WINTER 2019 | ISSUE 51

BVAA

valveuser Magazine

Bonomi UK - investment pays dividends

Page 50 - Introducing TUV SUD National Engineering Laboratory

Page 64 - Score welcomes growing valve industry apprentice numbers

Page 13 - Wood Desktop a record breaker

Page 10 - Offshore Europe 2019

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Cover Image: Bonomi UK - investment pays dividends - Pg: 60

Comment

By BVAA Director
Rob Bartlett

Are we there yet?

For anyone who has had kids, this phrase will usually trigger adrenaline and quicken your pulse just a tad.

It's a perpetual question, uttered from the back seat on family car journeys, however long or short. The impatience to get there, expressed by those not driving and who have little notion of what the journey entails.

Cue Brexit. As I write, us back-seat folk could see our country on the cusp of a deal, or perhaps at the other extreme, two more years of utter carnage in our political system. Or perhaps a few weeks. Or maybe it's January 2020. Or something else. An election perhaps? Or another Referendum. What if that turns out 50/50 again? It bears no thinking about.

We saw in our own BVAA Brexit poll, a little after the 2016 referendum, that there was the initial uncertainty, finely balanced at 50/50 – just like the country – but very much around the moderate, centre ground.

In the second year's poll, more extreme views (with a largely similar split). The third and last poll, a significant lurch to '*Leave*' - no doubt caused by sheer frustration at the whole painful process. But frustration isn't justification for a rushed decision.

For our part, BVAA has kept our technical experts informed of the practicalities of possible changes to relevant EU legislation, on the issues concerning Rules of Origin and impact on Notified and Competent bodies, etc. On occasion we found it surprising how little some of the NGOs and authorities actually knew.

We've kept our more commercially-minded members informed of the useful updates (amid the fluff) in the plethora of .GOV.UK email notifications.

It's been quite a surprise to hear of the relatively low levels of preparedness and contingency planning however.

The problem is, we all believe – nay hope - there will ultimately be a deal. Or as Mrs Bartlett said, '*they're in denial.*' She may have a point.

We are as rabbits, stunned into paralysis by the oncoming headlights of the Brexit negotiations process. I suspect this runs all the way up to Government level.

But in Parliament however, they are not *all* idiots. I'm sure *some* will have realised they are personally accountable for delay, indecision or reckless enthusiasm, and will, come an election, surely be unemployed thereafter.

So for some there is a very practicable reason for delaying the process, as long as possible. After all, few people volunteer to be made redundant two years earlier than they might be otherwise.

However this is just the opening legislation. We have a whole trade agreement process to get through yet, and that may be many more years of uncertainty.

Of this I can be sure... While there may be initial confusion and uncertainty in the *denouement,* the British Valve Industry is a strong and stubborn beast. There's nothing we cannot overcome together.

'*Stronger Together*' seems a very apt Association strapline in these troubled times.

BVAA 80
SERVING INDUSTRY 1939 - 2019

> BOOKING FORM

BVAA Training Courses

Please complete the form and return to Barbra Homer - barbra@bvaa.org.uk
For full details on each course, visit *www.bvaa.org.uk/training_courses.asp*

Spring | 2020

Introduction to Valves (**CPD Certified**) | Monday, 20th April
Introduction to Valve Actuators | Tuesday, 21st April
Control Valves (**CPD Certified**) | Wednesday, 22nd April
Safety Valves (**CPD Certified**) | Thursday, 23rd April
Valves Advanced Level (**CPD Certified**) | Monday 27th April ~ 28th April
PED/ATEX Directives | Wednesday, 29th April
Safety Integrity Levels (SILs) | Thursday, 30th April

Most courses will take place at the Association's offices in Banbury unless specified otherwise.
Prices: £290 for Members | £475 for Non-Members plus VAT.
*Valves Advanced Level Price: £360 for Members | £545 for Non-Members plus VAT.
Prefer to host at your premises? Give us a call.

Delegate Name:	Course Required:	Email:
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Company Name: .....

Address: .....

Contact Name: ..... Contact Number: .....

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Payment Details: ☐ Visa ☐ Mastercard ☐ Maestro ☐ Visa Electron ☐ Solo

Name Card: .....

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Card Expire: ☐☐☐☐ Maestro Issue Number: ☐

Signature: ☐ 3 Digit Security Code: ☐

BVAA

Credit Card data is shredded upon conclusion of transaction.

Len Bates

One of the actuator industry's most respected engineers sadly passed away on 24th August 2019 having been involved in a road traffic accident the day before whilst enjoying one of his regular cycle rides.

Len's engineering career started with the basics – nuts and bolts – literally; making them aged 15 back in 1968 as an automatic lathe operator.

This was followed in 1970 by moving to an agricultural machinery manufacturer where he completed his apprenticeship and moved into roles within the drawing and design office.

In 1980 he joined Domgas in Thetford who designed and manufactured hydraulic and pneumatic actuators and their control systems, predominantly for the oil and gas industry.

Len applied his engineering knowledge first within the design office and later in project and contract management roles.

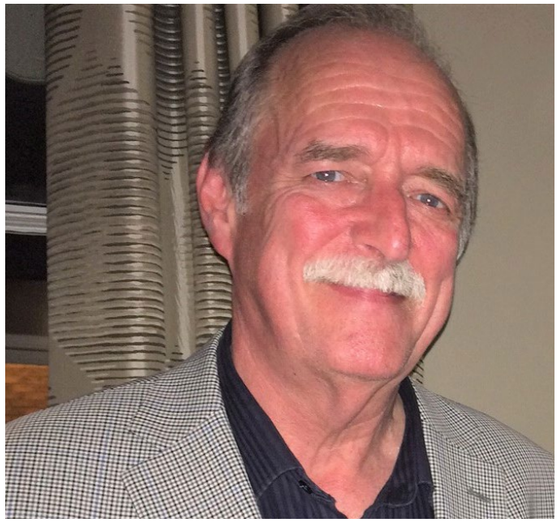
In 1996, after a takeover, Domgas closed, however the Score Group acquired the rights to the spares supply business due to the large installed population with many of Score's clients.

Len joined Score at Colchester along with a "*room*" full of information, but more importantly brought his vast working knowledge of actuators and their control systems.

Over the years Len not only contributed greatly to the development of Score's valve automation business but with his extensive practical and engineering knowledge was able to apply himself to the valve side of Score as well as being involved in the start of Score's Valve Diagnostics business.

Many of the techniques Len developed in the course of his work are now standard operating procedures within Score.

Len also played a key management role in project installation and supply chain development with his eye for detail and the practicalities of manufacture.



Len was well known and respected around the actuation industry, and most notably via sitting on various ISO, CEN, BSI and BVAA actuation committees and working groups contributing to new and revised standards. Len retired from Score at the end of March 2016 after 20 years with the Company and a career spanning 48 years in engineering.

Len was enjoying an active retirement with travel and covering thousands of miles a year cycling at home and abroad with his cycling club.

Len was friendly and outgoing and had a lot of time for his friends, but most of all he was a family man. He will be sorely missed by his family, his friends, his colleagues and all who knew him.

Adrian 'AJ' Jefferies

It is with great sadness that we announce the passing of Adrian 'AJ' Jefferies of James Walker.

AJ was completely unique

He had a brain the size of a planet, there wasn't any subject he couldn't explain (or indeed make more complicated), he was completely and utterly irreverent, and was never more than a hair's breadth from bursting into crinkle-eyed childlike laughter.

He never suffered fools gladly, referred to anyone new or inexperienced as a '*shiney*' and must have been an absolute nightmare to manage. Which, by the way, he'd acknowledge and be very proud of.

AJ was the BVAA's Seals WG chair and Seals course lecturer. He will be sadly missed by all that knew and loved him.

1939 and implications for Climate Change

Drawing office May 1935, Shaw, Son & Greenhalgh

At first sight the inaugural meeting of the Iron and Steel Valve Manufacturer's Association in September 1939 does not have a lot of relevance to the worldwide demonstrations that are taking place in September 2019 in response to predicted rises in ambient temperatures from the effects of increasing greenhouse gases.

After a moment's thought some of the more extreme demonstrators might try to draw similarities between the World War of 1939 and the war they wish to wage on governments and businesses they see as being responsible for the problem.

I believe that would be missing a lesson that our early history can teach us about the issues we face today.

Although demonstrations are important as they raise awareness and increase the receptiveness of the market to change, of themselves they do not achieve change.

At our first meeting in 1939 a key item on the Agenda was resource management. In a wartime situation there are always going to be resource shortages. Resource management is the issue that makes the connection between 1939 and reducing climate change today.

The demand for industrial valves will continue to grow because the world population is growing and individually each person wants more of the items that we can produce in our industrialised society. All of these industrial processes have ever increasing needs for industrial valves.

Therefore if we are going to have the valves to meet that demand, we must ensure that the materials to support that production are available to us. Many of the materials we use Nickel, Molybdenum, Copper, Chromium and Cobalt are already in short supply and expensive.

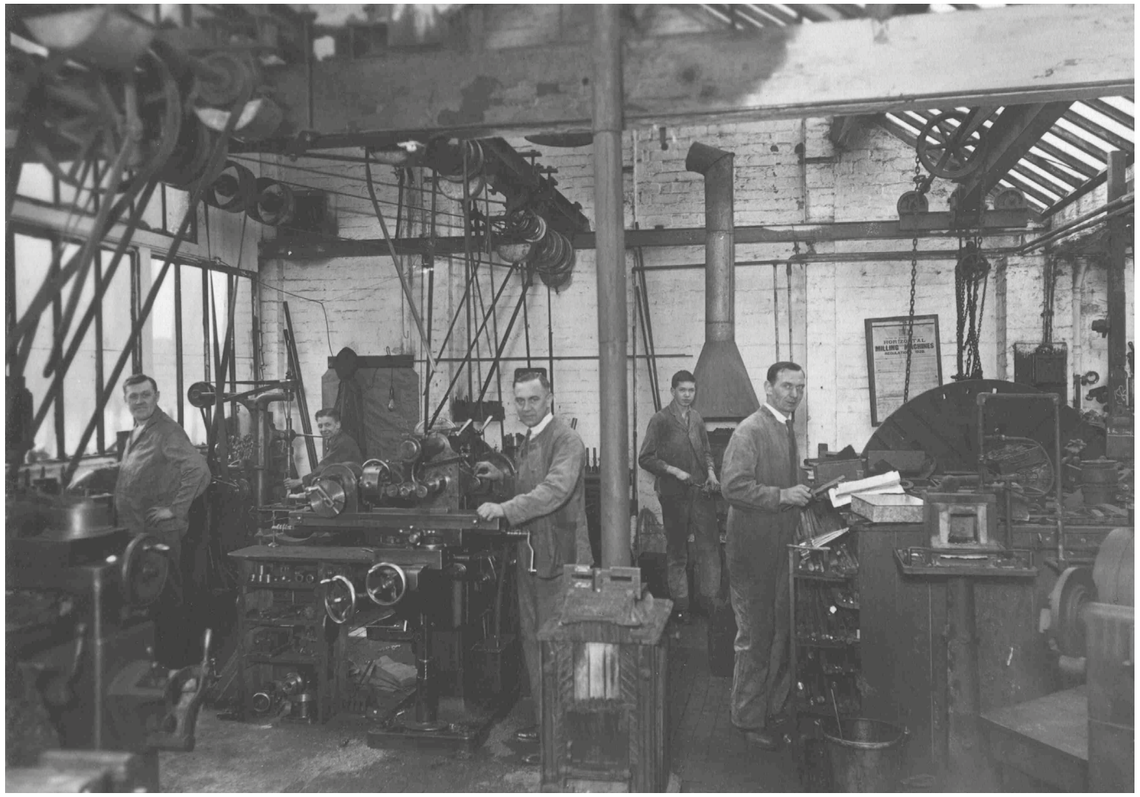
We must therefore be efficient in our use of these materials and we must also provision for the ability to recycle these scarce materials back into the production process.

If we do all of that, not only will we ensure we have a sustainable valve industry, we will have an impact on climate change because all of these materials take a lot of energy to produce and as result have an impact on greenhouse gases.

We are already addressing the efficiency issues by making the valves more reliable and our processes to make them more energy efficient.

But do our customers value our resource efficiency in the buying process?

I suspect not but may be that will be changing in the not too distant future thanks to the demonstrators. If our designs can be repaired and reused then that also improves efficiency of material use but for the customer is 'buy new' still the easy option when a valve is no longer functioning and has to be repaired or replaced?



Toolroom May 1935

As the manufacturer, would we prefer to sell a new valve or the spares to repair the old valve?

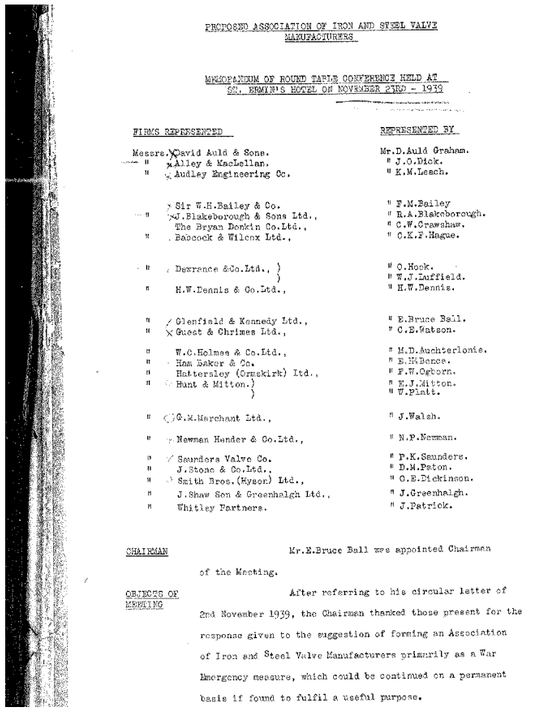
What happens at the end of the products useful life must also be addressed. Today the manufacturer provides no guidance on how to recover the different materials that have been used to make the valve and therefore any recycling process is likely to be inefficient in recovering the scarce materials. We need to provide guidance as to how to maximise the recovery efficiency. We need to encourage the end user to use that information or return the valve back to us for recycling in an efficient way.

Globally the UK is a small consumer of these scarce resources but we are recognised as a leader in the global valve industry. I believe the UK and therefore the BVAA must play an important role in developing ideas to conserve resources and to maximise recyclability.

I recognise that in the short term it adds costs to our businesses but, as we did in 1939, we must make decisions for the benefit of society as a whole and for the next generations.

It is job for the future leaders of our industry and one that must have our united support. I hope that they will rise to the challenge in the same way our founding members did way back in September 1939.

Martin Greenhalgh CEng FIMechE
BVAA Technical Consultant



PROPOSED ASSOCIATION OF IRON AND STEEL VALVE MANUFACTURERS

MEMORANDUM OF ROUND TABLE CONFERENCE HELD AT
CO. ENGINE'S HOTEL ON NOVEMBER 23RD - 1939

FIRMS REPRESENTED	REPRESENTED BY
Messrs. David Auld & Sons.	Mr. D. Auld Graham.
" Alley & MacLellan.	" J.O. Dick.
" Audley Engineering Co.	" E.W. Leach.
Sir W.H. Bailey & Co.	" F.M. Bailey
" J. Blakeborough & Sons Ltd.,	" R.A. Blakeborough.
The Bryan Donkin Co. Ltd.,	" C.W. Crawshaw.
" Babcock & Wilcox Ltd.,	" C.K.F. Hague.
" Dewrance & Co. Ltd.,	" C. Hook.
	" W.J. Luffield.
" H.W. Dennis & Co. Ltd.,	" H.W. Dennis.
" Glenfield & Kennedy Ltd.,	" E. Bruce Ball.
" Guest & Chrimes Ltd.,	" C.E. Watson.
" W.C. Holmes & Co. Ltd.,	" M.D. Auchterlonie.
" Hall Baker & Co.	" E.H. Bence.
" Hattersley (Ormskirk) Ltd.,	" F.W. Ogborn.
" Hunt & Mitton.	" E.J. Mitton.
	" W. Pinti.
" G.M. Marchant Ltd.,	" J. Walsh.
" Newman Hender & Co. Ltd.,	" N.P. Newman.
" Saunders Valve Co.	" P.K. Saunders.
" J. Stone & Co. Ltd.,	" D.M. Paton.
" Smith Bros. (Hyson) Ltd.,	" G.E. Dickinson.
" J. Shaw Son & Greenhalgh Ltd.,	" J. Greenhalgh.
" Whitley Partners.	" J. Patrick.

CHAIRMAN — Mr. E. Bruce Ball was appointed Chairman of the Meeting.

OBJECTS OF MEETING — After referring to his circular letter of 2nd November 1939, the Chairman thanked those present for the response given to the suggestion of forming an Association of Iron and Steel Valve Manufacturers primarily as a War Emergency measure, which could be continued on a permanent basis if found to fulfil a useful purpose.

A record of the very first Valve Industry meeting

Offshore Europe 2019

SPE Offshore Europe was held from 3rd – 6th September in the brand-new P&J Live events facility which offered 48.000sqm of exhibition space. The event is recognised as one of Europe's leading E&P events.

The BVAA stand itself continued to receive an influx of visitors throughout the week.

Attendees hailed from 119 countries, with 37 nations among exhibitors on the show floor which included Singapore, China, Nigeria, Guyana and Brazil.

The event saw a vast array of specialists on the exhibition floor, from international market leaders to new technology companies, enabling attendees the opportunity to source and compare a whole host of solutions to suit their needs.

It has been reported that the event saw over 38,000 attendees over the course of the show offering them the opportunity to engage with technical experts from over 950 suppliers exhibiting. The event is produced in association with SPE.

Over twenty BVAA members exhibited and many more members visited what proved to be a very valuable event.

It was fantastic to meet so many members and we hope to see all our members again when Offshore Europe 2021 comes around.

Just some of the BVAA members exhibiting at OE19

Just some of the BVAA members exhibiting at OE19

Wood desktop a record breaker

The BVAA hosted a highly successful desktop exhibition at Wood in Reading.

The event quickly turned out to be a record breaker with 168 attendees visiting 19 exhibitors from BVAA member companies.

'168 attendees visiting 19 exhibitors'

People arrived in a constant but steady flow which offered the opportunity to really engage with each visitor despite such high and demanding numbers.

Not only do the impressive numbers speak for themselves but feedback suggests an excellent quality of visitors.

John Osborn from Coax Valves UK Ltd comments:-

'*A great show with lots of interest. Thanks to Rob, Karen and Mandy who co-ordinated and arranged the day.*'

The feedback overall was overwhelming positive from all parties involved making this one of the most successful desktop exhibition in recent months.

We would like to extend our thanks to our member companies for coming and being a part of this exceedingly effective event.

'Stronger Together'

New members:

Balmoral Subsea Test Centre

Long term hyperbaric testing to 700bar (7000msw)
'This all-new test facility serves the global oil and gas, renewables, defence and oceanographic sectors with a range of hyperbaric test vessels, submersion tanks and mechanical test rigs.

With more than 20 test vessels, ranging from 1010mm-10,400mm in length, with internal diameters of 360mm-2500mm and testing to pressure equivalents of 700bar, most products and components are readily accommodated.

Services include:
- *Valve testing to API 17D*
- *Flexible and rigid pipe collapse tests*
- *Subsea control module tests, powered and unpowered*
- *Subsea cable and harness verification*
- *Subsea housing and vessel water ingress proof testing*
- *Integrity testing of all types of subsea components'*

Tel: 01224 859 000
Email: surety@balmoral.co.uk
Web: www.balmoralsubseatestcentre.com

'TÜV SÜD is one of the world's leading technical service providers of testing, product certification, auditing, systems certification, training and knowledge services. Powered by over 150 years of experience, we have grown to over 850 locations worldwide and sales revenue of 2.5 billion Euros. Our 24,500 employees act as process partners to our customers wherever their business is located.

Within the UK, TÜV SÜD employs over 600 qualified and experienced experts who operate in a wide range of industries that cover Aerospace, Defence, Consumer & Electronics, Machinery, Marine, Medical, Nuclear, Oil & Gas, Rail, Real Estate, Renewable Energy, Telecommunications and Transport.'

National Engineering Laboratory

Tel: 01355 220 222
Email: carl.wordsworth@tuv-sud.co.uk
Web: www.tuv-sud.co.uk/nel

'Operating under three companies for over 40-years, Oliver Valves, Oliver Valvetek and Oliver Twinsafe have grown to become one of the world's leading manufacturers of Instrumentation, Subsea and Pipeline valves for the global energy sectors.

Specialising primarily in the Oil, Gas and Petrochemical industries, we operate internationally across all regions, and have sales teams strategically located in countries all over the world.

It is our mission to provide all of our customers with outstanding technical customer service, on-time deliveries and continued Engineering innovation.'

Tel: 01565 632 636
Email: sales@valves.co.uk
Web: www.valves.co.uk

Fabulous donation from Rotork

L-R: Matthew Knapton - Engineering Manager, Rotork, Rob Bartlett - BVAA Director and George Simpson - Development Technician, Rotork

Thank you to the team at Rotork for donating three fantastic gearboxes comprising a modular two stage planetary gearbox, a bevel gearbox (HOB3) and a worm gearbox (IW3).

Not only are we incredibly proud to display these items in our training facility but they are also utilised as part of our courses.

It is extremely beneficial for our delegates to see examples of different products in the Valve and Actuator industry in the flesh.

Our expert course lecturers can really use these tools as part of their demonstrations and we are extremely grateful to Rotork for this latest donation.

Massive thank you to Emerson

We were bestowed with another fantastic donation from Emerson at our recent desktop exhibition at Fluor.

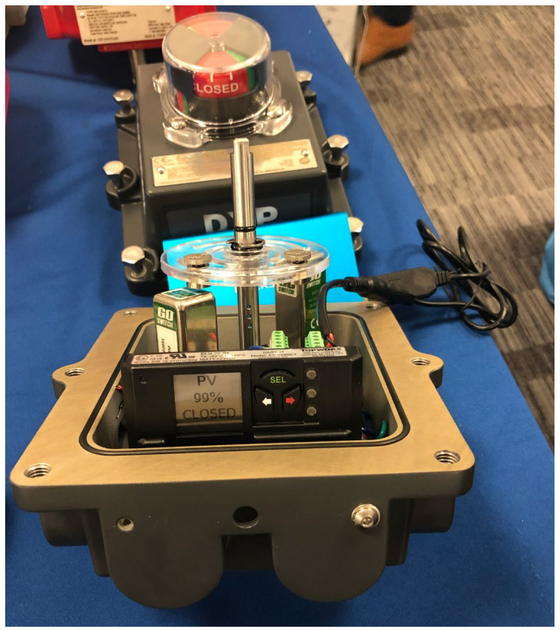
They donated their new TopWorx™ HART 7. This item allows the user to gain access to critical operational data as well as diagnostic information for an automated on/off valve package. The HART 7 incorporates intelligent features and a robust 4-20mA signal.

HART communication has a number of fantastic benefits which include:-

- Avoid unplanned shutdown
- Improve plant reliability
- Lower maintenance cost
- Diagnose potential device problems
- Simple, reliable, and easy to use

It is fantastic to be able to display and showcase our members products at our training facility, especially when new pieces have been designed and launched.

We house and showcase these donations with immense pride.



Mad Hatters - WIKA marathon

L-R: Jocelyn Pritchard, Ruth Gibbs, Lewis Evans, Rob Swinden, Philip Knight, Tony Sweetman, Jonathan Peaurt (MD), Kelly Beeton

'The WIKA relay marathon: Tackling 42.2km'

On Saturday the 20th July WIKA UK sent a team of keen runners to participate in the WIKA Staff Marathon, held at the companies head office in Klingenberg, Germany.

Since 2006, WIKA has annually organised one of the largest company runs in the Bavarian Lower Main region - the WIKA relay marathon.

With temperatures exceeding 30°C, 7 participants shared the demanding and gruelling marathon distance of 42.2 km with each runner completing about 6 km on a varied and partly hilly circuit over asphalt, gravel, dirt roads and through woodland. A total of 868 runners tackled this tough terrain with 125 teams in total taking part.

The event generated an exceptionally impressive €5,208.00 in donations to charitable organisations within the region. Following the donation presentation, the evening was rounded off with a celebratory public open-air concert by regional bands.

During and after the race the runners are provided with drinks and water showers. In the start / finish area on the WIKA grounds additional muesli bars, fruit and massages awaited them. For each kilometre run, WIKA donates one euro to a charitable institution in the region.

Hat Up!

If you've a charitable event planned, contact rob@bvaa.org.uk

The BVAA will donate £50 to your charity if your behatted photo is chosen for publication.

BS ISO 5209: 2019 General purpose industrial valves – Marking. Revised standard published

TECHNICAL HOT SPOT

What is it?: This document specifies the requirements for the mandatory and optional markings of general purpose industrial valves. It defines the method of applying the markings, on the body, on a flange, on an identification plate or any other location.

This document is considered in conjunction with the specified requirements of the valve product standards or valve performance standards.

The marking requirements for plastic valves are not within the scope of this document.

Why is it important?: The main changes compared to the previous edition are as follows:

- the structure has been aligned with the current ISO Directives, Part 2;

- Clause 4 has been updated to give the requirements for mandatory, supplementary and other markings;

- in Table 1, item 20 "*Allowable differential pressure*", item 21 "*Closing direction*" and columns 3 to 5 have been added;

- a new Clause 5 has been created to give details of marking.

ISO 5209 has been aligned with EN 19 such that valves marked in accordance with EN 19 comply with the revised ISO standard.

Supporting guide dogs for the blind this October

Emma Newcombe, Commercial Director at Steam Plant Engineering and her husband have been dedicating their time to board and train guide dogs in conjunction with the Guide Dogs Birmingham Community Team for almost two years now, and during that time have contributed to the successful placement of a number of dogs, who have changed the lives of individuals suffering with sight loss.

However, it's not only Emma and her husband that are committed to the cause, Emma's commitment has rubbed off on the entire team where she works at Steam Plant and they now play a significant part…

Regular visitors to the head office at Halesowen are quite used to being greeted by a furry, four-legged friend, as the boarded dogs frequently take their office training on-site with Emma and the team!

Emma says: *"It's such a rewarding thing to be involved in. We're lucky to still have contact with one of the dogs we boarded and his owner and so we can see first-hand what a valuable contribution we're making in helping people gain their independence and fulfil their ambitions."* She continues: *"The management team at Steam Plant have been so supportive and everyone is genuinely interested in how our dogs are getting on."*

This October sees the launch of the Pups to Partnerships appeal, which aims to raise £420,000 in just one month, to fund the lifetime cost of seven guide dog partnerships and Emma and the team at Steam Plant have a whole host of events and activities planned to raise money for the worthy cause.

Emma continues: *"During October in particular we have lots of activities planned at Steam Plant, we plan to hold a Bake Sale, sell wine glass charms and gifts and myself and Nicola James our HR Co-ordinator are taking part in a 5km obstacle course."*

Emma and the team at Steam Plant Engineering would appreciate any donations to the Guide Dogs Pups to Partnerships appeal at:

https://www.justgiving.com/fundraising/steamplantengineering

Alternatively, there are lots of ways you can support the appeal from holding an event to donating just an hour of your time to support a local collection during October. For more information, visit: www.guidedogs.org.uk/appeal.

'Emma and the team at Steam Plant Engineering would appreciate any donations to the Guide Dogs Pups to Partnerships appeal'

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The BVAA will donate £50 to your charity if your behatted photo is chosen for publication.

WIKA Instruments exhibition vehicle

WIKA Instruments Ltd, launch their new exhibition, training and educational vehicle (EV), showcasing their capabilities in the measurement of pressure, temperature, level, force and flow, as well as in calibration technology. The EV is a unique multi-purpose, mobile exhibition and training vehicle. In essence they can bring their products, services and technology to the customers.

'The EV is a tool where we show our product portfolio.'

The EV is fitted throughout with working products that can be seen, touched and felt and essentially seen in working operation. It truly is a unique opportunity for all.

Tel: 01737 644008
Email: info@wika.co.uk
Web: www.wika.co.uk

WIKA
Part of your business

Sealand Valves: supplying bespoke valves for sea and land

The launch of a new website, **www.sealandvalves.co.uk**, and a relocation to a new purpose built factory and investment in machinery, staff and training mean Sealand Valves is now ready to focus on what it does best: manufacturing quality bespoke valves.

Sealand began manufacturing in the 1950's initially supplying valves for the marine industry. Over the decades the family-run business, Sealand Engineering, became synonymous with solving design solutions, where a bespoke valve design and manufacturing service was required, and they supplied a wide range of valves, including gates, globes, swing checks, tilting disc, across the world.

In June 2017, Acetarc Ltd, an ISO 9001:2015 engineering company who manufacture for the foundry industry, acquired Sealand Engineering, both companies have a similar heritage, family run businesses, with their roots in a time when UK engineering and manufacturing was at the forefront of design and innovation. Over the last two years there has been significant investment in Sealand, they have relocated to a brand-new purpose-built factory adjacent to Acetarc, in Keighley, West Yorkshire.

The acquisition of new CNC machines alongside their existing machines will mean they have the capacity and capabilities to design and manufacture a wide range of valves, Acetarc had provided a sub contract service for machined parts and their workforce were very familiar with the machining requirements of valve manufacturing.

Production and Purchasing Manager Jane Moreman, says "*The introduction of the purchasing and quality control system used by Acetarc has greatly improved the management of materials, and more importantly traceability.*

Sealand Valves offer a bespoke valve design and manufacturing service, finding solutions when standard and mass-produced valves are not suitable.

We have the capacity to manufacture non-standard and large bore wedge gate valves, globes and swing check in cast iron, carbon steel and bronzes as well as the exotic alloys.

A typical Sealand valve will generally have one or more 'special' features; It might be a non-standard bore face, flange drilling, face to face or an unusual trim or a combination of these. Our capabilities range from one off requirements to small batches and we have delivered individual products up to three tonnes in finished weight."

"*Our products are designed and manufactured to order, meeting the material, dimensions and installation and certification requirements of our clients. Not only has there been considerable investment in new machinery and a 3D CAD system, during the last two years, the history, records and traceability of anything that Sealand has manufactured since the 1970's has been collated and retained.*

Sealand Valves are aware that many valve designers and manufacturers have been absorbed into other companies and the knowledge and heritage is lost. At Sealand we can offer solutions to obsolete designs.

Sealand realised that to look to the future we need to have staff that are fully competent not just at a manufacturing level but also with regards to the paperwork and certification of our products, which is why we have sought training and advice via the BVAA, to meet the legal requirements of the P.E.D and international manufacturing standards for all our design and sales staff.

This will enable Sealand Valves to offer a product that is both competitively priced but will also guarantees the buyer reassurances that their valve has been manufactured using the highest quality of materials and workmanship."

SEALAND VALVES
A DIVISION OF ACETARC LIMITED

Tel: 01535 610345
Email: sales@sealandengineering.co.uk
Web: www.sealandvalves.co.uk

Emerson expands asset management coverage for faster integration in projects and operations

Emerson has expanded AMS Device Manager with HART-IP™ support, making it easier to connect with devices and control systems and potentially eliminate hundreds of thousands of dollars in project hardware and engineering.

AMS Device Manager is used by thousands of facilities across the globe to streamline installation of field devices during capital projects, increase safety system uptime, and quickly and safely test devices from the control room.

By eliminating multiplexers, organisations can more easily use AMS Device Manager to configure, calibrate, validate, and document more of their HART-enabled field devices and systems.

Connecting field devices to asset management systems typically requires the use of multiplexers that significantly increase hardware costs and engineering hours during the project phase.

According to FieldComm Group™, more than 40 million field devices use HART, a protocol designed to allow intelligent devices to communicate with host systems.

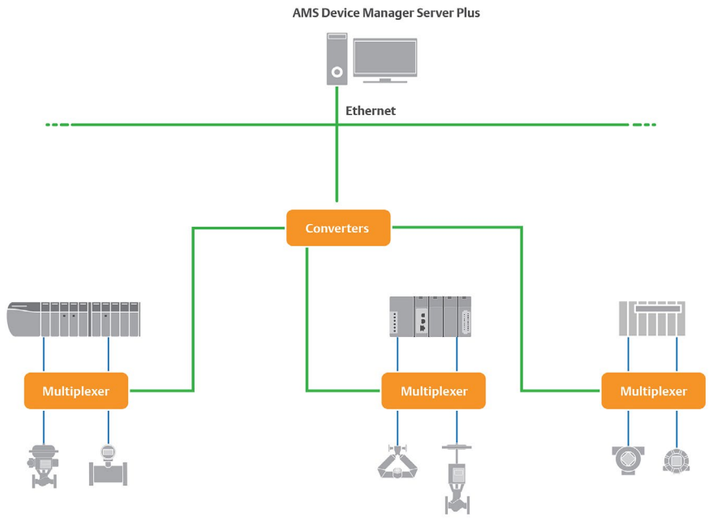
HART-IP - now native on AMS Device Manager - allows asset management systems to bypass complex and expensive multiplexers and directly access measurement and diagnostics information from HART-enabled field devices using existing plant Ethernet networking infrastructure.

The current interface has been tested for connectivity to Schneider Electric Triconex® Tricon CX safety systems, HIMA HIMax safety systems, and Phoenix Contact multiplexers.

Emerson will continue to test and add new systems to the list of those officially supported by the interface.

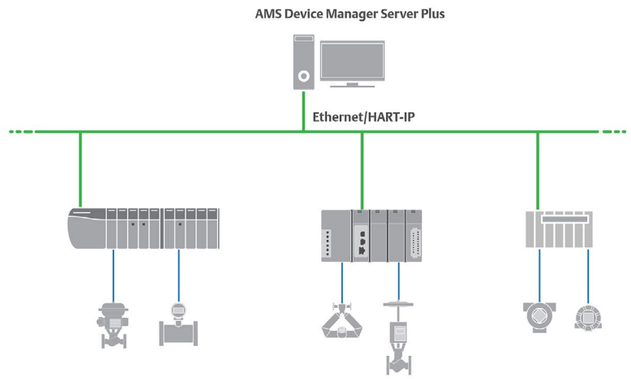
"*Asset management systems help integrate data between field devices and systems, making them useful for other on-prem or off-prem IIoT software and analytics. With better plant data integration, organisations can take an early, significant step to enable digital transformation*," said Mani Janardhanan, vice president of product management for Emerson's Plantweb and reliability solutions.

BEFORE



HART-IP support for AMS Device Manager eliminates multiplexers, simplifying engineering and potentially saving hundreds of thousands of dollars in project hardware and engineering

AFTER



EMERSON

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Pressure Tech expands sales team

Nick Greenall

Iulian Maciuca

Pioneering manufacturer of pressure regulators, Pressure Tech continue to strengthen their sales coverage with the addition of a new Sales Manager and a new Business Development Manager to focus on the Hydrogen fuel cell market.

'Nick has been very successful in developing sales within the international valve market'

Nick Greenall joins as Sales Manager with responsibility for managing the sales team and strengthening the sales strategy within Pressure Tech.

Having worked with several large companies such as Tyco and Anderson Greenwood, Nick has been very successful in developing sales within the international valve market and has a wealth of experience in the general management of sales teams, which are valuable assets to bring to Pressure Tech as the company continues to expand into new markets.

Working closely with Pressure Tech's Marketing Manager and '*Authorised Resellers*', Nick has ambitious plans for expanding Pressure Tech's coverage in the oil & gas market, as well as penetrating the newer developing Hydrogen Fuel Cell market.

Iulian Maciuca has also joined Pressure Tech as Business Development Manager for the Hydrogen Fuel Cell market.

This rapidly expanding and dynamic market is being targeted with a new range of pressure regulator products developed by Pressure Tech, which Iulian will be responsible for introducing to H2FC customers involved with Transport, UAV Droned, and power back up applications.

Iulian has previous sales experience throughout Europe, The Middle East, and Asia Pacific within the pump and bearings industry. He is degree qualified in Mechanical Engineering and speaks three languages fluently.

With a strong interest, and early career, in the automotive industry, Iulian is as equally dynamic as the market he's covering and looking forward to expanding the extensive range of hydrogen pressure regulators into the H2 fuel cell market.

For further information about Pressure Tech, please visit:
www.pressure-tech.com

'Iulian has previous sales experience throughout Europe, The Middle East, and Asia Pacific within the pump and bearings industry.'

PRESSURE TECH

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DIN stainless steel Gate and Globe Valves

AVA has been the leading wholesale supplier of industrial valves in accordance to DIN and ASME standards in Europe for 45 years.

As an exclusive partner of manufacturers around the world for many years, we supply our customers in the chemicals, petrochemicals, power industries sector and mechanical engineering industries with industrial valves at three sales and warehouse locations in Germany, the Netherlands and the UK.

In order to meet the growing demand for reasonably priced stainless steel DIN-Valves, AVA are now able to deliver from stock DIN-Gate valves and Regulating-Globe valves from the manufacturer KINGDOM.

Both types are designed with bolted bonnet and outside stem and yoke. Produced in high quality investment casting in KINGDOM'S own foundry.

As KINGDOM is fully approved, these Valves meet the requirements of the standards AD 2000 A4, PED 2014/68/EU, ATEX 2014/34/EU and TA-Luft 2002/VDI2440.

Furthermore these Valves have been recalculated by TÜV according to DIN EN 12516-2.

AVA make a 'DIN' about new stock

Application:
Main applications of these stainless steel valves are media in the fields of oil and gas, petrochemical, chemical and power plant applications.

However, these valves are also suitable for use in other industries such as the water industry, including desalination plants, district heating and EPC business.

Gate and Globe Valves are ex stock available in following specification:
- **Size:** DN15 to DN200
- **Pressure class:** PN10 to PN40
- **Connection:** Flange
- **Face-to-face Gate:** EN558-1, Series 15
- **Face-to-face Globe:** EN558-1, Series 1
- **Operation:** Handwheel

- **Globe valves:** DN15 - DN50

- **Gate valves:** DN80 - DN200

Material:
- **Body:** 1.4408
- **Bonnet:** 1.4408
- **Wedge / Disc:** 1.4408
- **Seat:** 1.4408
- **Packing:** Graphite
- **Bonnet bolts:** A2-70

- AD 2000-A4
- PED 2014/68/EU
- ATEX 2014/34/EU
- TA-Luft 2002/VDI2440
- NACE MR0175-2000

ALMS VALVE AGENCY, LTD ®

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Web: www.ava-alms.co.uk

Langley Alloys for duplex stainless steel

SANDVIK
DISTRIBUTION PARTNER

Duplex stainless steel (22% Cr / 2205 / 1.4462 / F51, F60) is a commonly used alloy in the manufacture of valves, providing the next step up in performance over Alloy 316L. Smaller valve bodies can be machined from solid bars rather than being produced from forgings and castings, along with a wide selection of trim and componentry.

Langley Alloys are the preferred partner of Sandvik for the distribution of their duplex and super duplex stainless steels. As such, we carry an extensive stock of this alloy, from ¾″ (19.05mm) to 18″ (450mm) diameter, plus selected sizes of hollow bar in the same alloy too.

Duplex stainless steels were originally developed in the 1930's for application in paper and pulp manufacture, based around a 22% Cr composition and the mixed austenitic:ferritic (duplex) microstructure that gives them their name. Compared with more generic 304/316 austenitic stainless steels, duplex stainless steel will typically have twice the strength and provide a significant uplift in corrosion resistance.

Rather confusingly, there are two different designations for duplex stainless steel. When originally developed, the grade was identified as UNS S31803 (F51).

However, in order to enhance the resistance to pitting corrosion, steel manufacturers started to produce this grade with the composition of the key alloy additions at or near the maximum levels.

In order to differentiate this enhanced product from the standard product it was re-designated as UNS S32205 (F60). As such S32205 meets the requirements of S31803 but not vice-versa. All of our stock is in the higher-specification S32205.

Langley Alloys duplex stainless steel stock is predominantly in the easier-to-machine Sandvik grade Sanmac™ 2205. This new generation of Sanmac product achieves '*enhanced machinability as standard*' with reduced tool wear and a significant increase in cutting speeds.

During the steelmaking process the non-metallic inclusions such as sulphides are carefully controlled to encourage easier machining, whilst oxide inclusions improve chip breaking.

This gives machine shops important improvements in productivity and significant cost reductions per produced item.

The same range of additional services provided by Langley Alloys are available in this grade too.

Uniquely for a stockist, we provide an in-house inspection service, with our operators trained in ultrasonic and liquid dye penetrant testing.

Our first stage machining offer continues to grow, now including turning and milling as well as a powerful deep hole borer. Plus, we include a number of metallurgists amongst our team, able to offer technical support and guidance.

Langley Alloys
80 YEARS OF UNIQUE METALS
1938 - 2018

Tel: 01782 610250
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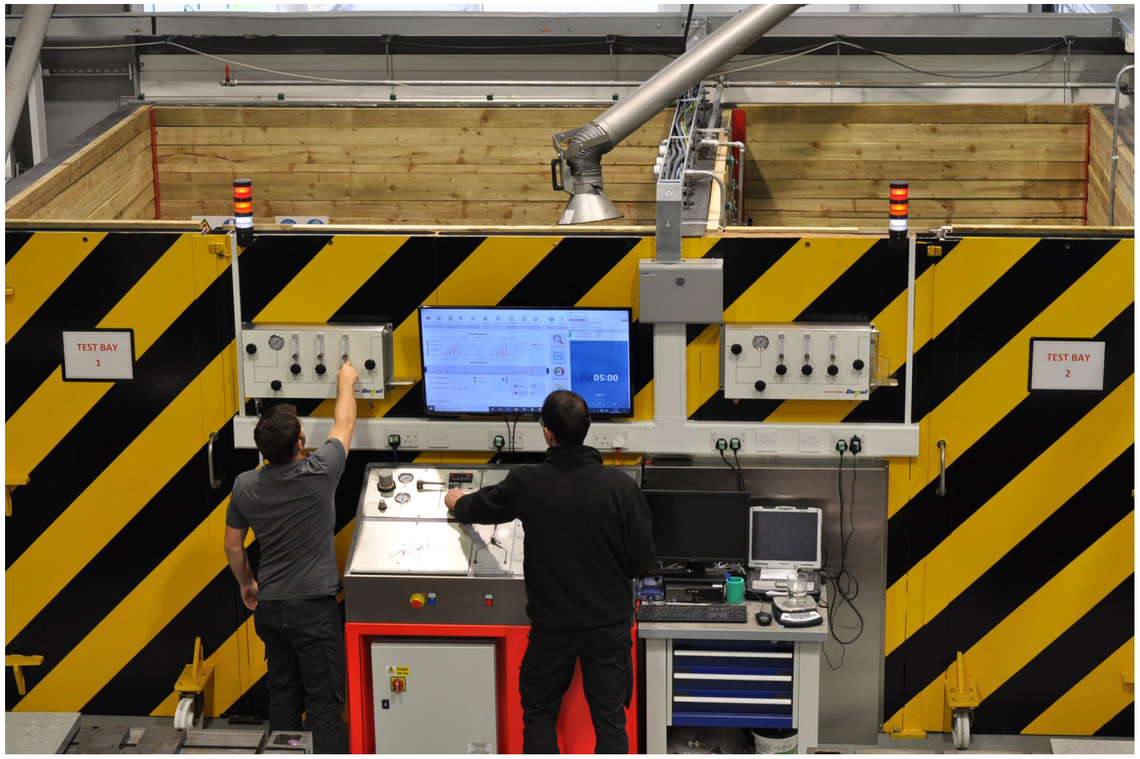
James Walker unveils newest addition to development and testing portfolio



The new facility at James Walker, Gourock will be capable of testing individual sealing interfaces as well as complete products from -196°C to +350°C

As part of their ongoing commitment to advancement in technology and their long-term relationship with the valve industry, the sealing solutions experts at James Walker have recently unveiled the newest addition to their development and testing portfolio.

'Dedicated facility for development and testing'

A £300,000 dedicated facility for the development and testing of a wide range of polymer sealing materials and products has been installed at the Gourock site.

Covering the characterisation of polymer properties and behaviour in environments from -196°C through to 350°C, this new installation allows for a range of custom designed test rigs to investigate the behaviour of individual sealing interfaces in addition to full product testing.

Phase one of the project consists of 2 new high pressure test bays currently running up to 10,000 psi fitted out to support running a variety of testing from simple static testing to more complex mechanical and thermal cycling testing. Phase two will see this upgraded to support pressures up to 30,000 psi.

Furthermore, the existing 50 kN Instron tensile test system in place at the west of Scotland facility has been expanded to incorporate a variety of custom test rigs for product validation and testing in addition to the standard mechanical testing.

An on-site chemical compatibility lab for the conditioning of test samples and components in various media and environmental conditions allows the team to develop a better understanding of influences on product performance, not just the effect on mechanical properties.

At the heart of this impressive testing offering is the multidisciplinary technical team, comprising a vast range of experience in chemistry, polymer physics, mechanical engineering, sealing science and valve design to fully support customer requirements – whether that be problem solving skills, in-depth investigation or ongoing development work.

The team is currently engaged on several projects including spring energised sealing systems, valve components and new material development and evaluation.

Stuart Dalrymple, Technical Director (Engineered Plastics) commented:

"*We are excited to be able to widen our in-house testing offering to our customers.*

The new facilities will allow us to broaden our knowledge and bring new levels of insight into common sealing issues across the valve and oil & gas industries."

James Walker

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Orseal extend their FPSO portfolio with major contract gains in Brazil

Floating production, storage and offloading (FPSO) systems are showing sustained global growth with more than 30 FPSO projects set to pass final investment decisions during 2019 – 2021 and Orseal are expanding their presence in this field, having recently competed delivery on the first of their valve package contracts for Libra MV31 in Brazil.

A Dutch company established by MODEC, MV31 has a long-term charter agreement with Petrobras for the deployment of the FPSO, as leader and operator of the Libra consortium. Chartered for 22 years and named FPSO Guanabara MV31 the FPSO will be deployed in 2021 at the Mero field, located in the Libra block in the giant "*pre-salt*" region of the Santos Basin, approximately 180 kilometres off the coast of Rio de Janeiro and at a water depth of approximately 2,100 metres.

Liaising with their client and with their own supply chain in the face of global competition, Orseal secured the valve package contract for this FPSO project, the first of several contracts to be fulfilled by Orseal for MV31.

FPSO Guanabara MV31 will be capable of processing 180,000 barrels of crude oil per day, 424 million standard cubic feet of gas per day, 225,000 barrels of water injection per day, with a storage capacity of 1,400,000 barrels of crude oil.

MODEC is responsible for the engineering, procurement, construction, mobilisation, installation and operation of the FPSO, including topsides processing equipment as well as hull and marine systems.

Through their Special Projects Division, which undertakes customised valve design and manufacture, Orseal supplied valves ranging in size from ½″ to 8″, both manual and actuated.

Super duplex valves, with class ratings from 150 to 600, the package included ball, butterfly, globe and swing check valves, c/w 100% NDE/NDT to all the valves and ball and butterfly valves fitted with pneumatic spring return actuators and full controls.

All actuated valves were carefully mounted on the valve with full functional testing as required by the client whose personnel carried out all inspection with Orseal Special Projects experts on-hand to address any questions and answer to the products' capabilities and specifications.

The full document package was thoroughly checked and reviewed for compliance and, after inspection, the relevant valves were painted to the client's specifications, with delivery to their premises in China, on time and to their exact specification.

Brazil is considered by many analysts to be a major force in the expansion of the FPSO market and Petrobras has spending plans of more than $80 billion between 2019 – 2023, with nearly $70 billion allocated to exploration and production.

In light of this, Champak Fakira, contracts and sales director at Orseal, comments: "*The competition for this contract was very tough and it's a testament to Orseal's track record that we were selected – both for this and for the forthcoming deliveries we have scheduled in Brazil and China.*

For large projects such as these, we carry out full pre-delivery inspection services at the supplier's site – working globally - ensuring that when our client receives their goods there will be no major setbacks with their own planned delivery.

As part of a global supply chain on large-scale projects, our expertise in the oil and gas sectors and the range of products we offer set us apart from our competitors and it is gratifying to see this belief reflected in significant contracts such as these FPSO projects."

ORSEAL
the valve specialists

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Office expansion for Oxford Flow on heels of growth

Meeting room in the new, expanded office

Oxford Flow, the pressure control equipment specialist for the oil and gas, water and industrial process industries, has expanded its office space at its premises in Oxford following rapid growth in the last six months.

'The purpose-built office space on Osney Mead in Oxford has been expanded to 260 sq. metres from 120 sq. metres'

The new space will house Oxford Flow's growing team, which has added 10 people in the last year. Key team specialisms include mechanical and production engineers, IP specialists and field operators.

Oxford Flow's 24 strong team has been busy developing the world's first diaphragm free gas regulating valve. This valve reduces wear and therefore maintenance costs – improving gas network efficiency, performance and reliability.

The company's pressure control technology was originally developed at the Osney Thermofluids Institute research facility at Oxford University and is used in water and gas distribution networks, oil and gas systems, and industrial processes.

Neil Poxon, CEO of Oxford Flow, comments: "*This office expansion is a key milestone in our growth. We had the ambition to commercialise and develop Oxford Flow, but little did we think 12-months later we would have already increased head count by 70 per cent.*

It's a remarkable feat and is a reflection of the talented team we have onboard. It also reflects the sheer excitement in the water, gas and oil and gas industries for our technology – a simple innovation, yet incredibly impactful in terms of cost, efficiency and performance."

The expansion comes alongside Oxford Flow's latest capital raise, which was launched in March this year.

Once complete, the funding will be used to accelerate deployment of its highly innovative flow control valve technology into multiple energy and industrial markets.

While executing the capital raise, the company plans to nearly double headcount, by hiring from the local Oxford area, to more than 40 members of staff.

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Optimising control of Butterfly Valves

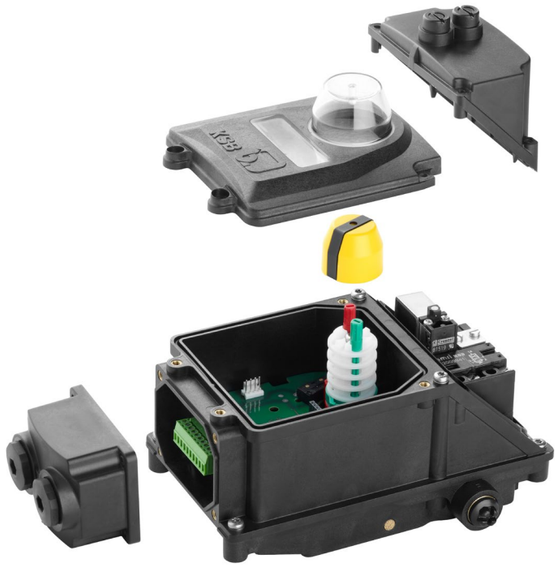

Fig.1: The Amtronic is designed specifically for ON/OFF valve control

For industries that use actuated valves, having a complete picture of how the valve is functioning at any time and being able to control the valve remotely in order to respond to the flow of liquid in the pipeline can ensure effective and potentially efficient operation of the system in which the valves are installed.

These requirements can best be offered through automation using intelligent devices including smart positioners and control units for open/close operations and for collecting data.

Actuated butterfly valves provide the ability to control the flow of liquids in pipelines without manual intervention. This is highly desirable where there are many valves and where valves are in more remote locations.

Using intelligent control units which interface with the actuator offer operators various levels of control suited to the application.

KSB's automation product range for butterfly valves is based around its Amtronic unit, this being an ON/OFF controller for pneumatic actuators and is comprised of a pneumatic valve and mechanical or proximity switches.

'Using intelligent control units which interface with the actuator offer operators various levels of control'

Unlike mechanical switches, proximity switches do not have any moving parts. However, the Amtronic offer the choice so that users can customise units to their specific requirement.

The Amtronic (Fig.1) is designed specifically for ON/OFF valve control and provides two functions, these being ON/OFF control and valve position detection.

The Amtronic can be mounted either to quarter-turn actuators with VDI/VDE 3845 interface or linear actuators with NAMUR interface (Fig.2).

Constructed in accordance with IP67 standard, its operating temperature ranges from -20ºC to +80ºC and it has a pressure range of 3 to 8 bar.

For double acting pneumatic actuators it can be equipped with three kinds of function, these being 4/2 monostable, 4/2 bistable and 4/3 centre closed. For single acting actuators Amtronic comes with two kinds of function, these being 4/2 monostable and 4/3 centre closed.

The Amtronic is essentially a compact box comprising three separate compartments, these being for pneumatic distribution, position detection and control using mechanical limit switches or proximity switches, and electrical connection.

Fig.2: The Amtronic can be mounted either to quarter-turn actuators with VDI/VDE 3845 interface or linear actuators with NAMUR interface

The design of three compartments means that if there is a need to access a specific function, each compartment can be opened without affecting any of the other compartments.

'identified by users as being of significant benefit as it reduces downtime '

This has been identified by users as being of significant benefit as it reduces downtime.

Two holes are drilled into the top of the actuator for direct connection to the air supply.

This interface facility gives exactly the same air distribution as a mechanically actuated unit and provides the benefit of no external moving parts and any external piping connections to the actuator.

The Amtronic box can be supplied with a different type of mounting plate for external connection to the compressed air supply for other makes of actuator.

The pneumatic valve and the switches/sensors are installed in the same box, so only one multi-core electrical cable is required for control and position detection.

Should users wish to make a change to access the electronic card and electrical connections, then the terminal block on the rear of the unit can be easily removed so the cable can be connected directly and unplugged if necessary.

In order to eliminate the problem of poor quality compressed air, in-line filtration comes as standard so it does not require quality class 2 or 3 air supply according to ISO 8573-1.

It also means that compressed air is used more economically.

Manual override of the pilot valve and flow reducer to control the air flow and speed of the closing valve is actuated and locked using a screw-driver.

This allows manual control of the valve independently of any external automatic control and the valve can be controlled locally regardless of the remote control signal.

The flow reducers adjust the actuation time and there is no need to add external reducers, nor is it necessary to open the box to access the flow reducers.

KSB

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Oxford Flow launches gas regulator valve to increase reliability

Oxford Flow, the pressure control equipment specialist for the oil and gas, water and industrial process industries, today launches its revolutionary IM gas regulator valve to increase reliability and reduce costs for operators in the gas distribution, power generation, industrial gases and oil and gas sectors.

The launch follows a successful ongoing trial with SGN where the valve has been installed and commissioned with ease, regulating gas pressure smoothly with rapid changing demand profiles within an Accuracy Class of 1.5%.

This superior accuracy the valve offers in comparison to conventional technologies enables utilities and operators to achieve faster network stability on commissioning, even where flow rates vary significantly.

In addition, the valve's compact construction reduces weight and the need for expensive lifting equipment during installation and maintenance.

In conventional valves, the diaphragm tends to be the most common failure point.

Oxford Flow's new design has eliminated the diaphragm, stem and external mechanical actuator.

With only one moving part, the design minimises potential leaks and the risk of fugitive emissions – maximising efficiency and reducing maintenance costs.

'a hugely exiting time for Oxford Flow'

Neil Poxon, CEO at Oxford Flow, comments:-
"*This is not only a hugely exciting time for Oxford Flow, but a significant step forward for the valve industry.*

As many companies across the industries we serve look for ways to minimise costs, this gas regulator enables just that.

Our recent valve testing and developments in the UK, Germany and USA have enabled us to improve and perfect the regulator so that we can now roll the technology out to the wider industry with confidence.

"*We believe this will be a pivotal moment that has a lasting impact on gas networks in the UK and beyond.*"

OXFORD FLOW

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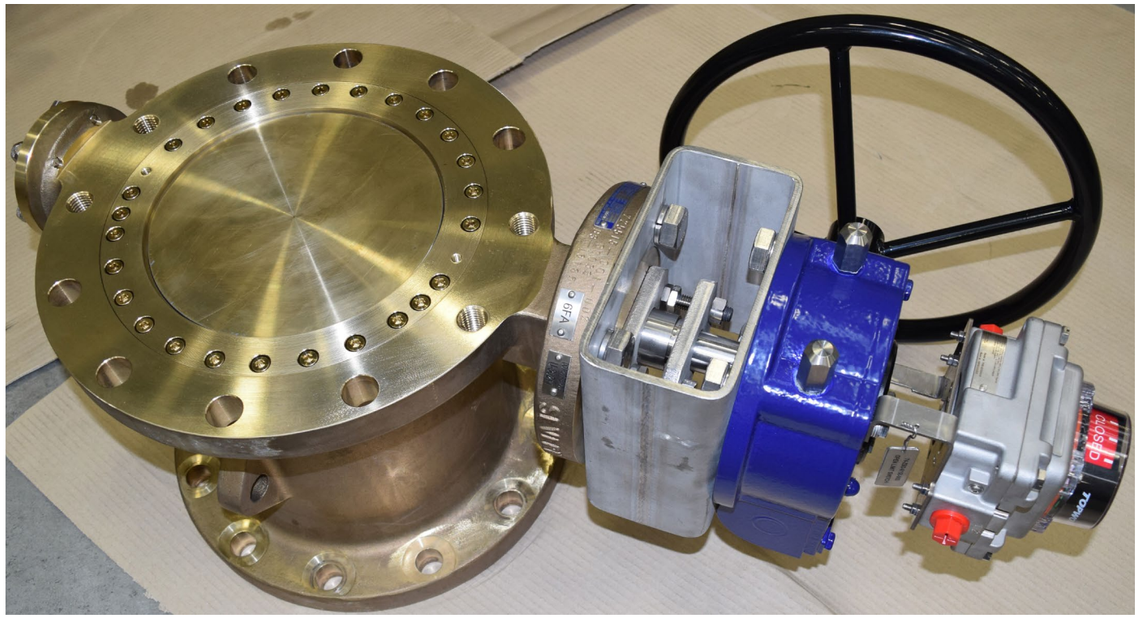
Offshore compression project benefits from Severn's valve innovation



Galvanic corrosion risk eradicated with progressive valve technology

Extreme technical demands associated with a critical safety system on an offshore gas compression platform are being addressed with a new valve technology from Severn Glocon Group.

The valve engineering specialist is supplying 17 high-performance triple offset Butterfly Valves to control seawater in the fire safety system of the platform, located off Trinidad and Tobago.

The bi-directional isolation valves need to achieve repeatable zero leakage and meet stringent fire safety testing standards. In addition, the end user specification requires avoidance of wetted graphite inside the valves.

Triple offset Butterfly Valves are typically constructed with graphite packings, gaskets and laminated metal/graphite seals.

In normal operation this noble material provides good service, but increased risk of galvanic corrosion in seawater applications is an ongoing concern for offshore operators.

Avoiding contact between graphite components and the line media, without compromising fire safety credentials or overall valve performance, presented a significant technical challenge.

To address this, the engineering team devised an innovative adaptation of Severn's patented Oblique Cone Technology (OCT®). Introducing a hybrid valve seal eradicated the need for graphite, whilst retaining all the inherent advantages of a triple offset valve.

The double-flanged valve bodies are manufactured in aluminium bronze for general seawater resistance, and they also incorporate internal and external anti-blowout protection. This advanced safety feature ensures the shaft cannot blow out, even if all external bolting is accidentally removed.

Simon Walker, Severn's Technical Authority – Butterfly Valves, led the development process. He says applying a logical, methodical approach helped resolve the application problems:

"Standard, catalogue valve products couldn't satisfy the specification for these valves, so we were enlisted to solve the issue for our client. However, there is also an enduring industry need to overcome the galvanic corrosion problem. We set out to create a solution that could benefit the entire market, not just a single bespoke application. It was a challenging task, but as we specialise in arduous valve applications, we were well-equipped to handle it. Testing has shown that the technology we developed is both reliable and repeatable, and we're shipping to the end user one month ahead of schedule."

SEVERN GLOCON GROUP

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Valve position monitoring with the F31K2

F31K2 dual sensor, mounted on a pneumatic valve actuator

F31K2: the robust outdoor solution for Ex areas

F31K2 dual sensor with highly visible valve position indicator

Robust Ex Outdoor Solution with IEC Ex/ ATEX Approval for Gas

F31K2 - the robust, impermeable, and durable sensor solution for valve position monitoring is now available with intrinsically safe Ex i approval for Zone 0/ Zone 20 gas and dust areas, as well as with Mb mining approval.

This generation of dual sensor from Pepperl+Fuchs uses non-contact and wear-free inductive sensor technology to monitor valve positions on pneumatic valve actuators, in the same way that this is used to monitor the rotation of fittings, valves, and flaps.

No mechanical contact is required. The sensor is mounted on the drive, and is hermetically sealed and separated from the actuator, which is simply fixed to the drive shaft using a screw.

The actuator is optionally available with a concise Open/Close valve display so that the valve position is easy to read, even from a great distance.

The two intrinsically safe NAMUR binary signals and the solenoid valve activation are conveniently connected via plug-in terminals in the terminal compartment.

The dual sensor is available with ATEX and IEC Ex global approvals for gas and dust areas, as well as a mining approval for underground applications.In addition, the sensor is also approved for functional safety applications up to SIL 2.

The high degree of protection IP66/67/69, combined with the -40 °C to 100 °C temperature range, and the impact-resistant housing (7 joules) makes this solution an extraordinarily robust, durable, and maintenance-free solution for both indoor and outdoor applications.

At a glance:
Open solution for valve position feedback with highly visible integrated valve position indicator.

Direct mounting on pneumatic valve actuators.

IEC Ex/ATEX approval for Zone 0 and Zone 20.

Weather-resistant housing for Ex outdoor applications.

Impact-resistant housing (7J) for Ex areas.

Designed for use up to SIL 2 in accordance with IEC 61508.

PEPPERL+FUCHS

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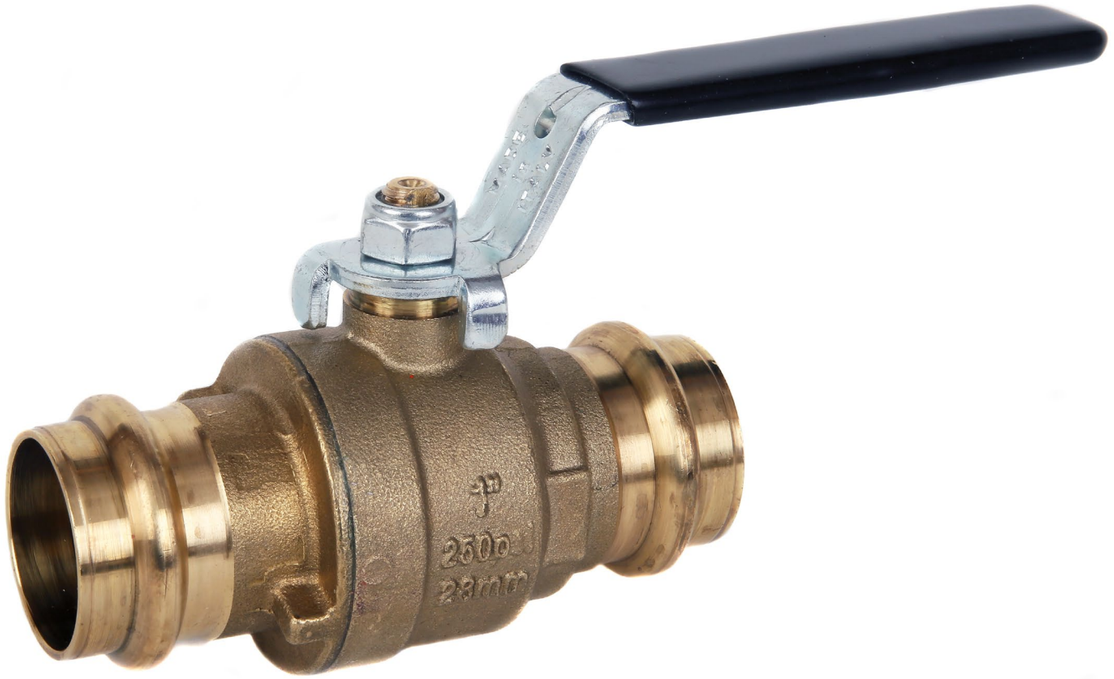
Albion's range of Press-Fit Valves continues to impress



Enhanced joint performance, time-efficient, clean installation and improved finish are all benefits that have contributed to the growth in popularity of press fittings across the commercial plumbing and heating markets in recent years.

Although '*press-fit*' technology has been a major trend in continental Europe for 30 years or more, it is only relatively recently that the UK has fully embraced this form of fixing.

Press-fit systems provide flame-free installation, making soldering a thing of the past.

Not only does this make the job site safer by removing the risk of fire, it also makes the job quicker and cleaner leading to increased productivity and reduction of labour.

All of this has contributed to Albion Valves, an independent supplier of commercial valves and fittings, seeing its range of press valves grow in popularity – particularly due to their unique construction…

Unlike most press-fit valves, which need adapter fittings, Albion's Press (PRS) range has been designed so that the press fittings form an integral part of the valve's body.

This removes the need for adapter fittings and significantly reduces potential leak points.

When you consider the number of valves used in a typical installation, this is major improvement as well as a significant cost saving when compared to buying separate adapter fittings.

Designed for use with standard copper pipe, Albion's Press valves can be fitted without the need for solder or thread sealant using their standard 'M' profile jaws. What's more, connections can be made on new and retro-fit installations, even when the system is 'wet'.

Les Littlewood, Sales and Marketing Director at Albion said:

"*With more and more projects specifying clean installation, demand for Press valves and fittings has increased exponentially for us over recent years. Customers have come to rely on our press-fit valves due to their ease of use and high levels of reliability – often citing issues with other makes of press valve as another reason for switching to Albion.*

Our estimates suggest that press fittings reduce installation time by up to 50%, saving installers valuable time and money."

Available in sizes from 15mm to 54mm, Albion's range comprises: WRAS approved ball valves, static and dynamic balancing valves as well as swing check valves and strainers available in DZR brass, with EPDM seats and CE certification.

For further information contact Albion Valves on 01226 729 900 or visit www.albionvalvesuk.com

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Corrosion Resistant Materials have been nominated

BARNSLEY AND ROTHERHAM
BUSINESS AWARDS 2019
IN ASSOCIATION WITH AAG IT SERVICES

'The award recognises an organisation that has achieved significant growth'

Corrosion Resistant Materials Ltd are exceptionally proud to announce that they have been shortlisted in the category of '*Business Growth*' at the upcoming Barnsley and Rotherham Business Awards 2019.

This prestigious event is one of the region's most respected business awards ceremonies, which is held annually. The awards are organised by Barnsley & Rotherham Chamber of Commerce with the key aims of celebrating local business successes and excellence within the region.

The business growth award recognises an organisation that has achieved significant and sustained growth and amplified development. Corrosion Resistant Materials has made momentous advancements with the company's annual turnover quadrupling over a short period of just 12 months. This is a substantial increase in year-on-year income and profitability.

The company's forward thinking, business planning and company ethos to deliver quality products, expert knowledge and outstanding service has already become well-renowned and trusted within the industry and is now cause for recognition.

The company supplies specialist, technical materials to meet the demands of the modern-day steel industry. Continually pushing boundaries and capabilities of materials with their *modus-operandi* to be at the very forefront of the technical metals industry with a friendly client-facing sales team and ceaseless know-how.

This nomination is especially significant as the company is still in its infancy having only been in operation for just four years.

This year's event will be held on Friday 18th October at Magna in Rotherham and promises an evening of celebrating local business at their finest.

CRM CORROSION RESISTANT MATERIALS LTD
CORROSION-RESISTANT-MATERIALS.CO.UK

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New appointment at M Seals

Managing Director Ross Cunningham (R) welcoming Ian Lowe (L) to the M Seals team

M Seals UK are excited to welcome Ian Lowe to the team. Ian brings thirty years of sealing and industry knowledge to the business, and as Technical Manager, Ian will support the companies ambitious growth strategy to position M Seals as one of the UK's leading specialist sealing solutions provider.

Ian's knowledge and industry experience will strengthen the technical abilities of the service teams, and will allow M Seals UK to deliver continuous value-added benefits to their key UK customers. Ross Cunningham adds *"Having Ian on board is a great fit for our future ambitions. Our customers expect a high level of value-added service from M Seals UK. It's therefore paramount that we continue to invest in the development of our people in order to meet the evolving needs of our key customers. Ian joins our business at an exciting time, and I know he'll become a key member of our passionate team in no time at all."* For more information feel free to get in touch with **ian@m-seals.co.uk.**

M SEALS UK LTD
- Part of Diploma PLC

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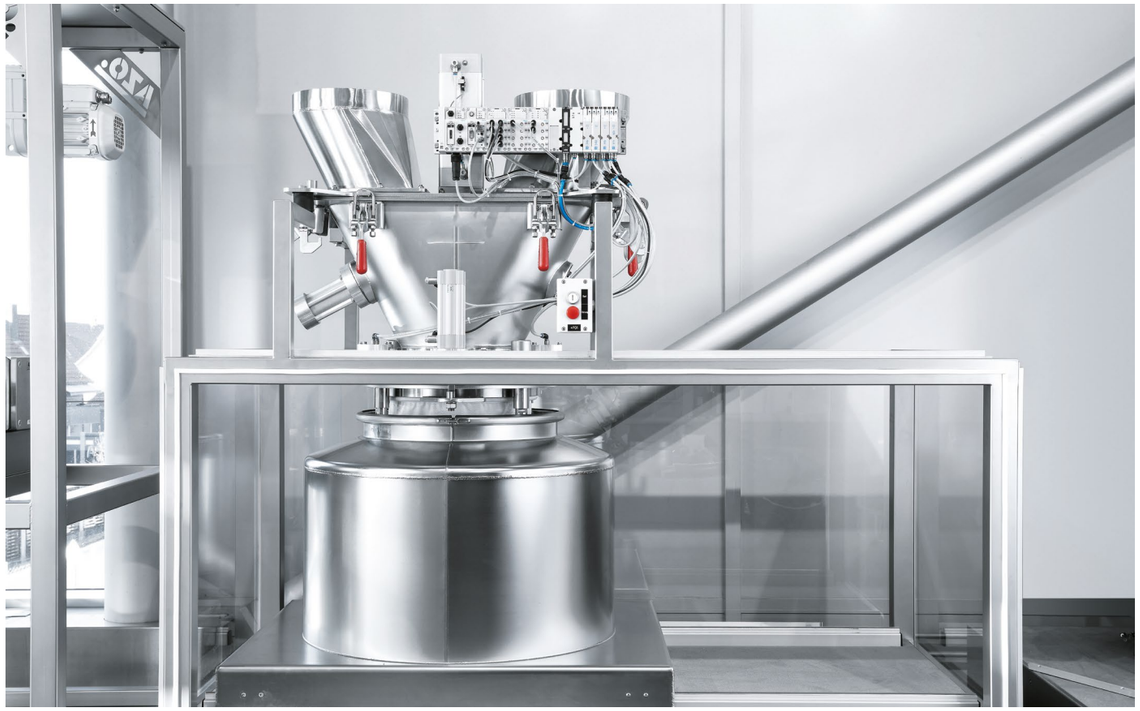
Web: www.m-seals.co.uk

Modular automation from Festo makes bulk handling more efficient



Machine builders and operators for bulk handling know all too well that bulk handling processes are anything but trivial – excellent bulk handling requires professionalism. Professional systems can be designed more efficiently and with higher quality using intelligent automation solutions from Festo.

OEMs and end users increasingly rely on modular production systems, which offer a flexible, individual and maintenance-friendly alternative to conventional systems. Incorporating conventional systems into monolithic automation solutions is often a time-consuming task.

However, a high degree of system modularity also requires new automation solutions – here Festo uses the principle of modular automation.

More flexibility through scalable systems
Automation solutions from Festo are particularly suitable for bulk handling systems in which a large number of different raw materials are stored and therefore a large number of filling stations have to be controlled.

While the entire system is usually controlled centrally by one process control system, modular systems can be scaled, expanded and adapted almost infinitely by simply integrating autonomous modules into the existing production system. This is where solutions from Festo can help.

Autonomous modules with their own intelligence
When it comes to modular automation, the electrical terminal CPX with integrated controller CEC and valve terminal MPA play a central role in the automation of production modules. This makes it possible to provide each system module with a decentralised controller, giving it its own intelligence.

The modules are thus autonomous and can easily be added to or removed from the overall system as required. There are already concrete applications for handling bulk materials, including filling systems with up to 60 filling stations.

Each filling station is equipped with its own decentralised controller and can thus be integrated more quickly into the overall system; this significantly reduces the risk of errors in the actual production process.

The process control system becomes leaner because only the initial commands for the modules are needed, and then all detailed processes are run directly via the decentralised CPX CECs. As a result, it is possible to create modules individually from stock and test them in advance; this improves the supply capability of the OEMs, accelerates commissioning and reduces the software complexity of the system.

The bottom line: thanks to modular automation from Festo, manufacturers and operators of bulk handling systems will not just be able to achieve massive cost savings, but they can also improve the productivity of their systems by using autonomous modules. The strict consideration and implementation of the NAMUR recommendation "*NE 148*" offers you additional peace of mind.

FESTO

Tel: 0800 626 422
Email: info_gb@festo.com
Web: www.festo.com/bulk

Lloyd's approved Bronze Foundry - one of many capabilities for DMI Young & Cunningham

DMI Young and Cunningham Limited, a business with a 93-year history located in Tyne and Wear offers the complete package

'We can offer a solution for <u>any</u> fluid control situation'

DMI Young and Cunningham manufacture, stock and distribute Valves and fluid control systems, in a wide range of orientations and materials. With our many years' experience we can offer a solution for **<u>any</u>** fluid control situation.

Our on-site Lloyd's approved foundry and machine shop has the capacity to cope with any bespoke arrangements or large quantities required.

As we design, cast, manufacture and fit on site we can assure quality throughout the process.

We offer specialist valve solutions such as our patented fire safe '*quick close*' valves, with a range of triggering mechanisms to suit, these are supplied, among other products, to a range of international customers including the MOD, for their Aircraft carriers and Type 45 vessels, and US and Canadian navies respectively.

Our valves don't end at the standard catalogue range, we have been designing solutions to new problems since the offset and are more than happy to help with your individual design requirements.

To compliment our range our bespoke valve chest catalogue has a range of options for ship builders, from replacement chests to suit previous arrangements to new builds where size and shape is a determining factor in the design, at Young and Cunningham we pride ourselves on being able to make valves to suit any arrangement and our valve chests are no different.

Alongside our significant marine capabilities, we can also offer a wide range of products through our specially selected partners.

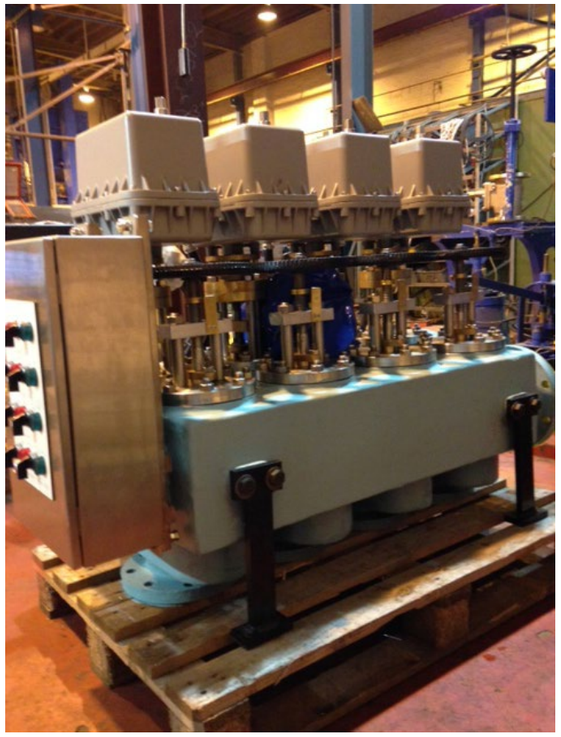
This allows us to offer complete valve & associated product packages to suit all industries & our customers specific needs.

We would like to take this opportunity to introduce and formally welcome Paul Demellweek to our Sales Team.

Paul was with HH Valves as their General Manager in Wigan and has a wealth of experience in supplying the Oil/Gas, Power Generation & Chemical industries both in the UK & around the World.

He is looking forward to receiving your calls and will respond rapidly to all enquiries.

Paul also welcomes any opportunity to re-establish contact with his many previous customers and industry colleagues



and assures them of the same efficient service that they are accustomed too.

Our team have combined experience spanning many years in supplying bespoke valve packages to a multitude of industries.

We welcome all enquiries you may have and pride ourselves on providing the complete solution to our customer's requirements.

'We welcome all enquiries and pride ourselves on providing the complete solution to our customer's requirements'

YOUNG AND CUNNINGHAM
VALVE MANUFACTURING

Tel: 0191 270 4690
Email: Paul.Demellweek@yandc.co.uk / sales@yandc.co.uk
Web: www.yandc.co.uk

Brooksbank Valves invest in the future

The valve industry is changing rapidly, modern commerce demands visibility and engagement through the digital world and Brooksbank Valves Ltd. are delighted to be engaging in this mode of connecting with our customers.

'Our brand new website is live!'

Our brand-new website is live! This marks the first phase of expansion for the digital side of our business. The site will be a medium used to share helpful information, industry news, company case studies, announcements, newsletters and testimonials, all created in-house by our marketing department.

A spokesperson for Brooksbank Valves commented "*As the industry is diversifying and becoming increasingly digital, we felt it was the right time to create a faster more user-friendly website, helping to prove to our customers we are at the forefront of innovation. Digital is an ever-increasing channel and we recognise the importance of participating and connecting with the greater world in a way our modern customers have come to expect.*"

Our new interactive site is faster and better equipped to handle modern web surfing by being fully mobile integrated, allowing our customers to browse with ease and "*on the go.*"

Visitors to the site will have easier access to our product ranges, like the new Triple Offset Butterfly Valve and be able to explore the options of manufacturing in exotic alloys with associated engineering standards.

We have also updated our ISO and PED certification, connected our social media profiles and our newest product brochure is now available to download. An in-depth section about our team and recruitment is close to completion.

We are very proud of our new website and would like to extend our thanks to our developers, Dataphiles in Otley, Yorkshire for their tireless work to get the new site up and running.

You can connect to Brooksbank Valves straight away through any device, why not give it a try, we would love your feedback!

Brooksbank Valves was established as an independent family-owned company in 1953, initially to supply the UK Navy with high-quality valves.

A specialist manufacturer of high specification valve solutions from Copper-based and Exotic Alloyed Materials. Used in all industrial and naturally corrosive applications and by those using oxygen in their processes.

Brooksbank Valves' reputation as a problem solver and a supplier of quality valves quickly grew and we were soon serving other industries around the world and we continue to operate on a global scale.

BROOKSBANK VALVES LTD

Tel: 01756 792 346
Email: sales@brooksbank.co.uk
Web: www.brooksbank.co.uk

Parker supports life science OEMs

‘Enabling faster development, improved life, reduced risk and greater value’

Parker Hannifin, the global leader in motion and control technologies, demonstrated its latest products and system solutions for OEMs to improve devices for surgery, patient monitoring, patient therapy, patient care, respiratory and anaesthesia and cardiovascular applications in the medical industry at this year’s Medical Technology Ireland.

Parker has been working with medical and analytical device OEMs for more than 30 years. The company’s proven solutions in fluid management, motion and fluid control give the medical industry flexible options and access to a broad product offering in an increasingly competitive environment.

Parker’s range of multi-technology systems, integrated subsystems, and components meet and exceed the required specifications and desired expectations while helping to reduce technical risk, lower development cost, and speed time to market.

Amongst the many exhibits featured at Medical Technology Ireland were Parker’s miniature fluidics range of pumps and valves. Parker Hannifin is a leading supplier of miniature fluidic components and system solutions integral to global medical and analytical instrumentation.

In addition, the HLR070 high load rodless linear actuator were on display. The HLR070 is a belt-driven linear guideway equipped actuator offering high load capacity in a small form factor and with high dynamics of up to 5m/s and 50 m/s2. The HLR is optimised to ease the building of multi-axis systems.

Parker’s Rectus coupling product range, which provides outstanding performance in medical devices and biochemistry, were also on display.

The POM, PVDF and PSU medical grade resins and the metals used to build Rectus couplings are cytotoxically harmless and guarantee low wear, the greatest breaking strength, and excellent antifriction properties. Additionally, these materials have high creep resistance and dimensional stability, which enhance the system reliability.

HLR070 is a belt-driven / linear guideway equipped rodless linear actuator

Tel: 01926 317 878
Email: msozanska@parker.com
Web: www.parker.com/uk

TIME FOR A CATCH UP

You know how it is,

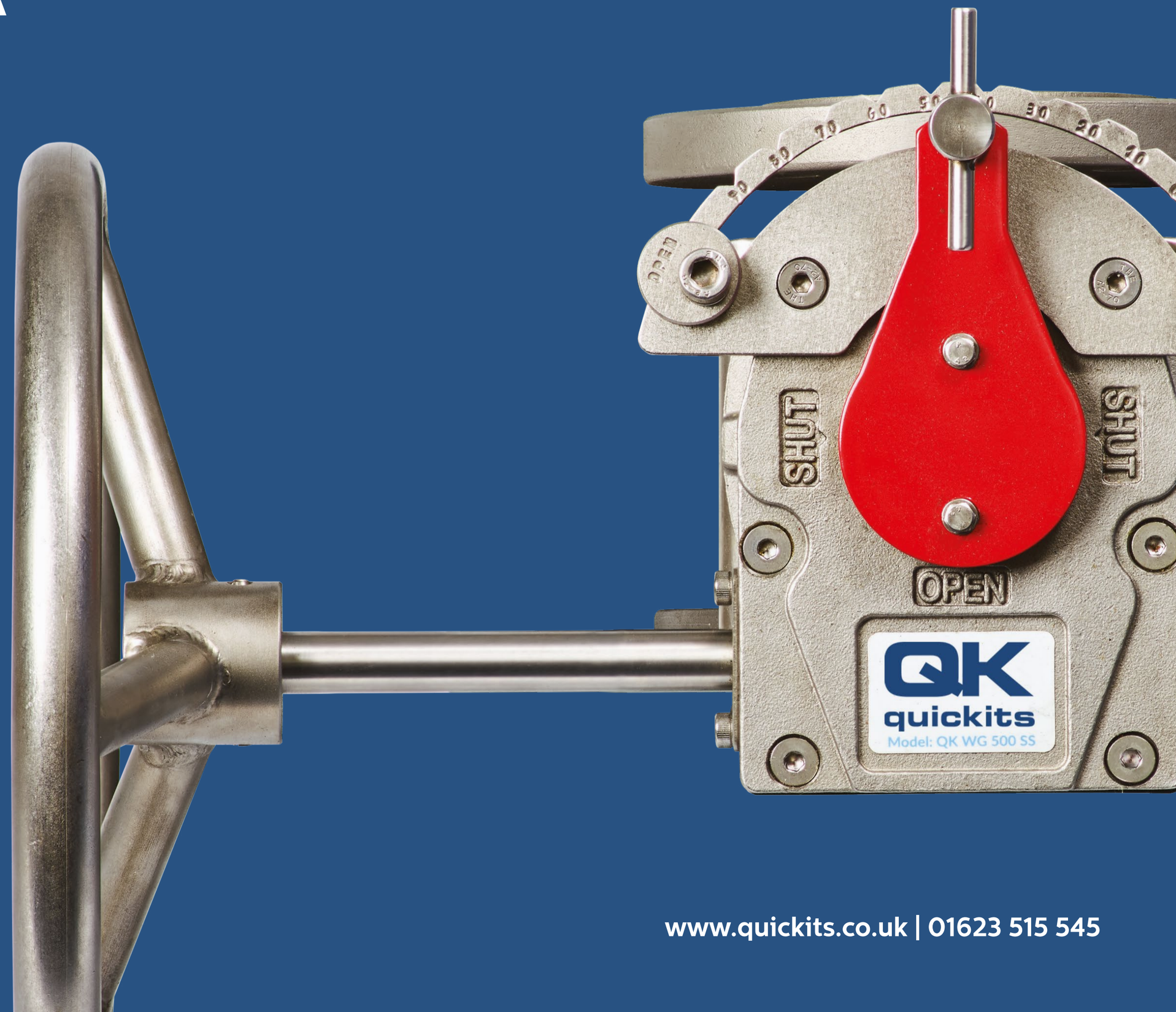
nose to the grindstone looking after loyal customers, growing as they grow, adding products and services to meet their demands.

Then one day you look up, to find staff numbers have grown exponentially, services and products are still being added to the offering...

...and you think it might be a good idea to tell everyone about everything else you do.

So hello, again.

If you have worked with QK before, take another look – if you haven't, it might be about time you did!



QK quickits

www.quickits.co.uk | 01623 515 545

NEW MEMBER

Introducing TÜV SÜD National Engineering Laboratory

©McAteer Photography

'At the forefront of flow measurement technology for over 60 years'

TÜV SÜD National Engineering Laboratory has been at the forefront of flow measurement technology for over 60 years.

A world-leading authority on flow measurement, on behalf of the Government's Department for Business, Energy and Industrial Strategy (BEIS), it is the UK's Designated Institute for flow and density measurement, as part of the wider National Measurement System.

This means the company is home to the UK's physical primary standards for flow and density measurement, which are developed and maintained at its East Kilbride base.

In addition to flow measurement, the company's experience of valve testing is unparalleled. The laboratory has a long history of supplying manufacturers and valve end-users with independent and accurate test data.

Each year over 1,200 flow tests are performed in the custom-built and fully independent test facility, including tests for a variety of valve types, such as choke valves, used for oil and gas wellhead applications; check valves; globe valves; gate valves; and butterfly valves to name a few.

Designed and built with flexibility in mind, the laboratory's test rigs can accommodate most valve types and sizes over a wide range of operating conditions.

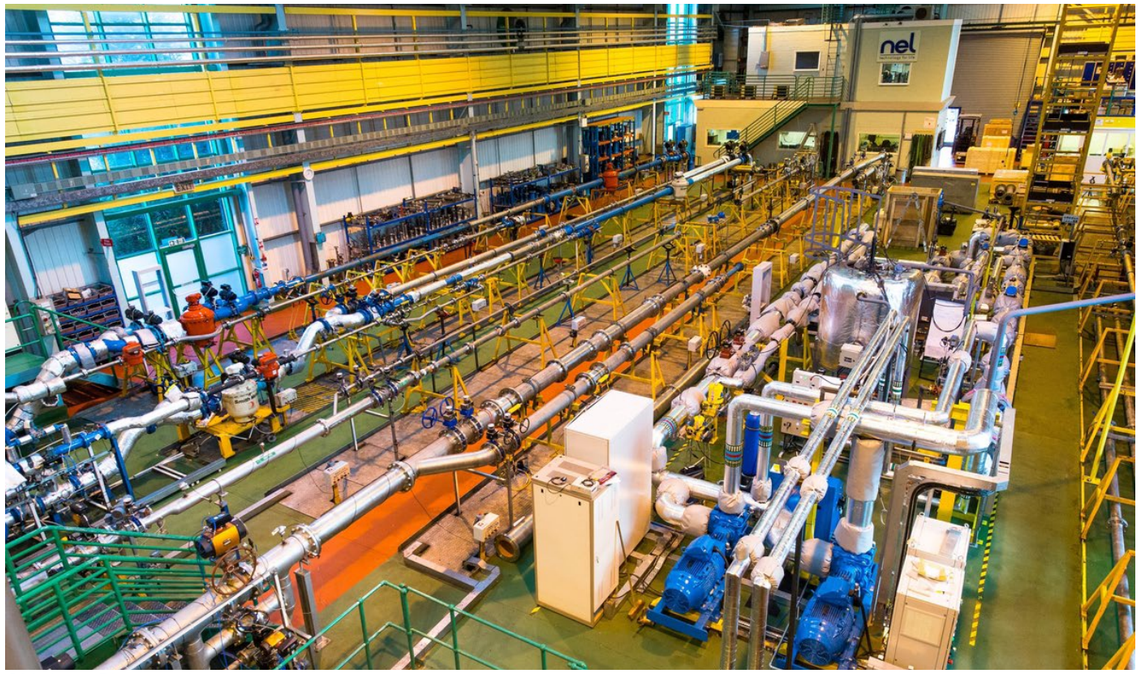
Valve performance testing and development work can be undertaken within the facilities using a range of fluids including water, oil, gas, multiphase or abrasive fluids to both national and international standards.

Test programmes can also be developed and adapted to suit any application or user requirements, including flow coefficient (Cv), pressure drop and liquid pressure recovery factor (Fl) testing.

Valve failure investigation and consultancy support services are also areas of expertise.

In addition to physical flow testing of valves, TÜV SÜD National Engineering Laboratory also has an in-house Computational Fluid Dynamics (CFD) team who have extensive experience of using CFD to simulate complex valve test and performance scenarios, which would otherwise be difficult or dangerous to physically test.

Some examples include predicting the wear-life of valves used in abrasive or sandy conditions, prediction of flashing and cavitation within valves at elevated pressures and temperatures and determining the effect of complex flow profiles on valve performance.



©McAteer Photography

TÜV SÜD National Engineering Laboratory can also offer both CFD and physical testing as a combined package.

Physical test data provides a baseline to validate CFD modelling, which can then be used as a powerful design optimisation tool for valves and other components.

For more information on how TÜV SÜD National Engineering Laboratory can help with your valve flow testing needs, contact Carl Wordsworth carl.wordsworth@tuv-sud.co.uk.

TÜV SÜD
National Engineering Laboratory

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Web: www.tuv-sud.co.uk/nel

BS EN ISO 16136:2006+A1:2019 Industrial valves - Butterfly valves of thermoplastics materials. Amended standard published

TECHNICAL HOT SPOT

What is it?: This International Standard specifies requirements for the design, functional characteristics and manufacture of butterfly valves made of thermoplastics materials intended for isolating and control service, their connection to the pipe system, the body materials and their pressure/temperature rating between −40 °C and +120 °C, for a lifetime of 25 years, and also specifies their tests.

Why is it important?: The main changes compared to the previous edition are as follows:

— the referenced standards have been updated;

— The valve body and bonnet/cover materials shall be selected from ISO 15493 or ISO 15494 or ISO 10931;

— For each valve body material, the design strength shall conform to ISO 9393-2;

— The seat and packing/shell leak tightness shall be verified on all complete valves through seat and packing tests carried out in accordance with the requirements of ISO 9393-2.

— The lever and hand-wheel rim forces to open and fully close the valve shall not exceed the values given for the operating manual force F in EN 12570.

— The body and bonnet/cover raw materials and the long-term behaviour of the complete valve shall be tested in accordance with ISO 1167-1.

Supersedes: This is an amended standard, which supersedes BS EN ISO 16136:2006, which is withdrawn.

Emerson's new easy-to-deploy Monitoring Accelerates Asset Digitalisation

The AMS Asset Monitor's small form factor and Ethernet connectivity make it easy to add on to existing assets to deliver continuous asset data and analytics

AMS Asset Monitor increases visibility and adds predictive analytics to essential assets

Emerson has introduced the AMS Asset Monitor edge analytics device, which digitalises essential asset data and analytics for better operations performance and improved decision-making. AMS Asset Monitor provides actionable insights into essential assets that were previously monitored only with infrequent assessments. The new edge analytics device will connect with Emerson's Plantweb™ Optics asset performance platform to provide key operations personnel with instant asset health details for operations and maintenance decision-making.

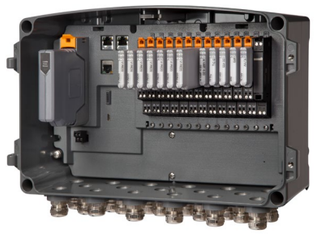
Plants typically monitor the condition of essential assets such as pumps, fans, and heat exchangers only every 30 to 60 days. The longer the gap, the more likely that a defect goes undetected and results in an unexpected failure with significant impact on production, product quality, and plant efficiency.

The new AMS Asset Monitor combines easy deployment, embedded logic-based analytics, and intuitive health scoring to make it easier for organisations to monitor and maintain essential assets. For instance, AMS Asset Monitor's analytics and visualisation can help plant personnel effectively plan maintenance during scheduled shutdowns and turnarounds, and reduce or eliminate unplanned downtime.Unlike typical analytics devices that send data to a historian or the cloud to be processed later, AMS Asset Monitor provides analytics at the edge, performing calculations at the device. This device-centred analytics capability reduces the time, complication, and expense of adding analytics to a plant's assets.

Each device collects data continuously and uses embedded logic to identify and diagnose common reliability issues. Individual issues such as imbalance, misalignment, bearing faults, lubrication issues, or fouling are consolidated into an overall asset health score. AMS Asset Monitor then communicates these health scores via a web browser or – when integrated with Plantweb Optics – through real-time persona-based alerts on mobile devices.

Plantweb Optics also enables enterprise-wide visibility and expands edge analytics and digital intelligence throughout the organisation, keeping personnel aware of essential asset health.

"Plants are always looking for more ways to improve profitability by increasing productivity. Just a percentage point or two in availability can equal millions of dollars per year or more," said John Turner, product manager for online prediction, Emerson. *"The AMS Asset Monitor enables personnel across the plant to see the current health of essential assets along with suggested actions to improve asset health. This allows them to make informed decisions to maintain reliability, increase uptime and maximise productivity."* The AMS Asset Monitor's small footprint, along with wired or wireless Ethernet connectivity, makes it simple to install. The edge device can support new applications by simply adding new logic-based analytics.



AMS Asset Monitor provides flexible, scalable reliability monitoring with edge analytics, enabling plants to more easily adopt predictive maintenance to avoid operations disruption and maximise production time

EMERSON

Tel: 0870 240 1978
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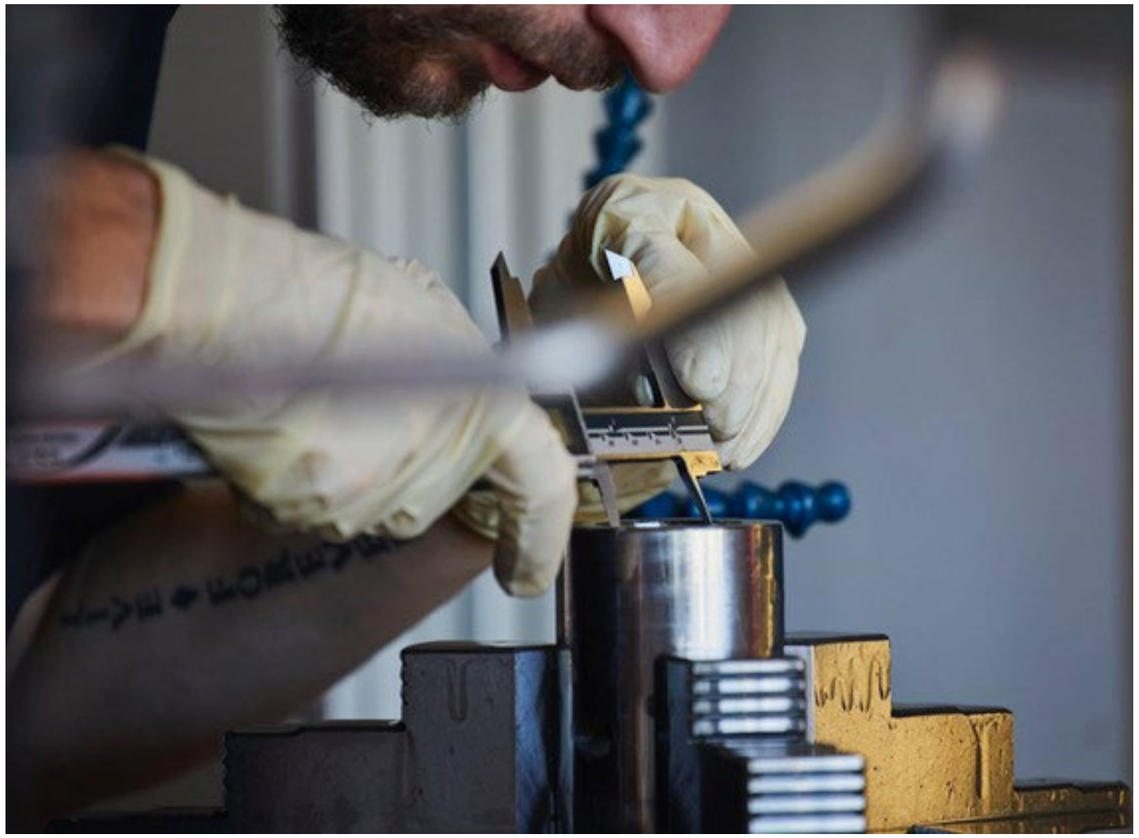
Web: www.emerson.com/ams

The QK Group - Time for a catch up



You may know them for their famously robust Valve Mounting Kits, maybe their specially manufactured custom brackets – but did you know this…

Rob Smith had already risen to Operations Director at Rotork VK, whereupon he decided he should set up his own business – a move that meant he could concentrate on the quality and service he felt customers deserved.

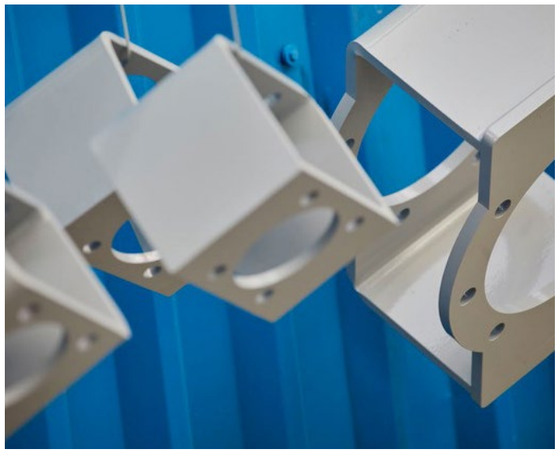
Since then Rob can look back, not only on an impressive 30% year on year growth rate, but on highlights such as moving to the current premises in 2008 - providing the room needed to handle a planned expansion - adding half a dozen companies to the group and housing the overspill of staff into four more adjoining factory and office spaces.

In 2014 Rob bought out his original partner and forged an ambitious new strategy to bring as much as possible under one roof.

QK Group have since added the latest optimum quality Laser Cutting and Forming machinery, designed QK's own highly successful Spring Return Handle and grown a substantial off the shelf product portfolio.

Most recently the company has completed the build and commissioning of a new factory on the same site; offering Powder Coating of any component QK manufacture and offering a professional finishing service to other manufacturers.

Half of Rob's three decades in Engineering will have been spent building The Quickits Group – as Quickits Ltd (QK), reaches it's fifteenth anniversary in January 2020 - and even after all that,



Rob still doesn't think enough Process Industry companies are taking full advantage of everything QK has to offer.

So - time to catch up!

QK Manufacture to your specification using 3D Solid Works design software – so you can see a full view of all components before manufacturing begins.

An ISO 9001:2015 approved supplier - QK offer state of the art CNC 4 axis machining with 3 dimensional computerised measuring, in house certified welding, Laser cutting and forming - all now complemented by that brand new Powder Coating facility – giving high quality durable protection to any component, in virtually any colour preferred - all on the same site!

QK Supply off the shelf products, via a standard product range catalogue, or new online store - all items held in stock and available on 24 / 48 hour delivery.

Rob and the team at QK have been busy doing more, making more, innovating more and carrying more – so you can do more – more quickly.

Quickits - Maybe it's time for you to check them out?

QK group

Tel: 01623 515 545
Email: enquiries@quickits-online.co.uk
Web: www.quickits-online.co.uk

LESS THAN A YEAR TO

FLUID POWER & SYSTEMS 2020

The Exhibition for Hydraulics & Pneumatics Industries

The UK's leading Fluid Power & Systems exhibition

The UK's LARGEST manufacturing event to date!

co-located with MACH 20-24 April NEC Birmingham UK 2020

in association with BFPA BVAA

> The exhibition was a huge success. We have gained a lot of new potential customers and have already benefited from new orders generated from the exhibition. We will definitely be returning to the next Fluid Power & Systems exhibition in 2020. *Mick Emery, MCS Hydraulics UK*

> Fluid Power & Systems remains the show to be at. It allows you to meet with new and existing customers, showcase current and new products and to see first-hand how the industry is evolving. We had a very successful show and look forward to Fluid Power & Systems 2020. *Adrian Crawley, Allswage UK*

> It is our show, it's the show we should be in. *Bob Hitner, SMC Pneumatics*

BOOK NOW!

Contact the team to secure your stand:

Ryan Fuller	+44 (0) 1732 370344	ryan.fuller@dfamedia.co.uk
Andrew Jell	+44 (0) 1732 370347	andrew.jell@dfamedia.co.uk

FLUID POWER & SYSTEMS 2020 The Exhibition for Hydraulics & Pneumatics Industries

21-23 APRIL 2020
HALLS 9, 10 & 11
NEC BIRMINGHAM

www.fluidpowersystems-expo.com bit.ly/FluidPowerSystems @fluidexpo

Extensive applications for PFA lined Butterfly Valves

GEMÜ 490 series lined metal Butterfly Valves are available with moulded PFA or TFM™ body liners. These linings are achieved using the latest plastic injection moulding machines to form a precise lining locked to the valve body.

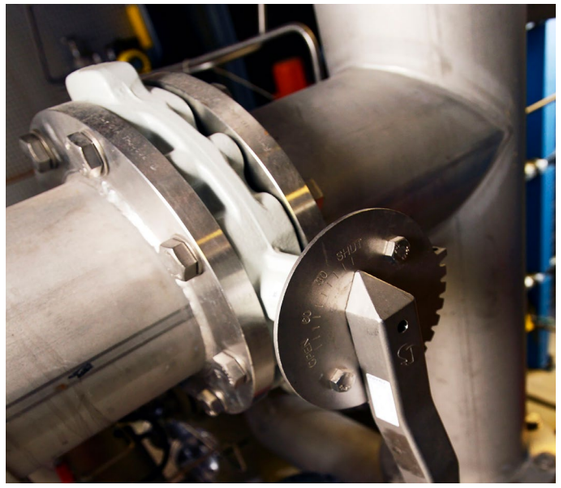
This is particularly useful where corrosive liquids and vapours are being handled such as effluent, sludge or corrosive chemicals and is integral to the valve's corrosion resistance.

The thermoplastic liners are also chemically inert, essential where high purity media is handled, for example in pharmaceutical and semiconductor high purity water applications. The applications for the GEMÜ 490 series are extensive.

GEMÜ in Wastewater Treatment Plant

In a successful corrosive media handling application, a wastewater treatment plant using incineration to convert sludge into energy opted for the GEMÜ 490 to be employed in the sludge drying step, assuring the safety and reliability of the sludge conversion processes.

GEMU 490 in sludge recycling process



GEMÜ 497 - Manual operated valve

In the case of plant faults causing the system to reach very high temperatures in excess of 100°C, the valves will also not be damaged as the PTFE liners are sufficiently resistant to very high operating temperatures up to 200°C.

Valves used in the sludge drying processes not only need to withstand high operating temperatures. The body and seal materials must also be highly resistant to the substances contained in the media vapour. Depending on the chemical composition of the sludge, the impurities in the vapour may vary and exhibit a range of corrosive properties.

A motorized actuated Butterfly Valve with fail safe function is installed near the dryer for optimum safety, as in the event of a power failure, this butterfly valve opens automatically. In such a case, steam pressure build-up due to residual heat will be released, avoiding damage to equipment and pipelines.

As a result of employing the GEMÜ 490 in the sludge recycling process, the plant had optimized the vapour condensation and is now able to process higher quantities of sludge. This optimizes both the safety of the system in the event of faults and the recovery of the heat. It has also allowed the plant to achieve their aim of minimizing unpleasant smells.

Butterfly Valves in a Hot Sterilised Water System

The GEMÜ 490 lined Butterfly Valves are also suitable for API pharmaceuticals applications. The sterilisation of liquids plays a large role in pharmaceutical and biotechnological production.

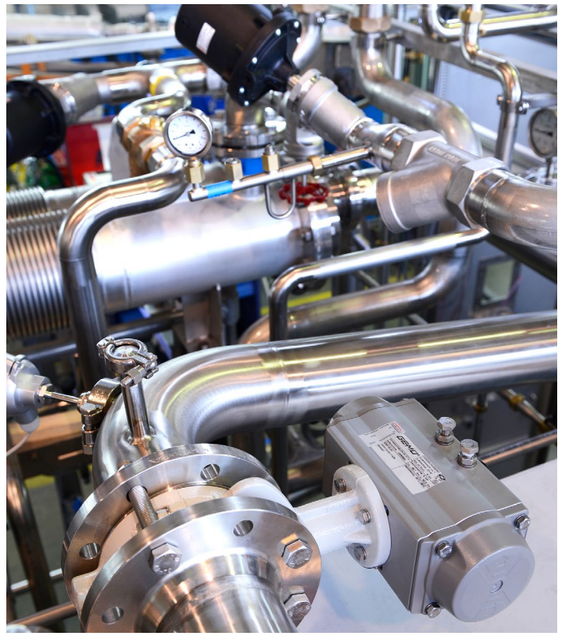
'The GEMÜ 490 lined Butterfly Valves are also suitable for API pharmaceuticals applications'

This is just as important in research and development and in the production of sterile goods as it is in handling parenteral solutions for hospital pharmacies.

The hot water sterilisation system enables liquids in closed receptacles made of glass or other temperature resistant materials (such as ampoules) to be sterilised quickly, reliably and gently. The advantage of the hot water sterilisation system lies in its very short cycle times, which are achieved through a high circulation rate and flow density in combination with short heating up and cooling down times.

Process

The chamber containing the item to be sterilised is filled to a pre-defined level (below the item being sterilised) with deionized sterile water.



GEMU 490 butterfly valves in the supply line

This water then circulates through a steam-heated heat exchanger and is poured over the item being sterilised at a continuously rising temperature.

This enables the item to be heated up in a quick and gentle way. In the subsequent cooling phase, the sterilised water flows through the now water-cooled heat exchanger and cools the item being sterilised down to a specific temperature.

Pneumatically actuated GEMÜ 554 globe valves control the filling of the sterilisation chamber with water and the way in which the heat exchanger is heated by steam and cooled using water.

By contrast, GEMÜ 490 butterfly valves are used in the circulation line, as these have significantly more compact installation dimensions yet very high flow rates in comparison with pneumatically operated angle seat globe valves of the same nominal diameter.

Furthermore, to meet these stringent requirements, they are fitted with highly resistant TFM™ and FDA-approved silicone as a sealing material.

GEMÜ

Tel: 01925 824044
Email: sales@gemu.co.uk
Web: www.gemu.co.uk

Bonomi UK investment pays dividends

The purpose-designed Bonomi UK storage and actuation facility

The investment made by Bonomi (UK) Ltd 18 months ago in a new purpose-designed 360m^2 storage and actuation facility is thriving, with the company experiencing a significant increase in actuated valve sales.

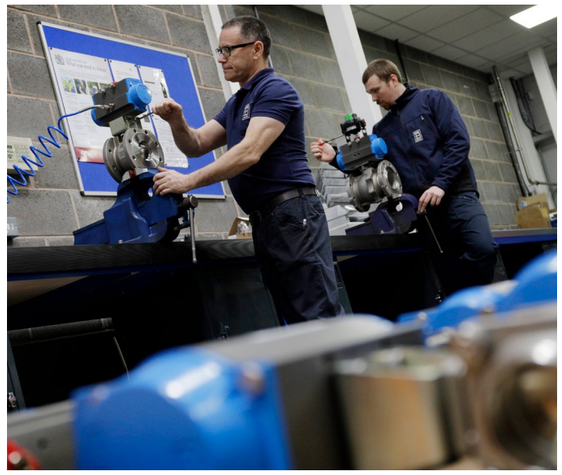
The valve and actuator specialist's decision to expand, came in response to a rise in demand for its actuated valve service. This in turn prompted a requirement for additional warehousing capacity, enabling Bonomi to maintain the rapid delivery service for which it is renowned.

The extra capacity provided by the expansion, combined with space vacated at The Fluid Power Centre where the majority of Bonomi's stock was previously held, is also providing peace of mind for customers in the current market, by allowing the company to maintain a 30% greater stock holding as part of its pre-Brexit preparations.

'additional space has enabled a broader range of products to be stocked in the UK'

The additional space has also enabled a broader range of products to be stocked in the UK, including Oil & Gas Valves from Bonomi's Valpres division, as well as products from other suppliers that complement its existing ranges.

The increased stock handling capacity is further enhanced by Bonomi's wide ranging and knowledgeable UK based technical support.

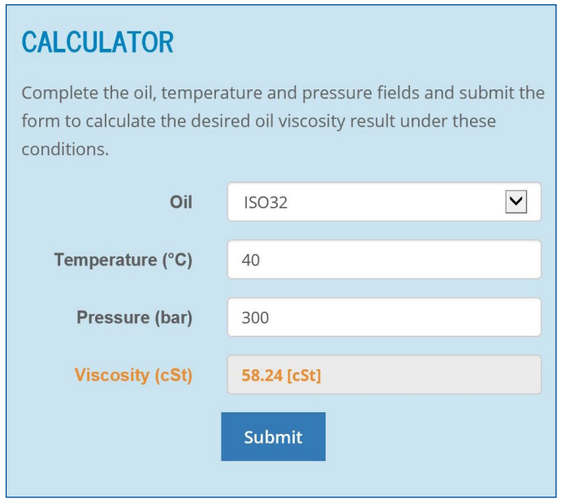


Bonomi UK's actuated valve service in action

BONOMI GROUP

Tel: 024 7635 4535
Email: sales@bonomi.co.uk
Web: www.bonomi.co.uk

Webtec launches new app which calculates hydraulic oil viscosity at different operating pressures



This free-of-charge Webtec app is the companies' '*light*' version. More detailed results, including graphs (some in 3D), can be accessed by logging in (existing users) or registering (new users).

Registration takes just seconds and only requires name, company and email address.

Importantly, the graphs can be saved for use in the users own reports. The new web app for hydraulic oil viscosity calculation can be found at https://en.webtec.com/Calculator.aspx

WEBTEC

Tel: 01480 397 400
Email: sales-uk@webtec.com
Web: www.webtec.com

'Free-of-charge web app now online'

Webtec has launched a new on-line hydraulic oil viscosity calculator app which calculates the viscosity of hydraulic oil at different pressures.

Hydraulic fluid suppliers provide oils with different viscosities.

These oils are most-often badged in terms of their ISO number or grade, where common grades for hydraulic circuits include ISO 32, 46 and 68.

Using Webtec's app, engineers simply select the oil being used, along with the system temperature (°C) and pressure (bar), hit the '*submit*' button and up pops the viscosity (cSt).

To see the effects on viscosity of fluctuations in temperature or pressure, the user simply alters the values in these fields accordingly, making hydraulic measurement and control easy to achieve.

'Using Webtec's app, engineers simply select the oil being used, along with the system temperature (°C) and pressure (bar), hit the 'submit' button and up pops the viscosity (cSt).'

NEW MEMBER

Optimising check valve design through independent flow testing at UK National Flow Measurement Facilities

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'TÜV SÜD National Engineering Laboratory was a stand-out choice for Abacus Valves to engage with for flow measurement.'

Challenge

Check valves, or non-return valves, are a vital component of most process industries around the world.

For any valve manufacturer, it is important that they can effectively characterise the performance of their products, as end-users will ultimately use this information when selecting a valve for a specific process requirement.

One of the best ways of determining the performance characteristics of a valve is through independent flow testing.

It not only provides useful information on the pressure drop characteristics of a specific design, it can also be used to validate other important check valve parameters such as cracking pressure and critical velocity.

Abacus Valves, a UK engineering company with over 25 years' experience in the design and manufacture of industry approved check valves, required independent pressure drop flow testing on one of their prototype nozzle check valve designs.

As the home of the UK National Standards for Flow Measurement, TÜV SÜD National Engineering Laboratory were enlisted to determine the pressure drop characteristics of their prototype design, which would validate their design calculations and provide independent benchmark data for future Computational Fluid Dynamics (CFD) simulations.

How did TÜV SÜD National Engineering Laboratory Help?

To facilitate this, testing of the nozzle check valve was performed at our UKAS-accredited Water Flow Laboratory [Laboratory No. 0009], which forms part of the UK National Flow Measurement Facilities.

The test installation was set up in accordance with Control Valve Capacity Test Procedure ANSI/ISA 75.02.01, the industry standard procedure for capacity testing control valves.

The check valve was tested at several flow velocities as specified by Abacus Valves, and the differential pressure, flowrate, downstream pressure and temperature were recorded at each velocity using our proprietary data acquisition system.

The Flow Coefficient (Cv), which describes the relationship between pressure drop and flowrate through the valve was then calculated for each test condition.

Additional straight pipe pressure drop measurements (equal to the valve installation length) were also recorded simultaneously during the Cv testing.

This enabled the pressure drop chargeable to the valve body alone to be determined, and a Loss Coefficient (K) to be calculated as per the Crane Flow Test Procedure.

Both Cv and K coefficients are important parameters when it comes to valve selection.

Impact

Upon completion of testing, TÜV SÜD National Engineering Laboratory supplied Abacus Valves with independent and traceable flow test data, providing a valuable benchmark for the design and development of their axial nozzle check valve range.

Scott Cook, Managing Director of Abacus Valves commented:-

"*TÜV SÜD National Engineering Laboratory was a stand-out choice for Abacus Valves to engage with for flow measurement on our axial non-slam check valve range.*

The gravity of the organisation's name in the UK engineering sector and their wealth of knowledge ensured that the essential laboratory work required to accompany our own in-house CFD and design methodology would be conducted with proven expertise.

The development of the product range now equates to the axial non-slam nozzle check valve contributing to approximately 25% of the company's annual turnover."

Valve flow testing can not only validate CFD modelling or existing design data, it can also highlight any potential areas of enhancement or improvement for a design for the manufacturers, and ultimately increase the confidence of end users in the product going forward.

National Engineering Laboratory

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BS EN ISO 16135:2006+A1:2019 Industrial valves — Ball valves of thermoplastics materials. Amended standard published

TECHNICAL HOT SPOT

What is it?: This International Standard specifies requirements for the design, functional characteristics and manufacture of ball valves made of thermoplastics materials intended for isolating service, for control service, and to divert/mix fluids, their connection to the pipe system, the body materials and their pressure/temperature rating between −40 °C and +120 °C, for a lifetime of 25 years, and also specifies their tests.

Why is it important?: The main changes compared to the previous edition are as follows:

— the referenced standards have been updated;

— The valve body and bonnet/cover materials shall be selected from ISO 15493 or ISO 15494 or ISO 10931;

— For each valve body material, the design strength shall conform to ISO 9393-2;

— The seat and packing/shell leak tightness shall be verified on all complete valves through seat and packing tests carried out in accordance with the requirements of ISO 9393-2.

— The lever and hand-wheel rim forces to open and fully close the valve shall not exceed the values given for the operating manual force F in EN 12570.

— The body and bonnet/cover raw materials and the long-term behaviour of the complete valve shall be tested in accordance with ISO 1167-1.

Supersedes: This is an amended standard, which supersedes BS EN ISO 16135:2006, which is withdrawn.

Score welcomes growing valve industry apprentice numbers

Score's 2019 intake of Mechanical Engineering apprentices

A Modern Apprenticeship is a fantastic opportunity for anyone looking to earn and gain work experience at the same time as progressing through formal qualifications – building a solid foundation for a career in the Valve/Engineering industry.

At the same time the recruitment of trainees is a strong investment for companies that offer guaranteed employment and career progression, retaining the skill and knowledge of those whom they have trained.

Score Group plc recently welcomed its newest apprentice intake to companies based at their Peterhead headquarters and at locations throughout the UK. The company also offers an increasing number of apprenticeship places at locations including Norway, Trinidad, Canada and Australia.

The company offers apprenticeships in a variety of disciplines including business support services but the majority of trainees go on to work in valve technician or engineering-based roles.

This summer alone saw 35 engineering apprentices embark on their training, with an average of 60 new starts beginning apprenticeships in engineering each year.

With the oil and gas industry on the up, apprentice intake numbers in Peterhead are steadily increasing year after year and it's expected that Score locations throughout the world will follow suit.

Score's summer intake will now spend their first year building the basic skills required to develop a career in the engineering industry, with the Peterhead intake being based at Peterhead Engineering Development Limited (PEDL), working towards the PEO (Performing Engineering Operations) Level 2 qualification. Following a year at the training centre, the apprentices will begin working within a Score company, continuing their studies as they work.

Generally, apprentices work on a rotation, allowing them to gain experience in a variety of disciplines before agreeing which department they will settle in.

The majority of the trainees then spend the rest of their apprenticeship specialising in valve maintenance and repair.

Score offers its apprentices a job for life, having trained over 1000 young men and women in the 30 plus years that the programme has been running.

'Trained over 1000 young men and women'

Today, hundreds of those who started as apprentices continue to work within the Score Group of companies.

With a multitude of career progression paths available to Score employees, apprentices have travelled the world to work at both onshore locations and offshore platforms in countries including Canada, Australia and the Middle East; climbing the career ladder and going on to become team leaders, managers and directors within the Group of Companies.

Amongst the companies first trainees, who started their apprenticeship in the late 1980's, are Conrad Ritchie, who has many responsibilities within the organisation as Managing Director of Score International and Chairman of Score Training; Robert Murdoch, President of Score Valve Services in Houston, Texas; and Nelson Ritchie, Managing Director and CEO of Score Group plc.

Score Group plc is looking forward to a bright future, assisted largely by home-grown talent.

The company's long-term vision is to continue to train and retain skilled valve technicians and engineers, playing its own vital part in strengthening the future of the industry as a whole.

Providing valve supply, maintenance and repair services to the oil and gas, nuclear, marine and petrochemical industries, Score's technicians operate worldwide.

Their unrelenting focus on quality and the provision of Intelligent Valve Solutions™ ensures Score a place as a market leader in its chosen fields of operation.

Conrad Ritchie, Managing Director of Score International (left) with Robert Murdoch, President of Score Valve Services (right) on a recent visit to Houston

'Providing valve supply, maintenance and repair services to the oil and gas, nuclear, marine and petrochemical industries, Score's technicians operate worldwide'

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Making public health a priority

Thermostatic Balancing Valve

Keeping up with the flow of regulations that occur in the water industry is challenging and keeping abreast of amendments and legal revisions can be a full time job.

Increased knowledge as to the exact causes of dangerous bacteria such as Legionella Pneumophila, and the availability of products to prevent it, means there is no excuse for not introducing the appropriate safeguards.

The importance of supplying '*fit-for-purpose*' products for building services applications and especially for hot and cold water systems that can affect public health has never been greater.

David Keys, Managing Director, at Albion Valves (UK) Ltd explains why.

Laws - old and new

It is fairly common knowledge that the Water Supply (Water Fittings) Regulations and Scottish byelaws are national requirements governing the design, installation, operation and maintenance of plumbing systems, water fittings and appliances that use water.

They are designed to legally protect public health and promote the efficient use of water.

It is however, a less well known fact that many UK water companies, in conjunction with WRAS, have released amendments in relation to installation requirements under the Water Supply (Water Fittings) Regulations 1999 in England and Wales, which now means that the water appliances that we all use every day may need an additional double check valve to be installed at the point of connection between the water supply and the appliance.

Double check valves protect the water supply from the risk of backflow and back siphonage in domestic homes and commercial buildings, ultimately preventing potential contaminants getting into other parts of the system, especially drinking water.

Dan Littlewood, Senior Water Regulations Technician at Severn Trent Water comments "*The presence of double check valves is a legal requirement in many domestic and non-domestic plumbing arrangements, as is the requirement for all fittings installed in such systems to be of an appropriate quality and standard and be suitable for the circumstances in which they are used.*

The quality made, compliant valves in this range present peace of mind in regards to the prevention of backflow whilst also meeting all regulatory requirements for a water fitting."

Another area of concern is the spread of Legionnaires Disease which can easily colonise in hot and cold water systems and prove fatal to those that come into contact with it.

Recent statistics show that as many as 10% of reported cases result in fatalities.

The optimum legionella bacteria multiplication temperature is between 32°C and 42°C.

HSE L8 requires the temperature of domestic hot-water systems to be maintained above 50-60°C.

It also advises that stored hot water is not below 60°C, with a recommended distribution temperature of no less than 50°C, and 55°C in healthcare premises, within one minute of running an outlet.

Thermal Balancing Valves are designed for use in circulating hot water systems, by design it provides thermostatically controlled regulation of flow and thermal disinfection, assisting with protection against Legionella.

Once the water temperature rises to its set point, the thermal balancing valve will restrict the flow in order to maintain a constant temperature and limit the flow in circulation pipes to a minimum required level.

Temperatures in excess of approximately 44°C may result in burns to the skin, so a conflict exists between storing hot water at 60°C and the risk of scalding.

As a result, hot-water temperatures need to be controlled via thermostatic control devices – such as Thermal Mixing Valves (TMV).

TMV's are available in 2in1 and 4in1 combinations and are designed to blend hot water which is commonly stored at temperatures high enough to kill bacteria with cold water at the point of discharge, this will ensure a constant, safe outlet temperature preventing scalding.

Pressure Reducing Valves protect the whole installation from problems due to excess pressure, such as pipe noise, water hammer and excess wear of other equipment.

Pressure Reducing Valves are designed to control and maintain a regulated and constant water pressure.

Thermostatic Mixing Valve

Furthermore, less pressure means less water used, and therefore less energy consumed, which in turn improves the efficiency of the building.

Regulations

UK water regulations classify the range of domestic and non-domestic uses of water into five fluid categories.

These categories are graded from 1 to 5; from the cleanest potable water rated number 1 to water classed as posing a serious health hazard graded as a 5.

The range of public health valves at Albion have been designed to be fully compliant with the increasingly stringent water regulations and manufactured to the same exacting standards expected from us as a company.

'The range of public health valves at Albion have been designed to be fully compliant with the increasingly stringent water regulations'

All of the valves in this range are WRAS approved providing engineers and installers with the peace of mind that they are complying with the latest regulations.

The public health valve range from Albion includes:-

- *Double Check Valves (ART 36, 37 and 236),*
- *Pressure Reducing Valves (ART 670F and 670M),*
- *Thermal Balancing Valve (ART 31)*
- *Thermostatic Mixing Valves (ART 33 and 33SV).*

For more information please email sales@albionvalvesuk.com

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New independent testing confirms Hardide-A coating improves fatigue life

New independent testing has proven that Hardide-A tungsten carbide/tungsten metal matrix composite coating improves the fatigue life of metal components by 4.5% when compared to uncoated substrates.

Hardide-A also eliminates the need for costly secondary shot peening making the coating a significant advancement in materials optimisation for the aerospace and other industries where fatigue debit of surface coated metals is a problem.

The tests were conducted by Westmoreland Mechanical Testing and Research Ltd (WMTR), a leading aerospace qualified testing laboratory in the UK and USA.

WMTR used the Rotating Bend Fatigue test method complying to BS ISO 1143:2010. This test is considered to be the most sensitive to the effects of surface treatment on fatigue properties. Samples of S99 steel were coated with Hardide-A to a thickness of 63-70 microns and hardness of ~950 Vickers, which are mid-value thickness and hardness properties for this coating type. The test was discontinued after 15 million cycles.

Traditionally, the fatigue debit after hard coatings such as hard chrome plating (HCP) and HVOF coatings have been applied can be as much as 60% and only following shot peening of the coated surface can this be reduced to around a 20% debit.

The Hardide-A coating recorded a fatigue life increase of +4.5% after coating without any need for shot peening. The Wöhler S-N curve for the coated samples is clearly positioned above the uncoated control samples' curve by ~40 MPa throughout the whole range of the N cycles to failure.

Fatigue debit of surface-coated metals has been a long-standing problem for the aerospace industry - Hardide-A was developed specifically to meet the needs of the sector. This environmentally compliant and technically superior replacement for HCP and HVOF coatings provides enhanced protection against corrosion and chemically aggressive media, wear, galling, fretting and fatigue.

Dr Yuri Zhuk, technical director at Hardide Coatings commented: *"Metal fatigue is an enduring problem in aerospace as well as for the steam, and industrial gas turbines industries and we recognised the value in commissioning independent testing to verify the fatigue advantages of Hardide-A."*

"*The positive 4.5% improvement to fatigue life provides the detailed analysis and assurance that our solution is an improved alternative to traditional HCP and HVOF coatings. Unlike these other coatings, Hardide-A has no through micro-porosity, so creating an excellent barrier against corrosion as well as improving fatigue performance.*"

Hardide nanostructured coatings have been approved by Airbus, BAE Systems and Leonardo Helicopters. Applied by low temperature chemical vapour deposition (CVD), they can coat both internal and external surfaces, and complex geometries. Hardide coatings can be applied to a wide range of metallic substrates including ferrous and nickel-based alloys, and most grades of stainless and carbon steels.

This enabling technology is proven to offer dramatic improvements in component life, particularly when applied to components that operate in very aggressive environments. This results in cost savings through reduced downtime and increased operational efficiency.

Hardide Coatings

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Webtec Announces STAUFF Australia as a New Authorised Service Centre

To strengthen its' technical service to customers in the Australasian region, Webtec has appointed fluid power specialist STAUFF Australia as a Webtec Authorised Service centre.

The agreement is part of Webtec's global strategy to offer the same high level of service and support to customers through specially selected partners who have the same business and technical values in areas where there is no Webtec owned facility.

The service centre will be based at STAUFF's New South Wales facility and will be kitted with the same testing equipment, both hardware and software, and an identical data acquisition system as used by Webtec.

A full training programme has been implemented by Steve Thorpe, Webtec's International Sales Manager to ensure that STAUFF's team are fully experienced and qualified.

Software updates will be carried out via the cloud system which will ensure that this new Service Centre will mirror Webtec's own testing centres.

Steve Thorpe, commenting on the agreement said, "*this is an exciting opportunity for both companies.*

We have worked together for over 30 years and this formal agreement appointing STAUFF as our authorised service centre takes our relationship to the next level and our customers will benefit from the high level of service that will be available locally."

Branno Tesanovic, General Manager Business Development at STAUFF Corporation Pty added, "*We are very excited about our Webtec Service Centre investment and look forward to taking our customer service capabilities to the next level.*"

Further information on STAUFF Australia can be found at:-
www.stauff.com.au

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ROSS CONTROLS® announces acquisition of Pneumatrol Limited

ROSS CONTROLS® is very pleased to announce the acquisition of Pneumatrol Limited (Pneumatrol) as of July 31, 2019.

Jeff Hand, ROSS' President and Chief Executive Officer comments: "*We are ecstatic to add Pneumatrol to the ROSS group of companies. Pneumatrol's focus of providing high quality, safe and innovative solutions to the Process, Rail and Industrial markets supplements ROSS' long history in the pneumatic market.*

This acquisition is exciting for many reasons; most importantly, we have a combined vision to innovate and grow the Process Safety market to build on ROSS' 2017 acquisition of Automatic Valve Industrial. We share a common vision to provide the highest quality products to customers, backed by outstanding customer service and supported by complimentary company cultures. ROSS and Pneumatrol also share a passion for innovation and for customer-centric engineering solutions supported by world class manufacturing techniques."

Established in 1921, ROSS is headquartered in Troy, Michigan and is ISO certified. ROSS designs and manufactures pneumatic valves, control systems, and is universally recognized as a global leader in fluid power safety solutions and poppet valve technology. ROSS provides standard products and customized ROSS/FLEX® solutions for machinery and automation.

Selling to original equipment manufacturers and end-users throughout the world, ROSS reaches its global customer base through manufacturing and distribution facilities located in the United States, Germany, France, United Kingdom, Japan, China, Brazil, India, and Canada. In addition to its direct sales team, ROSS markets its products through a worldwide network of more than 100 distributors.

Pneumatrol, founded in 2013, has a rich history dating to 1963 with RGS Electro-Pneumatics Limited. Pneumatrol designs and manufactures hazardous and safe area pneumatic solenoid valves with international approvals including ATEX, IECEx, FM and NEPSI at its Lancashire, England facility.

In addition, Pneumatrol has a range of bespoke pneumatic cylinders, linear valve actuators and control systems that are designed to operate various types of rising stem valves. Pneumatrol markets its products internationally and is well recognized for its ability to provide fast solutions for specialized customer needs.

The acquisition of Pneumatrol expands ROSS' product portfolio and its presence in the U.K., while generating new opportunities in the Process, Rail, and General Automation industries. Integrating the business will be transparent to current Pneumatrol customers and market channels, as ROSS will continue to design and manufacture Pneumatrol's product portfolio in Lancashire, England.

Over the next several months, teams will be working to optimize the collective strengths of these two outstanding companies.

pneumatrol
A ROSS CONTROLS Company

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BS EN ISO 16137:2006+A1:2019 Industrial valves — Check valves of thermoplastics materials. Amended standard published

TECHNICAL HOT SPOT

What is it?: This International Standard specifies requirements for the design, functional characteristics and manufacture of check valves made of thermoplastics materials intended to allow the flow of liquid fluids through the valve in one direction only and to prevent backflow, their connection to the pipe system, the body materials and their pressure/temperature rating between − 40 °C and + 120 °C, for a lifetime of 25 years, and also specifies their tests.

Why is it important?: The main changes compared to the previous edition are as follows:

— the referenced standards have been updated;

— The valve body and bonnet/cover materials shall be selected from ISO 15493 or ISO 15494 or ISO 10931;

— For each valve body material, the design strength shall conform to ISO 9393-2;

— The seat and packing/shell leak tightness shall be verified on all complete valves through seat and packing tests carried out in accordance with the requirements of ISO 9393-2. The leakage rate shall be not greater than rate F in EN 12266-1

— The body and bonnet/cover raw materials and the long-term behaviour of the complete valve shall be tested in accordance with ISO 1167-1.

Supersedes: This is an amended standard, which supersedes BS EN ISO 16137:2006, which is withdrawn.

Bespoke regulators for gas turbines

As a business we always strive to respond to customers needs in a flexible manner and there are times when standard '*off-the-shelf*' solutions do not fit the bill.

Flexibility in manufacturing provides the ability to deliver customised solutions tailored to the exact project requirements and for a recent marine client, this is exactly what ID Insert Deal Srl were able to deliver.

The client needed pressure regulators to feed natural gas at a given flow rate to ships auxiliary power units (APU's), in this case gas turbine powered generators.

These are used to provide power for the ship when the main engines are not running or in the event of a fault in the main generator systems.

These APU's can often be seen operating when ships are docked in port and there is only smoke coming from the smaller exhausts in the main stack.

These regulators needed to have flanged connections but since the position of the regulator was between system elements made to different standards by separate contractors, the flange size and specification needed to be different at each end: 6″ ASME B16.15 150RF and DN125 PN16.

This allows the two systems to be joined at the regulator with no further need for adaptors and also ensures that there is no possible way these or future replacements could be installed in the wrong flow direction.

From the pressure and flow requirements of the turbine, it was determined that an R126 series regulator would have ample flow capacity at the set pressure even though the nominal size is smaller than the pipework to which it would be installed.

The R126 regulator family are available in brass, aluminium and stainless steel constructions and the R2126 aluminium version was selected due to the reduced weight which is advantageous in marine applications rather than the R3126 stainless steel version.

The corrosion resistance of stainless steel was not needed in this instance as the installation was in a dry, climate controlled area to protect the turbine systems. This R2126 regulator uses a pilot regulator rather than a spring as this allows more accurate pressure control and further reduces weight over a conventional spring design at this size.

The first batch of 4 regulators were completed and tested prior to shipping and are pictured here before they left the factory.

measuremonitorcontrol.com

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What is Valve Performance Management?

Tools take Big Data Analytics and make it useful information

Valve performance management is the practice of ensuring that all valves are at optimal performance.

Today, valves and positioners can tell you exactly what is happening, and what problems they are facing.

The slightest problem can cause major process upsets. Unfortunately, many plants do not have the time, people, or procedures to review this information and determine appropriate plans to resolve the issues.

Valve Performance Management starts by gathering all available data from the valve, positioner, and control system.

This is a rich set of data including everything from the compressed air pressure, to the commanded valve position, position feedback error, and the process effects of valve movement.

However, in its raw form, this data is not terribly useful, and actually a bit overwhelming. Perhaps this is why, historically, less than 1% of data is actually analyzed.

To correct this situation, modern software tools can apply Big Data Analytics to the raw information.

This automated analysis develops specific diagnostics of the issues, such excessive movement, sizing, stiction, leakage and configuration issues. Criticality analysis and economic factors are also applied to establish clear priorities for attention.

Expert personnel, armed with this details and prioritized information, can now deliver very specific action plans to resolve the issues. Addressing these issues quickly prevents unplanned downtime and production losses. The focus is on the maintenance of the valves in need, and on ensuring that valves will perform properly until the next planned shutdown.

Depending on the size of the control valve, its lifecycle costs are roughly equal to the costs of a mid-value automobile. The total cost of ownership breaks down as: 9% engineering, 12% valve price, 5% spare parts and a whopping 74% allocated to operation and maintenance. As with any large investment, you need to manage it to get the full value.

Valve Performance Management is a structured approach to minimize the total cost of ownership (TCO) for the valve over its full lifecycle. Through on-site or remote monitoring, these steps are continually repeated to ensure that new issues are immediately addressed, keeping the valve fleet - and the plant - at peak performance.

To learn more about Metso's Valve Performance Management read more at **https://tinyurl.com/y29ugt96**

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Adam's Triple Offset Butterfly Valves, Germany

ISIS Oil and Gas a division of ISIS Fluid Control Ltd. are pleased to announce a key partnership with Adam's Triple Offset Butterfly Valves, Germany.

As the inventor of the triple offset butterfly valve over 60 years ago it is safe to say Adams' knowledge and design are second to none. Adams are approved by many global end users and also carry a large inventory of stock (3″-36″) in Germany and the USA.

ISIS will support Adams commercially & technically with EPC Green and Brownfield clients as well as skid builders and the MRO market. ISIS recently supplied over 120 off Adams TOV manual and actuated for a major oil & gas project.

We were able to integrate the supply of these valves with automation and all other associated valves to fulfil a '*one stop shop*' technically compliant package. This allowed the client to place one order with one point of contact, demonstrating real added value.

ISIS are also pleased announce a new agreement as UK partner of OMNI Valves who specialise in Expanding Plug Valves. With an already extensive installed base and market leading design it adds a great solution to ISIS' current valve portfolio. OMNI are able to deliver in relatively short lead times; expanding plug valves up to 24″ are kept in stock.

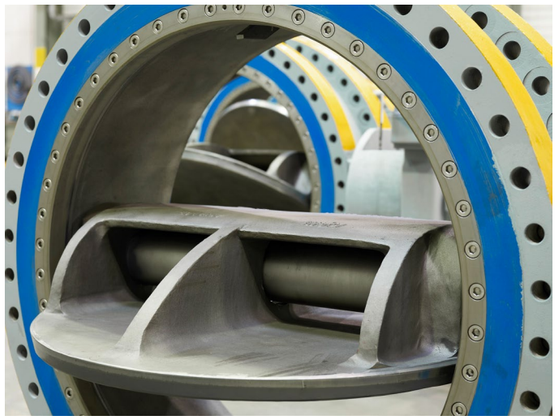
This agreement further adds to ISIS key supply chain partnerships which also includes Darco Ball valves who manufacture valves in accordance with Total E&P GS EP PVV specifications as standard.

To support ISIS growth strategy we have also strengthened our internal sales and documentation teams as well as being pleased to welcome Gethin Hale to the external sales team.

Gethin has 10 years of experience working for a manufacturer of triple offset butterfly valves.

The market has been gathering pace and it is important to strengthen all aspects of our organisation to ensure our high level of service is maintained.

Please get in contact for a tailored solution for valve & automation requirements. You can also follow us on LinkedIn for more updates on project awards.



ISIS OIL&GAS Valves, Actuation & Control

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Testing on-site with Nitrogen or water

The CALDER TURN-AROUND-TESTER™ can efficiently perform a wide variety of pressure tests and can be easily transported for use on job sites. Valve repair shops and technicians are now taking their shop on the road. With superior quality, safety, durability, and performance, owning a CALDER TURN-AROUND-TESTER™ is by far the most flexible and cost-effective way to manage your valve testing program, reduce your total cost of ownership, and maximize your return on investment over the life of the test system.

"*The TURN-AROUND-TESTER™ is a mobile valve tester our customers can literally use anywhere in the field positioned in the bed of a truck or on-site, set up on the TAT stands. My customers have been really impressed with its ability to test relief valves with nitrogen or water all in one mobile package. The versatility of the TAT has given our clients the ability to get mobile, target new customers and go from job to job with ease. In some cases, this machine is transforming the way our customers do business, and we are seeing companies investing big into getting mobile. I mean, why bring the valves to the tester when you can bring the tester to the valves?*" says Fisher Price, CALDER Product Manager.

Key CALDER TURN-AROUND-TESTER™ advantages include:

- Compact size allows for transport and use in the bed of a truck. Optional stands are available for off truck use. The clamp fixture and console paired in one frame keeps everything you need together during transport or on the job site.

- The robust seal plate, incorporated with the quick clamping arm design, provides for efficient testing. This design offers a large range of valve sizes and pressure classes to be clamped and tested in such a small portable test unit.

- Patent Pending Safety Interlock system with interlocking control valves that will not release the clamp pressure until the test pressure drain valve is opened and internal test pressure is released.

- Quick-connect test pressure gauges can easily be removed for the quick calibration or removal of gauges for transport.

- Heavy-duty vibration isolating frame and console walls are equipped with an industrial strength shock absorption system, field proven to protect the machine from vibration during transport, even in harsh environments.

- Standard 2-year warranty is the longest in the industry! We're confident in our quality, and we back it up! And – ask us how to extend your warranty out to 5 years.

"*The CALDER New Product Development (NPD) model has served customers well for more than 35 years and the CALDER TURN-AROUND-TESTER™ is a great example of how our sales and engineering teams work with our customers to come up with unique solutions. Our technical application experts will work with customer's to figure out exactly what problems they are trying to solve. Our engineering team will then outline the solution and work with the customer to ensure it meets all their needs, and in most situations, we are able to design a system that will return even greater value than the customer was expecting*" says Kevin Vincent, General Manger.

Your local CLIMAX | CALDER representative is standing by to help you. Contact us at +44 (0) 161-406-1720.

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Success at Offshore Europe for Maher

Maher team exhibiting at Offshore Europe 2019

In September Maher exhibited at SPE Offshore Europe for a 6th consecutive time. The exhibition was a great success and a fantastic opportunity for Aberdeen to showcase its brand-new world-class conference and exhibition facilities P&J Live. Maher was one of the over 950 exhibitors from across the industry and visitor numbers, as released by the organisers, are thought to have been in excess of 38,000.

These numbers certainly translated into a very busy and successful week for Maher, as confirmed by the company's Export Sector Leader, Nicole O'Neill.

"*Offshore Europe is one of the key events for our Oil & Gas team and we are extremely pleased with the success we have enjoyed at this year's exhibition. We have had a great mix of new contacts and existing customers visit our stand and all the team would like to say thank you for the great conversations we had! Our purchasing team has also had many great meetings with key suppliers.*

As a material stockist and processor, it is vital for us to stay up to date with the latest market information and insights in order to stay connected to the constantly changing world of Oil and Gas and adapt our strategy as needed. Offshore Europe is certainly a great event to exchange all the latest market information and we will of course be back in 2021!" said Nicole.

If you didn't get the opportunity to visit the Maher team during Offshore Europe, or you forgot to pick up one of the popular Maher weightlifters during your time in Aberdeen, do feel free to contact the sales office at sales@maher.com.

As a long-established stockist and machinist of high-strength, high-performance alloys for Oil & Gas, Aerospace, Naval & Marine, Defence, Power Generation and other special applications, the team will be able to assist you with material requirements for Nickel Alloys, Copper Alloys and other special steel grades.

Maher's in-house services include cutting, first stage machining such as turning and boring, precision machining, heat treatment & NDT. Due to the stringent requirements of the industries Maher service, quality is fundamental to everything the company does.

The Sheffield based stockholder's quality systems are fully certified to ISO 9001 and AS 9100 rev D and Maher holds full JOSCAR Stage 2 accreditation for naval & marine, aerospace, defence and security applications.

Supported by both customer and industry approvals, Maher delivers to the full supply chain, from OEMs to smaller machine shops. For more information, please visit www.maher.com.

MAHER

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Intelligent actuators improve wireless functionality at UK crude storage hub

Rotork's IQ3 electric multi-turn actuators are being used in a Navigator Terminals wireless network at its North Tees site.

Rotork intelligent electric actuators have been chosen to increase the number of wirelessly controlled actuators at a liquid storage provider in the UK.

Rotork IQ3 multi-turn actuators have been commissioned for two Navigator Terminals road fuel and crude storage tanks at its North Tees hub in Middlesbrough.

The site, which is split into Inland and Marine terminals, supplies the North East of the UK and has connecting pipelines to a neighbouring Navigator Terminals storage facility, Seal Sands, on the north bank of the River Tees. It is connected to the Ekofisk North Sea crude oil terminal and pipeline, also at Seal Sands.

The IQ3 actuators have been fitted to 24″ gate valves which control the flow of crude oil in and out of one of the storage tanks at the company's Marine Terminal.

The actuators communicate using HART protocol via a Pepperl+Fuchs Bullet WirelessHART Adapter, which has enabled seamless integration with the site's existing Rosemount wireless network.

It will also allow the operator to add more wireless compatible actuators and control instruments to the site in future.

All IQ3 commissioning, configuration and control can also be carried out remotely using an intrinsically-safe Rotork Bluetooth® Setting Tool.

Torque levels, position limits and indication functions can be adjusted while two-way data communication allows for multiple actuator configurations.

The setting tool can also be used to extract information including operational starts profiles, starts per hour and temperature or vibration logs from an advanced datalogger.

This data can be securely transferred via the cloud to a PC running Rotork Insight 2 software for diagnostics and asset management.

IQ3 actuators are ATEX certified as explosionproof, suitable for use in Safety Integrity Level 2 / 3 applications and watertight to IP66/68 standard – submersible at 20 metres for 10 days.

rotork®

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SVS awarded ISO 45001: 2018 accreditation and focus on proactivity

On the 13th June 2019, Bureau Veritas Awarded its ISO 45001:2018 accreditation to SVS for our Health & Safety Management System.

This supersedes OHSAS 18001:2007 and places SVS as a market leader in pioneering the importance of continuous improvement in Safety & Quality.

SVS carry this high level of expertise to the field when it comes to maintaining valve healthcare proactively.

To provide an efficient and effective means of doing so, SVS implement its Total Valve Management System (TVM).

The SVS TVM System focuses on the modernisation, organisation & improvement of the operator's current monitoring & maintenance regime.

We work in close liaison with asset process and operations, mechanical, C&I (Controls & Instrumentation), maintenance and procurement departments, gaining an understanding of the operator's current standards and working methods to deliver a value-added service.

SVS mobilise specialist Field Service Engineers to perform proactive / reactive valve maintenance on site, provide on-the-job training, analyse in-situ valve performance and degradation or failure.

Each of SVS' field staff are highly experienced in the comprehensive examination of all valves and associated equipment at operator sites in adherence to client and SVS standards, this is done through means of surveyance.

SVS Managing Director, Gerry Henry

Irrespective of any valve and/or actuator survey scale, SVS always plan accordingly prior to personnel mobilisation and survey execution. During the initial planning phase, we conduct a criticality ranking review against asset plans and define applicable areas of importance.

Valve survey records are created specific to site locations and data is recorded using our specialist methodology, all data can be easily transcoded into the operator's CMMS (Computerized Maintenance Management System) by SVS.

This allows us to highlight trends in common failure modes of which data can be used to accompany RCA investigations to determine the root cause of regular failures, SVS can then provide additional support to close any GAPs against any proven anomalies with our GAP analysis approach.

'We work closely with the client in forecasting / planning of current and future activities, this ensures full visibility of requirements for the client ahead of time.'

We work closely with the client in forecasting / planning of current and future activities, this ensures full visibility of requirements for the client ahead of time.

It also allows operators to put suitable means of risk mitigation and prevention in place to reduce the reactive workload as much as possible, moving focus to a proactive mind-set.

We manage and conduct repair, overhaul and supply requirements that derive from this work at our purpose-built headquarters in Aberdeen. Here we hold inventory of specialist long-lead valves and actuators and operate a full engineering facility, including a test and automation shop in one location.

All information is conveyed to our client's through regular meetings and reports with much of the data attained used to support further processes within our TVM scope, including but not limited to stock and spares management, critical replacement / stock replenishment strategies and engineering reviews.

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BS EN ISO 16138: 2006+A1:2019 Industrial valves - Diaphragm valves of thermoplastics materials. Amended standard published

TECHNICAL HOT SPOT

What is it?: This International Standard specifies requirements for the design, functional characteristics and manufacture of diaphragm valves made of thermoplastics materials intended for isolating and control service, their connection to the pipe system, the body materials and their pressure/temperature rating between − 40 °C and + 120 °C, for a lifetime of 25 years, and also specifies their tests.

Why is it important?: The main changes compared to the previous edition are as follows:

— the referenced standards have been updated;

— The valve body materials shall be selected from ISO 15493 or ISO 15494 or ISO 10931;

— For each valve body material, the design strength shall conform to ISO 9393-2;

— The seat and packing/shell leak tightness shall be verified on all complete valves through seat and packing tests carried out in accordance with the requirements of ISO 9393-2.

— The lever and hand-wheel rim forces to open and fully close the valve shall not exceed the values given for the operating manual force F in EN 12570.

— The body and bonnet/cover raw materials and the long-term behaviour of the complete valve shall be tested in accordance with ISO 1167-1.

Supersedes: This is an amended standard, which supersedes BS EN ISO 16138:2006, which is withdrawn.

CK Atronik increases integral control versatility of modular electric valve actuators

Rotork's CK Atronik control module provides intermediate level integral controls for the standard CK electric actuator

Rotork has increased the versatility of the CK range of modular electric valve actuators with the introduction of the CK Atronik, an intermediate level integral control option, providing a ready-to-operate actuation solution to meet the standard requirements of many plant specifications.

The CK Atronik control module houses a reversing contactor starter with mechanical and electrical interlocking, a proven and reliable Rotork design for electric actuation. Connection to a suitable power supply is all that is required for local operation of the actuator.

Digital microprocessor driven functionality delivers reliable motor control for isolating, regulating or modulating valve duties.

Configuration is simply achieved with on-board dual in-line switches. Integral local control selectors are provided, together with clear LED status indication of valve open, valve closed, valve moving and alarm.

Mechanical valve position indication is also provided on the actuator gearcase.

Options include analogue control for positioning, analogue feedback, additional relay and network bus connectivity.

All CK modular actuators are environmentally sealed to IP68 (8 metres for 96 hours) as standard for long-term reliability in harsh operating conditions.

Plug and socket connections for power, control and between modules assist swift site wiring and maintenance.

Manual handwheel operation is independent of the motor drive and selected with a lockable hand / auto lever acting on a safe, low speed clutch.

Separate thrust or non-thrust bases are available, enabling removal of the actuator from the valve without affecting valve position.

CK Atronik actuators can be specified for operation from single-phase or three-phase electrical supplies.

For three-phase supplies the maximum actuator output torque is 500 Nm (369 lbf.ft) in an output speed range of 9 - 230 rpm.

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YPS Langley Valves - Manufacturer for over 45 years

For over 45 years, YPS Langley Valves has been a manufacturer of Nickel Alloy, Duplex and Stainless steel, gate, globe and check valves. We are also a major International Distributor for Velan, Neway, OMB, Bonney Forge plus our own Langley Stainless Steel Valves.

We have recently introduced a ball valve range and a range of valves made from bar to provide customers with a quick turnaround solution.

All of the materials manufactured by YPS Langley Valves are sourced though approved supplies who must comply with our quality procedures based on the British Standards ISO 9001:2015 plus our PED accreditation.

For high integrity valves, approximately 90% of our castings are sourced from UK foundries. The remainder, usually Titanium or zirconium, are sourced from international suppliers. The latest addition to our list of available materials is Nickel Aluminium Bronze.

Our manufacturing portfolio includes gate valves to API 600/ ISO 10434, globe valves to BS1873 T, Y and Angle designs. In our extensive check valve range we provide Swing, Dual Plate, Nozzle, Piston and Ball Check valves to BS1868 or API 600. Also we supply Cryogenic and Bellows sealed valves.

Recently we have added full and reduced bore Floating Ball valves to our range. Many of our valves are specified for extremely corrosive or hazardous service condition therefore we offer materials meetings ASTM E446 levels 3, 2 and 1 depending on the criticality of the intended application.

The standard production sizes for our gate, globe, check and ball valves range from 15mm up to 600 mm. Through Langley we also offer a bespoke service where we can produce customised exotic valves designed to meet clients' specific requirements.

The synergy between our stocking and manufacturing businesses means shorter lead times for our clients and we are able to despatch products worldwide efficiently once satisfied with the quality and performance of our products.

YPS Langley Valves has established a reputation for stocking one of the most comprehensive ranges of high quality Stainless Steel and Duplex valves in Europe. Our range consists of Gate, Globe and Check valves from 15 mm up to 500 mm in a wide range of materials, Pressure Classes and a variety of end connections. All of which are from high quality approved manufacturers used by many leading End users.

Our dual strategy as a Manufacturer and Stockist, allows us to play a major role in resolving urgent maintenance plant breakdown, plus supporting last minute shutdown requirements by our ability to convert a stock valves to meet almost and end user specification worldwide.

Whether a client requires a sophisticated conversion such as cryogenic or Bellows sealed valve to simple part of trim changes, we can facilitate all of these modifications in-house within short timescales and fully tested.

Velan, Neway and OMB have audited and approved YPS Langley Valves as an Approved Workshop for the valves in recognition of the quality of valves we supply.

End users of our products include Shell, BP, Exxon, Mobil, Ineos, Chevron, Sasol and Conco-Philips. We are regularly required to manufacture and despatch products to petrochemical plants oil refineries, power plants (including nuclear) and off-shore operations worldwide including China, Afirca, Australia, the Middle East and Europe.

YPS LANGLEY VALVES

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UK Regional Sales Manager appointed

Dave Eyres - Regional Sales Manager

Advanced Valve Solutions is delighted to announce the appointment of Dave Eyres as Regional Sales Manager. Dave is an experienced Sales Manager who is available to advise and support station engineers in gas, coal, biomass and energy from waste power stations, across the United Kingdom, on solutions to many common valve issues in the steam water cycle and turbine applications.

He has extensive experience in Commercial and Financial sectors, spanning a variety of different industries, from the motor industry and across into heavy industry equipment. Dave has a proven track record of delivering high customer satisfaction and ensuring the project is handled with the upmost of professionalism.

Predominantly he will be covering the North of the UK, however, as AVS is a small team, you might see Dave all over the country supporting our customers when needed.

Reporting Directly to AVS UK Director, Alex Jackson, Dave will have the ability to quickly and easily make important decision on behalf of the company, to better serve our customers and suppliers.

If you would value a visit from Dave, either to discuss specific issues or to arrange a lunchtime question and answer session then please contact the AVS UK Office. **Info@avsuk.co.uk** or Call **01270 586 944**.

Advanced Valve Solutions

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prEN 12569:2019 Industrial valves - Valves for chemical and petrochemical process industry - Requirements and tests – Draft for public comment

TECHNICAL HOT SPOT

What is it?: This document applies to valves of DN 15 and larger, made of metallic materials for chemical and petrochemical plants. It contains additional requirements to those contained in the relevant European product standards (e.g. EN 593, EN 1349) and EN 16668.

The use of design codes or technical rules other than described by European product standards are subject to agreement with the purchaser.

Process control devices and safety accessories are not subject of this document.

Why is it important?: This second edition will supersede EN 12569:1999, which has been technically revised with the following changes:

— a Clause 3 for terms, definitions and symbols has been added;

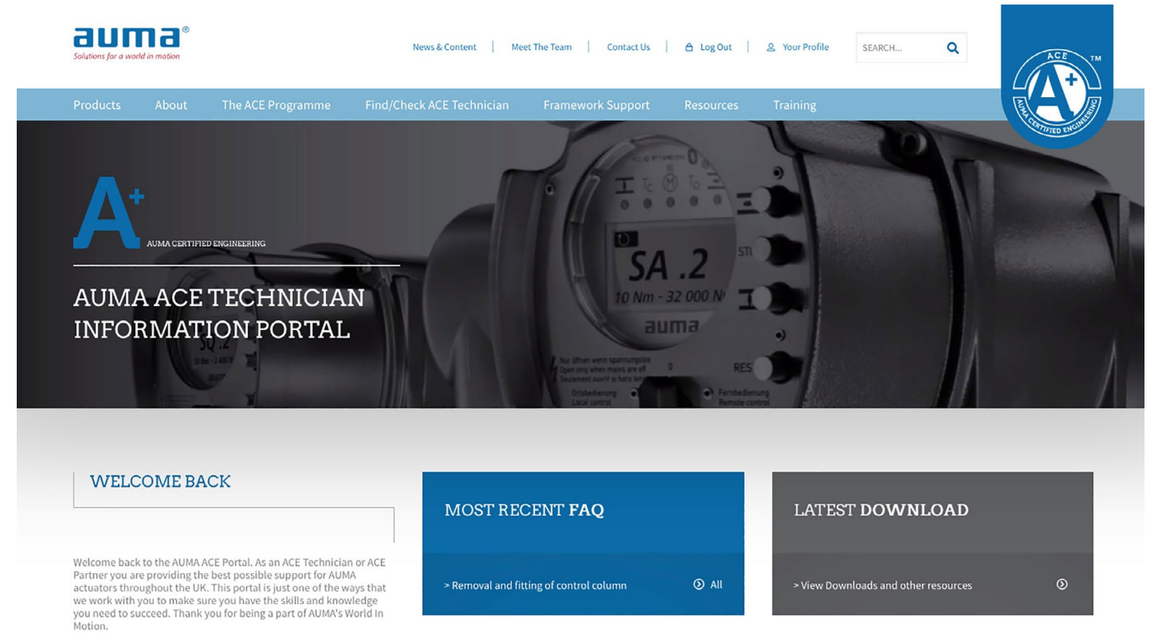
— Clause 5 on the applicable requirements has been completely re-written;

— a normative Annex A on supplementary possible steel grades for fasteners and a normative Annex B for threaded holes for pneumatic connections have been added;

— an informative Annex C giving basic configuration of the valve interface from actuator to the valve with a bracket has been added.

Supersedes: This revised standard will potential supersede BS EN 12569:1999

AUMA UK launches brand new website



*'AUMA Actuators Ltd, the world's largest manufacturer of electric valve actuators, has launched a new website: **www.auma.co.uk**.'*

It is designed to showcase the work of the UK company, and to act as a secure information and resource portal for accredited technicians, channel partners and framework users.

AUMA's UK training programme, AUMA Certified Engineering (ACE) trains and accredits technicians in a variety of industries, most notably water and waste water, and auma.co.uk is an extension and development of that provision.

Technicians are usually trained to ACE Level 1 or 2, Level 1 being aimed at, for example, employees of valve companies who need how to mount and configure AUMA actuators to add value for their customers, Level 2 for people who need to work on site and understand systems integration and troubleshooting.

ACE Level 3 is reserved for AUMA technical staff and employees of ACE Partner organisations.

For non-registered users, **auma.co.uk** provides news and insights into the British and Irish operation of AUMA, introduces the team and answers a variety of regularly asked questions.

In addition, there are videos and articles covering aspects of the product range and operation, an introduction to and opportunity to apply for ACE training and a geographic search function for site owners to identify ACE resources close to them.

Importantly, auma.co.uk also gives site owners the opportunity to confirm the status of any technician visiting site to work on AUMA equipment. Every ACE trained technician approved to work on site (Level 2) carries a card and has a registration number.

Site owners can enter the technician number and see an identification picture and confirmation of the technician's ACE Tech level and renewal date. That way, they can be sure that the technician working on their AUMA equipment is up to date and properly trained.

Registered users benefit from a wealth of additional information, depending on the type of access they have to the site. ACE technicians can see a separate set of technical answers, including diagrams and specific '*How-to*' articles.

There is a library of videos demonstrating everything from setting limits to building an A-base and reconfiguring an actuator to take advantage of AUMA's modular construction.

Customers who manage large Framework agreements will also be able to read and download visit reports, KPI data and documents specific to their Framework, all of which is specific to them and protected by a secure set of permissions. Registered technicians will also be able to directly book onto training courses to upgrade or refresh their accreditations.

As a national subsidiary of a major company, it is of course vital that everything stays in sync with the parent, so product information, wiring diagrams and 3D CAD models, and any other information that is '*global*' in nature is still based on the parent site auma.com, accessible directly or via the '*Products*' link on auma.co.uk.

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ValvTechnologies' IsoTech® Parallel Slide Gate (PSG) - proven success in single isolation

A coal fired power plant situated near the town of Selby, England, is the largest, cleanest and most efficient coal burning power station in the United Kingdom. Its generating capacity is 3,960 megawatts and at current output levels generates enough electricity to meet the needs of seven percent of the United Kingdom.

This plant, greatly concerned about the environment, focuses on a low-carbon economy, a concept that refers to an economy which has a minimal output of greenhouse gas emissions into the biosphere, but specifically refers to the greenhouse gas, carbon dioxide (CO2).

Understanding their very important role in the transition towards a low-carbon economy, this plant is committed to reducing emissions and have various projects ongoing which will deliver significant savings.

ValvTechnologies' UK distributor specialized in the supply of critical and severe service valve isolation solutions. In 2004, the company began supplying ValvTechnologies' V1-1 metal seated severe service ball valves for problem areas such as drains and bypasses for the power station.

Because of the longevity and reliability of the isolation provided on the drains and by-passes, the plant began to use the ValvTechnologies' products in other applications in the power station. ValvTechnologies supplied a number of 12, 14, 18 and 20" diameter, IsoTech® valves for units one-three on the feed system (start and standby feed pumps, HP heater feed inlet and outlets). These are powerful pumps that can move water at the rate of 150 gallons (568 liters) every second.

The valves proved successful in providing single isolation, which allowed maintenance to be carried out on tube leaks without shutting down the entire system. ValvTechnologies has since supplied 8″ and 10″ diameter IsoTech® valves to the plant, taking the total number of units to 36.

The ValvTechnologies' zero-leakage valve range is the premier solution where isolation is required for critical and severe service applications, providing increased safety and reliability, while reducing emissions and contributing to a cleaner environment.

Additionally, the IsoTech® valve's ability to provide zero-leakage has results in drastically reduced downtime, which combined with the maintenance cost savings, has presented a two-year return on investment (ROI) on the original purchase/installation cost.

VALVTECHNOLOGIES®

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GPEC Ltd is the UK representative for Quadax GmbH

GPEC Ltd are proud to announce they are now the exclusive UK representative for müller Quadax GmbH, part of the family-owned müller co-ax group who has established itself in its over 60-year company history as a renowned, globally operating manufacturer of valve technology. This parent company name will likely be familiar with readers of the Valve-User magazine as co-ax valves ltd are also a member of the BVAA.

Quadax, headquartered in Forchtenberg, Germany, are the manufacturer of the quadruple offset butterfly valve – which is a development on the triple offset butterfly valve. In contrast to the elliptical sealing geometry of a TOV, the Quadax valve operates with a completely round seal, allowing them to create a tighter sealing surface with less friction than a typical triple offset butterfly.

This innovation was made possible by an intelligent design principle and access to modern 5-axis machining centres. The Quadax valve was developed and introduced to the market in 2009 as part of the müller co-ax valve range, however, 2017 saw the formation of müller Quadax GmbH as a daughter company and manufacturer in its own right.

Butterfly valves need to meet the highest requirements in terms of tightness and longevity. This is especially true for triple offset butterfly valves used in demanding applications in the oil and gas, refining and petrochemical industries, for example, in LNG and LPG applications extreme pressures and wide temperature ranges mean that excellence in design and metallurgy is essential. A disadvantage of the triple offset design commonly used in this industry is that it is unable to ensure 100% tightness over a period of time.

This is due to thermal variations within material. The different wall thicknesses lead to uneven spreading of the material on the seat – a problem that is rendered obsolete with the quadruple offset design. The perfectly rounded sealing geometry of this construction with all-round identical material thickness guarantees bubble-free tightness in cryogenic applications (down to -196°C) or those involving extreme temperature fluctuations. The valve has proved successful in extreme temperatures from -270°C to +800°C.

The principle of the quadruple offset butterfly valve offers several important advantages over other designs. Because the valve is friction-free and involves no wear on the seat, the risk of failure is greatly reduced while simultaneously extending the service life. In addition, the high KV value allows a smaller dimensioning of the nominal pipe diameter. The valve is Fire Safe in both directions in accordance with ISO10497, API 607 and BS6755 as well as meeting the following safety certificates 2014/34/EU – ATEX-guideline, SIL3, ISO 15848-1 / TA Luft. In terms of tightness Quadax achieve leakage rate A according to: DIN EN 12266 / ANSI Class VI and better than BS 6364, bubble tight in cryogenics. All this makes it the ideal solution for cryogenic applications and for processes with flammable media and explosive atmospheres.

The Quadax valve sizes range from 2″ – 72″ with pressure class up to #1500. The valve is available in different end-connections and face to faces such as lug/wafer, buttweld, double flange, gate valve replacement (double flange long pattern) and top entry welded. Interestingly, they are stocking 2″ – 24″ #150 and #300 Stainless steel and Carbon steel bodies for quick delivery (2 - 4 weeks) and are building a strong reference list across Refining, Steam, LNG, LPG, Cryogenic gases and severe service applications. For more information please contact Sean Gower at GPEC or visit us at www.quadax.de

GPEC Ltd

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Mark of quality for food sector sealing materials

Freudenberg 70 VMQ 117055 is resistant to animal, ethereous and plant fats/oils

Now available from Dichtomatik Ltd, the authorised UK distributor of food and beverage related products manufactured by Freudenberg Sealing Technologies, come two sealing materials with high purity levels that are ideal for food industry applications, as well as those in the pharmaceutical sector.

In fact, these advanced Freudenberg silicone elastomers - 70 VMQ 117055 and 60 VMQ 117117 - have just achieved compliance with two important food industry regulations in China, adding to a host of existing certifications applicable in the EU and US.

When it comes to food, everyone wants to be sure that it is free of harmful substances. In order to guarantee safety, not only the food, but the materials with which it contacts, must meet particularly stringent criteria, a statement that also applies to sealing materials.

Freudenberg VMQ series materials are highly suitable for use in food plants, particularly if the application has extreme thermal requirements (-50°C to +200°C) and cleaning processes that do not rely on steam sterilisation.

A good application example for 70 VMQ 117055 is dairy operations, which frequently use the material to manufacture O rings as the high fat content of the process media must be taken into consideration. Freudenberg 70 VMQ 117055 is resistant to animal, ethereous and plant fats/oils.

Due to the material's purity, which is reflected visually in its transparent colour, it is fast becoming the preferred choice in the food sector. Importantly, 70 VMQ 117055 is ADI-free and conforms to FDA 21 CFR 177.2600, EC Regulation 1935/2004, 3-A Sanitary Standards Class I and USP Class VI (121°C).

In China, specific standards were created in 2016 - GB 4806 and GB 9685 - which deviate from corresponding regulations in the EU and US. Freudenberg has now successfully tested 70 VMQ 117055 and 60 VMQ 117117 for conformity with the Chinese regulations, highlighting their ongoing global appeal.

Freudenberg VMQ series materials are highly suitable for use in food plants, particularly if the application has extreme thermal requirements

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Hygienic Butterfly Valve Actuation just got easy!

For many years the task of Automating a Stainless Steel Hygienic Butterfly Valve has been somewhat onerous with very little flexibility being made available in the market place, particularly if Electric units are the preferred mode of operation.

With many Hygienic Valve manufacturers only offering their own range of S/S Pneumatic upright "*Heli-coil*" units as a standard fitment, the addition of Switches, Solenoids and Positioners has been very limited and users requiring preferred or alternative actuator brands have had no choice but to have bespoke Mounting Kits manufactured specifically for their application that can take several days or even weeks to arrive.

G.C.Supplies UK Limited now have a solution available from stock that improves both usability and availability without compromise.

By designing a "*Direct Mount*" Stainless Steel mounting that fits directly to the Valve body via two independent mounting holes drilled into the main valve body, it allows the Actuator to be removed without requiring the pipeline to be shutdown.

The mounting is manufactured from a single piece CF8 S/S Casting and has a ISO 5211 F04/F05 Direct Mounting Pad as standard with an 11mm Square Drive.

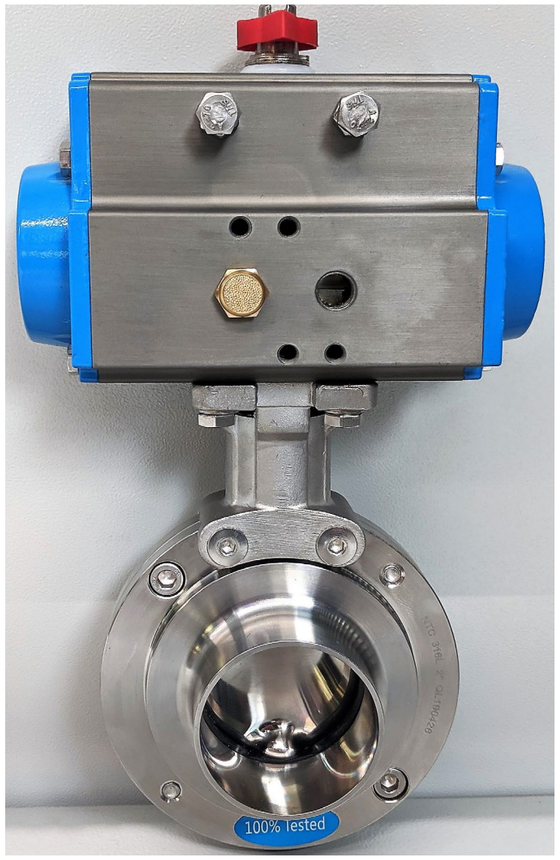
With very low Torque Value's of between 5 and 16 Nm covering the whole Valve range, most standard Pneumatic & Electric Actuators can be easily assembled.

The new "*NTC*" Hygienic Butterfly Valve range is available from stock in sizes 1″ - 3″ with Plain Weld Ends for Imperial O/D Pipework, RJT Male x Male Ends and Clamp Ferrule Ends (other connections such as DIN 11851, SMS & IDF can be manufactured to order).

The Valve Body & Disc are manufactured from Forged F316L material and the Seals are FDA approved EPDM as standard.

Manual Valves are offered with a 12 Position Lockable Stainless Steel Lever. 3.1 Material Certification and FDA compliance Certification is also available.

Please call our sales office on 0161 6811842 and let us take the stress out of your Valve requirements.



GC SUPPLIES UK LTD

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KT Hydraulics, Complex hydraulic systems for critical applications

Operating globally, KT Hydraulics provides world class bespoke solutions in the engineering of hydraulic systems, from initial design, manufacturing and testing through to installation and expert aftercare.

These applications can be used in the oil, gas, marine, water, nuclear, process plant industries and most importantly the clients required industry. KT Hydraulics offerings are complete engineered projects, starting with specifications required by the client to the delivery and installation with end-user. Every project is in full compliance with API standards and is completely designed for the requirements of the customers, ensuring what is manufactured is done so perfectly around the client.

Part of their vast history, includes the manufacturing of API 614 Lube Oil Systems and API 682 Seal Systems both being a prominent part of the business, however the supply of hydraulic actuators is now becoming a popular product bought and supplied to customers. KT Hydraulics are specialists in the actuator market.

The latest range of hydraulic actuators is the result of over 50 years experience in the design and manufacture of such equipment and is the pinnacle of operational capability and power in a highly robust and ultra-compact body.

The actuators manufactured by KT Hydraulics have an abundance of product characteristics, design features and operational capability resulting in their actuators being rivalled by none other in the current market. From the rack and pinion arrangement, single, twin rack and sprint return variants to the maximum working pressure and stroke ranges, the manufactured product is exceptional.

KT Hydraulics are currently undertaking a four-phase actuator project with over 120 actuators being manufactured at KTH, this is the biggest actuator manufacturing cycle KT Hydraulics has ever undertaken at once.

The project includes a range of actuators all designed and manufactured by KT Hydraulics. Some of the actuators being manufactured are, KS100 (Double acting actuator) and KSF100 (Spring return actuator) as well as ROV Interface for the actuator to be attached to, readying for a remote vehicle to attach to the ROV and turn the phase valve on the actuator.

In order to take on this vast project, close working relationships with suppliers is necessary. KT Hydraulics have a special working relationship with Heap and Partners who provide the phase valves the actuators are mounted to.

KTH also call upon their partners from the KTH Engineering Group, KTH Fabrications, to paint all the actuators because KTH Fabrications have a state-of-the-art painting facility with a specialist NACE qualified painter and inspector.

In an industry where reputation is paramount, KTH ensure every project is undertaken with the most rigorous standard of quality, health & safety and experience. The team has an abundance of knowledge and experience and KTH have the ability to call on the resources of the whole KTH Engineering Group making KT Hydraulics the only choice in hydraulics systems.

KT Hydraulics

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Web: www.kthydraulics.com

Weetman plays an integral part in the delivery of Steamplant's valve proposition

Alan Weetman, Steamplant Engineering's Service Manager

Steam Plant Engineering's "*Zurich Approved*" valve and repair test centre in Halesowen, West Midlands goes from strength to strength and has continued to experience significant growth in the last 12 months.

Much of this continued success and growth is as a result of the commitment and knowledge of the company's Service Manager, Alan Weetman. Alan who has been with Steam Plant for almost 4 years and has a background in valves having previously worked with some of the industries major suppliers, has taken the businesses valve proposition and delivered it to an outstanding level, which has been recognised and acknowledged by both clients and the Directors at Steam Plant, alike.

Over the last year Alan has taken on responsibility for the sale of new valves as well as the refurbishing of existing valves and has a great working relationship with both Steam Plant's longstanding and new clients, UK and globally.

When looking at a clients system Alan has the ability and expertise to quickly advise and recommend valves along with any changes that need to be made to enhance and improve their system.

Whether it's a leaky valve or pipework or an underlying fault, Alan will provide a quick and reliable diagnosis and with this, an all round effective solution to the issue.

With on-going investment and the back up of Steam Plant's valve repair test centre, Alan and his team have the all round experience and knowledge, to react quickly and effectively.

They can confidently and comfortably supply and install new valves (appreciating that customers don't like to do this themselves) and repair and refurbish existing valves within tight deadlines and still offer good value for money.

Alan says: *"We have a great empathy with our clients needs and requirements. We appreciate that they rely on us to ensure their valves and systems are working properly and that downtime can result in a loss of business. At Steam Plant we can offer them a good response and service."* He continues; *"I've been with the business for nearly 4 years and thoroughly enjoy the diversity of the job and the people we work with."*

Emma Newcombe, Commercial Director adds *"Alan has a fabulous rapport both with our longstanding clients and our new clients. If they have a problem, they know Alan and his team will come up with the most effective solution for their business. We're always receiving positive feedback and emails regarding the service our clients receive which is great credit to the service Alan and his team offer."*

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DMR Seals acquired by Diploma PLC

DMR Seals has been acquired by Diploma PLC, a FTSE 250 international group of businesses supplying specialised technical products and services.

DMR Seals, based in Sheffield, provides engineering sealing solutions to UK markets.

In particular, the company has developed a strong reputation for manufacturing high quality and high-pressure sealing products for the most demanding applications in the oil & gas, chemical processing and general manufacturing industries.

DMR Seals will continue to operate independently and will be run on day to day basis by Co-founder and Managing Director Richard O'Connor and the existing team in Sheffield.

Richard said: *"We are delighted to have joined Diploma PLC. Working as part of the Group, strengthens our position in the fluid sealing solution markets and brings advantages in terms of increased technical capability and manufacturing flexibility across multiple sites. This allows DMR Seals to operate as usual, continuing to provide our customers with the best sealing solution as quickly and efficiently as possible."*

In 2018 Diploma PLC, reported annual revenues of more than £485m, operating globally in the distinct sectors of Life Sciences, Seals and Controls. DMR Seals joins the Group's Seals businesses, working alongside other Diploma-owned UK companies, FPE Seals and M Seals.

DMR SEALS

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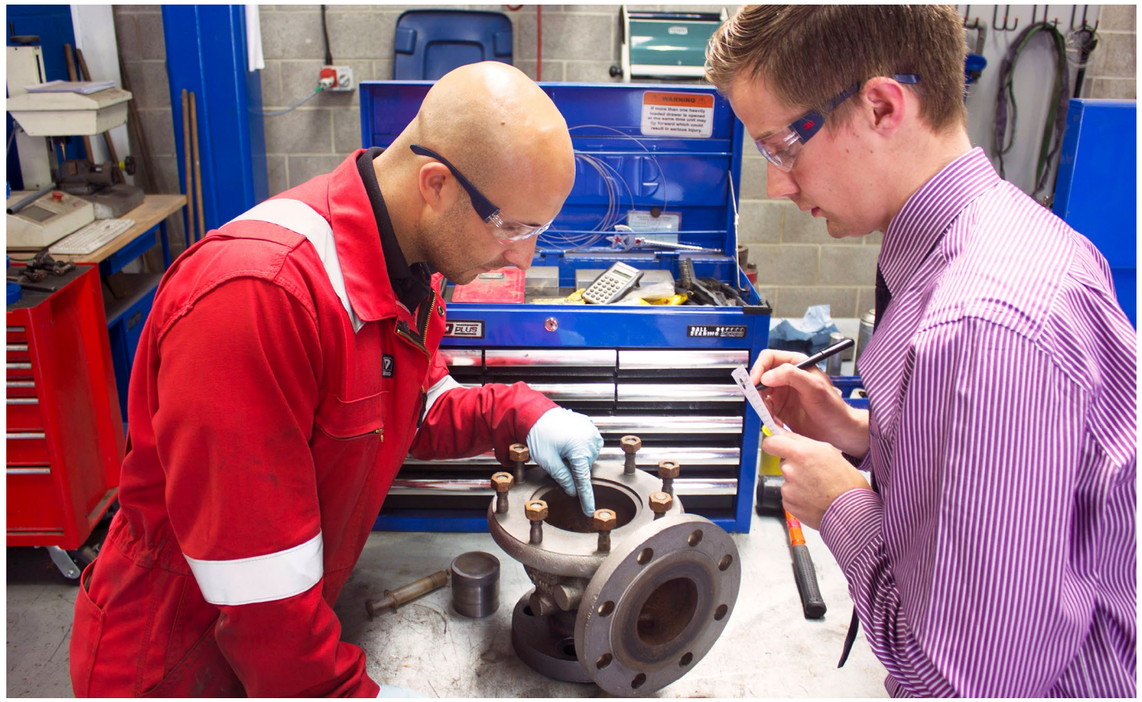
Seetru Engineeing Services in partnership with RINA



Pressure relief valves are listed as key safety-critical items of pressure equipment under the Pressure Systems Safety Regulations (PSSRs). Seetru and RINA safety valve training courses provide competent person training, of which there is an increasing need for in today's market.

RINA provide a vast array of engineering and consultancy, testing, inspection and certification services, dedicated to all players of the sector, helping operators to meet sustainability targets as well as ensuring compliance to the highest standards of engineering and construction.

Seetru Engineering Services are the service arm of Seetru Limited, a leading safety valve manufacture of almost 70 years.

During the 1990's Seetru applied all their knowledge and expertise to bear on the refurbishment and testing of Safety and Relief valves for external customers, resulting in the official formation of Seetru Engineering Services in November of 1998.

SES has grown considerably since these humble beginnings to now become a major provider for PSV (and other) services and advise throughout the UK and globally, becoming the supplier of choice for many industries/companies including but not limited too:-

- Power - Nuclear, Gas, Oil, Coal and Solar
- Petrochemical
- Pharmaceutical
- Food
- Motor Vehicle etc

Together we hold safety valve training courses across the UK. The course allows delegates to develop familiarity with the practical aspects of PRV inspection and maintenance and, demonstrate this familiarity to external bodies such as the site Competent Person and HSE.

Our courses involve a mixture of theoretical and practical elements, providing academic-based learning whilst allowing individuals enrolled on the course the opportunity to put their new skills into practice.

We've tried to structure our courses in order to provide the most effective path to learning, we offer varying levels of participation ranging from beginner, to intermediate and advanced training - however we promote the option of customizing our courses to your needs!

Speak to us about designing a custom package to suit your particular requirements.

Contact Seetru Engineering Services:
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The music is playing in China

Europe remains reticent about nuclear technology, whilst in Asia numerous new nuclear reactors are being built. The bottom line is that the nuclear reactor business remains lucrative for valve manufacturers.

Ten years ago, it would have been perfectly correct to speak of a global boom in nuclear energy. But since the Fukushima major disaster at the beginning of the decade and the rise in renewable energy in recent years, the tide has been turning, especially in Europe. The use of atomic energy also divides opinion. So now it is more of a regional speciality – and how!

It is unloved in Germany and Switzerland, in France it is declining, but gladly accepted worldwide. So atomic energy is complicated – one way or another – it doesn't seem to leave anyone cold. Even some experts are not sure whether the construction of new nuclear facilities will prevail in the long run – with regard to the high costs of nuclear technology and cheaper alternatives with renewable energies. The fact is that, at least for the foreseeable future, above all in Asia, nuclear power plants will be on the rise.

In June 2018 the nuclear power plant Taishan 1 in China was connected to the power grid for the first time. Source: EDF

Increase in nuclear energy

The increase in nuclear energy is supported by figures from the International Atomic Energy Agency (IAEA). According to these there are currently around 450 nuclear power plants in operation in 31 countries. They produce a little more than 380 Gigawatts annually. But it won't stay that way. The IAEA expects an increase in capacity of more than 1.9 per cent by 2030. And if the global economy continues to grow as it is currently, an increase to almost 600 GW is conceivable.

The reason for the growth is the thirst for energy of the emerging economies. This is why China is planning 40 new nuclear power plants, Russia 25 and India almost 20. Europe is reticent about building new facilities. However, Poland will soon start using nuclear technology in several power plants. According to the World Nuclear Association, 164 nuclear power plants are already under construction worldwide and another 350 are planned. In addition, some countries will have longer-term extensions.

China as an important market

"*The music is playing loud and clear in China*," emphasizes Dr. Tomas Hahn, member of Framatome GmbH's management committee and responsible for clients, politics and innovation. "*For example, we brought an EPR reactor with a Framatome design onto the grid for the first time.*" Overall, the focus of new construction activities is in China. So, this market is, of course, interesting for Framatome.

"*But we should not only look at new-build areas. The service market is very important too,*" according to Hahn. And here all countries are interesting for nuclear power plant operation. For Framatome in Germany, these include Switzerland, Sweden, the Netherlands, Finland, Hungary and Brazil and Argentina, as well as many other countries.

From Schroeder Valves' point of view the issue of nuclear maintenance becomes more relevant. "*The valves used are inspected and maintained at regular intervals during review times,*" says Axel Mücher, Managing Partner of Schroeder Valves. Here usually only worn parts would be replaced and new ones obtained from the manufacturer. "*The general service life of valves is 20 to 30 years and does not differ significantly from non-nuclear facilities.*"

20,000 valves for each nuclear power plant

The German phase-out in 2011 had led to a drop in orders at Framatome, as the affected plants were customers of the company. But the decline in orders is gradual. Because, in a nuclear power plant, safety requirements remain high even after a shutdown. "*In addition, we were able to offer preparatory services for dismantling, such as chemical decontamination of the primary circuit. But that does not change the fact that we will be gradually losing the German market in coming years. Because of this we have been driving exports since 2011,*" says Hahn. "*So, since Fukushima. Fortunately, this works well because nuclear skills from Germany are still recognized and in demand worldwide. This allowed us to stabilize sales at around 750 million Euros.*

Suppliers of valves for nuclear reactors, of course, are following developments with eagle eyes, as nuclear plants basically have a great need for valves. "In one nuclear power plant there are around 20,000 valves, of which around a third are large valves, so in practically every area of the plant," explains Hahn. Different types are used, for example those with electric or magnetic drives, manual drives or even passive constructions. In certain cases, these shut down independently, and perhaps permanently, should certain parameters such as temperature and pressure change. In this way they ensure that the media in the pressure-enclosing valve are held securely.

Safety valves are key

Naturally safety valves are of paramount importance. The demands on them are high, but they differ according to their purpose. Many industrial facilities are subject to classic industry standards, which are also used in other power plants. Hahn: "*For the entire primary circuit, but also for all safety-relevant functions, the requirements of the nuclear technology regulations apply, so the KTA in Germany or the ASME Direction III from the USA. Here there are precise specifications with regard to the material properties, calculation complexity or mode of operation. In addition, we have to provide numerous proofs in advance, to qualify the components for use in nuclear power plants*".

Framatome is involved in the construction of numerous nuclear plants. Including, in fact, facilities in Europe. In France and Finland for example. Above and beyond that there is a huge project in Great Britain, where two new plants are to be built at the Hinkley Point location. "*We from Germany are involved in all these projects. We have an order backlog of around 2.5 billion Euros,*" reckons Hahn.

Check valves for Hinkley

Sempell got the order to supply eight damped check valves (Main Feedwater Damped Check Valves MFDCV) for the nuclear power plant Hinkley Point C in Great Britain. The damped check valves were manufactured for the main feedwater system, according to the valve manufacturer, to protect its piping and the connected steam generator.

With the help of the check valves this is to prevent: Rapid changes in mass flows in high-pressure lines that can cause pressure surges and forces that exceed the permissible limits of material strength. "*Thus, the closing behaviour of check valves after a breakage in pressurized piping has special significance,*" explains the company.

The Sempell design was developed to prevent pressure surges which can result from double pipe breaks in the feedwater pipes in the nuclear power plant. The damper check valves absorb pressure shocks that could cause other damage in the pipework. "*As new nuclear power plants have to operate in a broad load range, the Sempell design also fulfils the demand for a stable, fully-open position – adjusted to the minimum load case. At the same time the valves are optimized with regard to pressure loss,*" explains Sempell.

As proof that damped check valves are suitable as a safeguard against pipe breakage in feedwater systems, blowdown tests were carried out in the experimental power plant Kahl HDR with a DN 350 valve. In these tests the malfunction "*double-ended pipeline breakage*" was realistically reproduced.

Pilot valve solution

In 2021 Sempell will also supply six Pressurizer Safety Relief Valves (PSRV) for Blocks 1 and 2 at Hinkley Point C. The valve manufacturer has concentrated on a pilot solution according to the relief principle with the controlled safety valve VS99. Three blow-off lines with pressurizer safety relief valves were directly installed on the pressurizer. For each blow-off line, the inlet of the pressurizer valve to the pressurizer dome is connected with a DN 150 nozzle. The outlet is connected via a DN 200 pipe with the discharge collector. The three pressurizer safety valves are connected to the pressurizer relief tank via the discharge collector.

A renaissance? Not yet

Even so: Although two new blocks are emerging at Hinkley in Great Britain, the idea of an atomic energy renaissance in Europe is far removed. It is, as is often said, somewhat complicated. "*The absence of broad and sustainable international consensus about the long-term use of nuclear technology and its low and unpredictable future social acceptance in individual markets considerably reduces its appeal,*" remarks Axel Mücher, Executive Partner at Schroeder Valves. The company supplies pump protection valves for the nuclear market as special free-wheel check valves. These valves – on average eight per power plant – are used in various cooling and emergency feedwater systems in the plants.

A look behind the scenes shows that manufacturing the valves for the nuclear market is done through a certified quality system, "*that is strictly monitored internally and externally by qualified personnel. Subcontractors who supply materials and services are also part of this quality system,*" Mücher emphasizes. The regulations in force specify all the requisite quality measures, depending on the conditions of use and their safety relevance.

Involving local partners in China

"*Implementation of the regulations begins straight away with the development, construction and calculation of the valves and with the choice of materials, all conforming to the regulations.*" This compliance with the regulations is ensured with a preliminary check of the complete documentation by notified bodies. "*Then the production process starts, with numerous interruptions due to compulsory production-related inspections that are carried out by qualified internal and external personnel,*" explains Mücher. A final, appropriately monitored function and strength test by the experts concludes the production process.

But China has its own regulations. Involving local partners is playing an ever more important role, since value-creation, particularly with large-scale projects, should remain in-country. "*So, our task is to buy in China, for China, but in doing so not compromise our quality and process requirements,*" explains Dr. Tomas Hahn of Framatome GmbH.

Experience is appreciated

For example, Sempell landed a major order in China. The company supplied a total of 236 valves for the KKW Tianwan blocks 3 and 4. Blocks 3 and 4 are pressurized-water reactors VVER 1000/428M and were fitted out by the Russian company Atomstroyexport. The different shut-off valves and flaps are used in the emergency cooling system, and in the live steam and sprinkler systems. The order includes, for the high-pressure area, 84 GPS5 DN 300 sliders and 52 HKS5 DN 300 valves made of forged steel, and for the mid-pressure area another eight GPS5 DN 600 sliders, 68 GPS3 DN 300 sliders and 24 HKS5 DN 300 valves.

Velan is one of the valve manufacturers that serves the nuclear market on a large scale. A company that was supplying components to the sector in the early days of the nuclear industry in the 1950s. Velan supplies several hundred nuclear reactors worldwide. Persta Stahl-Armaturen has also been active in the nuclear field for a long time.

The company has been providing valves like shut-off valves since the mid-1960s. The sensitive area of application requires "*the highest safety standards and elaborate documentation,*" emphasizes Persta Stahl-Armaturen. Naturally users like to rely on the experience of such companies who have long been established in the nuclear power business.

The future is open

Experience, that has been needed for a long time. How much – that is difficult to assess. Framatome, as a supplier of nuclear technology, naturally sees its future in an optimistic light. "*The number of countries using nuclear power plants will increase, there will be more nuclear power plants worldwide than there are today. And Framatome keeps on collaborating on new construction projects, supplying servicing and modernization for commissioned facilities and supplying fuel elements,*" says Dr. Tomas Hahn, member of Framatome GmbH's management committee.

But there are others who have doubts about competitiveness, safety and the nuclear waste disposal issue. As I said, the issue continues to divide thinking – but still holds great potential for valve manufacturers.

Innovatations in the fields of valves and pumps will be presented at VALVE WORLD EXPO, No 1 fair for industrial valves, from December, 1 to 3, 2020 in halls 1, 3 and 4 at Düsseldorf Fairgrounds.

The new construction project Flamanville 3 in France: A worker closes a valve as part of testing Source: EDF/Morin Alexis

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