

FMB
Machinery



Turbo 5-55 & 5-65

The FMB Turbo 5-55 and Turbo 5-65 are Automatic Magazine style Bar Feeders designed for feeding round, square and hexagonal bar material into CNC lathes. Quick change polyurethane guide channels allow for quiet operation at high RPM.

The Turbo 5-55 and 5-65 are compatible with all kinds of fixed and sliding headstock lathes. An optional swiss type synchronization is also available.



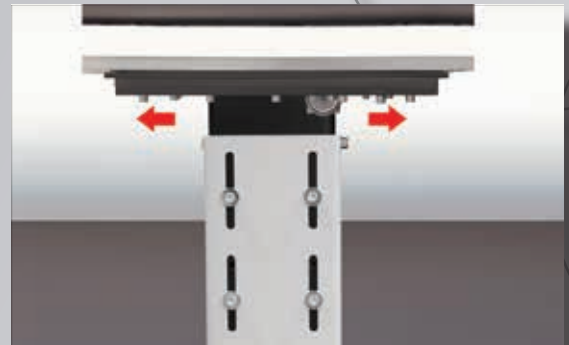
The FMB Turbo 5-55 and 5-65 are Automatic Magazine style Bar Feeders for processing bars in the diameter ranges of 5 mm to 65 mm and lengths of 6 FT and up to 24 FT.

- The FMB Turbo 5-55 and 5-65 are designed for automatically feeding round, square or hexagonal bar stock into CNC lathes.
- Oil filled polyurethane guide channels provide the ideal guiding system while reducing noise and vibration to a minimum.
- Sturdy base structure due to the use of gray cast iron for the machine bed.
- The magazine storage capacity is 10 inches. Optional extensions and bundle loaders are available to handle capacities up to 2.5 tons.
- Bar diameters within a 20 mm range can be accommodated within one guide channel size. The 20 mm range is increased significantly when straight bars are used. (.007"/ft. TIR max) An auto adjust system is also available.
- 8" easy touch screen operator control panel guarantees the interaction between the bar feeder and the CNC lathe. Parameters are clearly shown on the text display.



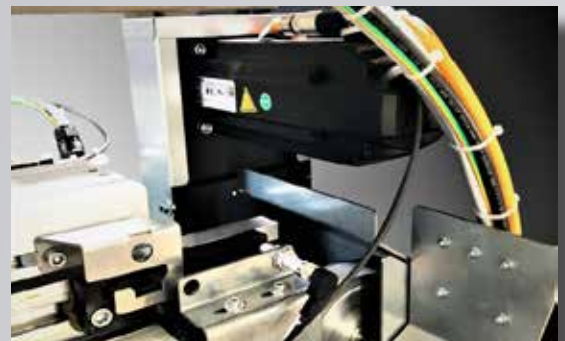
• **Axial Shift Assembly (optional)**

Used to convert from guide bushing mode to non-guide bushing mode. (This can also be used for spindle maintenance)

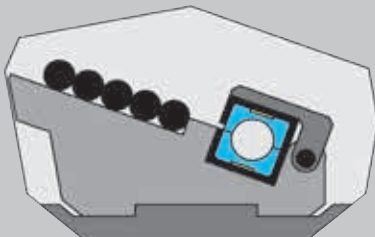


• **Servo Drive System**

Precise synchronous toothed belt drive facilitates accurate feed tolerances.

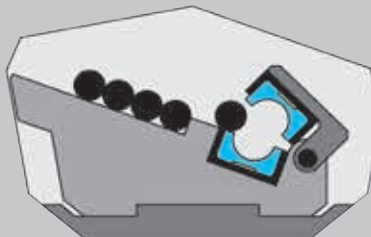


The mode of function of FMB loading magazines



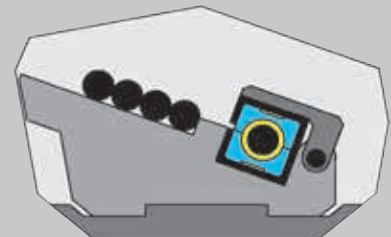
Loading

The storage capacity is 10 inches.



Bar Separation

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



Processing

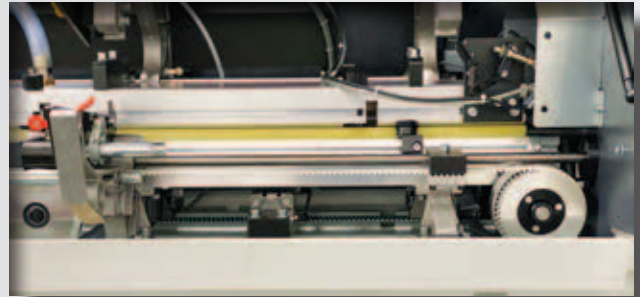
Support of the bar within the oil-filled guide channel.

Turbo 5-55 & 5-65

- **Bosch Electronic Package**
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.



- **Swiss Headstock Sync. (optional)**
The headstock synchronization device allows the Turbo 5-55 and 5-65 to be compatible with fast moving, sliding headstock lathes.



- **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. It is not necessary to chamfer the bars if they are cleanly cut.



- **Bar Pusher**
A swing out bar pusher bar system reduces the total length of the loading magazine.



- **Roller Steady Rest**
This device guides the bar stock between bar feeder and lathe. 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.



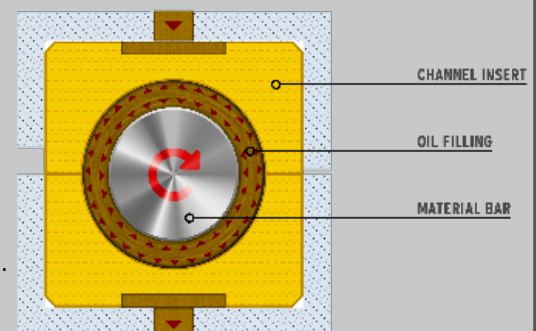
- **Quick Change Guide Channels**
Polyurethane inserts which can easily be changed for the range of 5 to 65 mm diameter. For the choice of channel sizes please see the list on the back page.



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.

If the diameter of the bar stock is close to that of the channel, very little turbulence can be created by rotation and thus the hydrodynamic bearing effect supports the center of the channel.



Technical Data

- Power consumption
2.5 kW
- 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
25 sec (for 12 ft. bars)
- Oil capacity
80 liters (22 gallons)
- Oil viscosity
150 cST at 40°C
- Operating voltage
230 V/60 Hz-400 V/60Hz
- Compressed air supply
6 - 10 bar (90 psi)
- Weight without oil
2800 kg (6,172 lbs)
- Remnant length
480 mm max. (19 inches)
- Magazine capacity
240 mm (10 inches)
- Magazine Rack Angle
6-20° Adjustable
- Material Straightness Spec.
(.007" TIR/foot of material (V blocks, 6" equidistant)

Options Available

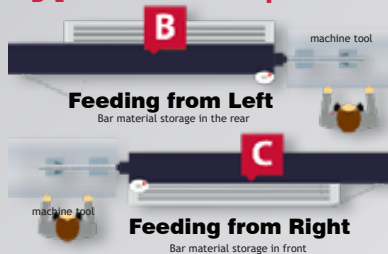
- Axial shifting device
convert from swiss to non-guide bushing mode or use for spindle maintenance
- Pusher extension kit
- Moveable Steady Device
- Air Knife
(Recommended to minimize oil loss when running long shafts longer than 6")
- Bundle Loader - 5,000 lbs
- Serial Interface -call EDGE for details

Loading Config

Type A/D - Standard



Type B/C - Optional*



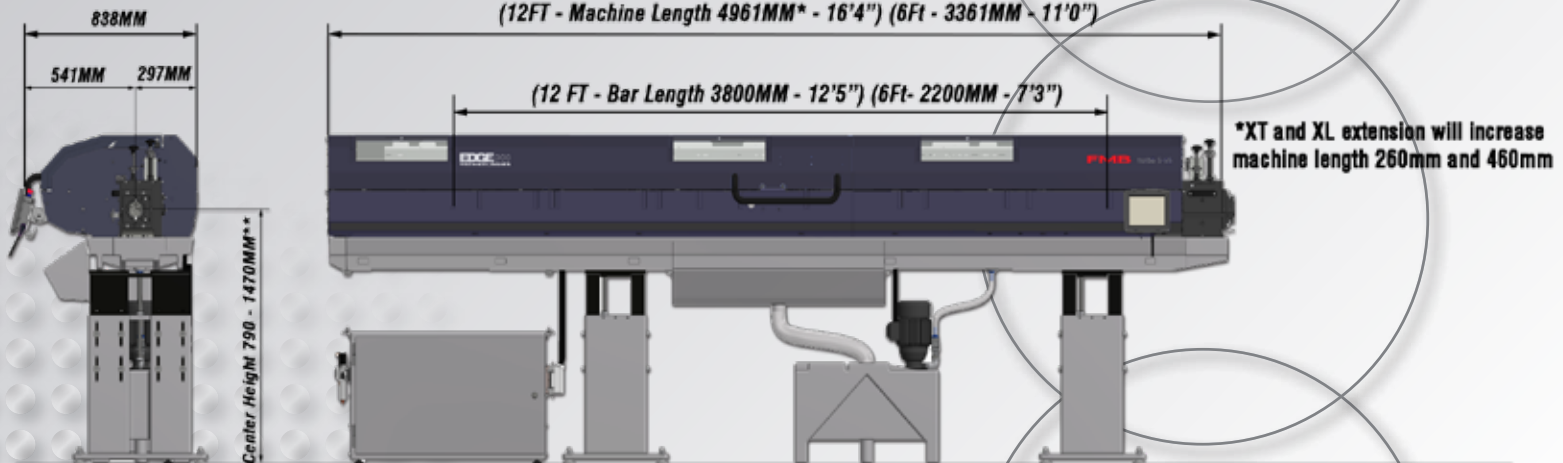
*By special request only

Guide Channel Sizes

Guide Channel Sets	Pusher Diameter	Minimum Bar Size	Maximum Bar Size	Maximum Bar Size with Front Remnant Expulsion*
Ø 10mm	10mm	5mm (.196")	8mm (.315")	10mm (.393")
Ø 15mm	15mm	5mm (.196")	13mm (.511")	15mm (.590")
Ø 20mm	20mm	6mm (.236")	17.5mm (.688")	20mm (.787")
Ø 25mm	25mm	10mm (.393")	23mm (.906")	25mm (.984")
Ø 32mm	32mm	10mm (.393")	29mm (1.41")	32mm (1.259")
Ø 36mm	36mm	12.7mm (.500")	33mm (1.299")	36mm (1.417")
Ø 38mm	37/38mm	12.7mm (.500")	35mm (1.378")	38mm (1.500")
Ø 42mm	42mm	17mm (.669")	38.5mm (1.515")	42mm (1.653")
Ø 45mm	45mm	19mm (.750")	42mm (1.653")	45mm (1.771")
Ø 51mm	51mm	25.4mm (1.0")	48.7mm (1.917")	51mm (2.007")
Ø 55mm	55mm	25.4mm (1.0")	51mm (2.00")	55mm (2.165")
Ø 60mm	60mm	35mm (1.378")	56mm (2.204")	60mm (2.362")
Ø 65mm	65mm	40mm (1.574")	62mm (2.44")	65mm (2.559")
Ø 67mm	67mm	40mm (1.574")	63.5mm (2.50")	67mm (2.637")

(* This max diameter is attainable only if remnant is ejected through the lathe spindle or if one end of the bar stock is turned down to a smaller O.D. to accept a smaller O.D. collet

*XT and XL extension will increase machine length 260mm and 460mm



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