HEAVY DUTY DRILLING SOLUTION

The PCS BT40

PCS HEAVY DUTY DRILLING SOLUTION

THINGS TO LOOK OUT FOR

Good quality, Durable Rack, Rail and Pinions?
Many cheaper machines utilize smaller or less durable components which work great at first, however these machines are destined to suffer premature wear. Any mechanical backlash or abnormality will guarantee poor quality cutting minute. Furthermore premature wear will result in increased stress on other components such as motors, belts and drive amplifiers. Many managers have found the initial CAPEX advantage of a cheap machine is quickly eroded by the loss of clients seeking better quality cutting and excessive maintenance callouts. Acknowledged managers that consider CAPEX when determining ROV will always purchase a PCS machine.

Dealing with High-Frequency Electrical Interference?
The plasma cutting process produces extreme levels of high-frequency electrical interference. PCS’s extensive two decades of plasma experience and close relationships with component manufacturers has resulted in premeditated methods to screen, protect and select electrical components. Even the slightest penetration of high-frequency electrical interference can lead to difficult to detect intermittent errors which reduce the cutting quality and productivity.

Engineering and Test Capability?
PCS employ only the very best personnel. In particular staffs within the mechanical and electrical engineering departments are required to have exceptional qualifications while adding cutting-edge computer engineering packages. In the design stage, all of the PCS machine models were rigorously tested and calculated through advanced computer modeling. This stage permits both major and fine mechanical adjustments that result in increased longevity achieved by very few manufacturers. Once an unparalleled result is achieved a prototype is produced and put through the harshest of tests, and amendments are made. The final result is a benchmarked machine model that can operate exactly as stated in our quotations with no hidden surprises.

Local Support?
When buying from PCS you are dealing directly with the manufacturer. PCS stocks an immense array of spare parts and consumables to ensure that machine downtime is kept to a minimum should a breakdown or natural disaster occur. Equally important, PCS directly provides exceptional knowledge and advice. What down time can you expect for any breakdowns and how will this affect your corporate image?

Can you trust the machine manufacturer to provide spare parts for years to come?

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Australia +61 3 9305 2555

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Customers Demanding Drilled Holes?

Own a Heavy Duty Cutting Machine?

Don’t want to spend +$300K on a new machine?

Retrofit Solution?

Adding to your existing Heavy Duty cutting machine:  
• Rapid drilling up to 1 1/5" (30mm) diameter holes  
• Tapping  
• Counter boring  
• All with an accuracy of 0.004" (0.1mm)

Have you got an existing Heavy Duty CNC Plasma cutter?

Are you continually getting requests for drilled holes, thereby forcing you to double-handle your parts? Do you want to add rapid Heavy Duty drilling and tapping capability to your machine at less than 1/3rd of the cost of a new machine?
Well, look no further – Profile Cutting Systems have a cost efficient solution for you. The PCS HD Drilling System has been engineered and tested to capitalize on the incredible rigidity and strength that the Heavy Duty cutting machines are world renowned for.

The PCS HD Drilling Solution is a complete 3 digital axis drilling solution designed to drill accurate holes up to 1 1/5” (30mm) faster than you can cut them. Optimal tooling parameters are achieved by utilizing the latest technology consisting of DeviceNet communications integrated with a Burny CNC to accurately control spindle speed, feed and clamping pressure.

Housed within the heart of the PCS HD drill assembly is a powerful 8HP Bosch Rexroth AC servo motor coupled to a high speed BT40 spindle. The physical task of clamping the plate is delegated to a 1.2HP Bosch Rexroth AC servo motor which can apply up to 0.45 Ton (400KG) of clamping thrust to the clamping foot via a 1” (25mm) ballscrew. The combination of the latest technology, high quality components and the PCS easy-to-use drilling interface allows any operator to drill in literally seconds while achieving outstanding tool life and hole quality.

Controller
- Burny 10 LCD Plus PC based Controller with integrated PCS HD Drilling software

Drive System
- Main Spindle: 13.5HP (10kW) Rexroth IndraDrive.
- Plate Clamp: 2.8HP (2.1kW) Rexroth IndraDrive.
- Spindle Lifter: 2.8HP (2.1kW) Rexroth IndraDrive.
- Motors: 80% duty cycle
- Gearing: Belt Drive

Drive Amplifiers
- Spindle balance grade: 0.3 ISO 1940
- Max clamping thrust: 0.4 Ton (400KG / 4,000N)
- Max RPM at spindle: 3,700 RPM
- Max hole diameter: 1 1/5” (30mm) using recommended high speed tooling. Larger holes may be achieved with low speed tooling
- Maximum tool length: 8” (200mm) gauge length
- Maximum stroke: 12” (300mm)
- Material thickness: Up to 4” (100mm)
- Coolant System: Through tool MQL (Minimum Quantity Lubricant)
- Spindle taper: BT40
- Drilling time: 18mm hole, 12mm plate = 3 seconds

Standard Drilling Operation
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Packages include
- Deta 24 tool Rotary automatic tool changer
- 4 tool automatic tool changer

Sample Cut Out

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