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Contents
How can we further improve your performance? That is the question 12,000 Festo employees ask themselves every day. As partner to its customers, Festo wants to ensure that you can make the most of your factory and process automation by means of cost efficient automation solutions throughout the entire control chain.

In addition to this, Festo Didactic offers qualification through ongoing vocational and further training courses in automation in order to achieve maximum productivity through tailor-made value creation.

Knowledge of the value creation chain of its customers is one of the company’s most important assets. It has resulted in a working concept of global synchronisation with the value creation processes of our customers. This concept systematically and globally interlinks sophisticated product strategies and a range of services throughout your value creation chain and, together with a strategy of high international availability, aims to develop the exact solution for your requirements, regardless of whether it is pneumatic, servopneumatic, electrical or hybrid.

Additional key factors to ensure your success are maximum problem solving expertise offered by Festo as a leader in technology, close system partnerships with its customers and partnerships with companies that complement the Festo portfolio.

The key to long-term success is business excellence in products, production, logistics and training.

Where technological enthusiasm and efficiency merge, products incorporating new ideas evolve.

Where the customer is the main point of focus, tailor made services evolve.

Festo: the company

Worldwide presence – based in Esslingen: The Festo Technology Centre/Headquarters

Where technological enthusiasm and efficiency merge, products incorporating new ideas evolve.

Where the customer is the main point of focus, tailor made services evolve.
Corporate mission
Our mission is to create a sustained increase in value for our customers, our company, our employees and our partners. Continuity is therefore a key component part of our strategy. This is not only embodied in our independent, family-owned company, but is also manifest in our well-balanced portfolio of innovations and proven products and services.

The basis of our success is our commitment to technology, know-how, training and learning. It makes us an open and globally active company that respects cultural identities and that is an integral part of different economies and society, both globally and locally.

Festo facts
• Approx. 300,000 customers worldwide
• Turnover (2006) Euro 1.5 billion
• 12,000 employees in 176 countries
• Approx. 25,000 catalogue products
• 2,800 patents worldwide
• R&D 7.4% of turnover
• Vocational and further training 1.5% of turnover
• Quality and environmental certification ISO 9001, VDA 6.1/6.4, ISO 14001

Quality
Quality forms the basis of sustained success, although Festo is well aware that quality for the customer never just has one dimension, but consists of a combination of numerous factors:
• Quality of product range
• Quality of innovation
• Quality of production
• Quality of know-how
• Quality of education
• Quality of service
• Quality of logistics

Learning for success
We are committed to your success and are learning for the future. For instance, with our Bionic Learning Network, where we use the example of nature as a basis for success in the future. To this end, Festo has set up the Festo Academy for vocational and further training. These training facilities are also available online via the Festo Virtual Academy.

Our aim: customer excellence

Company
A wide range of different industry sectors and areas of automation put their trust in the excellent products and services of Festo. The result is an exemplary partnership that includes higher productivity and increased process reliability. Festo is partner to industry sectors, both in the area of factory automation – for handling of discrete goods – and in process automation, where processes involve gaseous, liquid and viscous fluids or bulk material. The reason: excellent knowledge of branch specific requirements in production and production resources – and usually with a portfolio that ideally meets these conditions.

Everything from a single source: automation know-how for numerous industry sectors

A quick glance at the world of automation shows the following industry sectors using Festo products and services:

- Automotive industry
- Special machine building
- Handling and assembly technology
- Food and packaging industry
- Paper and printing machine manufacture
- Materials handling
- Electronics industry/light assembly
- Machine tools
- Plastics machines
- Wood working and processing industry
- Textile industry
- Water treatment, industrial and municipal
- Process industry
- Chemical industry
- Petrochemicals
- Paper manufacture
- Mining
- Energy production
- Aluminium industry
- Biotech/pharmaceutical industry
- Medical engineering
The automotive world puts its trust in Festo. For good reason, because Festo helps to win the daily race to achieve the most efficient production. More than 40 years’ experience ensures an excellent overall understanding of individual production steps in the press shop, body shop, paint-spraying line, motor or assembly lines. Similarly, in the immediate peripheral area, suppliers, machine and system builders also put their trust in Festo.

The electronics industry – Festo inside
Electronic products such as mobile phones, flat screens, navigation systems or pulse monitors as well as solar cells follow a clear trend: miniaturisation and function maximisation. From the manufacture of wafers and silicon slices to the finished end product, Festo is involved in every step of production. Comprehensive know-how concentrated within a product range that ideally meets the specific standards required for handling and processing components in electronics and precision mechanics such as:
- Light assembly
- Flat panel production
- Photovoltaics

Needless to say, optimised with regard to ESD protection, CT-free design, clean room compatibility and connection technology, including compliance with RoHS and WEEE directives.

The food and packaging industry: ultra clean
Mixing, sterilising, pasteurising, packaging and handling – Festo components and system solutions contribute towards efficient automation, mostly with a mixture of continuous processes and factory automation. With innovative clean design solutions Festo ensures food hygiene within splash zones. In addition, Festo offers worldwide support with individual solutions, thanks to the industry-specific expertise of its sales engineers.

The paper and printing industry: high speed meets flexibility
Variable circulation levels, page flexibility, colour change: modern printing and paper technology sets great store by ultra fast paper processing speed as well as flexibility and precision. Regardless of whether it is the pneumatic actuation of brakes, couplings or air motors, the starting or stopping of cylinders, rollers, contact rollers or swivel movements for maintenance purposes, Festo components support the paper processing or printing process on each station.

Mobile pneumatics: motion in focus
Mobile automation is subject to a whole range of specific requirements. These include dealing with a wide range of temperatures as well as numerous resistance factors such as to shock, corrosion or contamination. By closely interacting with our customers we ensure sensitively priced, functional solutions and support them throughout their value creation chain.

Animatronics: a sure adventure
Is this dinosaur alive? Is the earthquake in the cinema real? When it comes to creating some first-hand excitement and suspense in cinemas and amusement parks by way of movement, pneumatic or servopneumatic systems and solutions usually play a role behind the scenes. For example, by using the Fluidic Muscle, whose stick-slip-free movement makes it ideally suited for perfectly re-enacted scenarios.
Making use of synergies
Different branches, yet with the same goals: our specialists not only provide you with expert advice on technology, reliability and quality, but also with comprehensive and effective advice on how to reduce your Total Cost of Ownership, because Festo systematically makes use of the synergetic effects resulting from production automation for process automation.

Why not see for yourself and take a look at our overall product range: products, system solutions and services all from a single source. In summary, centralised and decentralised automation concepts, be they for GMP, food or ATEX zones, for high or low temperatures, aggressive or corrosive atmospheres, all with optional FDA and HACCP conformity. Plus condition monitoring and comprehensive diagnostic concepts to keep loss of production and downtimes to a minimum.

Systematically faster towards optimal water treatment
Be it municipal, industrial water treatment or sewage treatment: Festo offers individual automation solutions that are economical, reliable and robust. And everything from a single source, from valve actuator to control level in the form of a component or a ready-to-install system.

The ultimate goal: clean processes, including maximum system availability and process reliability
Minimised production costs with maximum quality standards — that is the ultimate maxim of biotech/pharmaceutical and chemical industries and the food industry, since processes often involve very high material costs or a continuous, reliable and safe production process.

Festo in petrochemicals, oil, gas and energy production, mining, pulp and paper
Thanks to its system-inherent features such as explosion and overload protection, pneumatics are ideal when it comes to the automation of systems in industry sectors such as petrochemicals, oil, gas and energy production, mining, pulp and paper production. Sturdy and corrosion resistant Festo components and systems eliminate downtimes, even in the case of maintenance-free continuous operation and where aggressive chemicals pass through process valves.

Industry sectors
More than 25,000 products available in several hundred thousand variants: this diverse product range based on standards and modular products has strategic reasons.

At Festo the solution is based on the task at hand. Individualised standard designs are available from a single source:

- Catalogue components
- Specific components
- Standardised modules
- Individual ready-to-install solutions
- Services
- Support
- Training and consulting

Always harmonised and tested, fit for Festo plug and work® – be it pneumatic or electrical or mixed, in industry or process automation. The collective combination of products, support and services means maximum productivity made by Festo.

**Pneumatic drives**

The broad spectrum of conventional and purpose-designed drives and accessories:

- Standards-based cylinders
- Piston rod cylinders
- Rodless cylinders
- Semi-rotary actuators
- Function-oriented drives
- Drives with linear guide
- Cylinder/valve combinations
- Accessories for drives
- Clean Design drives
- Actuators for process automation

Additional pneumatic drives such as flat cylinders can be found in our catalogue.

Ice cold: the standard cylinder DNC-TT to ISO 15552 withstands the lowest temperatures
Servopneumatic positioning systems
Higher dynamics, more intermediate positions and shorter cycle times thanks to Soft Stop. Servopneumatics combine the advantages of dynamic pneumatic drive technology with those of precision electromechanical positioning systems within defined areas of application.

- Servopneumatic drives
- External displacement encoders
- Measuring transducers
- Soft Stop
- Controllers

Electric drives
For individual application diversity and maximum economy of operation, performance and reliability. With electromechanical positioning systems from Festo, costs can be reduced and productivity increased!

- Servo drives
- Toothed-belt axes
- Spindle axes
- Cantilever axes
- Guide axes
- Motors and controllers
- Software

Handling and positioning systems
Systematically faster towards the finished system: the modular handling system with optimally harmonised mechanical grippers and vacuum suction grippers for front end use. In a word, everything optimally coordinated.

- Pick and Place
- Linear gantry
- Cantilever axes
- Three-dimensional gantries
- Tripod rod kinematics
- System components
- Linear modules
- Handling units
- Feed separators
- Grippers
- Rotary indexing tables

Vacuum technology
Ideally harmonised for high productivity gripping with the multi-faceted world of vacuum components from Festo. Always the perfect solution wherever attributes such as maximum space saving, freely combinable and extremely economical design are required.

- Vacuum generators
- Vacuum suction grippers
- Vacuum accessories

The portfolio: systematically developed and fully harmonised as in the case of the mechatronic modular handling and assembly system
Valves and valve terminals
For maximum performance and process reliability: the Festo valve and valve terminal portfolio excels not only thanks to its performance, but also owing to the vast selection of innovative solutions available worldwide. You can therefore rest assured that the right solution is available for any machine concept, be it centralised or decentralised, hybrid or upstream. Tested units, integral diagnostics and ultra fast connections in terms of pneumatics, electrics and networking included.

Compressed air preparation and accessories
Performance begins with the right combination of service units, essential for optimal pressure and flow. Consequently, Festo has developed application-specific combinations with the right features for every task from a simple basic requirement to sophisticated solutions with diagnostic and condition monitoring functionality.

Control technology
Controlling à la carte with control technology made by Festo. An optimally harmonised choice of controllers and peripheral devices is available for simple control tasks just as it is for highly complex solutions when it comes to integrated communication. From software to the visualisation of industrial processes, we cater for your every requirement.

Control technology – electrical
• IPC FEC® Compact
• IPC FEC® Standard
• Modular electrical terminal CPX with integrated controller
• Software tool for FEC® controllers PST 4.x
• Front-end displays FED
• Visualisation software tool VipWin for HMI + SCADA
• Multi-axis interface for electric drives
• Robotics control system for Cartesian and tripod kinematics

Control technology – pneumatic
• Pneumatic control units, Quickstepper
• Pneumatic control units, counters

Portfolio
Always optimal compressed air: with MS series service units
Sensors
Our specialists for production reliability and productivity combine important core attributes such as maximum process reliability, optimal performance and maximum safety and ensure smooth and efficient production sequences. Many sensors represent the absolute pinnacle in technically feasible and expedient solutions, from the world’s smallest inductive sensor to factor 1 technology, from colour sensors to rotation monitoring, all available at surprisingly low cost.

Image processing systems
Cost effectiveness all the way: not just thanks to Festo plug and work. Our portfolio of proven and innovative optical systems ranges from contactless types, position and quality checking through to high-speed compact vision systems. Thanks to compact, industry-compatible designs and clear interface definition, these image processing systems can be individually integrated, even into existing installations.

• Proximity sensors
• Proximity sensors for grippers
• Position transmitters
• Pressure and vacuum sensors
• Flow sensors
• Inductive sensors
• Optoelectronic sensors
• Connector sets
• Signal converters

Solutions for process automation
When in doubt, choose pneumatics: for centralised or decentralised automation concepts for GMP, food or ATEX zones, high or low temperatures, aggressive or corrosive atmospheres, Festo offers a multitude of highly reliable and yet economical solutions for process automation, with FDA and HACCP conformity optionally available. Condition monitoring and comprehensive diagnostic concepts keep loss of production and downtimes to a minimum.

• Linear drives
• Semi-rotary actuators
• Standard valves NAMUR
• Media and process valves
• Sensor boxes
• Electric local controllers
• Ball valves

Explosion and overload-proof: pneumatic quarter-turn actuator DRD for process automation
Reduce time and costs and optimise reliability. Cut down your in-house vertical integration in order to increase process reliability and gain time – with quicker time-to-market and by using ready-to-install systems and special designs, all with their own particular characteristics.

Tailor-made: special applications
Regardless of whether they are modified series components or completely new designs, our customer-optimised products are always tailor-made for your special requirements. They are developed with you as part of a creative communications process in order to avoid delays. We work with you, from initially determining your specifications and creating a prototype to the final pilot series and series production, whatever meets your requirements.

Integration technology
Application-optimised units – tailor-made for maximum ease of installation and maintenance. With integrated ducted block, aluminium block, special profile or housing, these units are compact and space optimised, save complex tubing and are quickly fitted into machines thanks to harmonised interfaces.

Handling and positioning systems
Spare yourself the complex processes involved in designing a pneumatic or electrical sub-system. We design, commission, test and deliver ready-to-install systems and, on request, start them up.

High speed and dynamics for handling, sorting, palletising, feeding, assembling, joining or testing.

The answer is: Festo plug and work® to the familiar quality, ideally harmonised with latest state-of-the-art technology and unparalleled know-how – thanks to more than 25 years’ experience.

The advantages:
• 2D/3D CAD files included
• CAD circuit diagram provided, optional in FluidDRAW® or in .dxf format
• Documentation
• Induction and commissioning available on request
• Warranty
• Function tested
• Individual products are CAT tested
• Endurance tested

Portfolio

Individuality throughout with customised solutions

Handling units from Festo: ready assembled and tested, including complete documentation and CAD data.

Redesign: integrated cylinder for tool change

Solenoid actuator for special machine building

Solenoid valve cabinet: safety for the pharmaceutical industry

Solenoid valve cabinet: safety for the pharmaceutical industry
Added value included in our support services

Our support services provide added value that you can identify throughout your value creation chain. They are ideally suited, for example, to ensure quicker engineering or order and delivery reliability, simplify assembly and commissioning or keep an operation running.

Quicker contact
- On-site advice
- Advice hotline
- Consulting via the net: www.festo.com

Quicker design with our engineering services
- Electronic catalogue
- Festo Configuration Tool FCT
- CAD models and drawings in native format
- Selection software, positioning drives for electric drives, plus wide range of additional software tools to be downloaded free of charge
- Macro library for ePLAN®
- ePLAN Fluid link with the Festo online catalogue
- FluidDRAW® for simple circuit diagram design
- Technical hotlines

Quicker procurement process
- E-commerce via EDIFACT
- Online shop
- Online order tracking

Quicker assembly and commissioning process
- Software platform FHPP for standardised operation and optimal interface handling of all motor controllers, from fieldbus to drive system
- Festo Configuration Tool FCT

Quicker operating process
- After sales support such as the technical hotline

Portfolio

Added value included in our support services

- Engineering tools for selection and sizing
- Transparent procurement via the online shop and order tracking
- Quick commissioning thanks to the Festo Configuration Tool FCT
- On the Internet for downloading: CAD model

Ask your technical consultant or phone the technical hotline.
Harmonised and targeted services

We offer concrete support across the entire value creation chain with our numerous services. Why not take advantage of the excellent know-how of our Festo specialists.

Overall, it enables you to increase productivity and system availability and at the same time reduce your procurement expenditure. You can define the breadth and depth of the services you need and thus specify the core expertise on which you want to concentrate by outsourcing the required level of production and modification to Festo.

Optimised delivery with Festo Logistics Optimisation Service
Tailor-made for efficient ordering and logistics of Festo C-materials to eliminate superfluous procedures and reduce stock.

Save assembly work, time and money with Festo Easy Assembly Service
Maximum efficiency, precisely geared: PrePack, PreAssembly or ready-to-install solutions and subsystems.

Greater efficiency with Festo Energy Saving Service
Reduce compressed air consumption and energy costs by up to 35% through systematic maintenance and optimised system configuration.

Greater transparency with Festo Compressed Air Consumption Analysis
For optimal compressed air supply, accurate cost planning and reliable processes – of interest to OEMs and end users alike.

Increased reliability with Festo Compressed Air Quality Analysis
Accurately defined compressed air quality ensures trouble-free and long service life of state-of-the-art pneumatics.

Time is money: commissioning support for axis systems
Our service engineers ensure maximum system availability – with axis systems quickly and optimally harmonised and commissioned.

Within 24 hours – and no later with Festo delivery service
Give us 24 hours and your standard valve terminals or drives will be delivered to your door – guaranteed.

Reduce energy cost with Festo Energy Saving Service
Optimal compressed air supply with Festo
Compressed Air Consumption Analysis
For durable pneumatics
Festo Compressed Air Quality Analysis
Portfolio

All learning systems and all training and consulting services at a glance on
www.festo-didactic.com

Training and consulting: on the road to excellence in production

Our aim: to increase your value creation
There are lots of methods and tools available, and making the right choice means the difference between success and failure.
This is because the manufacture of industrial and consumer goods is subject to the rules of the country, industry and culture in question.
In other words, every company is different. In terms of its product (which defines the necessary technology), its employees with their different skills, its organisation and the culture of change practised in the company.
The Festo competence model takes into consideration the optimum mix of topics, in the process uniting social, methodical and technical skills. The result is a roadmap to qualification that is tailored to individual requirements.
Benefit from our project experience in many industry segments and countries through customised solutions that focus on sustained success. In addition, all our proposed solutions are based on established and continuously enhanced processes that are practised within Festo itself.

Know-how born of experience
40 years of experience in training and 20 years in process optimisation – you will now find this combination under a new name at Festo Didactic: Festo Training and Consulting.

Successes in machine maintenance management include, for example:
• Productivity increased by 50%
• Operating times increased by up to 40%
• Unexpected machine failures reduced by 95%
• Maintenance costs reduced by up to 30%

Successes in lean manufacturing include, for example:
• On-time deliveries increased by 50%
• Employee productivity increased by 30%
• Stocks reduced by 30%
• Processing times reduced by 80%
• Non-quality costs reduced by 40%

In great demand: qualified graduates in technical professions and study courses
The essential ingredient is practical training using industry-oriented learning systems and learning factories from Festo. This enables young workers to make a productive contribution right from the start, while their entrance into the working world is made easier.

Everything from a single source
• For the entire range of factory and process automation
• From the ‘fundamentals of technology’ package to the complete learning factory for research and theory
• From spare parts to complete training centres
• From learning programs to the development of curricula for complete study courses

Learning systems for industry-oriented training

Learning systems for factory and process automation

Learning systems for process optimisation

Learning systems for factory and process automation
To shape the future of automation long-term is one of the key topics at Festo the learning company. In order to successfully achieve this, Festo has established the basis for this by concentrating on three different areas.

**Knowledge**
When creativity meets innovative strength, new perspectives open up – as part of the new product development process and realised with numerous patents. Vision and knowledge produce new technologies and processes, innovative solutions and systems.

**Innovation**
The acceleration of global markets together with the resulting industry sector requirements create the concept for successful innovation – made by Festo. Sound and sustained market management, a systematic interpretation of the value creation processes of our customers and 20 technology engineering centres worldwide form the basis for more than 100 new products per year.

**Quality**
Quality has many aspects. A successful combination of them contributes to lasting success.

**Innovation quality**
Approximately 7% of our turnover is invested in research and development and produces 2,800 patents and approximately 100 new patent applications a year.

**Production quality**
Advanced, in house developed production methods, plus detailed and comprehensive quality management ensure maximum product reliability.

**Product range quality**
Our aim: the best solution for you. Our strategy: a product range which is optimally structured in terms of depth and range. More than 25,000 catalogue products form the basis for preassembled modules, ready-to-install solutions or complete handling and positioning systems.

**Service quality**
Where the customer is the main focus, services are absolutely essential, from designing to commissioning your system, for solutions which save time, reduce costs and increase process reliability.

**Everything from a single source with our portfolio**
Pneumatic, servopneumatic, electric or hybrid: whichever automation solution you prefer – Festo can implement it across the entire control chain, from actuator to control level. Our portfolio grows in line with your tasks and requirements.
Increased productivity, reduced costs and energy efficiency are the key parameters for efficient automation. Thanks to its sustained innovative strength and the ability to identify trends before they become "official", Festo has been developing and offering energy efficient products and solutions for some time now. The tools are components, systems and services developed in dialogue with our customers through analysis of the value creation chain.

**For our customers**
- Precision grippers HGPPI: the pneumatic design of the HGPPI saves up to 75% on energy compared to a servoelectric solution.
- Decentralised installation concepts using valve terminals: save 50% on flow.
- Selection software for positioning drives: save up to 70% on energy thanks to the optimal selection of electric drive systems.
- Selection software for vacuum generators: save up to 75% on energy.
- Energy Saving Service: save up to 68% on energy.
- Compressed Air Consumption Analysis: save up to 35% on energy through efficient maintenance of compressed air systems.

**Saving energy in our own backyard**
- For example, at our Rohrbach factory: savings of 5,217 MWh/p.a. with a reduction of CO₂ emission by almost 4,000 t per annum.
- For example, at our Technology-Centre: savings of 70% on energy for heating and cooling requirements.

**5 perspectives on energy efficiency**

**Energy efficient solutions**
For some time now, Festo has been offering its customers more energy efficient products and solutions.

**Intelligent engineering**
Intelligent and innovative selection software to support you in the configuration of your systems. The aim is to downsize components and avoid an accumulation of safety-related factors.

**Energy efficient system operation**
With Festo Energy Saving Services existing systems can be systematically tested for loss of energy. Hidden savings potential is identified and concrete solutions are proposed.

**Energy efficiency tomorrow and beyond**
At Festo, energy efficiency begins with research and development. The focus is on greater component and system efficiency with the aim of reducing current and air consumption and a hybrid use of energy forms. In addition, Festo is involved in various national and international research projects.

**The company culture: integrated energy efficiency**
At Festo, energy efficiency is strategically established within the organisation and is systematically implemented. For example, more than 70% of the energy needed for heating and cooling the main plant in Esslingen is generated by solar and earth energy and industrial waste heat.
More than ever, speed, dynamics and precision are in demand in automation. The answer: pneumatics in combination with electromechanical subsystems whereby cycle times can be drastically reduced at relatively low investment costs.

Know-how is the decisive factor for maximum efficiency of a pneumatic system. A holistic approach is crucial: in terms of speed regulation, tubing length and diameter, energy consumption and end position management, valves and accessories and the drive itself.

Special requirements – special solutions

Beyond conventional pneumatics – mechatronics

High productivity with cycle rates increased by up to 30% thanks to intelligent mechatronic solutions such as the electronic end position controller Soft Stop SPC11.

Faster motion sequences and reliable checking

With an acceleration of up to 50 m/s² and forces of up to 6000 N, it sets its own benchmarks when it comes to cycle frequency and force: the Fluidic Muscle, the tensile actuator.

The future of diagnostics and condition monitoring looks promising. For good reason, since unplanned downtimes are costly – in many cases one minute may cost up to €10,000! Active diagnostics management

Process reliability and system productivity can be significantly increased by making diagnostics a part of asset management. Innovative diagnostic concepts, condition monitoring as well as extensively diagnostics-compatible products and a wide range of services from Festo help to reduce system life cycle costs and ensure a quicker return on investment (ROI). The objective is a diagnostics and condition monitoring portfolio in line with well-defined industry standards, which is open, integratable and fit for the future, plus scalable diagnostic concepts that ensure virtually 100% machine availability via OEMs.

Integral and comprehensive

For higher productivity, increased system availability and process reliability: impressive electric and pneumatic diagnostics and condition monitoring concepts from a single source.

Performance through high speed and diagnostics

Know-how is the decisive factor for maximum efficiency of a pneumatic system, a holistic approach is crucial: in terms of speed regulation, tubing length and diameter, energy consumption and end position management, valves and accessories and the drive itself.

Special requirements – special solutions

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Integral and comprehensive

For higher productivity, increased system availability and process reliability: impressive electric and pneumatic diagnostics and condition monitoring concepts from a single source.
Festo offers you a portfolio focused on core functionalities to meet your requirements in standards-based and Festo norm-based pneumatics. It has been developed on the basis of an analysis of standard core functionalities – without compromising product quality.

The main cost-saving tools are:
- Function optimisation
- Reduction of complexity
- Alternative materials
- Optimised packaging and logistics concepts

Alternative materials:
- High performance polymers
  Approved after stringent internal quality assurance procedures and intensive research. Festo already offers you system solutions using polymer materials for the complete control chain – needless to say with guaranteed Festo quality!

Intensive endurance tests, material fatigue tests and molecular structure analyses provide a clear picture: high performance polymers/technical polymers – if used correctly – are the material of the future. Uncompromised product quality and always accompanied with Festo’s proven services.

Standard cylinders DSNUP
The new round cylinder family to ISO 6432, with aluminium barrel and polymer caps.

The benefits
- Dimensions to ISO 6432, for quick, problem-free replacement
- The latest materials and new production processes ensure top quality and reliability at a highly attractive price
- High chemical resistance
- Reduced weight

Ultra economical: the performance optimised valve terminal VB12.
It stands out thanks to high flexibility and ease of use and an excellent price/performance ratio.

The benefits
- Sturdy metal manifold rail
- Quick and easy replacement of fittings without tools
- Pneumatic distributor integrated on the valve terminal
- Manifold rails for up to 35 valve positions
- Quick and simple valve assembly

The new generation of rodless drives DGC

The benefits
- Precision interfaces
- Easy to assemble
- Sturdy and durable

Price benefits through
- Function optimisation
- Reduced switching functions
- Polymer instead of zinc/aluminium
- Reduced type diversity

The benefits
- Increased impact resistance
- Resistance to oil, acids, alkaline solutions and solvents
- Characteristics similar to metals
- Reduced weight
- Attractively priced
- Pressure and temperature resistance for basic workshops environments and applications

Intensive endurance tests, material fatigue tests and molecular structure analyses provide a clear picture: high performance polymers/technical polymers – if used correctly – are the material of the future. Uncompromised product quality and always accompanied with Festo’s proven services.

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- Polymer instead of zinc/aluminium
- Reduced type diversity
Maximum performance within a minimum of space: miniaturisation and function integration

The future for manufacturers in the electronics industry, medical and precision engineering, the semiconductor industry, pharmaceuticals, optical and microsystem technology is decided by the ability to transfer materials (microtechnology), improve control systems and data technology (signal concepts) and safeguard production processes against external influences. This is where pneumatics represent a relatively straightforward technology.

Festo has the technical answer to this requirement with compact performance, function integration and innovative interface solutions. To this end, Festo continues to integrate more and more aspects of electronics, information technology and optics into its automation portfolio.

Maximum performance within a minimum of space

Small or integrated

Small and compact formats offering precision and high performance – with dimensions of 4 x 4 cm, the CPV-SC is the smallest compact performance valve terminal worldwide.

The electric pressure regulator valve MS6-LRE is impressive with its integrated sensors and remote adjustability for almost all main functions. Remote controlled and convenient thanks to the precise definition of pressure via PLC or mobile phones – ideal in difficult to access areas.

Maximum clean operation: with ultra clean pneumatics for clean rooms

Clean room compatibility is a defined quality concept in the semiconductor and food industry, pharmaceuticals, medical technology, optics, microsystem technology, environmental technology, etc. All relevant Festo products are tested for their clean room compatibility to VDI directive 2083, sheet 8, with a clean pass: virtually all standard Festo products are suitable for use in clean rooms to ISO standard 14644-1, Class 7.

Maximum explosion protection with Festo products

Put your trust in one partner – now and in the future, so that you can be sure that no matter what hazardous area your company operates in, Festo, under the working title ATEX, can offer you appropriate products for the complete control chain that are compliant with directive 94/9/EG, all with comprehensive documentation and conformity declarations available on the Internet.

RoHS and WEEE – Festo takes care of it!

The EU directives 2002/96/EC (WEEE) and 2002/95/EC (RoHS) “electrical and electronic waste” control the use, return and the environmentally safe waste management of electrical and electronic devices and the restricted use of specific hazardous substances within these devices. In Germany, the WEEE and RoHS directives have been combined into one law. The Electrical and Electronic Equipment Law. Our aim is to protect you by supplying you with RoHS compliant products to the usual high standard of quality.