



## **Servoturn – Capabilities previously unknown!**

KNUTH Machine Tools USA

KNUTH Machine Tools USA has just unveiled their new Servoturn high precision lathe. After an extensive design and testing phase conducted in Germany, KNUTH has produced the world's first ultra-accurate, non-CNC, high production lathe. This Servoturn lathe incorporates many innovations previously only found on CNC lathe machines.

Starting with its mineral cast base, this specially engineered casting is capable of reducing harmonic vibrations six times more effectively than fine grain (GG-25) cast iron and 10 times more effectively than steel. This heavy casting is the basic building block for improved piece part finishes at increased feed rates!

In addition to the mineral cast base, the Servoturn is equipped with precision linear profile guide rails which provide the most stable, accurate, long-lasting load distribution design available. A feature not typically found on a manual lathe of this price. Typical maintenance is virtually eliminated with this linear guide rail. Long after the Servoturn is put into production, if the rails ever need to be replaced, the repair is simple and the replacement parts are readily available.

Another feature the designers built into the Servoturn lathe is the recirculating preloaded ball screws. Those ball screws provide numerous advantages over typical ball screws in that they reduce backlash to zero. This zero backlash improves piece-to-piece accuracy thereby reducing the scrap rate due to out of tolerance parts. These high quality ball screws offer addition benefits. There is significantly reduced friction between the moving parts which helps to minimize heat. There is no stick-slip found on the Servoturn's carriage.

To top off the Servoturn's high quality moving parts, both axes are driven by servo-motor featuring electronic hand wheels. This lathe also has a "teach in" function which is enabled by buttons on the carriage. At any point in the machine's range of movement a button can be activated to set a fixed stop. KNUTH's new Servoturn incorporates a unique control feature which allows the threading operation to be conducted without a thread dial as that function is now controlled by the main motor for feed start and stop. Threading is optimized for easy operation and virtually foolproof.

Accuracy and repeatability are the hallmark of KNUTH Machines Tools USA new Servoturn lathe line up. The product lineup includes the Servoturn 410 x 1000 with a maximum swing diameter of 16 inches over the bed and a center distance of 40 inches. This lathe has a variable speed 3000 r.p.m. spindle with a 7 ½ horse power main motor. Also available is the Servoturn 560 x 2000 and the 560 x 3000, both of these lathes have a variable speed 1600 r.p.m. spindle with a 10 horse power main motor. These lathes feature a 22 inch maximum swing over the bed and a center distance of 80 inches and 120 inches respectively. Standard equipment includes 3 axis DRO, 3 jaw chuck, quick change tool holder and a coolant system.

In summation, KNUTH Machine Tools USA's new Servoturn lathes offer heretofore unparalleled accuracy, exceptional value, and is worthy of a long term investment starting at \$38,000. KNUTH Machine Tools USA operates out of their North American facility of 60,000 square feet, including offices, showroom, testing area, full shop, spare parts, and warehouse.

For more information or a complete product catalog contact:  
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