

Line Boring BB3000

Technical documentation

If you have ever repaired worn hinge points on loader arms or buckets, you know how difficult it is to cut off

the worn area and try to weld on new hinge points while keeping everything lined up. A better way is to use the BB3000 Portable Boring Machine. If the holes are not badly damaged, you can simply weld them up, attach the Portable Boring Machine, and re-bore them to original dimensions. If the hinge points are so damaged that the entire area needs to be replaced, weld on new sections with slightly undersized holes, then quickly re-bore them to original dimensions while keeping everything in proper alignment.

Boring Capacity

- Bore from 1-½ - 5 inches (38.1 - 127.0 mm) in diameter, using the bar and tool head.
- The 1-¼ inch (31.75 mm) diameter bar is available in almost any length in 1 foot (304.8 mm) increments.
- Holes are positioned at 6 or 10 inch (152.4 or 254.0 mm) intervals along the bar to hold 3/8 inch square tool bits in the SAE inch version, and 10 mm square tool bits in the metric version.
- The clamp-on tool head covers the 3-1/4 - 5 inch (76.2 - 127.0 mm) diameter range.



Powerful

- 1.0 Hp (0.74 kW), universal type motor drives a 7.5:1 reduction gear box; produces up to 90 ft-lbs (122 N-m) of torque at the bar.
- Two-speed motor has bar speeds ranging from 52 - 88, and 89 - 185 no load, freespeed rpm; 2 - 2.2 amps.
- Metal removal rate of up to 1 cubic inch/min (16.4 cm³/min) in C1018 steel.

Compact Design

- The rotational drive extends only 19 inches (482.6 mm) out from the mounting bracket and 14 inches (355.6 mm) from the bar to the top of the motor. The rotational drive can be mounted with the motor in any position around the bar if clearance is a problem.
- Rotational drive with feed rack and anti-torque scissors weighs only 35 lbs. (15.9 kg).

Automatic Power Feed

- Infinitely variable, reversible power feed has a 10 inch (254.0 mm) stroke. An automatic feed stop mechanism disengages the feed at the end of the 10 inch stroke.
- Feed rate is from 0 - 0.018 inches (0 - 0.46 mm) per revolution.

Integrated Solutions to Piping Problems | www.patriot-int.com

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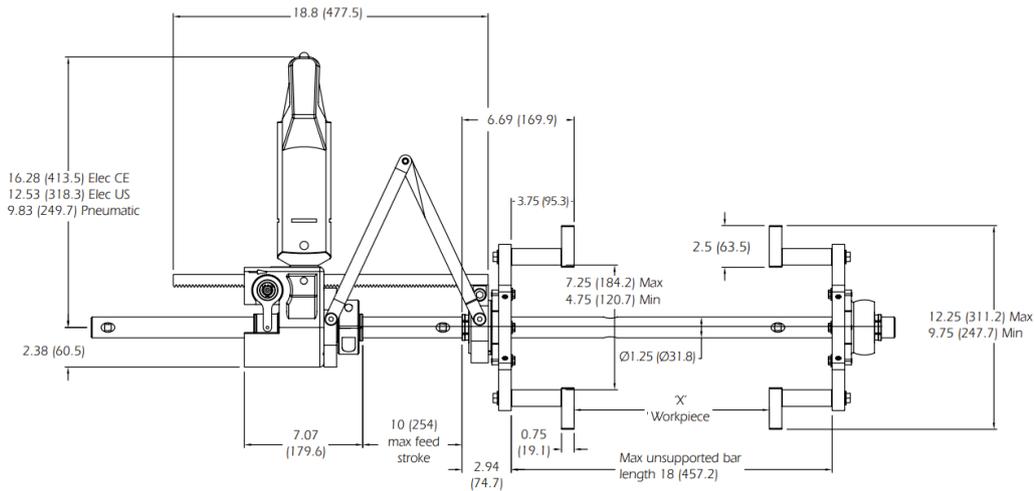
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Here's how to determine the length of the boring bar you will require:



NOTE: Maximum recommended unsupported bar length (between bearing supports) is 18 inches (457.2 mm)

	Imperial	Metric
Boring Bar Diameter	1.25 inches	31.8 mm
Boring Diameter	1.5 - 5.0 inches	38.1 - 127 mm
Boring Stroke, Max	10 inches	254 mm
Power Options		
1-speed Reversible Elec: up to 86 free speed bar RPM	0.6 Hp	0.45 kW
1-speed Electric: 92 free speed bar RPM	1.0 Hp	0.74 kW
2-speed Electric: low: up to 88 free speed bar RPM	1.0 Hp	0.74 kW
Mounting Options	Double Arm, Universal	
Rotational Drive Unit	7:5:1 gear ratio reduction	
Set-Up Cones (included with Base Unit)	1.5 - 5 inches	38.1 - 127.0 mm
Feed		
Feed Type	Mechanical	Mechanical
Feed Rate per revolution	0 - 0.018 inches/rev.	0 - 0.46 mm/rev.
Measures:		
Typical Machine Ship Weight (Typical machine with double arm mounts, set-up cones & electric motor)	240 lbs	109 kg
Approximate Boring Bar Ship Weight (Standard 1 - 1/4 inch (31.8 mm) bar, 72 inches (1828.8 mm) long. Includes metal shipping container.)	50 lbs	22.7 kg
Typical Shipping Dimensions (Shipped in 2 containers)		
Machine W, D, H	34 x 20 x 20 inches	864 x 508 x 508 mm
Bar 72 inch (1828.8 mm) W, D, H	75 x 7 x 7 inches	1905 x 178 x 178 mm

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