

SAMSON

Issue 13

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SAMSON MAGAZINE 2009



Impulse

Furthering Qualification and Employee Loyalty

Report

Strength Through Adaptability

Portrait

Breath-taking Development

Innovations

Upgrade for On/off Valves



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A Company with Character

Dear Readers,

SAMSON concluded the past financial year 2008/2009 with a record result. This success can in part be attributed to the fiscal period still including the last months of the economic boom. The greater contribution, however, was made by the excellent performance of our staff who were responsible for innovation, quality and an exceptional service.

It is not by coincidence that our staff is capable of producing such supreme performance. We have always put great effort into vocational training and recruit the majority of our staff from the ranks of our trainees. One of the articles in this magazine will give you an insight into how we train young people to become highly skilled specialists and why most of them stay with us for a very long time.

By now, the global economic crisis has also spread to our industry. It is a well-known fact that a crisis reveals whether the general course a company follows is right. We can state at this point already that SAMSON's philosophy and strategy are proving their worth, particularly in these difficult times.

We have always attached great importance to growing organically based on our own efforts, to having solid finances and to acting in a rather conservative, sustainable way in all major areas of business. As we are financially independent of banks, we are not af-

ected by the banking and credit crises. We only feel their effects in the reduced number of orders placed, which declined along with the general economic trend.

Nevertheless, this recession will not last forever. Thanks to the solid foundations our company is built on we will even be capable of using this opportunity to continue pursuing our long-term strategy and expand our position on the international market. In India, which is also covered by one of the articles in this magazine, we have established new production facilities and considerably increased our capacities. Amongst others, our subsidiaries in China and Russia celebrated corporate anniversaries this year. These are just a few examples that illustrate how strong our international footing is and that we will unwaveringly continue our course of long-term growth. We are well prepared for the next boom.

I hope you enjoy reading this magazine.

Gerd Jochem
Member of the Executive Board

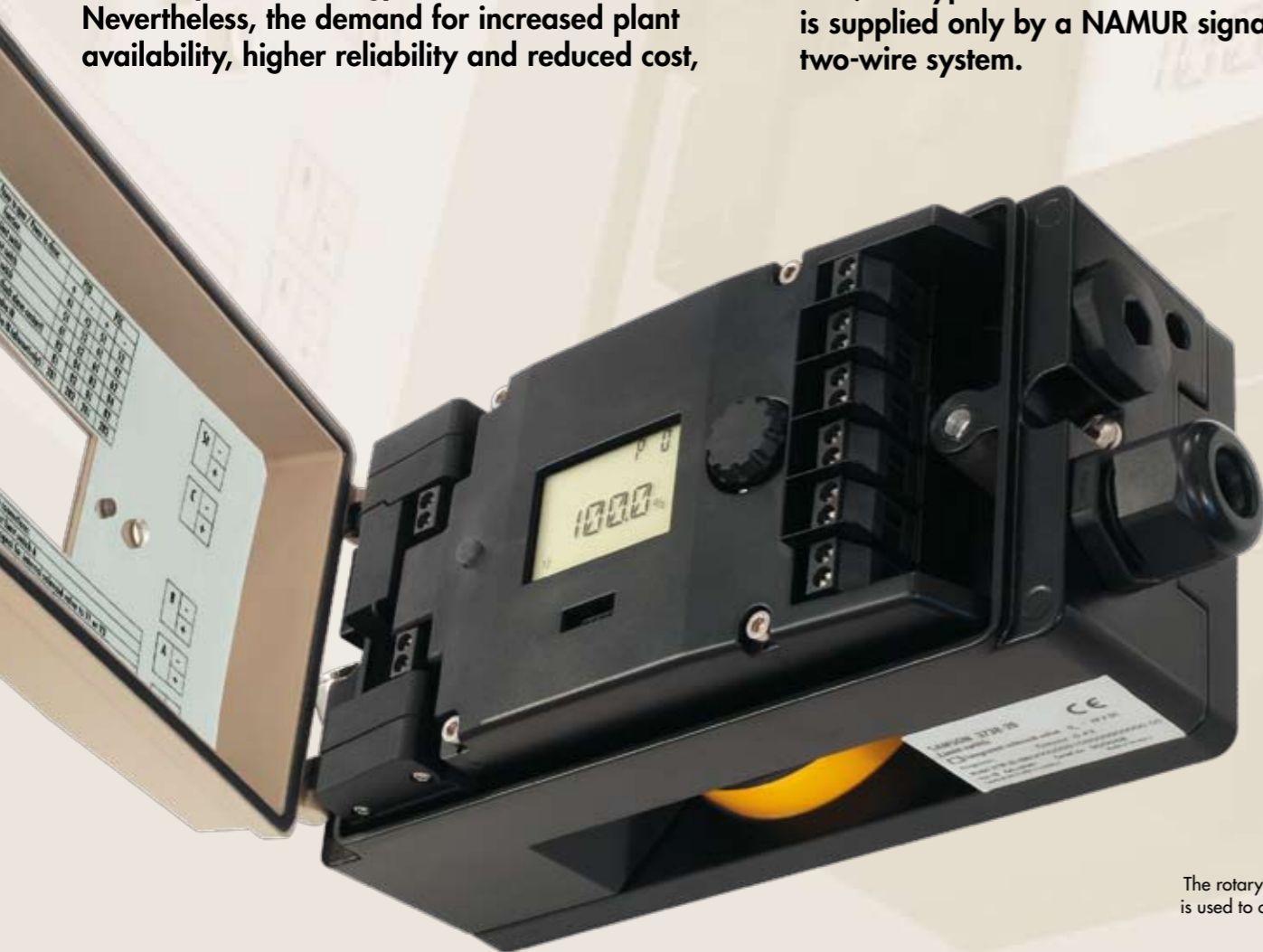
Cover
The Gateway of India, a 25-meter-high monument in Gujarat style, symbolizes the former mooring for passenger ships coming from Europe. The construction was completed in 1924.

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Upgrade for On/off Valves

If a batch of strawberry yoghurt has been potted and a batch of cherry yoghurt is next in line for packaging, the pipelines are probably opened and closed by on/off valves. Such valves are used in places where there is no need for continuous control operation. Certain on/off valve styles can even be cleaned quickly using pipeline pigging systems. Generally, on/off valves and their accessories rely on a simpler technology than control valves. Nevertheless, the demand for increased plant availability, higher reliability and reduced cost,

which can only be achieved by a greater degree of automation, is growing stronger in the on/off segment as well. In response, the Type 3738 Electronic Limit Switch was developed to also upgrade on/off valves to smart technology without having to change the existing cabling and signal levels. As the first instrument of its kind, the Type 3738 Electronic Limit Switch is supplied only by a NAMUR signal in a two-wire system.



The rotary pushbutton is used to configure all functions.

NAMUR signal is enough – After years of stagnation, the automation of on/off valves has recently been given fresh impetus. Technologies already common for control valves are increasingly demanded in on/off valves as well: detection of the valve position, diagnostics, in-process tests and communication features. This involves a higher degree of automation and offers unprecedented opportunities for a more active asset management. On/off valves are also expected to transmit status messages on their functioning and maintenance states to the automation systems. In addition, they need to guarantee long-term monitoring of their operation.

These demands can be met in a simple and cost-effective way with the Type 3738 Electronic Limit Switch. For the first time, a manufacturer succeeded in implementing what was considered to be technically impossible: The microprocessor-controlled unit requires no further auxiliary power apart from the NAMUR signal according to IEC 60947-5-6 supplied by the two-wire system. As a result, the unit can replace the classic setup of solenoid valves and limit switches without having to modify the existing cabling or signal levels.

Rugged, simple and integrated design – In addition to this innovation, the limit switch provides further technical refinements. The supply air required by the actuator is routed through bores in the bottom of the housing without the need to install additional external piping. This makes the limit switch suitable for the simple integral attachment, which results in



The mounting base (here mounted on an AIR TORQUE actuator) holds the indicator wheel and the magnet screw.

a very rugged design. The magnet screw only needs to be tightened, which makes lengthy adjustments redundant as well. The contactless, magnetoresistive sensor picks off the actuator's travel position or opening angle at any time. Once the valve has reached the desired position, this sensor and the integrated microcomputer ensure that the limit switch can be configured quickly.

Thanks to its smart features and the limited cabling required, the electronic limit switch can be used on on/off valves in all fields of application. For example, the unit can serve as a safety switch that quickly vents the actuator for emergency shutdown and triggers an alarm. Moreover, it detects and indicates intermediate valve positions. Using the advanced partial stroke test, the proper functioning of the valve can additionally be checked at defined intervals. To summarize it, the Type 3738 Electronic Limit Switch makes a huge contribution to plant safety, yet keeps cost and technical complexity to a minimum.

Breath-taking Development

Before the Indian plate collided with the Eurasian plate as a result of tectonic movement, creating the world's highest mountain range, the Himalayas, the landmass which later became India had already been a gigantic island of continental proportions. Even today, it is easy to forget that this unique, vast country is just a subcontinent and not a continent in its own right. Its immense size, cultural diversity and history provide it with all the attributes characteristic of an entity, which only seems to be part of a much larger entity seen from a global perspective. Even from a global perspective, India is unique concerning its interlaced connections with other regions of the world. No matter how you look at it, singularities and superlatives are rather the rule than the exception in this country. The more so since India will soon be home to the world's largest population. SAMSON has been active in the country of a million gods and a billion people for more than 25 years. SAMSON India celebrates its tenth anniversary in 2009.

Elephant and tiger – SAMSON started its business operations in India in the early 1980s. As part of a cooperation with the Indian company Prestige Counting, a production site for temperature and flow meters was set up in the metropolis of Mumbai (Bombay). The reason for entering the Indian market had initially less to do with prospective business than a new strategic approach and a way to get round the heavy Indian import duties. At that time, India lagged miles behind the Asian tiger states and was often portrayed as the lumbering elephant of the region. The lack in market dynamics was the outcome of a centrally planned economy. It was not until 1991 that the Indian government in New Delhi finally embarked on the monumental task of liberalizing the market and introducing economic reforms.

Since this emergence into a new era, the country has experienced breath-taking development. Economical growth rates have risen sharply. Nowadays, India is already home to a substantial aerospace industry. Automotive production is on the threshold of catapulting itself into the global arena, while the chemical and pharmaceutical sectors have already gained a foothold in the world market. The Indian company ArcelorMittal is the world leader in steel manufacturing. In the field of software development, India has long since been at the international forefront. Large companies in the service sector successfully provide their services across the entire globe.

Shaping history – India is one of the cradles of human civilization. As in Mesopotamia and ancient China, early advanced civilizations flourished in the valleys of the Indus and Ganges rivers. Their impetus still continues to have an effect. Over the past thousands of years, these civilizations exerted an enormous attraction on others – not least of all on numerous conquerors ranging from the Aryans, the Greeks, Huns and Tatar to the British colonial rulers. In the course of conquest campaigns and mass migration within the country, a diverse mosaic of ethnic groups and cultures has evolved on the subcontinent, whose variety is unequalled anywhere else in the world. Apart from Hinduism, the religion of the vast majority of the population, Sikhism, Jainism and Buddhism evolved on the Indian subcontinent. With over 140 million Muslims, India is also home to the world's third largest Muslim population. There are also more than 24 million Christians living in India. The Vedic religious scriptures, written in Sanskrit, also originated in ancient India. They contain complex knowledge unsurpassed in magnitude and antiquity. Investigations into the contents and language of these sacred texts brought forth key linguistic insights and were the basis for the reconstruction of ancient history.



More than one hundred different languages are spoken in modern-day India. 21 of these are officially recognized in the Indian constitution. Most of them are, however, only spoken regionally. Besides the official language of Hindi, English is regarded as the second national state language. For example, if South Indians want to learn the northern Indian language of Hindi, they turn to text books written in English. Many Indians learn English at elementary school at the latest if they have not already learnt it at home. Moreover, English is the only official language spoken and understood by the entire middle class nationwide. This makes India the largest English-speaking population. This lingual advantage and the multi-cultural customs reaching back thousands of years make Indian citizens geared up for globalization.

Ingenious economic power – Indian call centers and tele-secretaries have long since conquered the globe as a result of these abilities and are a sought-after topic in the Western mass media. In contrast, Indian plant construction companies do not crop up so often, except perhaps in professional publications. Yet this industrial sector

is a symbol of the structural robustness of the Indian economic miracle. More than 300,000 freshly trained engineers leave university each year. They represent the driving force behind the technological advancement and hold enormous potential for further development. It is no wonder that practically all globally active plant construction companies have set up their own subsidiaries in India. These companies figure among the major buyers of SAMSON products. Most of the business is handled by SAMSON India functioning as an OEM partner for engineering companies. These companies do not focus their activities so much on individual industrial segments as is usually the case in Europe. They are responsible for constructing all kinds of plants ranging from refineries to paper mills, using SAMSON control valves for a wide variety of applications.

Since 1999, business in India has been run under the name "SAMSON". Production and sales were gradually set up and expanded. In June 2009, the head office, until then located in Mumbai, was moved approximately 200 kilometers inland to MIDC Ranjangaon, a one-hour drive from

The Netaji Subhash Chandra Bose road was named to honor the leader of the Indian freedom movement. More commonly known as Marine Drive, this boulevard and promenade is located at the heart of the city of Mumbai.

the Pune international airport. In the newly built industrial estate of the small town on the road between the industrial centers of Pune and Aurangabad, the new unit has production facilities, an office building as well as room for future expansion. Furthermore, the new site is strategically located near Pune, which is at the heart of the Indian automotive industry and a teaching stronghold with numerous educational institutes and universities. Many international engineering companies have also set up their Indian head office and factory there. International businesses from a wide range of industries have settled in the somewhat more sedate town of Aurangabad – almost all sectors including tire manufacturers, large breweries and specialty chemicals can be found there. As a result, the staff of SAMSON India do not have to travel far to reach many of their major customers.

Besides these companies in the vicinity, SAMSON India also serves many other customers spread over the whole country. Major clusters of industrial development are located all over India and SAMSON is close at hand in almost all of these locations. Proximity to the customer is a key factor as the transport infrastructure counts among the weak points of modern India. The expansion of the rail and road networks cannot keep up with the rapid development of business. The SAMSON branch offices in Bengaluru (Bangalore), Vadodara (Baroda), Chennai (Madras), Delhi, Hyderabad, Kolkata (Calcutta), Mumbai and Pune are therefore strategically located in the various regions to guarantee fast customer support on site. This service is constantly in demand even in times of financial and economic crisis as India still remains on a brisk course



Rajesh Phalke (wearing a tie), head of SAMSON India, with his team in front of the new production facilities and office building in Ranjangoan. The 18,000 m² site provides space for future expansion.

of growth. Although the economical growth has slowed down over the past year, the nation's demand to make up for past needs seemingly guarantees continuing positive growth in the foreseeable future.

Deep roots – Even though India still has to struggle along with various difficulties, the deeply rooted culture of tolerance has proven to be a continuous, stabilizing factor for the economy and society. Customary patience is one of the fundamental elements of the Indian way of thinking and still to date reflects the tradition of the Vedic scriptures. The belief in karma and reincarnation puts the importance of an individual's existence into perspective and paves the way for tolerance without hindering people's activities.

This approach, which figures among the keystones of Indian mentality, probably assisted the successful adoption of the British political system. Since attaining independence in 1947, India has been a stable democracy. Considering that India is home to a staggering number of ethnic groups, languages and religions, this in itself is an achievement which should not be underestimated. The world's largest democracy has an extremely lively culture of pluralism. Free media supply constant controversial discussions. The obvious social problems to be faced cannot all be solved, definitely not at once. They are, however, not stifled or pushed aside, instead they are openly addressed again and again. This traditional frankness considerably contributes to establishing a balance in social interests and a balanced growth.

Capacities for the future – The South Asian way of interpreting a Western form of government has also made India into a bridge between cultures. Clashes between ethnic groups do not appear to be a major issue as prophesized by the political scientist Samuel Huntington. Rather, most of the population live together harmoniously. A similar situation seems to be true at the moment concerning the coexistence of the remaining state-run sectors and private enterprise, at least where the domestic process industry is concerned. Especially the raw material sector and the provision of the immense population with basic supplies are often in the state's hands.

This branch has hardly been affected by the economic crisis. Business continues to run very dependably, which is a real blessing in times in which investment in some sectors has been cut back considerably. Sturdily anchored in this market sector, SAMSON India has achieved continuous growth, which is planned to increase steadily in the future. Management at SAMSON India has good reason to feel confident regarding the general course the country will take and in particular on how the company will develop. The relocation to the new site means there will be no problems concerning space in the future. SAMSON India can expand production considerably and keep long-term capacity reserves. In addition, the site provides space to enhance customer support. As a result, the subsidiary is fit for the time to come when India takes over a major role in the world.



The Gateway of India, originally a symbol of colonial rule, became the location to its farewell: On 28 February 1948, the last British troops to leave India embarked RMS Empress of Australia from here.

Strength Through Adaptability

The Franconian imperial city of Nuremberg figured among Europe's most important economic and cultural centers already in the late Middle Ages. The city's busy craftsmen produced highest quality goods according to the latest technologies of the time. One example of their innovative strength were the first pocket watches known as "Nuremberg eggs" manufactured circa 1510. The trade network of Nuremberg's patricians stretched across large parts of the Old World, turning the city into an important hub on the route from Italy to the north. In 1835, the first German train ran from Nuremberg to the nearby city of Fürth. In the 19th century, metal processing and electrical engineering helped Nuremberg recover its importance as an industrial center. Still today, the area in northern Bavaria figures among Europe's major metropolitan regions. **Apart from the entrepreneurial spirit of its inhabitants, the region's economic history continues to be characterized by constant change and an enormous economic diversity. Franconia has grown accustomed to adapting to varying conditions and re-inventing itself over and over again.**



The German Beer Purity Law of 1516 stipulated that beer be brewed from water, barley and hops only. And this is largely how beer is still brewed in Franconia today.



Tradition and specialization – Franconia faced the last major change not that long ago: When the dominating industries – metal processing and electrical engineering – were hit by a crisis in the 1980s and 1990s, the Nuremberg metropolitan region added the service and logistics sectors to its already diverse portfolio. While several thousands of jobs were lost in the classic industries, the new segments brought about nearly twice as many new jobs during the same time.

Around the same time, Adidas and Puma, the sportswear producers originating in Herzogenaurach near Nuremberg, became global players. Companies in medical and mechanical engineering as well as highly specialized suppliers for the automotive industry gained importance as well. Even though not every business managed to

keep up with the new pace, some of the traditional crafts stood their ground: The china and ceramics producers in Upper Franconia for example, have been famed for their high-quality products for centuries. In addition, Franconia's breweries have beer brewing down to a fine art. With over 200 independent breweries and approximately 1,000 different types of beer on offer, Upper Franconia has the world's highest rate of breweries per capita. No wonder, the region is also referred to as Beer Country.

Beyond the frontier – Traditionally, the large process industries have played a less important role in the Nuremberg region than in other parts of Germany. One reason may be seen in the former division of Europe: Bordering on Thuringia and Saxonia (two states of the German Democratic

Republic) in the north as well as Czechoslovakia (a member state of the Warsaw Pact) in the east, large parts of Franconia were cut off from their natural hinterland for decades. Large industrial and infrastructural projects were kept at a distance from the Iron Curtain.

HVAC as major contributor – When the SAMSON office at Nuremberg was opened 40 years ago, equipment for heating, ventilation and air-conditioning (HVAC) accounted for the largest share of sales. The prospering economy of the 1960s brought about a boom in the construction sector as many new buildings were raised for industrial, residential and public use. Within a short period of time, numerous department stores, residential blocks, schools, sports and swimming complexes, district heating

Once a residence for the emperors of the Holy Roman Empire, Nuremberg Castle fell into the care of the city when Nuremberg became a free imperial city in the 13th century.

networks and large military facilities sprang up in the region. Back then, many of the large building projects were equipped with SAMSON equipment – from simple self-operated regulators to entire control systems – under the overall control of SAMSON's engineering subsidiary, SAMSOMATIC.

Regional focus – Maintenance and spare parts deliveries for these HVAC applications still form the unshakable basis for the business of the Nuremberg office. Ten members of staff take care of customers in the area nestled between the river Danube in the south and the mountains of the Franconian Forest in the north. To the west, the sales area extends as far as the Rhine-

Main region where the SAMSON headquarters are located. To the east, it is bounded by the Czech border. Since the old barriers have been torn down, the area at the former inner-German border has moved to the heart of Europe.

Year-round customer orientation – Being at the customers' disposal at any given time and place is the maxim that the Nuremberg office, like all other SAMSON engineering and sales offices, obeys. The office is conveniently located near the motorway so that getting to a customer virtually never takes longer than three hours. This is particularly beneficial, for example when a heating system in a residential building fails right in the

middle of winter. For such emergencies, the Nuremberg office is equipped with a stock of crucial spare parts for immediate delivery. Necessary repairs are either performed directly at the customer's site or back at the workshop adjoining the office.

Grasping chances – The current economic crisis has not failed to leave its mark on Franconia either. Nevertheless, it is widely accepted that every crisis also opens up new opportunities if you are ready to grasp them. In Germany, a large share of the stimulus plans set up to revive the ailing economy is targeted at the infrastructure, such as renovating and improving public buildings. With its considerable HVAC expertise and excellent

connections to the authorities, the Nuremberg office is ideally prepared to grasp the chances offered.

It is particularly in such difficult times that a further strength of the Nuremberg team may prove its worth: its excellent customer service. Right from the beginning of the product sizing process, the highly qualified staff give in-depth advice to find the technically best and most cost-effective solution for the customer's specific application. The team's experience and expertise contribute considerably to the smooth running of the customer's processes.

Time is money – As time is often a critical factor when delivering new control equipment, the Nuremberg warehouse contains a number of standard valves and components, which can be assembled at short notice and installed on site. IFS Applications, the ERP (Enterprise Resource Planning) system used at SAMSON, further supports the Nuremberg office by giving staff an insight into the warehouses of neighboring offices or the Frankfurt headquarters. All local units cooperate seamlessly to respond quickly and flexibly to customer requests.

Diversity and market leadership – The customer base of the Nuremberg office reflects the diversity of the Franconian economy. Many customers are small to medium-sized businesses, often in mechanical or plant engineering, that have worked their way up to becoming world market leaders in well-defined niche markets. They include companies specializing in brewery equipment, heating and cooling systems, environmental engineering or chemical plants. In process engineering, the Nuremberg office also serves the oil refineries and petrochemical plants in the Danube area. Even though these customers were hit by the crisis at an early stage, they will prove to be an important pillar in the long term. Particularly with the new products tailored to the needs of the oil and gas sector, SAMSON Nuremberg will build on its toehold in this market.

This customer diversity and the office's flexibility provide stability in tough economic times. Adaptability has always been a Franconian trait.



In Franconia, the traditional beer gardens are a meeting point for those wanting to enjoy a traditionally brewed beer after a successful business day: Mr. Dück (2nd from the right), head of the Nuremberg engineering and sales office, and his team.



GEA Brewery Systems – Innovative Technologies and Solutions for Excellent Beers

Two of the most prominent agents on the brewery systems market – the GEA companies Huppmann and Tuchenhausen Brewery Systems – merged in March 2009 to form GEA Brewery Systems, making the good even better.

Huppmann specializes in manufacturing and supplying brewhouse technology and systems. Founded as a family business in the Franconian town of Kitzingen in 1874, Huppmann meanwhile figures among the world's top three brewhouse suppliers. Since 2006, Huppmann has been part of the GEA Group and cooperated closely with Tuchenhausen Brewery Systems and other GEA companies.

GEA Tuchenhausen Brewery Systems specializes in the cold area of the brewing process after fermentation. By bringing together the hot and cold process areas under one common roof, GEA Brewery Systems has established a unique competence center for brewery systems in the world.

The company develops innovative solutions to match the economic and ecologic requirements of its customers. The corporate portfolio covers engineering, supply, installation and service for individual plant sections as well as greenfield projects. SAMSON supplies the control valve technology for these solutions, which is tailored for the breweries' demands.

The customers set the priorities: improve quality or efficiency, save energy or expand existing capacities. The staff of GEA Brewery Systems checks the technical parameters from milling to the finished beer and develops sophisticated plant and control schemes to optimize the amount of raw materials required, the energy consumption and the production time.

Furthering Qualification and Employee Loyalty

Highly skilled and well-trained staff in sufficient numbers is the key to innovation, quality and economic success. This is true for companies as well as countries. The fact that Germany has been one of the leading economies in developing new technologies for over 150 years can partly be attributed to its dual vocational training scheme. This cleverly devised scheme combines theory and practice to impart technical knowledge. SAMSON has developed its own, intensified version of the proven

scheme. The excellent vocational training of “new blood” is one of the top priorities at SAMSON and huge efforts are put into it. The success of SAMSON’s scheme is visible in the high qualification level as well as the strong employee loyalty. Those who begin their professional career at the Frankfurt headquarters often remain at SAMSON for many years and identify strongly with the company.



In valve assembly, the trainees are integrated into the real production process.

Dual training scheme – SAMSON has always relied on training future members of staff itself. As a result, around 30 school leavers are employed by the Frankfurt headquarters each year. They can choose from ten technical or business-related jobs, for which they receive three years of vocational training in most cases. In addition, they are introduced to the practical side of a large number of the 220 different job activities performed at SAMSON.

The IT and industrial sales staff-to-be for example, pass through up to 15 departments during their training years, getting to know all facets of their future jobs. In addition to on-the-job training in commercial administration, they also gain an insight into the production departments. First sales experience is also provided, which may even involve a stint at one of the numerous SAMSON offices.

During their first year, the technical trainees learn the basics of their jobs in the training workshop before they are also sent to the various R&D and production departments, where they work on specializing their skills. Trainees to work in mechatronics and industrial mechanics get to see most fields of activity, including the repair workshop in Sales as well as the assembly and quality assurance departments. Apart from their on-the-job training, all trainees in Germany regularly go to vocational school to deepen their theoretical knowledge and expand their general knowledge. So do SAMSON’s trainees.

Theory and practice – The particular strength of SAMSON’s vocational training lies in the constant and direct link with the practice-related demands of an industrial company. Especially during the last months of their training years, the trainees are fully integrated

In the training workshop, the trainees learn to work on CNC lathes.

Practice-related training at a CAD work place in the Pneumatics R&D Dept.





The demonstration model for the new TROVIS 6495 Industrial Controller was developed in the training workshop.

into the daily business processes. This had already been a long-standing tradition at SAMSON when the German regulations on vocational training were changed a few years ago to include practice-related projects as an essential part of the final examination.

SAMSON assigns its trainees normal tasks for their projects so that the work results can actually be integrated into day-to-day business. This project work not only helps trainees develop their job-specific skills, it also allows them to complete projects on their own. They are thus given the opportunity to prove themselves in the "real" everyday business.

For example, one of the tasks set to the training workshop last year was to design, plan, build and supply a demonstration model for the new TROVIS 6495 Industrial Controller. Consequently, a team of trainees in mechatronics in their third and final year set to work, together with a training supervisor. At first, they had to get thoroughly acquainted with the industrial controller and collect ideas on how best to demonstrate the controller's functions. After that, they designed and assembled the demonstration model, from the circuit diagram to the additional analog outputs. On top, the team created mounting and operating instructions as well as parts and price lists for the Purchasing Dept. – and all this had to be accomplished within a defined time frame. Finally, the trainees' model had to be tested to comply with the requirements for CE marking. Each step in this process confronted the mechatronics trainees with new challenges, all of which they met in a convincing fashion: Their model has already been used at many acquisition presentations to demonstrate the benefits of the TROVIS 6495 Controller.

Long-term commitment – Those who prove themselves in these processes can virtually rely on being employed as a full member of staff after the final examination. As a result, SAMSON offers young professionals a long-term career perspective, at the same time recruiting the majority of staff from its own ranks. A welcomed by-product of this approach is the strong loyalty of the staff towards the company: According to corporate statistics, around 70 % of the SAMSON employees stay with the company for at least 17 years. 25 and 30 year career anniversaries are not unusual at SAMSON Frankfurt.

Over 30 % of trainees who complete their vocational training later decide to acquire a higher qualification, e.g. an engineering degree. SAMSON actively supports such career steps and considers it a continuation of the dual training system on a higher level. Students are given the opportunity to complete all internships and the practice part of their thesis at SAMSON. This keeps the connection with SAMSON alive, sometimes even intensifies it.

The test bench is used to introduce the trainees to the challenging tasks in control valve engineering.



Innovation as a result – Last year, one student intern experienced a particularly exciting placement at SAMSON: The future mechanical engineer worked at SAMSON's subsidiary in Singapore for two months to get acquainted with the international Service Support Dept. Before starting his study program, he had already completed his training to become a tools mechanic at SAMSON. He remained in contact with the company, which paid off. Particularly impressive for the intern was his visit to a methanol plant in Malaysia with the SAMSON team where components had to be serviced and replaced. He also attended a staff training at Kuala Lumpur, but not only as a guest. He was given the chance to get actively involved in service support and conducted a few sessions of the training course himself.

When supporting students, the training supervisors at SAMSON consequently merge theory and practice, e.g. by combining R&D tasks at hand with thesis papers. Recently, the Matlab software used to simulate the control behavior and operating condi-

tions in industrial plants had to be updated. This task became the topic of a paper prepared by a former draftsman trainee of SAMSON. She had already gotten accustomed to the company and the corporate processes when she decided to take on the task. She designed virtual models of different boosters and positioners on the R&D test bench and integrated them into the software. The enhanced tool is now used by many SAMSON employees every day.

A further successful result of the cooperation with interns is SAMSON's valve sizing software, which figures among the top downloads in process engineering.



A by-product of the extensive training scheme: high employee loyalty.

Hot and Cold under Control

The temperature of a material depends on how fast its atoms and molecules move and how often they collide: the more movement (i.e. energy), the higher the temperature. This model does not differentiate between hot and cold or see any difference in quality between 37 °C and 42 °C. Nevertheless, small deviations can make all the difference, whether in the human body or in technology. Some processes function at their best only when the temperature is maintained within a very small margin.

With the aid of SAMSON control equipment, the heating and cooling systems built by the German company Lauda ensure that the thermometer always shows the desired value between -150 °C and +400 °C. Sophisticated technology and perfect communication between control unit and control valves allow for processes that run smoothly and save energy, even if they require high and low temperatures to be controlled exactly at different times.

Final assembly of a heating and cooling system at Lauda.



temperature range, Lauda overcomes the disadvantages caused by using different heat transfer media in a process. Heat exchanger systems allow the energy already available in the plant from different carriers (e.g. vapor, cooling water or brine) to be used efficiently. This considerably shortens turnaround times and protects the equipment.

Moreover, the common circuit for the heat transfer medium provides the Lauda systems with a perfectly smooth transition from one temperature to another. In many production processes, e.g. in the pharmaceutical and fine chemical industries, a smooth temperature transition considerably influences product quality.

In exothermic reactions, the process needs to be cooled, while heat is to be supplied to endothermic reactions, always depending on the current course of the process. Even in time-critical applications, Lauda systems achieve a control accuracy that is better than the demanded tolerance of ± 0.5 °C. They achieve this either by using primary energy available in the plant or by generating the temperatures with electric heaters or compression refrigerators.

Three-way valve at the heart of it – Lauda heating and cooling systems have a modular design and are tailored to the exact requirements of the

customer's application. They can even be constructed as mobile units, as is often requested for test benches. A decisive element in the heating and cooling systems is a three-way valve, which regulates the flow of the heat transfer medium.

"Extreme temperatures meet at the inlet flanges. The valve is constantly exposed to enormous temperature stress", explains Matthias Mohr, project manager at Lauda. "At the same time, the valves need to be compact and provide the highest control accuracy to match our cutting-edge technology. This is why we decided in favor of SAMSON equipment."

Extremely cold on the left and extremely hot at the bottom: This three-way valve must withstand enormous temperature stress.



Long insulating sections protect the actuators against extreme temperatures in a cooling system.

Temperature jumps at record speed – A place where hot and cold regularly collide is under the hood of cars with combustion engines. Be it the fuel or cooling water pumps, the radiator or the gearbox: All these components need to withstand ambient temperatures down to -40 °C as well as the heat radiated by the engine of up to +150 °C. Quality assurance in the automotive industry demands such components to be thoroughly tested to match the intended operating conditions.

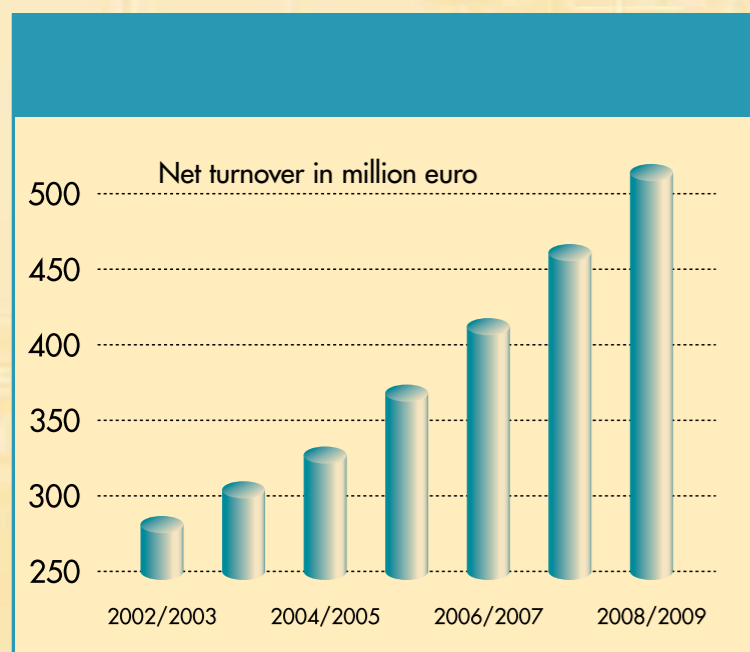
As a result, the components are exposed to countless temperature changes from one extreme to the other on test benches. To perform as many

test cycles as possible within a short time, the jumps from arctic temperatures to roasting temperatures are to be accomplished within two minutes. Thanks to a sophisticated technology, the thermostatic systems manufactured by Lauda can fulfil this task easily. And they use the same heat transfer medium across the entire temperature range.

One heat transfer medium – On the automotive test benches, the Lauda systems usually employ a water-glycol mix as the heat transfer medium. For higher temperature ranges, as requested in the chemical industry for example, thermal oils are used as energy carriers. By using one heat transfer medium to cover the entire

Well Prepared for Difficult Times

The financial year 2008/2009, which ended in March 2009, was one of the most remarkable since the company's foundation over one hundred years ago. Initially starting as a boom year, the financial year ended in times of the global financial and economic crisis. Since then, the decline in orders as a result of the crisis has been clearly evident. Nevertheless, this did not affect the past financial year, in which SAMSON achieved record results and was able to consolidate its position in the market. Even in a difficult economic environment, SAMSON remains on a stable course with a positive outlook. The unbeatable combination of solidity and dynamics is a principle that manifests itself in all areas of corporate business, e.g. in the continuity at top management level, in the excellent results which the subsidiaries in China and Russia were able to present for their tenth anniversaries or in a large-scale project on the Arabian Peninsula.



In oil and gas production, a particularly rugged and durable control technology is called for. This is why increasingly more plant operators rely on products supplied by the SAMSON GROUP.

At the start of the past financial year, the order books were full. All sectors of the process engineering industry were flourishing at that time. Mining as well as oil and gas production benefited from the sharp surge in commodity prices. Products manufactured by the chemical industry were much sought-after by the processing industry. The pulp and paper industry experienced rapid growth. The energy and public utilities sectors profited from worldwide investment in large infrastructure projects.

SAMSON was able to benefit over-proportionally from this positive economic situation. Consolidated group sales grew by 11.4 % to EUR 514 million in 2008/2009. The increase in sales was considerably higher than the average growth of around 5 % in this sector. This is a clear indicator that SAMSON has increased its market share. All regions have contributed to the sharp rise in sales even though the growth rates differed considerably from region to region.

Western Europe still ranks as the region with strongest sales in the SAMSON GROUP. The already flourishing sales rose by another 10 %. Especially the export-oriented plant construction and mechanical engineering sectors contributed to this positive development, which then suffered a downturn in the first three months of 2009. In **Eastern Europe**, chiefly oil and gas production as well as the petrochemical industry evolved into attractive fields of activity. For SAMSON, Russia ranks third among the subsidiaries with the highest turnover behind China and France.

Asia, meanwhile the second strongest region behind Western Europe for SAMSON, registered a 13 % sales increase. SAMSON is represented in this region with ten subsidiaries and three service centers, that employ over 350 people. China counts as the second most important country for the SAMSON GROUP behind Germany. SAMSON China was able to increase its turnover by 69 % in the

last financial year. This figure clearly indicates the enormous potential the Chinese market holds for the sector in which SAMSON is active.

In the **Americas**, the three subsidiaries in the NAFTA zone registered double-digit growth, increasing sales by 27 % in total. This allowed SAMSON to clearly strengthen its position in this key region. The four South American subsidiaries in Argentina, Brazil, Chile and Venezuela also showed very satisfactory development.

The excellent results achieved in 2008/2009 will presumably not be repeated in the ongoing fiscal year 2009/2010. The financial crisis and the following worldwide recession have led to a considerable decline in order intake. Solid economic foundations though assure that SAMSON will survive the downturn without losing assets and provide the company with a good starting position for the next economic cycle.

10th anniversary of SAMSON subsidiaries in China and Russia – Two of the most important SAMSON subsidiaries, SAMSON China and SAMSON Russia, celebrated their tenth year in business in the past financial year. Both subsidiaries have experienced an extraordinary development within these ten years. In China, where production facilities have also been built, a workforce of over 130 work at the head office in Beijing as well as in seven other offices and service centers (as reported in SAMSON Magazine 11/2008).

The Russian subsidiary arose from humble origins, made up of a team of just two employees and initially set up in a private apartment. Meanwhile, SAMSON CONTROLS Russia has flourished into a resilient, successful company. Today, nearly 40 employees are active at the head office in



Naturally the dragon dance was performed at the tenth anniversary celebrations of SAMSON China, as is the tradition at festivals in China. Firecrackers and drum beats ward off evil spirits.

Moscow and in two service centers strategically located within the country. They manage a network of self-employed representatives distributed throughout Russia.

In the early years, the subsidiary mainly served customers from the energy and food processing industries. Nowadays, SAMSON supplies all sectors of the process industry in Russia. SAMSON technology can be found in practically all leading refineries and petrochemical plants, in oil and gas production as well as on

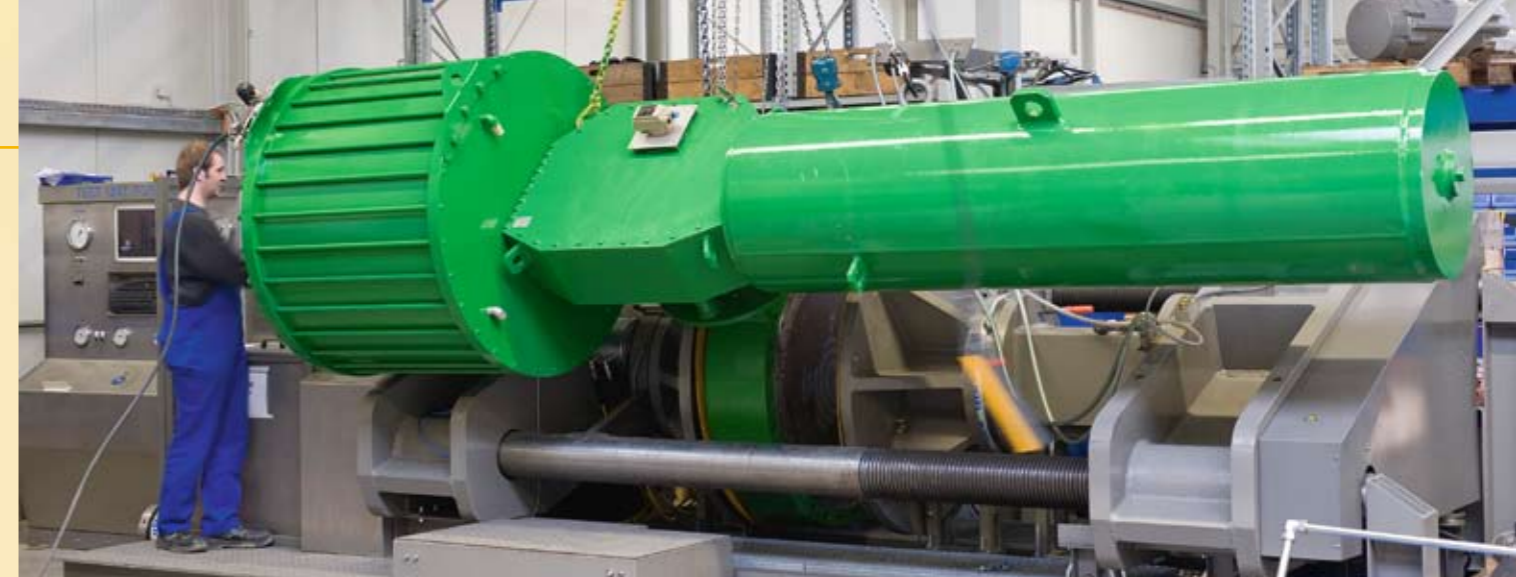
Russian ships. In both markets in China and Russia, SAMSON recognizes enormous potential for development in the years to come and is planning to react to this by setting up more service centers.

1,200 valves for Ruwais 2 – In the town of Ruwais in the United Arab Emirates, the Linde Group is building one of the world's largest ethane crackers for ethylene production. The ethylene plant, built on behalf of a joint venture between Borealis and ADNOC, will have an annual production capacity of 1.5 million tonnes and is at the heart of a petrochemical complex in Ruwais. Linde Engineering is a world leading engineering company in the thermal cracking of hydrocarbons to produce ethylene.

The control valve technology for the new plant is supplied by SAMSON. The production of over 1,200 valves for the Ruwais 2 project was SAMSON's largest single order in the past financial year. The largest valve for this project weighed around eleven tonnes and had to be transported by road to the port of Hamburg under police escort. From there, the jumbo valve was shipped to the United Arab Emirates. To provide customer support on a local basis to companies in the region, such as



Swetlana Krymschamalova (front, 3rd from the left), head of SAMSON Russia, with her staff during a visit to the SAMSON headquarters in Frankfurt.



An eleven tonne triple eccentric LTR 43 Butterfly Valve intended for the Ruwais 2 project in Abu Dhabi underwent a leak test at LEUSCH.

Borealis and ADNOC as well as other rapidly expanding companies, SAMSON founded a subsidiary in the Jebel Ali Free Zone in December 2008.

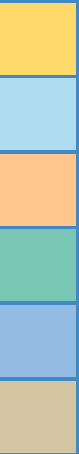
Change on the Executive Board – On 27 March 2009, the Executive Board member Josef Tonus retired. He had worked at SAMSON for more than 35 years. In 1977, he took over as head of Finance and Accounting and in 2004, he was appointed to the Executive Board at SAMSON AG responsible for fi-

nance and administration. His position on the Executive Board was taken over by Dipl.-Kfm. Gerd Jochem on 1 April 2009. Mr. Jochem joined SAMSON in 1991. He had worked in controlling for several years before becoming head of Group Controlling and Financing. In 2006, he was named head of Finance and Accounting and granted full signing powers. Mr. Jochem was appointed director in 2008.



After 35 years at SAMSON, Josef Tonus (left) retired from the Executive Board and passed on the management of finance and administration to his successor, Gerd Jochem.

SAMSON worldwide



SAMSON

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