

auma® *Solutions for a world in motion.*

In this issue

Variable Speed Actuators a moving story

Power Sector Spotlight - Coal fired power plant support in China

Power Sector Spotlight continued - Meeting stringent nuclear power standards

People at AUMA

What the press is saying

Variable Speed Actuators a moving story



The Variable Speed Actuator from SIPOS - a unique solution for bespoke applications. The VSA complements the AUMA multi-turn and quarter-turn product range that has a track record dating back over 40 years as the actuator solution of choice for fixed speed applications

AUMA is at the forefront of actuator technology and optimising the performance of control valves has been the driving force behind the development of new generation actuator solutions.

A breakthrough Variable Speed Actuator (VSA), produced by AUMA Sipos since the year 2000, has provided a unique solution for bespoke applications. Widespread market recognition of the many advantages of the VSA has been confirmed with increasing global product demand.

VSA's are now widely used in decant arm Sequencing Batch Reactor applications and in pumping stations where water hammer has been reduced by some 30% and the solution has avoided pumps running dry. The actuators are also used with high pressure bypass valves, steam reducing valves and feed water control valves.

An innovative alternative

The VSA has provided an innovative alternative to the traditional motor plus reduction gear solution. With integral electronic frequency converters, AUMA Sipos VSA's are a neat, integral option that is both cost-effective and intuitive.

One key benefit of the solution is its ability to address the issue of 'soft starting': VSA's have been developed with the necessary technology that mitigates pressure peaks by controlling the operation speed of the flow restrictor.

The VSA also scores on aesthetics - with AUMA's distinctive modular design, components are contained within the actuator ensuring that this neat solution is also robust enough to operate in the most challenging environments.

continued on page 2

Auma Actuators Ltd
Britannia Way
Clevedon
North Somerset
BS21 6QH UK

t +44 (0) 1275 871141

f +44 (0) 1275 875492

e mail@auma.co.uk

w www.auma.co.uk

Variable Speed Actuators a moving story continued from page 1



Sequencing batch reactors requiring different speeds-over-travel functionality are a typical application for the VSA

Key benefits of the Variable Speed Actuator

The AUMA Sipos VSA's integrated frequency converter ensures that motor speed is automatically reduced in the end positions. As a result, there are no magnification torques if the valve is blocked between the end positions and the voltage for each of the many available speed/cut-off torque combinations is pre-selected so that the cut-off torque setting corresponds to the stalling torque of the motor.

Different speeds as standard

An ability to operate the actuator at different speeds in different sections of the valve stroke ensures that critical positions are by-passed without stimulation by resonances. The VSA also maintains the process variables such as pressure, temperature and flow at a fixed level or a level that linearises the valve characteristics.

What can only be achieved via switching on/off cycles (stepping mode) for fixed speed actuators, and with many small impulses with start up current spikes, is provided as a standard function with the Variable Speed Actuator.

The VSA can also be programmed so that the positioning speed of the

valve in the close direction differs from the speed of the open direction. A typical application for the 'different speeds-over-travel' functionality is for sewage treatment plant decanters with Sequencing Batch Reactors. The decant arm is lowered into the medium at low speed to avoid swirls in the activated sludge basin: after the water has run off, the decant arm lifts at a higher speed from the wastewater surface, returning to the initial position to allow fast filling of the basin for the next batch process.

Tolerant technology

The landmark VSA initiative spearheaded by AUMA Sipos has enabled control of valves in both an open or closed loop: it provides functional reliability which can be monitored in the interests of efficient process operation and ensures that a general high standard of performance and quality can be achieved and maintained. Additionally, actuator performance is extremely tolerant to power supply fluctuations - even with a 20% voltage drop, speed and torque are not affected.

[SIPOS Aktorik is a wholly owned subsidiary of Auma Actuators.](#)

In this issue

Variable Speed Actuators a moving story

Power Sector Spotlight - Coal fired power plant support in China

Power Sector Spotlight continued - Meeting stringent nuclear power standards

People at AUMA

What the press is saying

Power Sector Spotlight

AUMA's powerful proposition

Ian Sully, AUMA UK Managing Director, reports increasing sales of the company's actuator solutions to the power industry. The growth in popularity of AUMA's modular actuation systems to this sector is attributed to a number of factors including flexibility, fieldbus functionality and a design fit-for-purpose to meet the demands of the power plant environment.

Commenting on market growth in the power industry for AUMA, Ian Sully says:

"There is a strong power industry trend towards AUMA's modular actuator solution design. Users are becoming increasingly aware that retro-designing the actuator is an unnecessary procedure that is both time-consuming and expensive for all involved.

"I can also report growth in the use of fieldbus solutions in the power sector and AUMA is well placed to support all leading digital control technology."

AUMA's track record supplying actuators to power plants dates back over thirty years.

The product range extends to fire proofed products suitable for hazardous environments.

Coal fired power plant support in China

In a major contract coup, AUMA has been selected to supply over 400 actuators to the Ninghai coal fired power plant in the Chinese province of Zhejiang.

The plant, which was designed collaboratively by the Chengdu Southwest Electric Power Design Institute and the State Power Corporation of China, required electric valve actuators to ensure supply of 4 x 600 MW of power to the state of China.

Product design, quality and an ability to communicate with the Siemens DCS system via Profibus DP were key reasons for AUMA's selection. Additionally, AUMA China's strong local presence, coupled with an extremely good reputation for after sales service, were important contributory factors in securing the contract.



In this issue

Variable Speed Actuators a moving story

Power Sector Spotlight - Coal fired power plant support in China

Power Sector Spotlight continued - Meeting stringent nuclear power standards

People at AUMA

What the press is saying

Power Sector Spotlight (continued)

AUMA meets stringent nuclear power standards

A prestigious contract to supply several hundred actuators to ATVO3, one of the biggest nuclear power plants in Finland, has been awarded to AUMA. The company will supply multi-turn actuators as well as GSI and GSTI part turn gearboxes for open-close and modulating duty.

As part of an exacting selection process, AUMA products were assessed for their ability to meet the stringent safety standards required for the nuclear plant application, namely the American IEEE 382, the German KTA 3504 and the French RCC-E 2000. Having manufactured actuators for nuclear power plants since 1978, AUMA also confirmed an extensive track record supplying devices for use in similar challenging operational environments.

Additional requirements met by AUMA included provision of actuators that met a range of electron paramagnetic resonance (EPR) categories, the backing of a certified quality management system and comprehensive project support including installation, commissioning, inspection and maintenance. The company also demonstrated the actuators' ability to withstand seismic vibrations.



AUMA's primary lines for use in nuclear power applications are multi-turn actuators - the SAI for use inside containment and the SAN for outside containment



In this issue

Variable Speed Actuators a moving story

Power Sector Spotlight - Coal fired power plant support in China

Power Sector Spotlight continued - Meeting stringent nuclear power standards

People at AUMA

What the press is saying

The People Page

New AUMA UK Contracts Engineer



Stuart Morris, Contracts Engineer for AUMA UK shares the company's strong customer service philosophy

With a twenty year track record working for telecoms industry brand leaders, and a proactive approach to customer service, Stuart Morris has been appointed Contracts Engineer for AUMA UK. He replaces Keith Yates who has retired.

Stuart continues the contracts function for AUMA UK providing customer support after orders have been placed. His remit encompasses liaison with a number of divisions including the production department for actuator build and despatch for shipping requirements.

Sharing AUMA's strong support philosophy, Stuart firmly believes that the 'customer is king' and his work will reinforce the company's service values.

AUMA's front runners

Kevin Hudson, who works as Framework Co-ordinator for Auma Actuators Ltd in the UK, has completed his seventh 'Tough Guy' event. Competing with his AUMA UK colleague Larry Jones alongside over 3,000 entrants from around the globe, the two men achieved outstanding personal performances in one of the world's toughest endurance challenges.

The organisers claim that no military or security force survival training is harder than this event and included an eight mile run over country plus assault course with ice covered water as part of the physically and mentally demanding challenge.

Tough Guy takes place annually in the UK in the summer and winter. Kevin last tackled a winter course eight years ago facing symptoms of hypothermia and was determined to push himself to new limits with the winter 2006 event. Kevin was delighted to complete the course in just over two hours, which halved the time he took to finish the 1998 challenge.

Larry Jones, who has previously entered five summer Tough Guy events, took part in his first winter challenge.



Larry Jones (left) and Kevin Hudson (right) celebrate the success of achieving a 'Tough Guy' endurance event

In this issue

Variable Speed Actuators a moving story

Power Sector Spotlight - Coal fired power plant support in China

Power Sector Spotlight continued - Meeting stringent nuclear power standards

People at AUMA

What the press is saying

What the press is saying

AUMA gains extensive coverage in the trade media which looks to the company for expert opinion on actuator design and applications.

Recent articles include:

United Utilities Framework Agreement

News featured in Water and Waste Treatment magazine announced that United Utilities has awarded a framework agreement to Auma Actuators. The agreement commits the utility to purchasing electric actuators from AUMA for two years with options to extend this to a five year contract.

Taking the mystery out of actuators

In a page report for WET News, the UK journal for the water and effluent treatment industries, Steve Penney of Auma Actuators Ltd explains some of the technical terms and acronyms associated with actuation.

The article includes a review of actuator design and product variations with a photograph showing component parts.

Great variations

A page feature written by AUMA for Water and Waste Treatment Magazine which explains the role of AUMA actuators in ITT Sanitaire's enhancement of the ICEAS SBR system.

ITT Sanitaire's development, a variant on the SBR, is based on the intermittent cycle extended aeration system (ICEAS) where influent wastewater continually flows into the reactor. ITT

Sanitaire's advancement incorporates AUMA Sipos actuators to meet the variable speed requirements of SBR decant operations at WWTWs.

Kerosene distribution at Chubu Airport

A double page feature in Valve World that explains how actuators are often expected to do much more than simply open or close valves. At Chubu airport, for example, an actuator network controls the transport of kerosene as well as guaranteeing the water supply required for fire fighting.



Steve Penney from AUMA UK author of an educational actuator article for WET News

The role of electric valve actuators in the waste water industry

A two page report written by Ian Sully, Managing Director of Auma Actuators Ltd for Valve World. In the article, Ian Sully observes that the amount of technology behind the treatment of wastewater is a subject that domestic home owners rarely consider. He goes on to explain the role of actuators in wastewater treatment works.

Quarter century for corporate communication

AUMA has marked 25 years of its corporate magazine with a silver edition. The Auma Aktuell publication has provided product updates, technical articles, company and personnel news to AUMA's global workforce since 1981.

AUMA - the world's leading supplier of modular electric actuators ...
... providing the adaptable advantage

For copies of original articles detailed on this page or additional copies of Solutions newsletter, please email
maureen.wycherley@auma.co.uk

In this issue

Variable Speed Actuators a moving story

Power Sector Spotlight - Coal fired power plant support in China

Power Sector Spotlight continued - Meeting stringent nuclear power standards

People at AUMA

What the press is saying

Auma Actuators Ltd
Britannia Way
Clevedon
North Somerset
BS21 6QH UK

t +44 (0) 1275 871141

f +44 (0) 1275 875492

e mail@auma.co.uk

w www.auma.co.uk