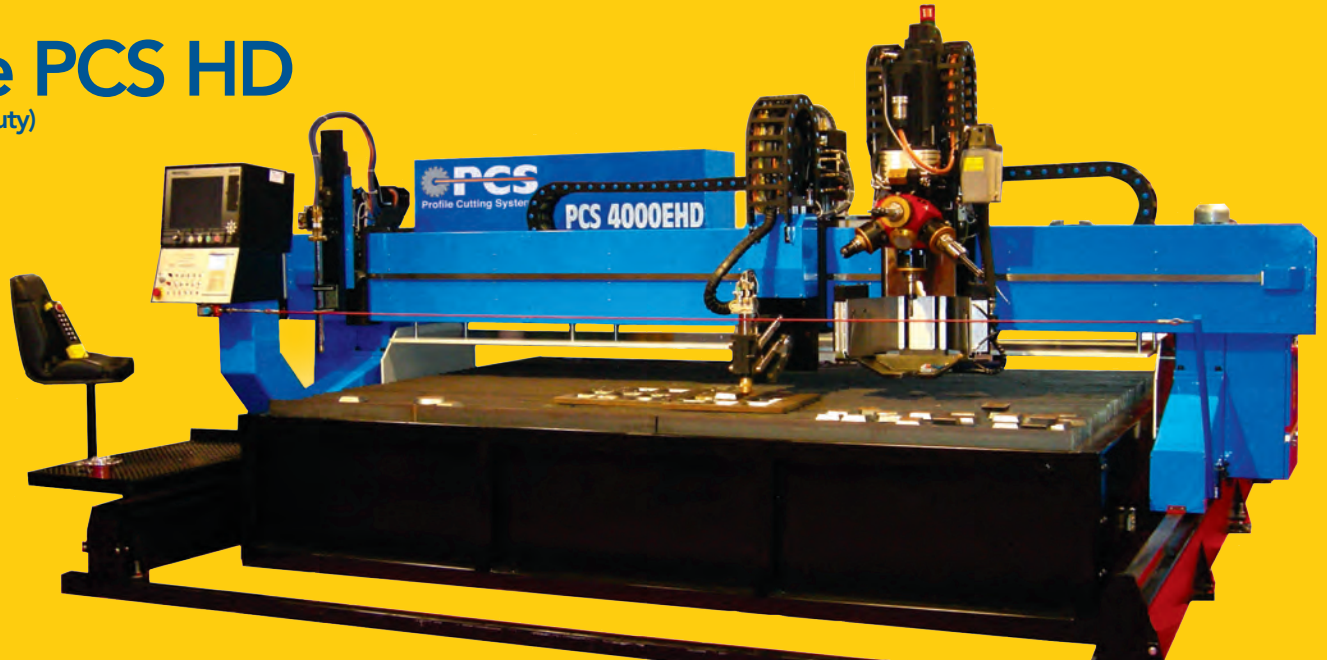


OPERATING BEYOND THE CALL OF DUTY

The PCS HD (Heavy Duty)



Machine shown is optioned with EHD category, multi spindle drill and plasma bevel.

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 premeditated 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?

USA 800 656 1903

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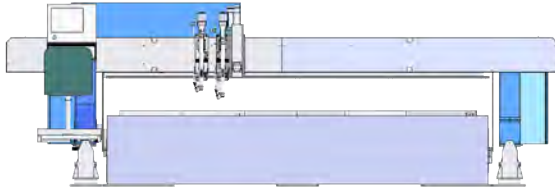
PCS
Profile Cutting Systems

www.profilecuttingsystems.com info@profilecuttingsystems.com

PCS HD (Heavy Duty)

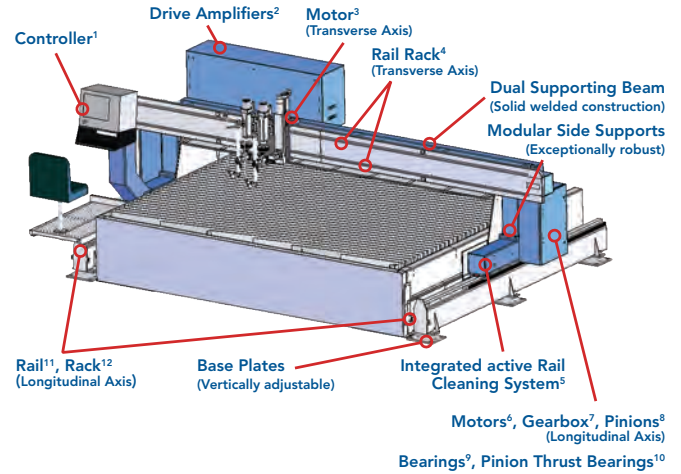
Technical Details

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 cleaning system, the PCS HD will perform to the strictest of tolerances for decades to come in a highly demanding industrial environment.



Machine Dimensions

Effective cutting width	Up to 27' (8.25m)
Effective cutting length	Infinite
Overall machine height	6' (1.8m)

Drive System and Controller

Controller¹		Burny® 10 LCD Plus with Custom PCS Apps
Drive Amplifiers²		Independent 3-Axis (X, XX & Y) AC digital Rexroth IndraDrive amplifiers. SERCOS comms.
Motors	Longitudinal Axis⁶	32FT/LB (43.5Nm) max torque Rexroth AC servo
	Transverse Axis³	6FT/LB (8.1Nm) max torque Rexroth AC servo
	Bevel Axis (optional)	2x 1.2HP (0.90kW) 1.3FT/LB (1.8Nm) max torque Rexroth AC servo motor 1x 2.5HP (1.86kW) 6FT/LB (8.1Nm) max torque Rexroth AC servo motor
Gearbox	Longitudinal Axis⁷	Planetary. Backlash <7 arcmin
	Transverse Axis	Planetary 16:1. Backlash <7 arcmin
	Bevel Axis (optional)	Planetary grease packed 1x 50:1 <9 arcmin 1x 5:1 <6 arcmin

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

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

Machine Travel

Traverse speed	1000 ipm (25 m/min) - Safety Limited	
Profiling speed	Up to 1000 ipm (25 m/min)	
Max acceleration	4.3"/s/s (1.3 m/s/s)	
Machine accuracy on axis	0.006" /3' (0.15mm/m)	
Machine repeatability on axis	0.004" (0.1mm)	
Rack - Longitudinal axis¹²	SRCPF1000 CP. Precision hardened & ground. Rack has an accuracy of 0.0045" /3' (0.1mm/m) Material: S45C (C45) Steel	
Rail - Longitudinal axis¹¹	2 2/5" (60mm) Machined hardened billet	
Rail rack - Transverse axis⁴	Upper: Precision ground THK linear Rack/Rail Lower: Precision ground THK linear rail	
Pinions	Longitudinal Axis⁸	SSTCPG10 CP10 Precision hardened & ground Pitch: 10mm Material: S45C (C45) Steel
	Cross Axis	Precision THK hardened & ground
Pinion Thrust Bearings¹⁰	As standard	
Cable carrier	Cable carrier standard. Floor mounted.	
Bearings⁹	THK Linear Bearings on transverse axis High quality, readily available bearings used throughout	
Integrated active rail cleaning system⁵	As standard	

Customizations

- Customized cutting width**
- Infinite length
- EHD category (Extra Heavy Duty)
 - Strengthened beam & legs
 - Larger electrical cabinet
- Multiple ganties 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
- 8HP BT40/Cat40 Drill*
- Steel Grate plasma cutting
- Paint marking
- Pin marking
- Powder marking
- PCS TurboGas - Automatic gas control for flame (Oxy) cutting
- PCS IntuitiveGas - Automatic height control for flame (Oxy) cutting
- On Table plate stock database
- Job reporting interface for managers
- Advanced maintenance logger
- Travelling dross bin
- Digitally zoned fume extraction
- Automatic plate alignment
- Automatic plate feed
- Extra safety devices
- Operators chair
- Operator safety shield
- Wireless pendant
- Digitally zoned fume extraction
- PCS designed & manufactured wet or dry cutting tables

**Requires EHD category machine for widths greater than 5.5m *Recommend EHD category machine

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