The PCS HD was designed to be an ultra reliable work horse; the first PCS HD continues to operate after 25+ years of service. Of course, the PCS HD has been further refined to cover the majority of an end user’s possible requirements with options ranging from: Drilling, tapping, boring, countersinking, flame (oxy) cutting, 100% duty cycle plasma cutting, plasma & flame (oxy) beveling, pipe cutting, plate printing & marking.

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 excessive 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 Arc On Efficiency when determining ROI 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 predetermined methods to screen, protect and select electrical components. Even the slightest penetration of high-frequency electrical interference can lead too difficult to detect intermittent errors which reduce the cutting quality and productivity. Installation Charges?
PCS provides installation included with any PCS HD quotation. Installation costs can equate to thousands of dollars. Many other boutique machines require installation by a third party where by any abnormality in the installation process will ultimately be charged to the end user.

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 utilizing cutting edge computer engineering packages. In the design stage, all of the PCS machine models are 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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The PCS HD can cover the majority of an end user’s possible requirements with options ranging from drilling, tapping, boring, countersinking, gas cutting, 100% duty cycle plasma cutting, plasma & gas beveling, pipe cutting, plate printing & marking. If you want to minimize your maintenance costs while promoting the image of quality to your clients then the unmatched performance, reliability, lifespan and cost make the PCS HD the smartest solution.

The machine carriage is an all welded construction with a heavy dual-supporting beam and exceptionally robust modular side supports. To ensure ultra smooth operation the side supports run on fabricated rails with a machined billet running surface and vertically adjustable base plates which are adjusted on site to provide a ridged and finely tweaked level running surface.

With powerful state of the art Digital AC dual drive system and integrated active rail lining system, the PCS HD will perform to the strictest of tolerances for decades to come in a highly demanding industrial environment.

**Recommended Plasma Cutting Operation**

- **Power Source**: Kaliburn Spirit II Plasma System(s)
- **Output Current**: 100 - 400 amp
- **Plasma Torch Lifter System**: INOVA Torch Height Control System
- **Cutting Capacity**: 0.036”-2” (1 - 50 mm) - Max capacity 3” (75mm)

**Standard Safety Features**

- **Machine Protection**: Heat shields standard
- **E-Stop**: Independent Emergency-Stop circuit
- **End Limits**: Software controlled with redundant mechanical limit switches

**Technical Details**

**Machine Dimensions**

<table>
<thead>
<tr>
<th>Effective cutting width</th>
<th>Upto 27” (8.25m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective cutting length</td>
<td>Infinite</td>
</tr>
<tr>
<td>Overall machine height</td>
<td>6’ (1.8m)</td>
</tr>
</tbody>
</table>

**Drive System and Controller**

- **Controller**: Burny® 10 LCD Plus with Custom PCS Apps
- **Drive Amplifiers**: Longitudinal & Transverse
- **Motors**: Longitudinal Axis: 324LF/1B (43.5Nm) max torque Rexroth AC servo
- **Transverse Axis**: 416LF/1B (8.1Nm) max torque Rexroth AC servo
- **Bevel Axis (optional)**: 2x 1.2HP (0.90KW) 1.35FT/1B (1.8Nm) max torque Rexroth AC servo motor
- **Gearbox**: Longitudinal Axis: Planetary. Backlash <7 arcmin
- **Transverse Axis**: Planetary 16:1. Backlash <7 arcmin
- **Bevel Axis (optional)**: Planetary grease packed

**Standard Gas Cutting Operation**

- **Number of torches**: Up to 10
- **Cutting capacity**: Up to 12” (300mm)
- **Hi-speed pre-heat**: As standard
- **Fast pierce with auto retract**: As standard
- **Gas torch lifter system**: Soft PLC controlled as standard

**Machine Travel**

- **Traverse speed**: 1000 ipm (25 m/min) - Safety Limited
- **Profiling speed**: Up to 1000 ipm (25 m/min)
- **Max acceleration**: 4.3/3/s (1.3 m/s²)
- **Machine accuracy on axis**: 0.006”/3’ (0.15mm/m)
- **Machine repeatability on axis**: 0.004” (0.1mm)

**Pinion Thrust Bearings**

- **Rack - Longitudinal axis**: SRCFP1000 CP. Precision hardened & ground.
- **Rack - Transverse axis**: Upper: Precision ground THK Linear Rack/Rail Lower: Precision ground THK linear rail
- **Cross Axis**: Precision THK hardened & ground
- **Cable carrier**: Cable carrier standard. Floor mounted.
- **Bearings**: THK Linear Bearings on transverse axis
- **Integrated active rail cleaning system**: As standard

**Customizations**

- Customized cutting width**
- Infinite length
- EHD category (Extra Heavy Duty) - Strengthened beam & legs - Larger electrical cabinet - Multiple gantries on common rail - Plasma cutting - PCS Zero Offset Plasma bevel - Independent torch station select - Stud welding - Rotary pipe cutting axis - Flame (Oxy) bevel - Up to 10 flame (Oxy) torches - Extra hi-flow gas manifold - Auto igniters - Plate cooling rings - Spot drill - BHP BT40/Carat Drill® - Steel Grate plasma cutting - Paint marking

**Contact Information**

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