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Information for customers and partners

Title

Why Müller Umwelttechnik needs HEROSE valves

Technology

Why it is so important for certain valves to be free of oil and grease

New Series

The HEROSE department.
Part 1: Quality Management



Editorial



Dear Readers,

Even though I am familiar with our products, I always find it quite interesting to learn what our customers use HEROSE valves for.

Müller, for example, a market leader in environmental vehicles in Germany, uses our valves to ensure safety. But read for yourself ...

In a new series, we would like to introduce to you our company's departments. It is no coincidence that we are launching this series with our Quality Management department – because the most important thing you expect from us is the best possible product quality.

And now: Enjoy reading

Dirk M. Zschalich
Managing Director

Bright orange – the typical colour for Müller environmental vehicles

Vacuuming, separating, clarifying: Müller vehicles

As one of the German market leaders Müller Umwelttechnik employs 175 people and has obtained its safety valves from HEROSE for five years now.

Whether Canalmaster or Pipemaster, simply the names of their special vehicles indicate the main field in which Müller Umwelttechnik is active: wet waste disposal, sewer cleaning and pipe shut-off technology.

The family business employs about 175 employees in tranquil Schieder Schwalenberg between the Teutoburg Forest and Weserbergland. The company celebrated its 60th birthday on 1 June. For about five years, HEROSE has been a regular supplier of safety valves.

Disposal technology is by far Müller's largest business unit. Due to the variety of disposal tasks in sewage and sink trap cleaning, in pit and tank emptying, industrial cleaning, petrol and oil deposit cleaning, etc., Müller generally does not manufacture wet waste disposal vehicles in series; rather, it mainly manufactures them according to individu-

al customer's requirements, taking into account approved components with various capacities, sizes and equipment. Since its foundation, the company has produced about 4,000 vehicles.

Exports account for about 30 %; the ratio between municipal and private customers is 50 : 50. ▶



Mohammed Abdel Rahim, production manager at Müller Umwelttechnik, with Manfred Kadner (l.) and Volker Maass from HEROSE



Each vehicle is built by a team of three Müller employees – the delivery time is currently three months

The Müller Umwelttechnik product system is characterised by a high number of self-developed components.

Shell construction inspection

Tour of the company premises with Mohammed Abdel Rahim, Müller's production manager. The 30-year-old industrial engineer knows the vehicles that are produced in the workshops as if they were his own children:

"That one is going to Norway, that one to Hannover and the one back there to Croatia." Rahim explains Müller's success as one of the market leaders in Germany. "Of course, on the one hand we deliver top quality. Our vehicles simply must not break down; this can be decisive for business survival, especially for private companies. On the other hand, we also offer our customers an very unusual service – shell construction inspection.

This sometimes results in emergency engineers' meetings," explains Rahim with a smile, "but we just have to put up with that and we also love to do it." With regard to Müller shell construction inspection, it is important to note that the vehicles are already 70 % complete, but customers can still submit change requests – even extremely large ones. Production manager Rahim: "Sometimes we have to completely replan everything."

The delivery time for Müller vehicles is currently three months. A team is always comprised of three employees "depending on the complexity of the order", and the team "fully assembles" a vehicle, as the experts say.

Three Type 06217 HEROSE valves unmistakably protrude from above behind the driving cab of the Canalmaster in front of us, which will be sent to the paint shop in the next few hours to be given the typical Müller orange colour. The vehicle is a so-called Canalmaster

with a water treatment system. In these vehicles, the wet sludge sucked up into the tank is separated into its components parts: water and sand. Rahim: "Because the extracted water can instantly be reused in the ongoing flushing, the transport dimensions are smaller – the vehicle can wait longer before it needs to be emptied and can be used for a longer period of time." A discharge plunger is used to separate sand and dirt and for the subsequent discharge of the material outside the vehicle.

0.5 bar pressure

Rahim: "The pressure behind this plunger which pushes it forward is 0.5 bar. If, for example, a stone causes the plunger to tilt, the pressure behind it could significantly increase in a very short amount of time, which would turn the plunger into a deadly bullet that could easily break through the vehicle's steel tank."



HEROSE representative Manfred Kadner in the driving cab of a Canalmaster which will be delivered shortly. On the right, the three HEROSE safety valves



Müller's customers also include the city of Berlin (here: Potsdamer Platz)

To keep this from happening, each vehicle is equipped with three HEROSE safety valves as a safeguard against excess suction which immediately directs any excess pressure to the outside of the vehicle. Why does Müller like to work with HEROSE products? Production manager Rahim: "Firstly because the quality of the products is excellent. This is extremely important to us, especially for a component which under certain circumstances can save lives. HEROSE always adheres to the arranged delivery dates and is highly flexible whenever we have a special request."

The second pillar

Another one of Müller's pillars is the sewage system. Ground protection requires tightly sealed drainage systems and pipelines. However, in many municipalities and industrial companies the installations for wastewater collection and

drainage often do not comply with modern requirements. Frequently they have faults or damage, which on the one hand leads to the contamination of the soil or ground water or which on the other hand causes high inputs of extraneous water into the sewage plant, which in extreme cases could cause the sewage system and the road to collapse.

Because of this, damage must be detected early and measures must be taken in good time to rectify the damage. In contrast to inspection procedures, it can be assumed that the importance of qualitative damage assessment of the sewage system will increase in the future due to leakage inspections and modern leakage localisation procedures. Therefore, the Müller sewer system department works intensively to develop new systems and devices to solve this problem. Examples of this are the so-called shut-off bubbles, house connection testing units or renovation packers.

Safety valves for vehicle applications

HEROSE supplies a wide range of products for pressure limitation in vehicle applications.

For example, if customers need to safeguard

- Compressors on tractor units
- filling or emptying lines for silo trucks
- Transport compartments for cleaning or wet goods vehicles, with the HEROSE types

- 06205
- 06217
- 06380
- 06505/06506

they will always be able to find the correct safety valve for their application.

Types 06205, 06217 and 06380 are approved for use with vapours and gases in the pressure range from 0.2 to 25 bar. In addition, types 06505 and 06506 are approved for media in liquid, granular and powder form and can safeguard a pressure range from 0.5 to 6.0 bar. The youngest member of the product range is the 06506, which rounds off the series as a stainless steel version (1.4408) of the type 06505 valve for use in wet goods vehicles.



HEROSE valve types 06205 / 06217 and 06505 / 06506

Why the absence of oil and grease is so important

Lubricants can easily be ignited whenever oxygen comes into play

Shut-off valves are installed in many industrial systems; usually, the screw threads (spindle threads) must be lubricated with oil and grease to reduce friction. This process, which in almost all cases does not cause any problems, can lead to serious accidents with valves which are intended for use with oxygen. Why is this?

Oils and greases can spontaneously ignite in atmospheres which are enriched with oxygen. In principle, all organic materials and most metals and metal alloys burn in oxygen.

All HEROSE valves are inspected

Pressure influences material behaviour, for example by decreasing the ignition temperature and increasing the combustion speed. Therefore, in a pressure oxygen system, for example, only materials and parts are used for which the design is approved for the relevant operating conditions.

Oil and grease are – in contrast to oxygen – extremely dangerous because they can easily be ignited and burn explosively. Oil and grease often cause

a chain reaction in oxygen equipment which may even cause metal to burn or melt. In such cases, the remains of the melted or burned metal are ejected out of the valve casing and oxygen can then leak out. This can cause fire to spread intensely and quickly to neighbouring inflammable material outside of the equipment. Oil and grease must never be used to lubricate a valve spindle if it comes into contact with oxygen.

Because of this, HEROSE valves are properly prepared through the use of suitable material pairs, a special construction design, careful, sometimes manual finishing of the individual assembly under special clean room conditions. All materials used are tested at the Federal Institute for Material Testing (BAM) with test procedures in accordance with DIN EN 1797 in order to verify their usability in connection with oxygen. To check for the presence of oil and grease, each valve is subjected to a cleaning process specifically developed for the valve, regardless of its later use.

Cleaning results are regularly monitored and are subject to the requirements

of the European Standard EN 12300 "Purity for cryogenic operation". Actual values must be far below the limiting value of 500 mg/m² stipulated in this standard because some customers' specifications only allow 100 mg/m².

Due to the special cleaning procedure, HEROSE achieves a purity value below 20 mg/m², which is four times lower.

The high purity is documented on the foil packaging of every individual valve; fulfillment of requirements is also confirmed in the acceptance test certificate.

Thus, all HEROSE cryogenic valves are suitable for oxygen use – special instructions on the presence of oil and grease are not necessary in the order.



Every valve is packed individually in foil



Thanks to the cleaning process which was specially developed for the valves, all HEROSE cryogenic valves are suitable for use with oxygen

Where everything is put to the test

Today: The Quality Management and Assurance Department



Thorsten Cordes (in front, right) and his team: (from left to right) Holger Lipka, Enrico Braun, Marion Speckmann, Manuel Bohnsack, Reinhardt Piotrowski, Thomas Symanski, Thorsten Wende and Mirka Derlin (not shown)

Constantly high product quality is one of the reasons why HEROSE is so successful. The products are organised and verified by the Quality Management and Assurance Department, headed by Thorsten Cordes, 43. However, the fact that the department does not function based according to the motto "you at the top, us at the bottom" is illustrated by his answer to the question of how many employees he has: everyone at HEROSE is part of this department, every one of them is aware of the importance of good quality and works accordingly.

Then why does the department exist? The layman has to pass over the question as to whether whether HEROSE quality management complies with the ISO 9001 standard. However, confirmation from a certification authority serves as proof of certain standards – essential requirements for many customers before they will work with a supplier. This is exactly where Thorsten Cordes comes into play in quality management as well as in the broad field of product approvals. Here, the focus is often on the European pressure equipment directive (PED). Cordes:

"This is precisely why we have to vet every new product." And since HEROSE exports to more than 80 countries, there are always new certification requirements and the regular TÜV & Co inspections in Bad Oldesloe, the so-called audits.

Grades from 1 to 6

The department's other task is quality assurance. Thorsten Cordes: "This task begins with incoming goods inspections. Every delivery is randomly inspected; only when everything is functioning properly is it released to the internal SAP system for processing."

The deliveries are assessed according to the German school grading system. If the average grade over the year is below a good average pass, sales are informed in order for them to initiate appropriate negotiations. "But we haven't had to dismiss a supplier for a long time," says Thorsten Cordes, "we've known them all for many years." For every new CNC machine, the first prototype is tested to verify whether it complies with the requirements; Cordes' men do a random inspection on every or-

der. When installing safety valves, every employee ultimately checks whether or not the quality is okay – Cordes specially trains them for this task. The result of HEROSE quality assurance is easy to see. Cordes: "The customer complaint quota was 0.04 % in 2010. That is good; however, we can still improve it."

Thorsten Cordes has headed the department since 2000. He learned the technical draftmen's craft at HEROSE. Through various night school courses and training courses he finally gained the qualifications he needed for his present, challenging job. He says, "when I see how many different aspects my job has, I wonder and have wondered for a long time why quality management is not yet a separate profession." His department includes eight employees, Reinhardt Piotrowski, Enrico Braun, Holger Lipka, Thomas Symanski, Manuel Bohnsack, Thorsten Wehde, Mirka Derlin and his deputy Marion Speckmann. As the head of department, he does not have a specific motto, but he says, "Despite the seriousness of our job – on which lives may depend – we must still be allowed to laugh heartily every now and again."

Rainer Leistritz: An archetypal field operator

His retirement has been postponed until next year – a new partner has already been found for the Switzerland region



The Semper Opera in Dresden



Downtown Innsbruck

He has added another year, but in June 2012 he will be finished for good.

"At AICHEM next June I'll say goodbye to my customers," says Rainer Leistritz, who has been an active HEROSE representative for the last 43 years – the last five as a permanent employee. In addition to Hessen and Rheinland-Pfalz, Sachsen, Thüringen, Saarland and Bavaria – as well as Switzerland and Austria – were added during this period. The 65-year-old's home is in Pfungstadt, south of Darmstadt, and is thus relatively central in this enormous region; however, 50,000 kilometres are easily notched up in a year. "Whether

you believe it or not, I still like to drive," says the father of four, who already has six grandchildren and one great grandchild. And: "Thanks to cruise control, I don't have any points on my license." Rainer Leistritz takes care of about 500 customers. The amateur musician visits the most important ones, Siemens and Linde, up to six times per year, "any time it is necessary." He does not really care for routines; he enjoys gaining new customers. And the unexpected events "pull you out of your routines."

What makes a good representative? Rainer Leistritz does not have to think about it for long: "In our industry

it is important to be technically up-to-date and to know all the products well. Customers want competent and well-founded advice." In this regard, HEROSE's large variety of products is both an opportunity and a challenge. "Whether safety valves for coffee machines or applications in compressors, oil-cooled transformers or sterilising ovens, the variety is always bewildering," says Rainer Leistritz. He enjoys it most when he is allowed to watch the customer's production process and see where the HEROSE products find their home, where they "become part of the whole."

Rainer Leistritz uses the long drives to devise the best conversation strategy for the next customer, and to enjoy the countryside. In particularly beautiful places, Rainer Leistritz spontaneously pulls over to the right, allows himself a cigarette, and enjoys the surroundings. For Rainer Leistritz, the most beautiful cities in his region are Dresden, Zurich, Salzburg, Vienna and Graz – in that order. Rainer Leistritz enjoys what he does. "In the last 20 years, I've always been able to do what I want," he says, "what more can one want?" Field work was and is the thing that appeals to him: "working at headquarters really wouldn't be for me."



Rainer Leistritz with his company car in front of the HEROSE corporate headquarters in Bad Oldesloe

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"Rainer Leistritz has already been able to achieve one of his last main objectives. In order to provide more intensive consulting services for Swiss customers, he was able to win the firm Franz Gysi AG from Suhr, near Aarau as a representative. Up to now, Franz Gysi AG has worked for HEROSE as an authorised contract workshop.

Rainer Leistritz: "Because of the customs barrier, many small and medium size companies prefer to deal with a company in their own country.

As well as this, in future we want to provide our French-speaking customers in western Switzerland with even more intensive consulting services. ■

Representation Switzerland

Erich Ermel from Gysi is the representative responsible for HEROSE products in Switzerland. Gysi is also an authorised HEROSE workshop and operates a warehouse for safety valves. HEROSE's largest Swiss customer is Belimed Sauter, a manufacturer of sterilisers.

Franz Gysi AG

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Representation Romania

For five years, Barta Kinga from Tirgu Mures in Transylvania has been selling HEROSE products in Romania. The largest customer there is the gas company Buzegas. In Romania as well, "the quality and delivery reliability" are particularly appreciated.

Armavalue s.r.l.

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Gysi employees from left: Bernhard Feuerhuber, Director Energy Technology, Erich Ermel, Director Process Engineering, Franz Gysi, Proprietor and Managing Director, Alain Müller, Director Training/Service



Barta Kinga



■ In mid-May 2011, HEROSE was awarded the fittings certification in accordance with the "Russian Maritime Register of Shipping".

The Russian Maritime Register of Shipping, formed in 1913, is an international classification body recognised by the European Union. RS offers dependable and comprehensive services worldwide.

Fairs calendar

Gasworld Conference

Brasil, Rio de Janeiro
16 to 17 June 2011

IG China 2011

China, Beijing
21 to 23 September 2011

International Technical Fair

Bulgaria, Plovdiv
26 September to 1 October 2011

Pumps & Valves

Netherlands, Rotterdam
5 to 6 October 2011

12. Internationales Seminar UA Sigma

Ukraine, Odessa
3 to 7 October 2011

PCV Expo

Russia, Moscow
31 October to 3 November 2011

Congratulations to...

... on 10 years of service

Mr. Frank Petzold, 01.07.2011

Mr. Marco Harz, 23.07.2011

Mr. Michael Koch, 01.08.2011

Ms. Mareike Jack, 01.08.2011

Ms. Birgit Ambos, 01.09.2011

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Sunday tour through Berlin – the Velothon



The HEROSE team in Berlin, from left: Rene Gogolinski, Manfred Kadner-Guth, Conny Heik-Guth, Sabine Guth, Janina Kadner

Seven members of the HEROSE CYRO CYCLE TEAM participated in this year's Velothon in Berlin and cycled for 60 and 120 kilometres respectively. Conny, Janina, Sabine, René and Manfred mastered the 60 km stretch as a team in respectable 1:54:25 hours. Heinz Moormann

and Volker Maass (3:26:25) decided to tackle the 120 km route, however, due to a break down, Heinz was not able to match last year's time and made it to the finish line after 4:10:02 hours. The next team adventure will be the Cyc classics on August 21 in Hamburg.

An Argentinian in Bad Oldesloe

Federico Nussbaumer is currently completing a six-month internship at HEROSE in Bad Oldesloe. The 21-year-old is the son of Jorge Nussbaumer, owner of DEBENELUX, the HEROSE representative in Buenos Aires for Argentina, Uruguay and Chile. In Bad Oldesloe, the young man is working his way through various departments in order to later act as HEROSE product manager in South America. Federico uses the first HEROSE company bicycle in order to be mobile in Bad Oldesloe and the surrounding area. As his "sponsors", HEROSE staff members Maikel Malki and Sebastian Ohly, who also speaks Spanish, take care of him.



Federico Nussbaumer

Win one of five "M 3-Kanal mini helicopters"

The delivery time for a special vehicle from Müller Umwelttechnik is usually

A 4 Weeks

B 7 Weeks

C 12 Weeks

Mail or fax your answer to us by 2 September 2011
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www.valves-community.com

There is no legal right of appeal



The happy winners of the last lottery

Mr. Mieczyslaw Kolmaga, SMS, Poland

Mr. Erik Govejsek, Lindeplind.o.o., Slovakia

Mr. Ruben Potters, Cryonorm BV, Netherlands

Mr. Michael Bolz, Kraiss&Friz KG, Germany

Mr. Edvar Been, CONSARCTIC GmbH, Germany