

# PRODUCTS OVERVIEW



# ABOUT US...

**RECTUS Polska Sp. z o.o.** was established in 1998 as an independent business entity based solely on Polish capital.

In the beginning Rectus activities focused mainly on technical consulting and selling hydraulic connectors, fittings and hoses for transportation of gas and liquid media produced by German company RECTUS GmbH. Over time the offer has been significantly diversified owing to cooperation with other leading producers in the field of industrial components, especially pneumatic automatics, various fastening systems and flow control elements. In 2008 RECTUS registered its own trade brand: RQS Right Quality Solutions.

**Location:** Gumna near Cieszyn, Silesian Voivodeship, Poland,

**Scope of service:** designing, manufacturing, technical consulting, trade and training,

**Product range:** appliances and elements for transportation and flow control of gaseous and liquid media.

**RQS**®  
RIGHT QUALITY SOLUTIONS



## CUSTOMER SERVICE

Products and services offered by RECTUS are available all over Poland owing to a group of regional technical and commercial advisors as well as cooperation with over 100 independent partners representing us in numerous areas of our activity. The mobility and high qualifications of our advisors enable us to reach customers within a short time regardless of their location, analyse their needs, problems and suggest the optimal solution.



## LOGISTICS CENTRE

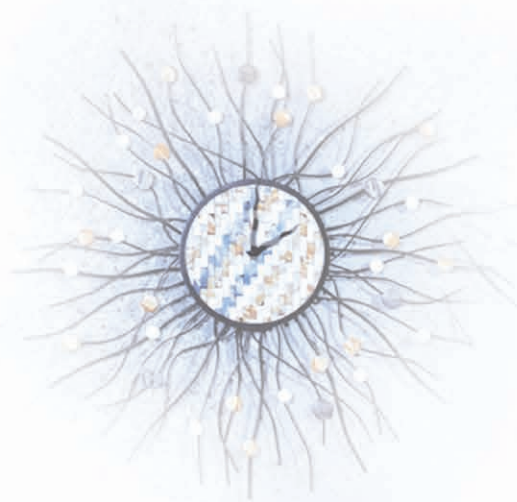
- 380 palett spaces
- 3000 shelf locations
- 30000 locations on automatic shelves
  - Optimal collection path
  - Continuous maintenance
  - WMS (warehouse management system)



An increasing number of orders showed us that our logistical solutions were insufficient. In order to provide our best customer service we have implemented the warehouse management system which supports and optimizes the functioning of our warehouse.

## TRAINING SUPPORT

What distinguishes us from other companies are regularly organised professional product-related training courses at various levels of advancement, depending on the needs. Training courses, instructions and presentations are delivered in a specially prepared multimedia room in our headquarters as well as at our customers' location with the use of a presentation car or portable didactic stands.



## INNOVATION

For the last 15 years we have actively participated in the process of technological development in many branches of industry which increasingly require tailored made solutions. In order to meet our customers expectations we invest in specialist programming and simulation tools which enable us to create modern products and systems perfectly tailored to customers' needs.



# PNEUMATIC ACCESSORIES

RQS





## QUICK COUPLINGS

The RQS/Rectus low-pressure couplings symbolize a combination of reliability and the highest precision of workmanship. They are mainly used in compressed air systems for powering machines, pneumatic tools and devices.

- **Workshop quick couplings:** connectors made of brass for universal use with standard euro profile.
- **Industrial quick couplings:** characterized by an ergonomic and durable construction, high flow at low pressure drops and minimal connection force.
- **Safe couplings ISO 4414:** provide an enhanced safety standard thanks to the unpressurised disconnection technology.



## PUSH-IN FITTINGS

Enable quick and easy connection of different parts in low-pressure pneumatic circuits by use of plastic tubes making the whole circuit safe and tight. The variety of shapes, threads and materials used in production determines RQS's range as complete for almost every application.

- **Plastic push-in fittings:** a wide range of different shapes makes it easy to configure any installation in simple and economical way.
- **MINI plastic push-in fittings:** 20% smaller than the standard series, they are an ideal solution where space is limited.
- **Functional push-in fittings and valves:** a large assortment of unidirectional flow regulators, ball valves, shut-off valves, check and vent valves.
- **Brass nickle-plated push-in fittings:** compact and strong construction for use also with water and other media (up to working temperature of 150°C).
- **Stainless steel push-in fittings:** widely used in food and pharmaceutical industries.



## FRL UNITS

FRL kits and components are effective and reliable solutions widely used in different industrial applications. They ensure that the required air parameters are achieved in terms of cleanliness, pressure, water and oil content.

- **FRL units:** universal, configurable, stationary units with a connection range from 1/8" to 1".
- **Installation filters:** patented filter elements with high efficiency and minimal pressure losses. Solid metal construction for use with large flows.
- **Membrane dryers:** small devices designed for the local removal of moisture by means of polymer fiber membrane. Dew point up to -40°C.



## HOSE REELS

They are widely used everywhere, where space saving and the functionality of the installation is important.

- **Automatic hose reels:** they have the ability to adjust length of the hoses, thanks to the ratchet lock system.
- **Electric reels:** increases the level of work safety. Available in the 230 VAC or 400 VAC version.
- **Hand reels:** used in industrial applications where a hose with an unstandard length or diameter is required.



## TUBES AND HOSES

RQS tubes and hoses are intended mainly for compressed air systems, but the width of our portfolio takes into account the specificity of various industrial branches due to the occurring threats, standards and intensity of use. RQS tubes and hoses are the products of the highest quality, carefully selected and then thoroughly tested.

- **Workshop spiral hoses:** made of ester-based raw material and are recommended for use primarily in car workshops.
- **Industrial spiral hoses RQFlex:** assembled by swivel fittings, they have a small coil diameter and the perfect „memory“ of the shape.
- **Linear PA and PU tubes:** along with push-in fittings they are the base of almost every low-pressure circuit.
- **Linear PTFE, PVDF, FEP, PFA tubes:** for use in harsh environments when there is a high temperature connection with an aggressive medium;
- **Linear tubes for special tasks (antistatic, antispark, multitubes, FDA approved):** designed for special applications, including EX areas, robots, food industry etc.
- **Linear reinforced PVC tube RQSoft:** light, flexible, with a multi-layer structure, reinforced with polyester braid.
- **Linear reinforced PU tubes RQBraid:** industrial hoses which combine quality and durability based on ether, with a braid to achieve higher pressures.



## ACCESSORIES

Complementary elements, commonly used in pneumatic installations.

- **Threaded fittings:** elements for the construction of pneumatic systems based on standard threaded connectors and sleeves.
- **Standard aluminium and composite blow guns:** allow easy and quick blowing with compressed air for cleaning, cooling or drying.
- **Typhoon blow guns:** used in applications where a strong air stream is required, compatible with the OSHA standard.
- **2/2 ball valves:** designed to control the flow of non-aggressive gases and liquid media, including compressed air, water and oil.



# INDUSTRIAL QUICK COUPLINGS AND FITTINGS

FASTER, FASTEST,  
RECTUS, TALKOB,  
TEMA





## LOW AND MIDDLE PRESSURE QUICK COUPLINGS

We have in our offer one of the widest range of quick couplings for gaseous media and liquids, from nominal diameter 1,5 mm to 50 mm.

- Industrial double shut-off quick couplings
- Dry-break quick couplings
- Safety quick couplings
- Shape and color coded quick couplings
- AISI303 and AISI316L Stainless steel quick couplings
- Thermoplastic (POMA and PVDF) quick couplings



## LEAK TEST QUICK CONNECTORS

Connectors used in testing process of various devices to improve performance and production safety.

- Quick connectors for internal and external threads
- Quick connectors fastened to smooth or notched tubes
- Quick connectors with pneumatic clamping
- Quick connectors for filling technical gas cylinders
- Quick connectors for calibration systems of manometers and transmitters
- Quick connectors for the medical industry



## PTS QUICK COUPLINGS AND HOSES

Full range of quick coupling systems used in thermoregulation, mold cooling and other.

- German system quick couplings – EURO profile
- International system quick couplings – D-M-E profile
- French system quick couplings – valveless FR profile
- French system quick couplings – FRM profile
- French system quick couplings – FRM2 profile
- French system quick couplings – FRG profile
- Thru-flow couplings – NT profile
- Multicouplings – mult-FRM profile
- Hoses and components



## HIGH PRESSURE COMPONENTS AND FITTINGS

Items used in hydraulic and other high pressure installations.

- Cutting ring fittings according to DIN 2353
- High pressure JIC37, ORFS and GAS fittings
- Check valves
- Swivel joints
- Pressure eliminator



## HIGH PRESSURE QUICK COUPLINGS

Our offer includes high quality products to ensure reliability and safety usage with pressure at level 1500 bar.

- Industrial quick couplings with poppet valve
- Flat-face quick couplings
- Screw-to-connect poppet valve quick couplings
- Screw-to-connect flat-face quick couplings
- Diagnostic quick couplings
- Air-conditioning quick couplings
- Multicouplings



## PIPE CLAMPS

Polipropylene, poliamide and aluminium clamps for pipes and tubes. Metal parts also available in stainless steel.

- Mini series M
- Standard series clamps for twin pipes T
- Standard series S
- Twin series D
- Heavy series H
- Standard and twin series with rubber bushing R and G



# COMPONENTS FOR AUTOMATION

## PNEUMAX





## AIR PREPARATION COMPONENTS

Particularly noteworthy - apart from standard compressed air preparation kits - are pressure amplifiers and electronic proportional pressure regulators. Our offer is supplemented by air dryers in order to obtain the highest class of compressed air.

- **Filters, regulators, filter-regulators, lubricators:** available sizes up to 1", micro filters, aluminum and technopolymer versions.
- **Stop valves, soft start valves, pressure switches:** made of aluminum and technopolymer.
- **Pressure amplifiers:** standard 2:1 compression ratio, 3:1 possible for special solutions.
- **Membrane and adsorption dehumidifiers:** dew point to -70 °C.
- **Electronic proportional pressure regulators:** analogue and digital control, up to 4000 NL / min.



## PNEUMATIC CONTROLS

We offer a wide range of mechanically and pneumatically controlled valves, solenoid valves and valve terminals. In addition, we offer interesting functional valves such as control block for two-hand start, pneumatic pulse generators and many more.

- **Mechanically and pneumatically controlled valves:** made of aluminum and technopolymer.
- **Electrovalves:** sizes up to 1 1/2", made of aluminum and technopolymer, available ATEX versions.
- **Logic valves:** different options, possible modular connections with other valves.
- **Valve terminals:** running protocols such as CANopen, PROFINET, PROFIBUS, DeviceNet, EtherCat.
- **Timers and generators:** 0-30 s, 0-60 s timers, pulse generators, flip-flop valves.



## PNEUMATIC DRIVES

Among the pneumatic actuators, we can distinguish pneumatic cylinders compliant with the ISO and UNITOP standards, whose production in Poland ensures flexibility and fast order fulfillment. In addition, we offer special solutions at the customer's request.

- **Round, standards-based cylinders and short-stroke cylinders:** production in Poland, in accordance with ISO, UNITOP standards.
- **Rodless cylinders:** available versions with or without sliding guide.
- **Customized cylinders:** special cylinders made in accordance with the customer's guidelines.
- **Hydropneumatic cylinder:** compliant with the ISO standard, available sizes Ø50 and Ø63.
- **Rotary actuators:** toothed, vane 0-270°.
- **Grippers:** parallel, wide opening angle, three-point.



## VACUUM TECHNOLOGY

We offer a full range of products in the field of vacuum technology, starting from vacuum generators, through control elements, a wide range of suction cups, ending with all necessary accessories.

- **Vacuum generators (ejectors):** single stage, multistage, multifunctional.
- **Suction cups:** wide range of diameters (Ø4 - Ø150) and materials (NBR, Silicone, Polyurethane). Flat, bellows, foam, with increased friction and range of hardness.
- **Valves and solenoid valves:** pneumatically operated, electrically operated; connections from 3/8" to 1-1/2".
- **Vacuum gauges:** analog or digital (with LCD / LED display or without).
- **Filters / Regulators / Accessories.**

## PNEUMATIC CLAMPS

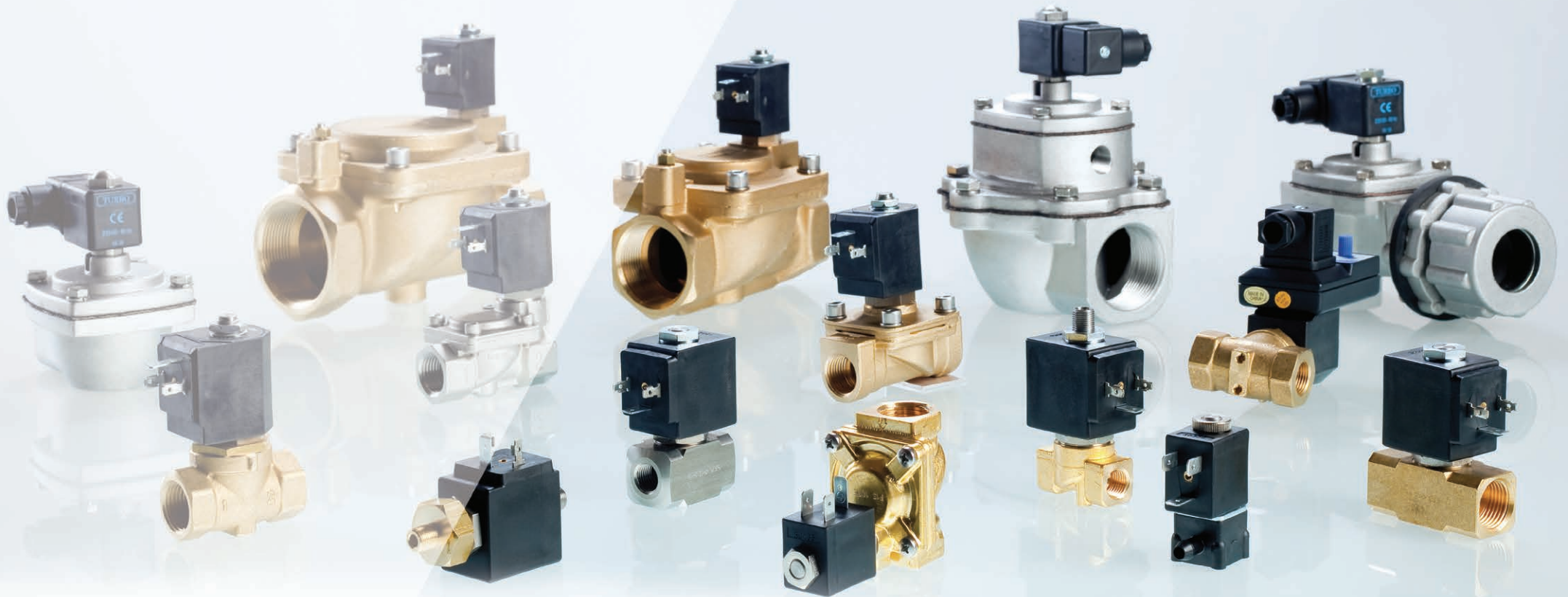
A family of products designed to work in difficult conditions. The main advantages are full adjustment of the opening angle 0-135°, innovative adjustment mechanism, no need to use flow control valves, universal position sensor with IP 68 tightness for the whole clamp family. Additionally, while maintaining full interchangeability with competitors' products, Pneumax terminals are characterized by the smallest weight and the smallest dimensions. **The entire range of products is guaranteed by three million cycles!**

- **Pneumatic clamps:** high compensation series, up to 40% compressed air savings.
- **Clamps with a pin:** single and double pins.
- **Grapples:** a series with high compensation.
- **Swivel:** maximum turning angle 135°.



# SOLENOID VALVES

ACL, TURBO,  
RQS, RSG





## DIRECT-ACTING SOLENOID VALVES

One of the basic applications of these solenoid valves is controlling liquid or gas media. Many versions available: for neutral / aggressive media, steam, vacuum, high pressures and others.

- **2/2 way solenoid valves:** available in NC and NO versions, brass, AISI or plastic body.
- **3/2 way solenoid valves:** available in NC, NO or Universal version, brass, AISI or plastic body.
- **Bistable solenoid valves:** 2/2 way, brass body, sizes from 1/8" to 1/2", controlled with a short pulse.
- **ATEX certified solenoid valves.**



## SERVO-ASSISTED SOLENOID VALVES

They are characterized by high flow capabilities. A version that does not require differential pressure can be an alternative to direct-acting valves. Application for: neutral / aggressive media, steam, vacuum, high pressures, others.

- **Servo-assisted solenoid valves:** available in NC and NO versions, body made of brass or AISI.
- **Assisted lift solenoid valves:** do not require differential pressure, available in NC version, brass body.
- **Bistable solenoid valves:** 2/2 way, brass body, sizes from 1/4" to 3", controlled with a short pulse.
- **ATEX certified solenoid valves.**



## ACCESSORIES: COILS, PLUGS, TIMERS, AUTOMATIC DRAIN VALVE SYSTEMS

### COAXIAL VALVES

Designed to meet demanding applications. Featuring a short switching time, high flow and pressure control up to 300 bar. These valves do not require a minimum differential pressure.

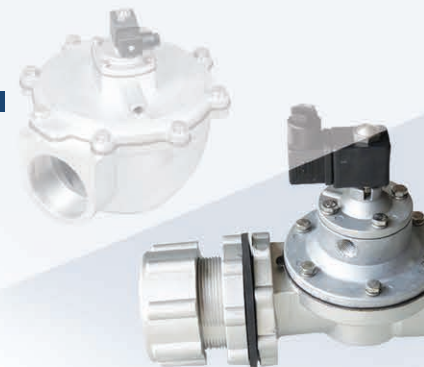
- **Available versions:** 2/2 way (NC and NO), 3/2 way (NC and NO), individual and on-base assembly.
- **Material:** galvanized / nickel-plated steel, brass or 303/316 stainless steel.
- **Sizes:** from DN 1 to DN 50 (G1/8" - G2").
- Also available with pneumatic control (NAMUR connection).



## PULSE VALVES

The pulse solenoid valves are characterized by a short reaction time, high flow and reliability. Thanks to these features, they have found application in dust collector filters. Available with various connections and so they ensure easy assembly and servicing.

- **F series:** threaded pulse valves.
- **D series:** compression fittings pulse valves.
- **E, FD, EFD series:** combination of connections: compression fittings / threaded / flanged.
- **SQ series:** for flat surface tanks.



## CONTROLLERS AND ACCESSORIES

The diverse offer of controllers and accessories allows us to tailor the solution to any dust collection filter design. The extensive ECONET system using a dedicated software allows remote communication and monitoring of filter's parameters.

- **Timers and economizers:** control of pulse duration / pause between impulses, differential pressure measurement -  $\Delta P$ .
- **The ECONET system:** support up to 128 valves, LCD touch panel, Modbus protocol support, Ethernet / WiFi, integration with an external PLC unit.
- **Remote pilot enclosures:** integrated terminals to control pneumatic pulse valves.
- **MATRIX:** a comprehensive cabling system for pulse valves connection with TURBO controllers.



## HEADER TANKS

Header tanks we offer are made in accordance with the directive PED 2014/68/46. Tanks are made of steel, stainless steel and aluminum, all plain or threaded connections.

- **INTEGRAL series:** steel tank with integrated valves.
- **ALUTANK series:** aluminum tank with integrated valves.
- **TF, TL, TD series:** steel tank with valves mounted on blow pipes (XTF - AISI tank).
- **PACK series:** single-valve tanks.



# PROCESS VALVES

OMAL, AKO,  
CEAP, RQS





## BALL VALVES

A wide range of ball valves covering different materials and the range of diameters allows them to be used for many different applications. Innovative regulatory valves deserve to special attention.

- **Between-flange:** two-way made of carbon steel or stainless steel in sizes from DN 15 to DN 200.
- **Flanged:** two and three-way made of cast iron, carbon steel or stainless steel in sizes from DN 10 to DN 100.
- **Threaded:** two and three-way valves made of nickel-plated brass, stainless steel or carbon steel in sizes from G 1/8" to G 4".
- **For welding:** two or three-way made of carbon or stainless steel in sizes from DN 8 to DN 100.
- **Valves for the OIL & GAS industry:** between-flanged and flanged valves with SIL3, API6D, FIRE SAFE and ATEX certificates.
- **Valves for the food industry:** two-and three-way valves in stainless steel with DIN 11851 connection.
- **Control ball valves:** threaded valves, welded or flanged with V-ball for flow control with the ability to control with a 4-20 mA or 0-10 V signal.



## AKO PINCH VALVES

Pinch valves are perfect for applications requiring high strength, especially in the case of loose and abrasive media, including foodstuff.

- **POM pneumatic valves:** compact design, threaded, available in sizes from G 3/8" to G 2".
- **Aluminium pneumatic valves:** flanged valves available in sizes from DN 40 to DN 250.
- **Pneumatic stainless steel valves:** intended for foodstuff, FDA, EHEDG, EL ASEPTEIC certified.



## BUTTERFLY VALVES

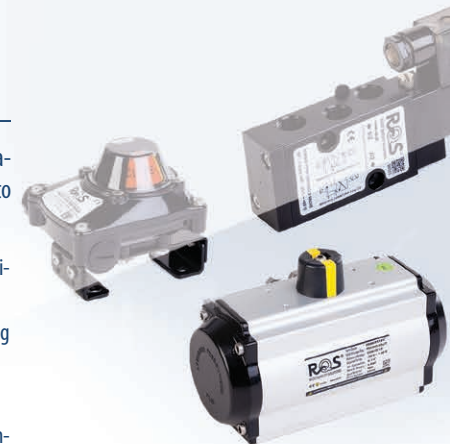
Centric between-flanged, double and triple eccentric valves allow complete medium shut-off in demanding applications up to 40 bar and 200° C.

- **Centric:** inter-flange WAFER and LUG, flange available in sizes from DN 40 to DN 600.
- **Double and triple eccentric:** valves for more demanding applications, maximum temperature up to 500°C, pressure up to 50 bar.

## CONTROL

The control elements of process valves consist of such elements as: rotary actuators, solenoid valves, positioners, limit switches. Available accessories allow us to present a complete process valves offer.

- **Pneumatic rack and pinion actuators:** double-acting and spring return with a direct NAMUR connection.
- **Rotary pneumatic actuators - scotch yoke system:** double-acting and spring return, non-linear torque, smaller dimensions compared to rack and pinion actuators.
- **Electric actuators:** ON-OFF 24 VAC, 24 VDV, 230 VAC, 4-20 mA modulation available.
- **Accessories for pneumatic actuators:** NAMUR solenoid valves, mechanical or inductive limit switches, available ATEX versions.



## ANGLE SEAT AND AXIAL VALVES

Angle seat and axial pneumatic valves are characterized by long service life and short operating time, these valves are an interesting alternative in applications requiring a large number of work cycles.

- **Angle seat valves:** threaded, tri-clamp, flanged or welding - available sizes from DN 15 to DN 50.
- **Made entirely of stainless steel:** body and actuator entirely made of CF8M stainless steel, threaded in sizes from G 1/2" to G 2 1/2".
- **VIP axial valves:** compact, easy mounting, design, fast cycles. Available options: ATEX, limit switches: NC, NO, DA.

## KNIFE GATE VALVES

Knife gate valves controlled manually, pneumatically or electrically are designed for cutting off both clean and polluted media, which is cut off using a stainless steel knife.

- **Cast iron knife gate valves:** gate valves with stainless steel knife available in sizes from DN 50 to DN 1000 operated manually or by pneumatic or electrical actuator.
- **Stainless steel knife gate valves:** gate valves with a stainless steel blade and knife available in sizes from DN 50 to DN 300 manually controlled, pneumatic or electric actuator.
- **Special knife gate valves:** sliding gate valves, angular, with a rhomboidal passage.



# INSTRUMENTATION

DK-LOK, AS-SCHNEIDER,  
O'BRIEN, SERTO,  
TESCOM





## TUBE FITTINGS

Four tubing connection systems for tubing installations fill nearly one hundred percent of various industrial applications needs. They are used where there are liquid and gas media, pressure conditions from vacuum to 4137 bar, as well as at high temperatures up to + 5370C.



- **Double Ferrule Dk-Lok fittings:** manufactured in accordance with ASTM standards, used in applications, where a high level of tightness is important.
- **Single and Double Ferrule Serto fittings:** unique radial fitting system enables to connect installations with limited space.
- **Single Ferrule Conexa fittings:** manufactured in accordance with DIN 2353, dedicated mainly for hydraulic installation.
- **High pressure Sami fittings:** Used in installations where there is very high pressure, up to 4137 bar.

## PRESSURE REDUCING REGULATORS

Pressure regulators are a key element of any pressure system. TESCO's offer includes process, analytical, laboratory and electropolished regulators for the pharmaceutical and semiconductor industries.

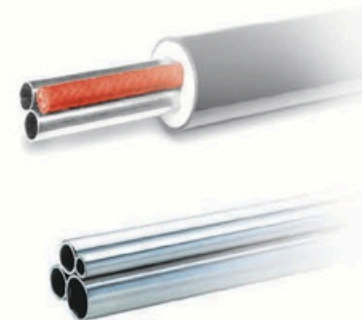
- **Pressure regulators:** Wide range of products allows to control the pressure in installations from vacuum to 1379 bar, in low and high flows even Cv 12.0.
- **Automatic Changeover System:** Designed for continuous supply of corrosive and non-corrosive gases with a purity of 6.0 from one or two sources.
- **Electropneumatic pressure regulator:** Electropneumatic controller in combination with a wide range of compatible pressure reducers and a pressure sensor provides a very accurate control of gas or liquid pressure from vacuum to even 1379 bar.



## PROCESS TUBES

Process tubes are an integral part of almost every industrial installation. Their quality determines its tightness and durability.

- **Process tubes:** SANDVIK specializes in manufacturing of seamless tubes of stainless steel, DUPLEX steel, nickel and titanium alloys and many other types. The tubes are produced in a standard length of 6 m and in coils of several hundred meters.
- **Pre-insulated pipes:** Industrial installations in our climate zone often require additional protection against freezing. TRACEPAK pre-insulated pipes manufactured by O'Brien are the perfect solution to this problem.



## FILTERS

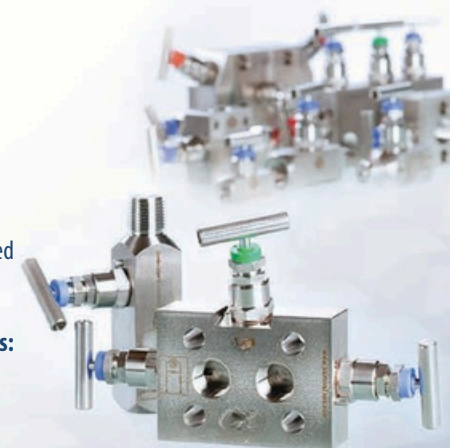
Classic Filters, based in Great Britain, is one of the world's leading manufacturers of high quality filters and filter elements. The offer includes:

- **Filter and membrane housings:** 316L steel, aluminum, brass and plastic. Working pressure from 4 to 1400 bar, connection sizes from 1/8 to 2".
- **Particulate and coalescing filters:** microfibers are able to remove from 75 to 99.9999% of particles and aerosols with a diameter of 0,1 mic.
- **Membranes** allow separation of liquid from gas and separation of one liquid from another with different density.

## PROCESS VALVES

Wherever there are extreme working conditions, and process continuity and safety are a key issue, we offer process valves from Dk-Lok.

- **Process valves and filters:** valve offer is very wide in terms of functions: ball, needle, check, bleed, bellow, diaphragm, as well as materials used, types and sizes of connections. **Valve manifolds and multi-valve flange blocks:** used in pressure and flow measurement applications available in 2,3,5-valve versions and as flange blocks, so-called monoflanges and DBB monoblocks. **High pressure valves:** used in installations with very high pressures up to 4137 bar.



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