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Article

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ACHEMA retrospective

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Air Products Medical

Oxygen tank in Bad Oldesloe helps patients

Our sales force reports

Fascinating Northern Europe



Editorial



Dear reader,

in this issue our title story concerns the triumphant progress of LNG, which in our opinion will continue unabated in the coming years. Even now, the quality of our cryo-valves for this field is exemplary - and we are doing all in our power to ensure that this remains so in the future. Follow us in a small retrospective of the ACHEMA, which in 2009 was once again very successful for HEROSE: You can also read the report about the installation of an oxygen tank on our company premises, with which our customer Air Products Medical has come even closer to its customers. We wish you a pleasant autumn

Dirk M. Zschalich, Wilfried W. Zschalich
Managing partners

LNG: Growth not just in Spain

The market for liquefied natural gas (LNG) is becoming increasingly important. The very highest demands are made on the shut-off valves. HEROSE is the world's market leader in cryo-valves

In the opinion of experts, natural gas is the source of energy which will show the most rapid growth in the next 20 years. By 2020 this resource will cover a quarter of global energy requirements. The reserves are there: According to estimates by the independent research organisation US Geological Survey, at the present rate of consumption global reserves will only be exhausted in 150 years. A tried and tested method of transporting natural gas are the good old pipelines, pipe systems several thousand kilometres long, which run through a large number of different states. The largest amount of natural gas comes from Russia and Norway.

As an alternative to conventional natural gas, liquefied natural gas (not to be confused with liquid gas – see extra box on the next page) is becoming increasingly important. Cooling natural gas to minus 162 degrees Celsius produces liquefied natural gas LNG, which has a volume of around only six hundredths of the volume of natural gas in its gaseous state. It can be transported in this state by road or across the oceans in tankers. This has two

advantages: Countries without pipeline supplies, such as Japan can participate in the gasmarket. ▶



The LNG plant in Pacts de Penedes

HEROSE LNG valves

For LNG applications HEROSE offers the classic range of shut-off and safety valves in bronze, which as per DIN ISO 12567 are approved for use with LNG. Due to the increasing requirements of safety standards, increasing numbers of stainless steel valves with Fire Safe approval are now being used.

At HEROSE, the following valves have this DIN ISO 10497 approval: 0164 and 01841. Type 01641 is made from 1.4308 (A 351 CF 8) material, while type 01841 is made from 1.4409 (A 351 CF3M) material. Therefore, this type is also suitable for off-shore and coastal use.



The HEROSE 01641 valve



Increasingly in demand in the field of LNG: valves with Fire Safe approval

Furthermore, this provides alternative means of transport in case of political conflicts - we only need to mention the repeated conflict between Russia and the Ukraine, which led to a temporary closure of the pipeline to Western Europe.

Of course, valves are always necessary in the LNG transport chain. HEROSE is one of the world's leading producers of products for use in trailers or satellite stations and expects large growth rates in this field.

One of every two valves sold in Spain is for LNG

It is therefore no coincidence that in July Volker Maass, HEROSE sales manager travelled to Spain to visit Pacs de Penedes near Barcelona. Ultimately, the HEROSE LNG business already accounts for 50 percent of sales in Spain and is on the increase. In Pacs de Penedes, an LNG satellite station equipped with HEROSE valves (see extra box) has been inaugurated to supply a nearby factory with energy. Volker Maass: "With a total storage capacity of more than 2.3 million cubic metres, Spain is the largest LNG consumer in Europe, followed by England and France. On a global scale, Japan with a capacity of 14.6 million cubic metres is well ahead in first place, with Korea in second place with 5.4 million cubic metres" (figures from September 2009).

The reasons are easy to explain: Japan, Korea, Spain and France have very few pipelines. On the other hand, in Germany, which has a good pipeline infrastructure, there is still not a single LNG satellite station. A corresponding project in Wilhelmshaven was shelved for the time being. Recently Lübeck was being discussed as a site for an LNG plant.

Poland will probably commission its first LNG terminal in 2011. The LNG satellite network there is under construction and HEROSE is represented with a station in Chrzan/Poznan. In China 10 percent of HEROSE sales are in the LNG sector.

The most important difference

Natural gas (LNG)

- Natural gas is a natural product and comes from underground natural gas fields. These originated over thousands of years through the fermentation of plants and micro-organisms. Natural gas consists of 90 percent methane.
- Natural gas is lighter than air. It ignites and burns in air with a gas ratio of 5 to 15 percent and requires a temperature of +650° Celsius for ignition.
- Natural gas has a gaseous state down to a temperature of -162°. At lower temperatures it becomes liquid and reduces in volume by a factor of 600. Then natural gas becomes liquefied natural gas, LNG.

Back to Spain: "There are many regions which are not connected to a pipeline supply of natural gas", says Volker Maass. In these cases LNG satellite stations are set up, as previously described. These are supplied with LNG, which is then vaporised and provided to customers as natural gas. LNG stations have various applications. They can supply gas to entire villages or to single factories. Finally, LNG stations are also used as base stores for CNG filling stations."

The largest LNG producers are Qatar and Indonesia

Other features in favour of LNG: While over the past years the cost for the liquefaction of natural gas has been reduced to below 200 US\$ and the storage and transportation of LNG has become increasingly cheaper, the construction of pipelines has become much more expensive.

Therefore, according to experts it is more economical to transport natural gas as LNG once new pipelines longer than 4,000 kilometres are required. Liquefaction plants are also quicker to implement and can, for example, be located on floating platforms. Recently, Qatar became the largest producer of LNG with 77.2 mtpa (million tons per annum), and relegated the long-standing top producer Indonesia in second place. The number three in the global LNG business is Malaysia.

es between LNG and liquid gas

Liquid gas (LPG)

- Liquid gas (normally propane/butane) is usually obtained as a byproduct in the production of petrol and diesel. It becomes liquid at a low pressure and can be stored and transported in suitable containers such as camping gas bottles.

- Liquid gas is heavier than air, and can accumulate e. g. in cellars.

- The ignition temperature is lower than that of natural gas, namely 450°.

Liquid gas, correctly known as Liquefied Petroleum Gas (LPG) causes significantly more accidents than LNG in Europe every year.



The new HEROSE exhibition stand attracted many visitors. On the right is the model of the cryo tank

ACHEMA 2009: Great interest in new valve series

About 175,000 visitors came to the ACHEMA 2009 in Frankfurt, one of the world's most important exhibitions for plant construction and industrial chemistry. HEROSE welcomed more visitors to its new stand – they double the number of 2006. 80 percent of the visitors came from Europe. The centre of attention was a model of a cryo tank, in which valves were shown in use. A special attraction was the new 01541 series shut-off valve with a flexible pipe element. A field test in Gablingen for this series was agreed with Linde. vc will report on the results in the next issue. Gasproducers were very interested in the stainless steel SV 06383 and silo vehicle manufacturers were also interested in the stainless steel SV 06383. The trend towards stainless steel safety valve versions continues with HEROSE.



In discussion: Manager Wilfried Zschalich and Sales Director Joachim Ehmke. In the background: Zscharly is discretely waving ...

As of November 2009, types 06001, 06002 and 06006 will also be available in stainless steel.

Now even closer to patients thanks to the tank in Bad Oldesloe

Air Products Medical has set up a new oxygen supply point on the HEROSE premises. Three vehicles fill up here every day and deliver oxygen to patients at home.

The aim of Air Products Medical “to be near to patients wherever they are” has now become closer, even in the far north of Germany. In August, the company installed an oxygen tank on the premises of HEROSE in Bad Oldesloe, from which patients in Schleswig-Holstein can be supplied.

Olaf Babel, National Operation Manager of Air Products Medical to VC: “The tank has a capacity of 22,000 litres of oxygen and is filled from a large trailer as necessary”. Three smaller vehicles, which supply patients at home with oxygen from Air Products, regularly refill their oxygen supplies in Bad Oldesloe. Until now, the drivers had to travel to Lüneburg every day. HEROSE type 06388, 06002, 01311 and 05412 valves are installed for filling and emptying the tank.

Air Products Medical, at present number four in the German market in this sector, offers three oxygen systems for patients who can only metabolise oxygen to a limited extent, and therefore become tired and breathless with the slightest physical activity.

Objective: To maintain patients’ mobility

Long-term oxygen treatment can help to improve the quality of life. During the treatment, patients receive additional oxygen for at least twelve hours per day. Mobility strengthens the lungs. Strengthened lungs lead to a better quality of life and can reduce the progress of the condition. Because patients’ mobility is so important for Air Products Medical, they are advised and supplied according to the degree of their mobility.

The oxygen tank in Bad Oldesloe always becomes involved if patients can be assisted with liquid oxygen systems.

These systems consist of a stationary base unit and a small, lightweight portable unit. The portable unit can be quickly and easily filled from the stationary unit. A single filling of the portable unit is sufficient for several hours of mobility. Because of this, everyday activities such as shopping, going for walks or visiting the doctor become possible again.

Olaf Babel: “We visit these patients regularly. The drivers take the containers from the patients’ homes and fill them from the vehicles.”

HEROSE also benefits from the tank

However, there are two other oxygen systems from Air Products Medical. In order to increase the mobility of patients who are provided with oxygen via an oxygen concentrator in their domestic environment, Air Products Medical often additionally supplies them with a compressed gas system. The content of the gas bottle is sufficient for short trips outside of the house.

Oxygen concentrators filter the oxygen from the ambient air and pass it on to the patients. Because these oxygen concentrators need electric power and are very heavy, they can only provide a limited amount of mobility in the home. Long-term oxygen treatment is prescribed by doctors.

The HEROSE management has always supported the Air Products plan. Wilfried Zschalich: “We are very pleased that the tank is installed here and further improves the quality of supply for patients.” However, HEROSE also benefits from the tank. Wilfried Zschalich: “Now we can show visitors to our company the different application possibilities for our cryogenic valves in reality, directly on our premises.”



After two hours: the tank is already in place and the valve



The HEROSE valves on the tank



A delivery vehicle fills up



es are being installed



At the end of the day, the tank is filled with oxygen for the very first time

One of us: Anja Schmidt



Valve assembly: All done by hand

If she has to tell you where she works at HEROSE in German, she has to take a deep breath and be completely sober to pronounce the name of the department: “Tieftemperatur-sicherheitsventilmontage”- cryogenic safety valve assembly. Say that three times in quick succession without a mistake! Anja Schmidt, 33, her nine colleagues and head of department Björn Schiemann prefer to refer to it as TTSV Assembly for the sake of simplicity. However, whether you use the long version or the abbreviation: the responsibility remains the same. Anja Schmidt has been employed by HEROSE for nine years. “I am responsible for the four valve types 06001, 06002, 06003 and 06006, which are assembled completely by hand.” Each valve consists of between eight and ten components and the most important tool for assembly is a torque wrench. “After assembly, each valve is preset to a certain pressure,” she says, “for example to 25 bar.” The valve then has to rest for eight hours. If there are no abnormalities, it is finally set, completely assembled and dispatched. And what does Anja Schmidt, married with no children, do in her leisure time? “I like to go bowling, and keep fit with spinning - and I love my garden.”

Manfred Kadner:

What fascinates me about Northern Europe



This is Norway: Drivers have a fantastic view around almost every bend in the road.



Manfred Kadner is an old hand: the 58 year old safety valve specialist has worked as a salesman since 1988 and came to HEROSE at the beginning of 2007.

The region for which he is responsible is not only enormous, it is also very beautiful: Northern Germany, Scandinavia and Finland. Especially Sweden, Norway and Finland appeal to the father of three children – both in terms of business and landscape. “What always surprises me is the openness of the Scandinavians. For example, on their web sites the dealers name the valve manufacturers which they deal with. That is unthinkable for

us.” Certainly, the northerners are just as hard-bitten businessmen as the Germans - “but friendliness and a willingness to listen are simply more pronounced.”

There are HEROSE agencies in Denmark and Norway and Manfred Kadner merely keeps in contact with them. However, his own sales talents are called for in Sweden and Finland. Manfred Kadner: “Although Sweden is much less densely populated, the industrial structure is similar to Germany. The largest gas consumers are the motor vehicle and pharmaceutical industries, as well as power stations and equipment engineering. The most important customer is Cryo AB, a subsidiary of Linde.



The rock church in Helsinki

In Finland the most important dealer is Econosto, but Kadner is also negotiating with the gas producer Woikoski. In both countries, the possibilities for development are great and there are

Suckling pig for everyone!

HEROSE staff had a delicious afternoon thanks to seven long-standing employees who celebrated their anniversaries: They gave a tasty meal of suckling pig. HEROSE manager Wilfried Zschalich thanked the faithful employees and pointed out that there are now 27 employees who have been with HEROSE for more than 25 years.



prospects of good business in the years to come.

After visiting Norway and Sweden, Kadner drives his company car, an Audi A6, to Finland. Once in Finland, he takes a plane. "My journeys usually take three to four days and the normal negotiating language is English."

On business trips you appreciate the beauty of Northern Europe just like a holidaymaker. Manfred Kadner likes Norway best. "There is a fantastic new view behind almost every bend." He is also impressed by the country's infrastructure. "For example, there is road tunnel between Bergen and Stavanger which is not only almost eight kilometres long, it is also up to 260 metres deep. Whenever I am there I have the feeling that I am driving directly into hell," he laughs. Kadner also has similar associations when he is filling up his car: "Although Norway is one of the largest oil producing countries, a litre of diesel costs the equivalent of \square 1.38."

Sweden is also very beautiful: "Especially in summer, when it is light around the clock, this country never ceases to fascinate me. For example, I can recommend the skerries to the north of Gothenburg." For long journeys, Kadner has learned to appreciate the cruise control of his Audi - and the blessing of talking books.

Finally Finland. Kadner: "I love the many forests there and the breadth of the landscape - and the rock church in Helsinki." The fact that the old sales hand likes to mix with the locals and drink coffee with them is not just for the sake of tourism. Quite the opposite: "That's the best way to get to know the mentality of the people - and that is very important for business."

How to contact us

HEROSE GMBH ARMATUREN UND METALLE

Elly-Heuss-Knapp-Straße 12
23843 Bad Oldesloe
Germany
Tel.: 0049 (0) 45 31 / 509-0
Fax: 0049 (0) 45 31 / 509 120
E-mail: info@herose.de Internet: www.herose.de

Order the magazine: www.valves-community.com



Norway

Valnor AS in the Norwegian oil capital Stavanger is a young company, which is growing in spite of the financial crisis. The owner Rolf Selnes and his eight employees have marketed HEROSE products since 2007 and see great potential for the Norwegian market.

Valnor AS
Viervien 6
4016 Stavanger
Tel.: 0047 51 827 420
Fax: 0047 51 827 421
E-mail: valnor@valnor.no



The Stavanger team

Denmark

The Dansk Ventil Center in Vejle has 30 employees and is a leader in the Danish cryo sector. HEROSE has been one of their suppliers for 15 years. Manager Ole Björn Jensen: "HEROSE continues to surprise us with great developments."

Dansk Ventil Center A/S
Ferravej 14
7100 Vejle
Tel.: 0045 7572 3300
Fax: 0045 7572 7515
E-mail: mail@dvas.dk



The Vejle team



News

■ The English safety valve catalogue is now obtainable once again. A completely new version will be published in 2010.

■ For the first time, HEROSE is equipping a CO₂ trailer in Brazil for Air Liquide. The manufacturer is the company Mazbratech.

■ A new test bench has been completed for testing cryo safety valves according to DIN EN 13648.

Fair calendar

LNG Tech Global Summit 2009

Rotterdam, The Netherlands, 20.10. to 21.10.2009

Cryogen Expo

Moscow, Russia, 10.11 to 12.11.2009

China International Exhibition on Gas Technology, Equipment and Application in Peking, China, 09.12.to 11.12.2009

SEPEM Industries Sud-Est

Avignon, France, 26.01. to 28.01.2010

Congratulations ...

on your company anniversary and thank you for the party!
(Report on page 6)



(From left to right)

Jürgen Voss 01.08.09, 40 years
Wolfgang Lenk 01.08.09, 40 years
Halim Tunc 26.03.09 25 years
Gunnar Weber 01.08.09, 25 years
Klaus Dretke 01.08.09, 40 years
Hans Frost 29.08.09, 25 years
Hans-Hermann Simonsen 01.08.09, 25 years

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Praxair seminar in Bad Oldesloe



Dirk Zschalich, Wilfried Hofmann, Christian Hinkel, Jens Grüne, Mathias Horn, Axel Harp, Anja Kempke, Guido Schulz, Rainer Leistriz (from left to right)

Twice a year the Customer Service staff of Praxair Deutschland GmbH & Co. KG get together from the whole of Germany. The spring meeting was held at HEROSE. After the usual exchange of experiences, the Praxair staff used the opportunity for

a tour of their host's business. Obviously greatly impressed, the visitors briefly summarised their impressions: "If it says HEROSE on the outside, HEROSE is also on the inside..." says Anja Kempke, Praxair Customer Service Dresden.

At the Velothon cycle race in Berlin



The HEROSE Cryo Cycle Team Guido Schulz, Arne Ehrhardt, Manfred Kadner, Volker Maass, Heino Lüdtkke and Heinrich Moormann started at the Velothon in Berlin. The best time for the

120 km, 3:09:48 hours, was achieved by Heino Lüdtkke: "It was a very interesting route." Detlef Sander and Heinrich Moormann also started in the Vattenfall Cyclclassics in Hamburg.

Win one of 5 OUREA, 1 GB MP4 players

Which country imports the largest amount of LNG?

- A Japan
- B USA
- C Germany

Send the correct solution by fax or by mail:
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www.valves-community.com

Deadline for answers is 15th January 2010. No right of appeal.



Congratulations to the winners: Elmar Meier, Air Products (Walldürn-Altheim), Volker Rainer Winter, BASF (Ludwigshafen), Volker Langkabel, Herose (Bad Oldesloe), Marincio Lefevere, Demaco (Netherlands), Udo Hasenzahl, BASF (Ludwigshafen), Bernd Ehret, Air Liquide (Endingen), Thorsten Knops, GHH Rand (Oberhausen), Mark Vredegoor, Akzo Nobel (Netherlands), Valery Shapoval, Linde Gas (Ukraine), Charmaine York, Afrox (South Africa) All winners will be notified by e-mail.