Issue No. 2.

Exact!

Hilger u. Kern / Dopag
Metering Technology

DOPAG opens new branch in Italy

Find out the customer's requirements, design the solutions and market them successfully. This has been the basis of DOPAG's success for almost 30 years.

In 1976, the company's few founders set out to make high quality, precision components for piston pumps, gear pumps and metering valves.

Today, DOPAG is one of the world's largest manufacturers of metering, mixing and dispensing equipment.

And now, DOPAG products, systems and spare parts are exclusively available in Italy, direct from DOPAG's new facility in Turin, to end users and OEM's alike.

General Manager Mario Vaglietti believes that this new approach will result in better service, faster deliveries and more competitive pricing, all of which will of course benefit our customers.

Remote Control

New from DOPAG is a range of material pressure regulators that allow the application pressure of materials to be controlled remotely.

Material pressure regulators are an important element of any fluids handling system as they are used to to reduce the output pressure of a pump to the desired application pressure. They also dampen flow surges on start up and during pump stroke changeovers.

In order to minimise the pressure drop between the regulator and the dispensing valve - and hence achieve maximum accuracy when dispensing, the material pressure regulator is normally located as close to the dispensing valve as possible.

This can however, present a problem in many processes, such as when dispensing in automation cells or difficult to access or hard to reach areas, where the pressure still needs to be adjusted from time to time.

In instances such as these, DOPAG'S new remotely controlled material pressure regulator can still be located adjacent to the dispensing valve whilst the pressure is selected from a position convenient for the operator.

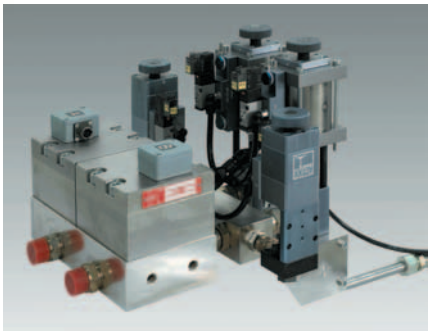
Silicone dispensing - the innovative solution

The recently launched DOPAG SILCO-MIX V200 is an innovation in the dispensing of two component silicones.

The SILCO-MIX V200 relies on rock-solid standard DOPAG P200 double acting, ram mounted piston pumps in order to feed the components from the drums, whilst making use of VOLU-MIX technology, to meter the two components prior to dispensing.

The VOLU-MIX principle utilises gear type flowmeters, characterised by extremely high metering accuracy.

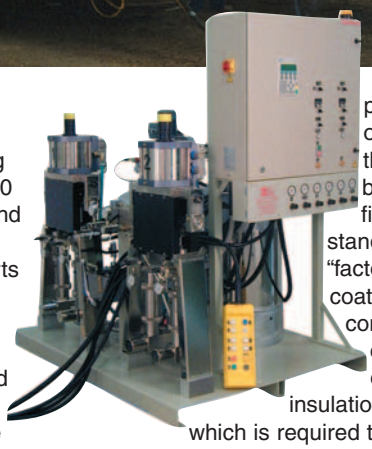
The SILCO-MIX V200 has been designed principally for use with lower viscosity silicones in the manufacture of small components with a variable mixing ratio which is continuously monitored.



Joint Decision

Pipe laying made easy!

Burnley based company, Pipeline Induction Heat (P.I.H.) have been involved in the Field Joint Coating of oil and gas pipelines for over 20 years, working in many diverse and inhospitable regions of the world such as the North Sea, the deserts of North Africa and the jungles of Indonesia.



Pipelines are typically constructed from single pre-coated pipe lengths, which are welded on-site into a continuous string. An area at the end of each pipe is left bare to prevent damage by the welding process, but once welded, this area must be coated in the field to the same standard as the "factory applied" coating. One type of commonly used coating offers excellent insulation properties which is required to maintain the temperature of the pipeline product.

Installation of this coating involves blast cleaning of the welded area, induction heating and the application of a primer prior to placing a mould over the joint, followed by injection of a two-component polyurethane.

The exact mixing of the two components is critical to ensure development of the material properties.
Whilst applying the insulation coating to the highest standard, modern construction methods demand fast and repeatable installation techniques. Typically around 8 joints are completed every hour.

Equipment therefore, must be accurate, reliable and built to last, as any downtime experienced is subject to substantial on-costs. This is where DOPAG has been able to offer its expertise to provide custom designed systems to meet the extreme requirements and conditions of a process of this nature.

Using standard VARIO-MIX modules as a basis for the systems, DOPAG have been able to design systems to exactly meet the stringent specifications laid down by P.I.H. The modules comprise of twin VARIO-MIX machines, each fed from heated pressure feed containers, themselves being fed from 200 litre size drums by transfer pumps.

Level control and automatic "off-ratio" alarm by means of flow monitoring equipment are just two of the quality control safeguards incorporated into the systems. Each joint requires approximately 25 litres of polyurethane to be injected into the mould at a mix ratio of 2.37:1 by volume. Less than 2 minutes are normally allowed for the injection sequence.

Delivery is also of the essence, as contract start dates are not flexible. Said P.I.H. Engineering Manager Damian Daykin "This is an important part of our decision process. If you want the work you must be there on time. If you deliver machines late, we don't want them – DOPAG delivered the machines on the day! This is the service we require."

"DOPAG delivered the machines on the day!.... This is the service we require"

Damian Daykin, Engineering Manager P.I.H.

Healthcare Takes a Step Forward

Advanced granular/polymer mixing system

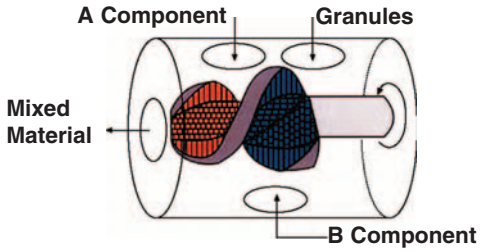
When Otto Bock, the giant German based global leader in healthcare products, who specialise in prosthetic and orthotic components, needed to mix and dispense a granular bulk material with a two component polymer, they approached the Hilger u. Kern / DOPAG Group.

Always in the forefront of the development of industrial metering and mixing technology, this extraordinary request presented us with the opportunity to find an extraordinary solution.

Mixing a bulk granular material with a two component polymer changes the characteristics of the material substantially and has a number of advantages, such as improving the elasticity and resilience of the product as well as reducing the weight.

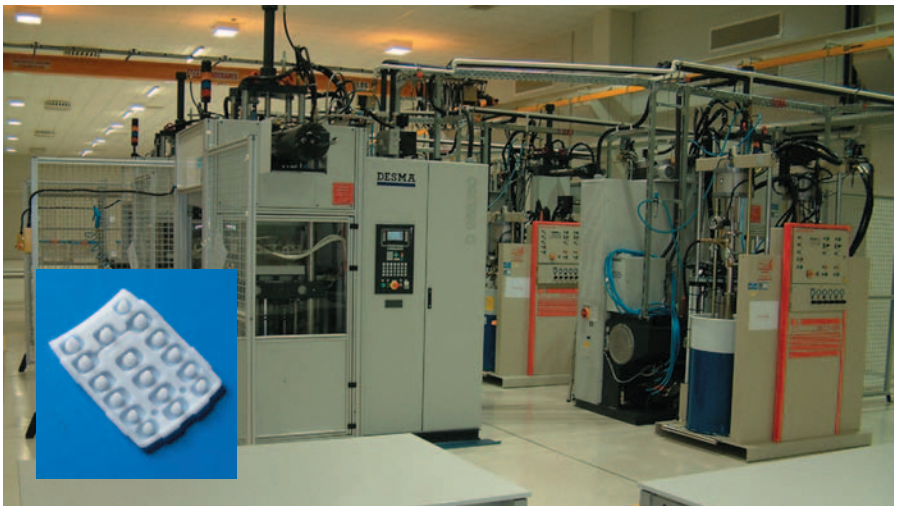
Following intensive research, development and testing, a special mixer was produced that in conjunction with a DOPAG ELDO-MIX 303 gear type proportioning machine, homogeneously mixed all three components by means of a dynamic multi spiral system with fine stepped material "whirl" channels.

Filed for registration of a new patent, this quality solution to a difficult technical problem will now be used to help improve the quality of life of people with limited mobility.



Hungarian Revolution!

Sunarrow invests in five more DOPAG SILCO-MIX machines



With the opening of a new factory in Hungary by the Japanese company Sunarrow Limited that is planned to serve both the Western and Eastern European markets, DOPAG have become an integral part of the global “mobile revolution.”

Mobile telephone applications and appliances are constantly developing and Sunarrow Limited’s keysheet designs also continue to evolve, driven by the ever increasing desire by consumers for additional functionality.

As a major provider of silicone rubber products to such household names as Nokia, NEC, Motorola, Sony Ericsson, Mitsubishi and Siemans, Sunarrow’s intensive research and development programme has continued to create new products that have become important parts of many mobile communication products.
Founded in 1959 in Tokyo, Sunarrow already operates plants in a number of overseas countries including Thailand, China and Finland as well as affiliate companies in the U.S.A. and Canada and are well experienced in the use of DOPAG SILCO-MIX machines for pumping, metering, mixing and dispensing liquid silicone rubbers.

In their brand new plant in Hungary, which was established in the autumn of 2003, it was therefore of no great surprise when Sunarrow chose to once again to invest in DOPAG SILCO-MIX PH200 machines to process and feed the WACKER two component liquid silicone rubber to their five DESMA injection moulding machines.

The DOPAG SILCO-MIX PH200 was especially developed to process liquid silicone rubbers using the liquid injection moulding (LIM) process. The machine has a fixed mixing ratio of 1:1, and feeds directly from standard 200 litre size drums.

Both components are drawn from the drums and metered precisely, by the use of metering piston pumps with hydraulic-pneumatic drives. The patented process guarantees absolute synchronisity of the two metering pumps.

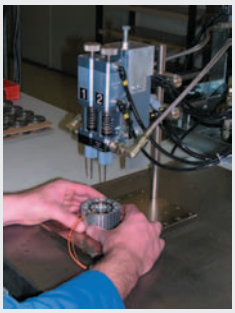
The two components are then mixed in a static mixer prior to entering the injection moulding machine, where high quality, components are consistently produced.

Another Satisfied Customer!

Portescap replace MICRO-MIX after 20 years

When Portescap discovered that spare parts for the DOPAG MICRO-MIX they had been using for the last 20 years were no longer available, they took the inevitable decision to replace the machine - with another DOPAG MICRO-MIX, but this time with the latest model, the MICRO-MIX B PLC.

Located in the Western part of Switzerland in the town of La Chaux-de-Fonds, Portescap are part of Danaher Motion, an international company who engineer, manufacture and market some of the world’s top brands of mechanical and electro-mechanical products, including DC motors, gear motors, digital linear actuators and stepper motors.



Encapsulating the coils with a two component epoxy resin manufactured by Permabond, is an important part of their production process.The resin components must be accurately proportioned by volume at a ratio of 100:60 and at a closely controlled temperature and shot size.

The MICRO-MIX B PLC easily achieves these objectives and is also able to store up to 12 different programs which can be selected by the operator depending on which batch of motor coils are currently in production.The operator has access to the Siemens S7-224 PLC which controls the resin and solvent levels in the pressure feed containers, the flushing sequence, the agitator speed in the pressure feed containers as well as the material temperature and shot size.

A pair of dispensing valves are used to deposit the mixed resin onto the components in order to achieve an even spread around the coil.

A vertically mounted ”Z” axis allows the valves to move close to the component during the dispensing operation, withdrawing automatically when the dispensing is complete.

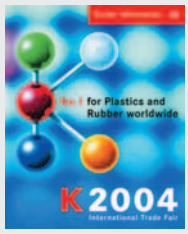
We are happy to think that Portescap will enjoy the same level of longevity with their new MICRO-MIX that they have been accustomed to with their previous machine, although we have already pencilled in our diary to check their needs in 2024!

Welcome Arne

A warm welcome to Arne Einemo who joined DOPAG's Norwegian distributor, Norsecraft Maskin AS in January of this year. He is responsible for the sale of all DOPAG equipment in Norway.

Arne, who lives in Oslo with his wife Inger, has a background in technical and economic studies and has many years practical experience working on major projects for international companies. His ability to work with customers to find the best solutions will stand him in good stead in the Norwegian market.

Look out for us at K2004



20th October 2004 sees the start of the massively popular K fair in Dusseldorf, Germany.

As one of the world's largest producers of mixing and metering systems, the Hilger u Kern / DOPAG group will of course be exhibiting.

You are most welcome to visit us on stand B43 which will be located in hall No.13, where we would be delighted to meet you in person and keep you informed of our latest technology for the processing of polymers and single component media.

In house training in Belgium

The beginning of March saw DOPAG at the Brussels premises of our Belgium distributor, IV Finishing, to conduct an intensive training course, focussed on the single component market.

Eight delegates attended twice the two day session, aimed at internal and external sales staff as well as support staff.

Snake Charmer!

Have you ever wondered just who it is that answers the telephone with such a cheery voice when you call DOPAG in Cham?

Well, that charming and efficient voice belongs to Petra Berger, DOPAG's Secretary Assistant, whose job it is to redirect all incoming calls arriving at the main switch-board. Petra speaks several languages, which of course is a very useful attribute in her job, which she has been expertly performing since she joined DOPAG two years ago.

In her spare time, Petra unusually keeps exotic pets including tropical spiders and snakes, which she loves.

A real snake charmer you might say!

DOPAG marketing group

Pictured (right) are members of the DOPAG marketing group who meet in Cham regularly to review, discuss and formulate marketing communications and promotional activities for DOPAG.

The group comprises (from left to right) Peter Schoepper (Germany), Sandra Iten and Alois Tschopp (Switzerland) and Bob Jones (UK). Although not in the picture, Florent Vercasson from DOPAG France is also a member of the group.

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