

The Junker Group

EXTENDS GRINDING MACHINE RANGE WITH CORUNDUM LINE

The Junker Group has extended its range of grinding machines: With its new Zema corundum line, the company is offering efficient solutions for conventional grinding. Versatile, robust, durable—Junker corundum grinding machines fulfill the requirements of series production for a wide range of different workpieces. The CNC grinding machines grind elements such as flanges and journals on crankshafts as well as gear, turbocharger and cardan shafts or spray nozzles with the utmost precision and reliability. In total, the corundum line comprises three models, each of which has different focal points.

The Numerika is designed for the series production of a wide variety of different workpieces—up to a length of 3.50 meters in the biggest model. The cylindrical grinding machine Kargo takes ultra-heavy workpieces such as shafts for generators or electric motors with weights of up to six tons easily in its stride. Rounding off the range are the Flexa corundum grinding machines, which are capable of solving up to three grinding assignments with the utmost precision. Whether internal or external grinding and even thread grinding: The modular design of the robust Flexa series makes it ideal for small and medium-sized production runs.



These corundum grinding machines are the ideal addition to the CBN high-speed grinding machine series from Junker. They come with a robust machine bed, hydrostatic guides and grinding spindles mounted on rolling or hydrostatic bearings as standard. A user-friendly control system comes with all the necessary input masks for precision corundum grinding and excellent surface quality.

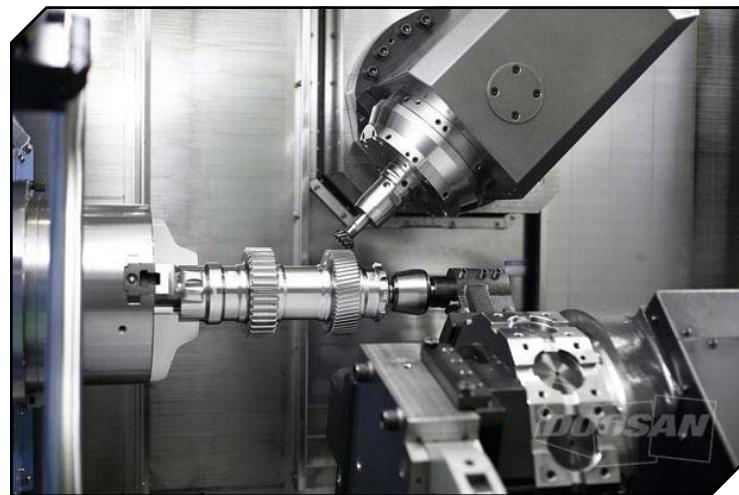
Designed for integration into production lines, the corundum grinding machines also come with a high level

of automation. At the same time, they offer the flexibility needed for grinding workpiece families: Several types of a workpiece family can be stored in the control system, allowing a quick change-over from one workpiece to another in production. To ensure a trouble-free production sequence, the corundum grinding machines are also equipped with automatic loading and unloading systems.

For more information:
 Erwin Junker Machinery, Inc.
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www.junker-usa.com

Doosan Machine Tools America

INCREASES CAPABILITIES OF MULTI-TASKING TURNING CENTERS



If you want to turn out more completed parts on a single machine with less operator time, Doosan has released the PUMA SMX ST series. These super multi-tasking turning centers have axes everywhere. Both left and right spindles are capable of high accuracy C-axis control and the machine can perform various machining functions like turning, milling and synchronized cutting all with a single set-up.

The ST models come with all the advantages and features of the SMX series. For starters, they have high-rigidity machine construction, minimized thermal deformation via oil coolers, an accuracy control feature based on multiple thermal compensation functions and a Y-axis machining area that has been maximized through orthogonal design. Along with the largest machining space



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among the same-class machines, they come standard with Doosan's famous ergonomic features that enhance operator convenience and efficient maintenance.

The ST versions include the addition of a lower turret turning/milling function to the existing left and right spindles and B-axis milling function. The turret comes on both of the new SMX ST models: the 10" chuck version (PUMA SMX2600ST) and 12" chuck version (PUMA SMX3100ST). The addition of a

lower turret with 12 tool stations allows operators to be even more productive on a single mill turn CNC machine. A static turret is standard, and turret for driven tools is optional, but this lower turret isn't just for tools. Operators can also drop in workholding equipment like steady rests, follow rests, tail stock center and two jaw vises.

The SMX ST series comes with many features. It starts with a full 5-axis multi-tasking turning and milling machine with a 12,000 rpm milling spindle and

80 tool ATC. Then they added a lower 12 station turret that can offer turning or milling capability while still utilizing the upper milling head to truly multi task.

For more information:

Doosan Machine Tools America
Phone: (973) 618-2500
www.doosanmachinetools.com

GWJ Technology GmbH

INTRODUCES NEW VERSION OF SYSTEMMANAGER

SystemManager is an extension to the web-based calculation software *eAssistant* (web solution) and *TBK*. *SystemManager* is a true software application for complete systems of machine elements, i.e., the software is a coupled FE calculation of multishaft systems with gears as non-linear coupling elements. The new version provides an alternative method of importing and automatically meshing housings and planet carriers. This offers an even better mesh quality and allows a meshing of very complex geometries, for example the geometries of gearbox housings in automotive applications are known to be very complex. The system calculation considers now rotating 3D elastic parts for the calculation of eigenfrequencies (e.g., of planet carriers) using modal reduction.

Coupling connections were added in addition to the previous connection types cylindrical gears, planetary gear trains, bevel gears, worm gears and belts. It easily allows to consider hydraulic or electric connections between subsystems. Many small extensions had been added like splitting or merging shafts in addition to copy, shift or mirror options. All bearings types are now drawn with separated inner and outer rings in 2D and 3D views. The animations for 3D mode shapes therefore allow a better understanding of the movement in the bearings. Graphics can be frozen inside the program to allow comparisons and a copy option using the system clipboard was added for graphics for quicker transfer into other documents. The default

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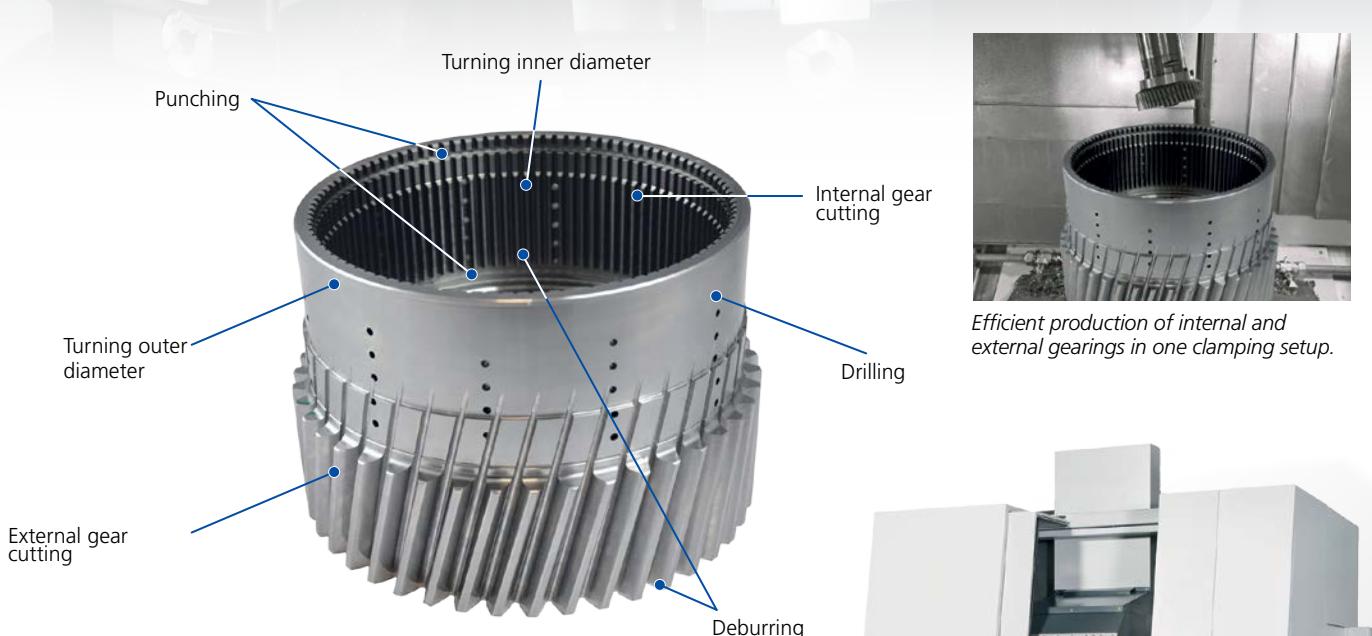
POWER SKIVING

Efficiently geared. Completely machined.

The skiving center PITTNER PV315 is the preferred machining solution of a manufacturer of marine transmissions. In search of an integrated solution with several machining processes like turning, drilling, punching, gear cutting as well as deburring the PITTNER PV315 met all his

demands. The flexible use of technology allows him to machine the part with a maximum of two chucking processes, thus guaranteeing highest surface qualities. Thanks to the highly efficient gearing technology Power Skiving, the transmission manufacturer can now produce

internal and external gearings without changing the setup. At the end of the day, he saved the purchase expenditure of 5 single-process machines plus the time-consuming re-tooling, transport and storage cycles. Just recently, he invested in a second PITTNER PV315.



PITTNER PV315

- Power Skiving for inner and outer gearings
- Integrated tool magazine for complete machining
- Single clamping operation for highest precision



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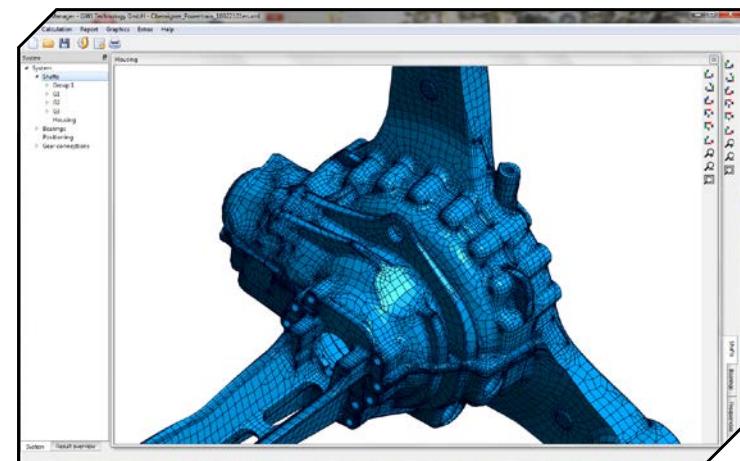
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format for reports is now PDF/A instead of standard PDF. The software documentation is now available as context sensitive help allowing faster access of information to certain inputs. There are other new additions to the integrated bearing calculation.

For more information:

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www.gwj.de



Emuge

INTRODUCES SELF-LOCK SYSTEM FOR THREADING TOOLS

Emuge Corp., a manufacturer of high performance taps, drills, end mills and other rotary tools, has announced its thread making tool quality is available in a Self-Lock integrated locking system. Emuge Self-Lock threading tools offer a high quality alternative in thread locking for vital safety applications in aerospace, medical, communications, transportation industries and more.

The Emuge thread locking feature is integrated in the internal thread, and has a modified profile with a 30 degree ramp surface in the direction of stress which provides the self-locking effect. In an ideal screw connection for high-stress situations, where there is a standard external thread in an Emuge Self-Lock internal thread, the internal thread yields a self-locking screw connection that can be used repeatedly.

"The special profile of the Self-Lock thread allows an even distribution of stress over the entire thread length and therefore eliminates slippage," said Mark Hatch, product director at Emuge Corp. "We are pleased to offer such a safety critical threading solution which results in no stripping of threads and is cost-effective because no additional components are necessary."

Compared with standard threads, the Emuge Self-Lock internal thread shows constant, maximum holding power under dynamic stress. Functions remain in good operation even with repeated loosening and re-tightening of the thread connection. This locking effect is caused by the ramp-shaped surface integrated into the thread profile.

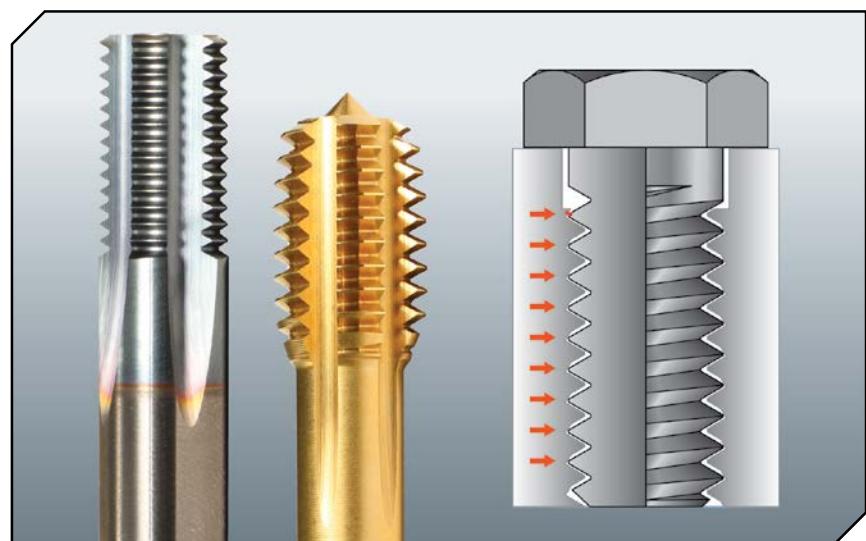
Self-Lock technology results in increased threading tool life for larger thread hole diameters and provides larger tolerances for thread hole diameters. Also, assembly is easy with no assembly errors possible such as

forgetting the locking device. To gage Self-Lock threads, Emuge recommends using its two-piece gage system which corresponds to the usual combination of a go/ no-go gage.

Emuge Self-Lock Threading Tools work with standard external threads (screws) with tolerance class "medium". Internal threads can be produced with Emuge taps, cold forming taps or thread mills.

For more information:

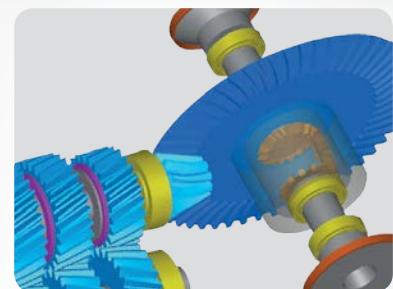
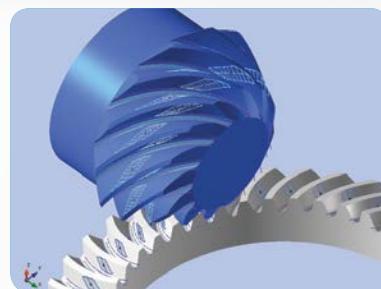
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Mahr

OFFERS OPTIMAR 100 WITH IMAGE PROCESSING

Mahr Inc. recently expanded its Optimar 100, a proven solution for testing dial and digital indicators, test indicators and dial comparators, with image processing for the automated testing of measuring equipment. A new upgrade kit now makes working with the measuring instrument safer and faster: a camera automatically records the indicated values of the test indicators and forwards them to a software for processing. The automated procedure saves time and replaces the exhausting and error-prone reading by the operator.

The hardware and software add-on package provides a cost-efficient way to equip existing measuring stations with Optimar 100 for automated testing. The measuring system, including image processing, is also available as a complete package under the name "Precimar Optimar 100 BV."

The upgrade kit incorporates a USB 3.0 camera for fast image processing, and stable daylight-independent LED illumination along with secure digital identification and reading of digits. The QMSOFT software controls the measuring device, evaluates the camera image of the scale or number display of the test object, compares the values with the high accuracy internal reference scale and automatically completes the process of calibrating the product under test.

The software also

makes it possible to create and store test certificates.

The easy operation of the Optimar 100 with image processing speeds up and facilitates the monitoring of the indicators under test. With the auto-recognition of the vision system, more test items and data points can be recorded faster than with conventional manual methods. Since this is a completely automated inspection system, the operator can be more productive in other operations while the Optimar 100 automatically completes the calibration process. This makes indicator inspection much more economical.

For more information:

Mahr Inc.
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SMALLEST FOOTPRINT. ergonomic access.

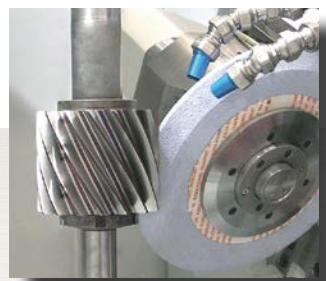
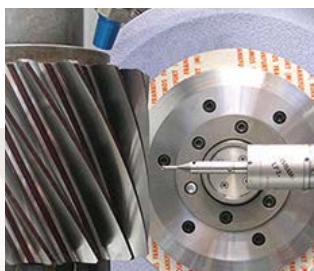
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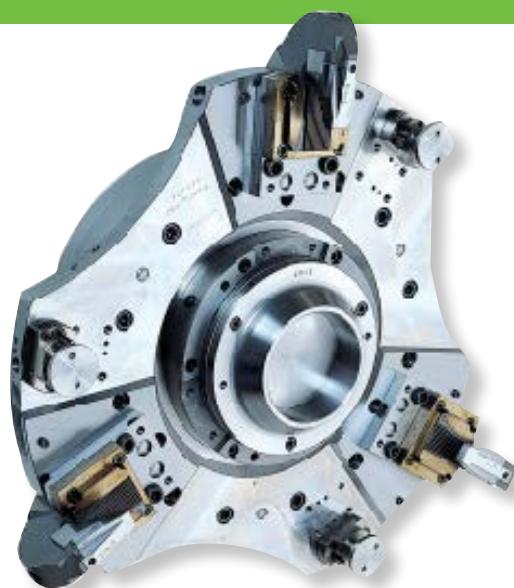

KAPP NILES

Kitagawa NorthTech

ANNOUNCES SUITE OF AUTOMOTIVE WORKHOLDING SOLUTIONS

Kitagawa NorthTech, Inc., recently announced their suite of automotive industry workholding solutions, which bundles together advanced and custom engineered workholding products ideally suited for automotive industry machining applications. The advanced workholding series are Kitagawa

NorthTech advanced chucks and custom fixtures that have been engineered, modified and/or customized to solve part specific machining for a myriad of automotive industry applications, including: camshafts, valves, cylinder pumps and heads, differential cases, brackets, clutches, covers, holders, gears, hubs,



pinions, pulleys, rotors, rollers, pistons, chassis components and more.

The suite of automotive industry advanced/engineered chucks and workholding for automotive applications from Kitagawa NorthTech includes:

- DL200 — Dual locking chuck with increased gripping options and easy jaw forming ideal for high volume automotive machining applications.
- PWc and PWTC — 2 or 3 Jaw Power wing chucks with powerful gripping for irregular work pieces and tapered parts. Provides secure gripping for casting and forging applications.
- PU Type Pull Lock Chucks (PU, PUB and PUE) — Draw down chucks for high precision processing available with open center types. High radial gripping forces and strong pullback action allows for stable cutting under heavy load conditions.
- FG Finger Chucks — for high speed turning of 3 jaw wheel chucks for automotive and motorcycle aluminum wheels and 6 jaw chucks for OTR trucking applications.
- Collet Chucks — Short series collet chucks, long series collet chucks, quick change collets chucks and pull back collet chucks.
- Custom Fixtures — Weldment or Casted base custom fixtures for a variety of horizontal and vertical machining applications.

For much information:

Kitagawa NorthTech
Phone: (847) 310-8787
www.kitagawa.com

LUREN

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