

**HOFMANN  
ENGINEERING**

**PORTABLE  
LINE  
BORING  
MACHINE**

Since 1988 Hofmann Engineering has provided specialist engineering services to Australia's industry leaders.

Quality Assurance accreditation by Bureau Veritas complements our total quality culture.



Our commitment to continuous quality improvement touches every aspect of our products, services and customer support.



**BORING**

**FACING**

**WELDING**

# PORTABLE LINE BORER

The Hofmann Portable Line Boring Machine with its optional extras represents an all round service tool for on-site or in-shop precision machining and inside diameter welding. This new concept will perform in situ: **boring, taper boring, facing, taper facing, drilling and welding** without the necessity of having extensive and costly down time and dismantling of equipment which is to be repaired. Mounting the machine to the job instead of the conventional approach of mounting the job to the machine

6 off - Clamping legs

makes the Portable Line Boring Machine simple, solid, fast, accurate and inexpensive.

Boring bars of up to 6000mm in length feed through the centre of the hollow spindle machine. The machine can be lifted by one operator and mounted in any suitable position on the boring bar, either between the bores which require machining or on either side of them. The design which is based on simplicity, is easily understood and operator training normally takes only a few hours.

Drilling into the work piece with a drill bit mounted at the end of the boring bar allows bores from a blank up to larger than 1000mm in diameter to be bored and faced (utilising optional extras).

Sound and efficient hydraulics allow heavy machining cuts to be taken. Spindle speed is infinitely variable from 0-240 RPM.

The feed is adjustable for either automatic or manual operation in both directions. All critical parts are of hardened steel. A safety clutch has been provided to safeguard against feed override during boring and welding operations.

Quick connection couplings

Hydraulic motor

Boring head mounting (both sides supported)

Cutting tool holder can be fitted without removing boring bar

Spherical seat location for instant alignment of boring head

Machine mounting bracket (one side supported)

Straight support bracket with self-aligning bearings and two clamping legs fitted

Audio-electric alignment system

Planetary gearbox 33:1  
Optional - for welding

Clamping screw for moving feed housing to new position

Turn to engage planetary gearbox

High tensile hard chromed boring bars

Positive drive hardened gears

Boring head (see opposite page)

Handfeed

Storage box for hydraulic unit, boring head and all other items - 570kg, total weight incl. box.  
Size - 750mm W. x 1245mm L. x 945mm H.  
Boxes are made of steel with heavy duty plywood partitioning to suit individual items.

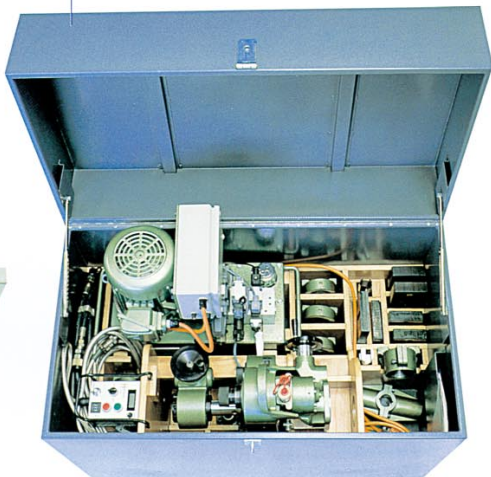
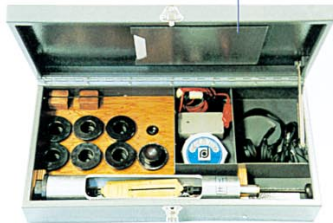
Variable feed box with own hand feed and scale. Feed screw and feed box may be mounted remote anywhere along the boring bar if space is restricted

Support bracket with self-aligning bearings (one side supported - 6 off)

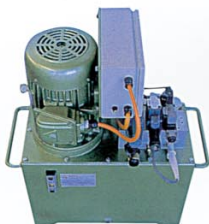
Square cutting tool holes in boring bar every 300mm

Feed for lever forward and reverse 0.05; 0.1; 0.2; 0.25mm/rev.

Feed screw (hardened)



# COMPONENTS



## BORING HEAD

Made out of high tensile aluminium alloy casting with a case hardened and ground hollow spindle 50.8mm diameter, hardened gear drive 1:1.

Optional – with planetary reducer 33:1 for welding).

**Feed:** Power feed variable both ways. Hand feed both ways. Feed length is only limited by the length of the boring bar.

**Speed:** Infinitely variable from 0-240 RPM in both directions.

## HYDRAULIC POWER PACK

**Motor:** 4kw three phase 4 pole 440 volt 50Hz. Comes with electric cord 10m long and remote electric switch or remote controls if welder is included.

**Reservoir:** 60L – Assembled with: filler, breather, piston pump (horsepower regulated), directional

control valve, pressure gauge, return line filter, quick release coupling, 6000mm long hose assy.

## HYDRAULIC MOTOR

1 off – 0 to 240 RPM producing 380Nm of torque at 100 RPM.



## CONES FOR QUICK ALIGNMENT

2 off – for 50.8mm boring bar.  
Optional: 2 off – 31.75mm dia. boring bar)

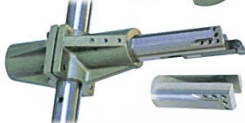


## TOOL HOLDERS

Will machine bores up to 350mm dia. Holders can be clamped on boring bars without removing boring bars – 4 off.

## LARGE TOOL HOLDERS

Will machine bores from 350mm to 630mm dia. Holders up to 1000mm dia. can be supplied.



## BORING BARS

50.8mm dia. High tensile steel with hard chromed wear and corrosion resistant surface.

1 off – 1300mm long. Holes in boring bar suitable for 12mm square  
1 off – 1800mm long. Toolbits every 300mm.  
1 off – 2500mm long.

Optional: 31.75mm dia. boring bar, high tensile steel, hard chromed 2000mm long with 6mm square tool positions every 200mm.



## SELF-ALIGNING SUPPORT BEARINGS

10 off – (4 off – straight, 6 off – one side supported).

## BORING HEAD MOUNTING BRACKET

3 off – Spherical boring head mounting location gives instant alignment.



## STORAGE BOX (BORING BARS)

For boring bars and tool holders.  
210 kg. total weight incl. box.  
435mm W. x 2600mm L. x 210mm H.

## CUTTING TOOLS

3 off – H.S.S. 12mm square.

## INSTRUCTION MANUAL

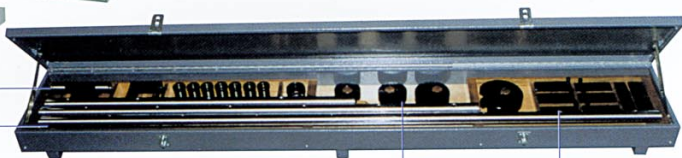
### OPTIONAL EXTRAS AVAILABLE FOR THE PORTABLE LINE BORING MACHINE

- ◆ Facing head 180mm
- ◆ Facing head 230mm with variable feed (gramophone finish)
- ◆ Taper boring head
- ◆ 31.75mm (1 1/4") dia. boring bar and conversion kit (standard storage box provides for these items)
- ◆ Tool holder extensions (aluminium) to bore up to 1000mm dia.
- ◆ Micro boring tool holders
- ◆ Boring bar with No. 4 Morse taper for drilling and fitting of small boring head (boring smaller than 52mm [33] dia.)
- ◆ Boring bars up to 6000mm long
- ◆ Audio-electric alignment system
- ◆ Laser alignment system
- ◆ Coupling to join two boring bars
- ◆ Feed Flange for remote fastening of feed screw
- ◆ Electric Motors - flame proof, tropical proof, 50 or 60 Hz, three phase 4kw
- ◆ Machining centre, low cost conversion using the Portable Line Borer as Horizontal Borer for components too small to attach to machine (also suitable for I.D. welding)
- ◆ Screw cutting attachment

Conversion kit to 31.75mm boring bar (optional)

Space for 31.75mm boring bar

Tool holders

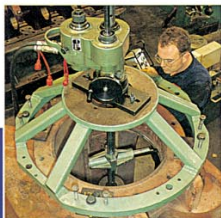


10 off – Clamps

Drilling and boring utilising Morse taper boring bar.



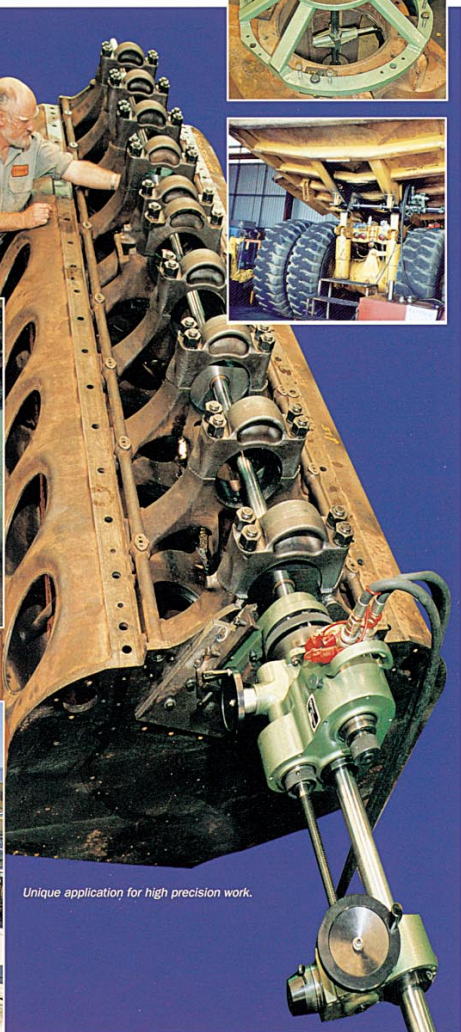
Boring up to 1000mm dia.



Feed screw remote fitted for convenience.



Workshop quality repairs in the field.



Unique application for high precision work.

# BORING – WELDING

Multisystem Welder PS3000 capable of MIG-MANUAL ARC-AIR GOUGING.

Electronic controls.

Remote control infinitely variable up to 32 volts and 300 amps with analogue indication.

Standard equipment can weld bores from 25mm dia. to around 1000mm dia. (larger diameters with optional extras).

Welding up to 2.6m away from the machine (up to 6m with optional extras)

Welding using either solid wire with gas or with the special Hofmann LB195 flux cored wire, which is generally the most suitable choice if the operation is in windy conditions and also for small diameters.

Automated volt/Amp control using synergic setting.

Equipment is suitable to weld in any position.

Change over time from boring to a welding operation takes only minutes.

One operator carries out boring and welding.

Concentric welding makes boring faster.

Pad welding a bore 100mm dia. x 100mm long will take 25 minutes.

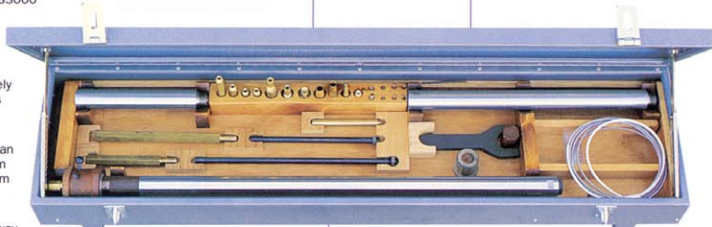
Suitable for production with the aid of an all angle stand.

Retrofitting on earlier Hofmann Line Boring Machines is possible.

**A perfect weld – easy, fast – no expert required.**

Storage and carrying box - 76kg. total weight inc. box  
Size - 420mm W. x 1580mm L. x 215mm H.

Extension nozzles



Special welding bars

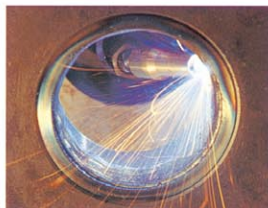
**PRO 500**

Detachable wire feed unit supplied with 10m cable

Modified Mig gun adapted for continuous operation using Hofmann I.D. welder

**PS 3000**

Multisystem Welder 94kg. total weight inc. box  
Size - 530mm W. x 1000mm L. x 1145mm H.



## REMOTE CONTROL

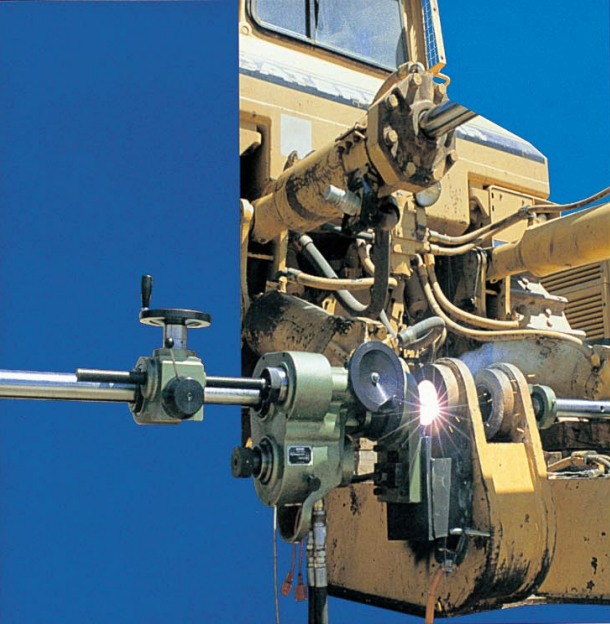
- ◆ Off/on
- ◆ Forward/reverse
- ◆ Infinitely variable speed control
- ◆ Surface speed indication for welding



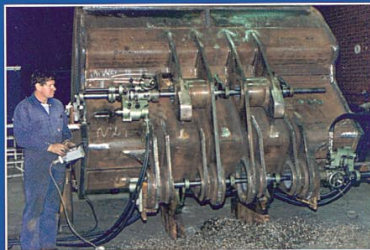
## REMOTE CONTROL – WELDING

- ◆ Analog meter for amps and volts
- ◆ Infinitely variable control of amps and volts
- ◆ Off/on
- ◆ Wire feed control





- GEAR MANUFACTURING
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- RESEARCH & DEVELOPMENT
- SPECIALIST TOOLS & EQUIPMENT
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- DEFENCE PROJECTS
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Due to constant design improvements all specifications and information are subject to change without notice.