

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. They are installed in appropriate distances within the network system, so that they can be accessed at any time without being blocked by parking cars for example. 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, so that the shut-off device can even be replaced under operating pressure and there are no risks even if it is damaged e.g. on account of a vehicle collision.

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. The taking of water from the hydrants must

also not lead to any contamination of drinking water. Last but not least, the hydrants are objects which stand in public spaces. With a wide range of differing design variants from the classic to the modern, TALIS provides options for a variety of needs and preferences in this respect.

Our products for fire protection networks:

- Hydrants
- Resilient-seated gate valves
- Centric and double eccentric butterfly valves
- Control valves
- Fittings



The fast provision of the extinguishing media is essential for a successful firefighting.

The TALIS product range for fire protection networks

Hydrants

Basis for the permanently reliable deployment of hydrants of whichever design and installation situation is high material quality. TALIS offers a wide range of various hydrants for every purpose, supplemented by suitable accessories, such as extensions, flushing sets, rods, protective covers, claw connections, and a lot more ...

The **ERHARD Industrial Hydrant 150 [1]** is the first post fire hydrant to have a ball valve as the shut-off element. This results in a full straight-through bore without loss of pressure, high flow velocities with a minimum of vortices and, resulting from that, highest volumes of throughput. The state-of-the-art hydrant engineered to DIN 14384-C also features further characteristics which have predestined it for use in high-performing drinking, industrial and fire-fighting water networks of industrial companies.

- Maximum operating safety thanks to external drive elements, low operating force thanks to ideal gear transmission
- Service-friendly predetermined breaking point as standard
- Two top outlets with B fixed couplings (kv 340 m³/h), two bottom outlets with A fixed coupling (kv 1,075 m³/h)
- Robust dual automatic draining devices

Post fire hydrants are exposed to the elements on a daily basis. The **ERHARD CITY Hydrant [2]** provides a perfect solution to this problem that will last for decades thanks to its post made of stainless steel and the high-quality coating of the hydrant head. As a further development of the ERHARD post hydrants which have been used for years, it incorporates numerous tried and tested components:

- A classically elegant hydrant head, enamelled internally and externally, which is available in red and blue enamel colours
- State-of-the-art sealing cone technology using a PUR material for high wear resistance and insensitivity to dirt
- Double cut-off with multi-chamber ball for changing the inner fitting and the lower part of the post under full operating pressure



- Well thought out safety interlock for protection against the dangerous ejection of the inner fitting during disassembly
- Service-friendly break system for simple repair if damage occurs
- Underground post, internally enamelled and externally with a dual layer fusion bonded epoxy coating

The **ERHARD Post Hydrant [3]** has been a tried and tested solution for many years which also incorporates numerous high-quality construction features of the ERHARD CITY hydrants, such as the sealing cone technology using a PUR material, the double cut-off with multi-chamber ball for changing under full operating pressure, the well thought out safety interlock, and the service-friendly break system. The ERHARD post hydrant is internally enamelled, and externally it is provided with a duplex coating consisting of zinc spraying with EP / P/PUR-based topcoat for optimal protection against corrosion. It can also be supplied with a stainless steel post and BLS® socket as well as a protective mantle [4], and as a 'classic line' for use in historic settings.

Thanks to its innovative shut-off cone, the **ERHARD Underground Fire Hydrant [5]** with PUR cone is especially durable. This is because the PUR sheathing of the shut-off cone has very good resistance to wear and is therefore slower to wear out. At the same time, it is insensitive to dirt and has very good resistance to tear propagation, as well as good resistance to ageing. The ERHARD underground fire hydrant with a PUR cone is of course also fitted with a safety interlock for the inner fitting which prevents the dangerous ejection of its parts during disassembly. For optimal corrosion protection, the underground fire hydrant is manufactured in ERHARD Pro-Enamel. This high-quality fibre enamel is extremely stable, crack-resistant, and hard-wearing. The ERHARD underground fire hydrant is available with a variety of bayonet outlets – either with or without double cut-off (Form AD or form A).

Resilient-seated gate valves

As the latest generation of gate valves, the **TALIS BAKIO® gate valve** a lot of advantages, such as an insert-type stem bearing enabling seamless bonnet coating for complete corrosion protection and sealing of the spindle bearing with o-rings which can be replaced under full working pressure if required. An integrated spindle screw end stop guarantees increased safety and the innovative protective cap with integrated sealing lips serves as secure sealing against dust and moisture. The shut-off wedge made from top-quality cast iron with complete elastomer sheathing guarantees a soft seal and one hundred per cent tightness. Guide profiles with integrated sliding blocks ensure easier actuation. Optimum corrosion protection is guaranteed by a fusion bonded epoxy coating to GSK or fibre-reinforced Pro-Enamel. The TALIS BAKIO gate valve is available in numerous variants and connection options.

Double-eccentric butterfly valves

The **ERHARD ROCO® Premium butterfly valves** stands for highest quality in the nominal sizes DN 80 to 600. The innovative polygon shaft-hub connection features a completely shut valve eye, does not need any additional connecting elements and hence no separation joints and offers 20% more torque reserves. The connection is absolutely free of play and, together with the flow-optimised shape of the valve disc, prevents any fluttering whatsoever. The design also allows complete encapsulation of the connection between the shaft and valve



disc and, therefore, there will be no contact between the shafts and the medium any longer. Sealing consistently and logically occurs at coated parts of the component, a decisive plus for protection against corrosion and durability. The sliding crank mechanism has an optimal movement kinematics that is almost exactly corresponding to the valve's characteristic curve.

Centric butterfly valves

The perfected **BELGICAST ECLI butterfly valve** is of centric design and with compact face-to-face dimension being used in cases where valves for clamping in or flange-mounting are needed. The sophisticated design guarantees perfect leak tightness and a long service life:

- Replaceable elastomer body seat ring, safe against mechanical and hydrodynamical strains
- Anchoring of the seat ring in the body to avoid any displacements when retracting the valve disc
- Positive and frictional disc/shaft connection for functionally safe connection without fluttering.
- Maintenance-free, self-lubricating and PTFE coated bearing bushes, triple-bearing shaft bearing assembly

Control valves

The pilot-controlled **BAYARD pressure reducing valve** is deployed in converting a fluctuating, higher inlet pressure into a lower, constant downstream pressure. The valve controlled by its own medium features a pilot valve as control unit ensuring precise, prompt and fast control in addition to the main valve. The pilot valve will open once the downstream pressure drops below the value set on the control unit. The resulting pressure relief will then result in opening the main valve. Further advantages:

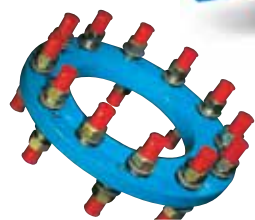
- Low head loss at completely open valve for highest flow capacity, for example, in case of fire-extinguishing requirement
- Practical, wide range of downstream pressure from 1 to 20 bar.
- Located outside of the cavitation zone for minimum wear.
- High maintainability with inner parts accessible from above
- Two integrated pressure gauges with globe valve for high operating convenience

The **BAYARD pressure retention valve** is of similar design but its task is to avoiding increased pressures in pipes. It opens on exceeding a preset pressure value thus protecting the line from too high pressure as pressure relief valve.

Fittings

With more than 5,000 different products, the **FRISCHHUT line of fittings** spans almost the entire range of pipe varieties used for supplying drinking water and removing sewage. Naturally, all products are manufactured according to applicable standards and approval criteria.

Special attention is paid to corrosion protection, for which an epoxy powder coating is mainly used. This results in lasting protection against corrosion, scaling, aggressive soils and aggressive waters, as well as the highest level of hygienic safety and food suitability.



References



Water for Globetrotters

Munich Airport – the winner of several prizes for design, atmosphere and functionality and with more than 35 million passengers Germany's second largest Airport. All of them need water. Every year, the airport operations, including fire brigade, consume more than one million cubic meter of drinking water. This is equivalent to the consumption of a small town with a population of 15,000.

The fire-fighting water supply network, too, is something to be proud of, featuring three underground reservoirs with a capacity of 6,000 m³ each. The pumps deliver a total quantity of 60,000 litres per minute at 7 bar pressure. At all strategically important points of water supply on the airport ground – such as hand-over points, control shafts, fire-fighting water reservoirs – ERHARD products can be found: butterfly valves, wafer type butterfly valves, post and underground fire hydrants and air valves.

Security in industrial applications

The Burghausen plant is Wacker Chemie's largest production facility and the largest chemical complex in the German state of Bavaria. On the compound which measures two square kilometers nearly 10,000 employees in 150 production units create several thousand different products. For any emergencies the plant fire brigade is on alert 24/7. Regular exercises and a detailed danger prevention plans help them to be prepared at any time.

Part of the concept is the ERHARD Industrial Hydrant, which could proof its high performance right after its installation during an extended fire drill.





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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