

# INNOVATION HIGHLIGHTS

*New! Now 3D Service for customers*



The new 3D service meets the increasing need of a large number of our customers for three-dimensional elements for design drawings. For the most popular of our pipe system products, such as pipes, elbows, segments, various branches and inspection pipes, regulating and shut-off valves, or distributors, we now offer this to our customers as a free service, exclusive amongst pipe system suppliers. Our STP/IGS files can be inserted into your 3D design drawings without difficulty. The amount of time you can save by quickly copying and inserting details instead of drawing them is evident. There are several ways in which you can obtain our files for your detailed design drawings as required: we would be happy to send you the files on a DVD (compatible with Windows 2000/XP) – or you can simply download the files from our website: [www.pipe-systems.eu](http://www.pipe-systems.eu). Here you will find the drawings under „Products“. If you would prefer to work with dwg/dxf drawings (2D), this service is still provided, and the files can be downloaded as before from our website.

## NEW DEVELOPMENTS IN SHORT

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## TECHNOLOGY GIVES A HEAD START



The dynamic growth of JACOB PIPE SYSTEMS continues without interruption. The trust that our customers place in the quality of our products is our greatest motivation.

We consider this to be a result of our continuous technical development. With our two new laser welding plants we have recently given further impetus to the high quality standard of our pipe production. These two fully automatic systems represent the state-of-the-art with regard to rounding, welding and flanging using ultra-modern robotics. Also state-of-the-art is the new wire electrical discharge machine that has recently been introduced for tool building. This should increase and secure our market lead in the manufacture of our own tools. Speed and precision are our optimisation targets, which we will carry through to the finished products as benefits for the customer. As a further example, our high-quality series-production flanging can now also be produced in series for XL pipe sizes with diameters of up to 800 mm. Dynamic markets demand responsive and flexible production optimisation and we are happy to meet these demands with a highly motivated and competitive approach. We will continue to direct our investment policy to this purpose. In this way we can meet the constantly changing requirements of our customers in the best possible way. Our aim and challenge is to give our leading market position amongst pipe system manufacturers a further strong thrust forward. This endeavour also significantly reinforces our innovation excellence. The ingeniously simple JACOB earthing bridge, used for the potential equalisation of our pipe systems, is the latest highlight that we have been able to offer exclusively on the market. This new development will soon be on offer for all QUICK CONNECT® pull-ring connections. We already have further new and improved developments, many resulting from customer suggestions, in our focus.

If you stop getting better, you stop being good - this is how we define the demands we place on ourselves. This agility, with an ear for the customer, should also further strengthen our success.

Some of our new products can be found in this newsletter. We hope that this will satisfy your interest in new information.

We are always pleased to receive your comments and suggestions regarding our products and services with attentive interest. We look forward with highly motivated anticipation to the continued development of our cooperation. We would like to take this opportunity to thank you for your confidence in our performance.

Dr. Ralf Jacob  
General Manager

Ralf W. Borchering  
General Manager

# CASE STUDY: *JACOB modular pipework systems in the milling industry*

**WITH THE PATENTED  
JACOB EARTHING BRIDGE,  
ELECTROSTATIC POTENTIAL  
EQUALISATION FOR  
PIPE SYSTEMS  
NOW INGENUOUSLY SIMPLE**

Germany. This made it possible to significantly increase loading capacities. By fully automating the loading line, a significant reduction in loading time was achieved.

from the loading cells to the tank vehicles. The high quality requirements with regard to ease of installation, sealing and safety dictate the choice of the pipe system. The product lines were constructed using stainless steel pipes with a nominal diameter of 250 and a wall thickness of 2 mm. For the aspiration pipelines, primed steel pipes with nominal diameters of 100 mm to 300 mm and a wall thickness of 1 mm were used.



**POTENTIAL EQUALISATION  
USING A TECHNICAL  
INNOVATION**

For the electrostatical potential equalisation between the pipe sections, the innovative JACOB earthing bridge has now been used for the first time. More than 500 of these earthing bridges have been fixed onto JACOB's easy-to-install pull-ring connections using screw fixings. The special wings of this EXAM certified innovative earthing bridge are folded onto the pipe wall after pulling on a cotter pin, making potential equalisation ingeniously

The Kampffmeyer group counts as one of the leading producers of flour in Germany. One of their large production plants is the Ellmühle mill at the harbour on the Rhein, in the Deutz district of Cologne. This mill supplies products to large food concerns, wholesale bakeries and chain stores on both the national and international markets.

**BULK GOODS TRANSPORT AND  
DUST EXTRACTION USING THE  
JACOB PIPE SYSTEM**

The JACOB pipe system was used both for transporting the end products to the various loading lines and for the aspiration system. The full diversity of the modular pipe system, from pipes, numerous fittings, elbows, forks, segments, reduction fittings and connection pieces through to pneumatically operated two-way valves, can be found along the loading line. In the new 60 m high silo, the JACOB pipe system ensures a completely hygienic and perfectly sealed feed system,



The technical equipment is kept up to modern standards via constant development. Grain (rye and wheat) is processed here to produce flour and semolina. The signs point to further growth. Thus in 2006/2007, a completely new loading line, representing state-of-the-art technology, was designed and put into operation by the renowned plant engineer Bühler

## *Trade Show Calender*

With more than 30 representatives located in 26 countries around the world, JACOB PIPE SYSTEMS is widely represented. In 2008, we will once again present our pipe system at numerous trade shows, both at home and abroad. In the following, you will find a selected listing of our trade shows. A more complete, constantly updated list of trade shows can be found on our website at [www.pipe-systems.eu](http://www.pipe-systems.eu). We would be pleased if you could visit us at these shows to exchange ideas and professional experience.

### **ASB-American Society of Baking**

Table top exhibition  
March 2<sup>nd</sup> - 3<sup>rd</sup> Chicago/USA  
Jacob Tubing

### **Salima**

Trade fair for the Food industry  
March 4<sup>th</sup> - 7<sup>th</sup>, Brno/Czechia  
Jelinek-Trading

### **SIMODEC**

International machine tools  
March 4<sup>th</sup> - 8<sup>th</sup>, LA ROCHE-SUR-FORON CEDEX/France  
Jacob Dosatec

### **NCA**

National Coffee Association - small Table top exhibition  
Trade association for the specialty coffee industry  
March 6<sup>th</sup> - 8<sup>th</sup>, Aventura, Florida/USA  
Jacob Tubing

### **easyFairs MAINTEC**

Maintenance & solids handling  
March 11<sup>th</sup> - 12<sup>th</sup>, NEC Birmingham/UK  
Jacob (UK)

### **easyFairs SOLIDS**

Powders, granules and solids processing  
March 11<sup>th</sup> - 12<sup>th</sup>, NEC Birmingham/UK  
TRUDUCT

### **Powder & Bulk Southeast**

South's most comprehensive industrial dry processing and bulk solids handling  
March 19<sup>th</sup> - 20<sup>th</sup>, Charlotte/USA  
Jacob Tubing

### **FLOWEXPO**

11th International Trade Fair for Valves, Pipelines  
Fluid Engineering and Process Industries  
March 26<sup>th</sup> - 28<sup>th</sup>, Guangzhou/China  
Jacob (China)

### **TUBE**

Tube production and working  
March 31<sup>st</sup> - April 4<sup>th</sup>, Düsseldorf/Germany  
Eurotubi / JACOB ROHRSYSTEME

### **ART-TECH**

Trade fair for Air systems & technology  
April 22<sup>nd</sup> - 24<sup>th</sup>, Birmingham/UK  
Jacob (UK)



simple. The JACOB earthing bridge replaces earthing-wire and earthing lugs.

„We found the new innovative „earthing bridge“, that is currently available on the market exclusively from JACOB, immediately convincing as an alternative to conventional potential equalisation solutions. A patently easy-to-install and intelligent technical solution at an attractive price. What's more, expensive welding procedures are completely unnecessary when retrofitting existing systems“, Wolfgang Amelang, Project Manager from Bühler, comments on the decision for the technical innovation.

„The reduced installation time and the simple and safe disassembly for cleaning and servicing purposes speak in favour of the new JACOB earthing bridge“, says Frank Haak, Head of the Technical Department at

Kampffmeyer Mühlen GmbH. „In comparison to earthing lugs with earthing-wire, the earthing bridge has clear cost advantages. Right from the start of operation, our choice of pipe system has proved to be the right one. The safety element for the electrical potential equalisation has shown itself to be an all-round successful solution.“

In the production line of the mill, part of the pipe system for the aspiration/dust extraction process has already been retrofitted with the JACOB earthing bridge. Even when conventional welded earthing lugs and the earthing-wire attached to them need to be replaced, the uncomplicated retrofitting of the earthing bridge in combination with the JACOB pull-ring connection is still possible without the need for any welding works.

## THE INNOVATIVE EARTHING BRIDGE

from JACOB PIPE SYSTEMS is still unparalleled on the market. It makes first-time installation as well as the retrofitting of existing pipe systems for potential equalisation child's play. The installation is completed safely and easily in just a few simple steps. No welding is required, as the bridge is attached to the 2-part JACOB pull-ring connection using simple screw fixings. The galvanised and stainless steel products are EXAM certified. Our customers have been quick to discover the unbeatable advantages of the JACOB earthing bridge. In the short time since its introduction to the market in January last year, around 25,000 earthing bridges have already been sold. In future, the QUICK CONNECT® pull-ring connection will also be available for all pipe wall thicknesses and diameters, to facilitate the universal retrofitting of this successful product.

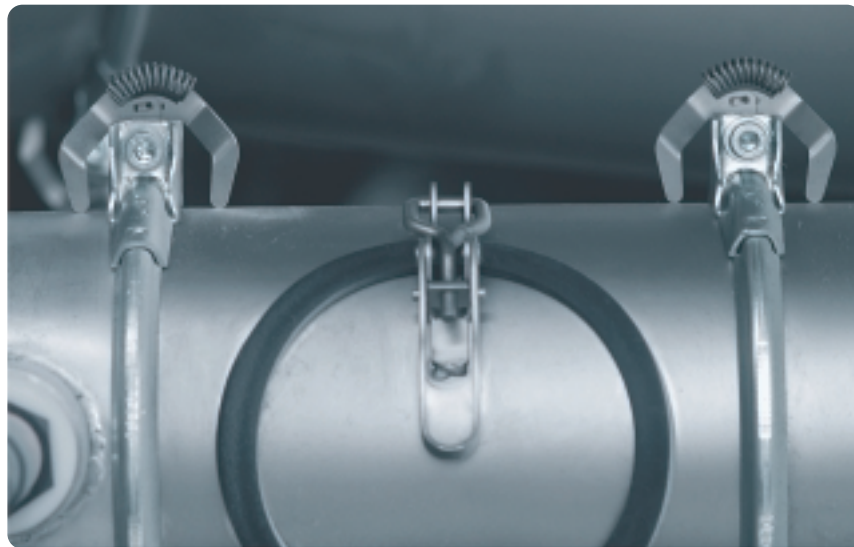


## INNOVATIVE JACOB EARTHING BRIDGE

### Electrostatical potential equalisation between pipe sections made easy

The advantages at a glance:

- simply and securely fitted to a JACOB pull-ring
- „EXAM“ certified
- uncomplicated retro-fitting on site without welding
- cost-savings more than 33 % when compared to earthing-wire & lugs
- additional labour-savings due to shorter installation time



#### SCCA

Trade association for the specialty coffee industry  
May 3<sup>rd</sup> - 5<sup>th</sup>, Minneapolis/USA  
Jacob Tubing

#### International Powder Show

May 6<sup>th</sup> - 8<sup>th</sup>, Chicago/USA  
Jacob Tubing

#### VIV Russia

International Trade Fair for Intensive Animal Production and Processing  
May 27<sup>th</sup> - 29<sup>th</sup>, Moskau/Russia  
Agrotechnology

#### PLASTPOL

International fair of plastics processing  
May 27<sup>th</sup> - 30<sup>th</sup>, Kielce, Poland  
Proorganika

#### Easy fairs Schüttgut/Solids

May 28<sup>th</sup> - 29<sup>th</sup>, Duisburg, Germany  
JACOB ROHRSYSTEME

#### Belagro

Equipment and technologies for agricultural products processing  
June 10<sup>th</sup> - 13<sup>th</sup>, Minsk/White Russia  
Agrotechnology

#### POLAGRA TECH

International trade fair to Food Processing Technologies  
September 14<sup>th</sup> - 18<sup>th</sup>, Poznan/Poland  
Proorganika

#### MSV

International Fair for Manufacturing Systems Engineering  
September 15<sup>th</sup> - 19<sup>th</sup>, Brno/Czechia  
Jelinek-Trading

#### Powtech

International Trade Fair for Mechanical Processing Technologies and Instrumentation  
September 30<sup>th</sup> - October 2<sup>nd</sup>, Nuremberg/Germany  
JACOB ROHRSYSTEME

#### PPMA

UK's annual showcase for processing & packaging machinery  
September 30<sup>th</sup> - October 2<sup>nd</sup>, Birmingham/UK  
Jacob (UK)

#### Industrial Processing

Trade Show for the Complete Processing Industry  
September 30<sup>th</sup> - October 3<sup>rd</sup>, Utrecht/Netherlands  
VDL Industrial Products

#### Process Technology

Scandinavia's leading process technology fair  
October 7<sup>th</sup> - 9<sup>th</sup>, Göteborg/Sweden  
POWTECH AB

#### MAINTAIN

Leading trade fair for industrial maintenance  
October 14<sup>th</sup> - 16<sup>th</sup>, Munich, Germany  
JACOB ROHRSYSTEME

#### Indiachem

International Exhibition & Conference on Chemicals, Petrochemicals and Plastics, Pharmaceuticals, Technologies  
October 20<sup>th</sup> - 22<sup>nd</sup>, Mumbai, India  
Torna Engineering

#### Agromek

Agricultural exhibition  
November 25<sup>th</sup> - 29<sup>th</sup>, Herning/Danmark  
UMS United Milling Systems



## Manufacturing technology: Resolutely increasing the market lead

Behind the high-quality series production of pipe components lies a particular expertise that JACOB brings to bear in the form of their own specially developed tools, manufactured in-house. These tools have always played a key role in the 84-year success story of our pipe system. With our latest investment in the ultra-modern „wire electrical discharge machine“, we have generated further impetus with regard to quality in this area. In a business world where speed is, more than ever before, the determining factor for success, this new improvement represents significant gains in time and quality in the manufacturing of production tools. With electric arc technology, new tool blanks are manufactured to an accuracy of 2 µm. The precision of these tools is then carried through to the pressing and moulding of our high-quality series products. In this way, JACOB's high quality standards are further optimised by the introduction of up-to-the-minute technology.



*Superior precision -  
Electric arc tool  
manufacturing.*



## Product improvements: Split flange with installation advantages

One of JACOB's latest developments initiated by customer feedback is the split flange. It makes retrofitting on site easier than ever. The advantages are particularly apparent in practice, whenever unscheduled situations arise unexpectedly and at short notice. The split flange serves as a counterpart flange for connecting a pipe with a flanged end to an existing flanged pipe.

As a special design solution, the two halves of the JACOB split flange have recesses at the ends for user-friendly installation. This allows the two halves to lock into each other during fitting. With this easy-to-install solution, the halves need not be held in place whilst fixing the bolts.

## Lip flange in series quality, now up to 800 mm diameter

The particularly high precision quality of the lip flange for pipe diameters up to DN 630 mm in the series range is greatly valued by JACOB's customers. A new flanging machine now achieves the same precision in series production for pipe diameters up to DN 800 mm. This accuracy guarantees the best possible connection seal between pipe components from the modular range.



*Strong in series: Quality flanging for  
XL pipes up to DN 800 mm.*

## Contact

### Export Department

Karl-Heinz Burmester,  
Phone +49 (0)571 9558-234

Peter Barendt,  
Phone +49 (0)571 9558-239

Thomas Granz,  
Phone +49 (0)571 9558-327

Jan Sundermann,  
Phone +49 (0)571 9558-329

### Marketing

Thorsten Meinsen (V.i.S.d.P.),  
Phone +49 (0)571 9558-181

Fr. Jacob Söhne GmbH & Co.  
JACOB MODULAR PIPEWORK SYSTEMS  
Niedernfeldweg 14,  
D-32457 Porta Westfalica,  
Phone +49 (0)5 71 95 58-0,  
Fax +49 (0)5 71 95 58-160,  
post@jacob-rohre.de,  
www.pipe-systems.eu  
www.tubing-systems.net

## Simply good - Two-way valves made by JACOB

The quality of the JACOB two-way valves, which is exemplary in the market, results from specific know-how with respect to press-moulded half-shell production.

The extended bulging shape, produced using precision tools that we developed ourselves, makes it possible to construct an inlet collar that is large enough to prevent any reduction in cross-section. This also protects it from wear, which is particularly advantageous where sensitive products are to be conveyed. The form is pressed flat from the sides, which allows the inner flap to close more effectively.

Customers who require two-way valves with a particular outer diameter usually expect that the internal diameter will be correspondingly large. In practice, however, considerable reductions in cross-section, depending on the type of construction, are in fact the norm. With authentic JACOB quality there are no such surprises. This, along with the aspects of accuracy of fit, greater leak-tightness, a wear resistant design and unproblematic disassembly and replacement of parts, accounts for the convincing quality of the series product.

