

Press information

16th March 2010

GrindTec 2010: Europe's platform for novelties and innovations – a review by Peter Merkel

In spite of the very difficult general conditions, the GrindTec is clearly growing further, even in the year 2010: + 14 % exhibitors, + 10 % exhibition area. And even the range of products presented by the 400 participating companies is more comprehensive than ever.

There are 25 exhibitors just showing **cylindrical grinding machines**. And the amount of companies supplying **abrasives** is even higher – you have 60 suppliers to choose from. And those are only two examples. Probably one day will not be sufficient to visit all you need to see, unless you have planned your visit well in advance over the internet. You can plan all you like in total comfort under www.grindtec.de, Exhibitors' search. These pages are intended to show some highlights of the trade fair. Of course, this can by no means be called complete.

Although there have been considerable further developments in grinding machines, there are not really any technical breakthroughs. For example **Voumard** has further developed its standard cylindrical grinding machine and improved it as far as precision and automatisisation are concerned. By the way, hydrostatic slides driven by linear motors achieve a speed of up to 20 m/min. With their model Elektra UA **Tacchella** is showing a machine which can be equipped with 1 grinding disc on the left and one on the right, or 2 left grinding discs, each with integrated motor spindles, or one on the right and two internal grinding spindles, or two motor spindles each for 2 outer grinding discs. **Peter Wolters** has newly acquired the MICRON machine series, which is aimed at deep grinding, profile grinding and heavy duty grinding. These machines are equipped with linear bearings, recirculating ball screws and digital motors. Cutting-grinding also belongs in this sector. **P&S Maschinenbau** in Cham manufactures a cutting machine for carbide profiles. Solid carbide rods with a diameter of 3 – 6 mm and up to 500 mm in length can be cut from the magazine with length tolerances of +0.05 mm. On the Hauser stand you can admire jig-grinders with nano-interpolation. This means that instead of the dissolution of 0.1 µ, which is still usual in machine-building, it is possible to operate with a dissolution of 0.01 µ. According to this the digital feeders receive the feed commands in steps of 1 nm. **Jugard + Künstner** is showing a universal cylindrical grinding machine by **Kellenberger**, a jig-grinder by **Hauser**, a **Gering** honing machine and the universal finishing machine Center-Star by **Thielenhaus**. This means the grinding workshop can be completely equipped by one supplier. **Häberle Feinmechanik CNC-Technik GmbH** is introducing a novel 5-axe machine concept. This means that with one clamping the 5-axe CNC machine can carry out different operations all around the

carbide tool. The **Sunnen** cross-grinders have also been further developed, and are being presented by **Hommel**. The user-friendly PC controls with a touchscreen, which supports quicker setting-up, are of particular interest. After the Nortec and the Metav, **Supfina** is now exhibiting its new LeanCostMachine at the GrindTec. This modularly built machine can in particular be used for smaller quantities and is both low cost and flexible in use. Whether they are fixed in place, are manually adjustable or CNC controlled, up to six Supfina attachments for stone and band finish as well as brushing and polishing equipment can be used at once. All the modules can be integrated in the machine without any extra work.

In addition to the machines there are countless other things, which just belong to tool grinding – and not only there. **Saint-Gobain** is exhibiting as a supplier of systems and showing an innovative dressing system, which revolutionizes the dressing of special profile discs. In addition there is a new, chemically manufactured ceramic aluminium oxide to be admired. Also there is a TGX grinding disc in a ceramic compound for flute grinding. Through the natural porosity the grinding force could be greatly reduced in comparison to standard discs. At **Diametal** a synthetic resin disc from the new series of bonds is impressive with its convincing contour accuracy. **NEO DRESS** from Switzerland is placing all its bets on diamond dressing tools, which are made exclusively from best quality monocrystalline natural diamonds (AAA). **Medoh** GmbH offers VDV diamond and boron nitride tools in new dimensions. The diamond grains are welded together in a special vacuum diffusion bonding process. The grain density is significantly higher than with a sintering process or galvanic coating and it reaches top values of up to a 70 % proportion of diamond. Ambitious DIY addicts will also find something for their workshops at the GrindTec. **AKE Knebel** is showing high-quality tools for sawing, drilling and mortising at attractive prices. Another interesting and exotic company is **Nero**, which is presenting knife grinding machines.

However, grinding processes also require **peripheral devices and accessories**. Two examples are the newly formulated high-performance grinding oils by **Shell Macron**. Chlorine-free and with a low vaporization loss, they are also friendlier to the environment. In the field of measurement technology **Renishaw** has a recommendable resistance strain gauge technology. This has better repeat precision of the switchpoint - 0.25μ 2Sigma. **Marcel Aubert** exhibits two video-optics for simultaneous measurement of diameter and length in the system known as Rotativ. **ISBE** offers virtual tool design as an interlocked chain of intricate methods and steps, which considerably increase the efficiency of the development process and the quality of the resulting tool and the chipping process. **Platit** is offering new ready-made coating systems, including for new coatings such as triple coatings as a combination of conventional and nanocomposite coatings, universal triple coatings for difficult chipping tasks, triple coatings for micro-hobbing, triple coatings for hard milling, and diamond-like coatings for parts and mould tools.

Chuck tools – The parts always have to be clamped in order to process them. **Forkardt** offers chuck tools for the precision clamping of tools throughout a broad chucking capacity. This highly precise device considerably reduces the setting-up time. The long, slim TENDO SVL hydro expansion extension from SCHUNK is an impressive solution, both economically and technologically. With this innovation SCHUNK sets a new standard in toolholder extensions. The 150 or 200 mm long TENDO SVL does the job without any auxiliary equipment and converts almost any precision toolholder into a highly flexible specialist for narrow spaces - independently of the spindle interface. Its precise run-out < 0.003 mm and excellent vibration dampening, not to mention an internal coolant supply, ensure outstanding machining results and long tool service life. The fine-balanced TENDO extension allows quick tool changes using only an Allen key. Its clamping screw is operated radially from the side, which is an innovative feature for toolholder extensions. The extraordinarily high torque ensures that tools are held securely for all drilling, reaming and finish milling operations. A single TENDO extension can be fitted with a variety of standard tools, making expensive specialist tools or shrink systems unnecessary.

Obviously dust is formed during grinding processes. **ESTA** Apparatebau's Dustomat dust extractor represents a new generation in three power settings. It has not only been technically but also optically improved, is easier to use and can be working in the background as a "helper".

Well, that is the end of our stroll through the GrindTec 2010 – but wait! There are two more things worth mentioning: **Cumdi** S.r.l. from Italy offers carbide workpieces, which they themselves grind to the customer's specifications as round, square or oblong rods. In addition **EXTRAMET** AG from Switzerland offers new kinds of carbide, which have been especially developed for materials that are difficult to chip.

That was a short and by no means representative review of the GrindTec 2010, which, with its 400 exhibitors, naturally has many more novelties and further

developments on show. You will be able to get your own impressions when you stroll around the trade fair.

Further information

AFAG Messen und Ausstellungen GmbH
Winfried Forster
Manager Communications Department
Messezentrum
D-86159 Augsburg, Germany

Tel. +49 (0)821 – 5 89 82 – 143
Fax +49 (0)821 – 5 89 82 - 243
eMail: winfried.forster@afag.de
Internet: www.grindtec.de

Project Management GrindTec 2010

Manager: Joachim Kalsdorf
Assistant: Sandra Kammerlander

Tel. + 49 (0) 821 - 5 89 82 – 390
Fax + 49 (0) 821 - 5 89 82 – 399
eMail: grindtec@afag.de