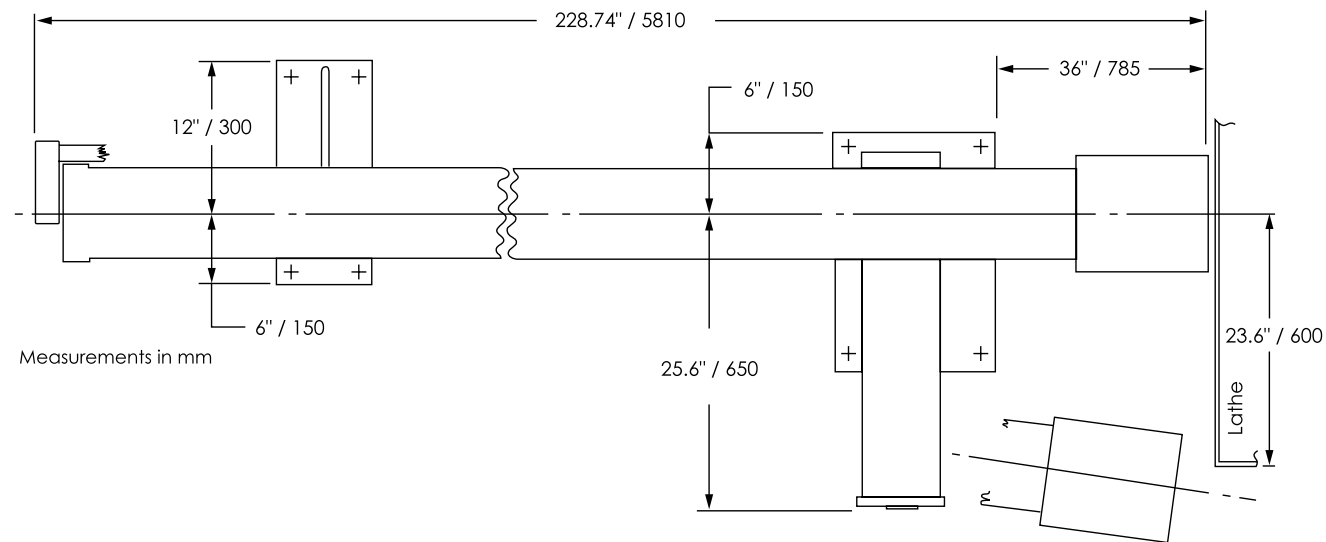


Technical Specifications

	HMBF68		HMBF52	
	Imperial	Metric	Imperial	Metric
Bar capacity	0.394"-2.638"	10-67mm	2.362"-2.047"	6-52mm
Bar length	13'	4000mm	13'	4000mm
Number of guide tubes	8		7	
Hyd. pump capacity	5.279 gallons/min	24 litres/min	5.279 gallons	24 litres/min
Hyd. tank capacity	13.198 gallons	60 litres	13.198 gallons	60 litres
Rush rod withdrawal	5 – 10 secs		5 – 9 secs	
Changeover tube/tube	30 secs		30 secs	
Height adjustment	33.46"-43.307"	850-1100mm	33.46"-43.307"	850-1100mm

We can produce alternative specifications on request



Installation

Floor must be sound and the barfeed securely fixed. A collet chuck should be fitted wherever possible. Machine tool should be secured to the floor. The Bartec feeder must be correctly aligned and adjusted. Correct coil should be used.

Standard equipment

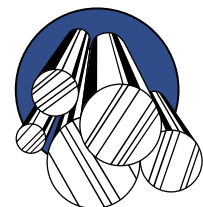
- Guide tube assembly forward and rear stands
- Hydraulic pump unit and motor
- Electrics with interface for bar end signal
- Levelling screws, mount pads and hold down bolts
- Return oil filter assembly and hose
- Alignment plug and nylon line
- Portable inching control for new bar insertion
- Interface connection cable 5 metres
- Spindle reduction tube blanks (1 set)

Optional equipment

- Spindle reduction tubes fully machined to suit customer's lathe
- Special paint colour

Electrics

- 415V 50Hz 3Ph (Other voltages on request)
- Bar end signal output via isolated relay with normally open or closed contacts
- Main isolator has thermal overload and short circuit protection
- Contactors and isolators are approved by all major authorities



BARTEC



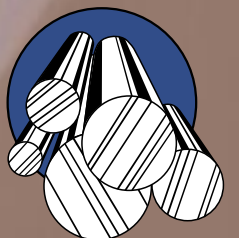
Bartec Solutions

E-mail: sales@bartecsolutions.com
Website: www.bartecsolutions.com

As Bartec Solutions pursues a policy of ongoing development, Bartec Solutions reserves the right to alter specifications and features shown within, without prior notice.

Bartec Solutions - Italian Design

Hydrodynamic HMBF



BARTEC

Barfeeding Solutions

Hydrodynamic barfeed system

Disconnection and reconnection of the rear oil feed tube is accomplished without total hose withdrawal. No chance for unsightly or hazardous oil spills.



The forward bush plates are hardened for high wear resistance. The end of the bar trip is contained within this plate and moves on a linear bearing giving reliable signalling of bar end to the machine tool control. Guide tubes are on a common PCD for rapid changes.



High repeat ability for guide tube index is obtained by use of CNC machining in all vital parts. An indexing ring is keyed allowing rapid changeover of guide tubes. The main assembly housing the guide tube pack moves easily on the forward support arm. All electrics are housed within this arm and can be easily withdrawn as a cartridge.



Feed pressure and bar movement speed are controlled by a custom designed valve. Oil circulating within the guide tube is returned to the tank via a filter unit and suction element giving maximum protection to pump valves. The hydraulic pump and motor are enclosed within a sound inhibiting cover.



The Bartec multi tube barfeed is a reliable time saving unit that will contribute significantly to productivity as a valuable addition to your CNC or automatic lathe. The hydrodynamic system permits high bar rotation speed with very low noise levels.

All models are of a fabricated steel construction of maximum performance. A small variation in diameter between each guide tube means higher average speeds across the range. Bartec feeders are capable of performance levels far in excess of mechanical or pneumatic types. The maximum bar rpm that can be expected for any given bar however cannot be accurately predicted.

Operational considerations

Round bar will perform better than square, hexagon or profiles. Straightness of barstock is important.

Composition of material ie. steel will generally perform better than brass.

Clearance between barfeed guide tube and material – the smaller the gap the higher the speed.

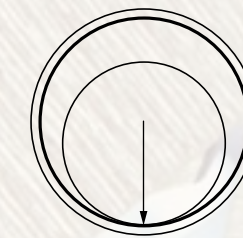
Bar preparation by chamfering to approx. $0.75D \times 60$ degrees. Lathe headstock filler tubes are to be used. One filler tube is required corresponding to the diameter of the barfeed guide tube.

Lathe design

Lathes with short headstocks perform better than longer ones where guarding and cabinets may prevent close coupling of the bar feeder to the machine.

Principles of operation

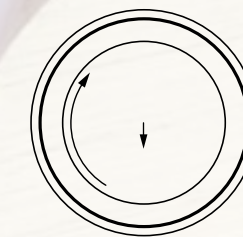
Bartec feeders operate on hydrodynamic principles. A rotating bar is supported on a cushion of oil. The bar material rotates inside a guide tube, where the space between is filled with oil supplied from a pump. As the bar revolves inside the guide tube, hydrodynamic forces cause the bar to move toward the centre of the tube – the faster the rotation, the greater the centralising force.



If the spindle speed is zero, the hydrodynamic effect is zero. The bar rests on the bottom of the guide tube.



As the bar starts to rotate, an oil wedge is produced which lifts the bar from the tube, eliminating any metal-to-metal contact.



At high rotational speeds, the hydrodynamic pressure increases and forces the bar to run centrally in the guide tube. The higher the speed, the greater the centralising effect.