

# Printing, Paper and Converting

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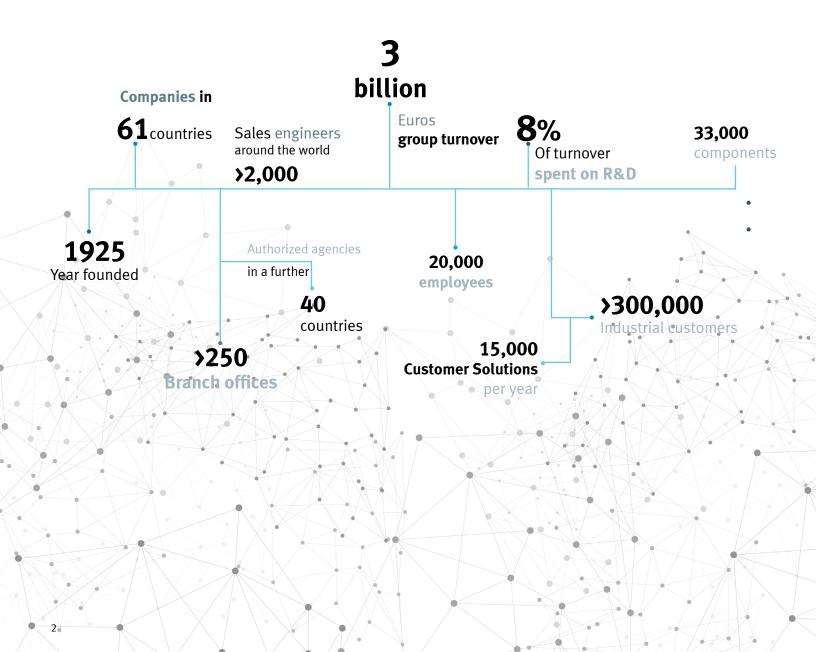
Your partner for factory and process automation



## Festo Figures, facts & data

### The company at a glance

Festo is both a global player and an independent family-run company based in Esslingen, Germany. We supply pneumatic and electrical automation technology for 300,000 customers in over 35 industries.



## **About the Industry**

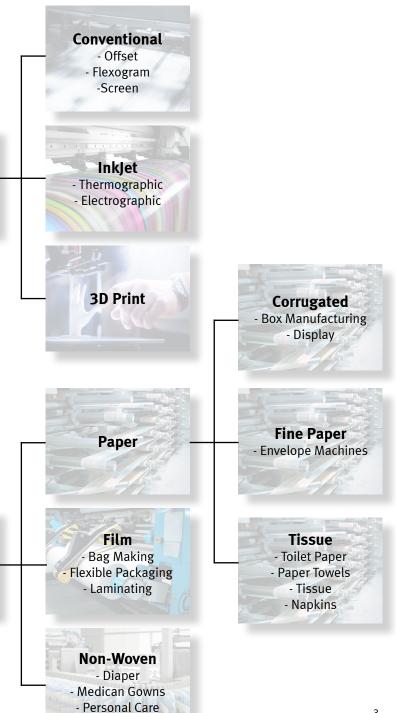
### Many different process steps a single solutions: Festo

Fast, precise, reliable and costeffective – these are the key requirements for successful automation in the printing, paper and converting industries. We are very familiar with these challenges in customers' production processes. From this know-how, we develop suitable, compact and economical automation solutions that can be used to lower production costs and increase productivity.

> Printing, **Paper and** Converting



Print





## Printing

## Ink Jet/Digital, 3D printing and Conventional



#### InkJet/Digital

Roll-to-roll, flatbed, single-pass. Whatever concept for inkjet or digital printing your business manufactures, Festo has the right solution, offering a wide range of valve terminals, laser and air sensors, UV lamp shutters, E-drives and more.

From carriage, gantry and flatbed movement to media advancement to registering systems to register pins and beyond, Festo products meet and exceed the demanding applications of the inkjet/digital printing industry and keep your machines running reliably, proficiently and at laser-fast speeds.

## Converting

#### Paper, Film and Non-Woven



Unplanned interruptions can have dramatic consequences on any factory floor, but especially for paper production, which is a continuous process. Our pneumatic components, complete systems and support tools ensure optimal operation of machines used for converting fine paper, corrugated board or tissue.

- Fine Paper: drying and shape finishing.
- Corrugated Board:
- Tissue:

#### Film/Foil

Innovation and technology in film and foil converting has fueled industry growth, in large part thanks to flexible packaging, the fastest growing market segment for narrow web. Now more than ever, manufacturers need reliable, intuitive automation solutions to deliver the best performance on the production lines and get to market faster.

With our thorough understanding of web-based processes and converting systems, we equip you with the tools you need to achieve maximum productivity, quality and efficiency in the converting of packaging film, plastic bags, laminates, and other forms and products.

# Non-woven

to the manufacturers of converting machinery equipment. A greater demand for products coupled with the need to meet rising customer quality requirements is pushing the industry's leading converters to the limits.

Festo helps non-woven manufacturers and converters process their materials - from diapers to wipes to filters to medical gowns-with automation solutions designed to speed production, drive down costs, reach shelves faster, and achieve customer satisfaction.



#### **3D Printers**

3D printers used to be expensive and slow and only used for rapid prototyping. But the next generation of printers have become faster, cheaper and in higher demand than ever before. And Festo is at the forefront of this growing sub-market of the printing industry, creating structures that are not built up on a surface one layer at a time, but are actually constructed freely in space!

Whatever 3D printer you're putting together on the factory floor, Festo has the software, tools, and post-sales assistance to help you design, manufacture and run your machine at peak efficiency.



#### **Conventional Printing**

Conventional printing remains the process of choice for long-run production, where consistent quality from job to job is critical, whether the printing method is flexo, gravure or offset.

Festo's variety of components and solutions make machine manufacturing simple and efficient, equipping you with both the products and support tools you need to ensure high-speed operation, maximum process reliability, and a smooth and profitable workflow.

Festo provides main pneumatic elements for envelop machines, assisting in the processes of forming,

Festo's advanced automation components and systems for packaging machinery helps OEMs stay competitive with increased throughput volume and consistency.

From toilet paper to paper towels to tissues to napkins, Festo automation solutions help bring these paper products from the factory floor to the grocery store.

New technological developments and new production techniques in non-wovens have presented new challenges

#### Automation products



#### Standard Cylinder DSBC

Clever cushioning – save time on adjustment: The standard cylinder DSBC with the self-adjusting pneumatic end-position cushioning adapts optimally to changes in loads and speed.

#### EGC



Handling axis with simple, integrated plainbearing guide or roller bearing guide for high feed forces. Flexible motor connection at both the right and left-hand axis end is possible - as is subsequent conversion. Compatible with all stepper motors and servo motors.



A complete solution combining motor and motor controller (drive system) for positioning electromechanical drives and for format settings. The integrated oiwer ekectronics avoid the use of long motor cables, improve the electromagnetic compatibility and reduce the installation workload and space requirements.

#### Vacuum Generator OVEM

Condition monitoring increases process reliability and prevents machine stoppages. Monitoring of set evacuation and ejection times for each cycle with prompt automatic error message. Air Saving circuit for optimized energy efficiency.

#### Soft Start/Quick Exhaust Valve MS6-SV-E

Reliable and fast venting of systems. Integrated pressure build-up function. Diagnostics, switching status and pressure sensing via AS-i bus.

Certified by the IFA (Institute for research and testing of the German Social Accident Insurance) for Performance Level e, category 4 in accordance with DIN EN ISO 13849-1.

#### Accessories Compressed Air Supply

Optimal pneumatic supply and connectivity. Suitable for trouble-free operation of the compressed air supply system.







#### Safety solutions

Security... at Festo this means peace of mind. Protecting people, animals, property and the environment from harm, Festo safety solutions can help you to do just that.

Injuries on the production floor happen all too often, damaging worker morale and leading to costly downtime, and ultimately lost productivity. Preventing these accidents carries numerous benefits and this is what Festo can help you to do by bringing risk to an acceptable level through technical measures.

Festo safety solutions make use of safety sensors on the input level, safety controls on the processing level, and protective measures on the output level. These safety solutions from Festo can help you achieve safe and reliable:

- stopping
- exhausting
- protection against unintended start up

#### Valve terminal cabinets for decentralized automation

**Customized Control Cabinet Solutions** Festo offers design, engineering and fabrication services of control cabinets tailored to the facility specifications



#### **CPX** terminal

Components of the automation platform

For integration of pneumatic and electrical control chains. As valve terminal partner or remote I/O unit. Open for all fieldbus and Ethernet standards.

#### Sensors - Focus on zero error production



For pneumatic and electrical power supply for up to 32 valves. With regulators, flow control valves, shut-off plates, switching position sensing and pressure shut-off plate for "hot swap" maintenance or repair work. VOFA safety valve with integrated proximity sensor for spool sensing.

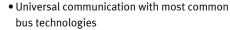
#### Valve terminal CPX/MPA

Space-saving system and function integration for diagnostics and condition monitoring in one valve terminal. Greater system availability and increased productivity.

#### **Proportional Valve VPWP**

The proportional directional control valve is suited for applications with Soft Stop and pneumatic positioning. It is fully digitalized - with integrated pressure sensors, with new diagnostic functions.





- Automatic/manual operation switchover for unambiguous operating status
- Manual control panel can also be used during servicing or fault elimination
- Local control and communication with all field devices integrated
- Local transparency thanks to LED signal display
- Variant available for installation outdoors
- Variant available with protection class IP65
- Hazardous location versions, for example, for sludge-treatment or digesters
- High plant availability

Modbus/TCE INTERBU.



CANopea

DeviceNet



Pressuring

 $\mathbf{\hat{n}}$ 

Two-hand

control

### **10 safety functions**



Maintaining pressure



Reducing Speed



Reducing pressure and force



Free of forces



Exhausting



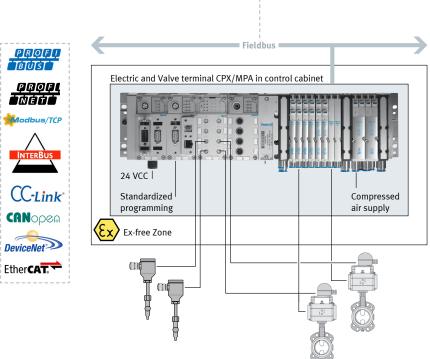
Reversing a moment

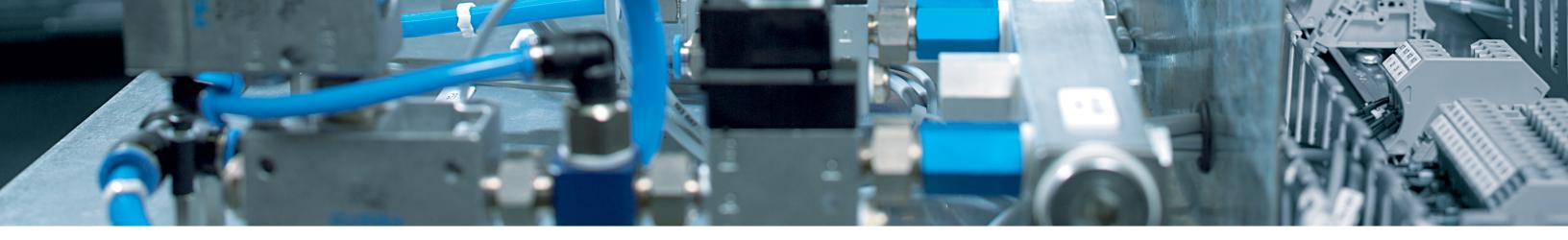


Tamper-proof, prevention of unexpected starting-up



Stoping, holding and blocking movement





#### Festo - Global manufacturer of process control and factory automation solutions

Festo is a leading global manufacturer of automation technology including systems, components, and controls for process control and factory automation solutions. Festo Didactic provides industrial training and education programs aimed to maximize the productivity and competitiveness of its customers.

Our objective is to provide innovative solutions to solve the most challenging automation problems.



Working with designers and manufacturers to increase manufacturing productivity, we continue to advance the state of industrial automation with proven innovations, customized design solutions, and exceptional service worldwide

At the control level, Festo manufactures pneumatic pilot valves, valve terminals, I/O systems and HMIs which integrate seamlessly with leading DCS and controllers.

This reduces risk and cost by simplifying integration and providing a single source supplier. The ability to incorporate standard diagnostic features into solenoid valves and I/O systems helps accurately diagnose problems which reduce downtime and field service calls. With the comprehensive range of products, engineering competencies and strong design experience. Festo is uniquely positioned to be your complete automation solutions partner.

#### The quick and easy steps to your ready-to-install solution

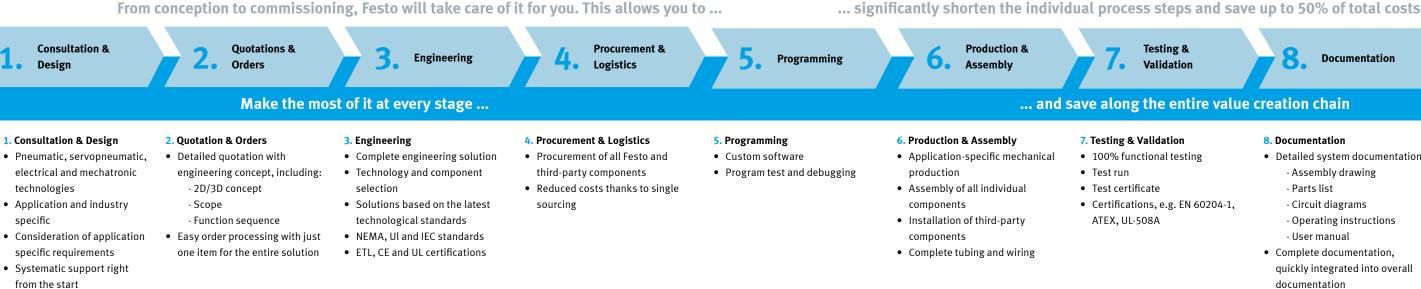
#### **Excellence in Automation**

Our engineers are backed by over 80 years of industry experience in building advanced pneumatic and electro-mechanical control systems and components for OEM's and end-users around the world.

#### Custom Systems and Components, from Concept to Completion

Our project teams will work with you every step of the way, from concept through system design and delivery of a complete automated system. • You contact us and describe your task to us.

- close consultation with you.
- We produce a customized quotation for you.
- We procure the components.
- We build, test and document your solution.
- We deliver the ready-to-install system to you.
- If desired, we commission it as well.



• We design your system and develop your ready-to-install solution in

#### **Total Quality Assurance**

Festo established a certified management system as a basis for implementing, maintaining and continuously improving quality, safety and environment practices. This is applied to all production and design facilities globally. We adhere to the following standards:

- ISO 9001
- ISO 14001



sting & lidation	<b>8.</b> Documentation	9. Delivery & Commissioning
e entire value	creation chain	
<b>dation</b> nal testing e , e.g. EN 60204-1, A	<ul> <li>8. Documentation</li> <li>Detailed system documentation: <ul> <li>Assembly drawing</li> <li>Parts list</li> <li>Circuit diagrams</li> <li>Operating instructions</li> <li>User manual</li> </ul> </li> <li>Complete documentation, quickly integrated into overall documentation</li> </ul>	<ul> <li>9. Delivery &amp; Commissioning</li> <li>Delivery of a ready-to-install system</li> <li>Commissioning service</li> <li>Low logistics costs for only one item</li> <li>Minimal assembly and installation effort with Festo plug and work<sup>®</sup> <ul> <li>Straightforward assembly principles</li> <li>Defined interfaces</li> </ul> </li> </ul>

- Teach-in or parameterization functions

#### **Exceptional Service**

#### **Customer Service**



Visit our website to find information on how to reach our Customer Interaction Center.

# Stars of Automation



- Ready for delivery from Festo stock • Globally in 13 Regional Service
- Centers in stock • Look for the blue star on thousands of pneumatic products





- Engineering tools
- Configuration tools
- Selection and sizing software
- Calculation tools
- CAD models

#### **Online Support Tools**

#### **Online Shop**





## follow them to your door.

- 24/7 availability
- Check current product availability
- Quick search tools
- Delivery status information

#### Mobile App



The Festo Mobile App gives you quick and easy access to our FAST™ catalog which features a completed line of industrial automation components with "Same Day", "3 Day" and "5 Day" availability. The Mobile App is also your on-the-go solutions for tracking and managing product orders.

The Festo Mobile app is currently only available in the United States.

- the Festo Mobile App.
- Navigate through the FAST catalog to select products of interest

#### Field Sales and Service



- Industry specific experts
- Nationwide distributor network
- Technical support
- Training seminars

#### Mobile Exhibitions



Festo has a fleet of mobile exhibition vehicles packed with our automation products and solutions traveling throughout North America and ready to pay a visit to your company or school.

#### **On-Site Services**



- Commissioning
- Fault finding and fault clearance
- Replacement of components
- Maintenance
- System inspection
- Installation
- Product briefing

#### Stars of Automation



The "Stars of Automation" offer over 2,200 products including valves, cylinders, service units, sensors and accessories. In our online catalog, the "Stars of Automation" are noted with a solid blue star to quickly see what products are available to be shipped within 24 hours. They are also available to order in our Online Shop and can be found on the Festo FAST mobile app\*. This program offers the quickest way to get Festo quality for a great value.

- Ready for delivery ifrom Festo stock • Globally in 13 Regional Service Centers in stock



#### With just a few clicks of the mouse, you can order products with ease in the online shop and

- Relevant price information Order tracking
- Import and export parts lists
- Request delivery date

www.festo.com/onlineshop

Download the app today to get started with four easy steps to FAST<sup>™</sup> components.

- Log onto your Online Shop Account on Click the heart to create a Wish List and email
- Open email and purchase through your **Online Shop Account**

www.festo.com/mobileapp

• Look for the blue star on thousands of pneumatic products

\*The Festo Mobile App is currently only available in the US

www.festo.com/stars

#### Festo - Your Partner in Automation





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