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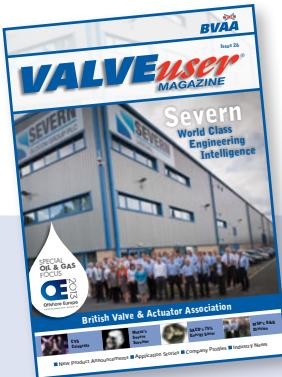
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VALVEuser® is a controlled circulation magazine, free of charge to genuine users of valves, actuators and related products and at the discretion of BVAA Ltd.

9 out of 10 say 'Oil & Gas'!

Welcome everyone to the latest issue of BVAA's Valve User magazine!

In this issue we have, thanks to the imminent Offshore Europe event in Aberdeen (September 3rd~6th), a major focus on Oil and Gas.

A casual reader might just think '*Well done Valve User, always topical.*'



by BVAA Director,
Rob Bartlett

Well, I confess there is a bit of prior-planning and management of this eponymous journal but I'd like to say Oil & Gas (O&G) isn't something we leap upon every time we get the urge to be opportunistic!

Some years ago BVAA surveyed our members and O&G came out joint-first in terms of a priority area. We recently polled our members again – this time with triple the number of members – and a whopping 92% of respondents said that Oil & Gas was a major area of interest to their companies!

This is obviously very good news for our customer base, as they can draw upon the skills, expertise and product ranges of over 180 top-notch valve and actuator companies who are not only keen to do business with them, but also have the products, experience and technical know-how to make any purchase an informed, trust-worthy and above all else reliable experience.

But we're all busy. And that's where problems can lie. Customers and contractors are so busy they have little time to research the current market. Valves companies so busy they barely have time to think about networking and 'schmoozing' potential new clients due to servicing the demands of their current ones. All leading to the classic pitfalls of servicing a tremendously busy industry – namely a reluctance to look outside approved vendors' lists, an over-reliance on / reluctance to stray from 'old' technology, and eventually increasingly longer lead-times and delays in fulfilling contracts. So what's the answer?

BVAA has a number of solutions. Firstly just ring us up! We're delighted to help customers find suitable suppliers at any time!

Secondly, we offer a comprehensive Product Locator service on the BVAA website, www.bcaa.org.uk

Thirdly, we can offer zero-cost 'mini exhibitions' to key customers' right inside their own premises enabling them to view the industry's latest developments with minimum downtime.

Lastly, through our partnership with O&G experts NOF Energy, we can offer our members and their customers the opportunity to network at informative events with super-efficiency as staff are on-hand to make the necessary introductions personally, which dramatically increases the chances of success. But don't just take our word for it. Our latest survey revealed that, once again, 9 out of 10 people we polled on the NOF Energy service agreed it had, or potentially would, benefit their companies!

To find out more you can contact us at enquiry@bcaa.org.uk or come at visit us at Offshore Europe, Hall 2 Stand D05.

Cover: Severn Unival's new facility at Brighouse, West Yorkshire

Don't Forget...

PILOT Share Fair
Nov 6th 2013
AECC Aberdeen



BVAA[®]

World Class Valve Training Courses



Huge Discounts For BVAA Members

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Shaw Valves

"Very good with lots of experience and knowledge"
BP

"Professionally done"
British Energy

"Good - clear, concise and knowledgeable"
Titanium International Ltd

"Friendly and funny, explained concepts in laymen's terms, making the course easy to understand"
AMEC



These courses are a **MUST** for those involved in the engineering industry who need to know about valves and actuators. BVAA valve courses are delivered by our lecturers who have tremendous knowledge and experience of the industry. The sessions always result in comments of the highest praise.

Introduction to Valves

Monday, 7th October 2013
Banbury, £360+vat

Introduction to Valve Actuators

Tuesday, 8th October 2013
Banbury, £360+vat

Control Valves

Wednesday, 9th October 2013
Banbury, £360+vat

Safety Valves

Thursday, 10th October 2013
Banbury, £360+vat

Safety Integrity Levels (SILs)

Friday, 11th October 2013
Banbury, £360+vat

Managing Commercial Risk

Monday, 14th October 2013
Banbury, £450+vat

PED & ATEX Directives

Tuesday, 15th October 2013
Banbury, £360+vat

Fluid Sealing

Wednesday, 16th October 2013
Banbury, £360+vat

Business Growth Workshop

Thursday,
17 October 2013

This course is ideal for anyone who has the responsibility of business growth, either to new or existing accounts, engineers, sales people, account managers, business development executives.

Find out how to increase sales revenue, either by winning new customers or increasing the average transaction value; while at the same time building long term relationships and getting repeat orders.

£395 +VAT for members, £450 + VAT for non-members

Joint Integrity **MASTERclass**

Thursday,
17 October 2013

Taking place at the state-of-the-art training centre of The Academy of Joint Integrity in Cleckheaton, the MasterClass will cover:

- Life Cycle of Bolted Connection
- Selecting the correct Sealing Element for Valves and Associated Pipework – Gasket Types
- Practical Workshop – Flange Assembly Demonstration Unit
- Factory Tour; Flexitallic – Manufacturing and Application team

£240 +VAT for members, £360 + VAT for non-members

For full details on each course, visit www.bvaa.org.uk/training_courses.asp

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BVAA News

BVAA's Latest 'Graduates'



We recently extended our range of Training Courses here at BVAA with yet another new one-day workshop entitled 'Selling to Win – Business Growth Skills.'

Led by Bob Wilson of Richard Denny Training, the workshop on 16th April at BVAA HQ was equally useful to new entrants into the field as well as to highly experienced professional sales people. Many among us soon learned that while we may not be titled 'Salesman' we certainly find ourselves selling our products, services, companies and indeed ourselves to clients all the time.

Each successful 'Graduate' received a Business Growth Skills Certificate for demonstrating a high degree of competency and understanding.

Presenting to Win - 13th November

This is BVAA's latest offering, a 1-day workshop for delegates where presentations and meetings are a part of their job. The course will take place at BVAA HQ on 13th November.

"Extremely enjoyable and relevant, giving lots of tools that can be used immediately. Would definitely recommend the course particularly to anyone who might be nervous about giving presentations"

Delivered in a series of short modules, the course covers learning styles, delegates' own presentations, effective communication, presentation input, how to make meetings work, improving prepared presentations and a session demonstrating improvements concluding with personal activity plans.

Once again delivered in partnership with Richard Denny Group.

See www.bvaa.org.uk/training



Losing your audience?

"I was completely blown over by the transformation – the post-course presentation was excellent and delivered with complete confidence. She was like a different person. The training you have given her has really worked well!"

The Pre-Employment Conundrum

by **BVAA Director Rob Bartlett**

A ‘greying’ workforce, so typical in Engineering these days, ultimately needs replacing. But where do you find the bright new engineers, who can quickly and seamlessly pick up the skills, knowledge and experience necessary to ensure continuity, or indeed improve your business?

As many engineering employers will testify, this is an incredibly challenging task, not only because there is stiff competition for the small talent pool available, but also because students that could seek a career in engineering are seduced away to other allegedly ‘sexier’ subjects, often irrespective of the employment opportunities therein once they graduate. For example recent data indicates that 20% of recent graduates remain unemployed, and 40% of those who are employed are engaged in low-skill occupations, often unrelated to their qualification.

So we have an industry in desperate need of talent, and a talent pool focusing essentially on the wrong subjects. However, despite there being a plethora of Engineering bodies in the UK, there appears to be no one-stop shop when it comes to seeking assistance in the promotion of Engineering as a career.

In the pre-employment stage, when promotion of engineering to schools and colleges would, you might expect, be already extremely well organised, it turns out that formal advice is spread across a wide range of bodies and organisations. This inevitably leads to gaps in coverage, and the occasional overlap. So how does an engineering employer solve this conundrum?

BVAA regularly receives enquiries from our members on this topic, and we have to signpost members to organisations that may be of interest to them.

A group of Engineering Employers Federation (EEF) members for example have recently sponsored the work of Primary Engineer. It is a non-for-profit organisation that encourages young people to think more widely about Science, Technology, Engineering and Mathematics (STEM) subjects and careers in industries such as manufacturing. Primary Engineer also delivers courses to STEM teachers to help them teach these subjects in a more inspiring way and engage with local employers. EEF member companies that support the organisation often send their engineers into the schools to talk about their careers and how they got to where they are now. See www.primaryengineer.com



The number of organisations that do similar work is endless, but to give readers an idea there exists:-

STEMNET - www.stemnet.org.uk

Inspiring the Future - www.inspiringthefuture.org

Small Piece Trust - www.smallpeicetrust.org.uk

F1 in Schools - www.f1inschools.co.uk/

Tomorrow's Engineers - www.tomorrowsengineers.org.uk/home.cfm

See Inside Manufacturing - <http://discuss.bis.gov.uk/seeinsidemanufacturing>

While this landscape is overwhelming and somewhat crowded, there are many organisations doing very similar things but unfortunately the ‘one stop shop’ for advice remains elusive.

BVAA’s advice to members is to take advantage of the services offered by organisations that most suit your particular business model and needs. Also, curry good relations with your local feeder schools, at both Primary and Secondary level. Scholars take their subject options at the tender age of just 14, so they need to be familiar with careers based on STEM subjects well before the end of their Year 9. A small investment now in terms of time and effort can often pay dividends later on when you are looking to engage the brighter students as new trainees and apprentices.

The same applies to local colleges and universities. Get to know the Head of Engineering and other STEM subject staff, attend their annual career days, perhaps even give short talks to students on careers in our beloved industry.

The move from education to employment is a big step for young people – being a familiar face with a known career path will enable you to take the pick of the crop.

BVAA Conference Review



An enraptured BVAA Conference audience

BVAA reconvened at Celtic Manor on Tuesday 14th May 2013 for the second in the latest reincarnation of the BVAA Spring Conference, which this year also featured a mini exhibition by members Abacus, Cameron, Dichtomatik and Righton.

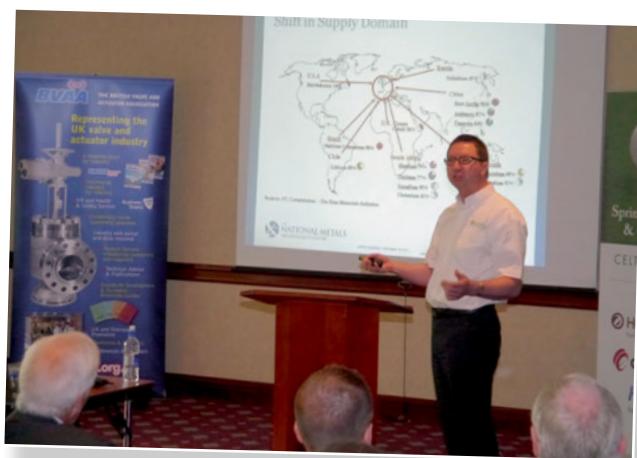
Scores of BVAA members attended the event and were rewarded with a diverse and stimulating conference covering a broad range of subjects.

First up was Steve Howell of Abercus who gave an excellent introduction to computational fluid dynamics and its specific benefits to the valve industry. Many members are now utilising this important design tool.

Hans Sodevall of Sandvik Powdermet (Sweden) followed and gave members some insights into the tremendous benefits of near net-shape solutions for valve products. In these time-short and cost-conscious times, the technology does seem a great solution for short-order/short lead-time products.

Next up was BVAA member Tim Guest of Zoedale, who gave members a taster of just how Twitter and Linked In could work for them. Social Media is of course not unknown to most members, but instruction on how to make it work advantageously in a business environment left members eager to learn more.

Making a welcome return visit to the Conference was Alan McLelland, CEO of the National Metals Technology Centre (NAMTEC). Alan was as entertaining as ever and gave an extremely well informed view on why some metals appeared to be in short supply, how some specialist metals are by-products of other processes, which are often on completely different business cycles, and why some markets are dominated by near-monopolies and of course the impact this has on cost and availability.



Alan McLelland of NAMTEC

Our Generous Conference Sponsors:



After lunch, members were able to interact with Rick Faircloth, Principal Engineer with Cameron Engineered Process Valves (Houston, USA) and a key contributor to the controversial API 20A valve castings quality standard. Following background to the standard's development, members were able to make individual enquiries on the standard's requirements, but also a pre-prepared series of questions compiled by BVAA's own Valve WG were put to Rick. Many of these may well lead to changes to the standard's content in a subsequent revision (see page 30).



Wise words from Alan Beaulieu on the Global Economy

Another 'star act' was Alan Beaulieu of ITR Economics. Alan had presented at the December 2012 AGM meeting cluster and a return visit was a popular choice. In an extended session Alan explained his organisation's analysis techniques, and then gave a comprehensive assessment of the global economy and drew out specific points on individual countries. The key to the presentation was how to identify the opportunities a recovering economy presented and then how to prepare and make best use of them as they came around.

Excellent feedback from members on a very informative day:

'My first BVAA event, very impressed'

'A great Conference, very informative'

'I could listen to the Economist all day!'

'Economic presentation superb – just fantastic'



Rick Faircloth in expansive mood on API 20A

John Millar 1926-2013

It is with great sadness that we are announcing the death of John Millar. John worked for Heap & Partners from 1952 till his retirement in 2008 aged 82. During that time he grew Heaps from a small Liverpool company employing only a handful of staff into one of the best known companies in our industry renowned for its technical expertise. Always forward thinking and innovative he introduced our first computer to control our stock holding in 1970 and started our Apprenticeship scheme which still runs today. He introduced the first drills and lathes into Heaps in the 1970s. Initially to help us modify standard products, but eventually leading into the full manufacturing facilities we have today.

In 1976 to celebrate the company's 110th anniversary he wrote our company history *William Heap & his company*. This book is still in print today and is in demand from all over the World as one of the finest sources of information on the Great Railway builder Thomas Brassey who employed William Heap as his chief bridge builder before he left in 1866 to set up Heap & Partners.

Even after his retirement John Millar continued to support Heap & Partners by producing the layout drawings for our new head office in Birkenhead and providing training for new members of staff. Today as Heap & Partners enters its 147th year in business we know we would not exist but for his efforts.



John is survived by his Wife Dorothy Millar and three children John Keith, Ann and David.

Sensible Documentation Please!

BVAA recently received a telephone call from a rather weary member – *who will remain anonymous* – complaining about the raft of paperwork that routinely accompanies each and every enquiry, much of which is totally needless or irrelevant or both.

He reported that a recent enquiry for a 2 inch check valve had been accompanied by over 400 pages of documentation... and this excluded the Terms & Conditions! Our member reckoned a good Engineer could have covered it on a single A4 page.

We know levels of valve expertise – or ‘valveology’ as it’s known in the industry – can be low these days in our customer base, and there is a tremendous reliance on the manufacturer/supplier to cover technical input, but our member’s view was that the enquirer was simply covering themselves for every conceivable eventuality irrespective of how remote or irrelevant they might be.

This isn’t the first time we’ve heard of this tremendous burden on the industry and would be interested to hear if others feel the same. Contact rob@bva.org.uk



BVAA at Petrofac Innovation Day

On 22nd May 2013, a small selection of BVAA members were invited to participate in Petrofac's internal Innovation Day. Taking part in the regular event at Petrofac's Bridge View facility in Aberdeen were Alco, Cameron, Emerson, Enermech, Hobbs, Pentair, Rotork and Smith Flow Control. Also involved were ScotValves - Petrofac's own service company.

Over 60 visitors from all departments at Petrofac attended, plus some end-user guests. Attendees were able to see the latest innovations in valves, actuators, ancillary products, and maintenance and servicing.



Petrofac's organiser Bob Taylor commented, '*I'm sure that our engineers gained a greater level of knowledge and awareness not only about the BVAA but also the new products and innovative techniques members are developing.*'

BVAA Golf Day

The BVAA Golf Society met again on 15th May 2013 at the superb Celtic Manor, Newport, Wales. There was a deluge on the preceding (Conference) day, and then a full-on monsoon right into the evening Networking Dinner, which threatened the event. However the sun made a timely return next morning and 34 BVAA members and guests enjoyed superb weather right from the tee-off.

The BVAA golf days are primarily about fun and fraternity, less about skill and competence (as is clear from the scoring!). However clear winners of the Stableford event were Roddy Philp (HSP), Vince Duffy (Weir), Les Littlewood (Albion) and Andrew Newham (Hydralvalve UK) with 89 points. Prizes



Worthy Champions: Roddy Philp, Vince Duffy, Les Littlewood and Andrew Newham with the BVAA Trophy



The first wave of BVAA Golfers



were also awarded for nearest the pin, longest drive and wooden spoon (names withheld to protect the innocent).

Our thanks to Captain of the Day Rob Boycott (Cameron) and again to our generous sponsors Cameron, Hobbs Valve and HSP.

BVAA's Latest New Members

**BVAA Membership continues to grow at a very impressive rate.
Here are just a few of our latest recruits...**



BHR Group's Raghbir Chand accepts his BVAA Member plaque from BVAA Director Rob Bartlett



Tony and James O'Donnell of The Smart Actuator Co (SACO)



Rik Barry of Advanced Valve Solutions (UK) Ltd



The Bharat Forge team



RP Valves of Mildenhall



Kathryn Foster and Steve Cooper of Armolyoy



Gary Lynch of Maceplast



Steve Cook, SAFI



Paul Reeve of Silmetric



Andy Nash and Jamie Dummer, Pneumatrol



DMR Seals: From left to right: Grace Trow, Sarah O'Connor, Martin Peat, Richard O'Connor, Paul Matthias, Lee Wharton, Adam Keightley, Lee Allen



BVAA's Mad Hatters

'How far can you go wearing a BVAA Hat?'

Barry Williams of Alpha Controls took our challenge a little too seriously! Barry and friends are pictured here – replete with BVAA hats – on a Help for Heroes charity trek at the Great Wall of China! Hearty congratulations to all. A BVAA donation has been made via Barry's bmycharity H4H website.

BVAA Hats or Brollies are available free in exchange for a photo of you using them somewhere interesting. Contact karen@bvaa.org.uk



Competition

We think this issue's competition may stump a few readers. Wolseley Valvestock's Marcus Sampson is pictured here (left) – suitably behatted - with a very famous TV celebrity at a recent fundraiser for the Broad Appeal in aid of motor neurone disease. However his friend is extremely difficult to identify without his hirsute trademark! Can you identify him? There's £50 to the charity of your choice for the first correct answer to rob@bvaa.org.uk

New Valve Metallurgy Course!

BVAA, in conjunction with our partners at the renowned Advanced Manufacturing Research Centre (AMRC) Training Centre, are launching a one-day course on 'Valve Metallurgy - for non-Metallurgists.'

To be delivered at the BVAA HQ at Banbury, UK, on the 12th November 2013, the course gives a technical insight into the technology of valve manufacture. It reviews metal and alloy options for all components in a typical valve design and explains the manufacturing processes, including casting, forging, heat treatment, machining and surface coatings. Key considerations are optimisation of in-service performance consistent with manufacturing and financial constraints and compliance with industry standards and specifications. There is a strong emphasis on Oil & Gas.

Places are available at just £395+vat BVAA members, £450+vat non-members.

BVAA hopes to roll out more metallurgy-based courses in the near future, on topics such as introductions to castings, applications involving stainless steels, etc.

For further details or to book, contact karen@bvaa.org.uk



Help Wanted: Young Talent Need Apply

Valve manufacturers are hiring! But our members are struggling to find enough talent to fill their growing needs. So what's a trade association to do? Adapt... and help our members adapt.

Like BVAA, the Valve Manufacturers Association started 75 years ago in response to the booming industrial era, in which companies required both increased standardization and specialization. Over the years, the industry we represent has evolved and includes U.S. and Canadian firms known for their outstanding engineering. This is an industry that underpins many others and serves as a bellwether for how manufacturing is faring globally. Over the years, VMA has become a seal of approval for those looking to do business with our members.

As we look ahead, the challenges the industry faces today are bigger as we serve a global customer base and employ a global workforce. The industry—like so many others in the U.S. and beyond—is facing a triple threat. Our workforce is graying, and we are on the precipice of losing a lot of experienced workers. Conversely, our younger technical talent pool isn't keeping pace with our growing industry. Also, we need a workforce that can operate in a global community—with language abilities and cultural awareness.

As a multi-billion industry, the valve and actuator business greatly contributes to the success of other key industries that rely on its products to keep their products working. Products manufactured by VMA members are used in numerous industries, including: chemical processing; petroleum refining; oil and gas exploration, distribution and transmission; power generation; nuclear power; water/wastewater; commercial construction; and pulp and paper. If these industries aren't ordering

our products, then they aren't producing.

The good news is that the U.S. and Canadian industrial valve market has been on an upward trend since 2010, again reaching the high levels witnessed in 2008. We have also seen growth both domestically as well as internationally as our members adapt to and benefit from globalization.

But in order to sustain this growth we must overcome workforce issues which threaten the competitiveness of the U.S. and Canadian valve industry. According to the American Youth Policy Forum, "*the STEM (scientific, technical, engineering, and manufacturing) occupational category is one of the fastest-growing in the economy... [but] the U.S. is currently not producing enough STEM talent to satisfy market demands.*"

While there are many reasons for this, including the need for better STEM instruction, we know we cannot just wait and see what happens. That's why we have placed more emphasis on training and education to help our industry meet the needs of our customers and retain its competitive advantage.

As part of this effort to reach the next generation, VMA established an in-depth valve education program—Valve Ed—in 2009 to attract and train current and future valve employees. Today, the program contains creative components such as Valve Basics in a Box, a "Valve Petting Zoo," and soon an online 101 valve basics training course to promote valve literacy and career interest.

We know this only a start. As an industry, we must be heard on this issue in our local communities where our businesses operate, in



our other trade groups, with our business partners, and with all levels of government. We must find ways to interest youth in entering STEM fields and promote the high-quality jobs we offer.

After all, demand for our products will only expand driven by technology and worldwide consumption. We need the best and brightest workforce to ensure we can deliver them.



Bill Sandler
President
Valve Manufacturers Association

Bill Sandler, CAE, is president of the Valve Manufacturers Association of America, which represents the interests of U.S. and Canadian valve, actuator and control manufacturers. For more information about VMA, please visit www.VMA.org.

Valve World Americas a Success for BVAA

BVAA was delighted to be able to secure a booth at the second staging of Valve World Americas Expo & Conference, recently held in Houston, Texas. Thanks to the cooperation of members James Walker, and some quick work from the team here at BVAA HQ, we were able to take the opportunity to promote the benefits of working with UK valve industry to the 2,120 visitors who attended the event. In addition to the attendees, the exhibitors; including companies from the United States, Asia, Canada, Europe, India and Mexico; brought some 1,245 staff to the George R Brown Convention Centre.



The large numbers of valve professionals present made for a very busy two days for Jimmy, who manned the stand, however BVAA's Marketing and Communications Manager was delighted with the contribution the show had made to BVAA's overall marketing strategy.

He commented: "This was a fantastic opportunity for us to promote our members directory and magazine to the US market. I spoke to a number of companies who were planning to do business in Europe in the future; they were delighted to receive our DVD of members literature as a starting point for investigating the UK Market. We also promoted Valve User Magazine heavily, raising its profile in the US."

PILOT Share Fair

'A unique and rare opportunity'

Wednesday 6th November 2013, Aberdeen Exhibition & Conference Centre

BVAA Director and Valve User Editor Rob Bartlett comments:-
"I had the privilege of attending the 2012 PILOT Share Fair and was amazed at the project and contact information that was made freely available. I am delighted to announce that BVAA will be attending the 2013 event in strength, both as delegates and as exhibitors. If you are interested in doing business in the UK Oil & Gas industry we heartily recommend attending."

The PILOT Share Fair provides a unique and rare opportunity - the chance to be among the first to hear about the latest UK Oil and Gas business development opportunities from the major oil and gas players, both from the operator and contractor communities, who will unveil their 18 month forward plans for projects in the UKCS at the event."

The event's primary objectives are to provide:

- An insight into the future project development plans of operators and contractors
- An opportunity for networking, for example meeting prospective new clients and updating existing contacts
- An information sharing forum
- One to one sessions; meeting potential customers on an individual basis in a dedicated 15 minute appointment
- An opportunity to gather market intelligence
- Support for the industry's supply chain code of practice



One-to-one sessions with potential clients are very popular and need to be booked early!



Operators and contractors present their future project development plans several times a day



Organised by:



PILOT Share Fair continues to be a huge success, attracting a record 1,500 attendees in 2012

This year's presenters include:



Venue: Aberdeen Exhibition and Conference Centre, Bridge of Don, Aberdeen, AB23 8BL

O&GUK Member Rate: £130.00 + VAT

O&GUK Non-Member Rate: £200.00 + VAT

* includes admittance to the networking reception at the end of the day

For more information visit:-

www.oilandgasuk.co.uk/events/pilot_share_fair.cfm

For bookings contact:

Helena Lidgate

Tel: 01224 577 460

hlidgate@oilandgasuk.co.uk



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9. Internationale Fachmesse mit Kongress für Industrie-Armaturen
Düsseldorf, Germany, 2–4 December 2014**

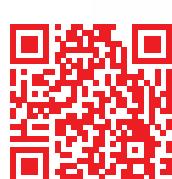


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CVS helps raise over £50k for EnQuest Charity Golf Day



Control Valve Solutions Ltd (CVS) was just one of the sponsors of EnQuest's annual charity golf day at the world-famous Fairmont St Andrew's course where forty teams took part and helped to raise more than £50,000 for Aberdeen based charity Archway.

For CVS' part in sponsoring the event all 160 golfers were given a leather golf shoe bag complete with golf balls, tees and an umbrella.

Senior HSE&A advisor at EnQuest, Barry Quinn, who leads the team responsible for organising the event, said: "The tremendous amount of money raised has exceeded our expectations and we're extremely grateful to everyone who donated so generously. Our aim was to double the £16,000 we raised last year for EnQuest's nominated charity, Archway, but we didn't anticipate topping the £50,000 mark."

He added: "This will contribute significantly towards Archway's Appeal for Betty's Place, a project to establish a specially adapted holiday cottage and specialist services for the children, young people and adults with learning disabilities that the charity supports."

As CVS grows it is becoming even more important to support the local community and its next project is sponsoring the Granite City Grizzlies, an Aberdeen



basketball club based at the International School of Aberdeen (ISA). The company's Business Development Manager Ryan Machado is involved in the club and Managing Director Mick Beavers agreed to sponsor the team for the next season to support a local group and as an advocate of more leisure time outside work.

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New ABB app highlights potential compressed air energy savings

New ABB app points the way to compressed air savings in valve control applications

Users of pneumatic valve positioners can now assess the energy efficiency of their valve installations with ABB's new compressed air calculator app for the Apple iPhone and iPad.

Based on the amount of compressed air consumed by conventional positioners, the app shows how using the latest smart positioner technology can help operators to dramatically reduce their energy costs.

Easy-to-follow instructions show the user exactly what parameters are needed to calculate any potential savings. The user is prompted to enter the number of pneumatic positioners on site, air cost per standard cubic foot and the percentage of time spent at a steady state to calculate the user's current compressed air energy costs. These costs are then



There is no other app on the market that can show positioner users the significant energy savings that can be made by using smarter technology

compared to the potential savings that could be achieved using ABB's TZID-C and EDP300 intelligent positioners, where compressed air is only consumed when required.

"At present there is no other app on the market that can show positioner users the significant energy savings that can be made by using smarter technology," says Jo Kirkbride, ABB's Product Manager UK & Ireland, Actuator & Positioning Products. *"Conventional valve positioners can typically consume compressed air even when not in operation, many sites could be racking up thousands of pounds in wasted energy."*

Consider a positioner which spends 50% of its operational time in a steady state position (steady set-point). Assuming a compressed air cost of 1p per scfm (standard cubic feet per minute), the cost of this wasted energy, in the worst case, can be as much as £2,106.78 per year. Replacing this positioner

with a smart positioner could save between £500 and £1,200 per year per positioner through reduced compressed air consumption.

The app also allows you to measure savings in different currencies, including Sterling, Euros and US Dollars.

To find out more information call 0870 600 6122 or email moreinstrumentation@gb.abb.com, ref: 'Compressed air calculator app'. To download the ABB app, please visit the Apple App store and search for "ABB Compressed Air Calculator".

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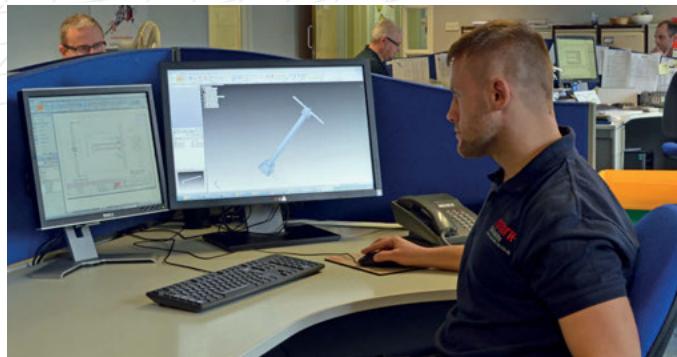
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Redefining Flow Control

Schischek launches explosion-proof controller for decentralised HVAC control structures

With more and more applications in the building automation sector requiring high performance, cost effective and easy to use explosion-proof control systems, Schischek now provides the solution with the introduction of ExReg.

The ExReg control unit is designed to ensure smooth operation when controlling HVAC systems for variable air volume (VAV), pressure, temperature and humidity by minimising the number of separate components required.

'Compact design which incorporates an internal proportional-integral-derivative (PID) control structure'

Developed from the successful ExCos and ExBin HVAC sensor series used extensively in hazardous area locations including ATEX zones 1,2,21 & 22, the new ExReg control unit features a compact design which incorporates an internal proportional-integral-derivative (PID) control structure. The parameterisation process is easy to use and automatically achieved for standard applications. The system provides support, especially during



The Schischek ExReg is designed for decentralised control structures in explosion-proof areas

the start up process, with many predefined settings and damper characteristics.

Features retained from the globally established ExCos and ExBin series include the elimination of intrinsically safe wiring, digital adjustment, actual value indication and LED status display. Designed for electrical and mechanical compatibility with market standards, the ExReg is suitable for 24Vac or dc supplies and environmentally protected to IP66.

The introduction of this exciting development further expands the Schischek range of market leading explosion-proof control products, backed by worldwide support and engineers experienced in explosion-proof applications.

For over 30 years Schischek has supplied electric explosion-proof control products for building automation in a wide range of industrial sectors including oil & gas, (onshore and offshore), shipbuilding, chemicals, pharmaceuticals and water treatment. Schischek is now part of the Rotork group of flow control companies.

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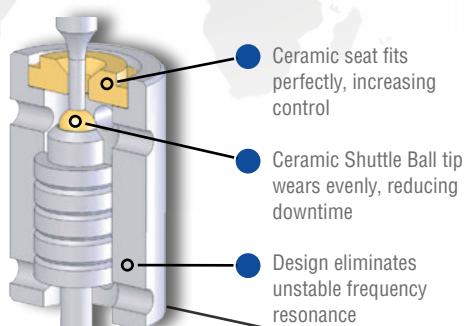
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ASCO's Energy Efficient Valves

ASCO Numatics introduces range of energy efficient motorised valves with stainless steel bodies

ASCO Numatics introduces a range of compact and lightweight motorised valves for applications where electric actuation is required. The new valves are quiet in use and can be operated by a 24V DC power supply or by AC voltages of 24 to 48 and 110 to 250 (50 or 60Hz). The low power design requires just 12W of power during opening/closing, compared with 40 to 50W for similar products.

Available as G $\frac{3}{8}$ ", $\frac{1}{2}$ " and $\frac{3}{4}$ " body in stainless steel, the motorised valve is suitable for fluid temperatures up to 90°C and is rated to IP65, making it suitable for outdoor use without an enclosure. The angled seat design provides a high flow rate and testing has proved that the valves are reliable for more than one million cycles, reducing maintenance costs and downtime.

With a fast response time of less than 2 seconds per cycle (open and close), they do not require a current to maintain position. Low operational power consumption enables cabling and power supplies to be minimised - saving cost and reducing footprint. LEDs indicate



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ASCO Numatics Series 290 motorised valves are compact and lightweight and have a low power consumption of just 12W

the status of the device and these are visible through 360° to aid installation and troubleshooting.

The new valves complement ASCO Numatics' range of pressure operated valves and share many of their industry proven characteristics. They have many applications in the water treatment industry, wine production plants, industrial heating and cooling systems, car wash equipment and on-board systems for vehicles.



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Saint-Gobain PAM UK delivers a durable and cost effective solution to water companies

Iron technology leader Saint-Gobain PAM UK, part of leading materials group Saint-Gobain, has added a new through bore CE fire hydrant, DN80 PN16, to its range of market-leading ductile iron below-ground hydrants.

Exclusive to Saint-Gobain PAM in the UK, the innovative new fire hydrant is the first through bore to be kitemarked to BS750:2012 and BS EN 14339, providing assurance of long term durability and security. The new hydrant, which provides a direct unobstructed full 80mm bore access to the pipeline when the outlet has been removed, has two main applications - access to the water mains for the fire service and for inspection, repair and maintenance activities. It is patent protected and is similar in design, installation and operation to existing hydrants, minimising the need for operator retraining.

Incorporating an array of technologically advanced features, the robust through bore fire hydrant has been developed as a low weight, compact design for ease of handling and installation. It has significantly increased flow rates at a low operating pressure, a maximum operating temperature of 60°, a safety factor of 2.6 and requires minimal maintenance. Additionally, it incorporates an automatic frost valve which prevents water escape during operation. Maintenance is enhanced through the hydrant's secure bolted bonnet.

'All non-metallic parts are WRAS approved'

The hydrant has a universal inlet flange, stainless steel bolts and a 2½" London round thread stainless steel outlet (BS750:2012) are supplied as standard. All non-metallic parts are WRAS approved. Outlet options available are PN16 (standard), Bayonet (UK or Dublin) and N.I. Belfast. Other parts and accessories are available upon request.



The innovative new fire hydrant is the first through bore to be kitemarked to BS750:2012

Linda Wardle, Product Manager of Saint-Gobain PAM UK, commented: "This new and competitive through bore CE fire hydrant has been developed to meet the market's increasing demand for innovative ways of accessing pipelines. It incorporates a number of design enhancements to ensure optimum durability and efficiency together with minimum maintenance. These attributes help reduce our customers' total installed cost and future maintenance spend."



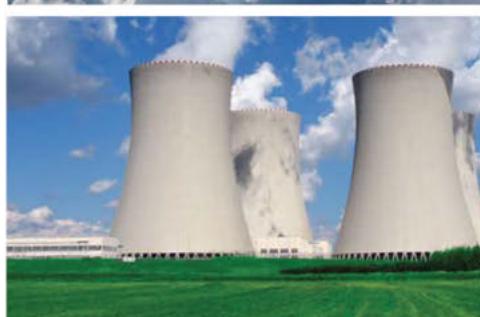
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Hot Spot - API Specification 20A Clarification

Following detailed examination of the 'API 20A - Steel, Stainless Steel, and Nickel Base Alloy Castings for Use in the Petroleum and Natural Gas Industry' standard, BVAA members have raised considerable concern with regard to the stringent requirements that will be imposed on castings used in the manufacture of pressure containing, pressure controlling and primary load bearing components for any API product standard such as 6A, 6D, 6DSS, 17D, 600, 608, 603.

At the BVAA Conference at Celtic Manor on 15 June 2013 following Rick Faircloth's presentation on the requirements of API 20A, these issues were raised during the question and answer session and the following clarifications were given.

The areas of greatest concern were:

Q1. Weld repair limitations for all but CSL1 with ZERO welding permitted for CSL4 and what application would justify CSL4 integrity?

A1. CSL4 is considered too demanding and will not be called for – proposed to be removed from the standard.

Q2. Zero weld repair permitted on Duplex castings.

A2. This clause has been included in error and will be modified in Addendum 1 to allow weld repair provided the PQR includes ferrite testing of 35-65%.. at the next revision.

Q3. Qualification castings to be produced with re-qualification for changes to material type or group, wall thickness, pattern, casting process, change of foundry.

A3. This is a real requirement including foundry approval.

Q4. What prompted this standard?

A4. Continued concern that casting produced to ASME B16.34 are not of acceptable quality - Basic visual examination and pressure testing does not reveal everything.

Q5. Who drives the standard (End User or EPC)? - it is widely believed this is the former.

A5. End User or valve manufacturer can specify the CSL level required.



Cameron's Rick Faircloth taking questions on API 20A from the assembled BVAA members

Q6. Is this standard aimed at 'high end' or 'critical applications' only?

A6. All applications with requirements increasing as specified.

Q7. Have cost and lead-time impact been considered?

A7. Implications on cost and lead times to be stated with quotation.

Q8. Do foundries have to qualify for this standard?

A8. Yes – but not necessarily to APIQ1.

Q9. Can historical data be used to qualify castings and patterns already in place?

A9. Yes but must be thoroughly documented

Q10. Can castings used in the 'qualification' process, be used in production?

A10. Yes.

Q11. When Sacrificial Castings are required, who pays for these?

A11. Sacrificial castings only required on CSL4 – not to be called up and CSL4 may be deleted from the standard.

Some welcome clarifications and also some confirmation of requirements.

The BVAA members approach to specifications calling for compliance with API 20A will be the subject of further debate by BVAA Valve WG. Guidance will be issued as necessary.

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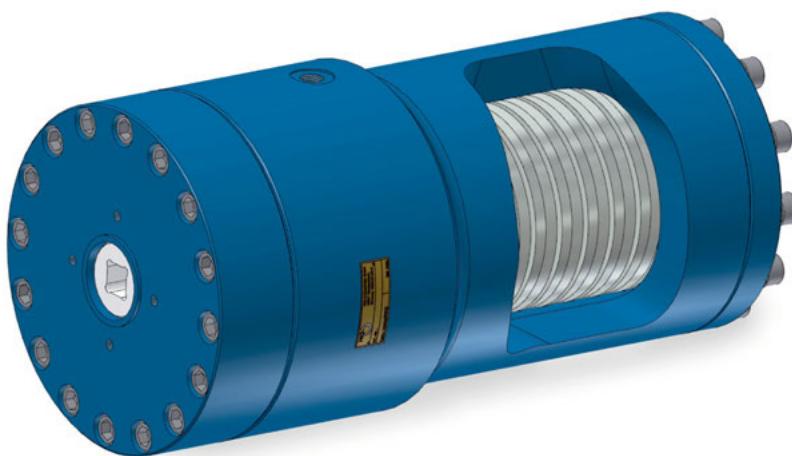


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Historically, this actuator has, like many others in the industry do, had a peak capability of 210 bar hydraulic, which has proved restricting in cases where for example the diameter of the pipeline or valves have been too small or where the flow of greater volumes of fluid or gas have been required.

'Larger units can be applied to larger line sizes'

However this new, revised range of actuators will see this level rise to a much higher 350 bar with the result that torque figures and therefore capability will rise in direct proportion.

The immediate benefit of allowing this flexibility and choice means larger units can be applied to larger line sizes. This will see the range of actuators being pressed into service across a wider range of critical applications than ever before.

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Passing the Test: RPV Extends its Range of Testing Facilities



The custom built panel allows complete control of the testing process

Suffolk based valve stockist, modifier and test house RPV, has made significant extensions to its testing facilities to include cryogenic testing to a temperature of -196°C. When added to the company's capability to hydrostatic test and gas test up to 10,000 psi it amounts to one of the most comprehensive testing facilities held by any valve stockist in Europe.

"Our aim is to become a one stop shop and this is another step along the road to that destination," says RPV QA/QC Director Steven Withers. The fact that RPV has many high spec., high value valves in stock which can be modified and retested on site means that their customers save valuable time by not having to move the valves from facility to facility for each step of the process. In the oil and gas industry, every minute counts so the new capabilities are proving very popular with RPV's customers.

The company is also gaining a reputation for emission testing. The test house carries out daily emission testing to Shell 77/312 specification and ISO 15848.

An official modifier of brands including: BFE, Della Foglia, Goodwin, Kitz, Shiphام and Valvosider. Not only do the company have approvals from these key brands and others, but all of the work is PED certified as the company is approved by BSI to 'modify, valves with a design range up to 700 bar and from -196°C to 850°C.' "Recently we took a set of 12", 600 flanged

metal seated ball valves, valves we had in stock. We were able to machine the flange to a butt-weld profile and carry out welding to pipes at each end. The valve was modified, fully NDT tested and pressure tested on site and as it was in stock the customer received it days after the enquiry. They were delighted," commented Steven Withers.

The newest development at the Mildenhall Test House is the cryogenic testing facility. As mentioned above, it is PED certified and also is controlled by the company's ISO 9001 quality assurance system. One of the most impressive aspects of the system is the bespoke designed control panel which allows RPV engineers complete control of the facilities via remote



A UV inspection in RPV's clean room



whilst they monitor the valve on a TV screen and the results on various monitors. The whole process can be monitored live by the customer via internet link, or recorded and viewed at a later date. RPV of course has the associated clean room and degreasing capability on site, complete with UV light for inspection.

As outlined above, RPV now has an impressive range of testing capabilities in terms of pressure and temperatures. These are all excellently complimented by the 10 tonne lifting facility in the engineering and testing houses. "It means we are able to offer the complete service here at RPV" suggests Steve Withers. "If a customer was to approach us for a 2", class 800lb gate valve, we'd of course have it in stock, but now we could modify it with a cryogenic extension, clean and degrease, test it to -196°C and have it ready to ship within the week. Furthermore the work would be CE marked under our PED certification. It is very exciting for us and our customers."

The improvements RPV have made to their capabilities, particularly when coupled with their existing facilities mean they now offer a complete service on site. It is exciting and important news for the European market. Given the company's impressive record of investment, who knows what could be next for the team at RPV?



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In many applications the use of a combination of a stop valve and a check valve is used

This results in two pressure containing parts, two potential leak paths and the added issues of space and especially weight.

Based on globe valves, stop-check valves have been developed in the past. By mounting a loose disk on the spindle, the disk can function as a check valve. The main disadvantage is that these valves in most cases have not been designed as stop check valves. A second disadvantage is the fact that the pressure drop over this type of valves is high, due to the change in flow direction.

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drawing. There are two pressure seal bonnets and two heavy forged valve bodies, welded together or welded in different sections of the line. In total we have to deal with three or four welds, although AVS can carry out the welds between the check valve and the gate valve in the factory.

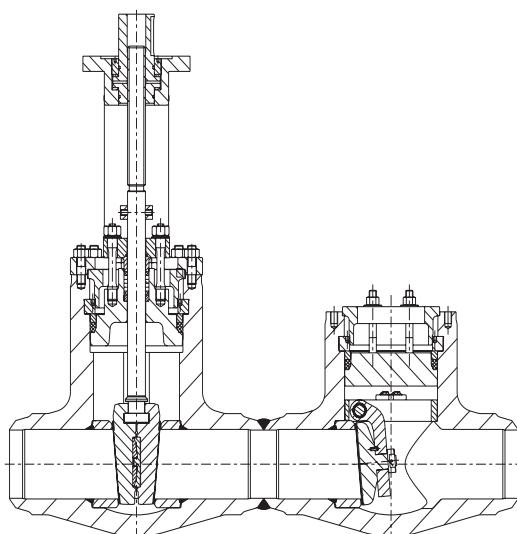
Other disadvantages are the space requirements, the additional weight, the extra insulation needed and also the additional cost factor.

Furthermore, the maintenance and inspection costs for these combinations, have to be based on two valves.

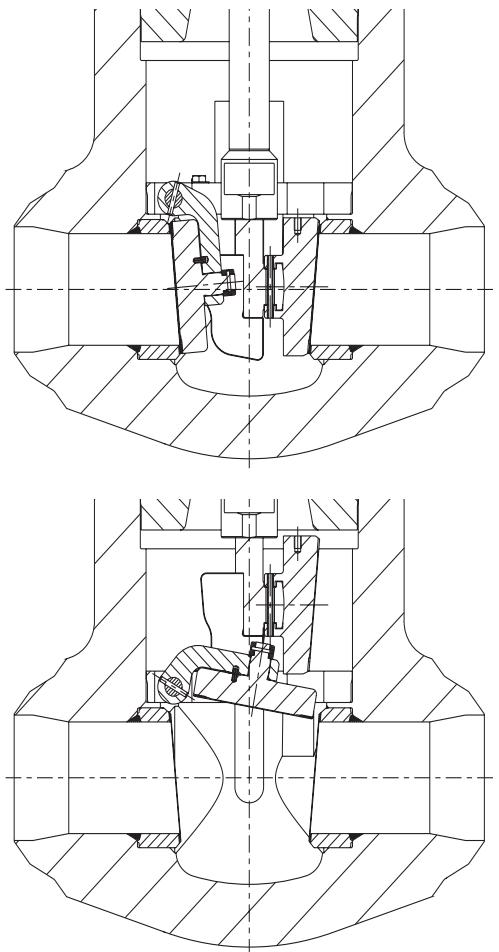
Latest Developments

New developments within Persta, a valve manufacturer that AVS work closely with, have combined the tapered parallel slide gate valve, with a full swing check valve, brought together in one valve body.

Based on a standard gate valve body and standard stock items a stop-check valve can be created.



Tapered parallel slide gate valve and swing check combination (source Persta)



Persta stop-check gate valve in open and closed position.
(source Persta)

With a swing check valve and the straight through pattern of the valve body the pressure drop is negligible. When the valve is required to be closed an additional disk is lowered on a second downstream seat.

The mounting arrangement of the second disk provides a positive closing force on the swing check disk resulting in a tight bidirectional closure. Now the stop-check valve is performing as a tapered parallel slide gate valve.

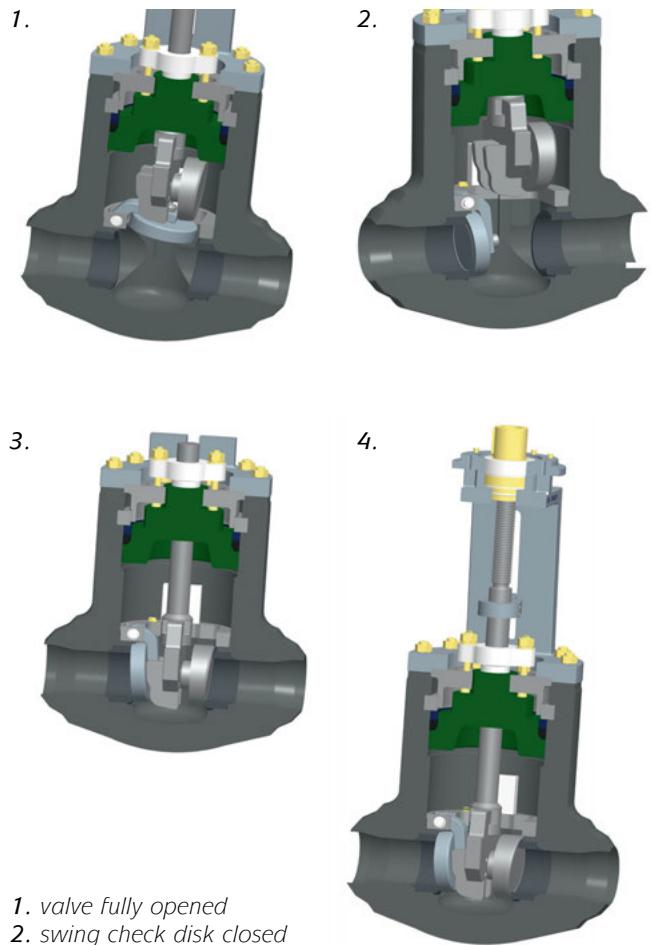
Based on standard Persta hollow forgings, high-pressure equipment can be built.

It is evident that the costs of a combined stop-check valve are much lower than the conventional use of a separate stop valve and check valve. Especially where pressures and temperatures are high, the features of the new Persta stop-check valve provide many advantages.

Applications:

In the industry many possible applications can be identified.

In many power stations where there are two gas turbines, two HRSG's and one steam turbine, a check valve and a stop valve are installed in the main steam lines. Depending on pressure, temperature and capacity a 12", 16" or 20" valve combination brings a better performance and a more economic approach.



Our gate-check valves are available in different materials, such as **ASTM A 182 F12, A 182 F 22, and A 182 F 91**

Every high pressure pump is fitted with a check valve. If this check valve can be combined with a stop valve in the same line, a significant saving can be achieved. High pressure forged check valves and gate valves provide weight and subsequently cost savings.

Our gate-check valves are also available in different materials, such as the EN equivalent of **ASTM A 182 F1** and **DIN /EN WB 36 (1.6368)**. (**ASTM A 533 Gr B, C and D**)

In the oil and gas industry, produced water is re-injected into the well. These pumps do have a check valve and a stop valve. Combining it into the Persta stop-check valves gives a considerable saving in space and weight. Please check the availability of materials, such as **Duplex, Super Duplex and 254 SMO**.

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SACO Powers into UK Market with BVAA membership

SMART ACTUATOR manufacturer SACO has announced its membership of the British Valve and Actuator Association timed to unveil its ground-breaking technology into the UK market.

The Malvern-based company has developed a revolutionary actuator which shows energy and cost savings of over 75 per cent over traditional motor-driven systems.

The actuator has been conceived, tested and developed by Rift Technologies and is being introduced to the UK market in September.

SACO chairman Tony O'Donnell commented: "We are delighted to be joining the BVAA to unveil our product into the UK market and then across the globe.

"In tests our actuators deliver stunning energy savings and there is a huge buzz about our product and the features we have packed in to it.

"We have spent time with patent lawyers and industry experts proving our product to the sceptics."



SACO Founders Tony [left] and James [right] O'Donnell

Tony O'Donnell says that experts have been 'astonished' by the performance of the Smart Actuators

"Now we are looking to spread the word and the BVAA was the logical choice to help us step into the global marketplace.

"Everyone who has seen the test results is astonished by the numbers and we are starting to ship product from our Malvern HQ."

SACO has created a dedicated website for people who want to order small quantities of the ground-breaking actuator or to find out more information. Registered users are able to download technical specifications or get sales literature.



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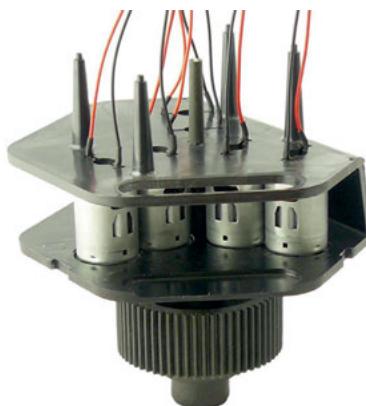
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hydravalue celebrate 25 years

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hydravalue (UK) Ltd was established in 1988 as a private limited company, started by partners Mr A Newham and Mr A Brown, and since Tony's retirement Christmas 2008 the company is now family run.

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The product range, growing all the time, is only sourced through ISO approved suppliers and has helped established hydravalue as long standing supply partners to major companies in various industries, including original-equipment manufacturers, in-paint production, paint spraying, mixing, foundry, industrial washing and the food and beverage industries. We also sell many of our products to other valve distributors as well as dealing with installers and fabrication companies.

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www.hydravalue.co.uk/shop/prisma-pneumatic-actuation.html

JJ Electric Actuation

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708 tonnes of CO² saved with Spirax Sarco steam trap management

A Spirax Sarco steam trap management contract is projected to save AB World Foods 236 tonnes of CO² a year, for the next three years.

Under the new contract the site's steam trap population will be surveyed and maintained by Spirax Sarco specialists every six months, to ensure it is running at peak efficiency. The investment will pay for itself in only eight months.

The Lancashire site uses steam for a variety of applications to produce its range of Pataks sauces, such as process hot water, sterilization and Cleaning - In-Place. In light of rising energy prices, AB World Foods looked at areas of the plant where efficiency gains could be made.

"As gas prices increase, it's vital that we handle our steam use as efficiently as possible," says Tony Marsh, AB World Foods Engineering Manager. "Previously, steam trap maintenance was only carried out if a trap interfered



with the process, so we may have missed the odd failed trap. Now we can be sure that our system is running to its best.

"We have used Spirax Sarco to carry out steam trap surveys before," continues Marsh. "Their steam knowledge and products are invaluable, plus we know they work with other large manufacturers. We wouldn't have anybody else."

A Spirax Sarco steam trap survey will initially measure a steam system's current efficiency and identify areas of improvement where potential energy savings

AB World Foods looked at areas of the plant where efficiency gains could be made.'

can be made. Once rectification work has brought the system up to optimum operating efficiency, a steam trap management contract will remove the hassle of in-house maintenance and ensure the system is running a maximum efficiency all year round.

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Solutions Sales Added to AUMA's Service

Mark Goodson has been appointed to the new position of Solutions Sales Engineer at AUMA UK, the manufacturer and supplier of electric actuators. Focussing on providing tailored actuation solutions for specified projects, Mark will demonstrate AUMA's innovative approach and its benefits to product design and delivery.

With a strong technical background, Mark began his working career as a mechanical apprentice at Hawker Siddeley Dynamics. He moved to British Standards and CEGB before taking an internal sales post with Samson Controls. Other roles have included technical management.

Commenting on the strength of AUMA Actuators' offer, Mark Goodson said:

"AUMA is a forward-thinking company developing diverse solutions for fluid system control. The company has set itself apart as a full solution provider."

"The AUMA offer is extremely compelling: modular design provides complete flexibility which provides time and cost savings in development, installation and operational phases. This is a highly attractive offer



Mark Goodson is appointed to the new position of Solutions Sales Engineer at AUMA UK

to the process control industries, including consultants working in the sector."

Mark reports that he is excited to be joining an expanding organisation that provides significant development opportunities and comprehensive technical support both from AUMA UK and the company's primary manufacturing facility in Germany.

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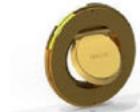
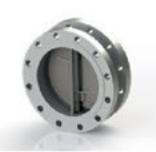
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New globe valve line gives Metso's customers more control performance options

About one year ago Metso announced a launch of a new line of Neles® globe control valves, targeted in the first phase to the Asia Pacific, Chinese and Indian petrochemical, refining and oil & gas industries. Global launch is to follow in 2014.

Metso is a leading international supplier of control valves and services. The addition of the globe valve product line means that Metso's customers in Asia Pacific, China and India will have access to a complete portfolio of control valve solutions backed by world-class product, applications and service expertise.



Metso's new Neles globe valve product line is intended to play a key role in many critical processes where extreme pressures and temperatures are issues. The Valstone products have been used widely in such applications in the Asia Pacific oil & gas and power industries. These customers will now have convenient access to Metso's advanced control and safety systems as well as its advanced materials and seal technologies.

'Metso is a leading international supplier of control valves and services'

According to See Hoe Lau, Vice President of Metso Automation's Asia Pacific Sales & Services, "The introduction of our globe valve product line to the APAC market is very much part of Metso's international strategy for providing our customers with complete control performance business solutions that encompass both products and services that provide a clearly quantifiable payback. Our customers in Asia Pacific, China and India will now be able to choose the best possible control valve solution for their applications from a broad range of products that include segment, rotary plug, ball, butterfly and globe control valves, along with the world-class ND9000® intelligent controller. Customers in other regions of the world will have the same opportunity when we launch the Neles globe valve line globally during 2014."

Neles globe valves provide innovative, fundamentally simple construction, operation and maintenance features to optimize process performance at the lowest cost. When paired with internationally acclaimed Neles ND9000 intelligent valve controllers, these devices provide very smooth response for exceptional process stability and remote diagnostics for highly cost-effective predictive maintenance.



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Emerson Extends Alarm Management and Actuator Capability

Emerson's FieldQ diagnostics help simplify work practices and improve efficiency

Emerson Process Management has released cost-saving new diagnostic capabilities in its FieldQ rack & pinion, fully integrated valve actuator and controls. The updated capabilities greatly simplify daily work practices with the release of FieldQ Foundation fieldbus Version 3, with device diagnostic alarm management in a flexible modular package.

The enhanced diagnostic alarm tools enable users to categorise and prioritise device alarms based on the criticality of the device and the severity of the problem detected by the diagnostics. Alarm settings can be configured to alert appropriate plant personnel so they can take action without being distracted by irrelevant alarms.

"Our device diagnostics can be tailored for maintenance and matched to predictive routines. Users will see efficiency improvements in their daily maintenance and turnaround planning, which help to maximise uptime and reduce costs," said Sue Ooi, Vice President, valve automation rack & pinion products, Emerson Process Management.



The FieldQ product modularity further extends efficiency by offering plug-and-play modules for many requirements, including explosion-proof and intrinsically safe capabilities, as well as bus communication options. In addition, control modules are available for diagnostics such as travel time, cycle counts, time in position, and module temperature. This capability enhances field services capabilities and makes user interface more cost effective.

For additional information about the new diagnostic power and modularity of FieldQ, please visit www.emersonprocess.com/fieldq

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Hobbs Valve: Founded on Innovation, built through service

Hobbs Valve was founded on an innovation. Just eight years ago when the company was formed in Caerphilly by six share holders, it was on the principle that the design for butterfly valves in high pressure applications could be significantly improved. Today, the Hobbs' triple offset butterfly valve is synonymous with high performance and has been well received by contractors in the oil and gas industry. *Valve User* met with Hobbs' Managing Director Rhys Jones, who explained that by placing a lot of emphasis on the product and the customer alike, Hobbs Valve has gone from strength to strength.

"The first 12 months of Hobbs Valve's existence was spent on research and development, which shows that when we say we put our product first, we mean it" says Mr Jones, who was one of the founding share holders of the company and the original Sales Director.

"A passion to produce the best possible product"

"We had, and still have, a passion to produce the best possible product. We discovered that the best way to find a company that was willing to take the business risk on making significant changes to an established successful valve, was to form our own company." The business' policy of exceeding industry expectations led to Hobbs Valve becoming the first manufacturer to deliver a fire safe Triple Offset Butterfly Valve in line with BS EN ISO 10497:2004 and API Std 607:2005 5th Edition in 2006. This now sits with Hobbs' other certified standards in Fugitive Emissions, Cryogenic and Fire Safe in Titanium, Non-Graphite and Nickel Aluminium Bronze.



The new facility in Caerphilly, South Wales offers Hobbs twice as much capacity



Hobbs Valve were the first manufacturer to deliver a fire safe Triple Offset Butterfly Valve in line with BS EN ISO 10497:2004 and API Std 607:2005 5th Edition

"Driven by customer satisfaction"

An excellent product, no matter how good, does not guarantee a successful business. However Hobbs Valve is thriving and in 2013 has moved to a new facility with 25,000 ft² of floor space and a production capacity of \$20 million per year; over twice the size of their previous facility. Mr Jones believes that service levels are equally as important as the quality of the product, and this attitude has been integral to Hobbs' success: *"We are driven by customer satisfaction; in fact in the eight years we've been in business, we have never lost a customer through dissatisfaction."*

Hobbs Valve's growth has been nurtured through building relationships with their customers, the sales team operate an 'innovate and educate' policy as part of a robust customer excellence programme, whereby they ensure that customers understand why the product is effective, therefore eliminating any practical problems in application. The metrics used by the management team to measure success are based on customer satisfaction, to ensure the customer is



Alun Hobbs [right] and his team are always looking for ways to improve their offering to clients

always in their thoughts, no matter what aspect of business they are focusing on.

"Just the Beginning"

While Hobbs Valve is a success story, success based on the product and the customer, Rhys Jones feels that this is still "just the beginning" for the company. One thing that is for certain, the company is not standing still. This year has not only seen it move to new premises, but also purchase the assets of a precision engineering company. The move has seen Hobbs move their machining requirements 'in-house' giving them greater certainty on quality standards. Essentially it is another development made with product quality and customer satisfaction in mind.

What next for Hobbs Valve? The brand is capturing the attention of several major end users. It has been fast tracked onto Approved Manufacturer Lists for the likes of Conoco Phillips and Saudi Aramco. The Company is also now in talks with certain end users seeking Frame Agreements for exclusive supply. Alongside these developments the Caerphilly based engineering department is embarking on a three year research and development programme to enhance the product offering further by expanding the range; another step towards the ambition of their product becoming "The Triple Offset Butterfly Valve of choice." Like everything else at Hobbs, the ambitions are centred on the product and the customer.

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The historic and picturesque Malvern Hills were chosen by Winston Churchill to be the home of Britain's boffins during the Second World War. The rolling Worcestershire hills have seen the invention of the radar and the development of the very first LCD TVs.

Nestled in the heart of the hills a third, world-beating invention, has emerged which is on the cusp of taking the world by storm.

The very first SACO actuator has been conceived, tested and constructed in workshops in Malvern. Its performance has drawn astonishing responses from industry experts. And the patented technology offers massive energy savings which will offer levels of performance and reliability which will be the only logical choice for actuator bulk purchasers.

The actuator is the first product developed by Rift Technologies, and will form part of a suite of products which will offer huge energy savings to any company using electrical motors or generators.

SACO chairman Tony O'Donnell explained: "Malvern has an impressive track-record for inventing world-beating technologies and we have come up with a motor system which is going to amaze the world."

"Tests show that our actuator offers 75 per cent energy savings on old-style products.

"This offers better performance and huge cost savings for particularly global businesses which operate in Industrial Process Control and Water Management sectors.

"Our tests have been stunning and we have gone into production with the first actuators on the strength of some rave reviews from industry experts.

"Today's energy conscious businesses need to have an eye on any potential cost savings and our actuators can pay for themselves in days, not months or years."



From the Malvern Hills to the World: Tony O'Donnell with one of SACO's smart actuators

The actuators have now completed testing and are being shipped through distributors in the United States, South Africa and Europe. The company is also seeking partners to extend the SACO network and increase capacity in its production capability.

SACO has created a dedicated website for people who want to order small quantities of the ground-breaking actuator or to find out more information. Registered users are able to download technical specifications or



Tony [left] and James O'Donnell, from a long line of Malvern Innovators

get sales literature. Customers who are looking for large orders can contact the sales team through the website.

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Welsh First Minister Visits Hobbs Valve

Hobbs Valve, the South Wales based manufacturer of Triple Offset Butterfly Valves, welcomed the Rt Hon Carwyn Jones AM Welsh First Minister to its Caerphilly plant during July.

Carwyn Jones visited Hobbs Valve at the suggestion of local MP Wayne David and Caerphilly AM Jeff Cuthbert. Mr Jones met with Mr Rhys Jones, the Managing Director and Mr Alun Hobbs, the Chairman of the company. The visitors held a discussion about the company, its development and its future.

Wayne David said after the visit, '*Carwyn was most impressed with the company. Hobbs Valve is a real success story. It exports throughout the world and is pointing the way forward for the whole of the Welsh industry.*

'Carwyn, Jeff and I toured their factory and saw at first-hand how the company is strategically developing its approach towards making the company even more successful. Carwyn was extremely impressed with the visit and on behalf of the Welsh Government, promised to continue to support the company's development.'



Rhys Jones Managing Director of Hobbs Valve greets the Rt Hon Carwyn Jones AM Welsh First Minister to the Hobbs Valve plant

'Carwyn was most impressed with the company. Hobbs Valve is a real success story'

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Carwyn Jones was appointed First Minister of Wales in 2009. He was appointed to the Privy Council on 9 June 2010. Following re-election to the National Assembly for Wales in May 2011, he was re-appointed First Minister by Her Majesty The Queen, following nomination by the National Assembly for Wales.

Hobbs Valve Ltd has operated a successful manufacturing facility in the UK for the past seven years, manufacturing its range of Triple Offset Butterfly Valves by way of subcontract supply of machined components. The company has experienced rapid growth over that period and recently opened a new facility in Caerphilly, South Wales. (see page 44).

Rhys Jones commented "*This is a further indication of the importance Hobbs Valve has to the Welsh and UK economy and that we look forward to the Welsh Assembly continuing its support throughout our future growth plans.*"

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Right on Time: RPV joins BVAA

RPV, the Suffolk based valve stockist, modifier and test house, has joined the British Valve and Actuator Association (BVAA). Approaching its' 20th year, the company has a strong reputation for huge stock levels and short lead times. One visit to their multi-disciplined site at Mildenhall tells you that there is more to the company than those qualities alone.

"The industry knows us as a stockist and that remains our core business, we have over £50 million worth of valves in stock," says Steven Withers, RPV's QA/QC Director who has been with the company since the late 90s. *"But our customers, many of whom have been with us since year one, know us as modifiers, engineers and also a test house."*

RPV was formed with the intention of becoming one of the suppliers of high spec., high value valves for the oil and gas industry; a feat many would argue the company has achieved. Stock levels, of valves which range from 1/4" to 48" and above in size, reach a value of over £50 million. RPV is an approved supplier of renowned brands such as BFE, Della Foglia, Goodwin, Kitz, Shiphام and Valvosider. The company holds these large levels of stock so that it can work to extremely short lead times. In addition to the impressive stock levels, RPV's stock monitoring systems and seven-day-a-week opening hours allow it to meet the needs of even the most demanding customer.

Customers for whom two days shaved off a delivery time can mean a saving of millions. *"We are open 18 hours a day, seven days a week,"* says Mr Withers. *"That is because we are here to serve our customers. In fact that has become our motto: 'Here to serve'" a motto which applies to customers, projects and valves of all sizes."*



RPV's bespoke control panel in the Test House

Over the years which RPV has been in operation, it has added a number of complimentary services to its portfolio. The company is now a PED certified manufacturer; this means they can make modifications to the valves in stock and reissue them with a CE mark for the European market. The company has been providing testing services for over 10 years, the facilities have been constantly evolving – to the point where the test house now contains hydrostatic, gas to 10,000 psi, cryogenic to -196°C and a 10 tonne lifting facility. The work is part of RPV's ISO 9001 QA system. For more details on the testing facilities at RPV, see our dedicated article on page 34.



Matt George (Sales Manager), Steve Pooley (Work Shop and Test House Manager) and Steven Withers (QA/QC Director) pose with their BVAA membership plaque

RPV, is well on its way to becoming a one stop shop for valve supply to the oil and gas industry. If the motto 'Here to serve' acts as the companies driving force, then the services they have added to their portfolio are certainly another step in the right direction.



RPV stock a number of high spec, high value valves



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Double Celebrations and International Recognition for CVS



Managing Director Mick Beavers (left) receiving CVS' finalist certificate along with Sales Manager, Mac Stevenson (right) from Mike Fergusson of RBS Ahead for Business who sponsored the award

There were double celebrations at Control Valve Solutions Ltd (CVS) back in June as the company gained OHSAS18001 accreditation within four years of setting up and also attended the Grampian Awards for Business Excellence finalists' gala dinner.

Firstly, CVS is now officially OHSAS18001 accredited which means that all three international standards for quality, environmental and now health and safety management have been achieved within 4 years.

ISOQAR, a leading provider of audit and certification services is used by CVS for the accreditation process and the lead auditor was Jim Redpath. He commented that in the 10 years he has worked for accreditation bodies he has never known a company to achieve ISO9001, ISO14001 and now OHSAS18001 within such a short period of time. This demonstrates how much hard work has gone into achieving the standards and what seems to give them the edge is their bespoke information management system "CVS Manager."

John Beavers HSEQ Manager said: "We were planning to apply for accreditation in the next financial year but we have been really successful in integrating improvements to our bespoke information management software CVS Manager™. This meant that we could bring our plans forward and our account manager at ISOQAR advised us that we were well placed to apply. A final inspection in June resulted in us gaining OHSAS18001 reflecting our commitment to continually improving health and safety for our employees and customers as well as the general public."

This was a significant step forward for a high growth company like CVS and a proud moment for the whole team where full management accreditation has been achieved within the fourth year of trading.

CVS' HSEQ Manager continues to be busy maintaining the high standards now expected and ensuring that the company is always one step ahead of new legislation. In a regular environmental audit conducted internally

John was delighted to report that CVS is already operating to the Scottish standard which will come into force in 2014.

As for the future CVS' HSEQ Manager wants to strive for ISO/TS29001 being specifically for the control of purchasing and sub-contractors within the oil and gas industry. Again this will reinforce CVS' commitment to raising standards.

John Beavers HSEQ Manager said: "Whilst we celebrate gaining international accreditation within a short period of time it is our intention not just to maintain standards but improve our systems to ensure that we operate at the highest level. With our company's mantra of HITS – Honesty, Integrity, Transparency and Safety we will continue to go the extra mile in our duty of care for all who work for CVS and those affected by our actions."

The second celebration was as a finalist in the Grampian Awards for Business Excellence for Business Success over Three Years and organised by Enterprise North East Trust (Enterprise). The Award was sponsored by The Royal Bank of Scotland – Ahead for Business which culminated with an awards ceremony at the Mercure Ardoe House Hotel where CVS joined 31 finalists across 10 categories with over 400 guests.

There was some stiff competition in the category for "Business Success over Three Years" including another oil and gas service company but ultimately CVS was piped at the post by Meldrum House Hotel. The hotel was a worthy winner as it had been making a loss but in just over three years the business has been turned into a really successful venture.

Managing Director Mick Beavers summed up the evening saying "The event was incredible with some very special entrepreneurs from so many different types of business. It was a real eye opener for the CVS team there on the night to see the versatility of businesses operating across the Grampian region.

Whilst disappointed about not winning it was a privilege to be a finalist amongst so many inspiring and talented entrepreneurs. I was very proud to represent my company and all of the staff who have put in so much hard work over the years with the business experiencing a five-fold increase in turnover since 2009 and staff numbers have reached over twenty with more vacancies expected soon."



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A guide to pressure transmitter materials selection

The risk of corrosion presents a serious threat to the long term operation and accuracy of pressure transmitters, particularly in critical measurement applications. One way of minimising this risk is to ensure that your pressure transmitter is made from the correct materials to enable it to withstand the rigours of your application. Trevor Dunger, Product Specialist for ABB's UK Measurement Products business, explains the various choices on offer and how to choose between them.

When selecting a material for a pressure transmitter it is necessary to consider both their resistance to corrosion and their suitability for the specific application in question. For example, the filling fluids used in a pressure transmitter mean that they cannot be used in direct contact applications such as in the food and beverage industry, as any leakage could corrupt the process.

Corrosion is a major challenge in many pressure measurement applications. Corrosion is the gradual destruction of a metal either by chemical or electrochemical means. The speed and aggression of corrosion can be determined by a variety of factors, ranging from different types and combinations of chemicals through to temperature, particularly in high temperature applications. For example, temperatures above 40°C (104°F) in seawater can increase the risk of corrosion of stainless steel components through pitting.

Where materials selection is concerned, it is important to remember that there is no 'catch-all' solution that will be suitable for all types of application and process conditions. With the onus sitting squarely on the user to make the right selection, it is therefore essential that you make a careful and detailed analysis of your process in order to correctly specify the materials for your device.

If in doubt, it is always best to consult a pressure measurement expert, who can suggest possible solutions.

The following section contains advice on some of the most common materials used for the wetted parts of pressure transmitters, these being the components that come into direct contact with the process.

316L Stainless steel

As the standard material for the wetted materials of ABB's 2600T pressure transmitters, 316L SST offers good resistance against corrosion, including low concentrations of nitric acid and most salt solutions.



When it comes to alkaline solutions, organic acids and other organic compounds, the resistance of 316L SST against corrosion may depend on temperature. Certain halide salts, including fluorine, chlorine, bromine and iodine, can also cause severe pitting and stress-corrosion cracking.

For oil and gas applications, where hydrogen sulphide is often present, 316L SST may be available with specific NACE MR0175 certification. This standard defines the types of corrosion resistant materials that can be used in various oil and gas industry environments. As such, it covers most types of stainless steels, including 316L SST.

By setting criteria both for the hardness of the material and the process by which it is manufactured, the standard helps to reduce the risk of sulphide stress corrosion cracking. The standard also covers non-wetted parts such as bolts, as they also have a bearing on the instrument's overall containment effectiveness even if they are exposed to corrosive environments far below the limits of the standard.

The NACE certificate is also available for other materials including Monel and Hastelloy C.

Monel

Monel offers good resistance against the corrosive effects of most of the non-oxidising acids, such as hydrofluoric, sulphuric and phosphoric acids, at ambient temperatures.

Monel is also considered the prime choice for applications where components are in contact with sea water. Despite its general high resistance to corrosion, Monel is not suitable for contact with acid and alkaline oxidising salts, which can cause severe corrosion damage.

Applications with a high hydrogen concentration may also affect Monel's effectiveness as a material of construction. Especially where Monel is used as a diaphragm material in hydrogen gas processes, hydrogen atoms may permeate the diaphragm, leading to hydrogen bubbles forming within the fill fluid.

Hastelloy C

Hastelloy C is comprised of chromium and molybdenum added to nickel to improve the alloy's resistance to oxidising conditions. As such, Hastelloy C is well suited for protecting against the rigours of alkalis, organic acids and other organic compounds.

Hastelloy C also offers good protection against oxidants such as phosphoric acid as well as acid salts including nickel and copper chlorides. At moderate temperatures, Hastelloy C is able to withstand hydrochloric and sulphuric acids in most concentrations. Like Monel, Hastelloy C also affords good protection against atmospheric conditions and fresh water.

Gold plated Hastelloy C, Monel or SST

Hastelloy C, Monel and SST can all be permeated by hydrogen, meaning that they should be avoided as a diaphragm material for use in applications where hydrogen is present. Hydrogen atoms can diffuse through the very thin transmitter diaphragms into the fill fluid, whereupon they can combine with the fluid to form molecular hydrogen. This is particularly a problem at elevated pressures and temperatures, which increase the permeation rate.

As molecular hydrogen is too large to permeate back through the diaphragm, it becomes trapped and forms bubbles in the fill fluid. As these bubbles form and accumulate, they can severely affect transmitter performance.



One way to prevent this problem is to plate the diaphragm with gold, which prevents hydrogen permeation at high process temperatures and pressures.

Another form of protection available from ABB is a corrosion resistant hydrogen preparation gel, which can be applied to a pressure transmitter's diaphragm to reduce hydrogen permeation.

Tantalum

Tantalum is an ideal alternative to 316L SST in corrosive applications featuring a range of chemicals including hydrochloric, hydrobromic, boiling hydrochloric, nitric, phosphoric and sulphuric acids. It has a high melting point and good strength even at elevated temperatures.

With the exception of aluminium fluoride, potassium carbonate and sodium sulphide, to which Monel is more suited, Tantalum offers a good resistance to most acids, chemical solutions and organic compounds, as well as liquid metals.

Despite this, Tantalum can suffer severe embrittlement if used with high temperature oxygen or nitrogen, or with hydrogen at any temperature. It is also prone to attack by strong alkaline solutions and by fused alkalis such as sodium hydroxide.

PFA (Teflon from DuPont)

Used by ABB for its AISI 316 L SS remote seal transmitter, PFA (Teflon) coating offers outstanding protection against corrosion and anti-stick properties, with even a 0.2 to 0.3mm coating capable of providing a cost effective alternative to more expensive methods, such as the use of specialised materials.

A limitation of a PFA coating is its recommended temperature limit of 200°C (392°F) and a minimum increase of the temperature effect on accuracy. Also, if the diaphragm is subject to mechanical abrasion (rapid flows with solids) it can become punctured, allowing corrosion to penetrate the area below the coating.

Other points to consider

Aside from the materials of construction, there are also other factors that can affect the operation of a pressure transmitter.

One important aspect is the selection of the appropriate fill fluid. Making the correct choice is especially



ABB pressure transmitters

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important as the type of fill fluid can limit the working temperature that the transmitter can stand.

For this reason, it is advisable to choose a fill fluid that can be used over the widest possible range of operating temperatures. The most widely used is Silicone Oil DC200, which offers high stability over temperatures ranging from -40°C to 200°C (-40°F to 392°F).

Alternatively, other fluids may be selected whenever their temperature range is compatible with the application, in order to take advantage of a lower viscosity or thermal expansion factor. This is especially useful where faster response times are required in remote seal applications with long capillaries.

In some applications, such as food and pharmaceutical production processes, it may also be undesirable for certain fill fluids to be used, in order to prevent potential product contamination caused by a ruptured diaphragm. Where this is the case, a food sanitary fill fluid should be selected.

An alternative fill fluid should also be used for transmitters used for oxygen rich applications, where leakage of a silicone oil fill fluid could cause a fire. For this reason, an inert fill fluid should be selected.

Another important aspect concerns the selection of the appropriate material for the transmitter gasket. The most widely used material is PTFE (Teflon), due to its general corrosion suitability with several materials. However, a potential drawback of PTFE arises in processes subject to periodic variations in temperature. Particularly in processes where the temperature varies by several degrees, the limited elasticity of PTFE can compromise its tightness. In these instances, it would be wise to consider the elastomer Viton.

Special requirements may also arise in food or pharmaceutical applications, which frequently call for an approved material listed by the US Food and Drug Administration (FDA) or other national equivalent organisations.

Summary

As one of the most ubiquitous process parameters, pressure measurement needs to be conducted across a wide range of operating environments and process conditions. Given the wide variety of pressure ranges and operating conditions, having a good understanding of how to specify a device can be a useful first step in ensuring it fully meets the requirements for a particular application.

With decades of experience in the design and manufacture of pressure measurement devices and systems, ABB can advise on all aspects of pressure transmitter selection.

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Flow Control Solutions Win Distributor Award

Cheshire based Valve and Actuator distributors Flow Control Solutions, has been awarded Flowserve's 'Independent Distributor of the Year' award for 2012. The award was inaugurated by Flowserve in 2008; Flow Control Solutions had previously won the award in 2009.



Mike Walshe (left) and Rob Meli (centre-right) of Flow Control Solutions receive the award. Also pictured (l to r) are Flowserve's Nick Green, Ian Barber, Iain Symington and Tom Gillan

The prize is awarded to the distributor of Worcester ball valves, and Norbro actuators and ancillaries, who Flowserve feel has made the biggest commitment to their products whilst maintaining excellent levels of customer service. The judges also take into account turn over, stocking policy, growth levels and standards of technical support and expertise. In 2012, as in 2009, Flow Control Solutions set themselves apart from their peers across these categories.

Flow Control Solutions was founded in 2004 by a Management team vastly experienced in the flow control industry. Co-Director Rob Meli sees the award as the result of hard work on behalf of his team, he commented: "The Worcester Norbro trade mark is known around the world; Flow Control Solutions has grown its sales of Worcester Norbro product over the years working closely with Worcester's sales and technical support team, we have increased our stock holding considerably and invested heavily in developing our nuclear, pharmaceutical and power generation market."

Tom Gillan of Flowserve UK added; "We would like to congratulate Flow Control Solutions on what is a well deserved award. Rob Meli, Mike Walshe and their team have put considerable effort into understanding the technical aspects of the products and how this can best benefit their customers. It is pleasing to be able to officially recognise this."

'Flow Control Solutions was founded in 2004 by a Management team vastly experienced in the flow control industry.'

Flow Control Solutions has also announced that it is now an official distributor for the Budenberg product range. The company has made a major commitment to this product range, by holding extensive stocks at Stalybridge in Cheshire.

Budenberg, a world renowned company for pressure gauges and instrumentation, can now offer most of its quality products on an ex-stock basis, via Flow Control Solutions.

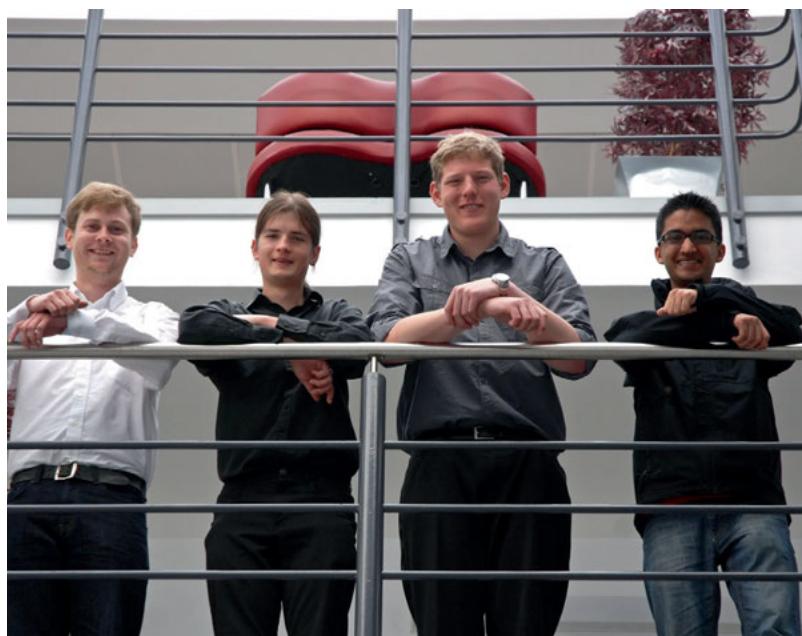
The Budenberg range includes; Classic, Supa, Capsula, Premium, Test, Schaffer and Diaphragm Seal Gauges. As well as Bi-Metallic and Gas Filled Thermometers, and Needle, Ball and Double Block and Bleed Valves.



FLOW CONTROL SOLUTIONS

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New Engineering Insight website from Xylem engages university students with real-life engineering challenges



Leading manufacturer invests further in education initiative aimed at encouraging tomorrow's engineers

Leading global water technology provider Xylem Inc., manufacturer of a global brand portfolio that includes Midland-ACS, Flojet, Rule, Jabsco, Alcon and PCI Membranes, has launched a new website for its Engineering Insight Award Scheme. The Engineering Insight initiative was set up by Xylem to promote closer links between industry and mechanical engineering students at leading universities and IMechE accredited institutions. It is part of Xylem's programme to engage with young people following engineering degree courses and to help address the current shortfall between the number of engineering graduates the UK is producing, versus UK industry's future requirements. Roughly speaking, on present numbers, the UK is producing only half the number of suitably qualified engineers it will need. (Engineering UK, 2013).

Engineering Insight's new website at www.engineeringinsight.co.uk aims to help support engineering undergraduates. The programme, which has already run successfully at Aston and Brunel universities over the past two years, provides final year students with a real-life design challenge to work on as part of their degree course. Challenges are set and adjudicated by Xylem's top team of engineers working in areas such as the oil and gas industry, the water industry and food and beverage processing. Winning student teams receive prizes such as tablet computers and e-readers, plus the kudos of being able to cite their success on a CV. This year's group winners will receive Microsoft Surface Tablets. Every student who participates in the scheme is rewarded and receives an engineering textbook provided by one of the scheme's partners, McGraw Hill Publishing, as well as being able to demonstrate active engagement with a real-life project to discuss with potential employers when job hunting. The new website for Engineering Insight explains the details of this exciting scheme, and includes the design briefs provided to Aston University and Brunel University for download.



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Valvekits to stock Pneumatrol solenoid valves

Rotork Valvekits, the specialist valve mounting kit company in the Rotork group of flow control businesses, is now the official stockist and distributor for the industry-leading Pneumatrol Namur range of solenoid valves.

The Pneumatrol range, formerly known as RGS Davis, has a long history and excellent reputation for providing pneumatic solenoid valve solutions within hazardous and non-hazardous environments. User markets include petrochemicals, pharmaceuticals, distilling, food, beverages and paper making. With an extensive range of approvals, Pneumatrol solenoids are the standard specification within many world class companies.

Designed for direct mounting on quarter-turn actuators meeting Namur standards, the valves are

available with a complete range of approved pilot solenoid operators. The innovative designs are suitable for operation in a wide range of temperatures and include valves for high flow applications. Hazardous area solenoids are available with ATEX Category 1, 2 and 3 approvals. Further international hazardous area approvals include IEC, FM and GOST.

Commenting on his company's appointment, Rotork Valvekits General Manager Craig Mellins said: "We are very proud to be appointed as the stockist and distributor for the world-leading Pneumatrol Namur range of solenoid valves. The addition of Pneumatrol further enhances our product offering as well as enabling off-the-shelf delivery of these products to our customers in the valve making, valve actuation and associated industry areas."



Examples of the Pneumatrol Namur (formerly RGS Davis) range of solenoid valves, showing top-to-bottom: Namur Reflex valve; Namur C1518PPOOB safe area valve; Namur C1518PD00BA EXD 11C T6 ATEX valve, with stainless steel terminal box coil housing

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www.valvekits.co.uk



By BVAA's Technical Consultant,
Peter Churm

TECHNICAL HOT SPOT

Hot Spot - EN 12516 Series of Shell Design Strength Standards

Several parts of the EN 12516 series of standards have recently undergone formal vote. These include:

- Part 1: Tabulation method for steel valve shells
- Part 2: Calculation method for steel valve shells
- Part 4: Calculation method for valve shells manufactured in metallic materials other than steel

Changes to Part 1

The main changes to Part 1 with respect to the previous edition are listed below:

- a) Addition of new PN values PN 160, PN 250, PN 320, PN 400;
- b) B designation rating have been replaced by the PN designation;
- c) B20 rating values have been

replaced by Class150 and use the calculation method given in ASME B16-34;

- d) New PN values have been added to Table 7 for the Valve body minimum wall thickness values;
- e) Material tables have been updated to be in line with EN 1092-1 for the EN materials;
- f) Materials 1.0345 and 1.4458 have been deleted;
- g) Annex B material groups has been updated and made normative;
- h) Special Class in EN material have been moved to an informative Annex C;
- i) EN materials properties for pressure temperature calculation have been modified (Rm/3,5) to be consistent with the new

ASME rules, and using Rp1% for Stainless Steel consistent with EN 12516-2;

- j) ASTM Material properties used for rating calculation have been updated to the new ASME B16-34 rules.

Changes to Part 4

The main changes compared to the previous 2008 edition are:

- a) Normative references have been updated;
- b) Clause 4 has been revised;
- c) Additional ductile iron materials where added to Table 2;
- d) 5.2.2 has been revised;
- e) Safety factors in Table 15 have been corrected to be in line with other practicable standards;
- f) Annex ZA has been revised.

BHR Group proud to join BVAA

Demonstrating its commitment to all aspects of the valve and restrained fluid industry, BHR Group announced it has signed up to become a member of the British Valve and Actuator Association (BVAA).

BHR Group is an independent technology organisation providing engineering consultancy, industrial research and product development services based on its core expertise in fluids engineering. We apply our knowhow to develop or improve innovative designs, process and products for customers across many industrial sectors around the world.

Our vision is to be your trusted partner for innovative engineering solutions working with you from concept to completion. We do this by providing expert impartial advice, technical specialists and integrated engineering and management functions across the project or product life-cycle.

Our capabilities for the O&G sector:

A combination of engineering skills and investment in key technologies gives BHR a unique capability for the flow assurance of pipeline transportation systems, subsea equipment and surface facilities. This has been used in a variety of projects across the complete spectrum of flow assurance activities and is available on either a single client basis - focusing on a specific project need, or for an industrial consortium addressing more strategic engineering issues.

BHR Group has a range of test facilities that can physically replicate the flow assurance requirements for oil and gas production operations in a controlled laboratory environment. As a private company BHR also offers its dedicated and bespoke test rigs for impartial qualification testing and wealth of technical expertise for novel oil and gas product development. With computer aided design tools that simulate the fluid physical and chemical behaviour of fluids in pipelines, processing and fluids handling equipment, BHR Group offers a comprehensive range of capabilities suited to many emerging flow assurance challenges including, deepwater, HPHT, heavy oils, complex fluids and Arctic.



Rob Bartlett Welcomes BHR Group to the BVAA



Shallow Well Test Rig

Equipment and processes

- Downhole pumping
- Downhole separation
- Downhole pressure measurement
- Downhole multiphase flowmetering
- Downhole monitoring
- Integrity, leak and pressure testing
- Drilling fluids



Analysis and diagnostics

- Drilling fluid rheology and physical properties
- Phase flowrates, GVF and watercut
- Well integrity management and diagnosis
- Risk-based inspection and maintenance planning
- Erosion and corrosion risk assessment



Test facility specification

- Max liquid flowrate 18.4l/s (10,000bfpd)
- 0%-80% GVF at atmospheric inlet conditions
- Well depth 43m
- 260 bar and 90°C
- 150mm diameter drill casing



Our Services

Our services include an Engineering consultancy with on-site engineering, validation testing and/or numerical simulation, and failure analysis and condition assessment; Contract and collaborative research; Computational modelling and simulation with material and stress analysis including FEA and fluid flow analysis including CFD; product development; testing, measurement, control and analysis encompassing:

- Liquid, gas, solid flows in pipes and components
- Flow in pipes, pressure loss, friction, turbulence flow in control and metering devices
- Fluid permeation or diffusion through materials
- Pump, valve, actuator, fittings
- Fluid and material contamination and degradation
- Noise, vibration and cavitation
- High pressure and temperature components
- Seal and sealing system integrity or leakage
- Surface coatings and surface roughness
- Proof, fatigue and burst pressure

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Aberdeen, UK; 15th - 17th October 2013

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*By BVAA's Technical Consultant,
Peter Churm*

**TECHNICAL
HOT SPOT**

Hot Spot - Harmonised standards for PED, SPV and ATEX

The Senior Directive Manager (Pressure Equipment and ATEX) Department for Business, Innovation & Skills (BIS) has advised the following:

The latest lists of harmonised standards for Pressure Equipment Directive (PED), Simple Pressure Vessels (SPV) and Potentially Explosive Atmospheres (ATEX), were published in the EU Official Journal ref: C 128, on 4 May 2013. These lists are given on the website shown below:

<http://eur-lex.europa.eu/JOHml.do?uri=OJ:C:2013:128:Som:EN:HTML>

- The list for PED is given on Page 1 of the document.
- The list for Simple Pressure Vessels is given on Page 17.
- The list for ATEX is given on Page 20.

The lists are extensive and the page access is the entrance to the list.

Company Profile: Armoloy (UK) Ltd

The "Aarmoloy" process was originally developed in the United States over 50 years ago as a specialised protection for a wide range of tools and components and has been available in the UK for over 20 years, via the licensee Armoloy (UK) Ltd, a recent recruit to the BVAA.

Today, the process is being used across many different industries and in a wide variety of applications. Unlike some processes that coat onto a substrate, Armoloy "Thin Dense Chromium" (TDC) permeates and bonds with the base material to give a totally integrated "micro-nodular" surface. The specially integrated coating provides a finish that is hard, smooth, clean and extremely resilient, providing a wide variety of benefits.

Armoloy is essentially a cold process - temperatures do not rise above that of hot water so we have no problems with distortion. A significant benefit for many of our customers is that we operate to finished tolerances - no additional machining is required after we have completed the processing.

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Armoloy – a family business

Armoloy (UK) Ltd is the UK licensee for the process and we serve an international customer base that extends through Europe to the Middle East and beyond. We operate from a purpose designed plant centrally located in the West Midlands, UK and our operations are accredited to ISO9001, AS9100 Rev C and NADCAP (Chemical Processing).

Armoloy coatings have assisted man in reaching the Moon, harvest from beneath the seabed in remote locations and helped pack ice cream. Our regular markets include Aerospace, Oil & Gas, Nuclear, Machine Tool, Food, Pharmaceutical and Medical, Chemical and a range of other industries. We hold numerous approvals and work to specifications agreed with many of the world's blue chip companies.



Armoloy process does not give rise to distortion



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We have been assured that no tree frogs were harmed during the production of this photograph. Fred (the frog) was rewarded with a good meal for his time.

Cameron's rapid response facility has the full package

Cameron has rebranded its former IVL Newmarket facility as a rapid response centre for Europe: one visit tells you that the new title is completely appropriate. By adding modification and testing facilities and an extended range of Cameron Valves the team of eight sales engineers have succeeded in significantly reducing lead times for their customers.

"The changes have been a tremendous positive for us" says the Facility Manager, Frankie McCarthy, *"We are now able to provide our clients across Europe with the complete range of Cameron gate, globe, check and ball valves. This is in addition to our traditional range from this facility."* The changes do not stop there, as the summer of 2013 saw the capability to mount, fit and modify actuators and gear boxes added. There has also been a testing bunker added to provide hydro, gas and pneumatic testing. The sum of these changes amounts to a facility which is far more than a large valve stockist, but a one stop shop for Cameron's expanding European customer base.

One of the key benefits to Cameron's customers is that Cameron brand valves can be tested, and modified by Cameron engineers. This means the valves do not lose their OEM warranty, providing significant piece of mind to the end-users. *"It is fantastic to be able to*



The facility has \$6 million worth of stock



Mark Shipp, Joe Kelly and Frankie McCarthy

offer our customers this kind of service, and what's more, the fact that we can now offer it all in-house means we are offering a better service with shorter lead times," commented Mark Shipp, Regional Sales Manager EACR. There is a sales team of eight people who operate from Newmarket and contribute to the overall staff of 42 at the centre.

While the warranties provide peace of mind for the end-users, it gives the Cameron team greater control over the quality assurance process. The extra capabilities that Cameron has at Newmarket mean that their stock, which includes a large number of pre-tested valves, can be modified and re-tested by Cameron engineers; the valves are under one QC system from start to finish. *"It is fantastic for the whole team, we have complete confidence in our entire range of stock, everything is PED compliant and the confidence transfers on to our customers,"* added Frankie McCarthy. Furthermore the testing facilities are available to hire, even for customers who do not have an existing relationship with Cameron.

General Manager EAME + AP, Joe Kelly is pleased with the progress at Newmarket. *"Rapid response is an appropriate description of what we have here,"* he enthused. *"We still have over \$6 million worth of stock but the improvements mean we have better lead times. What's more, the end-users don't lose the OEM warranty through any modifications we make."* The additions made to the centre's stock list are significant even when considered on their own. Additions include the NEWCO® cast steel gate, globe and check valves; OIC cast stainless gate, globe and check valves; WKM trunnion mounted ball valves; mud gate and butterfly valves from DEMCO®; as well as LEEDEN® actuators and MAXTORQUE® and DYNATORQUE® gear boxes.

"We have a fully searchable stock list online, with current inventory levels at www.valvestockist.com, which is a great tool for our customers" says Mark Shipp. *"But we'd encourage anyone to pick up the phone or even come in and see us here."* The facility is definitely worth a visit for anyone who supplies gate, globe, check or ball valves. The new capabilities mean Cameron really do offer the complete package.



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Valve Condition Monitoring is known to reduce risks, and maximise efficiency and reliability in all processes where it is deployed. It is increasingly being seen as the only safe way of managing valve populations. To ensure the on-going safety integrity, environmental protection and efficiency of your process is correctly maintained at all times, it is of critical importance that you know the condition of your process valves.

Put more simply, you need to know if your valves are leaking or not and if they are leaking, how bad is the leak? Additionally, on more critical valves you need to know if there is another “failure mode” developing in your valves or operators that will expose you to risks to people, process or plant (for example, in the event a valve fails to complete its design function such as closing or opening on demand).

Score's 30+ years of experience of valve supply and intelligent valve management tells us that all plant operators are facing the same recurring problems.

As a general rule, 90% of the problems experienced by process operators result from just 10% of the installed population of valves which are not performing to the required standard. The problem for operators is that it's not always obvious which the “culprit valves” are. It is also known that all valves follow the same exponential deterioration in performance over time. Given that we know this, it is possible to use Acoustic Emissions (AE) technology for example, to quickly and easily find leaking valves.



The Midas Sensor



The Midas Meter in operation

So, the good news is that risk can easily be managed through the intelligent monitoring of valves, based on their criticality, over their entire life cycle (and any subsequent life cycles following maintenance interventions). All we need is the correct and reliable monitoring equipment, systems and techniques.

MIDAS® Valve Diagnostic products use proven acoustic emissions (AE) technology to identify through valve losses / leaks and then use proprietary algorithms to calculate and quantify any leaks found. Valve leakage represents major risks to plant operations.

These risks include:

Safety

Loss of containment of process fluids presents a major risk to personnel working on the plant

Environmental

Leaking valves / loss of fluid containment represents a potentially major risk to the environment

Efficiency

Lost production due to leakage and / or downtime due to poorly performing valves affects both plant efficiency and availability, which can result in both product and / or profit losses.

Score Diagnostics Limited has developed a number of valve condition monitoring products and services to address their existing customers' and the wider market's needs. These products are now in wide-spread

use throughout the Oil & Gas regions worldwide. The products offered are all intrinsically safe certified for use in explosive atmospheres. The “entry level” product for through-valve loss / leak detection and quantification is the hand-held MIDAS Meter®.

The MIDAS Meter® uses an acoustic emissions (AE) sensor to detect the high frequency sound signals emitted by leaks across valve seat to seal interfaces. It is a non-invasive inspection technique which requires the operator to place the sensor directly onto the outside surface of the valve body. Once in position, it is possible to see within a few seconds if there is any leakage across the valve seat(s).

Furthermore, by completing a quick valve survey, where readings are sent from the handset, wirelessly by Bluetooth, to the Personal Digital Assistant (PDA) it is also possible to estimate the leak rate. This then allows the valve maintenance team to focus their efforts on addressing the worst performing valves first.

Easy to understand output reports showing valve condition corresponding to its “allowable leak rate” in the form of a traffic light system.

The easy to interpret visual indicators suggest the following logic :-

- GREEN: Valve Performing, Leave Alone
- AMBER: Leakage Detected, Monitor Deterioration Closely
- RED: Leakage Detected, Maintenance Required, to avoid risks associated with in-service failure modes

Score Diagnostics Limited's range of market-leading valve condition monitoring products help you to troubleshoot problem valves, monitor valves, trend failures and move towards pro-active maintenance.

For more critical process valves, the MIDAS® Sensor (patent pending) has been developed to be installed on the valve and adjoining pipework, to give a continuous and permanent feedback indication of valve sealing performance in line.

The sensor used is the same design as the MIDAS Meter® and the output from the unit (4-20mA electrical signal) is designed to tie in directly with all plant's Digital Control Systems (DCS) or Supervisory Control And Data Acquisition (SCADA) Systems or Score's own V-MAP System. This makes the technology easy to install at the plant construction phase and also to retrofit to existing plants.

The MIDAS® Sensor's output allows the operator back in the process control room to see the performance of the valve in real time. The software / graphic user interface (GUI) gives a visual indication of the condition of each valve being monitored for through-seat leakage.

For the most critical process valves, such as Emergency Shutdown Valves (ESDVs), where other failure modes and effects are important to monitor and trend,



Screenshot of a V-MAP report

Score have developed a fully integrated, permanently installed system known as V-MAP. Telemetry systems, comprising sensors, transducers and management / reporting software continuously monitor key indicators of valve and operator performance over time and report these in both statistical and graphical formats for further analysis.

Main benefits of V-MAP

V-MAP is a passive, non-intrusive monitoring system that responds to every valve operation, planned or unplanned. It removes the need for operations personnel intervention, unless alerted. It provides reports and audit records including the trending and comparison with performance benchmarks and safety criteria. V-MAP reporting and analysis provides identification of maintenance requirements and reliability data for confirmation of Safety Integrity Levels (SILs). Remote access is available for valve expert analysis and support.

Valve failures are very often the result of ageing. Indicators of ageing that can be detected and trended over time using the V-MAP system include, but are not limited to :-

- Increasing times to operate
- Increasing valve operating force or torque
- Increasing actuator pressure or current
- Increasing through seat leakage
- Need for maintenance or break down repair
- Failure to meet acceptance criteria
- Experience of problems of ageing with similar critical valves of similar materials and/or design on similar duties



Score Europe Limited

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The Whole Solution: Advanced Valve Solutions joins BVAA

Advanced Valve Solutions was founded, in 1998, to provide the best possible technical solutions to flow control and isolation issues, within the power sector. The Dutch company with UK headquarters in the North West prides itself on service levels and technical expertise. In 2013 UK Director Rik Barry commissioned membership of the British Valve and Actuator Association.

"We like to build a relationship with our customers first." says Rik Barry *"We will visit clients at site to talk through the technical issues that may exist with regards to flow control. Once we do that we are confident that our experts will be able to find the best technical solution."* Advanced Valve Solutions will then select the appropriate option from its list of specialist valve companies with which it works in partnership. Once again the technical expertise of the Advanced Valve Solution's team is required to build and maintain relationships with suppliers of flow control and isolation products and then select the right valve for the right application.

'The aim for Rik Barry and his team is to ensure the success of the flow control project'

The aim for Rik Barry and his team is to ensure the success of the flow control project, rather than to generate direct sales for their manufacturing partners. The majority of these successful projects have come in the Power generation sector, controlling the flow of steam and high pressure steam; there have also been successes in Energy, Nuclear and the Paper/Pulp industries. This has led to a range of innovative systems being developed, particularly by the company's founder Karel van Wijk. *"Karel has technical mind and an eye for innovation and finding the optimum solution to a problem, this can often be different from the conventional approach."* The solutions developed for one project have often resulted in the improvement of process systems across several plants and facilities. *"We have developed systems for customers which have been so successful that they have asked us to come and apply the same technical system at other sister sites"*



Rik Barry receives his BVAA membership Plaque from BVAA Director Rob Bartlett

added Rik Barry. Some of the systems have been developed into technical papers, regarding the issues of Dual Shifting and Start Stop regimes at major power stations and Valve User will be running these as *Master Class* articles over forthcoming issues. Look out for the '*Stop Check Valve*' *Master Class* on page 36.

Advanced Valve Solutions has positive relationships with a number of valve manufacturers including: Hora, Persta, Zwick, plus Perrin, Macoga, Nil-Cor and Severn Glocon among others. Its 28 staff generates £10 million in turnover, and the company is expanding. *"We are a family orientated company and we really care about our customers, suppliers and projects"* commented Rik Barry. *"We are always happy to go the extra mile, particularly if we feel this will make a difference to our customers."* The company have now underlined their commitment to the British Valve Industry through their membership of the BVAA.

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Barakah Contract Win for Pentair Valves & Controls

Pentair Valves & Controls is pleased to announce the specification of Sempell pressurizer safety relief valve (PSRV) systems at the new Barakah nuclear plant in the United Arab Emirates. The PSRV systems are the first pilot-operated safety relief valves with the ASME NV-Stamp, and will be used in all four planned units at Barakah.

Traditionally associated with oil exports, the United Arab Emirates is exploring nuclear power generation to meet needs for electrical power, which is expected to grow 5.5 from GWe in 2011 to over 40 GWe in 2020. The Barakah site is the first nuclear power plant in the UAE, and results from a partnership between the Emirates Nuclear Energy Corporation (ENEC) and the Korea Electric Power Cooperation (KEPCO). The site is set to house four APR-1400 third generation reactors built according to a modified Korean design, and is expected to be fully operational by 2017. The units will have a generation capacity of 1.4 GW each, supplying power to a significant proportion of the UAE.

'Traditionally associated with oil exports, the United Arab Emirates is exploring nuclear power generation to meet needs for electrical power'

Doosan Heavy Industries, one of the subcontractors used by KEPCO to supply turbines and generators to the project, specified Sempell PSRV systems in compact design type VS99 for use in the pressurized water reactors (PWR) at the Barakah plant. The PSRV systems are specially designed and engineered for the Korean reactor designs, and have been subject to four years' development, manufacturing and testing to ensure their suitability and performance. Sempell's PSRV systems meet ASME III and QME 1 approvals, providing the highest safety assurances. The pilot-operated PSRV systems for application within the primary circuit protect it from extensive pressure increases. These form part of the four compact valve stations welded directly on the top of the pressurizer in a horizontal position in each reactor unit to achieve optimized pipe conduction.

Jürgen Pick, director, product management, nuclear power, Pentair Valves & Controls, comments, "We're delighted to be supplying our PSRV systems to the UAE's first ever nuclear power plant. We feel that this



The United Arab Emirates need for electrical power is expected to grow 5.5 from GWe in 2011 to over 40 GWe in 2020

specification demonstrates our proven track record for delivering safe, reliable equipment to nuclear applications. By tailoring our designs and offering an ASME NV-Stamp approved valve system, we are able to meet the stringent requirements of the project. We're looking forward to continuing our successful partnership with Doosan, and to delivering great service and support in the future."



Pentair Valves and Controls Ltd.

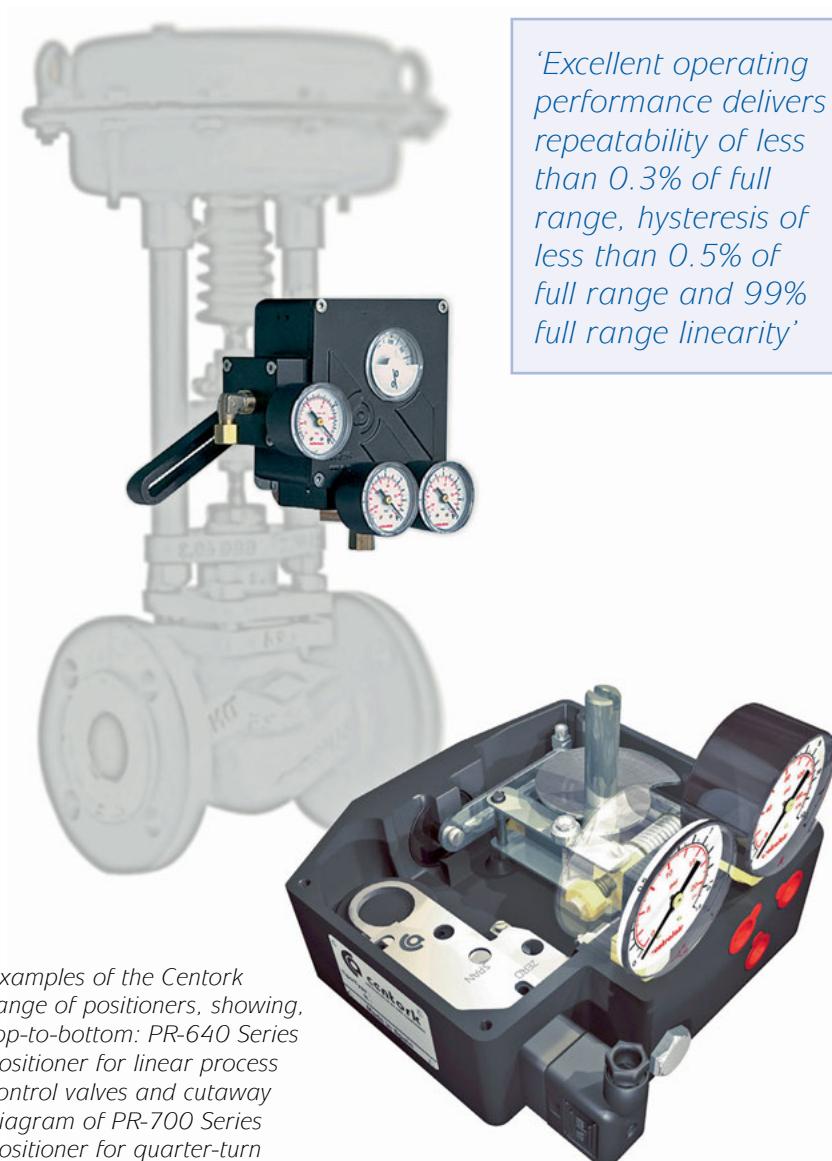
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Valvekits is UK distributor for Centork positioners

Rotork Valvekits, the Rotork flow control group's specialist valve mounting kit company, has been appointed as the UK stockist and distributor for the well established Centork range of valve positioners.

Centork pneumatic positioners are designed for the operation of quarter-turn or linear actuated valves in accordance with a proportional control signal. The design utilises a robust aluminium enclosure and stainless steel components for long-term reliability in harsh operating environments.

Standard features include simple, user-friendly zero and span settings and NAMUR interfaces for easy valve and accessory adaptation. Optional limit switches, position indicators, gauges for main and control signal pressure and electronic position transmitters can be fitted to meet the demands of most operating requirements, whilst a 'smart' positioner is also available, incorporating micro-



Examples of the Centork range of positioners, showing, top-to-bottom: PR-640 Series positioner for linear process control valves and cutaway diagram of PR-700 Series positioner for quarter-turn valve actuators

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The Centork appointment, which will enable off-the-shelf delivery of many products to customers in the UK, is the second distributorship agreement that Valvekits has announced in recent weeks. In April

'Excellent operating performance delivers repeatability of less than 0.3% of full range, hysteresis of less than 0.5% of full range and 99% full range linearity'

the company also announced an exclusive stockist and distributor appointment for the industry-leading Pneumatrol Namur range of solenoid valves.

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PPE Recruits Jamie Hill

Precision Polymer Engineering (PPE), one of the world's leading manufacturers of high performance moulded elastomer seals, has appointed Jamie Hill as Regional OEM Sales Manager for the UK following a rigorous recruitment process.

Jamie joined the company on the 24th June and will be responsible for developing new business opportunities for advanced sealing solutions within PPE's existing markets of oil & gas, aerospace, food & dairy, diesel engine, pump & valve, pharmaceutical, process engineering and general manufacturing.

Jamie joins PPE having spent 22 years in technical sales, providing engineering solutions to a wide range of industries. In his previous role, Jamie was sales manager for a specialist gasket and seals manufacturer, where he spent 4 years developing the gasket and seals market.

This appointment brings great benefits to existing and new

customers of PPE, who will now have an additional point of contact in the UK for all technical, sales and after sales support, covering all the advanced sealing solutions provided by PPE. Jamie's extensive technical knowledge and excellent account management skills will prove a real asset to both PPE and the customers he will be working closely with.

Although PPE is an international company exporting the majority of advanced elastomer seals it manufactures, PPE has invested in this role primarily to support customers in England, Wales and Ireland, with particular focus on industrial equipment manufacturers with critical applications.

Paul Gillyon, PPE Managing Director said *"Jamie is a real asset to PPE, and his knowledge and skills will undoubtedly prove invaluable to our customers. We all welcome Jamie to PPE and look forward to working alongside him on many interesting projects."*



To find out more about the latest new materials from PPE, please visit www.prepol.com, telephone +44 (0)1254 295400 or email prepol.sales@idexcorp.com



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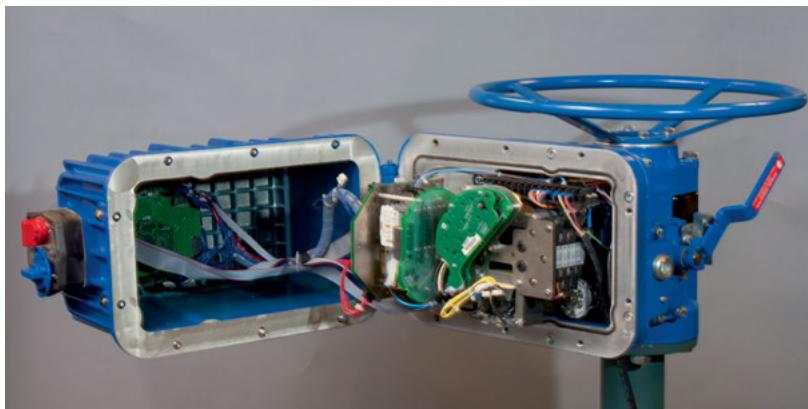
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Flowserve's New UEX Electronic Control Module

Flowserve Announces New State-of-the-Art UEX Electronic Control Module for L120 Electric Actuators



Flowserve Corporation, a leading provider of flow control products and services for the global infrastructure markets, today announced the launch of the newly developed, Flowserve Limitorque UEX electronic control package for L120 series actuators. The UEX replaces existing UEC-3 electronic controllers with a field-retrofitable, MX technology-based package. The UEX can also be installed into L120 electric actuators that are equipped with integral control packages.

The UEX is designed to deliver state-of-the-art actuation and network connectivity through five network protocols for reliable process control, and incorporates all of the UEC-3 functionality including the 20+ features of the UEC-3. Additional features include an LCD display for actuator setup, status indication in 11 languages, and position feedback via a battery-free, absolute encoder.

On-site retrofitting is designed to minimize plant downtime, aided by an easy-to-use setup through the UEX's 32-character LCD screen. The LCD screen provides actuator status and diagnostics, displaying continuous position indication and fault conditions.

"The new UEX electronic control module is built with proven Limitorque MX actuator technology and offers our customers expanded features to optimize control and performance for plant operations," says Lynn White, general manager, Flowserve Limitorque product line.

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HART interface initiative from SIPOS Aktorik

The HART communication protocol has been added to the SIPOS 5 range of electric actuators. Adoption of HART (Highway Addressable Remote Transducer) technology extends SIPOS Aktorik's digital capability for industrial valve applications.

HART is a bi-directional communication protocol; it is recognised as a global standard for sending and receiving digital information across analogue wires between smart devices and control or monitoring systems.

Commenting on the addition of the HART interface to its actuation technology, Michael Molle, SIPOS' R&D Manager said:

"Communication advancements to enhance processes and improve data access between SIPOS' intelligent field devices and host systems are vital in today's automation environments."

"With its ability to provide simultaneous communication with 4-20mA signals, HART plays a critical communication role. Benefits include its simplicity and high level of reliability for commissioning and calibration."

Installed in over 30 million devices worldwide, HART technology is widely recognised as one of the most popular communication protocols.



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*By BVAA's Technical Consultant,
Peter Churm*

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Hot Spot CEN/DIS enquiry on prEN ISO 4126-6

Result of the parallel CEN / DIS Enquiry on prEN ISO 4126-6

prEN ISO 4126-6 "Safety devices for protection against excessive pressure -- Part 6: Application, selection and installation of bursting disc safety devices"

prEN ISO 4126-6 was submitted to the parallel CEN / DIS Enquiry which closed on 14 July 2013.

The draft was approved with comments, in both ISO and in CEN. P-Members voting: 9 in favour out of 10 = 90 % (requirement >= 66.66%)

The comments received will be considered by ISO/TC 185/WG 19 at its next meeting.

Albion Expands & Adds New Range

Albion Introduces New Range Of Solenoid Valves

Albion Valves, an increasingly popular UK valves supplier based in Dodworth, Barnsley, has introduced a new range of solenoid valves to its extensive portfolio of products. Albion currently stocks around 5000 lines of industrial valves, suitable for applications predominantly within the process, water and HVAC industries.

A solenoid valve is an electromechanically operated regulator controlled by an electric current through a solenoid (coil), they are most frequently used to control media flow and direction, and are designed to shut off, release, dose, distribute or mix fluids.

Solenoids are one of the most common-place ranges of valves in the HVAC industry and are used in multiple applications, everything from fluid power pneumatic and hydraulic systems, flush systems, to control cylinders, fluid power motors or to help control and energize the operation of larger industrial valves.

Albion's new range includes pilot operated, direct acting and high temperature valves with a variation of different diaphragm options. In both brass and stainless steel, solenoids can manage a variety of media including water, air, oil and steam. Solenoids offer fast and safe switching, high reliability, long service life, good medium compatibility of the materials used, low control power and compact design.

David Keys, Albion Managing Director commented: "Solenoids are a product line that our distributors require again and again, and as such we have introduced several more design options in order to offer greater choice, and more cost effective engineered solutions."

Albion Invest in New Expansion

Albion is almost doubling the size of its premises at the Fall Bank Industrial Estate. The company is expanding warehouse space from 12,000ft² to over 22,000ft² to accommodate a rapidly developing business, and a growing product portfolio.

Albion serves the industrial heating, air conditioning and industrial industries, and has a wealth of over 30 years of industry expertise. Over the years Albion has developed an extensive portfolio of over 5000 different lines of valves and fittings, globally sourced from the UK, Italy and China.

Albion currently employs a team of 23. The company is becoming renowned in the industry for supplying quality products at an affordable price. Having suc-



cessfully developed this market niche, steady growth has been attributed to consistently providing customers with a trusted alternative to traditional products.

Commenting on the expansion, David said: "We strive to maintain 95% availability on stock, and in order to be consistent with our fast turnaround policy for customers we quite simply need the extra space to house our growing product portfolio. Our business has been built on a consistently excellent service to distributors, this extension will give us the additional facility to sustain this best practice."

Albion's complete portfolio of products is fully accredited with the mandatory industry approvals including: EN331 for gas and WRAS for potable water; ISO 9001 for Quality Management and ISO 14001 for Environmental Management.



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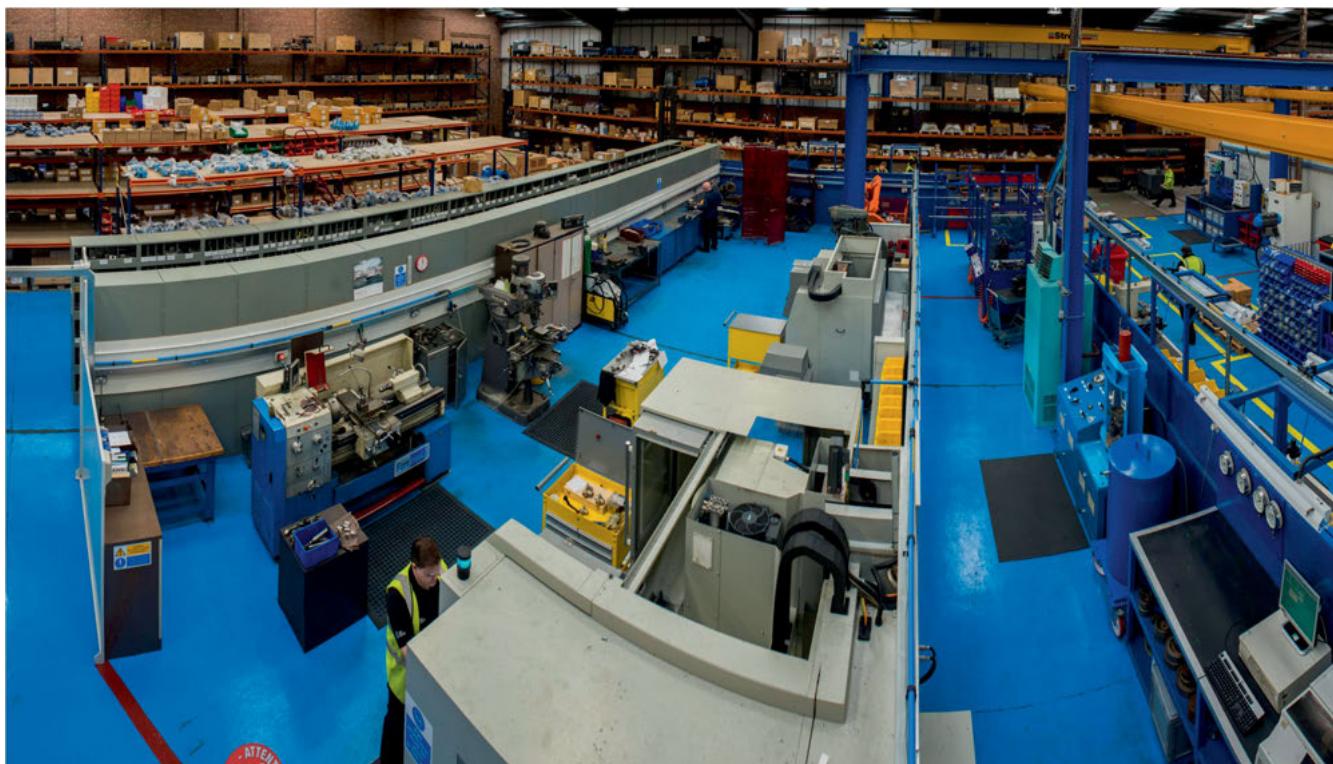
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Valvestock relocates and invests in ‘unmatched range of services, products and support’



Valvestock, the specialist valve and actuator arm of Pipe Center, has moved to new premises and significantly expanded its offering following a major investment.

The new purpose-designed site at Fareham Industrial Park is equipped with state-of-the-art design, engineering and test facilities, plus a new training and demonstration centre.

Valvestock is now authorised by the manufacturers to build and modify Saunders diaphragm valves and Apollo ball valves, fully supported by the latest CAD/CAM systems. All work, including assembly and test of actuated valve packages, is carried out according to ISO 9001:2008 certified procedures.

The new offering includes next day delivery on stocked items, and a 72-hour response on more complex technical quotations. In addition, a new Speedy Valve Service offers an industry-beating 24-hour turn around on assembled and activated valves.

The company recently held a well-attended and highly successful and open day for industrial contractors and clients, giving customers an opportunity to see the new facilities first hand.

Marcus Sampson, general manager of Valvestock, said: “Our key aim is to supply ‘on time’ and ‘on budget’, while adding value to our customers’ businesses.

“The move and related expansion in our offering represents a major investment by Pipe Center, to further improve the service we offer to customers.



Marcus Sampson, general manager of Valvestock

“As a result, I believe we now offer an unrivalled package of products, services and support to the industry – covering valve and actuator requirements of the water and waste, power, process, manufacturing and oil and gas industries.”

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The logo for Messe Düsseldorf features the word "Messe" in a blue diamond shape and "Düsseldorf" in a blue rectangle below it, all set against a background of red and yellow squares.

New Faces at Hardide Coatings

Business development appointments to boost European and US growth

Advanced surface coatings technology company Hardide Coatings has appointed two senior business development managers to drive uptake of its tungsten carbide-based coatings as the company expands its business in Europe and North America.

Gary Roberts will focus on developing European sales of Hardide coatings into new market sectors such as material processing, mining, mineral extraction and metal injection moulding and Houston-based Dan Wilson will increase penetration of the US oil and gas sector as well as develop interest from new markets.

The new appointments bring a combined experience of more than four decades, and join as the company embarks on an ambitious but focused growth strategy. Gary Roberts joins from the mineral processing sector where he was in a senior sales role at Tarmac Limited. In addition, he brings a strong background in industrial sales in the fields of bearings, filtration, centrifuges and compressors, including four years working and successfully developing a business in the USA. His role at Hardide Coatings is to develop new market areas in order to broaden the customer base.

Dan Wilson joins from M Cubed Technologies, Inc where he was sales manager. Previously, he held manufacturing and sales management positions at Saint-Gobain and CoorsTek. He returns to Hardide Coatings having previously worked with the company



Gary Roberts, BDM Europe



Dan Wilson, BDM North America

from 2006 until the global downturn caused the hibernation of the Houston facility in 2009. Wilson holds a B.S. and M.S. in Ceramic Engineering from the University of Missouri-Rolla.

Philip Kirkham, chief executive officer of Hardide Coatings said: *"There is strong interest in the Hardide coating technology from markets that previously we have not had the resources to investigate. These appointments, which double the size of our business development team, will enable us to develop these opportunities and make real progress towards realising our growth potential."*

Hardide Coatings develops and produces nanostructured tungsten carbide-based coatings which save cost, reduce downtime and optimise component life. The full range of nanostructured Hardide coatings provide abrasion, erosion and chemical resistance to metal substrates while themselves being tough, ductile and impact resistant.

Hardide Coatings

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INSIDE:

A selection of developments from the valve industry with special relevance to those attending Offshore Europe 2013



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'Severn builds Valves no-one else can!'

Spend a couple of hours with Severn Glocon's Colin Findlay, as I did recently, and you soon realise this is a typically reflective and concise answer from this modest and unassuming Scot.

And it's not meant to be in the slightest way boastful. Just simply how Colin sees it. To illustrate the point he outlined to me the company's latest example: a 36 inch, Class 900 fast-acting severe service control valve for a cryogenic application. How fast? Try just 2 seconds!

Two Key Differentials

Colin went on to explain why the company stands out from the crowd in the valve industry:-

- 1) *'Although 90% of our business is Oil & Gas/LNG, Severn Glocon's root heritage is in the cryogenics industry – one of the valve industry's most challenging sectors. With over 50 years' experience we are widely accepted as the industry experts. Our fast-acting valve is just one example of that,' he asserted.*
- 2) *'The Severn Unival business and its origins in "repair intelligence" make us unique in the industry.'*

'World Class Engineering Intelligence'

The above strapline is all over the brand new, hugely impressive Severn facility at Brighouse, so I asked



The Severn staff outside the new facility at Brighouse



Severn's Colin Findlay

Colin to explain the 'intelligence' references. He explained, *'It's very simple really. The Unival business is perceived as a valve repairer, but the Severn Glocon Group manufactures valves too. We don't do – and never really have done – just "standard repairs."*

Colin continued, *'Major project work, principally manufacturing of severe service control valves, is handled by our Severn Glocon business in Gloucester. "Established Plant" i.e. maintenance, repair and operations (MRO) work for major clients, is managed by Severn Unival here in Brighouse. But the two businesses work seamlessly together to ensure the very best technical support is given to the MRO teams, with an engineering review of applications, failures and proposed solutions looping back to the valve design and manufacturing teams.'*

Colin continued, *'For decades we have taken severe service control valves, and painstakingly reviewed why they needed post-service repair and provided our clients and end-users - with whom we are extremely close - with a professionally considered opinion as to the causes and solutions.'*

'With the huge amount of data we have amassed we in effect have had a continuous product development based on live information. "World Class Engineering Intelligence" is therefore totally true,' he beamed.

'We design and manufacture high specification valves, develop and test them endlessly, and we supply them



Inward bound valves awaiting assessment and repair

to clients all over the world with varied and challenging applications. We know precisely how the valves work and crucially how and why they can fail, and how to stop it happening again,’ Colin continued. ‘It puts us in a very privileged position but also means our clients know they can rely on us for the very best advice when it comes to repair, retro-fit, upgrade or replacement.’

Brighouse Facility

I asked Colin about the background to the impressive new facility overlooking Calderdale at Brighouse, known colloquially in the industry as ‘Valve Valley’.

‘Again very simple,’ he replied. ‘We’ve seen 360% growth in the last 5 years alone! The old Huddersfield site was too constraining at just 23,000 ft² and we needed room to expand and improve our capabilities. The new 65,000 ft² Brighouse facility is purpose built and at and we’ve spent over £2m fitting it out to our own specification. It gives us the space we needed for a rapidly growing business and a staff of 104. We need to attract and keep the best staff, to have the best facilities possible and to be super-efficient as a “Lean” business, so a brand new facility here was the answer.’

I jokingly asked if nearly triple the space was enough and was surprised to hear Colin’s reply of ‘Actually, “No.” We kept the Huddersfield site for storage – it’s still very much in use. We pride ourselves on very short lead times and the combined space facilitates that perfectly.’

‘The new site also gave us the opportunity to re-organise,’ Colin added. ‘The design offices and sales and support teams are separated but adjacent to one another. Their working environments are very different but when one needs to interact with the other they are just a couple of steps away. We also took the opportunity to include specially configured rooms for our respected Training function.’

I commented that the same philosophy appeared to have been extended to the shop floor. ‘That’s correct,’ Colin replied. ‘The new site allowed us to lay out the workshops in an entirely logical and efficient manner, from Goods Inwards right through all processes to despatch. We have isolated areas for inspection



Part of the Severn Unival design office

and assessment, machining, positive-pressure clean-rooms, ‘dirty rooms’, paint, assembly and test - even a submersible test tank.’

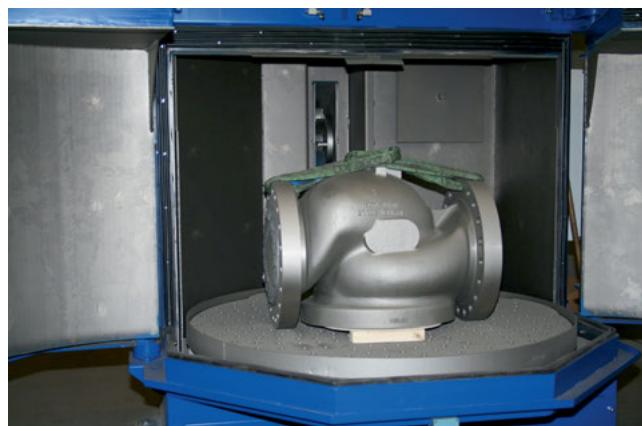
‘Last year we were awarded £1½m grant from the Regional Development Fund,’ Colin continued. ‘One result of that is the brand new R&D facility you’ve seen here. Severn will be leveraging on its control valve technology and extending its penetration into the sub-sea market.’

‘We’re an independent, wholly UK-owned business and we’re also very keen on supporting the local economy,’ Colin added. ‘This area is synonymous with valve manufacture and wherever possible we aim to source locally, to ensure that continues. “Made in the UK” still means a great deal in the valve industry and we’re proud to put that on our products.’

There’s More

‘We also successfully incorporated “Leeds Valve” into the Brighouse site following its acquisition last year,’ adds Colin. ‘We’re already looking at development and an expansion of the butterfly range which should stimulate a lot of interest in the marketplace.’

‘The Severn Glocon Group doesn’t just include the two sites I’ve mentioned,’ he said. ‘As you know last summer we acquired LB Bentley in Stroud, Gloucestershire who specialise in the design and manufacture of small subsea valves for the global oil and gas market. This business has developed dramatically in the last



Possibly the cleanest ‘dirty room’ in the industry



Part of the Severn Unival testing capability

year with tremendous growth and major customer qualifications and approvals. By merging their subsea expertise with the vast knowledge we already have across the Group we can expand our range of subsea valve types!

'We also started a new business, Severn Ball Valves, in Aberdeen in 2010 to cover the local market for traded valves, supplying ball valves obviously, but also gates, globes and check valves etc. too. This division now also has outlets in Perth Australia and Dubai.

We supply the MARS product range as well, through dozens of UK distributors such as Ron Hague and ISIS.' When I asked about how it's doing, there's just that warm, engaging smile again – business is obviously very good and growing substantially like the rest of the Group, who were awarded the "Queen's Award for International Trade" in 2011.

'Progress continues apace,' concluded Colin. 'For example we've just received a substantial valve management contract for the world's third largest oil field. Every day there's something new!'



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By BVAA's Technical Consultant,
Peter Churm

TECHNICAL HOT SPOT

Hot Spot - FprEN 1591-4: 2012 Final Vote and approval to publish

"Flanges and their joints — Part 4: Qualification of personnel competency in the assembly of the bolted connections of critical service pressurized systems"

This document (FprEN 1591-4:2012) has been prepared by Technical Committee CEN/TC 74 "Flanges and their joints" and has been submitted to the Final Vote and approval to publish in due course.

This document will supersede CEN/TS 1591-4: 2007.

Changes to the CEN/TS 1591-4: 2007 document can be seen in the comments and observation sheets available from BVAA for members.

As advised in a previous announcement this European Standard is applicable to the bolting technicians, and their supervisors, the responsible engineers, who disassemble, assemble and tighten the bolted connections of whatever shape of critical service pressurised systems where the failure of a connection would endanger personnel, plant or the environment.

A route for achieving competency in the skills required to safely and successfully disassemble, assemble and tighten pressurised bolted joints of any shape to a design bolt load using documented work instructions,



thereby establishing a joint capable of maintaining a leak-free status throughout its' service life, is given in the document.

This European Standard provides a modular training syllabus and an assessment process that can be used to determine the competency of personnel who disassemble, assemble and tighten bolted connections, whatever their shape, fitted to pressurised equipment containing a medium at any combination of temperature and pressure.

Details of the BVAA course run in conjunction with The Academy of Joint Integrity can be found at www.bvaa.org.uk/training

Safe Technology in Oil & Gas Flow Control

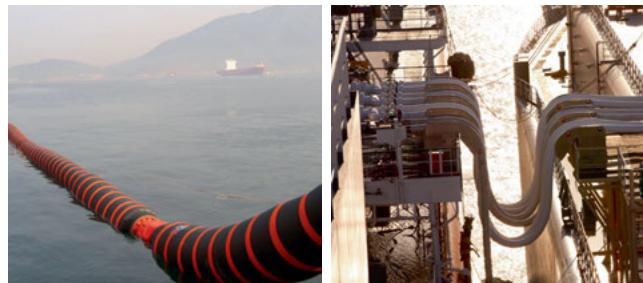
Signum Technology is a new group of established engineering businesses in the safety and critical service flow control sectors. Its buy and build strategy is both ambitious and exciting and strategically in-tune with its mission to develop a group of businesses that not only complement each other but when taken together, will provide a formidable proposition to an increasingly global business environment.

The investment by Signum in the two companies so far, clearly illustrates the Group's intentions and its ability to tactically take advantage of key technological areas in the oil and gas industries. Gall Thomson and KLAW are companies that are well-known in their sectors for reliable technology and each are constantly delivering innovation that provide tangible benefits. Both businesses produce breakaway couplings, which are safety critical valves protecting against environmental leaks.

The Safety Breakaway Coupling is a vital component in a transfer system. If strain on the system occurs due to movement or flow surge, then the coupling will activate and separate. The valves then close and prevent spillage. This protects personnel, assets and the environment and avoids costly clean-up, damaged reputation and extended downtime. Such an effective and efficient safety system is particularly reassuring to investors, insurance companies, underwriters and environmental groups.

Gall Thomson has been at the forefront of marine safety breakaway coupling (MBC) technology from the very beginning. Gall Thomson MBCs have been protecting the world's oceans for decades and its proven technology is the accepted industry standard. The success of Gall Thomson is largely due to the reliability and efficiency of its designs which include the Petal Valve Type Coupling and the Flip-Flap Valve Type Coupling. The key advantages of the Petal Valve are zero headloss (no pressure drop) and control over flow shutdown. The Flip-Flap design offers 100% shutoff and minimum headloss. Both MBC types are the most lightweight and therefore most buoyant efficient safety breakaway couplings in the industry.

KLAW offers both marine and industrial breakaway couplings. This includes Emergency Release Systems which in turn comprise of Emergency Release Couplings and control facilities such as the impressive Hydraulic Control Unit. KLAW also offers cryogenic transfer systems which enjoy an unrivalled reputation for delivering proven technology into the rapidly growing LNG sector. KLAW was closely involved with the world's first LNG ship-to-ship transfer back in 2006 when Exmar transferred LNG from Excelsior, a LNG Regasification Vessel (LNGRV), to a conventional LNG carrier called Excalibur. KLAW continues to work closely with leading companies in the LNG sector and is influential in developing systems for LNG bunkering (refuelling ships driven by LNG).



Left: The proven technology of Gall Thomson compact and lightweight Marine Breakaway Couplings are successfully in operation throughout the world

Right:KLAW Emergency Release Systems offer a vast range of onshore and offshore applications. Shown here is the ship to ship transfer of cryogenic LNG. Image Courtesy of Excelerate Energy

Such innovation in meeting technical challenges and delivering solutions against a backdrop of ever evolving market influences is what provokes both the vision and drive of the Signum CEO Phil Clifton.

"Building a group of companies that satisfy the technical and environmental expectations of the 21st century are both challenging and exciting and in my view something quite special."

'The Flip-Flap design offers 100% shutoff and minimum headloss.'

Signum is backed by a team of strong investors at Phoenix Equity Partners and it is the ethos behind Signum that helps to bind the businesses into a cohesive group consisting of shared values and a commitment to work in an ethical, safe and sustainable way.

Investment in people and resources

Since Gall Thomson and KLAW have become part of Signum, considerable investment has been made into design and manufacturing processes, product development and project management. Gall Thomson and KLAW can now boast ISO 9001 for Quality Management. Such investment is typical of the approach being taken by Signum: to enable like-minded businesses to realise their potential.



Signum Technology

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www.signumtechnology.com

Righton Launches New Range of Super Duplex Alloys



See us on stand 1G61



3rd-6th September 2013 | Aberdeen, UK

Righton will be at Offshore Europe 2013, and are happy to discuss all things alloy on Stand 1G 61

Righton Ultratech Alloys are a range of high performance metals including stainless steel, copper and nickel alloys specified for the exacting demands of safety critical industries including aerospace, marine, defence and oil & gas.

Righton expertise in multi-product supply has enabled it to identify and expand its portfolio of materials to best suit the requirements of our customers in various market sectors and to this end, the oil and gas industry is no exception. Righton now supply a comprehensive range of material including high integrity copper alloys, 17/4 PH stainless steel bar and more recently have introduced a range of Super Duplex bar F55 UNS S32760, released to NORSO MDS-D 57 Rev. 4 09/10 and NACE MR0175 ISO 15156-1 2009.

'With over 300,000 sq ft of warehousing space, the Company holds over 6,000 tonnes of stock'

Responding to worldwide market growth, Righton predict its range of Ultratech Alloys will expand even further to satisfy the requirements of the oil & gas industry. David Wycherley, Product Development Director claims "*Our previous experience in other safety critical markets is a crucial factor in our drive for continued excellence and product innovation, propelling us forward to become a leading supplier of metals to the oil & gas industry.*"

Due to the increase in demand from major oil & gas and subsea equipment manufacturers,

Righton material is sourced from premier European manufacturers ensuring no compromise in quality. In addition, from August 2013 PMI testing will become a standard feature of our goods inwards procedure, demonstrating the Company's continued dedication to quality assurance.

As holders of the SC21 Silver Award, Righton has continually improved its supplier/customer relationships. As the template for all business and process improvements, SC21 has become fundamental in all Righton's decision making. Incorporating ethics, relationships, supply chain partnerships, risk, opportunity & best practice, SC21 ensures customers receive the best products and service.

With over 300,000 sq ft of warehousing space, the Company holds over 6,000 tonnes of stock at eight Service Centres nationwide, utilising its own fleet of vehicles to offer a fast & efficient local delivery service. In house processing facilities including bar sawing up to 16" diameter are available.

In addition Righton are able to supply forgings, machined components and material testing to individual customer requirements.

RIGHTON

Righton Ltd
Tel: 0121 356 1141
www.righton.co.uk

Armoloy for the Valve & Actuator Industry

Armoloy (UK) Ltd is the UK licensee for the Armoloy NTDC (Nodular Thin Dense Chrome) process.

This process deposits a unique, nodular 99.9% pure Chromium coating that has been approved for use in Aerospace, Oil & Gas, Nuclear and other high technology industries yet is also certified as safe to use for Food, Pharmaceutical and Medical equipment.

Proven in the Valve Industry

Armoloy has been available in the UK for more than 20 years now and, in that time, has successfully tackled thousands of applications that impact, either directly or indirectly, with valves and actuators. Components have included vanes, cylinders, rotors and pistons, sealing rings and bearings.

We have tackled all aspects of industry from miles up in the stratosphere to applications deep down in the ocean depths for the Oil & Gas industry.



Peace of mind with Armoloy coated components



5 microns of Armoloy can eliminate problems

The beneficial properties of Armoloy include its hardness in combination with its corrosion resistance in combination with its natural slipperiness. This gives it great resistance to abrasive wear and galling.

One more thing - it doesn't come off in service. Armoloy will not chip, crack or peel under normal operating conditions. Essentially, this is a dynamic coating that shows its true potential under working conditions.

Over the years, the Oil & Gas, Power, Petrochemical and Valve specifiers have turned to ever more exotic metals and alloys. They are now able to offer certain invaluable properties in their performance. However, against this increasingly narrow range of brilliance must be offset the fact that the majority of them suffer from wear problems and have a natural talent for picking up or "stickability."

As a result of the properties described above, a thin coating (5 microns) of Armoloy NTDC will either eliminate these problems or make them manageable. This will provide a workable solution on sliding, reciprocating, rotating or threaded surfaces over a wide range of temperatures (-200 to +600 degrees). This thin coating is unlikely to affect most manufacturing tolerances and, in many instances, can be allowed for thus eliminating any further machining and jumping straight to the assembly operation.

Masking, where specified, can be achieved although the very thinness of the coating renders it unnecessary

in many applications and the area can be described as "optional" in working drawings. One benefit that is attainable from uncoated, masked off areas is the potential for different coatings on different areas of the component. This is equally applicable to internal as well as external surfaces - long bores and internal threads are not a problem for Armoloy provided that access is available. Line of sight is also not essential.

Armoloy NTDC is an internationally recognised problem solver; we thrive on awkward one offs and specials. Our size capacity covers a wide range of shapes and we can handle up to 5000 Kgs. Our customer base runs through Europe and the Middle East out to the Far East.

Company accreditations include ISO 9001, ISO AS 9100 Rev.C and NADCAP. We operate to a wide spectrum of international specifications as well as a continually increasing list of specifically tailored company specifications.

We welcome the opportunity to talk to you and discuss your problems in a timely and cost effective manner. For more information on our activities and possible applications, please visit our website, www.armoloy.co.uk or call us on +44 (0)1902 310375

Applicable Components:

Housings / Bodies, Clamping Rings, Sealing Rings, Bearings

Thrust Rings, Vanes / Discs, Vane Centralisers, Seating Rings

Cylinders, Actuators, etc., etc.

Base Materials:

Cast Iron, All Steels, All Stainless Steels inc. Duplex & Nitronics

Inconels, Nimonic, Ampco (Be/Cu), CuproNickel, Monel Brass, Bronze, Aluminium Bronze, Manganese Bronze, Hastelloy.

Armoloy (UK) Ltd

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MSP Establishes New Oil & Gas Division

MSP, a leading supplier of springs and presswork, has created a new Oil and Gas division after experiencing a surge in business in the sector. Managing Director, Keith Gardner, said: *"For the last 49 years, we have been supplying safety critical components for the aerospace and defence markets. 100% guaranteed traceability and repeatable high quality is a given for this market. The Oil and Gas market is now rightly placing similar demands upon its suppliers and we have won a number of prestigious clients who now know they can rely upon us to get it right first time, every time."*

The new division is lead by Mark Fox (O&G Technical Manager) and Michael Johnson (O&G Sales Manager) providing dedicated support to the Company's growing O&G customer base. Mark and Michael are supported by over 40 highly skilled engineers with more than 800 years of collective experience.

Mark Fox commented: *"MSP trades on the strapline 'Engineered Solutions' which provides a succinct description of what we do for customers across the globe. We work collaboratively with them to design and manufacture products which are robust and reliable. Working with exotic alloys is second nature to us and we manufacture any quantity from one to millions in materials such as Inconel, Hastelloy, MP35N, Phynox/Elgiloy."*

Mr Gardner added: *"We are passionate about developing our business in the O&G market and I am particularly*



Michael Johnson [left] and Mark Fox: 'Engineered Solutions' for the Oil and Gas market

excited about our investment in this new division to drive further growth. We are proud to consistently be amongst our customer's top performers with an OTIF never below 98% (On Time in Full delivery). Please do not hesitate to contact our team with your engineering challenges or simply to discover how competitively you can have guaranteed 100% traceability and quality."

MSP

Tel: 01527 69121

www.microspring.co.uk



ASCO's High Flow Filter Regulators

ASCO Numatics high flow filter regulators enable Ascendant Technologies to offer more responsive valve solutions

Ascendant Technologies, a specialist valve automation company serving the UK oil and gas sector, has selected filter regulators from ASCO Numatics to help improve the response speed of its valve solutions. By deploying the ASCO Numatics 342 Series of filter regulators, which have a large flow rate, Ascendant Technologies is able to meet the needs of its customers by offering a solution with a significantly reduced valve closure time.

Filter regulator flow rates are critical in determining the time required to close a valve. ASCO Numatics ½" stainless steel filter regulators incorporate moulded reinforced diaphragms, which enable a flow rate up to 4430 l/min. Following performance tests, Ascendant Technologies concluded that the ASCO regulator reduced the valve closure time from 11.7 to 7 seconds.

"To meet end user requirements, we needed to improve the response speed of our valve solution," said Andy McDuff, General Manager, Ascendant Technologies. "We tested a number of filter regulators from different suppliers and the ASCO device outperformed its rivals, helping to significantly reduce the valve closing time."

For Emergency Shut-Down (ESD) applications the response time of the valve can be critical. If the filter regulator is unable to pass enough air to enable the actuator to close the valve in the specified time, then a booster may need to be fitted. This adds to the overall cost and increases the number of potential leak points.

The Series 342 is suitable for ambient temperatures from -40°C up to +80°C (-50°C for arctic conditions is available on request) and for compressed air and gases. It can therefore be installed across many industries, including chemical, petrochemical, oil & gas, refinery, power generation, pulp & paper and process plants.



Series 342 stainless steel filter regulators reduce closing time of valves

ASCO
numatics™

ASCO Numatics Ltd
Tel: 01695 713600
www.asconumatics.co.uk

Econosto UK show Taylor Safety Relief Valves at Offshore Europe

Well-known US manufacturer Taylor Valves recently appointed Econosto UK as their UK and Europe agent for the full range of Taylor Valve products.

The company is renowned for innovative solutions to common problems and their valve products have been used globally in the oil and gas industry for years. Products include various safety relief valves, choke valves, stack vent valves, back pressure regulators, relief valves (incl. steam service), vapour valves and multi-orifice throttling valves (MOV).

Econosto's Aberdeen branch plan to initially stock a selection of commonly used products with a view to continually expanding the range in line with customer needs. There will also be access to US manufactured stock on favourable lead times.

Taylor Valve products can be used for both onshore and offshore applications involving gases, steam and liquids. Typical areas for use would be pumping stations, separators, compressors, dehydrators, gas production units, reverse osmosis and many more within the oil and gas and chemical industries. Taylor valves have a unique soft seat design which ensures a bubble tight seal even under the most difficult conditions and this, coupled with a superior spring design and high quality materials enhances the performance of the product and extends useful life. The result is reduced maintenance costs and less downtime.

As well as the normal options that would be expected of a premium quality range of products – such as a full choice of end connection options or materials and trims to suit a wide variety of media – Taylor valves can innovative solutions to seemingly obvious problems.

For example, when a relief valve starts to vent, it may only be a tiny amount not visible to the eye at first, worsening to the point where serious environmental or even mechanical damage may have occurred before



site workers are visually alerted. Taylor relief valves are fitted with an environmental protection cap (EPC) which audibly alerts workers to a leak as soon as it occurs. A simple, easily installed but highly effective design feature that doesn't prevent the valve from venting correctly to release pressure if a system upset occurs but ensures a speedy response to potential problems. The cap can withstand a wide temperature range and can withstand discharge pressures up to 3000 psi.

Mark Kennedy, Business Development Manager at Econosto UK reports, "The Taylor valve range is a welcome addition to the Econosto UK stock profile, particularly for the Aberdeen business where innovative products with a focus on meeting the high standards and improved performance required by industries centred around oil and gas. Taylor Valve and its sister company Rupture Pin Technology operate a process of continual improvement with evolving design and manufacturing to the highest quality standards. We are looking forward to developing our relationship with them over the coming years."



econosto®

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Emerson Awarded \$67 Million in Valve Technologies Contracts

Emerson valve technologies to help ensure efficient, safe flow control of natural gas

Emerson Process Management has been awarded contracts by Chevron Australia Pty Ltd which are valued at US \$67 million (Euros 50 million) to provide control valves and valve actuators to help ensure the efficient and safe flow of natural gas at the Gorgon Project, one of the world's largest natural gas projects.

Emerson Process Management is providing the majority of the control and shutdown valves for this natural gas project.

Emerson's valve and valve automation technologies provide the ability to accurately manage the production of gas, resulting in tighter and more accurate control that increases overall system efficiency and safety, and helps ensure environmental compliance. Fisher® FIELDVUE™ digital valve controllers provide automated configuration as well as improved control valve calibration and tuning. Their built-in diagnostics enable technicians to remotely monitor the health of a valve assembly and can alert them to pending issues before they affect operations.

"Our customers are undertaking increasingly larger and more complex projects in challenging on-shore and off-shore sites, where they require sophisticated, reliable gas flow solutions," said Steve Sonnenberg, president of Emerson Process Management. "Prior to installation, we were able to verify the performance of highly critical valves that will be used at Gorgon, through real-world flow testing at the Emerson Innovation Center in Marshalltown, Iowa, USA - the largest flow facility in the world capable of providing this kind of reliability testing."

The contracts include over 1000 control valves, valve controllers and actuators for applications ranging from inlet gas processing, acid gas removal, liquefaction and fractionation, to anti-surge and cryogenic. The wide scope of applications is matched by various valve materials, to withstand harsh conditions, extreme changes in pressure, and corrosive environments. Severe service conditions within many of the processes are met

by a high number of Fisher noise reduction and anti-cavitation trims.

Additionally, Emerson's Roxar™ subsea wet gas meters will be used to provide real-time, accurate measurements of hydrocarbon flow rates and water production.

In addition to support from Emerson Process Management's engineering, development and manufacturing facilities in Australia, Emerson is working with its local business partner of 20 years, Perth-based Western Process Controls, to provide training that will help the Gorgon Project's instrument and valve technicians, ensure smooth commissioning and maintenance best practices.

About the Gorgon Project

The Chevron-operated Gorgon Project is developing the Gorgon and Jansz-lo gas fields, located between 130 and 200 kilometres off the northwest coast of Western Australia. It includes the construction of a three-train, nominal 15 million tonnes per annum (MTPA) liquefied natural gas (LNG) facility on Barrow Island and a domestic gas plant with the capacity to provide 300 terajoules per day of gas to Western Australia. The Gorgon Project is operated by an Australian subsidiary of Chevron and is a joint venture of the Australian subsidiaries of Chevron (47.3 per cent), ExxonMobil (25 per cent), Shell (25 per cent), Osaka Gas (1.25 per cent), Tokyo Gas (1 per cent) and Chubu Electric Power (0.417 per cent).



Emerson Process Management

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SERVING INDUSTRY
1939 - 2014

EnerMech in £10 Million Australian and UK Acquisitions

Oil and gas engineering company, EnerMech, has snapped up Australian industrial sector firm Vicon Services, and UK-based pump equipment specialist Total Reclaim Systems Ltd, in deals worth a combined £10 million.

The Aberdeen-based mechanical engineering group will introduce new business lines and significantly strengthen its presence in the multi-billion dollar Australian energy sector through the Vicon deal. The acquisition of Total Reclaim Systems (TRS) increases the range of services EnerMech can provide to the drilling sector.

With more than 100 staff across another five Australian locations, Vicon is led by Niall Conlon and last year it had turnover in excess of £12 million (AUD \$20 million.)

Vicon provides engineering services including high pressure water-jetting, heat exchanger services, coating systems and chemical services, which are well aligned with EnerMech's six existing business lines.

It is EnerMech's second Australian acquisition this year, following the January purchase of Melbourne-based Valve Tech Engineering, which provides valves services to the oil and gas, power, petrochemical and refining industries.

Vicon Services managing director, Niall Conlon, said: "*It is a very good deal for both companies and with very little crossover in the products and services we provide, it's an excellent fit geographically and strategically.*

"From Vicon's perspective, it's like having a big brother with a larger balance sheet and more fire power. Our focus has always been to be a one-stop shop and to provide a seamless service for the client and now, with EnerMech's portfolio of products, we can do even more of that."

EnerMech finance director, Michael Buchan, said: "Vicon's first class reputation for quality of service was a strong attraction to us and it has skills and services which align very well with our own.

"Australia is a key market for EnerMech and the deal sends out a strong signal to the energy sector that we are serious about investing there and will use our extensive resources to deliver a more integrated and cost-effective service to our clients."

Great Yarmouth and Aberdeen-based Total Reclaim Systems (TRS) provides mud pit and tank cleaning services for offshore oil rigs and production platforms. Its technology reduces the volume of waste fluids created, reduces manual handling and minimises risk by reducing the number of personnel involved in cleaning operations.



The two latest EnerMech acquisitions extends the Aberdeen group's international oil and gas capabilities

The acquisition will allow EnerMech's Drilling Support Services division to increase the range of services it offers clients, while TRS will boost its international exposure through access to EnerMech's 25 global locations.

TRS managing director, Richard Martin, said: "*Our specialist pumping services are now increasingly in demand outside our domestic UK market and joining EnerMech gives us access to international markets where there is a strong demand but which so far have remained untapped.*"

EnerMech managing director, Doug Duguid, said: "*Total Reclaim Systems makes smart use of technology to benefit clients and that is something we value. This acquisition widens the scope of services we can provide to our clients in the drilling support sector and it fits in very well with our policy of trying to offer each client as integrated a service as possible.*"

"TRS is well established in the North Sea, and has worked in Australia and Africa, but we both recognise there is a huge potential for its suite of products in overseas markets. We will make good use of our international network and local contacts to accelerate growth and to expand the business."

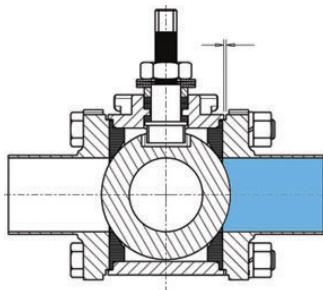
TRS will continue to operate from its Admiralty Road base in Great Yarmouth and all 10 staff has transferred to EnerMech, including Richard Martin who will work as senior consultant and managing partner, Bill Skene, who will continue to operate out of Aberdeen.

EnerMech Ltd
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www.enermech.com



Flexachem & PBM for Oil & Gas

Flexachem UK Ltd Introduce PBM Valve solutions for the Oil & Gas Market



The PBM 'Adjust-O-Valve' feature



ANSI Ball Valve



Sectioned view of a PBM Double Block & Bleed Valve



Transmitter Isolation Valves

Flexachem UK Ltd along with their sister company Flexachem Manufacturing (Cork) are long established sole agents for the full range of PBM valves.

Since the first PBM valve was shipped back in 1960, their reputation for supplying innovative valve solutions has developed to the point where they are trusted by many of the major Oil & Gas companies around the world.

At first glance you may think that PBM are just another ball valve manufacturer, but look more closely and you will see that the "ball valve" tag is not a true representation of what PBM offer. PBM are about providing a solution not just an off the shelf valve, by combining specific application requirements with creative engineering they are able to reduce processing costs and improve efficiency for their customers.

One such innovation that sets PBM's valves out from the crowd is the "Adjust-O-Seal" feature. Valve body bolts compress the seats against the ball providing both upstream and downstream sealing. This has the added benefit of being able to tighten the body bolts to compensate for seat wear. This in line adjustment eliminates the need to remove the valve from the line and minimises system down time, thus reducing maintenance and repair costs.

Here is a sample of the many products available from PBM:

- PBM double block and bleed valves are custom engineered in a variety of alloys and pressure classifications to meet customer specifications.
- PBM's instrument valves are used for isolation of pressure gauges, orifice plates, flush rings, and various measurement instruments.
- PBM's standard 1/2-inch Instrument (root) valves meet API 622 (low emissions) as a standard, and this is an option available on all valve products

- PBM's Transmitter Isolation Valves obtain accurate transmitter readings and replace leaky knife gate valves. Using the 2-Way ball valve features it has minimal dead space and gives positive shut-off. Calibration Port, CIP Port, 150# Flange, and Locking Handle standard.
- PBM's Fabflex® facility gives custom built options, manifold assemblies and much more, producing over 600 unique valve solutions per year.
- PBM also has ABS approval for their marine range of valves, which are available in a variety of materials up to 10" NB.

All PBM valves are manufactured in the USA and have full supporting material and testing documentation. PBM have LROA ISO9001 approval, ABS certificate for marine valves, N stamp and NPT stamp for Nuclear valves, USCG Category A approval and API622 Low E fugitive emissions testing.

PBM valves are trusted by major oil refineries, on /off shore oil & gas and chemical companies where safety and reliability are critical. Exida, an accredited global certification company, has certified PBM's series AN (ANSI flanged ball), TN (Trunnion mount ball), and IM DBB ball valves for functional safety per IEC 61508.

"Obtaining the SIL 3 capable rating from Exida validates PBM's commitment to providing high quality, safe and reliable valve solutions to critical process applications" says Jay Giffen, PBM Valves (USA) Sales and marketing manager.

PBM also cover a many other markets such as Chemical, Cosmetic, Food & Beverage, Mining, Nuclear, Paint, Pharmaceutical, Pulp & paper and Cryogenic, with their comprehensive range of Industrial and Sanitary valves,

Industrial valves include:-

2-way ball valves, ANSI ball valves, Angle stem Flush Tank ball valves, Flush tank ball valves, Diverter port ball valves, Multi-port ball valves & V ball control valves.

Sanitary (BPE Compliant) valves include:

2-way ball valves, Self flushing ball valves, Clean steam ball valves, Spray ball valves, Angle stem Flush Tank ball valves, Flush tank ball valves, Diverter port ball valves, Multi-port ball valves, V ball control valves, Check valves and Pinch valves.

To compliment PBM's range of valves they offer a full automation solution tailored to meet the customer's individual needs.

For individual product information please visit the Flexachem UK website, we would also welcome the opportunity to discuss any specific requirements you have, please feel free to contact us.

Flexachem UK Ltd

Tel: 08450 504288

www.flexachem.co.uk



Oil and Gas applications demand quality valves

Quality, standards and certifications are ever increasing in the Oil and Gas market place and only the best products are getting approved for use. Zoedale has seen an increase in demand for duplex and super duplex products and responded by stocking a range of ball valves that fit the bill. Zoedale are the value added re seller for the Omal range of products including pneumatic actuators and ball valves – With both Omal and Zoedale expanding their presence in the Oil and Gas markets the range of Thor and Magnum high quality ball valves are now available to UK organisations.

'Both valves are suitable for Oil and Gas use...'

The Magnum is a wafer / split wafer design and the Thor is split body and flanged to meet API sizing requirements. Internally both valves have the same high quality foundation with precision engineered seals in modified PTFE with anti-friction washers and an option to have Devlon seals for increased pressure and temperatures. The valve bodies are available in Duplex and Super Duplex for use in sea water, aggressive media and critical chemical applications. Carbon Steel and Stainless Steel options are available which can be ATEX certified. Thor can be supplied in sizes DN15 – DN 200 and Magnum in DN15 – DN100. Both valves are suitable for Oil and Gas use, Paint Plants, Heavy Industrial and Manufacturing applications and are designed to be actuated.

Omal products are precision engineered at their factory in Brescia Italy using the finest raw materials. Each item undergoes rigorous quality testing before



Omal Thor Ball Valve in CARBON STEEL

Omal Magnum Ball Valve & Double Acting Pneumatic Actuator

it leaves the plant and a unique number can be used to trace the item through production back to raw material. Zoedale has a history of providing quality products and the partnership with Omal has been long and fruitful.

ZOEDALE

Zoedale Oil and Gas

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www.zoedale.co.uk

MASTER*class*

API 622 – Helping you to choose the best fugitive emissions packing

Valve fugitive emissions standards and legislation are not new ideas or concepts. Beginning in the USA in the 1960s, formalisation of criteria and test methods for the monitoring and reduction of fugitive emissions are now well known throughout the valve industry. The European territory and specific governments - in addition to end users such as SHELL, Chevron, and TOTAL - have all developed separate specifications and test methods for evaluating fugitive emission performance.

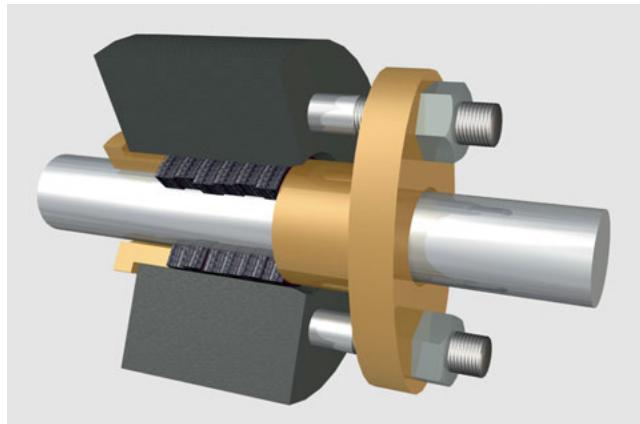
All these specifications however, have one thing in common; they evaluate the complete valve assembly. For this reason compression packing manufacturers work with individual valve companies to maximise the performance of their valve with a chosen sealing product. However, no two valves or housing assemblies are the same and extrusion clearance; stem surface finish; seal section and valve materials all influence the final valve assembly performance.

As a valve company supplying fugitive emissions valves, or one looking to enter this market, how do you know which packing to select in order to achieve the best fugitive emissions performance? You could rely on aspects such as brand, purchasing inertia or historical performance to guide your choice of packing, but there is a more scientific and impartial method of evaluating packing performance.

'The API 622 fugitive emissions specification differs in one fundamental way from all other fugitive emissions specifications'

The API 622 fugitive emissions specification, originating in the USA, differs in one fundamental way from all other fugitive emissions specifications. This specification tests the packing in a standardised housing, not a valve. This allows end users to evaluate and directly compare the performance of compression packing products without the consideration of valve type and form.

Introduced in 2006, API 622 is now in its 2nd edition and arguably represents the most arduous fugitive emissions test conditions for today's high performance valve stem packing. Five cycles from ambient to 550°F over 1510 mechanical actuations offers a difficult test for any packing and has been designed to replicate a 5 year service period for a globe or gate valve. The



API 622 tests packing in a standardised housing allowing direct performance comparison of compression packings without the consideration of valve type and form

test is carried out on standard apparatus as detailed within the specification. The apparatus is horizontally mounted with methane leakage levels detected using EPA Method 21 bagging and sniffing method.

Unlike other specifications, there are no pass or fail limits for leakage within API 622. However, over the course of time, industry accepted limits have been established. Originally in 2006 leakage levels of 100PPMv were deemed to indicate high performance, but with the development of impregnation technology and braiding structure refinements, the industry trend is now for this to be reduced to 50PPMv.

In addition, a regularly overlooked element of API 622 is the corrosion test. A poor result in this element of the test can result in reduced service life, increased friction and high maintenance costs.

So, with this new found insight, you request from your packing suppliers a copy of their API 622 certificate, but how do you compare the results and which elements are truly important and what affect can these have on the performance of your valve.

- **Average and maximum Leakage**

Measurements are taken in both the static and dynamic phases of the mechanical movements, vastly different results can be generated from either phase so care should be taken that figures published take into account both phases of measurement.

Average leakage is of course a key criterion but as relaxation can occur after a thermal cycle, notice should be taken of the stage at which the maximum

leakage occurs as well as the size of this leakage. Consider - does the packing recover or is the maximum level rising throughout the test?

- Number of stem adjustments**

Next to leakage this will have the largest direct impact on a valve company or end user. Stem adjustments are used to bring leakage under control during the test. Effectively, adjustments represent inadequacies in the fitting procedure and/or packing construction. The consequences are higher maintenance costs, possible down time and, if unchecked, valves performing well outside accepted fugitive emissions performance levels.

- Load applied to the packing**

As the test apparatus is standard, this figure can be compared directly from test to test. A lower bolt load figure may have consequences for valve design through smaller bolts and reduced metal work, but also as a general rule the higher the load applied, the higher the dynamic friction between the packing and valve stem. Higher friction can adversely influence

actuator size which in the case of control valves will affect response time.

API 622 can be used by valve manufacturers and end users to assess the performance of a fugitive emissions packing before embarking on costly and possibly fruitless valve specific trials. For a valve OEM, achieving any of the fugitive emissions specifications such as ISO 15848; TA Luft VDI 2440; SHELL SPE 77-312 can be time consuming and costly. Using API 622 and the criteria outlined in this article will provide an advantage in selecting the right packing and, along with other criteria, can be used to select the best sealing partner with which to carry out this work.

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K Controls 007-100 Valve Position Monitors specified for use in FPSO ballast tanks

K Controls has used its expertise in sub-sea ingress protection and hazardous area approvals to develop 007-100 Valve Position Monitors that will be used in a new floating, protection, storage and offloading vessel (FPSO). The FPSO will be used by a consortium of companies for the processing of hydrocarbons and for the storage of oil in the northern UK sector. A total of 147 pieces have been supplied for use on hydraulically actuated ball and butterfly valves. The valves will be used in the sea water ballast tanks that are used for vessel stabilisation.

'The 007-100 enclosures have been developed for use in seawater and other aggressive chloride-bearing media.'

signal to monitor the position of modulating control valves or the opening and closing characteristics of critical isolating valves. Klearvision visual indicators were specified for certain applications. The 007-100 enclosures have been investment cast from a high-alloy austenitic stainless steel developed for use in seawater and other aggressive chloride-bearing media. They have been independently tested by SGS Baseefa to IP68, for submersion at a depth of 30 metres.

When not submerged, the position monitors could be in an area where hazardous gasses are present. They are therefore ATEX and IECEx intrinsically safe certified II 2 G Ex ia IIC T6. All the units have been supplied with multi pin connectors and the associated cable sets that meet the exacting standards required for both subsea and shipboard use. Each cable set has been cut to a predefined length between 19 and 166 metres in order to facilitate installation. Mounting kits for the actuators were supplied in Super Duplex stainless steel.



ATEX and IECEx, Ex i certified, 4-20mA Valve Position Monitor with HART®



K Controls

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STATOIL framework extension contributes to KKI's strong year-end results



STATOIL first signed the contract with KKI in 2007

Despite the ongoing challenging economic climate, KKI has reported a strong final quarter in their 2012/13 financial year, posting a record level of sales at year-end.

The company has, throughout this year, continued to invest in facilities, equipment and people. As a result, every department has contributed to the company's overall successful performance. Recruitment to skilled positions in the workforce continues, with over 30 new people taken on during the last 12 months.

The outlook for the year ahead is equally positive. KKI reports a strong order book, particularly in its subsea and aftermarket departments. It has several valuable project contracts in the pipeline and a major internal systems upgrade is due to be completed and implemented during 2013. It has also recently been awarded an extension to its STATOIL Frame Agreement in Norway for a further two-year period. In addition the company will continue to attend key exhibitions around the world in 2013, including Offshore Europe in Aberdeen in September.

STATOIL framework extension

KKI has announced that it has secured a further two-years on its prestigious Frame Agreement contract with STATOIL PETROLEUM AS in Norway.

STATOIL first signed this contract with KKI in 2007 for an initial three-year period, with options to extend by a further three years in 2010, and then by a further two years in 2013. STATOIL has now exercised both options to the Agreement.

KKI's David Limb

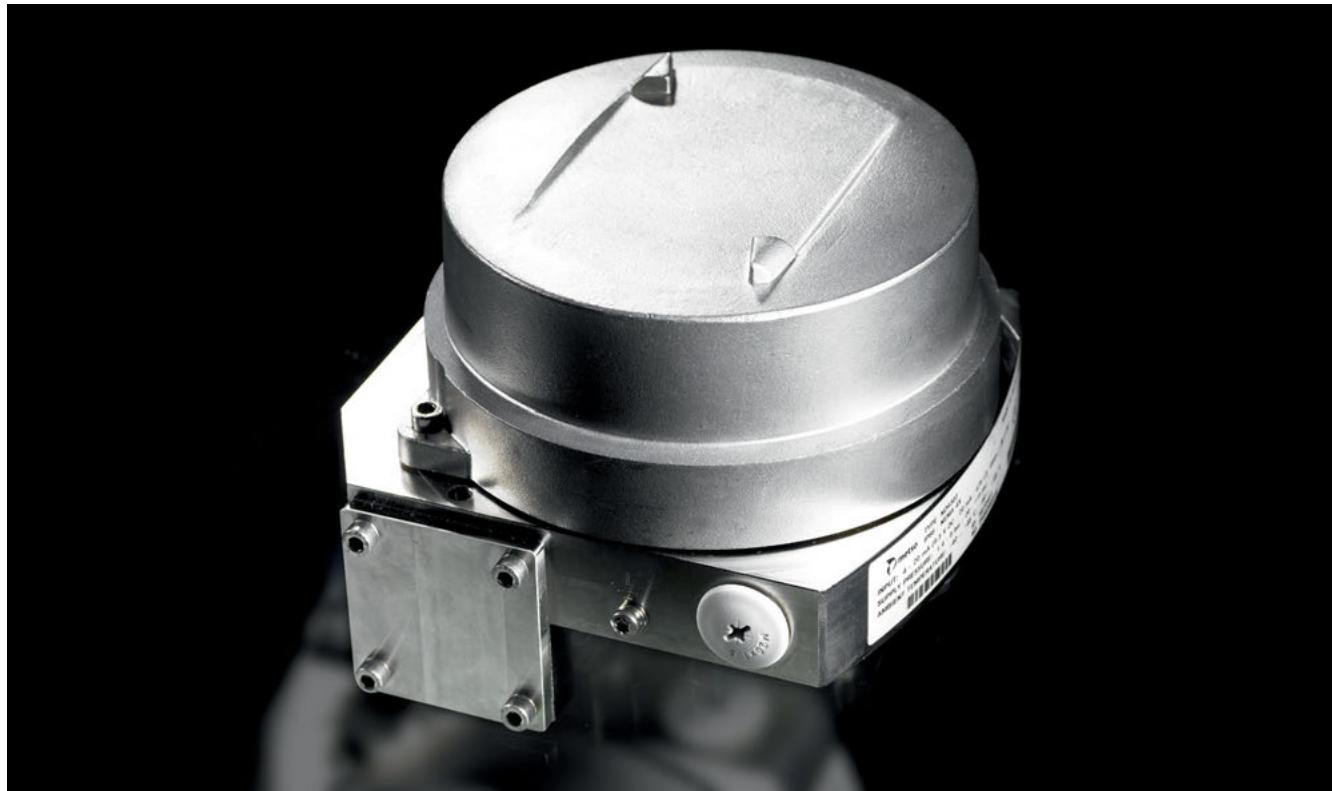


Through the Frame Agreement contract, KKI has developed a close working relationship with STATOIL, which includes technology-sharing initiatives, automation of ordering processes and statistical measurement of purchaser and supplier performance. Together, KKI and STATOIL's objective is to reduce lifecycle cost, product lead-time, minimise commercial and technical risk, improve commercial and technical benefit, and above all, work safely.

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Metso's intelligent valve controller withstands severe offshore conditions



The ND9300H is a ruggedized, fully stainless steel enclosed intelligent valve controller

Metso's Neles (ND9300H) intelligent valve controller has received a marine certificate from Bureau Veritas indicating that the unit has passed that organization's requirements for steel ships. To meet this level of certification, the ND9300H controller had to pass a series of demanding corrosion and vibration resistance tests. This level of certification means that the ND9300H is an excellent high performance controller choice for severe offshore oil and gas production applications.

'ND9300H is an excellent high performance controller choice for severe offshore oil and gas production applications'

As the demand for oil and gas increases, producers have been moving their offshore operations to ever more demanding locations, working at greater depths and under more severe weather conditions. Metso's ND9300H can meet the high performance control requirements of these advanced offshore applications while standing up to hard use as well as heat, cold, moisture, salt and other harsh conditions.

The ND9300H is a ruggedized, fully stainless steel enclosed intelligent valve controller designed to

withstand the harshest operating conditions in the offshore industry. It can be installed on top of any valve—rotary or linear, big or small. The ND9300H delivers superior control performance with Metso's market-leading diagnostic features as standard. With the help of the marine-certified ND9000H intelligent valve controller, oil and gas producers can further improve the safety and reliability of their offshore production, easily and cost efficiently.

Experienced in valves

Metso is the leading valve solutions and services provider. Metso's Flow Control solutions include control valves, automated on/off and emergency shutdown valves, as well as smart positioners and condition monitoring. Metso's world-leading brands include Neles®, Jamesbury® and Mapag®.



Deep water drilling: extracting oil and gas from the Jasmine Field

By John Smallshaw

Discovered in 2006 by Conoco Philips, the Jasmine field in the Central North Sea was the largest oil and gas find for more than a decade, consisting of a 701 metre Triassic reservoir of natural gas and condensate. It's the fourth field to be developed by Conoco Phillips under its J-Block licence and is expected to produce a peak of 88,000 barrels of oil equivalent per day when it comes fully on stream later in 2013.

Technical Challenges and Solutions

The extreme depth of the water at Jasmine Field has meant drilling is carried out at high pressure and high temperatures, with attendant demands on all components utilised. Control Components Inc (CCI), a leading global manufacturer of severe service control and isolation valves for the power, oil, gas and nuclear industries manufactured eight of the process control valves for the wellhead platform. These required electro-hydraulic actuation incorporating positional control to open and close the valves against full flow / line pressure operating conditions. CCI contacted Midland-ACS, a Xylem company specialising in control systems for harsh and hazardous environments, to produce bespoke actuators for its process control valves. Valve sizes and strokes ranged between 40mm and 203mm with valve shut off thrust requirements up to 23,000 kg.f.



Hydraulic control cabinet assembly



Hydraulic actuator with spring return assembly

Owing to the location and space limitation within the installation, it was necessary to provide alternative solutions that could be accommodated while providing the required operating characteristics.

Three different actuators were designed and manufactured by Midland-ACS at its Wolverhampton facility to meet the demanding operating specifications required on the wellhead platform. The first actuator needed stay put fail fix capability (should loss of electrical power supply, loss of command signal or loss of hydraulic supply occur, the actuator remains in its Fail Fix (stay put) condition). Midland-ACS designed a bespoke double-acting hydraulic actuator with power to open and power to close. The actuator has full range positional control in response to a 4 – 20 mA IS command signal and HART re-transmitted valve position signal. The ACS 604EXIAHART position controller is certified to Hazardous Area Zone 1 Group IIB T3 IP66 EExia. It runs on a 24vDC I.S. power supply controlled by a 4 – 20 mA I.S. analogue command signal and has an operating speed of 20 seconds nominal and adjustable, over an operating temperature range of minus 20degC – plus 50degC.

The second ACS 604EXIAHART position controller is a single acting controller with hydraulic power to open and fail to close action incorporating a hydraulic

accumulator spring method. Like the double-acting controller, it has full range positional control in response to a 4 – 20 mA I.S. analogue command signal and HART re-transmitted valve position signal. The fail condition is fail closed on loss of electrical power supply or loss of command signal. Certified for use in Zone 1 Group IIB T3 IP66 EExia hazardous areas and temperature ranges from minus 20degC to plus 50degC, it requires a 24v DC I.S. power supply and operates at speeds of typically 20 – 60 seconds, both nominal and adjustable. There is the facility for local manual operation using selector switches on the controller itself.

"It will Fail Close on loss of electrical power supply, loss of command signal or loss of hydraulic supply"

The third Midland-ACS actuator is also single acting, with hydraulic power to open and 'Fail to Close' action but incorporates a mechanical compression spring installed within the assembly. It will Fail Close on loss of electrical power supply, loss of command signal or loss of hydraulic supply. This device has local visual valve position indication and should loss of the hydraulic operating medium (hydraulic mineral oil) occur, can be operated using a hand pump (where specified) in an emergency.



John Smallshaw, Hydraulic Systems & Proposals Engineer with Midland-ACS, has worked on hydraulic and pneumatic valve actuation associated with the oil and gas and marine industry for over 30 years

Due to the operating extremes on the well platform, all the bespoke Midland-ACS actuators designed for the Jasmine Field are protected by a two pack epoxy multi coat paint system designed specially for corrosive/abrasive environments.

MIDLAND-ACS

Midland ACS

Tel: 01902 305 678

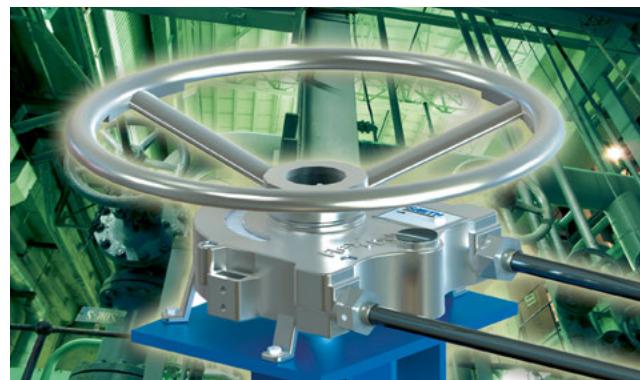
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FlexiDrive Provides Safe, Remote Valve Operation in Oil, Gas and Chemical Processing Industries

Smith Flow Control's FlexiDrive valve actuator can be applied to any conventional wheel-operated device in oil, gas or chemical processing plants to make them constantly accessible and safe. The FlexiDrive is a dependable, versatile and cost effective remote valve operator.

The FlexiDrive system allows a user to locate a point of operation in a place of safety or convenience. It is adaptable to any conventional valve with no modifications needed. A patented flexible linear drive cable effectively delivers rotary torque for distances up to 30 metres depending on the output torque required. The system can be passed through and around walls, bulkheads and floors, and is completely sealed and permanently lubricated for maintenance-free, continuous loop operation.

The FlexiDrive is suitable for underwater use and is constructed from corrosion-resistant 316 stainless steel. It is designed to withstand temperatures from -22 to 347 degrees Fahrenheit and is delivered as a complete unit.



Smith Flow Control's FlexiDrive, safe remote valve operation.

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Parker Delivers System-Level Gains for Wellhead OEMs

Block and bleed and double block and bleed assemblies provide compact, reliable process-to-instrument solutions

Wellhead equipment suppliers and operators can make major enhancements to their 'Christmas tree' and related equipment designs by using a new range of API-rated integrated valve assemblies from the Instrumentation Products Division of Parker Hannifin - the global leader in motion and control technologies.

The integration offered by Parker's new valve assemblies reduces weight by as much as 40% compared with double-block-and-bleed configurations using discrete valves, and can reduce space envelopes even further - by as much as 75%. Users can choose from a range of connection styles including flanged, welded, Grayloc hubs and Autoclave cone-and-thread connectors - to suit the particular installation.

The new product range provides integrated process-to-instrument interfacing solutions that dramatically reduce weight and size, and eliminate many potential leak paths and risk, compared with configurations based on discrete valves and connectors - the typical implementation approach used up to now.

'Parker's new valve assemblies reduces weight by as much as 40%'

Based on the design of one of the leading process to instrument valve manufacturers, Parker's Pro-Bloc range of integrated manifolds for interfacing instrumentation to process piping, the new Pro-Bloc API range integrates a complete double-block-and-bleed assembly of fire safe isolation and venting valves that is suitable for interfacing process pressure and temperature instruments. The assembly is available in three main forms: with ball valves, needle valves, or high-performance needle valves that can also meet the Class A or Class B ultra-low-emissions levels of the ISO 15848 standard. The new valve assemblies are initially available in three choices of pressure ratings: 5K, 10K and 15K PSI, and have all been independently tested for conformance with the API 6A specification for wellhead and Christmas tree equipment.

Up to now, OEMs and operators producing Christmas tree configurations and wellhead control systems have



typically constructed any instrumentation interfacing subsystems required using larger process-sized valves that are rated to the API specifications preferred in this application sector. These systems have not benefited from the substantial size and weight savings - and designed-for-purpose flow paths - that are typical of the double-block-and-bleed manifolds that are readily available for instrument interfacing in other parts of the process world.

The integrated design also eliminates numerous interconnection joints, each of which is a potential leak path and source of unreliability, and system building cost; this can amount to a reduction of as many as four potential leak points compared to a system built from discrete valves.

The close-coupled flow paths inside Parker's Pro-Bloc API process-to-instrument valve assemblies provide another significant advantage, as they are 'purpose-designed' to support accuracy of measurement. In the case of the ball valve variant of the design, the flow path is completely straight, with a uniform bore. It is not possible to create such a short flow path with a system based on discrete valves, and it can also be very difficult to avoid bends - and sometimes changes of bore sizes - that impact measurement accuracy by generating turbulence. Parker has already had feedback from end users that its close-coupled designs are helping to support novel measurements that are

being made on wells for asset integrity investigations. Parker developed these new integrated process-to-instrument interfacing solutions rated to API 6A after application-specific project experience on wellhead applications, and is now making the technology available to the wider market.

"The API valve assemblies will cut the weight and size of the instrument-interfacing parts of their equipment to a small fraction of many current implementations," says Spencer Nicholson, Business Development Manager of Parker Hannifin's Instrumentation Products Division, Europe. *"The highly integrated nature of the designs also provides near-perfect flow paths - with many fewer potential leakage points - a considerable reliability advantage for the harsh and remote operating environments in which many of these systems will be installed."*

The new integrated valves have been tested for conformance to API 6A specifications by an independent test house, as well as by the internal test laboratory that Parker operates at its European design and manufacturing facility in Barnstaple, UK.



Parker
Tel: 01271 313131
www.parker.com

Live long and prosper

Although this phrase isn't what you might expect to hear regarding valves, it does seem to be the way the oil/gas industry is looking at the future. Efficiency and safety are now the main drivers for their profitability and as a result, increasingly complex valve control systems are being implemented for optimum process performance, control and protection against as many potential failure modes as possible. The old attitudes of "We'll replace it when it breaks and carry plenty of spares", or "As long as it gets us through the warranty period, we're alright", are being rightly superseded with "We expect a 40 year working life for this instrument/valve/plant."

Long life metals

By stipulating such long working life expectations in harsh conditions such as offshore platforms, the materials have to be sufficiently corrosion resistant and less susceptible to cracking due to H₂S exposure. This is straightforward for valves as many manufacturers routinely produce them in duplex, super duplex, titanium and other exotic alloys while instrument tubing and fittings can be sourced in 316L, Hastelloy and 6MO amongst many others. Instruments however appear to not have the same criticality applied to them and 316 stainless steel has been acceptable

for most applications; but if you do need pneumatic instrumentation in exotic alloys, Red Dragon can help.

Offshore instruments

Red Dragon offer the complete Sitecna® range of ATEX and GOST certified pneumatic instrumentation manufactured in Italy and comprising filter regulators; regulators; filters; back pressure regulators; 2/2 & 3/2 pressure sensing relays; volume boosters; lockup valves; quick exhaust valves; flow regulators; 3/2 & 5/2 pilot operated spool valves; 3/2 & 5/2 pilot operated manual reset spool valves; 3/2 & 5/2 manual operated spool valves; high flow silencers; variable flow eductors; flow meters and pressure gauges.

The standard material for these products is 316L stainless steel to NACE MR01-75 and some models are also available in epoxy coated copper free aluminium alloy for applications where weight saving is critical or stainless steels are unsuitable. For particularly harsh environments, Red Dragon can also



Red Dragon can also offer non-standard construction materials such as Monel, Super Duplex and 6MO

offer non-standard construction materials such as Monel, Super Duplex and 6MO.

When it comes to pneumatic instrumentation, Red Dragon and Sitecna® together offer the performance, quality and corrosion resistance required for the most demanding applications.

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Quickits provide professional solution for major off-shore installation

Quickits Ltd has recently completed a project as part of a multi-million pound installation destined for the North Sea. The project consisted of 303 fully enclosed spool mounting kits to suit Emerson Scotch yoke actuators and trunnion mounted ball valves ranging from 1.5" #600 - 46" #2500.

Designed in house by Quickits' highly experienced engineers using the latest Solidworks CadCam technology; Quickits was able to carry out finite element analysis and stress calculations. As a result of this both the design and materials selected would be suitable for the destination environment.

'This state of the art process allows the customer to view the proposed finished product electronically'

The use of Solidworks technology enabled Quickits to meet the customers' requirement to supply full 3D model simulations. This state of the art process allows the customer to view the proposed finished product electronically offering real time simulation and product analysis. In Quickits' experience this demonstrates a reduction or elimination of costly delays when the packages are supplied to the end user.

With this recent project Quickits was able to utilise their flagship, state of the art CNC 1100XL Centre Lathe making the most of its colossal 1000mm diameter chuck machining spool piece mounting kits with flange diameters in excess of 900mm diameter. The VMC 1510 Vertical Machining Centre was also put to the test handling spool pieces up to 820mm high and machining PCD's in excess of 800mm in diameter. Another benefit and feature of the VMC 1510 is the



Some of the Quickits spools outside the Quickits' facility in Nottinghamshire

4th axis capability that enables Quickits to maintain concentricity when machining multiple external keyways.

Everything from the design process to the manufacture was completed in house at Quickits' head office and production facility based in Nottinghamshire, UK.

Commenting on the recent project Rob Smith, Director and co-owner said; *"This recent project with a combined order value in excess of £125,000 certainly put us to the test. Having a lead time of 6*



Quickits CNC 1100XL Centre Lathe with 1000mm diameter



Everything from the design process to the manufacture was completed in house at Quickits' head office and production facility based in Nottinghamshire, UK

weeks from order entry to final dispatch allowed us to demonstrate our ability to provide a world class, enviable service within the valve and actuator industry. Our decision to invest over £1.5million in the latest state of the art CNC machinery since relocating to our new premises has certainly paid off. We are the only independent manufacturing company in Europe with the ability to be able to offer a complete design and manufacture process in house. Having the capacity to supply packages of this size in house, teamed with consistent professional service further enhances our enviable reputation within the industry as the first choice supplier when professional solutions are required for valve actuation on a global scale”

**Quickits Ltd**

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*By BVAA's Technical Consultant,
Peter Churm*

**TECHNICAL
HOT SPOT**

Hot Spot - Changes to ISO 9001 to ‘drive innovation’

In a press release issued on 27 June 2013 by the International Register of Certificated Auditors (IRCA), proposed changes to ISO 9001, the global industry standard for Quality Management, were announced.

At the 2013 International IRCA global forum in Japan Colin MacNee, Chairman of the Chartered Quality Institute (CQI) Standards Panel stated that “Proposed changes to ISO 9001 standard for Quality Management will see a greater emphasis on how certification could be used to improve innovation globally across a wide range of business sectors”.

The announcement signals the start of the process which will see ISO 9001 revised and the new standard published by 2015. The new ISO 9001 will set out the criteria for a more integrated quality management system which can be used by any organization, large or small, regardless of its field of activity. ISO 9001 is currently implemented by over one million companies and organizations in over 170 countries.

Commenting on the proposed changes Colin MacNee said “The proposed changes to ISO 9001 are particularly relevant to the UK, one of the most innovative countries in the world. We hope that,

through certification to the new ISO 9001, we can ensure that UK businesses not only continue to be innovative, but use it to become even more innovative”.

“ISO 9001 certification is normally associated with providing structures and process for businesses. However, we believe that the proposed revisions will have a significant impact across a number of areas, one of which aims to provide companies with a framework where they can be innovative. The culture of using ISO 9001 needs to move from the ‘tick box’ mind-set we often see to using the certification to actively improve a business.”

“In an increasingly global world, the need for harmonised management standards to ensure quality has never been greater. However, with a rapidly changing world, we need to ensure that these standards provide a real benefit to all businesses. As a result, ISO 9001 will be changing to better reflect the current global business environment. We also need to broaden interest and attract more industries. While ISO 9001 is widely used in manufacturing and other heavy industries, it can also have a significant benefit in other more service-oriented sectors, another field in which the UK leads.”

Subsea Gas Compression with Mokveld Subsea Control Valves

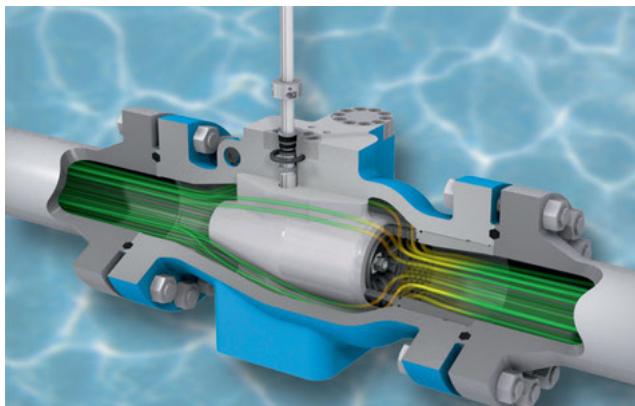
Mokveld is proud to have been awarded the subsea anti-surge control valves for the Åsgard Subsea Gas Compression Project.

Subsea gas compression is a technology approach that can boost recovery rates and lifetimes of offshore gas fields. Aker Solutions - at the forefront of subsea gas compression - was awarded the contract by operator Statoil to supply a complete subsea compression system for Norway's Åsgard field. The project represents a quantum leap in subsea technology, and an important step in realising Statoil's vision of a complete underwater plant.

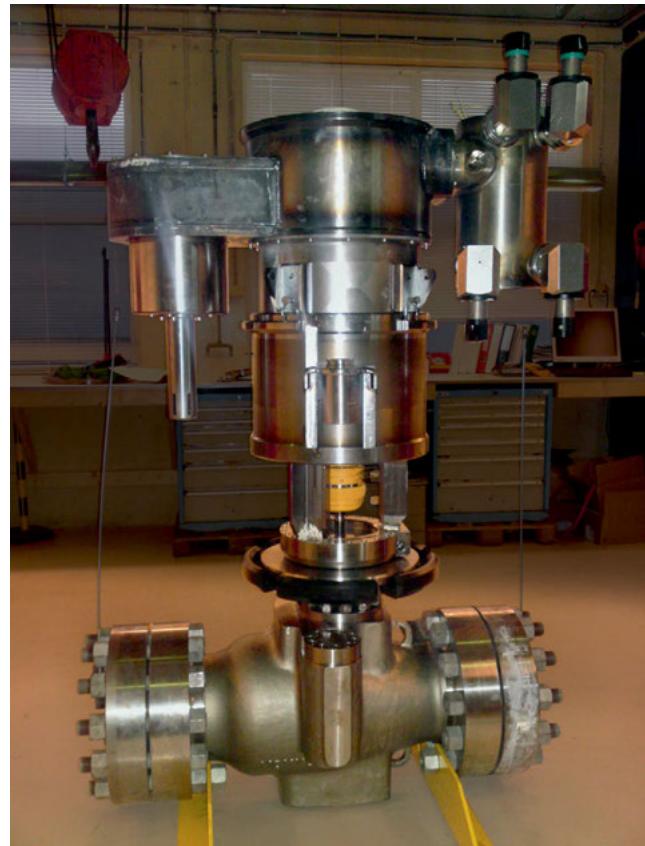
One of the technology gaps to be addressed was the development of large fast-acting subsea control valves. Several operators recognized the unique advantages of Mokveld's axial flow design in topside severe service control applications and approached Mokveld to investigate the axial flow concept as the basis for a subsea control valve.

'Several operators recognized the unique advantages of Mokveld's axial flow design'

The technological demands on subsea equipment are very stringent and so are the qualification tests. In close cooperation with well-known subsea integrators Oceaneering, FMC and Aker Solutions, Mokveld has developed and successfully qualified an 8" / API 5.000 subsea axial control valve. The qualification program included an API 6A PR2 test, endurance testing with 500,000 cycles and hyperbaric testing simulating seabed conditions. Also a valve was supplied to the Ormen Lange Subsea Compression Pilot - extended life test - project at Shell Nyhamna.



Mokveld has received a first project order for 3 off 8" / API 5.000 subsea control valves



Subsea gas compression is a technology approach that can boost recovery rates

Mokveld's efforts have now been rewarded with a first project order for 3 off 8" / API 5.000 subsea control valves with electrical spring to open Oceaneering actuators. The valves will be used in a quick-opening anti-surge control application. On surface and topside projects this application is already considered to be one of the most challenging, whereas these valves will be operating at a water depth of 250 metres! Mokveld considers this as an important step into the subsea market.

The qualified axial valve design is suitable for subsea anti-surge and separator control applications. In addition the valve design can be used for subsea HIPPS applications as per API RP17O.

 mokveld

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Parker to Host 'How To' Seminars at Offshore Europe

An educational resource focused on raising the performance and reducing the risk of small-bore tubing systems will be on site at Offshore Europe 2013.

The educational centre is part of one of the most recognisable booths at this regular exhibition: the mobile demonstration centre run by the instrumentation products division of Parker Hannifin - the global leader in motion and control technologies.

This year, Parker will be hosting mini training sessions, with experts providing no-cost tuition on the best practice installation of small bore tubing systems using industry-standard two-ferrule tube connections, and another version of the training for medium and high pressure connections up to 150,000 PSI. These valuable seminars will be complemented by many other useful educational presentations from Parker experts. Topical presentations throughout the show include materials selection for corrosion resistance, achieving close-coupling of instruments to piping connections, and improving integrity and reducing potential leak paths by eliminating threaded connections.

"Process instrumentation connections have evolved over a hundred years, and inevitably, connection and



The booth was well attended at the last edition of Offshore Europe



The theme of the seminars will be 'raising performance and reducing risk'

valve techniques are steeped in tradition," says Parker Hannifin's Charles Harris. "There's enormous scope for rethinking how things are done to provide more reliable systems and improve performance. Our mobile presentation centre gives us the means to give practical introductions on such innovations to instrumentation and piping engineers."

Parker's trailer will also feature one of the industry's most comprehensive selection of instrumentation valves, manifolds and tube fittings. Many of these are displayed in a real-world format using a long process pipeline equipped with the spectrum of common plant instrumentation, but interfaced using components based on next-generation principles.



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PPE's NORSOCK M710 Sour Gas Tests



Precision Polymer Engineering (PPE), one of the world's leading manufacturers of high performance molded elastomer seals has just announced it has completed a series of successful Sour Gas tests to NORSOCK M710 Annex A (ageing of elastomeric materials) to confirm the resistance and durability of a number of its elastomer material grades to the effects of high concentration sour gas (hydrogen sulphide).

Sour gas (hydrogen sulphide or H₂S) can have very detrimental effects on elastomers, non-resistant elastomers will become hard and brittle, losing their elastic properties and their ability to seal, ultimately leading to seal failure which can have significant environmental, financial and health & safety implications for exploration and production companies.

A number of seal manufacturers have their elastomers tested to the NORSOCK M710 standard to predict the

useful life of seal materials in sour gas environments. The minimum test parameters are 2% H₂S and a minimum of three test temperatures which are "above service temperature" with no specific temperatures given. Temperature has a significant effect on the results, the higher the temperature, the more aggressive the chemical attack on the elastomer. As a general rule, for each 10°C increase in temperature, the rate of chemical reaction doubles. Therefore engineers must be satisfied that the NORSOCK certified sealing material they have selected is tested to a temperature which is representative of their "real life" service conditions.

PPE have recently received independent test results for a number of their leading oil and gas materials grades, conducted at elevated temperatures and high concentrations (25%) sour gas with outstanding results. These tests parameters are more representative of real-life service conditions and seek to find the limits of the elastomer's capability and give engineers a level of comfort for the design limits in a given sealing application.

Paul Gillyon, PPE's Managing Director said "*Oil and gas engineers are faced with the continual problem of how to extract oil and gas from evermore demanding environments, one major obstacle is the corrosive nature of sour gas and its effect on critical components such as molded elastomer seals. Whilst many companies have tested their products to the effects of sour gas to the minimum NORSOCK standing of 2% concentration, we have pushed the testing further having our seals tested to 25% concentration and using more realistic high temperatures experienced during operations.*"

Last year PPE launched a new range of low temperature elastomers with one material specifically developed for oil and gas applications. Perlast ICE G90LT is the first and only perfluoroelastomer (FFKM) on the market that simultaneously offers low temperature capability down to -46°C (-51°F), high pressure and rapid gas decompression (RGD) resistance, as well as superior chemical resistance including high concentration sour gas.



PPE's recent test results have been excellent



Precision Polymer Engineering

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Is it safe to breathe?

Fugitive emissions testing have long been a requirement for process valves but pneumatic systems for compressed air have traditionally vented their exhausted air through an open port or maybe a bug screen. Open ports allow ingress of debris that can affect valve performance and although bug screens help to prevent it, there is still energy and money wasted in the regular 'tishhh' heard in plants all over the world.

'...it is essential for safety and legislation reasons that any flammable or harmful gases are not released to atmosphere'

For pneumatic actuator control systems operating on natural gas or sour gas for example, it is essential for safety and legislation reasons that any flammable or harmful gases are not released to atmosphere. Although these gases are used for thrust to drive actuators, the exhaust gases can still be used in other processes afterwards, further reinforcing the need to ensure that none is wasted.



The new VB range of 1:1 volume boosters from Sitecna are ATEX and GOST certified as standard

Don't let it get out!

One common problem is where volume boosters are used to increase the gas flow to an actuator in order to achieve a particular stroking speed for the valve. There have been many instances where the booster had to be enclosed within a separate housing to contain and extract the exhausted gas as the common design has small relieving ports drilled around the circumference of the unit. This adds complexity and cost to the control system, particularly where multiple boosters are employed.

There is a better way...

Red Dragon introduce the new VB range of 1:1 volume boosters from Sitecna® in Italy which offer an optional threaded exhaust design suitable for natural and sour gas applications. There are four different elastomer options available to suit different media and ambient temperatures down to -55°C, making them suitable for harsh climates around the world, and in common with the rest of the Sitecna® range, are ATEX and GOST certified as standard.

The standard material for these products is 316L stainless steel to NACE MR01-75 and they are also available in epoxy coated copper free aluminium alloy for applications where weight saving is critical or ferrous metals are unsuitable. Non-standard construction materials such as Monel, Super Duplex and 6MO can also be supplied for particularly harsh environments.

Other items in the Sitecna® range available from Red Dragon in the same materials include filter regulators; back pressure regulators; pressure sensing relays; lockup valves; quick exhaust valves; flow regulators; high flow silencers; 3/2 & 5/2 pilot operated, pilot operated manual reset and manual operated spool valves.



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SERVING INDUSTRY
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Pipe Center to offer Conbraco's Apollo valves

Pipe Center has entered into a strategic distribution agreement with leading US manufacturer Conbraco to supply the company's Apollo range of valves in the UK, which will be held at BVAA member Valvestock's Fareham operation as well as all Pipe Centre branches.

The high quality cast steel and stainless steel ball valves are designed primarily for use in the oil and gas, power and chemical industries.

The high quality cast steel and stainless steel ball valves are designed primarily for use in the oil and gas, power and chemical industries.

The agreement, which comes into effect now, gives Pipe Center selected rights to sell the highly regarded Apollo range in the UK.

John Walker, who heads up Pipe Center's industrial business, said: "Conbraco is one of only a handful of fully integrated valve manufacturers in the global market today with the capability to manufacture all the components in a modern ball valve. They have a reputation for excellent quality at a competitive price point, which we believe will be very attractive in the UK market."

Bill McNamara, Conbraco's International Sales Director, said: "We are delighted to have entered into a distribution agreement with Wolseley UK's Pipe



Center. The company has an excellent network and a well-established UK customer base that offers huge potential for the Apollo range. We very much look forward to working with them to fulfil the potential."

Pipe Center will initially supply the popular Apollo Series 76, 87A and 88A and top entry ball valves, with further models in the range being added over time.

Under the agreement, Conbraco will operate a mirror stocking system, holding a matching complement of stock in the US to that held by Pipe Center in the UK, offering excellent availability and support for customers.

Scott Craig, Pipe Center's sales and marketing director, said: "Conbraco is a world leader in its field and we are extremely pleased to be able to distribute the Apollo range in the UK."

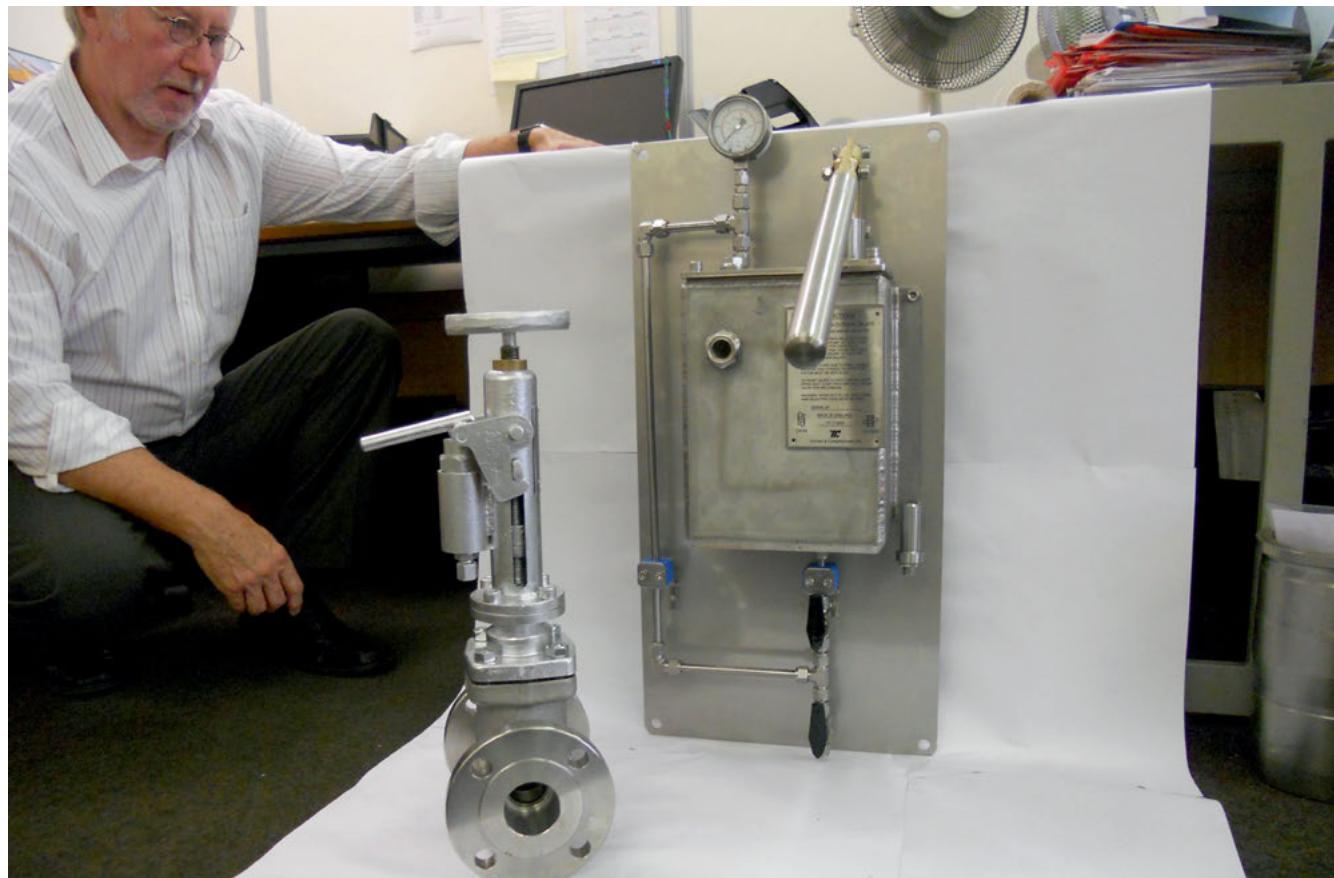
"We believe it offers an unbeatable combination of engineering and build quality plus keen pricing - which amounts to a great deal for both existing and new potential Pipe Center customers across the UK."



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DMI Young & Cunningham add offshore industry to their reputation with firesafe “Quicclose” Valves



Young & Cunningham valves can be supplied in several materials

The name of Young & Cunningham (founded in 1924) is known worldwide as a Valve manufacturer and supplier of the highest quality to the marine and offshore industries.

Y&C's patented "Quicclose" Valve has become a popular choice in Oil & Gas for offshore Quick Closing Valve systems due to high quality and the unique built-in automatic firesafe feature which trips the Valve shut automatically in the event of a fire.

The "Quicclose" Valve can be supplied in several designs and materials of construction all produced in the on-site Lloyds Approved foundry/manufacturing works. :-

Offshore – Carbon or Stainless Steel Gate or Globe Valves, manual tripwire operated or complete with hydraulic or pneumatic Control Panels. Full documentation packages supplied, including DPI, PMI and Radiography as required.

US Navy – Stainless Steel Gate Valves approved to MIL-V-24569 Type II, shock tested to MIL-S-901D Gr.A Cl.1, vibration tested to MIL-STD-167-1 Type 1, 4-15 Hz.

MOD/Marine - Carbon Steel or Gunmetal Gate or Globe Valves, manual tripwire operated or complete with hydraulic or pneumatic Control Panels.

On-site patternmaking facilities enable "tailor made" Valves to be supplied to all standards (ANSI, BS, DIN, JIS etc) and face to face dimensions can be supplied to suit Customers special requirements.

DMI Young & Cunningham have recently secured a prestigious order for the supply of "Quicclose" Valves & Control Panels for a North Sea Platform. The Valves are manufactured in Stainless Steel 316 and the Control Panels in Stainless Steel 316 and CR25 Duplex with Swagelok components. The equipment is due for delivery in August 2013.

With the management team each having over 40 years experience, Young and Cunningham pride themselves on the ability to cope with any fluid control problem and these Firesafe Quick Closing Valve Systems are a testament to their professionalism and drive in the valve industry and offshore markets today.

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Schischeck to exhibit at Offshore Europe 2013

Schischeck will be present at the SPE Offshore Europe Exhibition in Aberdeen this September, for the first time exhibiting with parent company Rotork.

As an established manufacturer and supplier of electric explosion-proof control equipment for offshore HVAC applications, Schischeck will be displaying the ExMax quarter-turn rotary actuator that is used extensively for fire and air dampers on safety critical applications around the world.

The ExMax is part of an extensive product range which perfectly complements the Rotork range of control valve actuators when lower torque, simple applications require explosion-proof electric actuation.

'All Schischeck products have options tailored specifically to the offshore industry'

Also available from Schischeck is a comprehensive range of explosion-proof controllers, sensors and switches for the control and monitoring of offshore HVAC systems, all designed with quality and robustness in mind.

As well as differential pressure, temperature and relative humidity sensors and switches, Schischeck is introducing the new ExReg Controller offering local control of variable air volume, constant air volume (VAV/CAV) and pressure relief systems, facilitating the local control of temperature and relative humidity.

All Schischeck products have options tailored specifically to the offshore industry, including stainless steel casings and enclosures and M20 nickel coated brass cable glands approved to the latest explosion-proof standards and regulations.

Designed and manufactured to the highest possible standards and in accordance with ATEX94/9/EC, Schischeck products are suitable for operation in Ex zones 1, 2, 21, & 22 where gases, vapours, mists and dust may be present in the environment. Widespread applications include many industrial processes that use potentially explosive media, extraction units in tunnel systems or air flow control units in chemical laboratories, dust extraction systems in paint lines,



Schischeck ExMax quarter-turn actuator with stainless steel enclosure for offshore duty

waste water plants, container ships and tankers, oil and gas platforms and gas pipeline compressor stations.

Schischeck products are used throughout the world and are approved and certificated by Ex, UL, CSA (USA and Canada), ExGostR and IECEx. Products are also IP66 and SIL2 rated.



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Severn Glocon secures significant LNG contract

Control valve specialist Severn Glocon has been awarded a landmark contract to supply 536 engineered control valves for the processing plant on the Ichthys Project onshore LNG facilities.

Included in the contract are cryogenic valves of up to 42 inches bore, weighing around 20 tonnes, as well as valves with pressure ratings of up to 2,500 ANSI.

This is the largest and one of the most technically challenging contracts in the firm's 50 year history. The valves will deal with volatile fluids at temperatures as low as -160°C, and they need to handle extreme requirements surrounding cryogenics, thermal dynamics and velocity control.

'The valves will deal with volatile fluids at temperatures as low as -160°C'

Severn Glocon's technical specialists have developed bespoke designs for the valves, and they are being manufactured across the Group's Gloucester and Chennai facilities.

Valves for some of the most demanding applications, such as compressor anti-surge and gas-to-flare control, will benefit from Severn Glocon's customised multi-labyrinth trim. This enables precise control of fluid velocity, minimising stress placed on components to enhance performance and reliability, as well as extending valve life and lowering noise levels.

Engineering, Procurement & Construction (EPC) activities for the project are being undertaken by the JKC Australia LNG Pty Ltd (JKC), a joint venture between JGC Corporation, KBR and Chiyoda Corporation. The project is now in the construction phase and the first valves are being shipped. Manufacture and supply of valves will continue into 2014.

"The scope, scale and harsh demands of this project command highly-engineered, technically advanced hardware," says Roger Spiers, Commercial Manager at Severn Glocon. "Our brightest engineers have been focusing their efforts on developing breakthrough valve solutions. We have also invested in extended in-house cryogenic testing facilities to optimise delivery times."

The Ichthys LNG Project is a Joint Venture between INPEX group companies, major partner TOTAL group



The contract is one of the most technically challenging contracts in the firm's 50 year history

companies and the Australian subsidiaries of Tokyo Gas, Osaka Gas, Chubu Electric Power and Toho Gas.

Severn Glocon Group employs 800 people worldwide and won a Queen's Award for Enterprise in International Trade in 2011.



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Aquaflow supply air valves into Dubai

Air management within pipelines is essential for optimal operation. Air entrapment is associated with many negative issues such as water hammer, pipeline failure, flow rate reduction, corrosion and increased energy costs. By its nature water contains approximately 2% of dissolved air together with turbulence inducing pipeline components, air within pipelines is inevitable. However correctly sized and positioned air valves are invaluable when you consider the costs associated with a catastrophic pipeline failure.

Aquaflow have recently dispatched a number of double orifice air valves for a major new wastewater pipeline currently being constructed by a specialist pipeline contractor in Dubai.

The contract was secured due to Aquaflow's ability to comply with the demanding performance



'Aquaflow have recently dispatched a number of double orifice air valves for a major new wastewater pipeline'

inspection and full hydrostatic pressure test witnessed by a third-party specialist appointed by the client. This all took place utilising our specialist calibrated in-house valve testing facilities at our Woore based headquarters.

In addition to air valves for wastewater applications the Company stocks a vast range of Aquabrade® air valves for potable applications having WRAS approval. Available in both single and double orifice configuration, and stainless steel for arduous applications up to 64 Bar.

Aquaflow is the specialist valve division of T-T Pumps, a global provider of pumping and electrical control equipment. For further information on air valves or other products offered by Aquaflow please visit www.aquaflowvalves.com.

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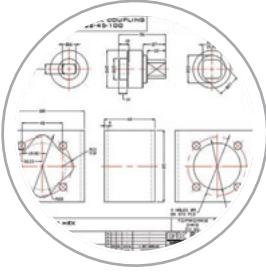
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requirements, material specifications and short delivery period. The air valves supplied ranged in size from DN80 to DN200, manufactured in durable fusion-bonded epoxy coated ductile iron with corrosion resistance stainless steel internals, and featuring an innovative engineered integral surge alleviation mechanism that negates the need for unsightly external check valve that could considerably reduce performance.

Prior to dispatch the valves underwent thorough stringent

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BVAA's latest new member 'Pneumatrol' has some familiar faces and products!

Following a major restructure of the Parmeko Group, the assets and intellectual property rights of RGS Davis Ltd and its subsidiary company RGS Plus Ltd have been purchased by Pneumatrol Limited.

The management team remains unchanged and the business continues to trade from the current Accrington facility. RGS Plus has also moved its operations to Accrington as part of this process.

Following the sale of the RGS Davis and RGS Plus businesses, which was completed in April, the company has been trading under the new name of 'Pneumatrol Limited.'

Sales Director Andy Nash commented: *'This is great news for all our staff and customers. With the investment now in place the business is well positioned financially to meet the challenges*



Pneumatrol Directors: Andy Nash, Jamie Dummer



ahead. I would like to thank all of our customers for their loyalty and support throughout the transition period, which has resulted in strong sales and record output levels for the first quarter trading period of Pneumatrol. With our extensive and well respected

product range of engineered pneumatic control solutions for both safe and hazardous area environments, we're now well placed and committed to drive the business forward and provide excellent service levels to our customers.'

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Hardide Coatings for AgustaWestland

Hard chrome replacement test a success

Hardide Coatings, the provider of advanced surface coating technology, has successfully completed the first of two test phases to approve the Hardide coating as a replacement for hard chrome plating on an application for AgustaWestland, the major European helicopter manufacturer.



Philip Kirkham, Chief Executive Officer of Hardide plc

The second test phase is expected to be completed by the end of 2013 and, if successful, the Hardide coating will be approved for use on a specific AgustaWestland helicopter rotor blade component. The manufacturer is also considering other applications for the Hardide coating technology.

The results come as the Hardide coating featured positively as an alternative for hard chromium plating for severe service valves in a peer-reviewed full text article* in Elsevier's Materials Chemistry and Physics, the international journal on science, characterisation and processing of advanced materials. The article was independently authored by valve manufacturer Velan Inc, the Université de Montréal and Notre Dame University-Louize, Lebanon.

*Published as "L.Vernhes, et al., Alternatives for hard chromium plating: Nanostructured coatings for severe-service valves, Materials Chemistry and Physics (2013)" and available at <http://dx.doi.org/10.1016/j.matchemphys.2013.03.065>.

Hard chrome plating, which is widely used in the aerospace and defence industries, is soon to be restricted under EU REACH and US OSHA legislation due to the use of highly toxic hexavalent chromium salts. In order to meet these environmental regulations AgustaWestland is conducting extensive search and testing for hard chrome alternatives.

The first test phase confirmed that the Hardide coating is a good candidate to replace hard chrome in a number of areas. Tests showed that the coating has a better high cycle fatigue endurance than hard chrome – a very important characteristic for aerospace applications - and exceptionally good corrosion resistance when



Hardide coating reactor being loaded

exposed to a salt-fog environment. The Company will now work with AgustaWestland on specific applications testing.

Philip Kirkham, Chief Executive Officer of Hardide plc said: "*The coating has tested extremely well so far as an alternative to hard chrome for aerospace and valve applications. The first phase results from AgustaWestland are positive and we are making good headway on the application tests. Our tests with other aerospace customers are also progressing positively and we continue to view this market as holding significant longer term value potential.*"

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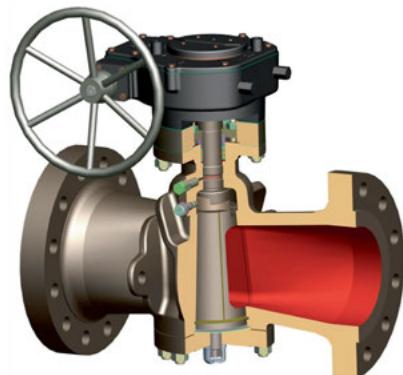
Flowserve Obtains Full Ownership of Indian JV

Flowserve Strengthens Position in India by Obtaining Full Ownership of the Joint Venture's Maraimalai Nagar Manufacturing Facility

Flowserve Corporation, a leading provider of flow control products and services for the global infrastructure markets, recently announced the completion of a series of transactions related to the company's former Audco India, Limited (AIL) joint venture with Larsen & Toubro, Limited (L&T).

As a result of these transactions, Flowserve obtains full ownership of the joint venture's Maraimalai Nagar (MMNagar) manufacturing facility in Chennai, India, and retains the key Serck AUDCO brand lubricated valve products and technology. L&T will retain the remaining AIL entity and its other operations.

"Increasing our direct Indian exposure and guiding MMNagar's focus in the region make this transaction particularly appealing, and



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this approach is very much in line with our overall portfolio management strategy," said Tom Pajonas, senior vice president and chief operating officer, Flowserve. "We are pleased with the outcome and excited about the opportunity to grow the Flowserve business in the region by expanding our reach into markets and applications not previously targeted. In addition, we also plan to introduce new products for manufacture at the MMNagar facility, to fully maximize its capacity and promote greater localization of our valve portfolio."

In addition to Serck AUDCO plug valves, the MMNagar facility also currently manufactures AUDCO SLIMSEAL butterfly valves and VOGT forged gate, globe and check valve products. Beyond expanded access to the Indian market, this transaction provides the opportunity for long-term cost savings for other valve products through low-cost sourcing of engineering, planning and manufacturing.



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Quickits aspiration for continuous improvement leads to new appointment

Following on from the significant investment in the latest Solidworks CadCam software package Quickits have appointed **Matt Price** as Development Engineer.



Matt Price has a Master's Degree in Design and Technology from Loughborough University

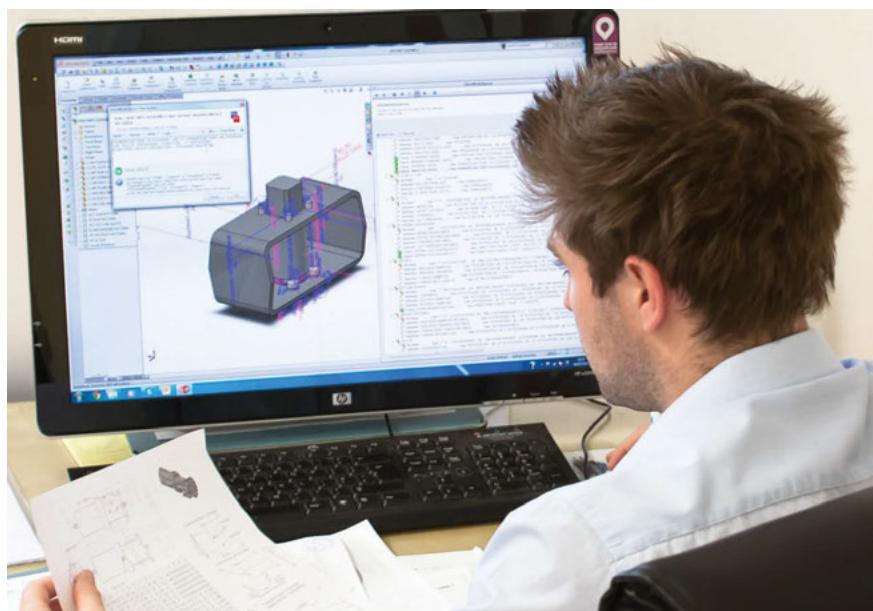
With a Master's degree in Design & Technology from Loughborough University Matt will be working alongside the experienced engineering team at Quickits using reverse engineering, design automation and systems analysis to develop and refine the design engineering processes.

With a vast, electronic database of engineering information built up over the last 8 years Quickits are able to compete at the highest level and as result is now a leading supplier for valve actuation solutions within the valve & actuator industry.

Matt will also head up a team of individuals that will see the development of an exciting new

range of products that will be introduced to further enhance Quickits current portfolio.

Niel Hufton, Quickits Engineering Manager, commenting on the appointment of Matt Price said; *"The decision to appoint Matt has been driven by our determination for continuous improvement throughout the business. Initially Matt will be looking at ways in which engineering are able to produce production drawings with optimum efficiency the result being improved lead times to production equating to minimum machine down times. We have a number of development ideas on the table including a range of new products and with these ideas teamed with Matt's enthusiasm it is a very exciting time for Quickits"*



The Solidworks CadCam software allows the customer to view the proposed finished product electronically



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Rotork Gears introduces new valve gearbox with GOST Standard dimensions

Rotork Gears, the specialist valve gearbox manufacturer in the Rotork group of flow control companies, has introduced the NTBG series of bevel gearboxes, designed specifically to comply with the Russian GOST-R Standard CKBA 062-2009 for valve and actuator mounting dimensions. GOST is the predominant standard for valves in the oil, gas, power generation and utility industries throughout Russia and its neighbouring countries.

Developed from the proven and rugged Rotork IB gearbox range, the NTBG design is intended for the manual or motorised operation of multi-turn gate, globe, sluice and penstock valves where the operating thrust is contained within the valve itself. The multi-turn lug drive is suitable for non-



The NTBG Series bevel gearbox from Rotork Gears. The inset photograph shows the GOST Standard output lug drive interface, suitable for rising or non-rising valve stems

'The NTBG design is intended for the manual or motorised operation of multi-turn gate, globe, sluice and penstock valves'

is optionally available for harsh environments including buried service duty.

Other options include auxiliary spur, bevel or two-speed input drive reducers, flexible extensions and high or low temperature trims beyond the standard -60°C to +120°C for maximum operational adaptability. The range of four model sizes delivers an output torque range of 250-10,000 Nm. All models are available with suitably sized handwheels for manual operation or can be motorised with electric actuators.

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HYD690 Series Hydraulic Pressure Regulator now available with ceramic seats as standard

Pressure Tech has upgraded the seating material on its HYD690 series for applications using hydraulic oil. The pressure regulator will now include ceramic seats which will provide a much longer service life. This was proven with by the company's existing LF690 model for water glycol applications.

The new superior seat material will not only outlast pressure regulators using conventional

plastic or metal seats, but will also provide better control. The new ceramic ball has a 'glass like' finish to provide a positive shut-off. It is also fully supported to ensure fixed travel in the 'Y' axis, thereby providing stable and repeatable control without the threat of the resonance and wear which can be experienced with unsupported ball designs. The new seat cartridge will now be supplied as a complete module and is accessible from the front of the panel.

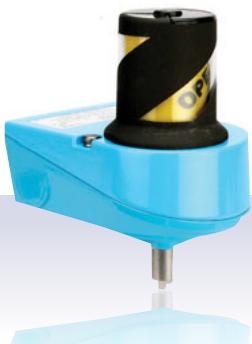


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Building on its success in the construction and industrial pumps market in the US, Saint-Gobain Performance Plastics has launched its innovative NORGLIDE® composite bearings solutions for hydraulic pump technology in heavy-duty vehicles throughout Europe and Asia. The company has been developing low-friction, wear-resistant NORGLIDE® composite bearings to help manufacturers in the US minimise maintenance requirements for their pump technology for many years and is now extending its offering to the UK and Germany as well as Asian markets, such as China. Self-lubricating and wear-resistant, Saint-Gobain's technology ensures friction control within pump applications throughout the long life of the mechanism. NORGLIDE® composite bearings also help European manufacturers comply with carbon dioxide (CO²) emissions standards, such as the European Union's (EU) Stage IIIB by



The smooth movement offered by the PTFE reduces the energy required to rotate the mechanism's drive

helping to reduce fuel consumption during pump operation.

Composed of a self-lubricating liner of polytetrafluoroethylene (PTFE) on a laminated metal backing, NORGLIDE® composite bearings maintain smooth movement between the shaft of piston pumps and the outer housing. PTFE can tolerate operating temperatures of up to 260° Celsius while the laminated metal backing can withstand the high stresses experienced within pump applications. The use of specialised filler compounds within the PTFE liner minimises wear, offering consistent maintenance-free composite bearing performance throughout the lifetime of the pump.

Standards currently in place in Europe and the US require manufacturers to achieve a 90 per cent reduction in emissions of particulate matter along with a 50 per cent cut in the discharge of nitrogen oxides (NOx). New regulations, including the US Environmental Protection Agency (EPA) Tier 4 and the EU Stage IV, due to be introduced in 2014 and fully implemented by 2015, stipulate that manufacturers should lower NOx emissions by a further 80 per cent.

The smooth movement offered by the PTFE reduces the energy required to rotate the mechanism's drive, decreasing fuel consumption

and enhancing energy efficiency. NORGLIDE® composite bearings' split-ring design is smaller and lighter than traditional solutions for pump applications, allowing manufacturers to shrink the footprint of their pumps and to use smaller, more efficient motors for further reduction in fuel consumption. This supports pump manufacturers CO² emissions reduction efforts for compliance with these standards.

Global Market Manager Industrial at Saint-Gobain Performance Plastics, Ed Rumble said, "Our NORGLIDE® composite bearings have developed a reputation for reliability in North America, supporting our customers' efforts to reduce time-consuming maintenance and comply with increasingly stringent emissions standards. Now manufacturers in Europe and Asia can benefit from our expertise in maximising the efficiency of hydraulic pumps and lowering the total cost of ownership of their products"



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Rotork upgrade after sixty years unbroken aerospace industry service!

Some of the very first valve actuators to carry the Rotork name are being replaced with the company's latest intelligent IQ3 actuators after sixty years of unbroken service on a demanding and critical duty in the aerospace industry.

Dating from 1953, the Rotork Model 100A actuators were part of a contract to operate the valves on one of the world's first large scale supersonic wind tunnels. Designed and built by the then newly formed Aircraft Research Association at Bedford, the Transonic Wind Tunnel was an ambitious project created to keep the British aviation industry at the cutting edge of technology by testing the effects of supersonic speeds on new aircraft designs. The facility is operated by a 25,000hp AC motor and a 13,000hp DC motor. In addition a 10,000hp compressor is used to provide extra power to enable testing at high transonic and supersonic speeds up to mach 1.4 (1065mph approx).

In the early 1950s Rotork was still in its infancy and the award of this significant and prestigious contract was a milestone on the route to the establishment of what is now one of the world's leading manufacturers of valve actuators and flow control products. Since the wind tunnel was first commissioned in 1956 it has been in virtually continuous daily operation, testing military and civil aircraft from around the world. It has played a vital role in the development of legendary projects including the TSR2, Harrier jump-jet and Concorde.



Richard Harvey, Senior Process Engineer at the Aircraft Research Association, inspects the same valve, now retrofitted with a new Rotork IQ3M actuator



One of the original Rotork 100A valve actuator installations

Today the work continues with programmes including Airbus, the Eurofighter Typhoon and the Lockheed Martin F-35 JSF.

Remarkably, although designed for isolating valves, the Rotork 100A actuators have been performing modulating duties throughout their sixty years of service, constantly altering the position of large gate valves by small degrees to control the level of wind speeds and provide the data that is needed for the highly accurate measurement of test results. It is the automation of this process with a bespoke control system incorporating a Modbus control network which has necessitated the replacement of these units with new IQ3M actuators that are specifically designed for modulating duties.

Because there is a constant demand to use the wind tunnel, careful and detailed planning has taken place to ensure that the retrofit operations can be successfully completed in the brief periods of time that are available between test programmes. The restricted access around the valves also demands particular attention. Detailed planning paid off when the first two actuators were removed and the replacement IQ3M actuators installed and commissioned in two days, half the allocated time allowed before the wind tunnel was due to re-start operations.

Richard Harvey, Senior Process Engineer at the Aircraft Research Association, is pleased with Rotork's contribution to the success of the project. He explains:

"We are currently undergoing a £1.5million upgrade programme for equipment that controls our Transonic Wind Tunnel. One of the packages of work that is being undertaken is to replace our auxiliary compressor valve drive units. These were selected because they are amongst the oldest pieces of equipment on site and they are being used on a daily basis. The existing Rotork 100A actuators have functioned very well considering they are being used well outside of their rated specification, but at 60 years old they were due for retirement.

"The replacement valve drives needed to be very reliable and have an accurate positional indication as they are vital for the operation of the tunnel and the data we collect. We approached Rotork with our specification who pointed us in the direction of the new IQ3M35 actuator. I was delighted with the vast amount of information and precise control that I could achieve using the Modbus interface card. The installation was a success and the tunnel drivers have reported that the new actuators provide them with much better control. We are now looking towards our next maintenance period where the remaining actuators are due to be replaced."

Rotork UK
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www.rotork.com



TECHNICAL HOT SPOT



By BVAA's Technical Consultant,
Peter Churm

Hot Spot - ISO/FDIS 10631

"Metallic butterfly valves for general purposes"

ISO/FDIS 10631 "Metallic butterfly valves for general purposes" was submitted to the FDIS Vote which closed on 8 June 2013.

P-Members voting: 12 in favour out of 12 = 100% (requirement $\geq 66.66\%$)

ISO/FDIS 10631 is therefore approved and will be published by ISO in due course.



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Operating Panel Allows Safe and Efficient Control of Actuated Valves

Safety engineering company Smith Flow Control has manufactured a custom-built operating panel which enables a client to control a sequence of actuated valves. The operating panel can be used in a wide variety of applications that involve the use of actuated valves, for example to launch or receive a pig.

The panel works as a communication and proofing system to improve efficiency and safety. A typical application often includes two interlocked key units to isolate power to the panel and ensure a specific sequence of operation.

Using the panel, the operator can select to close the valves. Red LED lights prove that the valves have reached their fully closed position. When all valves are closed, the operator can isolate the panel by



Red LED lights prove that the valves have reached their fully closed position

"The panel has been designed with the operator and environment in mind, making it easy to use and robust"

removing the 'A' Key. The 'A' key is entered into the solenoid key unit and only when the SAS (safety and automation system) confirms all valves are closed, a permissive signal is sent to energise the solenoid and release the 'B' key. This allows the operator to safely continue the mechanical interlocking sequence, for example, to manually unlock a pig trap door to load or unload a pig.

The panel has been designed with the operator and environment in mind, making it easy to use and robust. It is made to support applications in the most aggressive environments, suitable for temperatures ranging between -40 to +55 degrees Celsius (-40 to +131 degrees Fahrenheit) with an anti-reflective coating that eliminates glare.

The panel is designed to meet strict safety guidelines and regulatory body requirements. It is made using 316 Stainless Steel and conforms to Zone 1 Ex de classification and protection class IP66. It also boasts a compact design and can be used in weight restricted and space-limited areas.

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Flagship Position for SIPOS in Pipestone Portfolio

Colorado based Pipestone Equipment, an established supplier of municipal and industrial water products, reports the significant role played by SIPOS Aktorik's actuators in its portfolio. The company, which provides support from product selection through to commissioning, highlights the SIPOS PROFITRON electric actuator as a valuable addition to its range.

'an integral part of its customers' projects'

Since 2006, the SIPOS PROFITRON product has been used by Pipestone to address typical valve control functions that are an integral part of its customers' projects. Commenting on the appeal of SIPOS' actuation technology, Dave Buchwald, President of Pipestone Equipment said:

"The SIPOS PROFITRON is an asset in our armoury of technology of automation devices: it has supported wide ranging projects including high service water delivery."

"This actuator is quite different from conventional electric actuators in that it is controlled via electronic processor. Additionally, electrical power is transferred via an internal frequency converter similar to that used for a pump Variable Frequency Drive – this provides many benefits including the ability to vary actuator operating speeds."



Dave Buchwald, Pipestone Equipment President – an advocate of SIPOS Profitron actuators

Pipestone Equipment's services include product selection, system design and equipment specification - support is offered from enquiry through to installation and project startup.

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*By BVAA's Technical Consultant,
Peter Churm*

**TECHNICAL
HOT SPOT**

PAS 1008 Specification for the manufacturing and testing of single-use flexitanks

PAS 1008 specifies requirements for materials (plastics), valves, performance and the provision of flexitank information. It also describes a method for testing the leak tightness of valves and a method for determining the flexitank's suitability for intermodal transport by means of a rail impact test. The test methodology for valve testing in Annex D is to be used by the flexitank manufacturers to perform a line check on the valves supplied to them by valve manufacturers.

The test is based on test P12, EN 12266-1 for both metallic and thermoplastic valves to keep things simple yet effective.

This test does not in any way obviate the need for the valve manufacturers to manufacture and test the thermoplastic valves in accordance with either ISO 9393 or EN 12266 as appropriate.

A PAS is a sponsored, fast-track informal standard that is developed through a consensus-building process facilitated by BSI Standards Limited. A PAS should not be regarded as a BS, EN or ISO standard. The development of PAS 1008 has been sponsored by the Container Owners Association (COA).

Aquaflow introduces Aquavault™ resilient seat wedge gate valve

Aquaflow, the specialist valve division of T-T Pumps, a global provider of pumping and electrical control equipment, is delighted to launch their new AQUAVALUT™ range of valves!

An innovative engineered resilient seated wedge gate valve for watertight pipeline isolation, designed in the UK using the latest computer aided technology including finite element analysis techniques to ensure regulatory compliance and long-life reliable operation.

During service resilient seated gate valves can be exposed to arduous hydraulic conditions accelerating corrosion which ultimately can contaminate the media. With this in mind, Aquaflow embarked in designing and manufacturing a product that would offer unparalleled performance whilst reducing whole life costs.

Effortless sealing performance is achieved through the optimal vulcanised symmetrical wedge profile incorporating a captive dezincification resistant copper-alloy nut with self-lubricating properties. The wedge has a generous self-draining core that reduces bacterial growth and guided by smooth stabilising extended polymer shoes

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reducing operating torque. Both body and bonnet are manufactured in lightweight ductile iron coated in protective fusion bonded epoxy, while the joint integrity is assured by means of an O-ring that encircles fasteners and retailed within a recess preventing potential blow-out.

Furthermore, the Aquavault™ confirms to BS5163 and satisfies the demanding operational and torque requirements of EN1074-2. With all materials being WRAS approved, the valve is suitable for a wide range of applications including potable water and buried service.

To complement the Aquavault™ Aquaflow offer additional WRAS approved valves for clean and drinking water distribution networks, including check valves and the unrivalled patented Aquabrade® air valves. For further information on our portfolio of valve products and ancillary operating equipment please visit www.aquaflowvalves.com or www.aquavault.co.uk or call our team on 01630 647200.



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New Flow Isolating Valves from Valveforce

New to Valveforce's extensive portfolio of steam system and flow control products is a range of Flow Isolating Valves for pipelines.

Suitable for thermal oil, air, steam and various non-aggressive media applications up to 350°C, the Valveforce range carries the CE mark and complies fully with Pressure Equipment Directive 97/23/EC.

These Flow Isolating Valves, which are available with very short turnaround times, include a Bellows Sealed Stop Valve for zero emissions, designed with an energy-saving stem seal to eliminate losses.

Easy to maintain Gland-packed Stop Valves have also been added in a full range of sizes and body materials, with stainless steel internals for robust service and reliable shut off.

Completing the Flow Isolating Range are PTFE-lined Butterfly Valve Packages for corrosive media – and Knife Gate Valves, benefitting from uni-direction for liquids with low solids and bi-direction for liquids with higher solids.



The Valveforce range carries the CE mark and complies fully with Pressure Equipment Directive 97/23/EC

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Prevention is better than cure

Preventative Maintenance is a hot topic as organisations look to maximise the lifespan of products and minimise down time. For those unfamiliar with this concept, Preventative Maintenance is defined as a fundamental, planned maintenance activity designed to improve equipment life and avoid any unplanned maintenance activity. It can be compared to the routine servicing of a car where the costs can be far outweighed by the expense associated with not being able to use the vehicle for a period of time.

Zoedale firmly believe that prevention is better than cure and advise their customers about the benefits of a maintenance contract. Their Service Engineers will attend a site during planned down time to inspect valves and actuators and carry out a detailed report according to a pre-defined checklist. With more Intelligent Actuators being sold it is now also possible to carry out diagnostic checks with a lap top and Bluetooth connection making the process smoother and quicker. Zoedale's Engineers will make minor set up tweaks on site where appropriate and all customers receive a report detailing what work was carried out and any follow up actions.

Due to the volume of organisations realising the benefits of preventative Maintenance Zoedale have recruited a Mechanical and Electrical Engineer to join their team. Vojo Djukic has a vast amount of experience in the industry and has already been getting his hands dirty in the Zoedale work shop and on various customer sites. Zoedale use their new SAP Software system to manage the service contracts and



Electrical Engineer Vojo Djukic brings his industry experience to Zoedale

log service calls against customers. The next plan is for all of the Engineers to use mobile devices to manage diaries, receive service calls and upload site reports direct to SAP when out on the road.

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£40,000 per year cost saving by recovering flash steam

A Spirax Sarco flash steam recovery system is saving Cambridgeshire-based Jardin Corrugated Cases nearly £40,000 per year and has reduced the company's CO₂ emissions by 282 tonnes per year. What's more, the whole project has been financed by an interest-free loan through the Carbon Trust, all organised by Spirax Sarco.

In its ongoing efforts to save energy and become a more environmentally-friendly operation, Jardin Corrugated Cases decided to tackle an issue it had with flash steam escaping from its 11,000 sq metre manufacturing site in Ely. Not only did the escaping plume of steam waste energy, but it potentially created a poor environmental image.

Spirax Sarco was called in to help and designed an advanced flash steam recovery system, which it then supplied, installed, commissioned and project managed. In addition, Spirax Sarco applied for the Carbon Trust loan



on behalf of Jardin Corrugated Cases, with the whole scheme being vetted and approved by the Trust's consultants. The system saves 2.8 tonnes of CO₂ per £1,000 spent, significantly beating the Carbon Trust's loan criterion of a minimum two tonnes per £1,000 spent.

returned to the boiler. FREME works by passing returning condensate through a heat exchanger system where it heats the boiler feed water. Crucially, this heating takes place on the high-pressure side of the boiler feed pumps, so the system can safely heat the water to more than 100°C without boiling and causing pump cavitation.

Spirax Sarco also provided automatic boiler blowdown controls with full heat recovery, boiler feedtank insulation and a packaged pump system to ensure all condensate from the main corrugator is returned for recovery.

'the whole project has been financed by an interest-free loan through the Carbon Trust'

At the heart of the new installation is a Spirax Sarco FREME (Flash Recovery Energy Management Equipment) system that ensures all the usable heat in the condensate from the steam system can be

As well as the savings in energy and carbon dioxide emissions, the system is saving water and water treatment chemical costs for Jardin Corrugated Cases and has eliminated the need for boiler operators to manually blow down the boilers each day.

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Versatile Controls Introduce the Versa V-316 Series Bypass Valve

Versatile Controls Ltd - the UK distributor for Versa Products Company - offers a new valve option for the testing of solenoid valve control circuits in applications where closing down or "shutting in" the system is not an option.

The Versa bypass valve allows the testing and replacement of a component within the circuit without shutting down the main system. The Versa solution is simple to apply, operate, and accomplish in one valve. Based on the proven Versa V-316 series stainless steel hi-flow range, the design is centred on a standard 3 position manual valve.

The valve operation is as follows:

Position 1.

This is the normal working position or the regular operation mode.

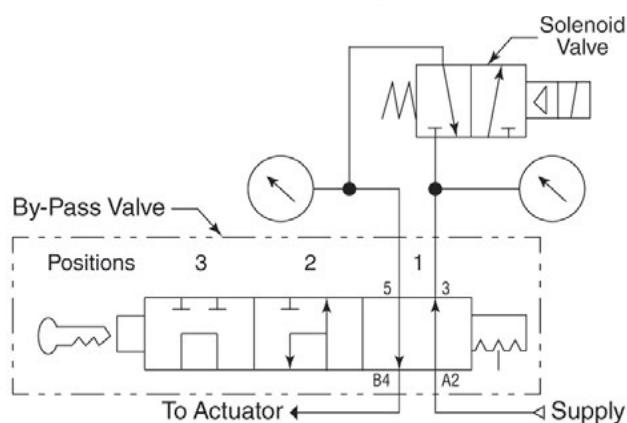
Position 2.

This position places the control circuit in the test mode. In this position the bypass valve allows pressure to the circuit for testing while maintaining pressure on the actuator. With pressure to solenoid inlet and solenoid circuit outlet blocked or isolated, this allows complete testing of the solenoid circuit without shutting down the system.

Position 3.

This position puts the control system in to a replace mode. Should it be determined that a component in the control circuit needs to be repaired and/or replaced, this position allows total isolation from pressure while still holding system pressure to actuator.

Actuation is available as removable key operation or fixed rotary switch. A position indicator is available as an option.



The Versa bypass valve and system diagram



Versatile Controls Ltd

Tel: : 01452 731447
www.versatilecontrols.co.uk



*By BVAA's Technical Consultant,
Peter Churm*

TECHNICAL HOT SPOT

Hot Spot - EN 1983 “Industrial valves - Steel ball valves”

FprEN 1983 “Industrial valves - Steel ball valves” was submitted to UAP Vote which closed on 24 June 2013.

The draft was unanimously approved. The standard will now be ratified by CEN for publication

Score Europe completes a unique HPU project

During the May holiday weekend a lorry left the Score Europe workshops at Glenugie, Peterhead, bound for Teesside. On board was the largest hydraulic power unit (HPU) ever to have been designed and built by Score Group plc. As well as being the biggest, at about 5m x 2m x 3m high, it is also Score's first electrically powered HPU and was designed to replace an ageing pneumatically powered unit. The new HPU which has a 25-year design life is expected to meet our client's long-term needs for an additional hydraulic power source.

This project was awarded to Score's Brighouse facility and was a follow-up to a previous valve supply contract successfully fulfilled by Score. Detailed negotiations with our clients and subsidiaries on specifications and requirements, with large-scale involvement of Brighouse staff in particular, took place and culminated in Score Brighouse supervising the first part of the three-stage project in summer 2012. This order was for a valve supply package featuring products from Italy and comprised a series of class 900-rated ball valves (24", 30" and 34") constructed from low-temperature tested materials and with a special metal seat design. The second stage of the contract was for the supply of actuators, which were sourced by Score in Italy and the UK. In the third and final stage the HPU, controls and cabinets were fully designed, assembled and tested at Score (Peterhead) by Score Europe's Valve Automation Department.

The HPU consists of two electric motor driven pumps, each with individual control stations, submerged within a 1500-litre hydraulic oil tank. These pumps provide charge for six piston-type accumulators complete with individual isolation safety blocks. Each accumulator is Nitrogen pre-charged to give the required stored energy required to drive the ball valves open and closed.



Should there be any malfunction; the entire HPU is protected by calibrated and certified PSVs



The HPU was the biggest in Score's history

Every monitoring component is protected by an individual 2-valve manifold to allow full and easy maintenance, and hydraulic supply lines are fitted with replaceable filters to ensure clean fluid throughout. An important safety feature is the internal bund built into the stainless steel cabinet which ensures complete retention of oil in the event of leakage of any oil. The cabinet is also fully load tested and supplied with certified lifting eyes, shackles and chains.



The entire HPU can be set to run in fully automatic mode or be manually controlled. When manually controlled, safety is always ensured by the fact that the high pressure switches, which prevent over-pressurisation, cannot be overridden. Should there be any malfunction; the entire HPU is protected by calibrated and certified PSVs. As the HPU is designed with two identical electrical supply sources, one side of the HPU can be serviced and maintained whilst the other continues to perform the required function, thus ensuring no downtime. Furthermore, the electrical control circuit is designed to switch automatically between each motor on consecutive requirements, thus ensuring an even usage of motors and pumps. The three smaller cabinets, which give local control at the actuator, have quick connecting couplings to allow the supplied manual override pump to be fitted to enable operation of the individual actuators should the HPU supply pressure become unavailable.



'...one side of the HPU can be serviced and maintained whilst the other continues to perform'

For such a large project, which required a variety of skills and the co-operation of individuals and teams from different departments and in different geographical locations, there were many potential difficulties to be overcome. Throughout the project, Score staff at Peterhead and Brighouse worked closely and proactively with our clients who relied on our advice on requirements and specifications as well as our active involvement in design, engineering and construction. Score, in turn, is grateful to Kestral EX Ltd (Aberdeen) for superb support, often at short notice, with some aspects of the demanding electrical work during the design and assembly phases of this large and complex piece of equipment.

Our clients also relied on Score's rigorous checking and testing procedures to make sure that everything, including all paperwork and certification, was in place and ready for final installation and commissioning around the end of May.

In conclusion, the successful completion of this demanding HPU contract is a huge achievement by our teams of sales staff, engineers and other technicians, who worked round the clock to meet the tight 42-week delivery agreement. Within this period, the 20-week completion of the design, assembly and testing of the HPU, controls and cabinets by Score's Peterhead-based Valve Automation Department was a particularly impressive achievement.



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ECA Investment Advantage from AUMA UK

The SIPOS 5, supplied and supported in the UK by AUMA, is the first electric actuator to be included on the Energy Technology List as part of the Enhanced Capital Allowance (ECA) scheme.

The programme enables UK based businesses to claim a 100% first year capital allowance, (as opposed to the usual 18%), on investment in the equipment against taxable profits of the period of the investment.

AUMA UK, supplier of modular electric actuators, provides comprehensive support for all AUMA and SIPOS products plus Siemens legacy actuators. Variable speed technology adopted in the SIPOS range provides advanced actuation benefits including protection against water hammer.



The SIPOS 5 electric actuator, supplied and supported by AUMA in the UK

As the only OEM approved actuator repairer for AUMA and SIPOS in the UK, the company oversees all service functions.

For an overview of the ETL, visit <https://etl.decc.gov.uk/etl/site.html>

Search the Energy Technology Product List for AUMA Actuators Ltd.

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www.auma.com



By BVAA's Technical Consultant,
Peter Churm

TECHNICAL HOT SPOT

Hot Spot – “Industrial valves — Requirements and testing for metallic valves as pressure accessories”

WI 00069163 “Industrial valves - Requirements and testing for metallic valves as pressure accessories” was prepared by CEN/TC 69/WG1.

The draft standard has been finalized by CEN/TC 69/WG1 and has been submitted to CEN for launching CEN Enquiry.

This European Standard is an umbrella standard referencing European harmonised Standards applicable to industrial metallic valves as pressure accessories for industrial applications and covers the minimum requirements to meet the Essential Safety Requirements of the Pressure Equipment Directive (EU Directive 97/23/EC).

This European standard is an umbrella standard that applies to metallic valves as pressure

accessories for industrial applications with a maximum allowable pressure PS greater than 0,5 bar in accordance with the Pressure Equipment Directive (PED) 97/23/EC and specifies minimum requirements applicable to design, manufacture, testing, materials and documentation.

All essential safety requirements of the Pressure Equipment Directive (PED) 97/23/EC have been taken into consideration and those applicable to valves are addressed in this European standard. This standard is not applicable to safety valve and bursting disc (a safety accessory), sight glass with its frames (component of a pressure equipment) and measurement chambers, but may be used for the pressure bearing parts of safety accessories such as bodies, bonnets and covers.

Albion Introduces New Range Of Radiator Valves

UK based valves supplier, Albion Valves, has introduced a new range of radiator valves to its extensive portfolio. The new range is for commercial applications, with all valves coming with BSP connections as standard. The range also includes the option of adaptor fittings suitable for use with copper connections.

The new portfolio includes manual, thermostatic (TRV) and lockshield valves, with a variety of orientation options. Modern, energy efficient heating systems often operate using TRVs, which are self-regulating and control the water that enters a radiator and ultimately maintain a desired room temperature.

Manual radiator valves are common in more traditional heating systems and are operated like a tap, whereas lockshield valves are designed to control water flowing out of the radiator and offer a facility to balance radiators across an entire property or heating system.

TRV valves come with lockable temperature settings, whilst auto seal tail piece connections come as standard on the entire range and all radiator valves operate to a maximum working temperature of 100°C and to 10 bar pressure. As all Albion products, this new range has been designed and manufactured to deliver optimum performance time after time.

David Keys, Albion Managing Director commented:

"There is a bewildering number of radiator valves on the market, and it is easy to buy the wrong model."



"We have tried to simplify things for our distributors by introducing a range of options that cover the majority of heating systems and installation requirements, and as always at the most competitive price."

Albion currently stocks around 5000 lines of industrial valves, suitable for applications predominantly within the process, water and HVAC industries. The new product range is supported by instantaneous customer support, information on pricing; discount structures, and stock availability.



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*By BVAA's Technical Consultant,
Peter Churm*

Hot Spot - EN ISO 4126-2: 2003

CEN have received a proposal from NBN (Belgium Standardization Institute) to revise the following standard:

EN ISO 4126-2: 2003 "Safety devices for protection against excessive pressure - Part 2: Bursting disc safety devices"

Presently EN ISO 4126-2: 2003 does not provide presumption of conformity to the PED, because of

the materials listed in the standard. The justification for this request is to find a solution regarding the reference in Annex ZA of non-European materials, which is not accepted by the CEN PED consultant, in order to permit the citation of this candidate harmonized standard in the OJEU (Official Journal of the European Union).

The proposal from Belgium is to revise EN ISO 4126-2:2003 under Vienna Agreement, with ISO/TC 185, ISO lead.

**TECHNICAL
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