Chemical industry
You are looking for a partner who understands your objectives. You require more efficient production facilities. We are your solution for process automation.

→ WE ARE THE ENGINEERS OF PRODUCTIVITY.

Your aim: production plants with the greatest productivity and reliability
Our solution: smart automation solutions for maximum safety and availability

Increase the productivity and reliability of your production systems by involving us early on in the engineering project. Together we will develop a suitable automation solution that will meet your specific requirements, so that you can benefit from significantly increased reliability and availability. In addition, with Festo as your reliable partner, you also improve energy efficiency and reduce total cost of ownership (TCO). Whether for complete system solutions, sophisticated automation concepts or individual components, we will be happy to show how Festo can offer you distinct advantages.

For more information:
www.festo.com/chemicals
Minimising safety risks for people and the environment
The functional safety of electric, electronic and programmable electronic systems according to the basic standard IEC 61508 as well as the safety of people and the environment, as defined by a Safety Integrity Level (SIL), are the main priorities. Festo offers suitable solutions and design principles based on your risk analysis, for example for sensor technology and redundant dimensioning. We provide components or subsystems with corresponding certificates and manufacturer’s declarations which can be built into safety systems up to SIL 3 so that risks are kept to an absolute minimum.

Keeping extreme temperatures under control
Applications at high or very low temperatures put the materials used to the test. Festo offers numerous products in a high and/or low-temperature design so that even under extreme conditions, reliable, automated control is possible.

Keeping explosive atmospheres under control
The explosion prevention and protection for systems is described in different guidelines around the world, e.g. ATEX for Europe, North Africa and the Middle East; IEC-EX for Australia, New Zealand and South Africa and NEC for the US. Festo offers suitable products for the entire pneumatic and electrical control chain, including extensive documentation and declarations of conformity. We will be happy to answer any questions you may have about explosion prevention and protection.

Mastering aggressive media and raw ambient conditions
Liquids like vapours, acids, alkali, oil and fuel, but also high air humidity, high salt content, frequent rain or snowfall as well as UV radiation put components under particular strain. Many Festo products are manufactured from special materials, such as high alloy stainless steel, among others. In addition, components with corrosion protection coatings or transformed surfaces, e.g. hard ematalised, are available. These versions can be used in practically every ambient condition.
Automation potential in the specialty chemicals industry ...
... and the consumer chemicals industry

**Mixer**
Automating processes in and around the mixer, e.g. inertisation with nitrogen, dispensing and mixing.

**Spray dryer**
Automating processes for filling and draining.

**Media supply**
So that running processes are continuously supplied with the additional media they need.
Actuating process valves

High-end 3-way or 5-way solenoid valve
VOFC/VOFD
For use in safety circuits up to SIL 3 with NAMUR flange pattern or threaded connection, outdoors and in harsh environments. High corrosion resistance thanks to Ematal coating. Stainless steel variant. Low-temperature design down to –50 °C. Solenoids in protection classes: Ex ia, Ex em and Ex d with terminal box for Ex zone 1/21.

Standard NAMUR valve VSNC
With changeable seal for 3/2- or 5/2-way function, 5/2 double solenoid and 5/3 way design. Solenoids in protection classes: Ex ia with plug connector and Ex m with cable for zone 1/21; Ex nA with plug connector for Ex zone 2/22; NEMA 7 and NEMA 9 for Class 1 Div. 1.

Modular electrical terminal combined with modular valve terminal CPX/MPA, CPX/VTSA
Maximum function integration, many electrical connection options: PROFIBUS DP, multi-pin plug, Festo I-Port, fieldbus. Extensive diagnostic options. VTSA – for up to 5 valve sizes on one terminal. Very high flow rate of up to 4,000 l/min. Hot swap for replacing valves during operation. Redundant communication interface, e.g. PROFIBUS DP in combination with a modular valve terminal.

Modular electrical terminal in intrinsically safe design CPX-P/MPA
For installation in zone 2/22 with NAMUR inputs. DI direct from Ex zone 0/20 and AI from Ex zone 1/21.

Positioner CMSX
Regulates control processes for quarter turn and linear actuators in closed loop mode. Energy-efficient operation, high process reliability thanks to analogue and digital feedback signals and definable safety positions.

Valve terminal in intrinsically safe version CPV-Ex; CPV
Can be directly installed in Ex zone 1/21. Pneumatic multiple connector plate wall throughfeed for installation in a control cabinet with IP65.

Actuating process valves

Single-acting or double-acting quarter turn actuator DFPD
With rack and pinion principle for constant torque characteristics. End position adjustable at both ends. Swivel angle up to 90°. Connection pattern to NAMUR VDI/VDE 3845. Suitable for ATEX zone 1/21.

Double-acting linear actuator DLP
For contactless position sensing, adjustable end positions at both ends, suitable for ATEX zone 1/21.

Closed-loop controlled linear actuator with integrated displacement encoder DFPI
Automated process valve units

**Ball valve VZBA**
Made of stainless steel with flange connection or female thread for trouble-free control of aggressive media or gases.

**Knife gate valve VZKA**
Function: open/closed. Also available in a variant with matching actuator which has an integrated positioner and displacement encoder.

**Centric butterfly valve VZAF**
Suitable for safety-oriented applications. Temperature range −20 ... +200 °C. Optional stainless steel variant. Other versions with discs in Hastelloy, Titan, Uranus, etc.

Ready-to-install solutions

**Industry-specific control cabinet solutions**
Completely pre-assembled and tested according to your requirements: control cabinets for zone 1/21 or 2/22; design in IP65.

**Pneumatic operator panels**
Fail-safe solutions for safe switch on and off and/or reaching a pre-defined system status in case there is an interruption. Pneumatic systems combined with electronics. ATEX evaluated.

**Redundant control blocks**
1oo2, 2oo2 and 2oo3 solutions in a compact design and the tried-and-tested technology of individual valves VOFC/VOFD. Suitable for use in safety circuits up to SIL 3.

Sensor boxes, compressed air preparation and accessories

**Sensor boxes SRBC, SRBE, SRBG, DAPZ**
Position indicator for quarter turn actuators with interface to NAMUR VDI/VDE 3845. For use in EX zone 1/21 and Class 1 Div. 1+2. In protection class Ex ia, Ex d, Ex t.

**Service units MS series**
Service unit for air preparation. High flow rates with individual configuration, integrated sensors and safety functions. For simple, standard applications as well as application-specific solutions with demanding requirements. Can be used in Ex zone 1/21. Optional low-temperature design down to −40°C.

**Connection technology and tubing**
Push-in fittings and couplings made of stainless steel.

Tubing for corrosive media and aggressive ambient conditions. UV resistant. PTFE design for particularly demanding requirements.
For years, Festo has been developing factory and process automation solutions for a broad range of industry sectors. By transferring our experience and innovations from one industry to another, we take advantage of valuable synergies and create economies of scale. You too can benefit from our worldwide network of expertise, because it enables us to develop and implement customised concepts for your system quickly and cost effectively.

**Maximum productivity is a question of ambition**
Do you share this attitude? We will be glad to help you achieve this goal – through our four outstanding qualities:

- Security • Efficiency • Simplicity • Competency

We are the engineers of productivity.

Discover new dimensions for your company:

→ [www.festo.com/whyfesto](http://www.festo.com/whyfesto)