Your global partner for water and sewage
Welcome to the world of TALIS

Our job is to protect water, the element that is vital for life. Together with our customers and partners, we are living up to this responsibility all over the world. Our ideas, work and products are the driving force for this.

Using the latest technologies, we are helping to develop responsible supply and disposal systems. Exemplary standards guarantee efficiency. Making use of the power, purity and availability of water is our maxim.

For generations our ten European brands have been proof of this ability. Our knowledge has grown along with our customers. In Europe, Africa, Asia, Australia and America our products are helping to guarantee not only the safety of water but also operations and investments. We can provide probably the most comprehensive range of products for the water and sewage industry. With a broad range of products, from small air valves to the huge DN 3600 butterfly valve, TALIS has the right product for every job. TALIS also has the engineering expertise to configure products to specifically match our customer's requirements.

We are fully motivated and committed to continue working on these achievements and responsibilities of today and tomorrow: for our future – water.
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With over ten strong brands and locations in Germany, France, Spain, Portugal, Italy, Great Britain, the Netherlands, Russia, Poland and Israel, TALIS is the largest suppliers of valve technology and first choice when it comes down to watervalves and services for the whole water cycle. Ten brands, each with its own tradition, form the backbone of the company group.

**ATLANTIC PLASTICS**, based in Birmingham in the UK, has a rich history of servicing the water industry both in the UK and around the world and is a recognised and reliable supplier of connection systems for all water-related areas. With an extensive range of water fittings and valves for a variety of mains and service pipes, the British company’s products stand for certified quality and many years of know-how.

**BAYARD** in Meyzieu, France, is a well-known specialist for fire and pipe protection systems, gates, water treatment and butterfly valves, fluid control, joint connectors for pipelines and pipe connections. BAYARD supplies a full range of equipment designed to cover all requirements, from the production of fresh water and water supply to domestic metering units and waste water disposal.

**BELGICAST**, based in Munguia, Spain, started out as a valve manufacturer for the naval industry in 1957. In the 1980s, BELGICAST began to diversify its product range, focusing on the market of water related products featuring diameters from 20 mm to 1,600 mm. BELGICAST made a name for itself all over the world with the development of the soft-sealing gate valve for use in drinking water.

**ERHARD** is one of the most important manufacturers of water valves in the world with experience dating back 140 years. Its success story began in 1871 when Johannes Erhard founded a small workshop in Heidenheim, Germany, for producing brass water taps. Today ERHARD supplies valves for all sectors of the water supply industry in all size ranges. A comprehensive range of standard valve products is just as much part of the portfolio as tailormade solutions for large scale installations.

Beside high quality castings for the engineering industry, plant engineering and the building trade, the main business of **FRISCHHUT** are fittings for the supply of potable water. Founded more then 60 years ago, the company from Pfarrkirchen, Germany, still orients itself on the tradition and reliability of a family company. Its in-house foundry produces also cast parts for safety-related applications in the fields of mechanical engineering, reinforced concrete and bridge-building.

**RAPHAEL**, founded in 1949, was the first Israeli manufacturer of quality control valves. Since then, RAPHAEL provides a wide and innovative product range with special focus on hydraulic control valves, butterfly valves, gate valves and check valves. RAPHAEL’s research department constantly strives to introduce new and innovative products and solutions for water control systems including waterworks, sewage, irrigation and industrial applications.
An extensive range of products, complex technical systems, customised solutions and comprehensive service – all these TALIS features require competent, committed employees, advanced research and development and state-of-the-art production facilities.

With modern, market-orientated solutions SCHMIEDING is, and has been since 1874, the competent partner, particularly in the field of municipal gas and water supply, providing modern solutions adapted to market requirements. It is based in Holzwickede, Germany.

For more than 60 years, STRATE in Sarstedt near Hannover, Germany, has stood for efficient and comprehensive product and problem-solving competence in the sewage industry. AWALIFT sewage pumping systems are among the best known products, as evidenced by over 30,000 sold systems. They provide optimum protection from blockage and use highly efficient pumps.

WAFREGA and UNIJ/OINT, based in Beringe and Elst in the Netherlands, offer a wide range of products for water and gas applications. WAFREGA has been supplying a complete package of valves, pipe couplings, butterfly valves and pipe repair products for 40 years. UNIJ/OINT offers a comprehensive range of adapters and extensions, pipe couplings, flange adapters and dismantling joints for international pipe standards up to maximum dimensions. Individual customer specific solutions can also be designed and produced.
Water treatment
Whether from rivers, lakes, dams or the ground water – clean drinking water is a prerequisite for human life. Drinking water is understood as water that is so clean that it is suitable for humans to consume. Water suppliers therefore have the task of thoroughly testing and guaranteeing the water quality from the point of exploration, via treatment and transportation to supplying the water to the end customer. Making specific changes to improve the water quality is known as water treatment. Substances are either removed from (e.g. by means of cleaning or desalination) or added to the water or certain parameters are adjusted (e.g. adjustment of a certain pH value). For this, physical, chemical as well as biological methods are used.

Being 100 % suitable for drinking water is therefore of decisive importance for the valves used in these processes. Naturally all the materials used in the TALIS valves, from the metals to the elastomers, therefore satisfy the current regulations of many international organisations and this even applies to the smallest components.

Water transmission
Lengths of over 100 kilometres and nominal widths of over DN 100 are not unusual for large scale water transmission systems. They ensure that drinking water is available at all times and at the highest quality for thousands or even millions of households and companies within large cities and metropolitan areas. Highest product quality and reliability are therefore of greatest importance. TALIS offers a large number of valves for this application. The range extends from butterfly valves and pump start-up valves via pump bypasses and check valves up to air valves for filling and draining the pipelines.

In addition to operational safety and a long-service life, the optimum design of the installation is at the forefront of this application, as only correct dimensioning with optimum flow values can assure long-term and cost effective pump operation with minimum energy costs.

The extraction and transportation of drinking water, our most important commodity, place special requirements on the quality of valves.
TALIS valves guarantee safety and functional reliability of dams at all times.
Water treatment in modern waterworks or in desalination plants guarantees consistent and high quality of the drinking water.
**Water distribution networks**
Many thousands of kilometres of pipeline of various dimensions ensure that drinking water is available at all times and at the highest quality in every household and company. The pipe dimensions and materials depend on the usage, the water quality and ground conditions. Water tanks and towers, as well as numerous hydrants for flushing the pipeline networks and for supplying water for the fire service supplement the system.

Being 100% suitable for drinking water is therefore of decisive importance for the valves used in these installations. Another special challenge for the use of valves lies in the fact that pipelines and valves are generally buried in the ground protected against frost. Many valves are not used there for long periods of time, but when called upon they must exhibit full functional capacity in order to avoid costly and sometimes almost impossible construction work. Extreme robustness, optimum protection against corrosion or the external impermeability of gearboxes therefore play a decisive role.

**House connection**
The task of house connection products is to set up a safe and reliable connection between the municipal supply network on the one hand, and private households or companies on the other. For this, they have to meet the most stringent drinking water requirements and comply with all internationally applicable standards, approvals, and testing requirements. At the same time, it is essential, for their efficient economic use, that they are suitable for a wide range of different pipe sizes and materials, every conceivable installation situation, and the combination with devices and fittings from other manufacturers, as well as standardised interfaces.

**Dams and hydropower**
Dams fulfil a variety of tasks. They are used to collect water and stave off the risk of flooding; they are used to generate energy and help to make rivers and canals navigable. In addition the reservoirs assure the water supply for industry and agriculture and last but not least are important recreational areas for sports and leisure activities.

Special demands are placed on the valves in the bottom outlets. Due to the great forces involved in large reservoirs the forces must be safely and reliably converted without damage to the valves or the installation. This is associated with a high drainage capacity and large flow rates in the shortest possible time to drain the stored water instantly in the event of danger. Weight-loaded actuators guarantee the emptying function if the conventional actuation options should fail.

The same requirements must be met in pumped storage hydro power plants and other installations for hydro power generation. The use of valves in these plants is a particularly sensitive issue as they are often not used for many years and then have to serve their purpose smoothly and reliably within a very short time.
Irrigation

One of mankind’s oldest technical applications are the irrigation of fields for agriculture. This allowed the first advanced civilisations to flourish along the Nile, Euphrates and Tigris and is still today a decisive factor in feeding the growing world population. Of great importance here is that the valuable commodity water is used economically, but also that sufficient irrigation takes place for plant growth. Equally important is the transportation of the water to the irrigation site with as little loss and as a cost-effectively as possible.

The functional range of TALIS valves therefore extends from obtaining the water from surface waterways, the ground water or specially installed water storage facilities to distributing the water to the spray-irrigation systems. Particularly for use in large-scale irrigation systems in southern regions, the valves must be robust and simple to use, but at the same time inexpensive to acquire and easy to install.

Fire protection network

In case of a fire, water is still the extinguishing media number one. It is then important that enough water is immediately available for the fire fighters in order to save lives and to protect buildings from the fire.

Underground and pillar hydrants are used as water supply points. Even if they are often not used for lengthy periods, they must be able to be opened immediately in the event of a fire and deliver the required quantity of water. High flow rates and standardised connections are the precondition for this. Special demands are also made in terms of safety. Post hydrants in particular are exposed to the wind, weather and strong UV radiation for years on end, which necessitates the use of high-quality materials such as enamel or stainless steel.

Industrial water applications

There is hardly an industrial production process that can manage without water, for which reason a reliable and cost-effective supply of drinking, industrial and cooling water is a decisive economic factor. In addition to water, other media must be transported safely, e. g. chemicals from acidic to alkaline, media containing impurities, heavily contaminated flushing water from flue gas or gases such as natural gas, other combustion gases or oxygen.

TALIS can competently and flexibly react to even the most special requirements and offer highly individual solutions. This also applies for the cooling of power stations, where large quantities of water are required. The reliability of the water circuits is of crucial importance for these applications. Additional safety for shut-off and non-return valves is provided by drop-weight drives, which guarantee a reliable function even in the event of a power failure. Just as important is our knowledge in relation to special coatings and special materials. This ensures that our valves can also be used safely in the case of problematic substances such as chemicals, salt water, aggressive gases or abrasive media.
Sewage network and treatment

The central task of sewage technology is the storage, transporting and cleaning of wastewater as well as industrial sewage and rainwater runoff. Depending on the type of wastewater the valves used have to meet very specific requirements. With its broad range, TALIS offers an extensive spectrum of products on this market.

For use in sewage technology protection against blockage of the passage is the order of the day. Smooth and abrasion-resistant passage surfaces are also required. Particularly in the case of heavily contaminated sewage, great importance is attached to the choice of suitable materials and optimum protection against corrosion. The competence of TALIS is proven in numerous projects that have been realised throughout the world. The range is supplemented by a broad product range for the use in biogas plants, where depending on the circumstances TALIS can provide the correct valve in each case.

Gas distribution network

Around 50,000 kilometres of pipelines, some with diameter of up to 1.60 m, extend throughout Europe and connect the European trunk pipeline network with the pipelines delivering the gas from Northern and Eastern Europe. For distribution by local energy suppliers much smaller pipelines are used in order to assure effective, safe and environmentally friendly energy supply. TALIS valves are used in the trunk pipeline network and in the distribution network in particular.

When used in gas pipelines the tightness of the valve is the uppermost premise. A pressure test in accordance with DIN 3230 part 5 PG1 and PG3 is therefore carried out as standard on all our valves.
## Isolation

### Resilient seated gate valves
- **Function**: Raw, potable, waste water isolation, pumping
- **Technical data**:
  - DN 40-1200
  - PN 10, 16, 25 bar
  - Materials: Ductile iron, EPDM/NBR
  - **Coating**: Blue epoxy powder, vitreous enamel
  - Operation types: Non rising stem, outside screw & yoke, square cap, handwheel, ISO actuator top, chainwheel, bevel & spur gearbox
  - End configuration: ISO flange, TYTON® and PVC socket, spigot, threaded
  - **Media**: Raw, potable, salt, waste, industrial water
  - **Standards**: BS, EN, ISO, ANSI

### Resilient seated gate valves for fire service
- **Function**: Fire service isolation
- **Technical data**:
  - DN 65-400
  - PN 14 bar / 200 psi
  - Materials: Ductile iron, EPDM
  - **Coating**: Red epoxy powder
  - Operation types: Non rising stem, outside screw & yoke, post indicator top, signal top
  - End configuration: Flanged, grooved, flanged to grooved
  - **Media**: Industrial water
  - **Standards**: FM, VDS, BS, EN

### Metal seated gate valves
- **Function**: Potable, waste water isolation, pumping
- **Technical data**:
  - DN 40-2000
  - PN 2,5 - 16 bar
  - Materials: Cast iron, brass, bronze, st. steel, gunmetal
  - **Coating**: Blue epoxy powder
  - Operation types: Non rising stem, square end, handwheel, chain-wheel, electrical actuator
  - End configuration: Flanged
  - **Media**: Industrial water
  - **Standards**: BS, EN, ISO

### Features
- **Resilient seated gate valves**
  - Low operating and seating torques
  - 50 years life expectancy design
  - Square cap or square end for extension
  - Inside or outside screws
  - With or without by-pass

- **Resilient seated gate valves for fire service**
  - High reliability for infrequent use applications

- **Metal seated gate valves**
  - Metal seating
  - Mechanically fixed seats and seal rings
  - Cap or square end for extension
  - Inside or outside screw
  - With or without by-pass
  - Special construction for horizontal application

### Fields of application
Multy-waves resilient seated gate valves

Resilient seated gate valves for gas

Double eccentric butterfly valves

Potable, waste water isolation

Gas isolation

Water transmission, cooling, water intake, pumping, pipe burst shut-off valve

- **DN** 50-300
- **PN** 10, 16, 25 bar
- **Materials**: Ductile iron, EPDM
- **Coating**: Blue epoxy powder
- **Operation types**: Non rising stem, square cap, handwheel ISO actuator top, chain-wheel, bevel & spur gearbox, ON/OFF electrical actuator, pneumatic actuator
- **End configuration**: Flanged
- **Media**: Potable, raw, waste, industrial water
- **Standards**: EN, BS, ISO

- **DN** 50 (63)-300 (315)
- **PN** 10, 16 bar
- **Materials**: Ductile iron, NBR
- **Coating**: Yellow epoxy powder
- **Operation types**: Non rising stem, square cap, handwheel ISO actuator top, chain-wheel, bevel & spur gearbox, ON/OFF electrical actuator, pneumatic actuator
- **End configuration**: Flanged, PE end (PE80 & PE100, SDR 11 & SDR 17)
- **Media**: Gas
- **Standards**: BS, EN, ISO

- **DN** 150-3600
- **PN** 10, 16, 25, 40 bar
- **Materials**: Ductile iron, cast steel, EPDM, NBR
- **Coating**: Blue epoxy powder, vitreous enamel, rubber lined
- **Operation types**: Gearbox, ISO actuator top, ON/OFF electrical actuator, weight-loaded hydraulic actuator, pneumatic actuator
- **End configuration**: Flanged
- **Media**: Potable, salt, raw water, gas
- **Standards**: EN, ISO, BS

- Low operating an sealing torques
- Square cap or square end for extension
- PE ends for electro fusion
- Encapsulated seal ring
- Slider crank gearbox
- Long series face to face
- Tapered keyway drive
- Options: pipe burst shut-off, drop-weight actuator

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Multy-waves resilient seated gate valves

Resilient seated gate valves for gas

Double eccentric butterfly valves

Potable, waste water isolation

Gas isolation

Water transmission, cooling, water intake, pumping, pipe burst shut-off valve
## Isolation

### Rubber lined centric butterfly valves

- **Function**: Water transmission, cooling, water intake isolation, pumping, control, HVAC
- **Technical data**:
  - DN 40-1800
  - PN 10, 16 bar
  - Materials: Ductile iron, EPDM, NBR, Hypalon, 316, 431, duplex, stainless steel, gunmetal, aluminium-bronce
  - **Coating**: Fusion bonded blue epoxy powder, wet applied blue epoxy
  - Operation types: Gearbox, ISO actuator top, ON/OFF electrical, pneumatic actuator
  - End configuration: Flanged, wafer & lug type
  - **Media**: Potable, raw, salt, cooling water, natural gas
  - **Standards**: EN, ISO, BS

### Resilient seated ball valves

- **Function**: Raw water turbines, waste water, pumping
- **Technical data**:
  - DN 80-1200
  - PN 10-40 bar
  - Materials: Ductile iron, EPDM, stainless steel
  - **Coating**: Fusion bonded blue epoxy
  - Operation types: Gearbox, handwheel, ISO actuator top
  - End configuration: Flanged
  - **Media**: Potable, raw, waste water

### Diaphragm valves

- **Function**: Isolation and flow regulation of corrosive, loaded or pasty fluids
- **Technical data**:
  - DN 15-300
  - PN 4-10 bar
  - Materials: Ductile iron
  - **Coating**: Fusion bonded epoxy, rubber lining, PTFE
  - Operation types: Handwheel, electric actuator, pneumatic actuator
  - End configuration: Flanged or threaded
  - **Media**: Agresive, pasty medium, water

### Features

- Non pinned shaft version
- Bi directional
- Loose rubber liner
- Dry shaft design
- Series 13 & 20 face to face options
- Stainless steel seat
- High flow velocity [15m/s]
- High pressure [40 bar]
- Drop-weight actuator option
- Different qualities of diaphragm for different media
- Only 2 components in contact with medium
- PTFE lining available
- Full bore and reduced bore options

### Fields of application
### Couplings & Fittings

<table>
<thead>
<tr>
<th>Dedicated flange adaptors</th>
<th>Large tolerance flange adaptors</th>
<th>Dedicated couplings</th>
<th>Large tolerance couplings</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
<td><img src="image3.png" alt="Image" /></td>
<td><img src="image4.png" alt="Image" /></td>
</tr>
</tbody>
</table>

- **Sealed connection between spigot pipe and flange**
- **DN 40-3000**
  - PN 10, 16, 25, 40 bar
  - Materials: Ductile iron, steel, EPDM / NBR
  - Coating: Fusion bonded blue epoxy
  - Operation types: Sealing, sealing & restraint
  - End configuration: Flanged and socket for rigid pipe
  - Media: Potable, raw, sewage, salt water
  - Standards: EN, ISO, BS, DIN

- **DN 40-800**
  - PN 10-16 bar
  - Materials: Ductile iron, steel, EPDM / NBR
  - Coating: Fusion bonded blue epoxy
  - Operation types: Sealing
  - End configuration: Flanged and socket for rigid pipe
  - Media: Potable, raw, sewage, salt water
  - Standards: EN, ISO, BS, DIN

- **DN 40-3000**
  - PN 10, 16, 25 bar
  - Materials: Ductile iron, steel, EPDM / NBR
  - Coating: Fusion bonded blue epoxy, black epoxy
  - Operation types: Sealing, sealing & restraint
  - End configuration: Sockets for rigid pipe
  - Media: Potable, raw, sewage, salt water
  - Standards: EN, ISO, BS, DIN

- **DN 40-800**
  - PN 16 bar
  - Materials: Ductile iron, EPDM / NBR
  - Coating: Fusion bonded blue epoxy
  - Operation types: Sealing
  - End configuration: Sockets for rigid pipe
  - Media: Potable, raw, sewage, salt water
  - Standards: EN, ISO, BS, DIN

- **316 SS fasteners option**
- **Restrained solutions for steel, DI, PVC & PE pipes**
- **Stepped flange adaptors**
- **Cathodic protection option**
- **Reduced bore for wafer valves**
- **Extra wide tolerance up to 28 mm**
- **Extra wide tolerance up to 40 mm**
- **316 SS fasteners option**
- **Lightweight design**
- **Long barrel large deflection option**
- **Stepped couplings**
- **Cathodic protection**
- **Restrained version for PEHD pipe**
- **Wide tolerance up to 28 mm**
- **Extra wide tolerance up to 43 mm**
- **Stepped wide & extra wide tolerance couplings also available**
- **316 SS fasteners option**
### Couplings & Fittings

<table>
<thead>
<tr>
<th>Function</th>
<th>Technical data</th>
<th>Features</th>
<th>Fields of application</th>
</tr>
</thead>
</table>
| Dismantling joints | • DN 50-3000  
• PN 10, 16, 25, 40 bar  
• Materials: Ductile iron, steel, EPDM/NBR  
• Coating: Fusion bonded blue epoxy, vitreous enamel, rubber  
• Operation types: 100 %, 50 %, 25 %, 0 % restrained types available  
• End configuration: Flange/flanged ends, flanged end/plain end  
• Media: Potable, raw, sewage, salt water, compressed air  
• Standards: EN, ISO, BS, DIN | • Different levels of restraint available  
• Wide opening for easy access  
• Integral restraint within the dismantling joint | |
| Repair clamps | • DN 12-1200  
• PN 1-16 bar  
• Materials: 304 stainless steel, ductile iron, EPDM/NBR  
• Coating: Wet applied black bituminous epoxy  
• Operation types: Single part, two parts, three parts adjustable on pipe  
• End configuration: To suit pipe O.D. pipe  
• Media: Potable, raw water, sewage, salt water | • For steel, PVC, ductile iron, GRP and asbestos cement pipes  
• 316 stainless steel option  
• Lightweight design  
• Permanent repair solution for aerial or buried pipes  
• Adjustable sealing ring available for D.I socket end | |
| Flanged fittings | • DN 40-600  
• PN 10, 16, 25 bar  
• Materials: Ductile iron  
• Coating: Fusion bonded blue epoxy  
• Operation types: Design types available for tee, bend, sleeve, reducing flange, reducer, pipe  
• End configuration: Fixed or loose flanges  
• Media: Potable, raw, sewage, salt water  
• Standards: EN, ISO, BS, DIN | |
Network Protection

### Socket fittings
- **DN 40-300 (PVC & PE) / 80-600 (DI)**
- **PN 10, 16, 25 bar**
- **Materials:** Ductile iron, EPDM / NBR
- **Coating:** Fusion bonded blue epoxy
- **Operation types:** Design types available for tee, bend, sleeve, reducer
- **End configuration:** Socket for PVC and P.E / socket for ductile iron pipe (TYTON® socket)
- **Media:** Potable, raw, sewage, salt water
- **Standards:** EN, ISO

### Single orifice air valves
- **DN 20-80**
- **PN 10-40 bar**
- **Materials:** Ductile iron, gunmetal, EPDM
- **Coating:** Fusion bonded blue epoxy powder
- **Operation types:** Ball float
- **End configuration:** Flanged or threaded
- **Media:** Potable, raw, salt water
- **Standards:** EN, ISO

### Double orifice air valves
- **DN 40-200**
- **PN 10-40 bar**
- **Materials:** Ductile iron, EPDM, polypropylene, stainless steel
- **Coating:** Fusion bonded blue epoxy powder
- **Operation types:** Ball and disc floats / 2 ball floats
- **End configuration:** Flanged
- **Media:** Potable, raw, salt water
- **Standards:** EN, ISO

### Vacuum breaker
- **DN 80-250**
- **PN 10-40 bar**
- **Materials:** Ductile iron, stainless steel
- **Coating:** Fusion bonded blue epoxy powder
- **Operation types:** Self operating
- **End configuration:** Flanged
- **Media:** Potable, raw water
- **Standards:** EN, ISO

### Network Protection
- **Single orifice air valves**
- **Double orifice air valves**
- **Vacuum breaker**

- **Restrained solutions for PVC-PE and DI pipes**
- **Built in operation / test controller**
- **Built in stop valve option**
- **Minimum operating pressure 0.1 bar**
- **Lockable isolating valve**
- **Optional stainless steel EPDM coated float**
- **High capacities**
- **Metal-metal seating**
- **Optional flange reducer**
## Network Protection

<table>
<thead>
<tr>
<th>Function</th>
<th>Axial (nozzle) type check valves</th>
<th>Non-slam nozzle check valve</th>
<th>Check valves, swing type</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pump protection, tank outlet, water pipelines</strong></td>
<td><strong>Pump and water pipelines protection</strong></td>
<td><strong>Pump protection, tank filling, water</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Technical data

<table>
<thead>
<tr>
<th>DN</th>
<th>PN</th>
<th>Materials</th>
<th>Coating</th>
<th>Operation types</th>
<th>End configuration</th>
<th>Media</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>50-600</td>
<td>10-40 bar</td>
<td>Ductile iron, EPDM, stainless steel</td>
<td>Fusion bonded blue epoxy powder</td>
<td>Spring loaded resilient seated axial disc</td>
<td>Flanged</td>
<td>Potable, raw, salt water</td>
<td>EN, ISO</td>
</tr>
<tr>
<td>80-600</td>
<td>10-40 bar</td>
<td>Cast iron, natural rubber</td>
<td>Fusion bonded blue epoxy powder</td>
<td>Self operating</td>
<td>Flanged</td>
<td>Potable, raw, sewage water</td>
<td>EN, ISO</td>
</tr>
<tr>
<td>40-300</td>
<td>10-16 bar</td>
<td>Ductile iron, NBR, stainless steel</td>
<td>Fusion bonded blue epoxy powder</td>
<td>Self operating</td>
<td>Flanged</td>
<td>Potable, raw, sewage water</td>
<td>EN, ISO</td>
</tr>
</tbody>
</table>

### Features

- Silent closing
- Extremely low head loss coefficients
- Resilient seated
- Leak tight sealing
- Foot check valve version
- Minimum pressure loss through optimised flow cross-sections
- Flow-optimised valve disc and valve sealing ring
- Optimum hydraulics with short closing path to minimise water surge
- Optional internal vitreous enamel coating
- Stainless steel metal seat
- Very low head loss coefficients
- Self centering tilting disc
- Leak tight sealing
- External shaft & adjustable weight loaded lever version
- Optional by-pass valve

### Fields of application
Check valves, tilting disc type

- **DN** 150-1400
- **PN** 10-40 bar
- **Materials:** Ductile iron, EPDM/NBR, stainless steel
- **Coating:** Fusion bonded blue epoxy powder
- **Operation types:** Lever and drop-weight, hydraulic damper
- **End configuration:** Flanged
- **Media:** Potable, raw, salt water
- **Standards:** EN, ISO

Check valves, dual plate type

- **DN** 40-1200
- **PN** 10-250 bar
- **Materials:** Ductile iron, forged steel, EPDM/Buna, Viton, stainless steel
- **Coating:** Fusion bonded blue epoxy powder
- **Operation types:** Spring loaded plates
- **End configuration:** Wafer
- **Media:** Potable, raw, salt water

Pump and water pipelines protection with controlled closing

- **Pump protection**

- Stainless steel metal seat
- Double eccentric type
- EPDM or NBR seal for leak tight shutoff
- Adjustable hydraulic damper option
- Adjustable closing weights

- Metal or resilient seat options
- Horizontal or vertical installation
- Short face to face dimensions
- Low head loss coefficients
- Stainless steel, Duplex & Super Duplex executions
Network Protection

**Strainers, basket type**
- Function: Water straining for valves protection
- Technical data:
  - DN 50-800
  - PN 10-25 bar
  - Materials: Ductile iron, stainless steel
  - Coating: Fusion bonded blue epoxy powder
  - Operation types: 2.0 mm standard, 0.5 & 1.0 mm straining grid options
  - End configuration: Flanged
  - Media: Potable, raw, salt, reuse water

**Safety pressure relief valves**
- Function: Water hammer protection
- Technical data:
  - DN 40-200
  - PN 16-25 bar
  - Materials: Ductile iron, fabricated steel, EPDM, stainless steel, polyurethane
  - Coating: Fusion bonded blue epoxy powder
  - Operation types: Spring loaded operation
  - End configuration: Flanged
  - Media: Potable, raw water

**Quick acting pressure relief valves, surge anticipating**
- Function: Network surge protection / pumping station surge protection
- Technical data:
  - DN 50-800
  - PN 16-64 bar
  - Materials: Ductile iron, EPDM, stainless steel
  - Coating: Fusion bonded blue epoxy powder
  - Operation types: Diaphragm or piston actuated hydraulic operation
  - End configuration: Flanged
  - Media: Potable, raw water

**Features**
- Compact design
- Optional built-in drain valve
- Optional different strainer grid dimensions
- Easy maintenance from the top (basket type)
- Instantaneous operation
- Conical shape allowing high flow release
- Leak tight
- Cavitation free operation
- Low maintenance
- Quick opening
- Flanged outlet
- 100 % stainless steel option
- Piston actuated version for DN up to 800 and PN up to 64 bar

**Fields of application**
Control valves

**Needle valves**
- DN 100-2000
- PN 10-160 bar
- Materials: Ductile iron, EPDM, gunmetal, stainless steel
- Coating: Fusion bonded blue epoxy powder, wet applied blue epoxy
- Operation types: Gearbox, handwheel, ISO actuator top, electric actuator
- End configuration: Flanged
- Media: Potable, raw, salt water
- Standards: EN, ISO, DIN

**Pressure & flow control valves**
- DN 50-150
- PN 16-25 bar
- Materials: Ductile iron, EPDM, gunmetal, stainless steel
- Coating: Fusion bonded blue epoxy powder
- Operation types: Gearbox, handwheel, ISO actuator top, electric actuator
- End configuration: Flanged
- Media: Potable, raw, salt water
- Standards: EN, ISO, DIN

**Spring operated pressure reducing valves**
- DN ½”-2” and 50-200
- PN 10, 16, 25, 40 bar
- Materials: Copper alloy, ductile iron, stainless steel, reinforced EPDM
- Coating: Fusion bonded blue epoxy powder
- Operation types: Spring loaded, direct acting
- End configuration: Flanged or threaded
- Media: Potable, raw water
- Standards: EN, ISO

**Diaphragm actuated valves – EN serie**
- DN 50-1000
- PN 10-25 bar
- Materials: Ductile iron, stainless steel, reinforced EPDM
- Coating: Fusion bonded blue epoxy powder
- Operation types: Hydraulically operated, diaphragm actuated, pilot controlled
- End configuration: Flanged
- Media: Potable, raw water, salt water on request
- Standards: EN, ISO

**Pressure & flow control**
- Free discharge valve
- Seat ring, vaned ring, slotted cylinder, perforated cylinder versions
- High differential pressure
- High accuracy, 100 % linear flow
- Control from 4 % opening
- Pressure management

**Pressure reduction**
- Globe type valve
- Slotted cylinder
- High differential pressure
- Cavitation management
- Fine control

**Diaphragm actuated valves – EN serie**
- Proven & effective design
- Globe pattern
- Available in pressure sustaining version

**Pressure, flow, level, pumping controls**
- Single & double chamber design
- SCADA, Modulo, Control Mate & other control systems compatibility
- Options: remote/local time based controllers, electrical position indicator
- Angle body on request
## Control valves

### Technical data

<table>
<thead>
<tr>
<th>Piston actuated valves</th>
<th>Pilot controlled tank filling valves</th>
<th>Electrically actuated tank filling valves</th>
</tr>
</thead>
<tbody>
<tr>
<td>• DN 50-800</td>
<td>• DN 50-1000</td>
<td>• DN 50-1000</td>
</tr>
<tr>
<td>• PN 16-64 bar</td>
<td>• PN 10-16 bar</td>
<td>• PN 10, 16, 25 bar</td>
</tr>
<tr>
<td>• Materials: Ductile iron, steel, stainless steel, EPDM</td>
<td>• Materials: Ductile iron, stainless steel float</td>
<td>• Materials: Ductile iron, stainless steel seat</td>
</tr>
<tr>
<td>• Coating: Fusion bonded blue epoxy powder, wet applied blue epoxy</td>
<td>• Coating: Fusion bonded blue epoxy powder</td>
<td>• Coating: Fusion bonded blue epoxy powder</td>
</tr>
<tr>
<td>• Operation types: Hydraulically operated, piston actuated, pilot controlled</td>
<td>• Operation types: Hydraulically operated, diaphragm actuated, pilot controlled</td>
<td>• Operation types: Hydraulically operated, diaphragm actuated, solenoid controlled</td>
</tr>
<tr>
<td>• End configuration: Flanged</td>
<td>• End configuration: Flanged</td>
<td>• End configuration: Flanged</td>
</tr>
<tr>
<td>• Media: Potable, raw, salt water</td>
<td>• Media: Potable, raw water</td>
<td>• Media: Potable, raw water</td>
</tr>
<tr>
<td>• Standards: DIN, ANSI, BS, ISO</td>
<td>• Standards: EN, ISO</td>
<td>• Standards: DIN, ANSI, BS</td>
</tr>
</tbody>
</table>

### Features

- Simple design
- Single chamber
- High reliability
- Piston actuated version for DN up to 800 and PN up to 64 bars
- Metal float for durability
- High differential pressure
- Minimal flow disruption
- 1 or 2 levels control
- Solenoid pilot operation
- Remote valve control
- «On-Off» or step by step duty
- Pressure management
- SCADA and PC control systems

### Fields of application
**Float valves**

- **DN** 25-300
- **PN** 10-16 bar
- **Materials:** Ductile iron, cast iron, nylon reinforced natural rubber, stainless steel & brass float
- **Coating:** Fusion bonded blue epoxy, nylon 11 Rilsan®
- **Operation types:** Lever and float
- **End configuration:** Flanged or screwed
- **Media:** Potable, raw water
- **Standards:** DIN, ANSI, BS

**RAY – diaphragm actuated, double chamber „Y” pattern**

- **DN** 50-250
- **PN** 16 bar
- **Material:** cast iron, ductile iron
- **Coating:** Rilsan (Nylon 11)
- **Operation types:** Hydraulically operated, diaphragm actuated, double chamber type
- **End configuration:** Flanged
- **Media:** Potable, raw water
- **Standards:** ISO, DIN, ANSI

**RAF – diaphragm actuated valve**

- **DN** 25-300
- **PN** 10-16 bar
- **Material:** cast iron, ductile iron, steel, stainless steel, Nickel-Aluminium-Bronze
- **Coating:** Rilsan (Nylon 11), epoxy powder
- **Operation types:** Diaphragm type
- **End configuration:** Flanged, Threaded, Grooved
- **Media:** Potable, raw, salt water
- **Standards:** DIN, ANSI, BS

- Stainless steel float for durability
- Diaphragm balanced lever for progressive opening and closing
- Submersible
- **PN** 16 option
- Altitude settings option

- **Double chamber**
- Unique universal rubber plug for all work conditions
- Less parts
- Simple design
- Easy maintenance

- **Simple design**
- Non metal spring
- Smooth opening/closing
- Accurate regulation
- 3 parts only
House connections

<table>
<thead>
<tr>
<th>Function</th>
<th>Technical data</th>
<th>Features</th>
<th>Fields of application</th>
</tr>
</thead>
</table>
| Self tapping ferrule straps | Connection from water main for PE, PVC, asbestos cement, DI, steel pipes | • Gripping on PE  
• Imperial PVC 2", 3" & 4" available  
• Integral swivel ferrule  
• Self contained alu bronze cutter | |
| Tapping saddles and valves | Connection from water main for PVC, PEHD, DI, steel, asbestos cement pipes | • Dedicated or large tolerance type  
• Drilling under pressure  
• Straps in stainless steel  
• Accessories: drilling machine | |
| Stop valves – ball, plug or wedge types | Main pipe drilling under pressure & water shut off | • Allows drilling under pressure  
• Underground installation set available  
• Straight or angle body  
• Universal (straight/angle) version  
• Pushfit globe valve | |

- **Function**
  - DN 32-330 with PE DN 20 to 63 outlet  
  - PN 10-16 bar  
  - Materials: Gunmetal or acetal  
  - Operation types: Square cap  
  - End configuration: Push-fit type, female threaded, compression  
  - Media: Potable water  
  - Standards: WIS

- **Technical data**
  - DN 32-900 with outlet DN 15 to 200  
  - PN 10-16 bar  
  - Materials: Cast or ductile iron  
  - Coating: Fusion bonded or wet applied blue epoxy, vitreous enamel  
  - Operation types: –  
  - End configuration: Threaded gas or metric, flanged outlet  
  - Media: Potable water, natural gas  
  - Standards: BS, DIN, NF

- **Features**
  - DN 20-63  
  - PN 10-16 bar  
  - Materials: Ductile iron, gunmetal, brass, plastic  
  - Coating: Fusion bonded or wet applied blue epoxy  
  - Operation types: Square cap or square end for extension  
  - End configuration: Threaded gas or metric, flanged, push-fit  
  - Media: Potable water  
  - Standards: BS, DIN, NF, WIS

- **Fields of application**
<table>
<thead>
<tr>
<th>Flange adaptors</th>
<th>Pushfit plastic fittings</th>
<th>Service valves for meters</th>
<th>Below ground &amp; wall mounted boundary boxes</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Image" /></td>
<td><img src="image2" alt="Image" /></td>
<td><img src="image3" alt="Image" /></td>
<td><img src="image4" alt="Image" /></td>
</tr>
</tbody>
</table>

**Grip and seal flange connection for PE or PVC pipe**
- **DN** 20-50
- **PN** 16 bar
- **Materials**: Ductile or cast iron, EPDM, brass
- **Coating**: Fusion bonded blue epoxy
- **End configuration**: Flanged and socket for PE or PVC pipe
- **Media**: Potable water

**Grip and seal socket for PE or PVC pipe**
- **DN** 16 to 63
- **PN** 16 bar
- **Materials**: PP, EPDM
- **End configuration**: Pushfit
- **Media**: Potable water

**Shut off device and non return valve for water meter isolation**
- **DN** 15, 20
- **PN** 16 bar
- **Materials**: Gunmetal, brass
- **Operation types**: Flywheel
- **End configuration**: PE compression – BSP threaded
- **Media**: Potable water
- **Standards**: BS, ISO-EN

**Chambers for water meters providing shut off device and non return valve**
- **PN** 12-16 bar
- **Materials**: DMC, PVC, polypropylene guard tube, gunmetal or plastic manifolds
- **End configuration**: Inlet/Outlet connections: 20 mm-32 mm, \( \frac{3}{4} \), 1", pushfit or female threaded
- **Media**: Potable water
- **Standards**: WIS

- **Geomet bolts included**
- **Universal coupler (Grippa)** for PE to copper, lead, galvanised iron pipe
- **Tees, bends**
- **Accessories**: tools for disassembling, bevelers, inserts for PE
- **Straight & angle valves**
- **Lockable system with antitheft key**
- **Non return device**
- **Fixed height or telescopic**
- **Raised or base manifold**
- **Sealed or unsealed**
- **Tilt adjustment**
Fire Protection

Pillar fire hydrants with hood

To connect mobile equipment of fire services to the network

- **DN** 65-80-100-150
- **PN** 16
- Materials: Body: ductile iron, Others: ductile/cast iron, steel, stainless, steel, brass, copper alloy, EPDM
- Hood: Varnished red polymere
- Coating: Metallic parts: black epoxy/vitreous enamel, duplex coating
- Operation types: Square cap, handwheel
- End configuration: Flanged, BLS spigot inlet, hose connection outlets
- Media: Potable, raw water
- **Standards**: EN, NF, DIN, ANSI

Pillar fire hydrants with apparent outlets

To connect mobile equipment of fire services to the network

- **DN** 65-80-100-150
- **PN** 16
- Materials: Body: ductile iron, Others: ductile/cast iron, steel, stainless, steel, brass, copper alloy, EPDM
- Coating: Buried metallic parts: black epoxy, ext. over ground parts: red polyester
- Operation types: Square cap, handwheel
- End configuration: Flanged, BLS spigot inlet, hose connection outlets
- Media: Potable, raw water
- **Standards**: DIN, EN, NF

Underground fire hydrants

To connect mobile equipment of fire services to the network

- **DN** 50-65-80-100
- **PN** 16
- Materials: Body: ductile/cast iron, others: ductile iron, steel, stainless steel, brass, copper alloy, EPDM
- Coating: Epoxy, vitreous enamel
- Operation types: Square cap
- End configuration: Flanged inlet – hose connection outlet
- Media: Potable, raw water
- **Standards**: DIN, EN, NF

**Features**

- Various outlets standards
- 360° orientation after installation
- Automatic drainage
- Various earth covers
- Duck foot bend or straight inlet
- Traffic type version
- Double closure option

**Fields of application**

- Fire hydrants with hood
- Fire hydrants with apparent outlets
- Underground fire hydrants
# Fountains and Hydrants

<table>
<thead>
<tr>
<th>Industrial Hydrant</th>
<th>Fountains and Hydrants</th>
<th>Smart Card Hydrants</th>
<th>Underground Water Hydrants</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Water networks of factory premises</strong></td>
<td><strong>Free access to water in public areas</strong></td>
<td><strong>Controlled access and automatic water delivery with dedicated smart card</strong></td>
<td><strong>Free access to water in public areas</strong></td>
</tr>
<tr>
<td><strong>DN 150</strong></td>
<td><strong>DN 20-25 (fountains), DN 40-80 (hydrants)</strong></td>
<td><strong>DN 25-80</strong></td>
<td><strong>DN 25, 40</strong></td>
</tr>
<tr>
<td><strong>PN 16</strong></td>
<td><strong>DN 20-25 (fountains), DN 40-80 (hydrants)</strong></td>
<td><strong>DN 25-80</strong></td>
<td><strong>PN 10</strong></td>
</tr>
<tr>
<td><strong>Materials:</strong> Body: ductile iron, Others: ductile/cast iron, steel, stainless steel, brass, copper alloy, EPDM</td>
<td><strong>Materials:</strong> Body: ductile iron, other parts: ductile/cast iron, copper alloy, steel, stainless steel, EPDM</td>
<td><strong>Materials:</strong> Body: ductile iron, other parts: ductile/cast iron, copper alloy, steel, stainless steel, EPDM</td>
<td><strong>Materials:</strong> Body: ductile iron, other parts: ductile/cast iron, copper alloy, steel, stainless steel, EPDM</td>
</tr>
<tr>
<td><strong>Coating:</strong> Epoxy, vitreous enamel</td>
<td><strong>Coating:</strong> Black epoxy, green or grey polyester</td>
<td><strong>Coating:</strong> Black epoxy, green or grey polyester</td>
<td><strong>Coating:</strong> Black or blue epoxy</td>
</tr>
<tr>
<td><strong>Operation types:</strong> Square cap, handwheel</td>
<td><strong>Operation types:</strong> Manual with handwheel, button, push taps</td>
<td><strong>Operation types:</strong> Smart card</td>
<td><strong>Operation types:</strong> Square cap, crutch handle</td>
</tr>
<tr>
<td><strong>End configuration:</strong> Flanged, hose connection outlets</td>
<td><strong>End configuration:</strong> Fountains: flanged + threaded inlet, threaded or hose coupler outlet, hydrants: flanged inlet, hose coupler outlet</td>
<td><strong>End configuration:</strong> DN 25: hose coupler inlet, G ½-threaded outlet, DN 80: flanged inlet, hose coupler outlet</td>
<td><strong>End configuration:</strong> Inlet: flange DN 25 and G ½ - Flange DN 40, outlet: gas threads ¼”-1” or hose coupler DN 40</td>
</tr>
<tr>
<td><strong>Media:</strong> Potable, raw water</td>
<td><strong>Media:</strong> Potable, raw water</td>
<td><strong>Media:</strong> Potable, raw water</td>
<td><strong>Media:</strong> Potable, raw water</td>
</tr>
<tr>
<td><strong>Standards:</strong> DIN</td>
<td><strong>Standards:</strong> DIN</td>
<td><strong>Standards:</strong> DIN</td>
<td><strong>Standards:</strong> DIN</td>
</tr>
</tbody>
</table>

- Maximum performance
- Full-bore design without loss of pressure
- Easy handling with variable drive technology and low operating torque
- Ball valve, external drive elements, standard break system and double automatic draining
- Fountains for individual use, hydrants for professional use
- Self closing fountains
- Hood protected hydrants
- Hydrants with built in antipollution check valve and incorporated water meter
- Traffic type version (DN 80 hydrant)
- Access control by smart card
- Battery powered
- Built in antipollution check valve
- Automatic drainage (DN 80)
- PC connection
- Accessories: smart card loading software, smart card loading machine
- Built-in anti pollution system
- Square or rectangular box
- Standard or non freezable types
- Automatic drainage
### Sanitary Protection

#### BA type backflow preventers
- **Function:** Backflow protection with reduced pressure zone
- **Technical data:**
  - DN 15-250
  - PN 10 bar
  - Materials: Ductile iron, bronze, copper alloy, stainless steel, EPDM
  - Coating: Fusion bonded blue epoxy
  - Operation types: Spring loaded double check valve and discharge valve
  - End configuration: Flanged or threaded
  - Media: Potable water
  - Standards: EN, NF

#### EA type antipol check valves
- **Function:** Backflow protection
- **Technical data:**
  - DN 50-250
  - PN 16 bar
  - Materials: Ductile iron, copper alloy, stainless steel, EPDM
  - Coating: Fusion bonded blue epoxy
  - Operation types: Spring loaded controllable check valve
  - End configuration: Flanged
  - Media: Potable water
  - Standards: EN, NF

#### Automatic flush out units
- **Function:** Autonomous and automatic wash-out device, to keep the quality of the water
- **Technical data:**
  - DN 20-80
  - PN 16 bar
  - Materials: Ductile iron, bronze, copper alloy, stainless steel, EPDM
  - Coating: Fusion bonded blue epoxy
  - Operation types: Battery powered, solenoid operated
  - End configuration: Flanged or threaded
  - Media: Potable water

### Features
- Back flow preventer with full accessories: filters, stop valves
- Maintenance and control suit-case
- Low headloss
- Fitted with pressure gauge taps
- Horizontal or vertical (upwards) installation
- One year autonomy with 6 cycles per day
- Programming handset
- Low or high flow rate versions

### Fields of application
- [Image of applications]
## Irrigation

### Hydrants and accessories
- **DN 40-80-100-150**
  - PN 16 bar
  - Materials: Body: ductile iron, others: brass, bronze, steel, stainless steel, EPDM
  - Coating: Black epoxy, green polyester
  - Operation types: Handwheel
  - End configuration: Flanged inlet, flanged or screwed or hose coupler outlet
  - Media: Raw water

### Underground hydrants
- **DN 80**
  - PN 10-16 bar
  - Materials: Body: ductile iron, others: brass, bronze, steel, stainless steel, EPDM/NBR
  - Coating: Internal vitreous enamel, external fusion bonded blue epoxy
  - Operation types: Square cap
  - End configuration: Flanged inlet, hose coupler outlet
  - Media: Raw water

### RAF – Diaphragm actuated valve
- **DN 40-300**
  - PN 10-16 bar
  - Material: Cast iron, glass reinforced Nylon (1½”-5”)
  - Coating: Rilsan (Nylon 11), epoxy powder
  - Operation types: Diaphragm type
  - End configuration: Flanged, Threaded, Grooved
  - Media: Potable, raw, salt water
  - Standards: DIN, ANSI, BS

### Water meter for irrigation
- **DN 50-300**
  - PN 16 bar
  - Material: cast iron
  - Coating: Epoxy powder
  - Operation types: Tangential type
  - End configuration: Flanged
  - Media: Potable, raw water

---

**Irrigation**

**Hydrants and accessories**

**Underground hydrants**

**RAF – Diaphragm actuated valve**

**Water meter for irrigation**

- **Complete water delivery unit for agricultural**
- **Connection of irrigation surface installation with buried network**
- **Automatic control of pressure and/or flow guided by an irrigation controller**

**Water meter**

- **Adaptable hydrant to customer needs**
- **Pressure reducing valve**
- **Flow meter – Flow limiting device**
- **Automatic drain valve**
- **From 1 to 4 simultaneous connections for delivery**
- **Various outlets connections with cap and key**

- **Easy assembling with irrigation machine or irrigation pipes**
- **Various earth covering**

- **Simple design**
- **Non metal spring**
- **Smooth opening/closing**
- **Perfect regulation**
- **3 parts only**

- **Wide flow rate range**
- **Negligible head loss**
- **High measuring accuracy**
- **Long life**
# Sewage

## Function

<table>
<thead>
<tr>
<th>Knife gate valves</th>
<th>Resilient seated gate valves</th>
<th>Penstocks and flap valves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sewage, waste water treatment isolation</td>
<td>Sewage, waste water treatment isolation</td>
<td>Waste water, sewage, flushing valves, stoplogs</td>
</tr>
</tbody>
</table>

## Technical data

<table>
<thead>
<tr>
<th>Knife gate valves</th>
<th>Resilient seated gate valves</th>
<th>Penstocks and flap valves</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DN</strong> 50-1400</td>
<td><strong>DN</strong> 40-1200</td>
<td><strong>DN</strong> 150-3000</td>
</tr>
<tr>
<td><strong>PN</strong> 4-16 bar</td>
<td><strong>PN</strong> 10, 16, 25 bar</td>
<td><strong>PN</strong> 0.4-2 bar</td>
</tr>
<tr>
<td>Coating: Fusion bonded blue epoxy powder</td>
<td>Coating: Fusion bonded blue epoxy powder, vitreous enamel</td>
<td></td>
</tr>
<tr>
<td>Operation types: Lever, handwheel, chain wheel, square cap, pneumatic or electric actuator</td>
<td>Operation types: Non rising stem, Outside Screw &amp; Yoke, square cap, handwheel, ISO actuator top, bevel &amp; spur gearbox</td>
<td>Operation types: Handwheel, square cap, gearbox, pneumatic or electric actuator</td>
</tr>
<tr>
<td>End configuration: Flanged</td>
<td>End configuration: Flanged, ISO TYTON® socket, PVC socket, spigot, threaded (up to DN 50), P.E. tails</td>
<td>End configuration: Grout in, wall bolting</td>
</tr>
<tr>
<td>Media: Sewage, raw, industrial water</td>
<td>Media: Waste, industrial water</td>
<td>Media: Sewage, salt water</td>
</tr>
<tr>
<td><strong>Standards:</strong> DIN, ISO</td>
<td><strong>Standards:</strong> BS, EN, ISO</td>
<td><strong>Standards:</strong> DIN</td>
</tr>
</tbody>
</table>

## Features

<table>
<thead>
<tr>
<th>Knife gate valves</th>
<th>Resilient seated gate valves</th>
<th>Penstocks and flap valves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low sealing torques</td>
<td>Low operating and sealing torques</td>
<td>High performance sealing</td>
</tr>
<tr>
<td>Easy maintenance</td>
<td>Square cap or square end for extension</td>
<td>Diversity of design: regulating version, frame for circular tank, channel</td>
</tr>
<tr>
<td>Resilient &amp; metal seat options</td>
<td></td>
<td>Direct grout in wall, bolt type</td>
</tr>
<tr>
<td>Optional 100% stainless steel version</td>
<td></td>
<td>Direct fastening claws, sill, bolt type</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 or 4 sides sealing in both directions</td>
</tr>
</tbody>
</table>

## Fields of application
<table>
<thead>
<tr>
<th>Safety relief valves</th>
<th>Single orifice air valves</th>
<th>Double orifice air valves</th>
<th>Start-up relief valves</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Protection against water hammer / Protection of sewage pumping stations</strong></td>
<td><strong>Sewage pipeline fine air release</strong></td>
<td><strong>Large flow air admission &amp; release, fine air release in sewage networks</strong></td>
<td><strong>To blow off loads during start-up of fans or compressors</strong></td>
</tr>
<tr>
<td>• DN 100</td>
<td>• DN 50-100</td>
<td>• DN 50-200</td>
<td>• DN 65-200</td>
</tr>
<tr>
<td>• PN 16 bar</td>
<td>• PN 16 bar</td>
<td>• PN 10-16 bar</td>
<td>• PN 1 to 5</td>
</tr>
<tr>
<td>• Materials: Ductile iron, EPDM, NBR, stainless steel</td>
<td>• Materials: Ductile/cast iron, fabricated steel, EPDM/NBR, stainless steel</td>
<td>• Materials: Ductile/cast iron, fabricated steel, EPDM/NBR, stainless steel</td>
<td>• Materials: Steel, stainless steel</td>
</tr>
<tr>
<td>• Coating: Fusion bonded blue epoxy powder</td>
<td>• Coating: Fusion bonded blue epoxy powder, green EGD coating</td>
<td>• Coating: Fusion bonded blue epoxy powder, green EGD coating, vitreous enamel</td>
<td>• Coating: Green EGD coating</td>
</tr>
<tr>
<td>• Operation types: Ball float</td>
<td>• Operation types: Ball float</td>
<td>• Operation types: Ball float + disc, 2 ball floats</td>
<td>• Operation types: Spring loaded</td>
</tr>
<tr>
<td>• End configuration: Flanged</td>
<td>• End configuration: Flanged</td>
<td>• End configuration: Flanged</td>
<td>• End configuration: Flanged</td>
</tr>
<tr>
<td>• Media: Sewage water</td>
<td>• Media: Sewage water</td>
<td>• Media: Sewage water</td>
<td>• Media: Compressed air</td>
</tr>
<tr>
<td>• Standards: EN, ISO</td>
<td>• Standards: EN, ISO</td>
<td>• Standards: EN, ISO</td>
<td></td>
</tr>
</tbody>
</table>

- Large body to prevent clogging
- Raised mechanical parts to prevent jamming
- Instantaneous operation
- Leak tight at very low pressure
- Automatic & economical
- Adjustable setting
- Maintenance free
- Optional solenoid valve
### Sewage

<table>
<thead>
<tr>
<th>Ball check valve</th>
<th>Check valve, rubber swing type</th>
<th>Check valve for sewage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Function</strong></td>
<td>Prevents flow return in sewage pumping stations</td>
<td>Prevents flow return in sewage pipelines &amp; pumping stations</td>
</tr>
</tbody>
</table>
| **Technical data** | • DN 25-40  
• PN 10 bar  
• Materials: Ductile iron, NBR, stainless steel  
• Coating: Fusion bonded blue epoxy powder  
• Operation types: Ball check  
• End configuration: Flanged or threaded  
• Media: Sewage water  
• Standards: EN, ISO | • DN 50-300  
• PN 10-16 bar  
• Materials: Ductile or cast iron, butyl/NBR  
• Coating: Fusion bonded blue epoxy powder  
• Operation types: Self operating  
• End configuration: Flanged  
• Media: Sewage water  
• Standards: EN, BS | • DN 50-1000  
• PN 10-16 bar  
• Materials: Ductile or cast iron, fabricated steel, NBR, stainless steel  
• Coating: Green epoxy, green EGD coating  
• Operation types: Self operating  
• End configuration: Flanged  
• Media: Sewage water  
• Standards: EN |

### Features
- Low sealing torques
- Silent closing
- Optional by-pass
- Easy maintenance
- Full bore
- Leak tight at low pressure
- Resilient & metal seat options
- Low head loss
- Optional adjustable closing weights or external springs
- Resilient seated
- Optional safety pressure relief valve
- Optional 100 % stainless steel version
- Protective guard options

### Fields of application

![Fields of application icons]
Awalift sewage pumping system

- Prevents flow return in sewage pipelines & pumping stations
- DN 40-300
- PN 10-16 bar
- Materials: Ductile iron, EPDM, stainless steel
- Coating: Fusion bonded green epoxy powder
- Operation types: Self operating
- End configuration: Flanged
- Media: Sewage water

Awalift 80 sewage pumping system

- Compact sewage pumping systems to collect and transport wastewater
- DN 80/100
- PN 10
- Materials: Ductile iron, Polyurethane
- Coating: Fusion bonded black epoxy powder
- Operation types: Self operating
- End configuration: Flanged
- Media: Sewage water

- Fully automatic sewage pumping system with one or more pumps
- No solids in contact with pump but only precleaned sewage
- Optimum protection against corrosion
- Silent and safe operation

- Fully automatic sewage pumping system for smaller installations (1 to 6 persons)
- Weight reduced by 50 % by using polyurethane parts
- Easy and cost efficient maintenance
Flexible solutions – all-round care

TALIS with its ten brands offers the widest range of valves and thus provides even to the most special tasks the right solution. Job-specific application, cost-effective operation through optimised flow behaviour and minimal pressure losses, low maintenance costs due to high product quality, long service life and optimum protection against corrosion – all this together guarantees that TALIS valves are economic solutions with a minimum cost structure in relation to the overall service life of the valve [“Life Cycle Costs”].

The flexibility of TALIS can also be seen in the variety of actuating options that are available to suit the place of installation or field of application, and which thanks to standardised connections can also be changed easily at any time. Just a few examples:

- Interfaces with coupling sleeve for installation set according to DVGW worksheet GW 336 via square caps
- Hand wheels and chain wheels
- Column stands with hand wheel and spindle extension
- Column stands with electrical rotary actuator and spindle extension
- Spindle extensions with hand wheel
- Adjustable underground installation sets with street cap
- Adjustable underground installation sets with street cap and wheel-type indicator
- Drive flanges for the use of electrical rotary actuators, possibly in combination with pinion gears
- Hydraulic or pneumatic as well as gravity actuators

At TALIS an extensive accessories range from installation sets to street caps and drain stones to fittings supplements the valves range thereby offering individual solutions for every job.

More than just valves

Particularly in the case of complex technical installations, simply supplying the products is not enough. Therefore, the experts at TALIS are at your disposal for help and advice during all life-cycle phases. Highly qualified teams at our works as well as agencies throughout Europe and in more than 50 countries on all five continents, work on creating first-class solutions with our customers. Individual advice by our experience engineers and technicians starts as early as the project phase. Optimum solutions come into being in dialogue with the customer, whether for series products or special designs.

It is precisely because of these “made-to-measure” packages that products from TALIS’ broad range are particularly frequently used in difficult applications and installation situations. TALIS also has its own test centres available for material testing, project-specific investigations as well as for testing and analysing materials and components.
Headstocks, T keys, extension spindles, rack and pinion actuators, surface boxes, coffret drainages, stop cock housings, drilling machines, electric actuators, Talflo® taps, bolts and gaskets are just a few examples of the wide range of TALIS accessories range.

If necessary, our employees assemble the valves in our customers’ installation and carry out the commissioning work along with their employees. Naturally, this also includes training and familiarising the specialist personnel by way of detailed operating instructions and training documents.

Nevertheless, this does not represent the end of service provision by TALIS. We also provide services during the long operational life of the valves. Regular inspections and maintenance ensure that the valves operate reliably at all times. However, if problems should occur repairs can be carried out quickly on site. Any required spare parts are rapidly available even many years after commissioning. In addition, for more major repair work technicians are available at our works. We also provide these services for products by other manufacturers.
Your partner for water and sewage – throughout Europe and around the world

With the head offices of its ten brands, TALIS is represented in many European countries. In addition, there are more than 24 sales offices and agencies throughout Europe as well as representations in more than 120 countries all around the world available locally to valve users for expert advice.

Additional and detailed information is also available on our website at http://www.talis-group.com. The site in English, German, Spanish, French and Russian offers:

- Comprehensive information and news about all ten TALIS brands
- The complete product portfolio with detailed product descriptions, brochures and posters
- Operating instructions, spare part lists and other product documentation for download
- Programs for calculating the stream in many valve types
- Tender specifications and pricelists
<table>
<thead>
<tr>
<th>Region</th>
<th>Company Name</th>
<th>Address</th>
<th>Phone</th>
<th>Fax</th>
<th>Website</th>
</tr>
</thead>
<tbody>
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</table>
TALIS is always the number one choice whenever water transport or control is required. TALIS has the best solution for water and energy management, as well as for industry and municipal applications. With a varied range of products we offer comprehensive solutions for the entire water cycle. From hydrants to butterfly valves. From the knife-gate valves to the needle valves. Our experience, innovative technology, global expertise and individual consultation process form the basis for developing sustainable solutions for the efficient handling of the vital resource “water”.

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