

# Gleason 500CB Inspection Machine

HELPS ACHIEVE PRECISE GEAR QUALITY AND MAXIMUM TOOL LIFE

Gleason Corporation has introduced its latest innovation, the 500CB Cutter Build Inspection Machine. The 500CB delivers more accurate and highly automated build, truing and inspection of all types of stick-blade bevel gear cutters.

The 500CB features automated closed-loop blade positioning creating a highly accurate and repeatable build quality. An accurately built cutter head is a critical factor in achieving precise gear quality and maximum tool life. In addition, the 500CB also automatically controls the tightening of the blade clamp screws, consistently applying the correct torque. These features require greatly reduced operator involvement to build highly accurate and repeatable cutter heads, while freeing personnel to perform other functions.

This advanced machine has an intuitive operator interface including “wizard” functions to guide an operator through the build process. The software has many smart features, making recommendations to the operator while continually displaying key data as the head is being built.

#### For more information:

Gleason Corporation  
Phone: (585) 473-1000  
[www.gleason.com/500CB](http://www.gleason.com/500CB)



# Traub TNL32-11

PROVIDES THREE SIMULTANEOUS TOOLS

The new Traub TNL32-11 sliding/fixed headstock automatic lathe has a headstock moving in the z-axis, an upper and identical lower turret with x, y, and z-axes and a counter spindle movable in the x and z directions. It offers a new front working attachment which sits on an additional cross-slide moving in the x and z-axes, providing the user with further, freely positionable tools and enables the use of up to three tools simultaneously and independently of each other. The 11-axis machine saves machining time - especially for components with a high proportion of drilling.

In addition to the two linear x and z axes, the front working attachment features a CNC circular axis. By the interpolation of the rotary axis with the x-axis and the c-axis of the main spindle, the front working attachment can also be used in the y direction using an interpolated y-axis. The particular benefit: when a drilling tool needs to be corrected to exact center, the necessary corrections can be simply performed via the CNC controller. That can help with small parts which react with great sensitivity to even minimal offset errors.

The front working attachment makes eight additional tool stations available. Four of them are used to mount fixed tools, the other four are for live tools.

There is also a station for a workpiece gripper which can unload a machined workpiece from the counter spindle. While the finished workpiece is discharged from the counter spindle, the next part can be machined with two tools at the main spindle.

With an output of up to 3.4 kW and a maximum speed of 12,000 rpm, the tool drive in the front working attachment is extremely productive and designed for high power. The tool holders are highly robust and stiff with a mounting shank diameter of 36 mm. Individually control-





Another highlight is the “Dual Drive” consisting of two drive trains integrated within one turret. This patented drive solution reduces non-machining time and thus also machining times per piece. While one tool is in use, the tool intended for the next work step can be accelerated up to the desired speed during main time and is immediately available at full speed after the turret indexing operation. Jerky accelerations and delays that

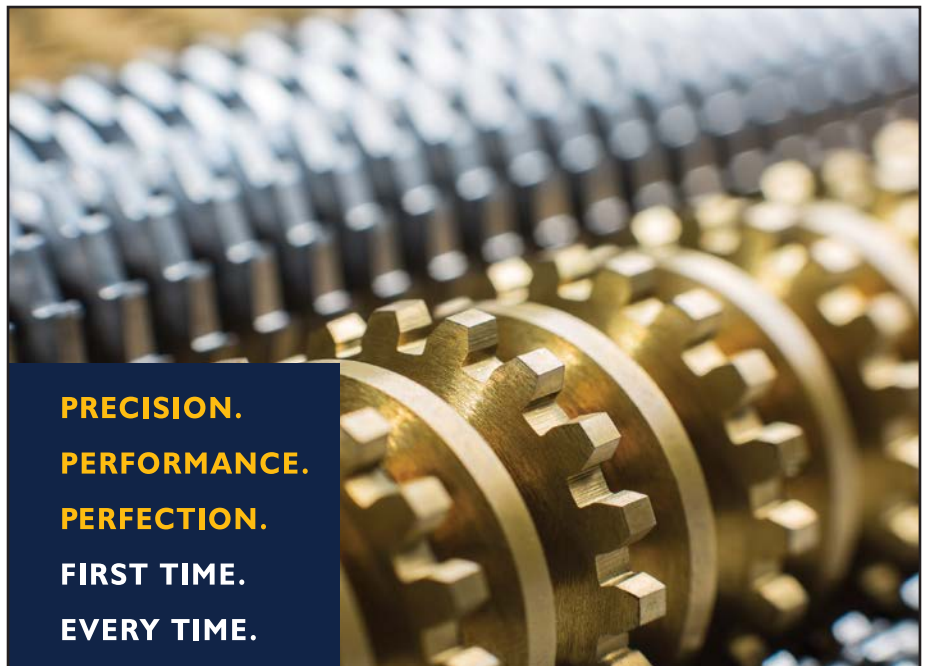
were previously unavoidable when reducing auxiliary processing times are now prevented. In addition, tool holder wear is reduced due to the lower acceleration values. Even with live tools, chip-to-chip times are around just 0.3 seconds.

**For more information:**  
 Index Traub  
 Phone: (317) 770-6300  
[www.indextraub.com](http://www.indextraub.com)

able coolant pressure of up to 80 bar is available at every station. One live station can be used as a deep-hole drilling station with a coolant supply up to 120 bar. The front working attachment can also be used as a tailstock when producing long components.

In addition to the advantages of the front working attachment, the Traub TNL32-11 offers the many other benefits of the entire TNL series. The work area is easily accessible to the operator due to its high and wide sliding door, simplifying setup and changeovers. A large inspection window allows the operator to keep a close eye on the machining process. The long z travel of the headstock means the machine can easily be used for sliding or fixed headstock turning without compromises in less than 15 minutes.

Tool turret indexing is performed using an NC rotary axis that controls movement via an internally meshing planetary gear. This allows the turret to be indexed to any position without requiring a mechanical locking mechanism. The free positioning of the turret makes multiple-tool assignment possible on each station.



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## Suhner Rego-Fix

DIRECTLY APPLIES COOLANT-LUBRICANT TO IMPROVE TOOL LIFE

Rego-Fix has launched a cost-effective and efficient attachment for the application of coolant-lubrication liquids through a tool based on an ER collet nut, which is ideal for use on Suhner feed drilling units.

Optimizing the cooling and lubrication effect to help increase chip removal, tool life and performance requires the coolant-lubricant mix in direct contact with the cutting edge of the tool. Namely, for drilling operations, internal coolant has become more and more essential. In the past, the application of an internal pressurized coolant-lubricant mix, especially for quill feed units, presented challenges and complications.

A new approach engineered by Rego-Fix is called reCool, where the coolant-lubricant mix enters the collet from the radial direction and then passes through the tool. It is very simple and effective. Based on this idea, Suhner adapted the reCool principle and designed attachments

for the application of internal coolant liquids for its Monomaster and Multimaster families of quill feed drilling units.

Drilling with coolant through the tool applications typically allow for a 20 percent increase in surface cutting speed, which results in higher chip removal rates and reduces machine cycle time.

This solution allows users to retrofit Suhner quill feed units with internal coolant supply, even on existing machines in a clever, uncomplicated way, thus providing increased benefits in machine efficiencies and production time.

Some of the advantage of reCool are a simple retrofit for existing quill feed units, optimal cooling & lubricating at the tool, up to 20 percent higher surface speed, good chip removal, optimal lubrication for every tool and nonexistent deflection or dissolving of coolant.

ReCool is compatible with spindle speeds up to 12,000 rpm. It has a coolant pressure of 50 bar/725 psi and can be used for internal and external coolant application.

**For more information:**  
Suhner Industrial Products Corp.  
Phone: (706) 235-8046  
[www.suhner.com](http://www.suhner.com)



## Sumitomo Milling Cutter

OFFERS HIGH WEAR RESISTANCE, PRECISION AND EFFICIENCY



New from Sumitomo Electric Carbide Inc., the DFC Double-Sided 90° Milling Cutter is engineered for exceptional precision and efficiency.

The high toughness and special shape of the DFC six-edge insert ensure long-term, stable cutting and high efficiency machining with high feed rates. Cutting edges are optimized to provide excellent surface finishes.

Low cutting forces and high wear resistance of Sumitomo's DFC result in a long tool life. Machining accuracy is enhanced through the separation of the insert contact areas and cutting edges. In addition, a double-sided insert design reduces costs.

Recommended insert grades for steel include ACP200 and ACP300. For stainless steel applications, ACM200 insert grades are recommended and for cast iron applications, ACK200 and ACK300 insert grades are recommended.

The DFC is available in 1" to 8" in standard, fine pitch and extra-fine pitch styles for a variety of applications. Maximum depth of cut is 6 mm.

**For more information:**  
Sumitomo Electric Carbide, Inc.  
Phone: (800) 950-5202  
[Sumicarbide.com/milling\\_dfc.htm](http://Sumicarbide.com/milling_dfc.htm)

# Saint Gobain NQ3 Grinding Wheels

DECREASE DOWNTIME , IMPROVE USER COMFORT

Saint-Gobain Abrasives has introduced Norton Quantum3 (NQ3) Depressed Center Grinding Wheels. Featuring a proprietary grain along with a tougher bond system containing a combination of fillers and bonding agents that allow for better mix quality in manufacturing, NQ3 provides substantially faster grinding for more metal removal and longer wheel life with less operator fatigue to significantly increase grinding output. Test results conducted with NQ3 and competitive wheels revealed that NQ3 removed almost twice the amount of carbon steel at five minute intervals.

NQ3 wheels are constructed using a precisely engineered iron, sulfur and chlorine-free resin technology to provide a uniform abrasive distribution throughout the wheel. This unique bond was designed for retaining the grains long enough during and after grain fractures. This subtle but powerful bond characteristic enables both excellent cut rates and wheel life.

“Norton Quantum3 grain tends to be more rounded than precision-shaped

ceramic grain. This allows a more robust, sharper cutting action with less vibration, for much easier operator control. These wheels don't grab or dig when used in any direction. They simply glide through the workpiece while removing metal. This also means the free cutting control can boost the amperage on its own without additional pressure needed on the tool,” said Debbie Gaspich, Norton Abrasives director of product management, North America. “Norton Quantum3 grinding wheels are made in the USA and provide users the lowest total operating cost and the most productive grinding yield in the industry.”

The NQ3 wheels are offered in 12 Type 27 all-purpose grinding application SKU's, one Type 28 all-purpose and two Type 27 SKU's for foundry applications. All products are currently in stock. Sizes range from 4" x 1/4" x 3/8", to 9" x 1/4" to 7/8".

**For more information:**  
Saint-Gobain North America  
Phone: (610) 893-6000  
[www.saint-gobain-northamerica.com](http://www.saint-gobain-northamerica.com)



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# Heimatec Live Tool Speed Multiplier

AVAILABLE IN STYLES UP TO 24,000 RPM

Heimatec has announced that its newest development, a line of 1:4 live tool speed multipliers in 24,000 rpm max. styles, is now available for all popular live tool lathes currently on the market.

These speed multipliers are provided as axial or radial drilling and milling heads, with either external or internal coolant design and mounting configurations to suit virtually any machine tool turret set-up, including all VDI and BMT sizes.

According to Heimatec President Preben Hansen, "As our presence in the American machine tool market continues to expand, so does our product line. These speed multipliers are a great addition to our line. They give us more to offer the job shop and large production departments, through our growing net-

work of reps and distributors, serving the market here."

**For more information:**

Heimatec Inc.  
Phone: (847) 749-0633  
[www.heimatecinc.com](http://www.heimatecinc.com)



## All The Gear Cutting Tools You Will Ever Need Are Right Here DTR is one of the world's largest producers.

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# Big Kaiser Milling Chuck

DESIGNED TO ELIMINATE END MILL PULLOUT

Big Kaiser introduces the Mega Perfect Grip from Big Daishowa, a simple to handle, heavy-duty milling chuck for heat resistant super alloys (HRSA) that eliminates end mill pullout under heavy torque loads.

The Mega Perfect Grip, with fully concentric clamping, combines the accuracy and cutting performance of heavy-duty milling chucks with the security against pullout of solid side-lock tool holders.

The concept is simple and assembly is quick. To keep the system cost-effective, it is based around milling cutters with a standard Weldon flat (ASME B94.19-1997). No special grinding or threading of the milling cutter is required.

To assemble, insert the exclusive key grip into the Weldon flat of the end mill. Align the key grip with one of three key grip grooves inside the chuck body, and insert the cutting tool until it depresses a spring in the clamping bore. The spring functions to remove the gap between the key grip and the wall of the groove, and to provide a slight axial preload on the tool until final tightening is performed. Rotate the end mill approximately 20° until the grip stops securely against a stopping pin. This engagement prevents any slip under high torque. Finalize assembly by tightening the clamping nut until it contacts the positive stop of the chuck body.

The three key grip grooves in the chuck body also serve to provide channels for high-volume coolant to reach the cutter, which is required in milling HRSA to dissipate heat and to remove chips efficiently.

“Pullout can be a big headache when working with HRSA’s - costing time and money, and hitting manufacturers’ profitability,” says Jack Burley, vice president sales and engineering. “This innovative chuck solves the problem completely, combining innovation with ease-of-use and industry standards.”

The Mega Perfect Grip is available in Big-Plus BCV50 and HSK-A100 for Ø.750"-1.250", and HSK-A125 for Ø1.000" and 1.250". The product is in stock and ready for immediate delivery from Big Kaiser’s North American headquarters.

**For more information:**  
Big Kaiser  
Phone: (224) 770-2999  
[www.us.bigkaiser.com](http://www.us.bigkaiser.com)



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