The Bürkert Newsletter

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INSIGHT

Heribert Rohrbeck,
Managing Director, Burkert Fluid Control Systems

At the start of the New Year, today marks the appearance of the second issue of our Burkert INSIGHT newsletter. A very successful year 2006 lies behind us, for which we say a hearty "thank you" to you, our customers. All of us have great expectations for the year 2007, although the conditions cannot always be assessed clearly.

At Burkert, too, sound growth of the group is our top priority; in this respect, we certainly do not differ from our competitors. However, we are keenly aware that especially in such mounting competition, success comes only to those who have the courage to do things differently. This is precisely what we aim to do; we want to start where others leave off. In this new issue of INSIGHT, we want to demonstrate to you on the basis of examples that this new objective is not just a platitude, but lived out in reality:

- Internal optimization programs, instead of a classic relocation policy, are our answer to price and cost challenges.
- Vertical integration and a high vertical range of innovation show that outsourcing is the exception for us.
- Our new products, which we are launching this year, are characterized by a high level of integration.
- Our market segmentation replaces the classical approach by industries.
- Systems and complete solutions are no longer unusual, but instead are becoming "standard products" through our worldwide network of system vendors.
- Besides standard training programs, we also offer our employees the chance to participate in internal educational programs which we offer in cooperation with external Universities and partners.

All of these things serve just one purpose: to enable us to offer you even better solutions and services. We look forward to your feedback and working together with you, and wish you a healthy and successful 2007.

Yours sincerely,

Heribert Rohrbeck

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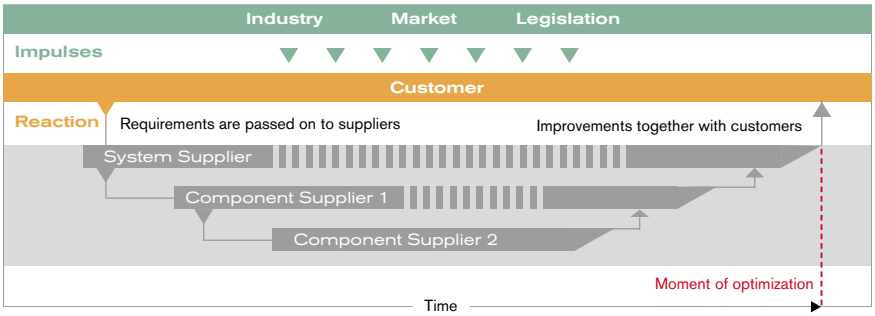
SystemHaus—Staying Ahead to Keep Up with Customers

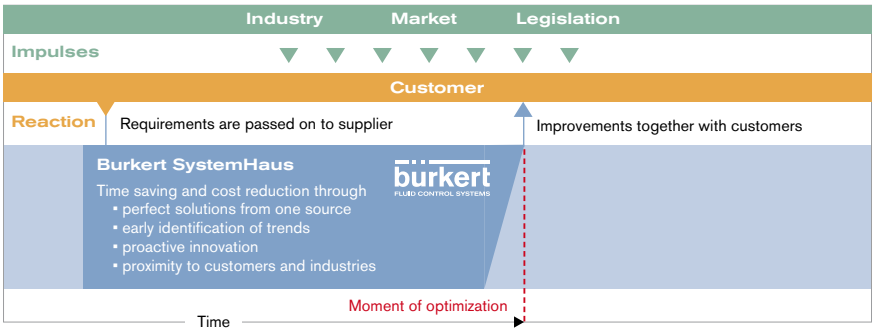
Already back in the early nineties, Burkert developed its first successful steps in the area of solutions for customers. These customized solutions started out with requests that went above and beyond components. Many customers were astounded to discover that Burkert offers all of the elements of a control circuit. This enables customers to minimize the number of suppliers. Moreover, since the components are matched to one another, communication is simple.

Other customers requested improved connection possibilities. Back then, a "valve shop" was set up in order to be able to offer customers good support, and employees from R + D and production turned their attention to the development and realization of these solutions.

Success with these customer-specific solutions led to continual development, so that the rates of growth in the area of system solutions eclipsed those for the standard products. This successful model of handling of system requests is continuously revised to enable us to keep attaining maximum rates of growth. The term "SystemHaus" stands for this development. In the SystemHaus concept, employees with experience of different processes cooperate closely with one another to reduce response time for customer requests and constantly improve preparation of the technical solutions. Drafting of technical concepts, costing, machining and assembly of prototypes as well as testing and documentation then take place in one location. Short paths to tool making and machining for series production are additional advantages.

Besides efforts to improve the processes, we are also investing in new equipment, machines, and facilities. In Criesbach, Germany, for example, a new building with more than 5,000 m² of floor space is under construction. The building will be ready for occupancy in May 2007. The objective is to create ideal conditions for the development of customer-specific system solutions. These activities are reinforced and ideally supplemented by the SystemHaus in Dresden (focal point: electrical fluid systems) and the SystemHaus Dortmund (focal point: switching cabinet construction and welding technology).





They will be optimized, intensified and expanded in the German market and parts of the European market on the one hand, while on the other hand extended to other regions (USA, Asia & Pacific). In late 2006, a SystemHaus was established in Charlotte (USA) and Suzhou (China) so that this concept can also be implemented in other markets. A local presence enables us to register the peculiarities of the market and the industries and thus develop tailor-made solutions. Close cooperation among the different settlements of SystemHaus will become a matter of course. They will exchange and jointly improve experiences, concepts, ideas and solutions.

These measures will be supported through continual improvements in the production process, additional training of sales employees and the development of innovative valves, modules and components in R + D. Because changes occur quickly in many markets and Burkert wants to continue to expand in these markets, it is necessary to make improvements in all corporate processes.

For further information please contact
josip.martis@burkert.com

The New Level Sensors: One Concept—Countless Options

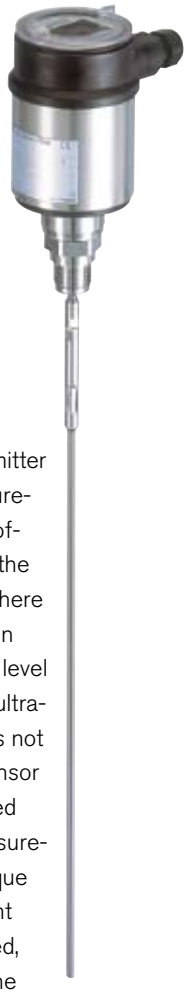
Making your life simpler—Burkert launches its new range of level sensors and level systems meaning that at last versatile communicative and complete control loops are available from one supplier. Our continued innovation has developed a simple interface to multiplelevel measurement techniques, including ultrasonic, time domain reflection and piezoelectric. Effective, reliable and safe for both point and analog outputs. The new systems are ready for deployment as empty or leakage detection, repeatable and safe overflow monitoring, run dry pump protection or inventory control.

Burkert provides complete solutions with its range of hardworking on-off or modulating control valves for challenging liquid applications and its decentralized control and communication AirLINE systems. The modular concept behind uncomplicated level loops save you valuable time and empower remarkable synergies through previously unattainable and attractive solutions.

HiSENS (Types 8110—8111—8112)
The piezo ceramic element powers tuning forks in resonance frequency. When a tuning fork is covered in fluid, the resonance frequency is then reduced. Repeatable and safe overflow monitoring, run dry pump protection; sanitary connections available. Burkert's ultrasonic sensors deliver accurate and reliable liquid level detection with a relay output. The technology provides a high level of ultrasonic sensitivity, including resistance to vapors and turbulence. The ultrasonic sensor utilizes a fork-shaped sensor which contains two piezoelectric crystals, one of which acts as the ultrasonic transmitter, and the other as a receiver. If the air gap between the points of the fork fills with liquid, the sonic wave passes from one crystal to the other.

EchoSENS (Types 8176—8177—8178)
EchoSENS is a high-performance ultrasonic non-contact transmitter, with an integrated mount, for liquid level, volume and open channel flow measurement. Advanced digital signal processing routines enable them to perform in applications involving in-tank obstructions, light foam and agitation. Propagation time of the ultrasonic wave is measured to determine the distance. More advantages: integrated temperature probe to compensate for velocity changes, intelligent software to make a simple measurement into a smart transmitter; sanitary connections available.

PulSENS (Types 8185—8186)
This sensor is used for level measurement with guided microwaves (TDR-Time Domain Reflexion). It is mechanically robust and insensitive to coatings or external vibrations. Sanitary connections are available.



RaySENS
RaySENS is a radar transmitter for continuous level measurement. This product series offers a logical extension to the ultrasonic sensor series, where application conditions are in need of non-contact liquid level measurement, and where ultrasonic level measurement is not acceptable. Radar level sensor technology can be designed for your specific level measurement needs, providing unique possibilities to take account of materials to be measured, vessel configuration and the system interface. The RaySENS product series will be launched later in 2007.

Burkert's radar level sensors are ideal for reflective liquids that have a foaming surface, vapors or dusty conditions beyond ultrasonic wave capabilities.

For further information please contact
timo.bleschke@burkert.com

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Hygienic Processing Segment

"Hygienic Processing" is a customer oriented concept which combines the physical attributes of the application environment. Our intimate knowledge and significant insight into the application environments traverse the spectrum of processing industries from pharmaceutical and nutraceutical companies and cosmetics manufacturers, to breweries and dairies, as well as producers of beverages, confectionary and pet food.

Close and timely cooperations with our customers in the real physics of batching, cleaning and sterilizing, water production and distribution, filling, heating, cooling, separating, fermenting, distilling, or evaporating, means we can share our experience of complete control loops for flow, conductivity, pH, temperature, pressure, and level.

Everyone in our organization is interested in listening, with the aim of presenting only the most appropriate solution fluently in daily application language. The inherent expertise available within the Burkert organization is channeled to make life simpler. Our versatile systems highlight our continuous customer oriented innovation and are developed to uncomplicate the hygienic processing world to save time.

An otherwise unattainable synergy of hardworking valve elements, process actuation, sensors and networked communication provide a true single source of attractive systems providing peace of mind, process safety and ease of use. In the hygiene industry, where compactness, smart communication, plant footprints, wash-downs, dead legs, cross-contamination and validation are everyday concerns, we provide process efficiency and higher yields by offering unlimited process modularity.

For further information please contact mike.rodd@burkert.com

New Center of Excellence for Hygienic Processing in Öhringen

An exciting development at our Öhringen factory in Germany is complete! We have built a new facility which is dedicated to the assembly and testing of systems and solutions that are destined for use in applications within the hygienic processing environment.

The new facility incorporates three environmentally controlled rooms which are all linked together. There is an administration and changing area for workers who are specially trained in the handling of such systems; a central assembly and test area is equipped with state-of-the-art equipment; and a controlled stores area where products and components are held prior to work beginning.

Each room can be viewed from the original existing factory floor through large windows to give maximum visibility and create the feeling of openness whether inside or outside the rooms. The facility "feels like it should do" says Marc Klinger, a key member of project team. "When you are in the production area you can sense that all the customers needs were part of its development to make certain that all demands are met, as well as delivering a high-performance and high-integrity solution."

Once the goods are completed they are sealed and dispatched in specially selected packaging to protect them as they make their way to site. The appropriate certification is packed with the goods according to customers' requirements. Such certificates are generated by the same qualified team to ensure satisfaction when they arrive at their final destination.

This production facility will be responsible for all Robolux solutions as well as other systems incorporating diaphragm technology. The investment further shows the commitment and solid expertise that Burkert offers to industry.

For further information please contact mike.rodd@burkert.com

A New Way of Looking at pH

The monitoring of the pH of a material is important within pharmaceutical production as it ensures not only reduced costs but also that optimum levels of yield are achieved. Furthermore, in order to meet legal requirements, numerous processes within the chemical, pharmaceutical and food and beverage sectors are controlled by pH values. Any malfunction of the pH sensor can therefore cause a complete product batch to be rendered useless.

In chemical processes the pH sensor has to withstand strong acid or caustic solutions under high temperatures. The electrodes must also, in some cases, be certified for use in hazardous areas. Most pH measurement is carried out using glass electrode pairs, but glass is susceptible to chemical attack, and temperature changes can alter the rate of attack; for every 30 °C rise in temperature, the rate of attack increases ten-fold. As a consequence, electrode life is shortened when used in process solutions at elevated temperatures.

Under attack

Strong acids and strong alkaline solutions attack the glass membrane. Even neutral solutions containing high concentrations of alkali ions, sodium ions in particular, attack the glass. Using a pH sensor with a glass formulation inappropriate for the application may render the sensor inoperable after only a short time.

Left out of solution, the pH glass membrane of the sensor will gradually dehydrate or the electrolyte will leach out of the electrode cavity. In both cases, the metering precision will vary or irreparable damage will be caused.

Glass systems thus need special care and this has given rise to many methods of protecting and cleaning the glass system in the process area. Conventional pH measurement methods often do not meet all requirements in terms of sterility, robustness, easy cleaning, high metering precision and reliability, and therefore make a permanent measurement during the process impossible.

This situation has now been improved with the development of a new metering principle using pH sensors made of enamel. The basis of this new metering principle is an ionic-sensitive enamel layer burned onto a solid steel tube. Taking tins and other components—such as a non-ageing reference electrode, a special combination of media-affecting materials, hygienic design and sterile supplies—a measuring instrument was created that meets all technical requirements and which is not costly to acquire or maintain. Compared with conventional glass electrodes, enamel sensors offer a number of benefits, one of which is that they are largely unbreakable and consequently less susceptible to errors.

Sterility is key in ensuring that a biochemical reaction can proceed cleanly and with no effects on the end product. This means nooks or crevices and dead spaces and void volumes have to be avoided. A particularly critical point is the cleaning and sterilization when changing batches.

For cleaning purposes, pH sensors have, until now, had to be removed via special automated armatures and cleaned separately with chemicals, before being recalibrated if necessary. The cleaning lye causes irreparable damage to conventional pH electrodes.

"Opening" the process, however, risks introducing germs or contamination. Sterilize-in-place (SIP) and clean-in-place (CIP) procedures are common in pharmaceutical, cosmetic and nutraceutical manufacturing place specific demands on all sensors: the pH of the cleaning solution is measured in CIP systems along with conductivity, flow rate, temperature and time. Conductivity measurement is often a "substitute" for pH, as normal pH electrodes cannot be used in the extreme CIP environment. If they are used they have to be physically removed prior to cleaning.

Enamel sensors can be cleaned and steam-sterilized with acid as well as basic solvents in situ. They have to be recalibrated only once or twice a year, and maintenance is limited to the yearly exchange of the electrolyte supply bottle for powering the reference electrode, which is integrated into the enamel pH electrode. As the enamel sensors have no moving parts or additional electric or pneumatic actuators, the complexity of software development for central process control is reduced. They can also be applied in media with a high proportion of solid particles as commonly found in fermentation processes.

The cost of enamel sensors can be shown to be repaid in terms of savings on maintenance, replacements, reduced labor and mean time before failure. Their use requires a different outlook towards improving process safety and quality of data. They are indeed a new way of looking at pH.

For further information please contact
christof.kundel@burkert.com

Vegetable Oil—an Alternative Fuel

A time-tested valve experiences a renaissance in environmental protection

Ever since the discovery of fire, natural oils and fats have also served mankind as fuel. In recent times, however, mineral oil has played an ever increasing role. Especially as fuel in the mobile world, petrol and diesel are considered to be irreplaceable.
These were considered to be the incontrovertible facts until just a few years ago. Since the early eighties, however, research has been conducted into an extremely interesting alternative that could replace diesel fuel.

Vegetable oil (DIN 51605)
Germany's oil fields are not underground, but rather in the midst of our farmlands: they are the brilliant yellow rapeseed fields familiar to everyone. This oil, primarily manufactured from domestically grown rapeseed, is a valuable medium that can replace previously used diesel fuel.

Besides rapeseed, of course, use of oil gained from other plants, such as soybeans, jatropha, sunflowers or peanuts, is also conceivable. From all these plants, it is possible to produce fuels for powering cars, trucks and ships. Vegetable oil is a useful alternative for freeing ourselves from dependence on fossil fuels, reserves of which are limited. Many diesel engines made by different manufacturers are suitable for operation with vegetable oil. It is nevertheless important that the manufacturer of the engine gives approval for the relevant vegetable oil. The oil produced and marketed by the German company Pflanzenöltechnik Nord (PTN) has been given the necessary approval by many truck and engine manufacturers. For adaptation, only a few additional components are required, which are integrated in the existing fuel circuit. The engine and the fuel injector pump are not affected by the changes. Vegetable oil is an entirely natural product, environmentally friendly and harmless. Biodiesel, on the other hand, which is classified as a water hazard class 1 substance, is flammable and poisonous.

Requirements
- No modifications to the engine or fuel injector pump
- Slight modification of the fuel line system
- Installation of a temperature sensor
- Installation of a second fuel tank (main tank for vegetable oil, smaller tank for diesel fuel)
- A second fuel pump
- Installation of two 3/2-way solenoid valves
- Switchbox with electronics in vicinity of driver
- Does not affect general operating license
- Diesel engines are generally suitable for operation with vegetable oil
- Conversion kits are available for nearly all vehicle makes and models
- Conversion is possible throughout Germany

Burkert's contribution
PTN required two solenoid valves to complete the conversion of diesel-powered vehicles for use with environmentally-friendly vegetable oil.
The required valves (Type 323) had to conform equally to the standards for vegetable oil and diesel fuel. This proven valve type is a fast actuating solenoid valve that can be switched without differential pressure. Moreover, the engine is completely separated from the medium, so that contamination and adhesions in the engine area can be ruled out.

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Driving operation

Cold starts always take place using diesel fuel; it is possible to start driving right away without delay.

A heat exchanger uses the engine's heat from the cooling water to warm the vegetable oil in the fuel line to a temperature of 65 °C. In this manner, good viscosity and optimal combustion of the vegetable oil is attained.

A temperature sensor in the vehicle's heat exchanger monitors the temperature of the vegetable oil. Once the oil reaches the proper temperature, the system switches automatically from diesel-powered operation to vegetable oil.

If the vehicle is parked for a sustained period of time, it is necessary to switch to fast diesel flush shortly before the end of the trip or for a short time while the vehicle is stationary, in order to clean the fuel lines and fuel injection nozzles.

Consumption and engine performance are similar with vegetable oil and in diesel-fueled operation.

Conversion kit vendors

The company Pflanzenöltechnik Nord offers such conversions, for example for high-powered diesel trucks and buses with high fuel consumption.

PTN technicians have been carrying out conversions on vehicles successfully nationwide since 2002. By the end of 2006, PTN alone had converted 1,500 vehicles to run on vegetable oil. PTN is a member of the PROKON Group, which employs a total of 170 employees. This up-and-coming company's pallet of goods and services covers more than just vehicle conversions.

PTN also operates its own oil mills in which rapeseed oil is pressed and filtered.

Some key figures:

- 14,000 tons of rapeseed per year
- 4,750 tons of high-quality vegetable oil is equivalent to the annual consumption of approx. 115 trucks (each traveling a distance of 150,000 km a year)
- By-product: presscakes: protein and energy source for livestock feed (approx. 9,000 t per rapeseed expeller)

However, the future demand for rapeseed cannot be met in sufficient quantity in Germany. As a result PTN set out to look for suitable alternatives:

- Cultivation of the jatropha plant and establishing an oil mill in Tanzania (Africa)
- Cultivation of rapeseed and establishing an oil mill in the Ukraine

The vegetable oil is then distributed throughout Europe using the company's own small fleet of tank trucks. As a result of its cooperation with the well-known insurance company Allianz Versicherungen, PTN also compensates for damage that may be caused by its conversion kits. This fact, and the company's overall package, distinguishes PTN from the many cut-price firms currently in the market.

Facts and figures

It costs approx. 4,500 euros to convert a truck. Thanks to the affordable price of rapeseed oil, which costs approx. 30–40 cents less per liter than diesel fuel, a truck that travels an average annual distance of 150,000 km will pay for its conversion after just six months.

More and more fuel stations throughout Europe (at present already more than 400) offer motorists the option of filling up with vegetable oil.

Many major haulage companies with truck fleets have set up fuel stations of their own for vegetable oil, and are thus completely independent. Moreover, if vegetable oil is ever really unavailable, then of course the truck can go on running on diesel fuel at any time.

An alternative to diesel fuel

There are a few written records which assert that Rudolf Diesel, who invented the diesel engine more than one hundred years ago, ran his engines alternatively on vegetable oil even back then. At that time, however, vegetable oil was very expensive and difficult to obtain. Diesel fuel, on the other hand, was much cheaper and was readily available.

Today the situation is reversed. Crude oil prices have risen dramatically over the past years and people have come to realize that reserves of this raw material are not inexhaustible.

What do we learn from this? There are sensible alternatives to fossil fuels. One of the most promising of these is the use of vegetable oil in diesel engines.

Author: Helmut Wagner
For further information please contact
juergen.hammel@burkert.com

Evaluation of economic efficiency

Consumption over 100 km	32 liters	32 liters
Kilometers per year	**120,000** km	**150,000** km
Diesel consumption per year	38,400 liters	48,000 liters
Net purchase price diesel excl. VAT	EUR 0.95	EUR 0.95
Net purchase price rapeseed oil excl. VAT	EUR 0.63	EUR 0.63
Fuel cost savings during the 1st year less cost of conversion	EUR 7,038.00	EUR 10,110.00
Additional oil changes per year / cost	2/EUR 200.00	3/EUR 300.00
Savings during the 1st year	EUR **6,838.00**	EUR **9,810.00**
Savings in subsequent year	EUR **12,088.00**	EUR **15,060.00**

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With the World Looking on, Bürkert's Commonwealth Games Fish Don't Miss a Beat

"No other valve we tested could give us the fast switching time and precise flow control we required—and certainly not within budget."

Even with mechanical fish, your timing must be just right to get the biggest bite. The eyes of more than a quarter of the world were on Melbourne, Australia, as the 2006 Commonwealth Games commenced with an Opening Ceremony incorporating a river event extravaganza centered on the city's iconic Yarra River. The focus of the river-borne event was thirty-six pontoons, each featuring a water creature representing the nations of the Commonwealth. The fish were centerpoint in a synchronized light, music and water-feature performance.

Mr. Neville Crocker, Director of Neville Crocker Australia Pty Ltd., worked with Burkert engineers to construct the Commonwealth Games fish.

The Commonwealth Games fish specifications

The fish, each 6 m long and 4 m high, were built onto pontoons. Each pontoon incorporated five water features—a fifteen meter high candle-style fountain at the head and tail end, a 140° vertical central fan-style fountain and two flanking fan-style side 90° display jets at 55° to the vertical.

Burkert's Type 2000 process valve, with the Type 6014 pneumatic pilot valve, was selected to control the water flow through each of the fountains, with Burkert's tough Type 5281 diaphragm solenoid valve installed on the river-water inflow line on each pontoon. Burkert additionally supplied fittings and accessories for the valve system.
Each of the five fountains passed 1,000 liters per minute, drawing water directly from the Yarra River. With a 3-mm mesh as the only water purification device, Burkert's 2000 process valves were selected for their trouble-free and hard-wearing attributes, and ability to control impure media.

Working with Burkert: the smart choice

"The water effects operated in sequence with event music," said Mr. Crocker. "This was a challenging requirement due to complex water draw and flow, pressure, valve cycle and response time relationships."

Mr. Crocker said that Burkert engineers were able to specify the most appropriate technologies to deliver highly accurate and precise feature controls.

"The Burkert engineers worked with us to find the best valves for the job. All the valves were delivered, installed and commissioned simply and quickly, allowing my team to get on with the job of getting all thirty-six pontoons up and operational on time for the Games," he said.

For further information please contact chris.hoey@burkert.com

Bürkert Italy and Hysytech Work Together on Energy and Environmental Research

Environmental protection technologies, clean energy generation and, in general, new process engineering energy approaches are taking place in today's industrial world.

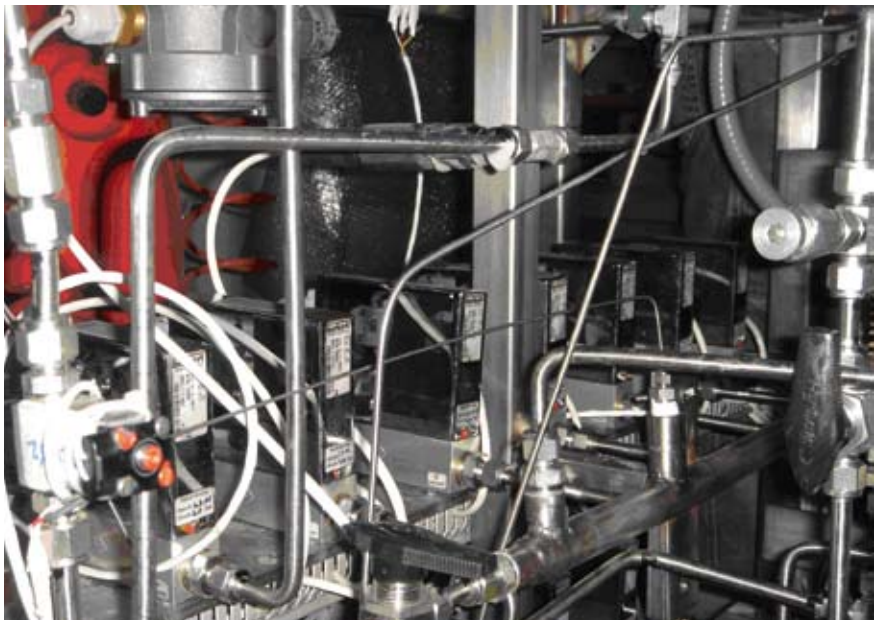
In Italy, Burkert is particularly active in this field and is cooperating with very innovative customers such as Hysytech, a young spin-off company of Politecnico di Torino. Hysytech's mission is to realize systems for the development of hydrogen production, biomass thermal treatment, gasification of biomass and CO–containing materials, and desulphurization technologies.

In particular in the area of hydrogen production systems, several units are developed and manufactured by Hysytech, such as components for fuel cells and fuel processor systems like afterburners, and feed systems, humidifiers for fuel cell feeds. In addition, the company is also very active in the manufacturing of bench test rigs for most types of fuel cells.

Burkert Italy, the Italian subsidiary of the Burkert Group, has recently developed a supply agreement together with Hystech for the latter's application measurement and control system heart, made up of a number of mass flow controllers, innovative gas mass measuring and controlling units.

Burkert's mass flow controller and solenoid valves have been chosen by Hysytech thanks to their accuracy and reliability and are only a part of the wide product and system range Burkert can provide in this important scientific sector.

Mr. Antonini, Managing Director of Hysytech, and Mr. Angelo Sturla, Burkert Italy's Managing Director, foresee a bright future for Hysytech and Burkert in the research for a better environment and for the generation of clean and renewable energy. But not only energy generation; leisure time also plays a role.



Hysytech fuel cells test bench

Snow guns

Burkert products and systems were already shown and utilized in energy generation in Turin during the 2006 Winter Olympic Games, where mass flow controllers were introduced in the Biathlon court as energy supply systems; in the same contest, Burkert water flow transmitters were used in snow guns to allow a regular course of the games even in case of poor snow conditions.

An Olympic success we'd like to continue with you …

For further information please contact angelo.sturla@burkert.com.

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The New MFC Type 8710 for Aggressive Gases

The new mass flow controller Type 8710 shows its strong points when it comes to aggressive, poisonous and explosive gases not only when taking measurements, but also during calibration.

Our innovation is used whenever, for example, it is necessary to control the flow of NH_3, Cl_2, NO, SiH_4, SO_2 and SO_3, i. e. in ozone water treatment, surface coating, heat treatment, hot metal treatment and analytical equipment. For the first time in these fields, Burkert is offering a media-separated sensor for aggressive media < 50 l/min. This MFC, which operates on the indirectly thermal FlowCapillary measuring principle is convincing by virtue of the sensor's linear characteristic over a wide measuring range. The only part that actually makes contact with the media is a stainless steel capillary.

Standard version with new case

Flexibility in calibration cuts costs
A convincing cost advantage: Recalibration with aggressive, poisonous or explosive media can also take place very simply using conversion factors. This means increased flexibility because genuine gas calibration is not absolutely necessary. In the lab, the MFC 8710 can be used with a very wide variety of gases, and this with reference to N2 by means of conversion with corresponding factors.

Summation: An MFC for aggressive media that can be used with various gases and is easy to calibrate.

Version for connection to flangers

With field bus

New: The Direct Measuring MFC Type 8711 with Field Bus Option

The MFC for neutral media offers a very short transient time and thus is suitable for applications in which time is of the essence.

The MFC 8711 is ideal for any situation in which it is necessary to regulate the target values of a gas mixture especially quickly and precisely. This is the case, for example, when it comes to plasma spraying for surface treatment and torch applications. The semiconductor sensor is placed directly in the medium being measured. This results in advantages: the sensor has a very short response time and is very sensitive, guaranteeing optimum precision and a wide measurement range. The extremely short transient time also makes the MFC especially suitable for applications in which time is of the essence.

Because measurements are taken digitally, the MFC is electronically more stable and precise than an analog >

component. What is more, it remains so in the long run thanks to permanently precise controls. Electronic drift is also not a problem. The measurement is not dependent on the ambient temperature in the MFC.

The bypass channel offers a comparatively large diameter in the plastic case. Thus the MFC is more resistant to dampness and contamination. Moreover, the sensor causes very little decrease in pressure. In interaction with directly acting control valves, this guarantees especially low loss of pressure due to the MFC.

For further information please contact
jan.schlander@burkert.com

eCONTROL 8611—the Universal Controller for Flow, Temperature and Pressure Control

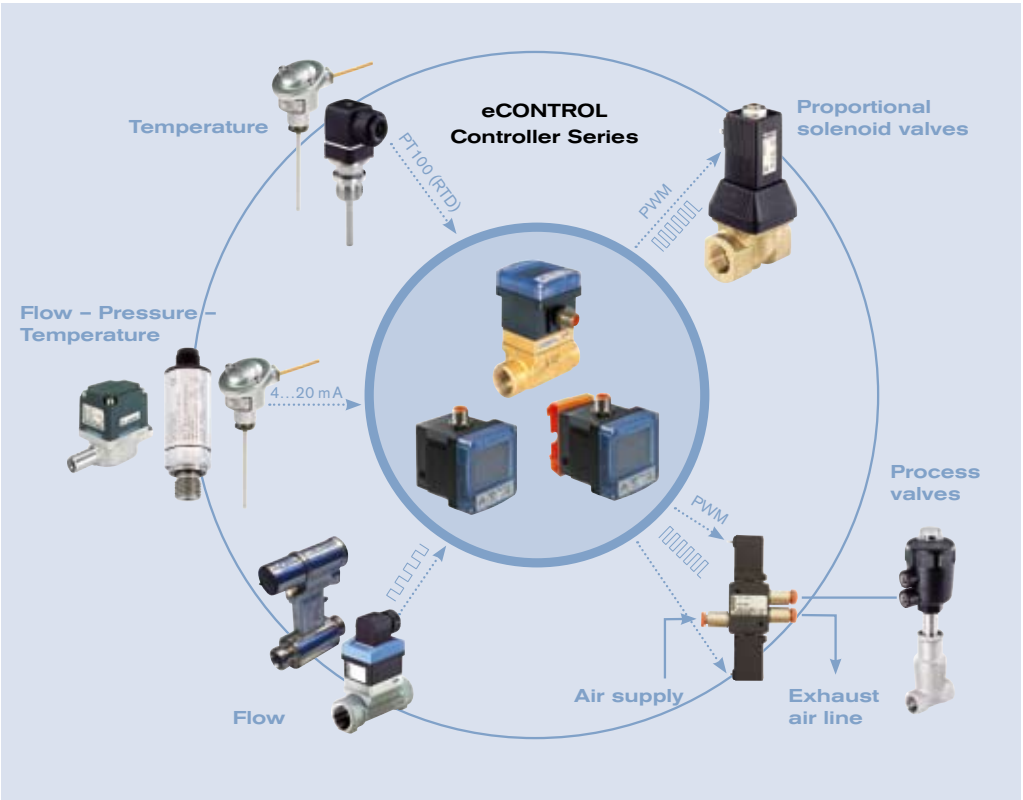
Burkert announces the release of its new 8611 eCONTROL controller. The 8611 saves time, space and headaches in closed-loop cooling systems. With an eye on both process safety and ease of use, the unit fits into a concept which can be easily customized to meet your most exacting requirements. eCONTROL is the first modular control system designed for seamless integration into countless cooling loops. With the increasing quality demands in injection molding, die casting, grinding and many other applications, the 8611 is the only intelligent device where you can completely decentralize your control to gain overall lower equipment and installation costs while at the same time increasing product quality. It is one versatile controller for flow, pressure, and temperature, and is easy to install in pneumatically or electrically driven systems.

The 8611 also links easily to the broad range of all Burkert's range of reliable sensors and control valves. Its compact design allows uncomplicated installation as an integral part of the flow sensor, or as a wall, panel, or DIN-rail mounted controller.

Proportional/integral and cascaded temperature controls with dual indication of process values (i.e. temperature and flow), make this device unparalleled in its field. The open system architecture of the unit's internal hardware and software design allows the system to be customized exactly to your application.

Cabinet with 84 eCONTROL systems

A big success was the installation of a system with 84 simultaneous working flow control loops; consisting of 84 sensors, solenoid control valves and controllers in a plant for producing high-quality paper for the paper printing industry. The picture shows the cabinet with the 84 eCONTROL systems, which includes the 8611 controller. On the back side of the cabinet are mounted all the flow meter and solenoid control valves.



For further information please contact
egon.huefner@burkert.com

Bürkert Fluid Control Systems — Building on Values

Product image campaign 2006

For two years now, Burkert has been working with the Berlin branding agency Wolf in the areas of brand strategy and corporate design. A lot has been done since 2005 to strengthen the Burkert brand.

The three brand pillars—1. Clear brand identity; 2. Attractive corporate design; 3. Consistent communications—have served as the basis for the development of the potential inherent in the Burkert brand.

The first requirement was a clear strategy that defines the brand identity of Burkert. During a number of workshops, Burkert and Wolf jointly defined what differentiates Burkert (positioning), what the brand stands for (values) and what will carry the company on into the future (vision).

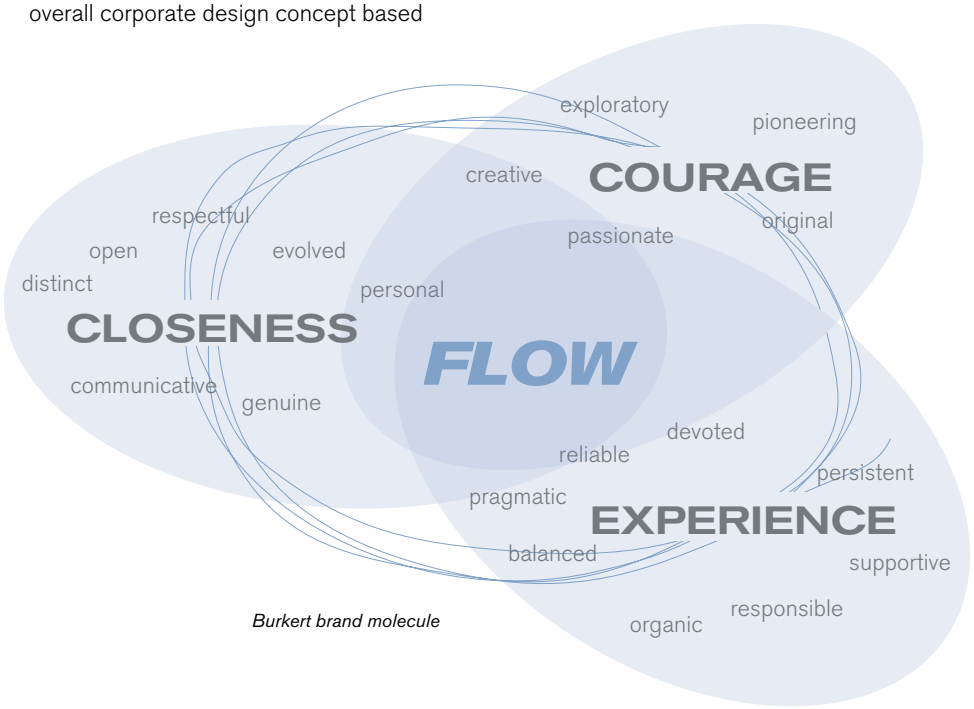
According to the workshops' results the systems provider Burkert has positioned itself as a visionary consultant with a global presence and close proximity to its customers, offering customized and far-sighted solutions from a single source even for complex application problems. This positioning is succinctly expressed in Burkert's brand values of courage, closeness and experience. They form the foundation for the long-term, emotional components of the brand identity, and are the source of inspiration for the daily work at Burkert.

Once the brand identity had been established, it was no problem to come up with the right visual language for Burkert. It is especially important to adhere to a clear line in corporate design, often the first point of contact to any brand. This is the only way to assure recognition of the brand Burkert and its association with the promise defined in the brand identity. Taking this as its premise, Burkert and Wolf jointly developed a consistent and overall corporate design concept based on Burkert's visual roots: from logo, colors, typefaces and image world, to advertisement and brochure layouts, to stationery, telephone greetings, etc.

After all, continuity along the entire chain of communications, in combination with a clear message to the customers, is decisive for the sustained success of the Burkert brand. With this in mind, communications measures were selected which match Burkert and its character, such as a worldwide advertising campaign or sales tools.

Now it is necessary to take care of the brand. Every single employee has to contribute to this goal by living the identity of the company internally and displaying it to the outside world and to the customer.

For further information please contact daniela.mohr@burkert.com



Burkert brand molecule