Challenges – we accept them anytime!

That’s the Wey.
They come from all directions and put us to the test every day, challenges. In addition to the usual ones that we have always encountered as a supplier on the valve market, the coronavirus pandemic has been added since the beginning of this year 2020.

As our valued customers and partners, you can rest assured that we have taken immediate action to ensure the health and safety of our employees and thus maintain our usual operations. These measures have proven to be successful, and we are working diligently to ensure that this remains so in future and our employees can go about their work as usual.

Our production lines are working without interruptions and we can assure you that no delays in delivery are expected on our part. As a family-run company, we manufacture products ourselves, are independent and are able to operate based on a solid financial basis. As a result, we always ensure that the required resources and materials are available in house – a factor that is now allowing us to maintain our production levels and delivery capacities as before without any cutbacks. We are doing everything in our power to make sure this remains the case in future.

Please allow me now to show you that we are not only proactively tackling the challenges posed by the coronavirus pandemic, but also living up to our role as a leading supplier in the valve market.

Our Wey® products have been on the market for over 55 years. For decades, we have gained experience in a wide variety of applications and have continuously adapted and...
supplemented our products and their design accordingly. In doing so, we have convinced thousands of customers worldwide of our expertise by demonstrating the added value that a highly reliable valve can offer. With this in mind, you will find a success story from the American Southwest in the current issue – a story that continues to be written today.

However, experience alone gets both us and our customers nowhere if we don’t convert it into expertise. This is where we have to focus on all areas of our company, be it in manufacturing, the further development of products, as well as in customer-oriented advice and support from the sales department. In doing so, we always remain in constant contact with our sales partners, who make a significant contribution to the further development of our products. The enclosed report from Finland is a prime example of this fruitful partnership.

With experience and competence we want to take on future challenges with existing and new customers. It goes without saying that we do everything in our power to achieve the best possible solution together with you, our valued customers. Convince yourself and browse through the articles in Wey News.

On behalf of the entire SISTAG team, I would like to thank you for your trust and loyalty. Even in these difficult and challenging times, you can fully rely on us – always!

Kind regards,

Samuel Sidler

The Organic Waste Treatment Facilities (OWTF) Phase I development is to design, construct and operate a biological treatment facility. The OWTF plant has a capacity of about 200 tons per day and converts source-separated organic waste from commercial and industrial sectors into compost and biogas. The project site is located at Siu Ho Wan in North Lantau.

Highly corrosive waste, water and gas are generated from the OWTF. Any leakages from the equipment would not be acceptable. Large amount of solid are also containing. This application is truly a real challenge for the equipment inside the treatment
process. Due to the reliability concerns of competing products, Wey valves proved to be the most suitable choice for this application.

SISTAG AG and its sales partner Tenson Engineering Limited are both proud and grateful to supply 41 pcs. of Wey knife gate valves for this project. The chosen types are VNC & MFC size DN80 to DN400. These Wey valves are used to handle the aggressive medium, such as digestate, sludge and highly corrosive solid waste in the treatment plant.

After three years of operation, the Wey valves continue to provide a trouble-free performance to the OWTF. The operator and end user both feel satisfactory of all these Wey valves.

For this reason, our distributor Tenson would like to thank SISTAG for the great collaboration and the best solution provided for this highly demanding application. That's the successful Wey to Hong Kong!
Coating made the difference
Wey success story from Finland

Finland has colder winters than Switzerland but one thing connects the Swiss and Finnish mentality – the solution oriented high quality standard. The following success story is presented by our reseller in Finland, the company Fluidcontrol. It is about a customized Wey knife gate valve which made the customer forget his worries.

The story is about the Juustola heating plant in Lapinlahti. The knife gate valve is installed in a DN100 ejector tube and works as a shut-off valve. As it is often the case, it begins with a problem at the plant – but for SISTAG and Fluidcontrol problems mean opportunities. The operating company contacted our reseller because the existing knife gate valve was leaking after about two months in each case.

The valve operates every 15 minutes. During plant’s ash removal, the sand particles in the ash-sand mixture harden so badly due to the high temperature variations between +170°C and +300°C that the normal SS 316 knife gate valve did not last more than two months. The sand scratched the gate and damaged it so much that an ash leakage occurred, a situation which was not acceptable neither for the operator nor for the owner, who both expect a smooth process with high quality products.

As we were trying hard to think of a solution, we realized we might be able to use special coatings in solving this problem. Our distributor Fluidcontrol delivered several years special coated ball valves to very challenging locations, so we decided to approach the problem from this angle. SISTAG got contacted and together we decided to test a special diamond coating.

SISTAG delivered the Wey knife gate valve type MFC to Fluidcontrol and it was coated by a specialist in Finland. The coating thickness was around 60µm. The surface roughness after the treatment was so good that a further grinding process was not necessary.
After six months in use there were no leakages reported. Our customer is extremely pleased about the Wey valve and for the problem solved. That’s the Wey to seize opportunities.

Diking of the Rhine delta in Vorarlberg, Austria

The groundwater level in the delta between the Old Rhine and the Rhine tributary leading to Lake Constance rises and falls together with the water level in both the Rhine and Lake Constance. The delta is a large, well-known nature reserve that is home to a wealth of fauna and flora. Between 1956 and 1963, a polder dike was constructed along Lake Constance and three pumping stations built in Gaissau, Höchst and Fussach. If the groundwater level should rise, the pumping stations pump water out of the delta into Lake Constance.

After over 50 years of operation, the pumping stations have now been completely refurbished, in particular the intake screens, isolating valves, pumps, valves and pipelines. Two pumps with a capacity of 3,000 l/s each and a manually operated DN 700 and DN 800 valve were installed at each pumping station. MFA knife gate valves from Wey were used.
here. The valves are closed during annual inspections so that no water can flow from Lake Constance into the intake and pumping area, thus ensuring the work can be carried out safely.

All work was carried out by Blum Anlagenbau GmbH in Höchst, Austria. We would like to take this opportunity to thank them for the excellent cooperation.

Wastewater Association Erdinger Moos, Germany

Wey valves ensure trouble-free operation thanks to their flow-optimized valve geometry. As they are absolutely leakproof – in both flow directions, under pressure and under vacuum – they are ideally suited to any process. They are the first choice globally and are found in a range of different industrial branches and municipal organizations.

ASSOCIATION ENSURES CITIZEN-FRIENDLY WASTEWATER DISPOSAL

One such organization is the Abwasserzweckverband Erdinger Moos in southern Germany. It was founded in 1976 under the motto “Gemeinsam geht’s besser” (“Better together”) and deals with the environmentally friendly, economical and citizen-friendly disposal of wastewater in Erding and twelve other municipalities. Munich International Airport is also a direct discharger of wastewater and – in winter – de-icing agents. In summer operation, the wastewater treatment plant runs according to a maximum capacity of 184,000 population equivalents. In winter, this increases to 320,000 population equivalents due to de-icing of the traffic areas. At the association treatment plant in Eitting, around 11 million cubic meters of wastewater is collected and treated annually before being discharged into the Mittlere Isar canal.

WEY VALVES IN THE WASTEWATER PUMPING STATIONS AND SAND FILTER SYSTEM

Wey valves have been used in Eitting for the past five years, with the numbers constantly increasing. On one hand, they control the intake of wastewater from the surrounding municipalities and the airport to the wastewater pumping stations, which are located outside the treatment plant. On the other hand, they can also be found in the sand filter system, which was installed at the beginning of the 1990s when Munich Airport was relocated from Reim to the Erdinger Moos area.
Sand filtration is the final phase of wastewater treatment, following mechanical treatment in the screening unit and biological treatment in the ten activation tanks. The wastewater – which is already essentially treated at this point – is fed from the secondary treatment tanks through a filter bed containing sand of varying grain sizes. In doing so, microscopic suspended matter is also filtered out. While the wastewater that is fed into the system has already achieved a degree of purification above 99%, the sand filter system has proven its worth on many occasions, particularly when the treatment plant is running at high capacity due to airport operation and large intake volumes.

**WEY VALVES CONTROL BACKFLUSHING IN THE EVENT OF BLOCKAGES**

The sand filter consists of twelve rectangular filter cells with a total filter area of 483 square meters. The Wey valves not only control the filling of the filter tanks, but also control the backflushing if the throughput rate of a filter cell is too low. All filter cells are equipped with a level measurement controlled via ultrasound. As soon as the water level in a filter tank reaches a certain level, backflushing begins with compressed air and water. The Wey valves in “hot stand by” mode then open automatically. Backflushing is made in reverse through the filter cell until the wastewater overflows one of the opening valves. The overflowing wastewater is collected in a wastewater shaft, from where it is pumped back to the start of the treatment process and passes through the entire process again.

In terms of technical details, Wey DN 500 valves (i.e. with a pipe diameter of 50 cm) are used for filling, while Wey DN 600 valves are used for backflushing. The maximum flow capacity for DN 500 is 1,540 cubic meters per hour, and 800 cubic meters per hour for DN 600.

**WEY VALVES – FOR SMOOTH MOVEMENT AND A LONG SERVICE LIFE**

The people at Abwasserzweckverband Erdinger Moos are completely satisfied with the Wey valves. As head engineer Gerd Richter explains: “The valves have a long service life and can be moved easily. The valves that were used here previously were always in need of maintenance and could also only be moved with difficulty. During maintenance and repair work, additional auxiliary hydraulic systems had to be installed in order to open and close the valves. This was a laborious process and resulted in increasing personnel costs due to the additional staff required – sometimes over a period of several days. Thankfully, this is now behind us and we have the costs under control again thanks to Wey.”
News from Wey Valve Inc., USA

The versatile Wey design solves critical needs in Pulp and Paper Mills

For over 50 years, Wey has been a solid choice for knife gate valves across multiple industries throughout the world. For over 30 years in North America Wey has been tackling and solving some of our customer’s harshest applications in many industries. In the southeast United States with the help of our local representative, Sharp Industries in Shreveport, LA, Wey has achieved great success in Pulp and Paper industry. Many applications within this industry require the valves to operate in less than ideal service conditions and must maintain absolute zero leakage. For these critical applications the Wey design has proven to be the industry leader and valve of choice.

**DISOLVING TANK RECOVERY BOILER ISOLATION**

A large pulp and paper company was fighting continuous problems with 10” full port ball valves on the discharge of the liquor and weak wash lines. After a short period of installation time, the ball valves locked up due to liquor buildup and were never able to isolate the process without downtime. This company’s corporate engineering group recommended the mill look into the “O” port knife gate valve for this application. Our mill contact asked us to make our best recommendation and initially we made the suggestion of using our Wey VL design with our proprietary E coat on the body and gate. The E coat would help reduce the scale buildup giving us a better chance of fighting the problem of green liquor scale. However, due to the versatility of the Wey knife gate valve we could also offer our Wey shear gate design. The option of the Wey shear gate would provide the use of an “O” port design as per the recommendation of the engineering group. The shear gate valve would provide the use of an “O” port as the Wey VL design with our proprietary E coat on the body and gate. The E coat would help reduce the scale buildup giving us a better chance of fighting the problem of green liquor scale. However, due to the versatility of the Wey knife gate valve we could also offer our Wey shear gate design. The option of the Wey shear gate would provide the use of an “O” port design as per the recommendation of the engineering group. The shear gate valve is the best “O” port valve available for this type of application. The Wey utilizes 440C seat rings reducing the area for potential buildup. The Wey shear gate “O” port design allows the valve to close off on any media. This while incorporating Wey Valve’s unique transverse packing seal on the upper and lower portion of the gate so it can be repacked in line and under pressure quickly reducing any leakage. In this particular application the most critical feature of the Wey shear gate are the flush ports upstream and downstream to flush liquor with water after the valve operation keeping the valve clean and free of liquor scale buildup. The live flush ports are imperative to ensure smooth operation of the Wey shear gate in this extremely challenging application.

**CYCLONE CLEANER VALVES**

The dynamics of this tough application provide many challenges and over the years Wey Valve Inc. has continued to address the most critical problems associated within the recycle area. Many mills start these systems with knife gate valves that are not well suited for the application. The 180 degree arc on most knife gate valves is the first mistake, then the traditional packing gland creates another issue and as time goes on, the failure chain begins. The solution is to provide our Wey CY valve which is essentially the VL valve with the proper options to address all the inherent problems that the cyclone cleaners can introduce. The swirling effect of the cleaner is first addressed with a 17.4Ph (Rockwell C44) hardened gate eliminating wear due to metal abrasion. Then, we apply a 440C wear ring and this is a must. On the CY option the 440C wear ring allows for a much tighter tolerance than the standard Ni-hard wear ring. With these tolerances we are able to place the wear ring closer to the gate thereby reducing the area for metal and trash to buildup in the valve body. Most of these applications are at recycle mills where almost anything can come through with the reusable product. It is not uncommon to see tools,
household items or even a car bumper pass along with the typical nails and staples from the recycled product.

Another design feature often overlooked is the Wey cylinder. All of the valves are installed in the vertical position, heavy cylinders supplied by our competition puts undue stress on the valve and will eventually cause problems. The Wey cylinder used as standard has the barrel and end caps constructed in aluminum. The remainder of the industry supplies cylinders constructed in carbon steel which is much heavier than aluminum. With the weight being substantially lighter than the competing cylinders there is less stress transferred to the valve. This is another advantage provided by the Wey solution. We have provided this proprietary Wey VL design with CY options to multiple mills giving our customers a valve that has consistently given them longer service life and reduced downtimes.

**REFINER ISOLATION**

Over 20 years ago, Sharp Industries was asked to provide a solution to a mill in the pulp mill refiner room where vibration was basically shaking the existing valves apart after a short period of time. The cost was becoming astronomical due to continuous failures and valve replacement. Often times the existing valves were only seeing 3 to 6 months of operation prior to total failure. This is a critical area of the mill and could not afford to be constantly out of service at these short intervals. As a solution we installed the Wey VL with our Wey high vibration option. Today, some 20 years later that valve and many more with the same high vibration option are still in service and isolating process as desired on these applications.

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**2020 trade fair participation**

**Where you can visit us**

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>5.– 7. October 2020</td>
<td>New Orleans/USA</td>
<td>Trade fair for water, sewage, waste and raw materials management</td>
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<tr>
<td></td>
<td></td>
<td>Hall F, Stand 4045</td>
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<tr>
<td>1.– 3. December 2020</td>
<td>Düsseldorf/Germany</td>
<td>International world conference and exhibition for industrial valves</td>
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**WEY WORKS**

**Wey type VL**