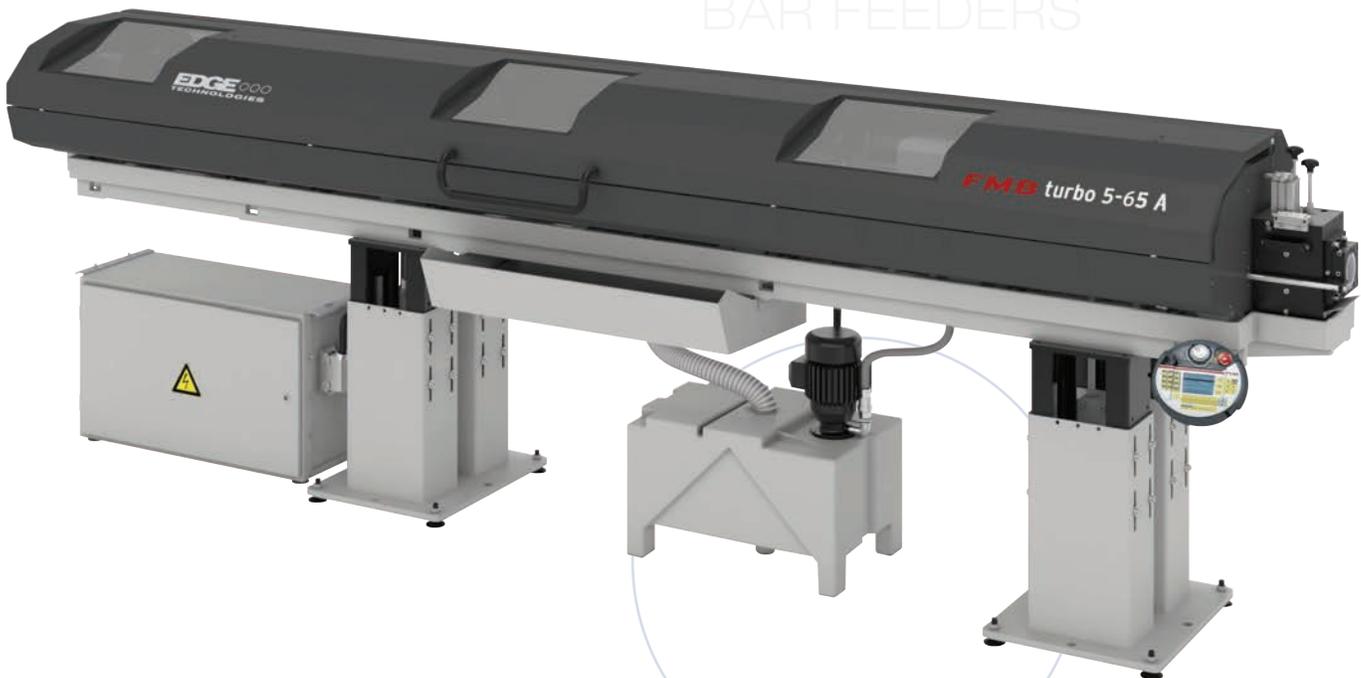


FMB  
BAR FEEDERS



# Turbo 5-65 A

The FMB Turbo 5-65 A is an automatic magazine style Bar Feeder for processing bars in the diameter ranges of 5-65mm and in lengths from 12' to 14' on CNC lathes. Auto adjusting polyurethane guide channels allow for quiet operation at high RPM while feeding round, square or hex bar stock.

The Turbo 5-65 A is compatible with all kinds of fixed headstock lathes. Swiss type synchronization device is also available.



# Turbo 5-65 A

The FMB Turbo 5-65 A is an automatic Bar Loading Magazine Feeder for processing bars in the diameter ranges of 5-65mm and in lengths from 12' to 14' on CNC lathes.

- The FMB Turbo 5-65 A is designed for automatically feeding round, square or hexagonal bar stock into CNC lathes.
- An oil filled polyurethane guide channel provides the ideal guiding system while reducing noise and vibration to a minimum.
- The polyurethane guide channels automatically adjusts to the proper diameter allowing (1) channel to run bars from 5mm to 65mm\*
- Damage to the bar stock is avoided since there is no metal to metal contact.
- Sturdy base structure due to the use of gray cast iron for the machine bed.
- The magazine storage capacity is 11 inches. Optional extensions and bundle loaders are available to handle capacities up to 2.5 tons.
- The bar remnant is withdrawn to the back end of the magazine. A gripper then extracts it out from the bar stock collet.

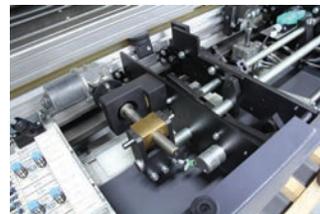
## ● **Profiled Material**

The feed mechanism is automatically pulsed to ensure the profiled material is successfully located in the lathe collet/chuck.

## ● **In-feed Control**

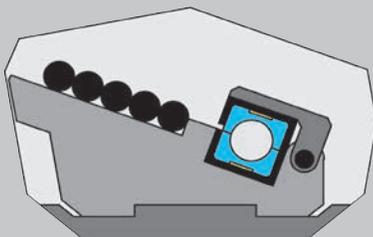
The new bar is automatically positioned in the lathe ready for facing before the first component is produced. Part to part feedout can be controlled without a dead stop required.

\* Bar straightness of (.007"/ft. TIR max) is an important factor in running the Turbo 5-65 A auto adjust channel system.



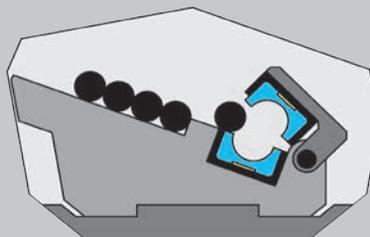
- When a lathe is used with several bar diameters, the Auto Adjust is a proven solution.
- By entering the bar diameter in the control, the self adjusting channel automatically resizes to the new value.
- Bar separation is automatically adjusted based on the bar diameter entered in the control.
- The adjusting segments are spaced evenly creating maximum support.
- Movable guide segments are automatically set to the bar diameter eliminating the need for additional channels.

## The mode of function of FMB loading magazines



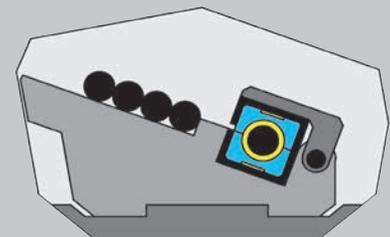
### **Loading**

The storage capacity is 11 inches.



### **Bar Separation**

The material is loaded from the bar storage table into the guide channel.

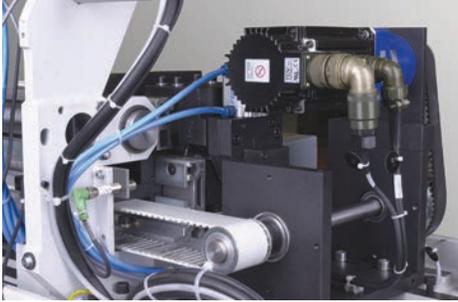


### **Processing**

Support of the bar within the oil-filled Auto Adjust guide channel.

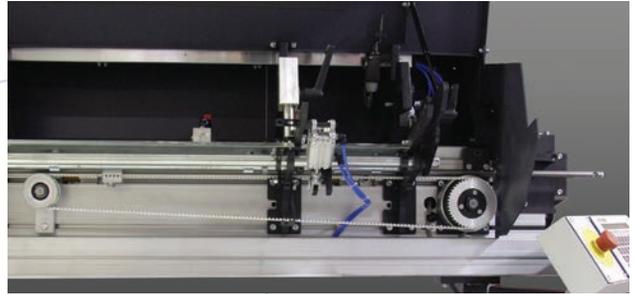
- **Drive**

Precise synchronous toothed belt drive facilitates accurate feed tolerances.



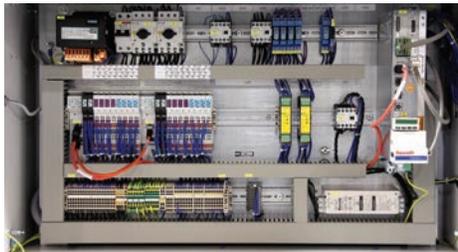
- **Swiss Headstock Sync. (optional)**

The headstock synchronization device allows the Turbo 5-65 A to be compatible with fast moving, sliding headstock lathes.



- **Control**

Bosch controller with servo motor drive to the feed mechanism. Flexible control of length and rate of feed, guarantee the optimum practical and therefore economic use of the magazine.



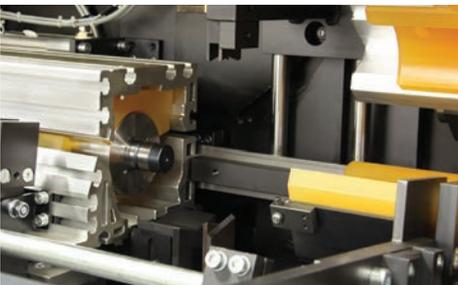
- **Bar Pusher**

A swing out bar pusher bar system reduces the total length of the loading magazine.



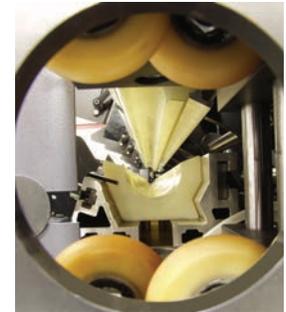
- **Gripper**

A mechanical gripper uses a force of up to 1500 N to press the bar stock into the collet and pull out the material remnant. The gripper which is arranged on a side block performs an action in the function mentioned above. It is not necessary to chamfer the bars if they are cleanly cut.



- **Roller Steady Rest**

This device guides the bar stock between the lathe and bar feeder. Rollers or blocks provide the ideal guiding 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.



### FMB Guide Channel

The channel is filled with hydraulic oil from the storage tank. The rotation of the bar creates turbulence which keeps it in the center of the channel. The higher the rotation speed the better centralization effect, therefore the magazine will help the lathe to achieve optimum cutting conditions. Moveable segments hold the material on center.



## Technical Data

- **Power Consumption**  
2.5 kW (3.0 kVA)
- **Feed Force**  
Adjustable, max. 750 N
- **In Feed Rate**  
Adjustable from 0-700 mm/sec
- **Forward Feed Rate**  
Adjustable max. 1000 mm/sec
- **Return Feed Rate**  
1000 mm/sec
- **Loading Time**  
30 sec (for 12 ft. bars)
- **Oil Capacity**  
80 liters (22 gallons)
- **Oil Viscosity**  
150 cST at 40°C
- **Operating Voltage**  
230 V/60 Hz
- **Compressed Air Supply**  
6 bar (90 psi)
- **Compressed Air Consumption**  
Approx. 10 liters per loading action
- **Weight Without Oil**  
(6,200 lbs)
- **Remnant Length**  
530 mm max. (22.8 inches)

## Options Available

- **Maximum Bar Length**  
3800 mm (12'5") and 4200 mm (13'8")
- **Bar Diameter Range**  
5 - 65 mm

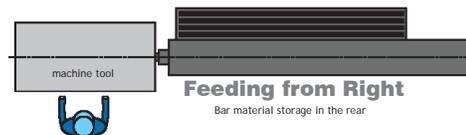
## Channel Sizes

Channel Size	Maximum Bar Size Capacity (mm)		
	Round Diameter	Hex A/F	Square A/F
15	12(15)	10(13)	8(10)
25	22(25)	19(21)	15(17)
32	28(32)	24(27)	19(22)
36	32(36)	27(31)	22(25)
42	38(42)	33(36)	26(29)
50	45(50)	38(43)	31(35)
55	50(55)	42(47)	34(38)
60	55(60)	47(51)	38(42)
65	60(65)	51(56)	42(45)

(\*) Diameters in brackets can be achieved if bar ends are turned down or if forward ejection of the bar remnant is possible.

## Loading Configurations

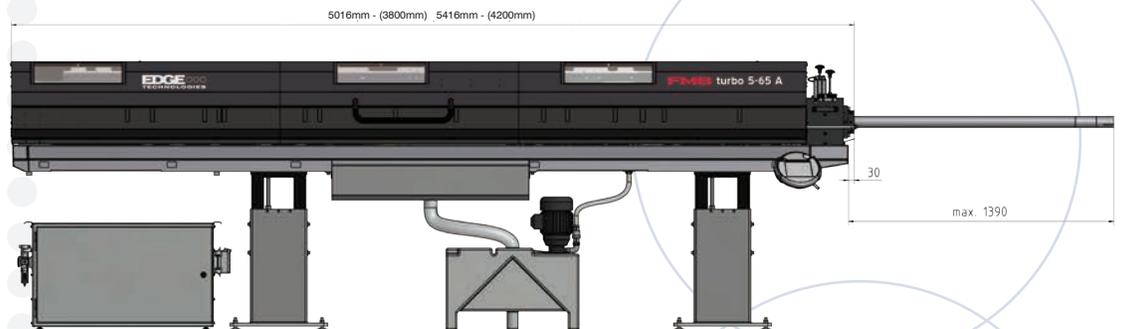
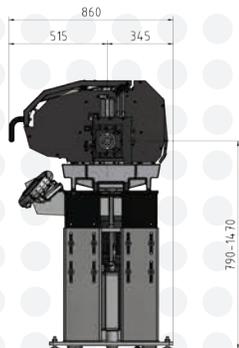
### Type A/D - Standard



### Type B/C - Optional\*



\*By special request only



Technical data subject to change without notice