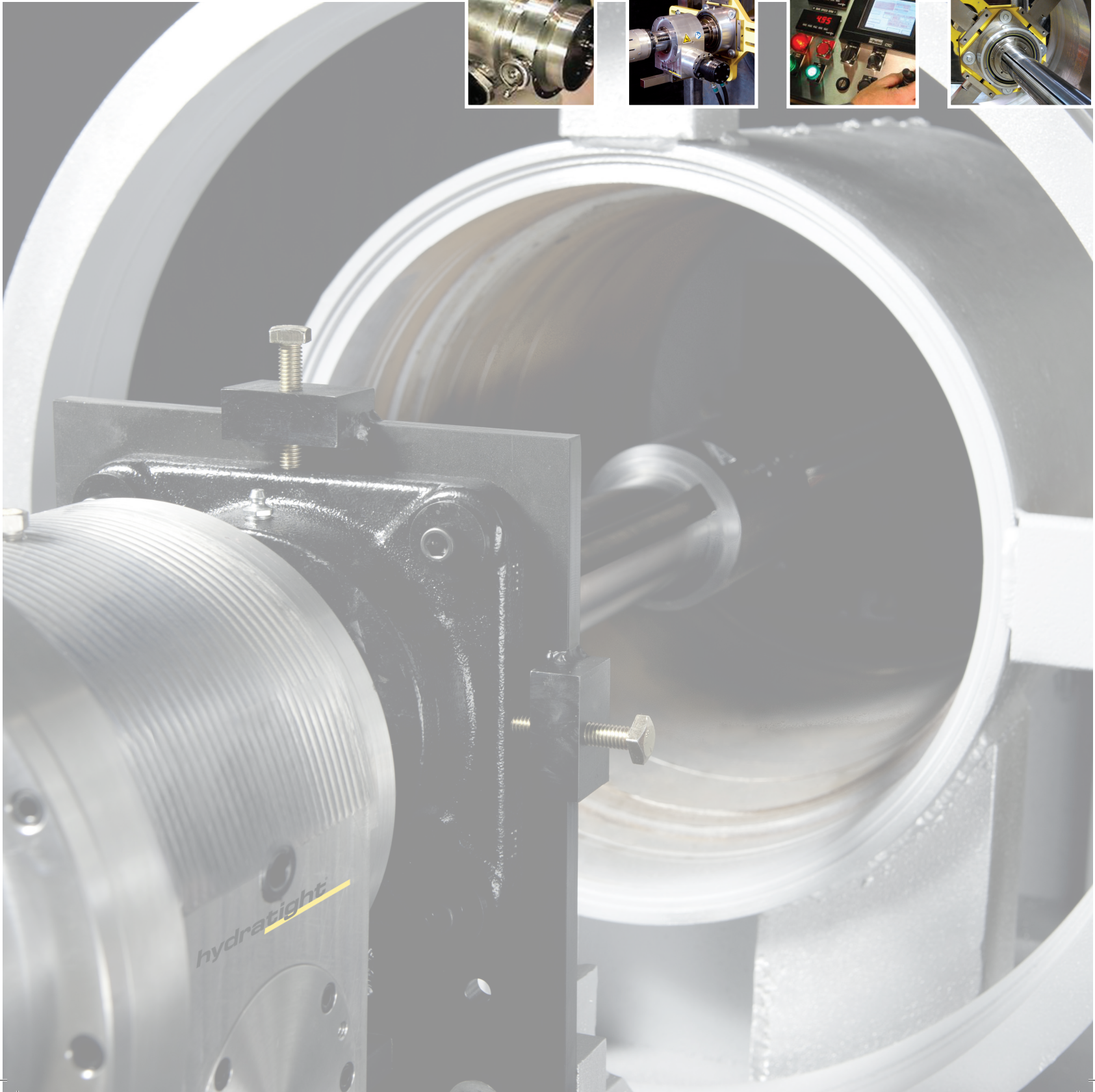
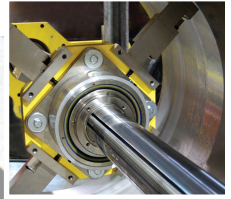
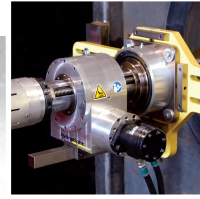


**hydratight<sup>®</sup>**

## Portable Boring Bars



# Because ensuring a leak-free solution is critical. It has to be Hydratight.

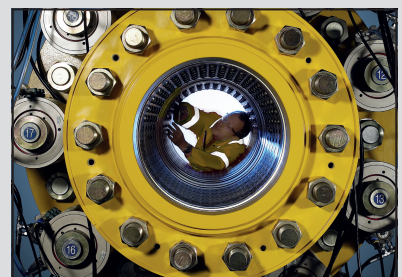
For more than 100 years, Hydratight has provided world-class bolted joint solutions, assessing and managing joints to ensure leak-free start-ups. Today, we continue to set international standards in joint integrity – but we're so much more than just a bolting and on-site machining company.

Because even the tiniest leak can be costly and time consuming to repair, we manage every joint on a project for leak-free start-ups and production, which in turn removes the threat of environmental impact caused by unsafe joints. Safety continues to be the most important aspect of our business. We are a global organisation making a real difference to the industries and communities we work in, committed to improving safety, operational efficiency and uptime.

Because you require the support of an innovative partner committed to your success, we not only offer unrivalled service on a global scale, including customer training and software development; but also design and manufacture quality tools and equipment for bolted joint solutions to the highest standards. Our certified teams are dedicated to working closely with you, assessing and managing every joint on your project to prevent leaks from ever occurring, year in, year out.

Because you value safety and reliability, we work to ISO 9001, ISO 14001 and OHSAS 18001 standards in everything we produce, from manufacturing torque and tension bolting equipment to mechanical connectors, from on-site service to creating custom solutions in line with client specifications.

It means that whenever you need a complete joint integrity solution, whichever industry sector you're in, you can rely on us to get it 100% right first time, every time. **This is why it has to be Hydratight.**



## Engineering Driven Safety Focused Solutions



LRQ 0912064



LRQ 4000352



LRQ 4003099



RQA659747



KLN 4001579



E12794

# Hydratight Portable Boring Bars

For over 90 years Hydratight's line of portable line boring equipment has provided the power generation, mining and off-road equipment industries with technically advanced solutions to their line boring requirements. Hydratight's range of machines represents the most advanced technology for on-site boring capability, incorporating leading engineering and cutting edge features for safe, reliable and accurate cutting.

The rigid design and accuracy of Hydratight's boring bar line has earned it the reputation for excellence on both large and small boring applications.

Our line is comprised of six machines that cover an impressive 1.5"–64" (38mm–1625.6mm) diameter boring range standard, with up to 96" (2438mm) optional.

The range includes both push-pull and screw driven feed types. These two styles cover an expanded range of on-site boring applications including mining and construction equipment, turbine machinery, hydroelectric power and ship building.

## Rigid Feed Screw Machines

The rigid feed screw driven portable line boring machines are capable of boring from 4"–64" (102mm–1625.6mm) in diameter and with bar lengths of up to 24' (7.3m). Custom boring/facing heads are available up to 96" (2438mm) diameter and a unique coupling arrangement is available for easy extension, to meet special length requirements. This proven design allows the support bearings to be securely attached to the boring bar, providing a rigid, vibration-free set-up.

## 8200 Boring Bar System

The 8200 System enables large work pieces to be line bored on-site with unprecedented accuracy, versatility, productivity and operator safety.

## 2500 Boring Bar

The unique design of the 2500 model provides quick set-up and precision control by incorporating the axial feed and bar rotation in a single gear box.

## Push-Pull Machines

Push-pull boring bar machines are capable of on-site repair from 1.5"–24" (38.1mm–609.6mm) in diameter. They are rugged, compact, easy to use and affordable.

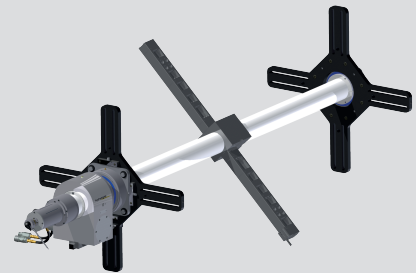
Their rigid and operator-friendly design enables an inexperienced operator to machine a smooth, accurate bore with the same precision as an experienced veteran.

## 2250P Boring Bar

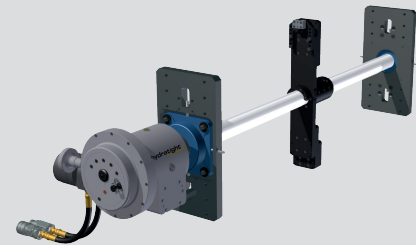
A cost effective, lightweight and versatile tool for line and blind boring. Optional bore welding system and facing heads are available.

## 1250PM Boring Bar

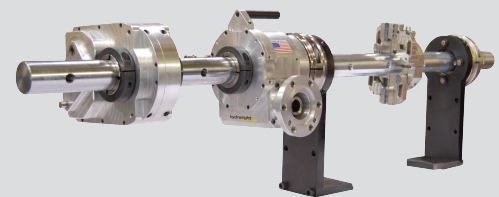
The affordable 1250PM Boring Bar's compact and rugged design is capable of repairing bores from 1.5"–6" (38mm–152mm) in diameter with unprecedented ease.



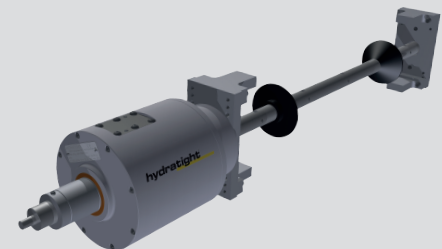
**8200 Boring Bar System**  
Bores 6"–64" (152mm–1625.6mm)  
Optional max: 96" (2438mm)



**2500 Boring Bar**  
Bores 4"–16" (102mm–406mm)  
Optional max: 26" (660mm)



**2250P Boring Bar**  
Bores 2.5"–24" (63.5mm–609.6mm)  
Optional min: 1.5" (38mm)

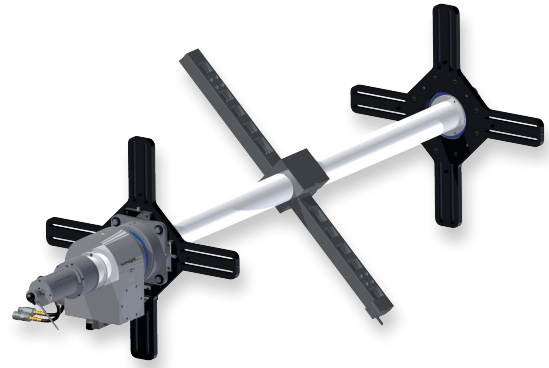


**1250PM Boring Bar**  
Bores 1.5"–6" (38mm–152mm)



# 8200 Boring Bar System

The 8200 Boring Bar System enables large work pieces to be line bored on-site with unprecedented accuracy and versatility to maximize productivity and operator safety.



The 8200 Boring Bar System is the largest of the Hydratight portable line boring machines. Its advanced technology, rigid design and operator friendly controls make it ideal for precision machining steam turbines, hydro turbines, boiler feed pumps, wicket gate rudder posts, large mining equipment and many other on-site boring applications.

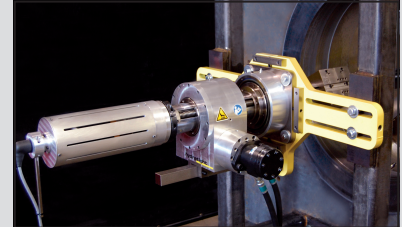
Three standard models are available to finish bores from 6"-64" (152mm-1625.6mm) in diameter. Boring bars are available in lengths up to 24' (7.3m). A unique coupling arrangement is available for easy extension to meet special length requirements.

The 8200 Boring Bar System line boring range is available with manual or two-axis programmable position controls. These user friendly controls enable the boring bars to accurately machine straight, tapered and spherical bores as well as face in a single set-up. Programs are menu-driven, requiring only simple keypad entry of machining parameters without requiring any programming experience.

The boring bar components are engineered for durability and operator safety. Each component contributes its unique advantages to enhance the smooth operation of the complete boring system.

## Features & Benefits

- Electric or hydraulic drives provide variable speed and constant cutting torque throughout the entire speed range
- Self-aligning bearings secure to the boring bar with split tapered sleeves for vibration free cutting
- Modular boring head provides flexibility and rapid setup
- Electronic axial feed improves quality and productivity by providing rapid tool positioning and on-the-fly feed rate adjustments



Rotational Drive and Axial Feed Assemblies



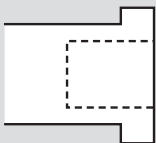
Dual Arm Bearing Support



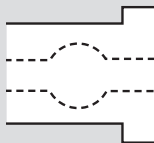
Intermediate Bearing Support



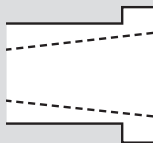
Two-Axis Position Control



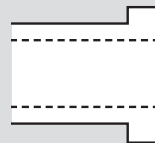
Blind Boring



Spherical Boring



Taper Boring



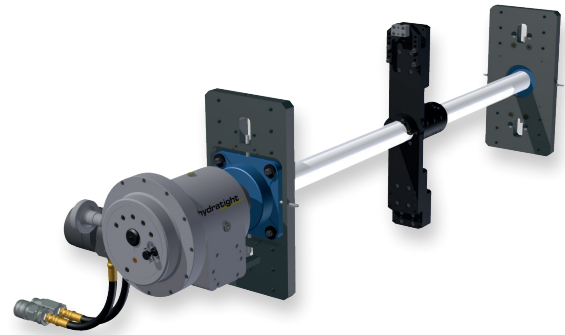
Straight Boring

Model	Unit	Bar Dia.	Max Bar Length	Electric Drive	Boring Range		RPM		Cutting Torque	Axial Feed Rate IPM	
					Min.	Max.	Min.	Max.		Feed	Rapid
8204	Std	4"	20'	7.5 HP	6"	40"	7	70	563 ft-lb	0-1.5"	20"
	Metric	101.6mm	6.1m	5.59 Kw	152.4mm	1016mm	7	70	763.3 Nm	0-38.1 mm	508mm
8206	Std	6"	24'	10 HP	9"	48"	10	58	900 ft-lb	0-1.5"	20"
	Metric	152.4mm	7.32m	7.46 Kw	228.6mm	1219.2mm	10	58	1220.2 Nm	0-38.1 mm	508mm
8208	Std	8"	24'	15 HP	12"	64"	3	30	2100 ft-lb	0-1.5"	12"
	Metric	203.2mm	7.32m	11.19 Kw	304.8mm	1625.6mm	3	30	2847.2 Nm	0-38.1 mm	304.8mm



# 2500 Boring Bar

The 2500 Boring Bar is a versatile, portable line boring system. Despite its compact size, the 2500 Boring Bar is a real work horse. Its rigid design provides smooth, accurate bores from 4"–26" (101mm–660mm) in diameter with unprecedented ease.

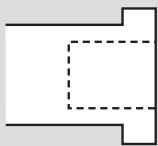


The 2500 model utilizes a rigid, feed screw design to feed the cutting tool along the boring bar. This proven design allows the support bearings to be securely attached to the boring bar, ensuring a vibration-free set up. This method of feeding allows for long accurate bores to be machined on-site in a single set-up, with more stability and accuracy than less rigid push-pull boring systems.

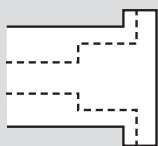
Since every line-boring job is different, the 2500 Boring Bar includes a modular designed boring head which has the flexibility to fit any boring application from 4"–26" (101mm – 660mm) in diameter. For even greater versatility, the cutting tool can be positioned on either end of the boring hub.

## Features & Benefits

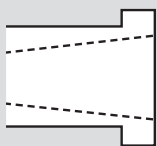
- Rigid bar assembly—reduces vibration and improves cut quality
- 2.5" (64mm) diameter chrome plated boring bar—provides stable, accurate bores
- Easy to set up—fewer attachments and simplified adjustments
- Rigid feed screw design—long bores on each set-up
- Fits into tight spaces—the cutting head travels, not the bar
- Axial cam feed—improved surface finish
- On-the-fly feed and speed changes—reduces downtime by extending the life of the cutting tool
- Hydraulic and electric drive options
- Optional facing head
- Optional taper boring head



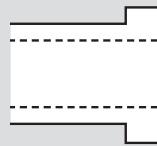
Blind Boring



Facing and Boring

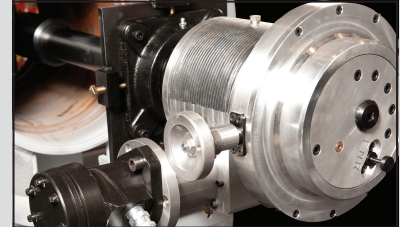


Taper Boring

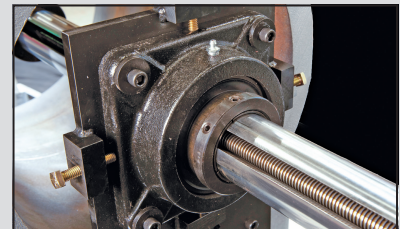


Straight Boring

2500			Unit Measurement		
			Std-in	Metric-mm	
Bar Diameter			2.5"	63.5mm	
Bar Length		Min.	48"	1219.2mm	
		Max.	144"	3657.6mm	
Bore Diameter	STD.	Min.	4"	102.0mm	
		Max.	16"	406.4mm	
	OPT.	Max.	26"	660.4mm	
		Facing Diameter		Min.	4"
			Max.	21"	533.4mm
Axial Feed Rate			0–0.013 in/rev	0–0.33mm/rev	
Radial Feed Rate			0–0.010 in/rev	0.254mm/rev	
Bar Speed**			32–120 rpm	32–120 rpm	
Cutting Torque**			116.7 ft-lb	158.2 Nm	



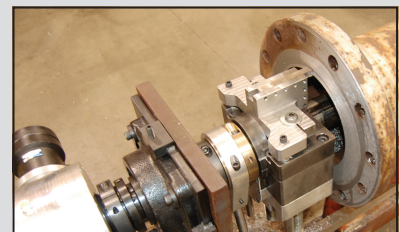
Rotational Drive



Bearing Support



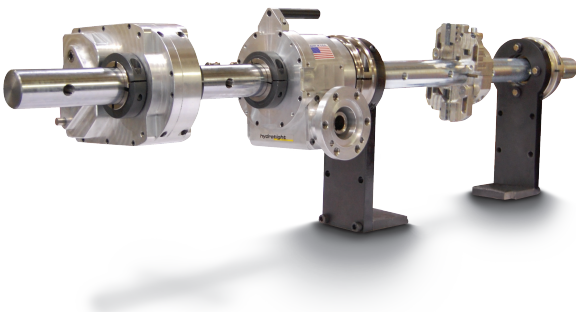
Single Arm Standoff



Facing Attachment

# 2250P Boring Bar

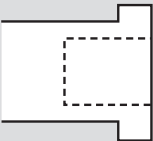
Designed specifically for covering a range from 2.5"-24" (57.15mm-609.6mm) diameter, in lengths up to 12' (3657.6mm), the 2250P Boring Bar strengthens an already significant offering of Hydratight boring bar solutions.



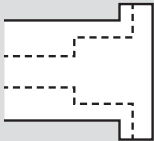
Many of the design elements of this new Boring Bar have been pulled from the larger capacity, field-proven 8200 series of machines. A key area of this design transfer is the rotational drive unit. This assembly uses a 5:1 double enveloping worm gear which provides 25% more cutting torque than any other boring bar within its class. This robust assembly has hydraulic, pneumatic and electric drive options allowing the 2250P to be configured to meet most any boring/facing application.

### Features:

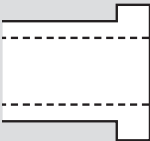
- Rotational drive unit using a 5:1 double enveloping worm gear which provides 25% more cutting torque than any other boring bar within its class.
- Available with bar lengths from 4'-12' (1219.2mm-3657.6mm) with 1/2" (12.7mm) broached tooling holes every 6" (152.4mm).
- Multiple end mount options available. Each support is fitted with a spherical bearing which allows for up to 5° of bar alignment and up to 0.25" (6.35mm) of radial adjustment.
- Axial feed, rotational drive, boring heads and facing/grooving head assemblies can be mounted at any point along the bar.



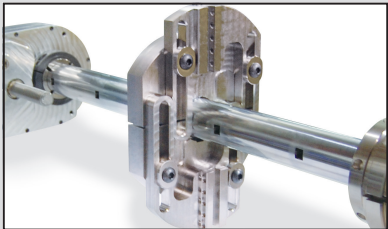
Blind Boring



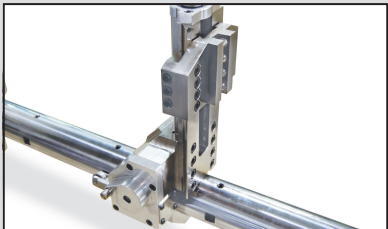
Facing and Boring



Straight Boring



Boring Heads



Facing Heads



Alignment Cones

2250P		Unit Measurement	
		Std	Metric
Bar Diameter	Standard	2.25"	57.15mm
	Optional	1.25" & 1.75"	31.75 & 44.45mm
Bar Length	Min.	48"	1219.2mm
	Max.	144"	3657.6mm
Tool Spacing		6"	152.4mm
Cutting Tool	Standard	0.5"	12.7mm
	Optional	0.38"	9.53mm
Axial Stroke	Standard	12"	304.8mm
	Optional	24" & 36"	609.6mm & 914.4mm
Feed Rate		0-0.019 in/rev	0-0.0483mm/rev

Machining Range		Unit Measurement	
		Std	Metric
Boring Heads 2.25" Bar	Bar Mount	2.5"-5.0"	63.5mm-127.0mm
	Small	4.5"-8.0"	114.3mm-203.2mm
	Medium	6.38"-12.5"	162.1mm-317.5mm
	Large	10.0"-24.0"	254.0mm-609.6mm
Boring Heads 1.75" Bar	Bar Mount	2.0"-4.5"	50.8mm-114.3mm
	Boring Head	4.5"-10.0"	114.3mm-254.0mm
Boring Heads 1.25" Bar	Bar Mount	1.5"-4.0"	38.1mm-101.6mm
	Boring Head	4.0"-8.5"	101.6mm-215.9mm
Facing/Grooving		2.5"-21.0"	63.5mm-533.4mm
Swing Dia.		19.1"	485.14mm
Feed Rate		0-0.024 in/rev	0-0.61mm/rev

# 1250PM Boring Bar

The affordable 1250PM Boring Bar's compact and rugged design is capable of repairing bores from 1.5"–6" (38mm–152mm) in diameter with unprecedented ease.

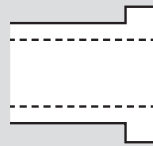


At the heart of the 1250PM is the unique automatic axial feed and micrometer adjustable tooling. The automatic feed enables operators across a range of skill levels to machine smooth and accurate bores with exceptional precision. The axial feed assembly automatically feeds the boring bar a fixed 0.0025" (0.0635mm) per bar revolution, so you'll never have to worry about overfeeding.

The optional micrometer adjustable tool setter allows the depth of cut to be set to within 0.0005" (0.0127mm). Its easy to use functionality is not the only strength of the 1250PM—it also boasts a lightweight design, making it highly portable.

## Features & Benefits

- It is the lightest, most compact unit on the market
- Performs conventional line boring and stub boring
- Easy to set-up—micrometer adjustable tooling
- Diameters from 1.5"–6" (38mm–152mm)
- Fixed feed rate of 0.0025" (0.0635mm) per revolution

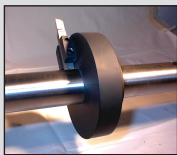


Straight Boring

## Options

### 4"–6" (102mm–152mm)

#### Diameter Boring Head

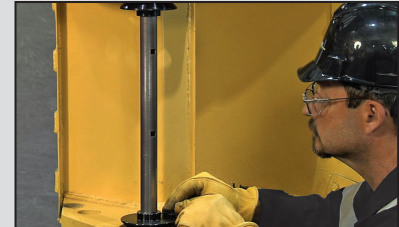


Provides smooth, accurate bores over 4" (102mm) in diameter

#### Micrometer Adjustable Tooling



Accurately sets the depth of cut



Step 1: Center the boring bar



Step 2: Secure to the work



Step 3: Attach the drill and start boring

1250PM			Unit Measurement	
			Std	Metric
Bar Diameter			1.25"	31.75mm
Bar Length	Min.		48"	1219.2mm
	Max.		96"	2438.4mm
Bore Diameter	STD.	Min.	1.5"	38.1mm
		Max.	4"	101.6mm
	OPT.	Max.	6"	152.4mm
Axial Stroke			2"	50.8mm
Feed Rate			0.0025 in/rev	0.0635 mm/rev
Tool Spacing			4"	101.6mm
Bar Speed**			0-500 rpm	0-500 rpm
Cutting Torque**			30 ft-lb	40.7 Nm

\*\*Performance range based on available motors, actual performance dependent on motor selected



# **hydratight<sup>®</sup>**

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visit: [WWW.FLOWVALVE.CL](http://WWW.FLOWVALVE.CL)

