



The beginning of April saw DOPAG (UK) Ltd at the National Agricultural Centre in Stoneleigh for the annual Fastenex exhibition, specialising in all types of fastening systems, including adhesive application.

The exhibition provided a marvellous opportunity to both publicise DOPAG (UK) Ltd and for us to meet new and existing customers as well as material manufacturers.



Meet Tom Heath



Meet Tom Heath, DOPAG (UK)'s newest recruit, who recently joined the UK team as Service technician.

Tom is 25 years old and is an apprentice trained mechanical engineer who is already well experienced in servicing DOPAG equipment.

In his spare time Tom enjoys rebuilding cars and motorbikes as well as taking part in Motocross racing.



DOPAG France entertain major lubricant manufacturer

The long, hot summer of 2003 certainly had no detrimental effect on the success of DOPAG France's in-house exhibition at Valence in July, when one of the world's leading lubricant suppliers sent along 27 of their sales team to learn more about the latest developments in DOPAG's extensive range of equipment specifically designed for pumping and metering lubricants.



Klüber, whose headquarters are in Munich, Germany, have been in the lubricant supply business for over 70 years and employ 1470 people worldwide. Delegates were able

to enjoy a "hands on" experience and try out some of the equipment for themselves to gain a greater understanding of how lubricants are applied.



Commented DOPAG France Marketing Manager Florent Vercasson, "Our companies share the same market-place, so we are frequently talking to the same customers. Events such as this help to develop a mutual understanding of each others products that can only lead to benefits for our customers as well as each other."



The World's leading



DOPAG France were active at the end of March at the JEC Composites show in Paris, where they exhibited a representative range of DOPAG products used in the processing of resins for composites.

Showcased in particular was the BOOSTER-MIX machine, designed to meter small percentages of accelerator into high viscosity single component adhesives, alongside VARIO-MIX and ELDO-MIX two component meter, mix and dispensing machines, widely used in the composites industry.

If you would like to receive more information about any of the items in this edition of EXACT! please write your name and the title of the article of interest and send it to one of the addresses below:

Name: _____
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Exact!



Hilger u. Kern / Dopag Metering Technology



2 The Bristles Won't Come out! Childproof Joints



3 Happy Landings



4 News, Peoples, Events



Having trouble pumping directly from IBC's? Well, not any more if you make use of DOPAG's clever new portable, horizontally mounted, high pressure transfer pump.

Based on the standard DOPAG 48:1 ratio drum pump, the unit is fitted with an extended fluid pump tube which allows it to slide effortlessly, directly through the outlet valve of the IBC right into the centre of the container, ensuring perfect priming every time, without fear of air entrapment. An integral quick coupling makes for a perfect seal.

A portable hydraulic scissor lift means vertical alignment is a simple operation, ensuring that changing a container is a quick, clean and cost effective process.

It just couldn't be easier!

It is with a great deal of pride as well as pleasure that we are able to present to you this first edition of «EXACT!», a regular newsletter from the Hilger and Kern/Dopag group.

We have created EXACT! so that we can keep you informed of news of interesting applications involving DOPAG metering and mixing systems, as well as the latest news of customer support and distribution.

The main target groups for EXACT! are our international customers and prospective customers from all the industries that we serve, along with other important groups such as material manufacturers and prospective customers in specialised market niches.

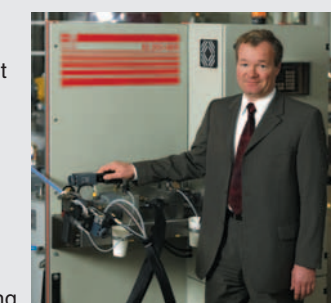
We will bring all these groups of people the latest news and developments from one of the world's largest manufacturers of metering and mixing systems.

Finally, it is our intention to utilise EXACT! to actively transfer information and knowledge to our world-wide distributors and their employees.

Initially, we will publish EXACT! three times each year, in English, German and French.

It is our sincere hope that EXACT! will provide readers with a genuinely interesting and useful source of information in the field of industrial metering and mixing technology.

Yours sincerely, Frank-J. Kern, Managing Director



Are you Sitting Comfortably?

DOPAG cooperates with SIKA on office chair project



As a result of extensive testing in conjunction with Sika and a leading office chair manufacturer, DOPAG has played a significant role in opening up new possibilities in product assembly, including the efficient production of ergonomically advanced office chairs. Following on-site trials, Sika selected a two component ADP (acrylic double per-

formance) adhesive called SikaFast 5211, as the optimum solution for bonding the various components that make up the backrest of the chair.

In the meantime, DOPAG took care of the design and construction of the most suitable equipment to be integrated with the robotically controlled metering and mixing system, finally opting for the VISCO-MIX 80.

The automated system lays a bead of ADP onto the base frame of the backrest, after which drapery netting is laid and stretched into the press.

A second bead is then laid as soon as the first bead has reacted, which takes

approximately 3 minutes, after which the frame is ready for assembly.

As the adhesives contain acrylics, all the wetted parts of the VISCO-MIX 80 are manufactured from stainless steel.



The Bristles Won't Come out!

ECONO-MIX perfect for brush potting



every type of market, from DIY to professional standard.

Awarded the Royal Warrant in 1961, the company is proud of its reputation for the quality of its products.

Part of their production process involves metering, mixing and dispensing two component epoxy resins into brush ferrules to firmly fix the bristles. When the time came to replace its aging adhesive dispensing machines, they chose DOPAG ECONO-MIX

machines, which are widely used in the brush making industry for this and other similar applications such as applying adhesives to paint roller substrates.

The different shot sizes needed for the different brush sizes are accommodated by a simple timer control panel.

Typical application rates are up to 120 shots per minute, with volumetric repeatability within 5%.

The mixing head is mounted onto a horizontal arm, which is positioned above a smooth top table, onto which the operator places the tray of ferrules with bristles already inserted, ready for dispensing.



Using the DOPAG ECONO-MIX is far less wasteful of material compared with outdated machines that rely on dynamic mixing, often found in this industry, and offers a cost effective method of replacement whilst ensuring that L.G.Harris's famous slogan "The bristles won't come out" remains as true today as it ever did.



Situated in the village of Stoke Prior in Worcestershire L.G.Harris & Co Ltd is one of the best known names in the UK paint brush and roller manufacturing industry.

Founded in Birmingham in 1928, the company escaped the grime of the pre-war industrial "City of 1000 trades" in 1936, for the peace and quiet of the lovely Worcestershire countryside, where it has steadily developed and grown over the intervening years. Today, L.G. Harris & Co Ltd produce up to 40,000 paint brushes every day from 1/2" up to 4" wide, for

Childproof Joints!

South of Berne lies the Bernese Oberland, the Alpine heart of Switzerland, a massively impressive region of classic Swiss scenery – high peaks, shear valleys and cool lakes. At the easternmost tip of lake Brienzensee, nestles the quiet town of Brienze a famous centre for woodcarving, producing many fine quality hand carved objects such as figurines and nativity scenes.

It is in this woodworking tradition that the long established company of Flueck thrives, manufacturing quality solid beechwood furniture, specialising in pieces for kindergartens, play schools and libraries.

In order to improve the longevity and constructional stability of their products, Flueck have recently changed part of their assembly process.



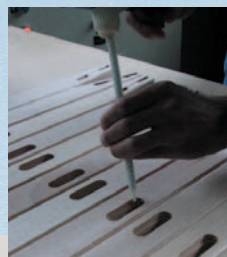
Water based single component woodworking adhesive is conventionally employed for gluing joints in the furniture industry, but despite extremely close tolerance machining, the water content of the adhesive can sometimes cause the timber to shrink, which can result in a less than stable joint.

A two component polyurethane material supplied by COLLANO HOLZLEIMBAU, known as Purbond CR451 was eventually chosen to replace the water based adhesive and a DOPAG ELDO-MIX 101 was chosen to meter, mix and apply the adhesive at the correct 2:1 mix ratio to the joints.

The DOPAG ELDO-MIX 101 is an ideal machine to accurately meter the small volume shots that are required in furniture joints, where it is important that sufficient adhesive is dispensed to make a solid joint, without over filling, which would cause adhesive to be visible after assembly, resulting in an unacceptable quality issue.

The adhesive is supplied to the joints via a DOPAG twin "snuffer" valve fitted with a pneumatically actuated trigger mechanism and a disposable plastic static mixer, following which the pieces of furniture are assembled and placed into a fixture to ensure that the joints are always cured in exactly the right position.

The effect has been such that Flueck now guarantee their products against defects for 5 years, which as any parent knows is no mean achievement!



Happy Landings

DOPAG VARIO-MIX runway joint sealing system smooths the way



Next time you fly into Heathrow airport, chances are that you will not give the state of the runway much thought. That may be because hopefully you have just experienced a nice smooth landing, due in part at least to a DOPAG VARIO-MIX.

Runways are laid to concrete, which of course require expansion joints to cope with temperature variations. Expansion joints in aircraft runways are typically between 10mm and 30mm in width and these must be filled with a flexible sealant.

Traditionally, this has been accomplished by the use of hot poured bitumen based systems, but now a two part elastomeric sealant system, especially formulated for sealing concrete pavement joints is in use at many airports throughout the UK.

Known as Rallithane 872 and produced by Stag Limited of Uxbridge, the sealant has several significant advantages over conventional sealant materials.

Hot applied bitumen based systems are typically carcinogenic in nature and there is always a risk to the operator of sustaining burns during the application process. There are no such health and safety concerns when using the polyurethane based system.

Additionally, the expected life of the joint, at 20 years, is twice that of traditional systems, making Rallithane 872 a very attractive option.

This is where Kent based SHAW SEAL COMPANY LIMITED, have been able to put their experience in the joint sealing business to good use. Established almost forty years ago, originally sealing window and door frames in private houses, they quickly progressed in the construction industry to sealing pre-fabricated and high-rise buildings.

Subsequently, many years of experience in building and using sealant application equipment for highway maintenance on



Britain's motorway network has placed Shaw Seal in the ideal position to be able to take advantage of new developments in sealant technology when they arise.

Rallithane 872's resistance to hydraulic fluids, oils, fuels and jet blast make it suitable for many areas at airports, such as taxiways, hardstanding and fuelling areas as well as runways, so following extensive trials through the Pavement and Infrastructure team at Gatwick Airport, it has been adopted for use at all B.A.A. airports.

Commented Shaw Seal Managing Director Alan Shepherd "70% of our business is now airport orientated and we are contracted to all seven of B.A.A. airports, from Aberdeen to Southampton. We have also recently secured the order for terminal 5 at Heathrow Airport."



portable trailer that can easily be moved around the runways as work progresses.

A hydraulic power pack, also trailer mounted, drives the VARIO-MIX. The "A" and "B" components are fed from 150 litre and 60 litre size pressure feed containers respectively, both of which are fitted with battery powered low level devices, to ensure a constant feed of material.

A recirculation facility allows the materials to be pre-conditioned prior to dispensing, a device that can also be used to base purge after completion or during short stoppages that encroach on the working time of the material, thus eliminating the need for solvents.

8 metres long flexible hoses feed the proportioned materials to the application gun where they enter a steel static mixer, fitted with removable elements for ease of cleaning.

A specially designed application lance and nozzle applies the mixed material into the joints, producing perfect bump free take offs and landings every time.



STAG Rallithane **872**