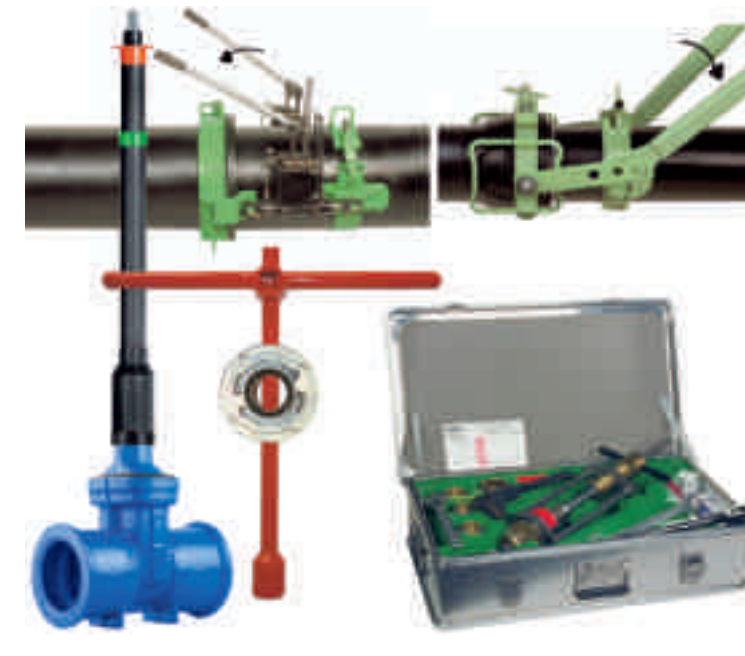


vonRollhydro
Technology
and system competence



Innovative technologies and system competence in providing water supplies have a 20-year history in Switzerland and bear just one name: vonRollhydro. In situations where quality and the sustainable protection of investments are important in connection with the supply of fresh water or the disposal of wastewater, our range of products and services are often put to use: Water is an increasingly precious commodity.

vonRollhydro Accessories and spare parts
Everything is available at a moment's notice



vonRoll maintains a wide selection of accessories for fire-hydrants, valves, pipes, fittings and cast-iron building products which facilitate our customers' work and make the use of our products even more efficient. The experience we gain ourselves, along with feedback and suggestions from our customers, aids the further development of our products. Special accessories – in particular for installation work – can also be rented.

vonRollfix – The ideal pipe joint for unpressurised piping



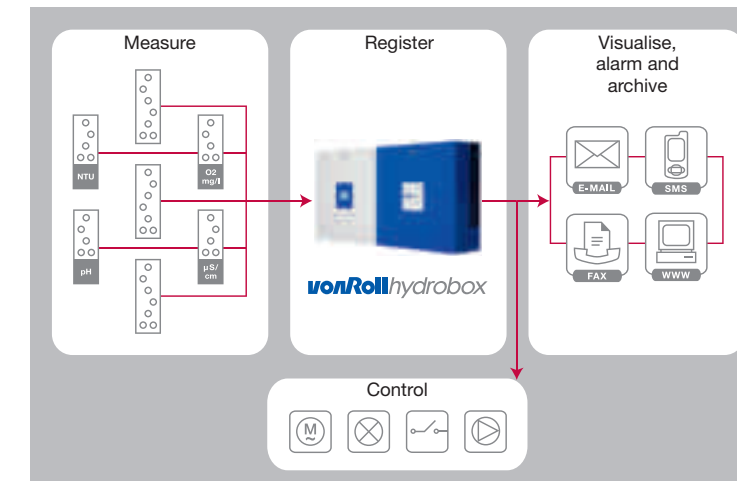
vonRollfix pipe and connecting collars are used as a connection element in downpipe and drainage piping as well as in industrial pipeline construction. vonRollfix is available for pipe diameters from DN 50 to DN 250 and is suitable for the secure, long-lasting and economical connection of unpressurised piping in either the same or varying materials such as cast-iron, steel and polyethylene. With appropriate protection of the piping system, vonRollfix can take loads of up to a maximum of 3 bar.

vonRollhydro Building-quality cast-iron
Road safety, Swiss Made



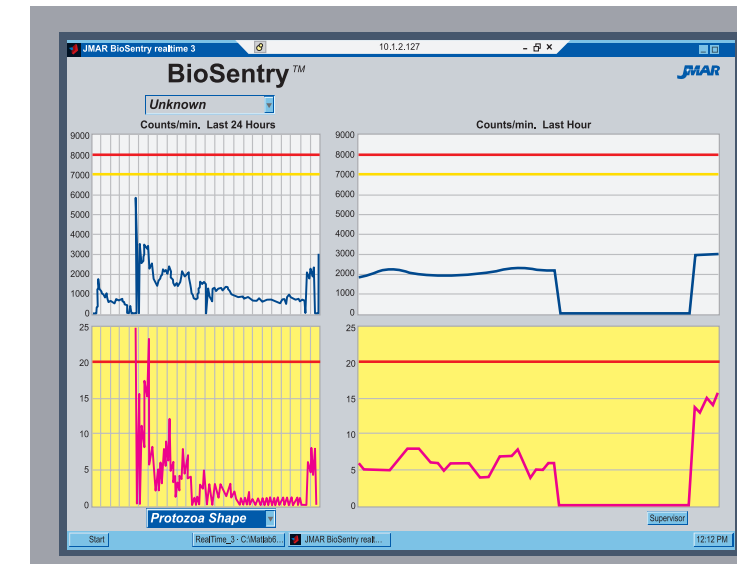
The **vonRoll building-quality cast-iron system** has been developed and produced in Switzerland because, a long time ago, the trivial manhole cover of old became an important component of high-capacity roads, motorways, bridges, railway infrastructure and building drainage concepts. Manhole covers and gratings made of high-quality grey cast-iron or ductile cast-iron are safe for traffic, hard-wearing and economical. Further, our range of services includes consulting services and the development of custom-built products such as covers and gratings for optimal, secure and long-lasting use.

vonRollhydrobox
Permanent quality assurance for water systems



The patented **vonRollhydrobox** is a compact monitoring station for the on-line measurement of drinking water quality. It measures all relevant quality data and reports the results using state-of-the-art technologies such as LAN, WLAN or GSM directly to your PC. The measured data is displayed on your monitor using visualisation software. Quality-data on turbidity/solid matter, oxygen content, conductivity, pH-value, temperature, redox potential, chlorine, chlorine oxide and ozone concentration, trace elements and compounds of iron, nitrate/nitrite, ammonium as well as carbon compounds (CSB, BSB, TOC/DOC) are measured on-line using an integrated ultraviolet spectrometer.

vonRollhydrobox with BioSentry
Monitoring of micro-biological impurities



Using the *BioSentry* option, the vonRollhydrobox can be augmented to provide permanent on-line monitoring of micro-biological loading in a water distribution system. *BioSentry* is based on laser flow cytometry technology for the detection of pathogenic germs and is connected in parallel to the vonRollhydrobox via an interface.

- The vonRollhydrobox therefore offers
- permanent, selective monitoring and registration of micro-biological impurities
 - integrated control functions which are programmable as required
 - Integration with and connection to existing and higher-level remote control systems
 - Option of setting up a measuring network according to customer requirements
 - State-of-the-art data transfer /telemetry using GSM, GPRS, W-LAN
 - Data recording on PC with on-screen visualisation
 - Alarm in the case of critical value deviation using text messages.

vonRollhydrolife
Service from the manufacturer



As your competent partner, we are pleased to be at your disposal and will be on-site with comprehensive services for you and your requirements. If mains monitoring, checking of water quality or network data management is concerned, or if inspection and maintenance or the servicing of plant is involved, we'll put a special service packet together for you that is tailored to your needs and has an unbeatable cost-performance ratio. We consistently take care of our systems and products over their entire life-cycle, from planning up to low-cost replacement and are therefore able to offer you high-level functional reliability, full cost-transparency and optimal protection of your investments.

vonRollhydro
Technology with a future ...



... is both concept and commitment for vonRoll and our integrated products and services for the water resource business and its customers from the spring right up to the house connection. As the only Swiss manufacturer, vonRoll develops and produces the main components in its own facilities in Switzerland, and, as the only manufacturer doing this, vonRoll maintains an innovative system approach. Thanks to uncompromising orientation towards quality, innovation and customer service we have attained a leading position in the Swiss market and, increasingly, in selected export markets too. Here, we want to intensify our activities even further through consistent orientation towards customer and market needs. Along with our resellers, more than 900 employees and around 50 apprentices in Switzerland are committed to doing this on a world-wide basis.

Credit: Factory Aarau



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vonRollhydro Pipes
Ductile cast-iron and polyurethane guarantee water quality



Piping in ductile cast-iron is the leading base technology for pressurised piping systems which must work reliably over decades. The advantages of ductile casting technology are often lost as a result of the use of hard, non-elastic coatings - but not with vonRoll products. For more than 30 years now, we have been relying on polyurethane (PUR) internal and external coatings. With these, vonRoll pipes are universally suitable for water (**vonRollecopur**, **vonRollducpur**), wastewater (**vonRollgeopur**) and gas piping.

The surface of the PUR internal coating, which is as smooth as glass, is resistant to all kinds of water and wastewater (pH 1-14) and even to aggressive media. The vonRoll PUR-internal coating meets the demands placed on it by the DVGW worksheet W270 in the drinking water area with reference to the proliferation of micro-organisms (test certificate dated 16.03.2006). Because of their very smooth surface (k < 0.01 mm) vonRoll pipes achieve outstanding hydraulic performance values: High flow rates, high tractive forces, low pressure drops, lower pumping and energy demands. Moreover, deposition is prevented and cleaning costs in the case of fouling-up are minimised. The PUR internal coating is resistant to abrasion and meets

vonRollecocofit
The complete fittings program



vonRollecocofit offers a comprehensive selection of fittings in ductile cast-iron with integral epoxy coatings which offer the same performance and quality characteristics as vonRollecopur pipes.

the requirements of the abrasion tests defined in the EN 598 standard. The exterior coatings in zinc/bitumen (**vonRollducpur** and **vonRollgeopur**) have a self-healing effect (active corrosion protection) and the PUR full protection (**vonRollecopur**) guarantees optimal corrosion protection in all types of soil according to EN 545/598.

Thanks to **vonRollhydrotight** joining techniques, up to 30% savings in installation weight of the piping and great savings in trenching work (no gravel bedding, lower transportation costs) can be made; vonRoll piping can be laid in a simple and economic way and the plug-in connection system guarantees full protection without further ado.

vonRollhydrotight
Joining with system



External thrust-protection system
Internal thrust-protection system

The further developed and improved **vonRollhydrotight** jointing system increases flexibility and simplifies the laying of pipeline networks in cast-iron and PE when used as an internal or external thrust-protection system. In this way, even challenging connections can be made without flanges in a rapid and economical way.

vonRollvs5000
Full-protection slide-valve meets toughest demands



Reliability and long service-life are basic quality features of the **vonRoll-vs5000** full-protection slide-valves. This new generation of slide-valves was developed in the vonRoll engineering centre in Emmenbruecke. The result is a maintenance-free slide-valve concept with a screw-free connection between the top and bottom parts of the casing that is optimised as far as weight and function are concerned. Thanks to an integral epoxy coating, the vonRollvs5000 slide-valve guarantees permanent functional reliability, high resistance to wear and optimal hygienic qualities. The new vonRollvs5000 slide-valves are compatible with all piping systems and exhibit the best operating characteristics.

vonRollvario **vonRollvarial**
Height-adjustable fire-hydrant bases



The **vonRollvario** and **vonRollvarial** hydrant bases are height-adjustable and are full-protection-coated; they are available with double shut-off facilities. Thanks to the new, patented REVO valve technology, the advantages of systems using radial and conical sealing are combined in a brilliantly simple way. Consequently, complicated and error-prone refurbishment of fire-hydrant bases can be avoided.

vonRollortomat
Permanent leakage location pays off



Our group company Wagamet AG in Emmenbrücke is the Swiss market-leader in the area of permanent leakage location and mains monitoring in water and gas supply systems. The ORTOMAT leak-location system developed and produced in Switzerland has been patented by Wagamet and provides an important contribution to security of supply. ORTOMAT technology is permanently being developed even further. Together with **vonRollhydrobox** and **vonRollhydroalert**, Ortomat technology forms the basis of our innovative and, up to now, unique security concept for water-supply utilities world-wide.

vonRollhydro Fire-hydrants
Leading-edge technology assures the supply of water for firefighting



High performance, easy installation and operation as well as convincing design are the decisive qualities of all our fire-hydrants. With the model 1896, a jewel for historical squares and settings; the **vonRollhydroclassic** remains THE ORIGINAL – often copied, never equalled; the Wave convinces with its design and performance and the patented **vonRollhydrotec** aluminium line stands out because of its modular design concept and its best price/performance ratio. All vonRoll fire-hydrants are furnished with our patented REVO valve technology. REVO combines the advantages of systems with radial and conical sealing in a brilliantly simple way. Complicated and error-prone refurbishment of fire-hydrant bases is a thing of the past. Using latest casting and production engineering, outstanding protection against rust with thick, full-protection coatings and careful material selection, vonRoll fire-hydrants always remain what they always were: permanently better.

vonRollhydroalert by Wagamet
Stop the theft of water



Water theft and resulting damage to fire-hydrants caused by faulty manipulation are increasingly becoming a problem. The patented **vonRollhydroalert** system that has been developed together with Wagamet causes a quiet alarm to be sent when a cap or a cover is opened. As soon as the alarm contact is released, alarms are sent to up to 4 destination addresses via GSM with information on the fire-hydrant number. (including fax, mobile, E-mail). The closure of the fire-hydrant is also reported. In this way, **vonRollhydroalert** makes an important contribution to security of supply and protects against expensive loss of water.