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# Edge Technologies Presents Bar Feeder Product Lines To The Precision Bar Turning Marketplace at WESTEC 2015 Booth #1328

ST. LOUIS, MO – Edge Technologies returns to the WESTEC tradeshow with a lineup that includes FMB bar feeders, Edge bar feeders and short loaders, as well as Schlenker collet and guide bushing products.

**Edge Bar Feeders Minuteman 320 SE:** From the Edge Bar Feeders line, the Minuteman 320 SE, an economically priced 12' magazine bar feeder, will be on display. The Minuteman is designed for feeding round, square and hexagonal bar stock into CNC lathes. The SE (Special Edition) features a 3-26mm bar diameter capacity with hydrodynamic quick-change polyurethane guide channels. An extruded aluminum case surrounds the Minuteman's polyurethane guide channels, increasing strength and stability and making these guide channels best in class. This channel configuration is flooded with oil to create a hydrodynamic effect resulting in higher RPM with reduced noise and vibration.

Dual anti-vibration devices stabilize the bar stock at two critical points between the guide channel and lathe spindle maximizing RPM potential. Its adjustable roller design provides superior support and easy set-up of all bar diameters without the cost of multiple bearing blocks.

As a standard feature on the Minuteman 320 SE, the synchronization device for Swiss style lathes employs an electro-magnetic coupling, mechanically linking the lathes headstock's z-axis travel to the bar feeder's pusher to ensure synchronous movement and no loss of connection between the bar stock and pusher collet.

The Minuteman 320 SE features the convenience of an easy-to-use remote control pendant with a Mitsubishi control and servo drive that provides the Minuteman's motion control and functionality.

A two-pusher design drastically reduces the overall length of the unit by as much as 4 feet. A short pusher pre-feeds the bar then retracts; a second full-length pusher lowers into position to continue the feeding process. (more)



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**Edge Bar Feeders Patriot 338:** Also from the Edge Bar Feeders line, the Patriot 338 will be presented for attendee's inspection. The Patriot 338 is an advancement in the design and manufacture of economical 12-foot magazine bar feeders for the production turning industry. The Patriot automatically feeds round, square and hexagonal bar stock in stock in a diameter range of 3 to 38 mm in lengths up to 12.5 feet into CNC lathes. The Patriot 338 expands the Edge Bar Feeder brand to 10 models that include the hugely successful Minuteman and Rebel products. The Patriot's advanced design combined with its robust, heavy gauge structural steel construction ensures rigidity and long-term durability that minimizes vibration.

The Patriot features the convenience of an easy-to-use, hand held remote pendant. A touch screen with menu driven parameters selection makes programming simple, yet is flexible enough for all applications. Memory storage for up to 100 jobs speeds changeovers. The Patriot's diagnostics and troubleshooting are all run from this same advanced control screen. A reliable Mitsubishi controller and servo drive provide the Patriot's motion control and functionality. The controller and electronics and are mounted on a convenient foldout door panel for easy access.

During cutting operations the bar stock rotates in polyurethane guide channels that are flooded with oil to create a hydrodynamic effect, resulting in higher RPM with reduced noise and vibration. These channel sets changeover quickly and handle a wide range of stock sizes.

As a standard feature on the Patriot 338 the Swiss Package includes a synchronization device and telescopic nose. The synchronization device employs an electromagnetic coupling, mechanically linking the lathe headstock's z-axis travel to the bar feeder's pusher to ensure synchronous movement and no loss of connection between the bar stock and collet-pusher. The telescopic nose installs on rear of headstock for full coverage with z-axis support. On these sliding headstock applications the Patriot features unique dual anti-vibration bushing devices that stabilize the bar stock between the guide channel and lathe spindle. The movable anti-vibration device bolts right to the sliding headstock maximizing RPM potential. Polyurethane bushing blocks are at the heart of the other anti-vibration device, and like the guide channel, are oil-filled to achieve a hydrodynamic bearing effect. Due to their 'universal' design, a number of bar feeder manufacturer's channel sets and bushing blocks will fit easily into the Patriot.



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The Patriot utilizes a space-saving double pusher design. The two-pusher system drastically reduces the overall length of the unit by as much as 4 feet. A short pusher pre-feeds the bar then retracts. A second full-length pusher lowers into position to continue the feeding process. The bar pusher is equipped with a standard rotating tip that ensures smooth running at high RPM.

A gripper device holds and inserts the new bar into the bar collet and is also used to extract the remnant. The gripper requires no adjustment for bar size changes as it "self-centers". The bar remnant is withdrawn to the back end of the magazine, the gripper then extracts it from the bar stock collet and deposits it in a remnant area. The bar stock magazine is an incline rack with a loading capacity of 12 linear inches. The Patriot's hood is reversible so material can be loaded from the front or the rear.

**Edge Bar Feeders Rebel 80 Servo:** The new Rebel 80 Servo is a compact, economically priced short bar loader that features an 8-80mm diameter capacity range for feeding round, square and hexagonal bar stock into CNC lathe spindles. With a large magazine capacity allowing for long unattended operation, the Rebel combines the advantages of servo-driven auto bar loading with a small footprint and an affordable price tag. While processing the bar there is no contact between the bar stock and the loading magazine, so high speed machining is possible with the use of a properly sized lathe spindle liner.

The loading storage capacity is 760mm (30") deep. The inclination of the storage table can be adjusted to give the loader a "soft-load" effect for large diameter bars. Bars are loaded from the rear of the bar feeder. Bar stock with lengths of 152mm (6") - 1520mm (60") can be loaded. The maximum bar length is determined by the spindle length of the lathe and the chucking package. The bar stock is loaded into the main spindle of the lathe by a linear feed mechanism with a toothed belt and servomotor. This allows for the feeding of the bar stock into position without the use of a fixed bar stop.

Feed force is automatically set by the controller after the bar diameter is entered into the conversational touch screen control. The user-friendly multi-line display and operation station includes all needed information to allow rapid setting and productive operation of the loading process. The operator enters the bar diameter and part length, the Rebel automatically adjusts the parameters for loading, feedout, and bar change. The Rebel 80 (more)



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Servo runs entirely on electricity, no shop air is required.

New bar positioning can be attained without the use of a dead stop. The multifaceted software features fixed piece feedout to the correct length. It also includes a shaft loading option as well as a sub-spindle "feed-on-the-fly" option with a "return and wait" pusher feature. The Rebel 80 Servo can store up to 20 standard setup parameters.

Spindle liner changeover is accomplished very quickly by the open architecture design of the top cover and special "swing out" style pusher carriage. Axial shift is not necessary to change spindle liners. An axial shift option can be added to allow for maintenance access to the back of the lathe spindle. The Axial Track can be configured for 680mm X or Z-axis movement.

**FMB Turbo 3-38:** The FMB Turbo 3-38 is an automatic bar loading magazine feeder designed for feeding round, square and hexagonal bar material into CNC lathes. This feeder is compatible with all types of sliding or fixed, CNC or cam operated lathes with spindle bores up to 38mm. Quick change polyurethane guide channels allow for quiet operation at high RPM cutting due to the hydrodynamic principle. Oil filled guide channels envelope the stock, providing the ideal guiding system for high RPM turning operations. During this process the rotation of the bar creates a hydro-dynamic effect, centering the bar stock in the channel reducing noise and vibration. The guide channels can be changed quickly and easily in about 10 minutes to accommodate multiple bar stock diameters. The guide channel is securely closed with a toggle lever system while machining bars.

The robust design of the Turbo's main beam and support stands are resistant to bending, this keeps vibration from bent bars to a minimum, so a smooth operation is guaranteed. Double-pusher space-saving design is 4 foot shorter than single pusher bar feeders. This FMB model, like many other in the Turbo line, is equipped with a headstock synchronization device allowing rapid backward/forward movements on sliding headstock lathes without forward feed pressure from the bar pusher. The result: no bar distortion.

The Turbo 3-38 features a Bosch controller with a servo motor drive to the feed mechanism. Flexible control



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of bar length and rate of feed guarantee the optimum practical and economic use of the bar feeder. Easy options on the operator control panel guarantee proper interaction between the bar feeder and the CNC lathe, with parameters clearly shown on the text display.

A Roller Steady Rest device on the Turbo guides the bar stock between the bar feeder and lathe. Rollers or blocks provide excellent feeding of round or profiled material. The rollers can be continuously adjusted to the bar diameter and can quickly be replaced with blocks for supporting profiled material. Three Turbo 3-38 configurations will handle bar lengths of 3200 mm (10'6"), 3800 (12'5"), and 4200 mm (13'8").

Bars are placed on the storage table at the side of the guide channel This table features a loading capacity of 11 inches. The new bar is automatically positioned in the lathe ready for facing before the first component is produced. Part to part feed out can be controlled without a dead stop being required. Loading time for a 12' bar is 26 seconds. Maximum adjustable feeding speed is 600 mm per second and maximum adjustable return speed is 1000 mm per second.

The bar remnants are withdrawn to the back end of the magazine and a gripper extracts it out of the collet and deposits it in a remnant basket. An air operated gripping device is used to both insert the new bar into the bar stock collet and to extract the remnant. It is not necessary to chamfer the bar if it is cleanly cut. No adjustment for bar size is necessary and it is completely "Self-Centering". Bar pusher collet changes can be done in less than 2 minutes with the "Pin-On" collet feature.

**Schlenker Collets and Guide Bushings:** Edge Technologies represents the full line of Schlenker collets and guide bushings, including an innovative selection of fully sealed collets made from the finest materials available for long, uninterrupted use.

Each of these collets are made from steel specifically made for this intended use and are manufactured to accept polyurethane inserts that grip the bar stock rather than steel as in other collet designs. This allows the user to cut softer materials such as aluminum, brass, and synthetics without any marks being left on the outside dimension of the final product. These inserts can be manufactured to grip round, square, hex, and profiled materials.



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The slots of the collet are enclosed with a silicone material that serves as a barrier to keep chips and debris out of the openings. Once the bar is clamped in the polyurethane insert and the collet is in the closed position it is entirely sealed against contamination. This results in a more accurate, repeatable grip and a collet that is easy to clean after use. Besides being a highly accurate, the sealed insert type collet is exceptional in its material make-up and construction, leaving the bar's finish unmarred. All of Schlenker collets and bushings have exceptional and consistent clamping pressures that handle bar inaccuracies and fluctuations with ease.

Edge Technologies entered into a cooperative agreement with Schlenker Spannwerkzeuge of Villingen-Schwenningen, Germany in 2011. Edge Technologies became the sole importer and distributor of Schlenker products for the North American marketplace. Schlenker has a long history manufacturing collets and guide bushings for Swiss sliding-headstock type lathes, and now look to the West as they expand into additional markets.

**Closing Statement:** At their national technical center headquartered in St. Louis, Missouri, Edge Technologies not only stocks bar feeders, but provides full-service technical support, service in the field, and order desk capabilities for their extensive stock of parts and accessories. Installations and training round out Edge Technologies' offerings.

Edge Technologies is a leading productivity solutions provider to the precision metal working industry. Edge Technologies has extensive experience and a history of success and innovation demonstrated by 30 years providing bar feeder and lathe automation solutions, including over 10,000 successful installations of magazine bar feeders in the North American marketplace.

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Edge Technologies – WESTEC 2015 Booth #1328



(Caption) Edge Technologies' Minuteman 320 SE, an economically priced 12' magazine bar feeder. The Minuteman features a 3-26mm diameter capacity, quick-change polyurethane guide channels, hand-held pendant and a Swiss synchronization device.





(Caption) The Edge Bar Feeder Patriot 338 is an economically priced 12' magazine bar feeder that features a 3-38mm and diameter capacity, polyurethane guide channels and bushing blocks, hand-held pendant and a 'Swiss Package' including a synchronization device and dual anti-vibration devices.



(Caption) Edge Technologies will feature the Rebel 80 Servo at WESTEC 2015. This Rebel is an economically priced servo-driven short bar loader that features an 8-80mm diameter capacity range for automatically feeding round, square and hexagonal bar stock into CNC lathes.



(more)



(Caption) At WESTEC 2015 in Booth #1328 Edge Technologies presents the FMB Turbo 3-38 bar feeder, featuring a space saving double-pusher design, Bosch control, and a Swiss-type synchronization device. Hydrodynamic quick-changeguide channels allow for quiet operation at high RPM while feeding round, square or hex bar stock.



(Caption) Edge Technologies is the importer and distributor for the German made Schlenker collets and guide bushings. The full line of Schlenker products will be on display in Edge Technologies' Booth #1328, WESTEC 2015.