Investments in new products and infrastructure
That’s the Wey.
Dear Customers and Partners,

SISTAG, fit for the future

It was a year ago when SISTAG introduced its new look. The strategy of focusing on the brand name Wey with its new and modern appearance has now been introduced and completed. The praise received from all quarters in itself made all the effort worthwhile. However, we will not rest content merely with our new look. We will continue to invest in the future. With new buildings on the one hand. With interesting innovations on the other hand.

The first construction phase has been completed. The new office building has been taken over as have the two employee flats right at the top. The building in between will go up any time now. This building houses the production department Express an annual average of 12 apprentices will be trained and get their new home as well as a sanitary and cloakroom area for production employees. A generous recreation room with a kitchen and adjacent meeting rooms is located on the top floor. A gallery connects the old sections of the building with the new sections and will become the ideal location for the show room to put our Wey products in the right perspective. The project will be finished in 2014 with an even larger production area in order to continue optimizing our efficiency and delivery capability. Then we can really celebrate!

Sure-footed and target-oriented into the future: without of course neglecting our core competencies. Because, this much we can say, 2013 will see the introduction of a few sophisticated solutions into the market, which will blend in perfectly into our Wey Design.

The Cutter-Pack Weyotine will equip a standard knife gate valve in a way...
that allows the cutting action to really take place. Or the Vacuum-Pack. Which with its 10 mbar of absolute vacuum, despite the fact that it was not developed for NASA, would even make it suitable for space travel. Then the Wey Knife Gate Valve VM is conceived for the US wastewater market – produced for the US but definitely not restricted to the US.

As you can see, all our passion and resources are being invested in the future. In infrastructure, but above all in developments and products. This is how it has always been. And will remain so in the future. That's the Wey.

Kind regards

Hans-Jörg Sidler
Sludge handling
Our contribution towards an efficient and reliable business

The origins of this interesting project date somewhat further back – the new sludge treatment plant kicked off in the Port of Antwerp/Belgium in 2008.

At the time the Flemish government, together with the Port of Antwerp Authority, decided to embark upon this major investment with the aim of reducing the volume of sludge accumulating in the Port of Antwerp and optimizing the treatment of sludge. The EUR 120 million investment envisages an exploitation period of 15 years and will provide storage capacity for the processed river sludge for the coming 30 years. This giant project was initiated under the name AMORAS Project, freely translated as, Antwerp Mechanical Dewatering, Treatment and Sludge Storage Plant.

The huge project was awarded to the companies DEME and Jan de Nul (JDN), both global players in the dredging business. The joint venture SeReAnt THV made up of Deme (Dredging International + DEC) and JDN (Envisan) was responsible for handling the project. Whereas JDN had overall responsibility for supervising the project and for the construction work, DEC had the specific task of ‘dredging’, which is where the Wey Knife Gate Valves come into play.

During the dredging process sludge is removed from the basin of the port or river. This sludge initially only contains 12% of solid materials. The aim is to increase this percentage by the end of the process as much as possible in an energy-efficient manner. The target value for solid materials in Antwerp is 60–70% with a humidity rating of 30–40% for the end product. ’The whole project was handled with amazing precision’, says Alain Mortelmans, the DEC project leader, proudly.

SeReAnt relies on the Wey Knife Gate Valve VN to convey the sludge – most of which are produced in stainless
steel, some in Duplex quality with sizes ranging from DN100 to DN300. All in all, over 230 Wey Knife Gate Valves ensure that the high expectations in terms of efficiency are met at the plant. ‘A big success story for all of us! Reliability as regards quality and the ability to meet delivery dates were decisive factors and mutual trust in such a large-scale project was especially important. It was even possible to complete some partial deliveries ahead of time. The teamwork between SeReAnt/DEC, Bray and SISTAG was really outstanding’, says Peter Horemans, the person responsible for the project at the SISTAG partner Bray.

**KEY FIGURES:**
- Investment volume; EUR 120 million
- Disposed dredged material per year; 500,000 TDS (tonnes of dry solids)
- Annual capacity; treatment of 600,000 TDS dredged sludge
- Wey Knife Gate Valve; VNA, VNC, VNE, DN100 – 300, body 1.4408/1.4469, gate 1.4404 hard-chromed, seal type 28 (EPDM/EPDM/scraper EPGC)

**INFO BOX**
- Brief description of project
AMORAS offers a sustainable and long-term solution for treating and storing the materials dredged from the Port of Antwerp.
- Process steps

  **Sludge collector:** the dredged sludge is collected by a tanker, pumped into an underwater cell from where another dredger pumps the sludge to the quay.

  **Sand separation:** larger particles are removed from the sand, hydrocyclones separate the sand from the fine sludge

  **Transport:** conveyor belts and pumps with extremely low energy consumption transport the sand and fine sludge over a distance of 4 km, dispensing with the need for transport by truck

  **Thickening:** pumps fill the sludge
basin, an innovative gantry system enables thickening to take place even with a low water level. **Dewatering:** the sludge from the basin is conveyed to the dewatering hall, membrane chamber filter presses literally squeeze the water out of the sludge, which is transformed into filter cakes – the end product of the AMORAS system. **Water purification:** all the waste water is collected in the water purification plant. Physical-chemical pre-purification removes the fine particles while bioprocessing deals with the organic matter and nitrogen. Part of the purified water is reused for the process while the remaining part is pumped back to the port. **Storage:** the filter cakes are stored under controlled conditions. Even if no recycling of the end product takes place, there is enough space available for at least 30 years.

- Our Wey Knife Gate Valves are used in all these process steps
- For more information, go to www.amoras.be
Fish ladder at Geesthacht
In new waters thanks to Wey

A weir located around 20 km upstream of Hamburg at Geesthacht began operating as early as 1960. Here, the waters of the river Elbe are dammed at approx. 4 m above sea level thus limiting the inflowing tide from the North Sea. Apart from a fixed lowhead dam at Magdeburg this is the only weir on the Elbe on German territory, i.e. on a stretch of around 730 km. This construction naturally also blocked the route of larger migratory fish, which seek out their spawning grounds upstream. Only small fish species were able to cross over using a small fish ladder on the south bank. It was only in the 1980s that attention really turned to the question of how to improve the variety of the fish population in inland waters. The Atlantic sturgeon is regarded as especially suitable for recolonizati-
on in the Elbe. This is why the newly designed fish ladder was conceived with this fish species in mind – which measure approx. 3 m when fully grown. The construction of the Geesthacht fish ladder as an environmental compensatory measure was decided upon as part of the expansion to the coal fired power plant Hamburg-Moorburg and was completed ready for commissioning in September 2010.

Since this fish ladder, Europe’s largest, began operating well over 200,000 fish and 38 species have been registered in the new installation. Vattenfall, responsible for this project, is completely satisfied with the results to date of the measure and is convinced that the fish population of the Elbe will recover strongly.

- 45 individual basins enable the fish to cross over through two vertical, 1.2 m wide slits.
- Dimensions of the basin: 16 m wide, 9 m long, water depth of 1.75 m
- The water level in the basins is maintained virtually constant thanks to the inflow of upstream water from the Elbe and with the aid of seven float-controlled valves.
- One Wey Knife Gate Valve MFA DN700 is located on the inflow side of these valves to enable the inflow of water to be completely cut off if maintenance or repair work has to be carried out.
New products
An overview of our three innovations

CUTTER-PACK WEYOTINE
The Cutter-Pack Weyotine enables long fiber media to be cut with ease. Green waste, straw, wood, plastic or cardboard, it makes no difference. The patent-pending cutting insert made of hardened steel does not only help to reduce the risk of blockages – it also offers our customers opportunities for making savings. This is because compared with the usually used shear gate valves it requires less space, is cheaper to purchase, less prone to break down during use and somewhat easier to install. The Cutter-Pack Weyotine is available for the Wey Knife Gate Valve VN in cast iron or stainless steel, for the sizes DN80-250. Available from the second half of 2013. Contact us – we will be happy to advise you and show you the possibilities and applications of this new product.
**VACUUM-PACK**

The Olympic idea, 'citius, altius, fortius' (faster, higher, stronger) also makes an appearance in Vacuum applications. Processes do not only require increasingly higher pressures, but they are also in need of ever higher vacuums. This problem has been taken into account by our engineers with a neat solution. The new Vacuum-Pack enables operating pressures of 6 bar to be tackled and even works contemporarily at pressures of 10 mbar absolute vacuum with absolute reliability. This is made possible by an inflatable tube seal which is integrated into our standard valve design. The different versions, silicon (for vapor) and FPM (powder and chemical applications) make this choice perfect. This new system is fitted to the Wey Knife Gate Valves VN & MG for sizes between DN250 and DN600. Available from the second half of 2013. Loss of vacuum in processes is expensive – contact us in order to discuss solutions and improvements for your process.

**WEY KNIFE GATE VALVE VM**

The youngest member of the Wey family is not exactly a toddler! Our Wey Knife Gate Valve VM is geared to the US wastewater market inasmuch as it complies with the AWWA standard C520-10, which makes high demands on knife gate valves in terms of pressure. Its lightweight design is more solid than our VN but nevertheless more refined than the MF. This makes the VM just right for dealing with the required pressures. Our VM is available in ductile iron in the size range DN80-400, i.e. 3" to 16" and, of course, its flange drilling is in compliance with ASME/ANSI. The VM, available from the 4th quarter of 2013, will be unveiled at the WEFTEC show on October 5th to 9th in Chicago/USA.
SISTAG is taking part in the following tradeshows:

**October 7th – 9th, 2013, Chicago/IL**

*You can find us at stand number 5261.*

WEFTEC® (Water Environment Federation’s Annual Technical Exhibition and Conference) is the largest meeting of its kind in North America and offers thousands of experts the very best training and further education in the field of water quality.

**June 18th – 21st, 2013, Berne/Switzerland**

*You can find us in hall 3.2, stand D044.*

The Swiss specialized fair for public enterprises and administrations will be exhibiting the latest developments in the municipal area. The topics discussed will include workplace safety, IT, road signaling, energy and the environment.

**April 23rd – 25th, 2013, Nurnberg/Germany**

*You can find us in hall 4, stand 439.*

POWTECH is one of the world’s leading tradeshows for powder, granulated and bulk materials technologies. It reflects the current state of mechanical process technology and analytics.

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