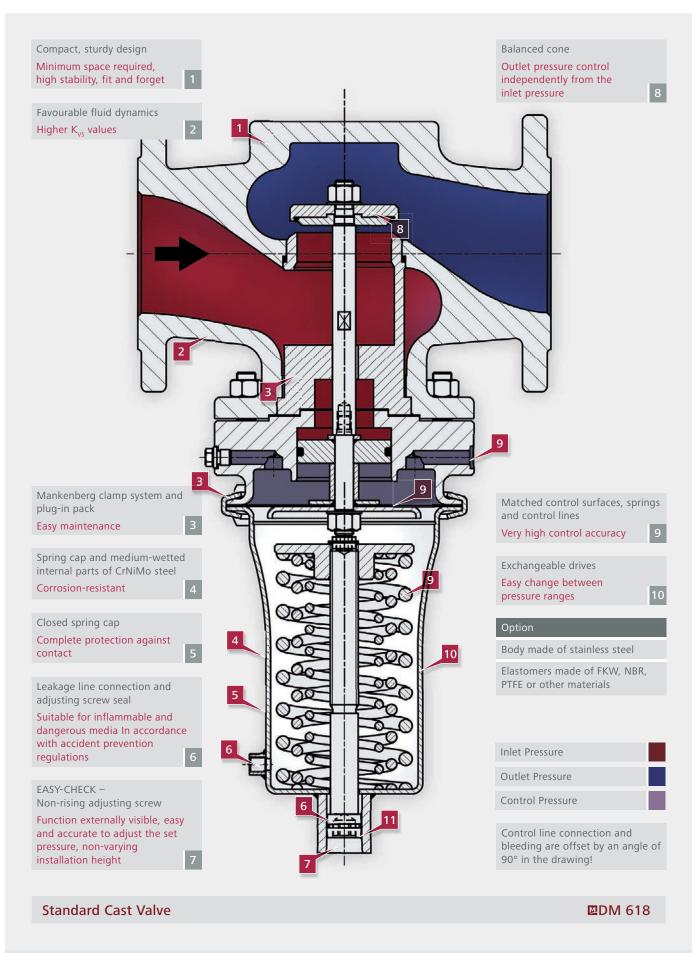
Pressure Reducing Valve

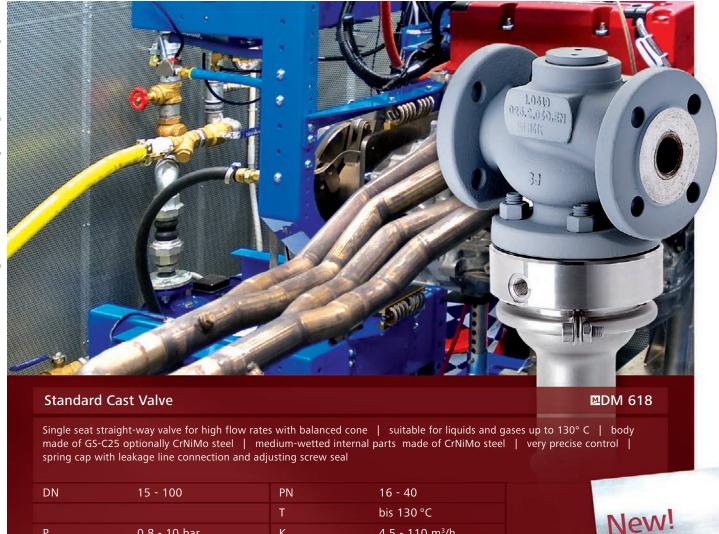




Mankenberg Pressure Reducing Valve in Action







Pressure Control for a Water Brake in an Engine Test Bench

 K_{vs}

0.8 - 10 bar

 P_2

A high level of operational safety and reliability is required for engine-driven plants or systems. The most important technical parameters of the engines can already be determined, analysed, and evaluated on a test bench at the factory through detailed tests. On performance test benches the units under test are examined as to whether they correspond to key parameters of the specification, such as torque or performance. The determined values are used for optimising the engine so that it will operate effectively during its later application.

4.5 - 110 m³/h

A German manufacturer offers measuring instruments and devices for various testing systems, including engine testing systems. The performance test benches perform trial and acceptance tests for hot, i.e. running engines while real operating conditions are simulated. The hydraulic test benches are designed for 400 through to 6,500 kW. They are operated with water from the municipal utilities network at the usual network pressure of 2 - 4 bar.

The water powered performance brakes simulate the engine load. They are designed for 1.5 bar at max. 65 m³/h and are very sensitive to overpressure. The Mankenberg pressure reducing valve IDM 618 controls the water pressure of the water brake and reliably reduces the fed mains pressure down to the required value of 1.5 bar.

The self-acting IDM 618 controls the pressure downstream of the valve without pneumatical or electrical control components. The diaphragm-operated and spring-loaded proportional valve is designed for high flow rates and provides reliable and precise control. The sturdy valve body is made of cast steel. The internal parts are of CrNiMo steel because they are subjected to mechanical stress from the water brake and corrosion.