VPPM proportional pressure regulator

Field of application
Handling and assembly technology with individualised drive acceleration, for example in the furniture industry or in any industry where goods need to be handled with care

Key features
- Variant-rich modular solution
- Three presets: fast, universal, precise
- Two overall accuracy classes
- LED display
- Multi-sensor control for robust control performance
- Two flange types, inline and on the MPA valve terminal

Everything under control

Flexible setup, accurate control performance – the VPPM proportional pressure regulator. Thanks to presets and multi-sensor control via integrated sensors. Moreover, an optional LCD indicates pressure and offers on-site diagnostic functions.

Flexible: VPPM integrated into the CPX electrical terminal ...

... or as an individual valve

The new VPPM proportional pressure regulator is a multipurpose valve for the analytical users: It enables engineers to save money and space, are able to operate a cylinder with a single valve and can control force by means of pressure regulation (clamping cylinders). Functions for the proportional valve can be selected individually with the flexible modular system.

Diversity in action
Whether in handling and assembly technology or in the furniture industry, wherever machine cycle times with low drive speeds are required, and wherever fragile goods need to be handled careful-

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Proportional
VPPM pressure regulator

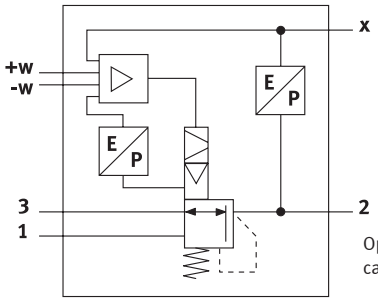
ly with pneumatic drives, for example in the automotive industry, as well as in manufacturing, conveyor and test technology – Festo's proportional pressure regulators are always ready to take on a vast array of tasks. They enable for the adjustment of a great variety of characteristics.

Furthermore, variable flow rate values can be used to adapt cylinder speeds to the manufacturing process. For example, the valves regulate contact force for polishing and friction welding, as well as internal pressure for the extrusion of tubing.

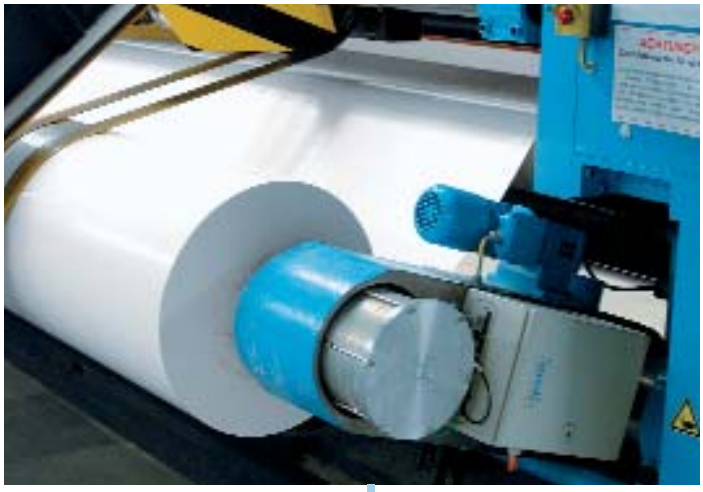
Optimum pressure regulation
All valves from the modular system are equipped with three presets – the parameter sets for each individual application can be selected by simply pressing a button. Selection can be made from fast, universal and precise regulation.

All basic VPPM valves variants are equipped with LEDs. The variant with LCD indicates pressure and offers on-site diagnostic functions. Integrated into the CPX/MPA valve terminal, the VPPM-MPA variant enables access to all common fieldbus protocols. Setpoint/actual value processing included. And the control functions located on the valve terminal have a positive effect on process times, because they reduce the workload for the utilised bus system.

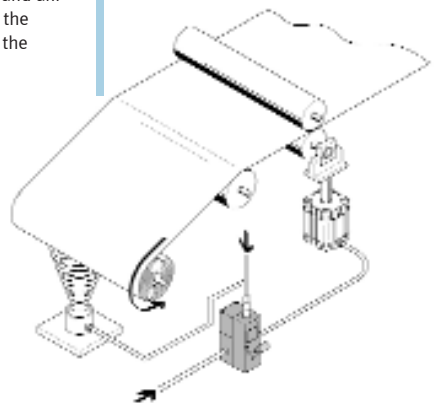
Everything under control
The integrated sensors used for "multi-sensor control", which is unique throughout the industry, ensure robust control performance even in the low-level signal range, and guarantee drift-free control in the event of temperature changes. This is made possible by the cascade control principle, by means of which the overall controlled system is broken down into two smaller, easier to manage subsystems. As opposed to simple, conventional "standard controllers", control accuracy can be improved many times over as a result.



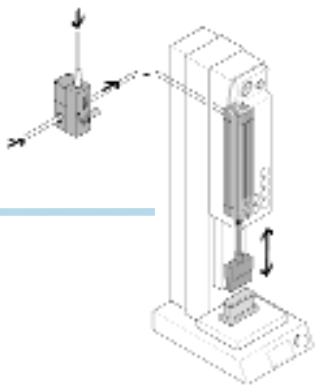
Operating mode: cascade control



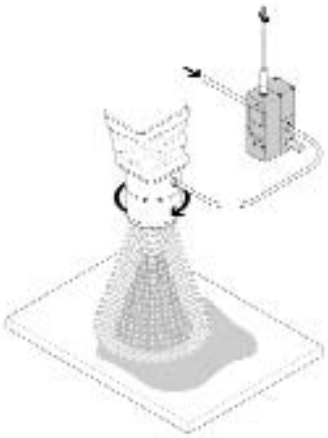
Web edges can be easily adjusted and uniform roll edges can be achieved in the paper and printing industries with the VPPM pressure regulator.



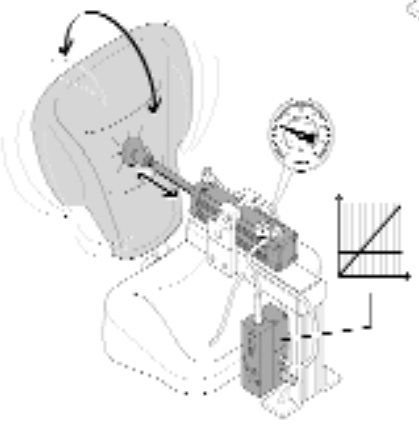
For controlling compensating rollers: adjustment of clamping forces



For ultrasonic welding: replication of force characteristics



In painting systems: maintening a constant pressure



For long-term testing: torque generation