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## Morgan Rushworth HDPX High Definition CNC Plasma Cutting Machines

**SELMACH**  
MACHINERY

The HDPX High Definition CNC plasma machine is the flagship model from Morgan Rushworth and is offered in a huge range of bed sizes and with many optional features. The special bridge carrier design ensures precision cutting even on extremely long bed models and allows the fitting of optional equipment such as additional plasma torches for increased productivity, and single or multiple oxy torch units for cutting up to 300mm thick material. These models feature a full Hypertherm suite comprising of the HyPerformance XD Plasma source, available in a range from 130 Amp up to 800 Amp, the MicroEDGE Pro CNC unit, ProNest software, ArcGlide Torch Height Control and the Automatic Gas Console. Other options which can be specified include a tube cutting table with an additional rotational CNC axis, multi-head drilling units and CNC bevel cutting.



HDPX RANGE



HIGH DEFINITION PLASMA CUTTING IN PLATE



OPTIONAL CNC TUBE CUTTING

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## Machine Features

- Hypertherm HPR XD HyPerformance High Definition plasma source with patented LongLife®, PowerPierce® & True Hole technology
- Hypertherm automatic gas console
- Hypertherm Arc Glide torch height control and Hypertherm torch unit
- Hypertherm Windows based MicroEDGE Pro CNC control and ProNest software
- Virtually dress free finish typically removing the requirement for a secondary cleaning operation
- Maximised productivity and minimised operating costs
- Electrical current and gas pressure applied in a gradual controlled manner at the beginning and at the end of the cut resulting in an increase of consumable life of six to eight times greater than comparable traditional systems
- Extremely heavy steel frame designed to withstand constant high speed production
- Bridge carrier design highly resistant to distortion suitable for multi plasma heads and oxy fuel cutting heads and allowing for precision positioning on bed lengths of up to 65 metres
- X and Y axis travel on precision linear guide rails with synchronised servo drives
- Fast positioning speed of 30 m/min with positioning accuracy to 0.01mm
- Arc voltage feedback to control optimum torch height position
- Mechanical and electronic collision avoidance system
- Marking and cutting of material performed with the same plasma torch
- Bevels up to 45 degrees manually
- Cutting table independent from bridge and frame to ensure positioning accuracy irrespective of table loadings
- Fume extraction system beneath the table with exhaust connection at rear of machine that can be connected to factory extraction system or to optional filtration unit
- PLC controlled extraction chambers beneath the table with exhaust outlet at rear of machine ready for connection to extraction/filtration system

## Optional Equipment

- Single station drilling head unit
- Three station drilling head unit
- Six station drilling head unit
- Additional Plasma Units
- Oxy Fuel Cutting Torches for up to 300mm Plate
- Additional modules for ProNest software including auto nesting
- Tube cutting table with rotational CNC axis for cutting round or square tube
- CNC bevel cutting for flanges and arcs
- Hypertherm EDGE Pro CNC Control
- High efficiency extraction/filtration unit

### SAMPLES OF PROCESSED PARTS



HDPX MODEL WITH PLASMA AND OXY TORCHES



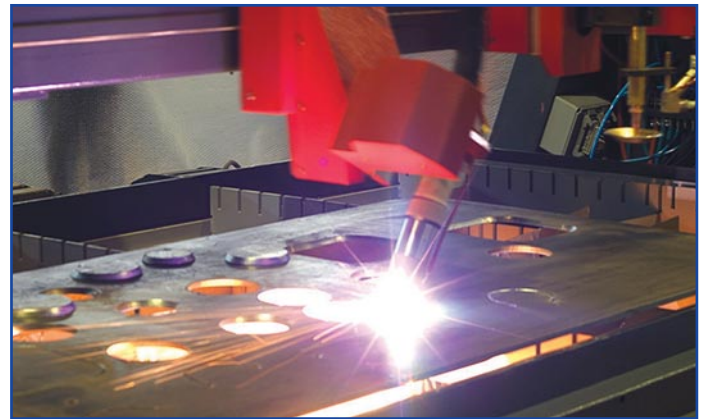


## TUBE CUTTING TECHNOLOGY

- Processes round or square tube in a large range of sizes
- Includes supports for longer tube lengths
- Rotational axis controlled from the CNC unit works in conjunction with the torch height control to cut complex holes and notches
- Fits alongside plasma bed and utilises the same cutting torch

## CNC BEVEL CUTTING SYSTEM

- Bevel cutting for both geometric and free form shapes
- Performs a full bevel from the top or the bottom of the component
- Can be programmed to perform multiple passes with both straight cutting and bevelling to produce a partial bevel with a root face, a double bevel to a point or a double bevel with a root face



## MULTI STATION DRILLING UNIT

- Three or six station versions available
- Drill stroke and tool sequence is controlled from the CNC unit
- Drilling up to 20mm diameter, tapping up to M16 and countersinking
- Coolant is applied at point of drilling

## PLASMA SOURCE SPECIFICATIONS

MODEL		HPR130XD	HPR260XD	HPR400XD	HPR800XD
Plasma Output	Amps	30-130	30-260	30-400	30-800
Production Pierce Capacity					
Mild Steel	mm	32	38	50	50
Stainless Steel	mm	20	32	45	75
Aluminium	mm	20	25	45	75
Maximum Cutting Capacity					
Mild Steel	mm	38	64	80	80
Stainless Steel	mm	25	50	80	160
Aluminium	mm	25	50	80	160

**TECHNICAL SPECIFICATIONS**

MODEL	STOCK CODE	TABLE WIDTH	TABLE LENGTH	X AXIS STROKE	Y AXIS STROKE	HEIGHT UNDER TORCH	TABLE HEIGHT	LENGTH	WIDTH	HEIGHT	WEIGHT
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
HDPX 1503/130	M8927	1700	3200	2300	3200	300	750	5200	3750	2200	4000
HDPX 1503/130	M8928	2200	4800	2800	4200	300	750	6200	4250	2200	6000
HDPX 2006/130	M8929	2200	6400	2800	6200	300	750	8200	4250	2200	8000
HDPX 2504/130	M8930	2700	4800	3300	4200	300	750	6200	4750	2200	7000
HDPX 2506/130	M8931	2700	6400	3300	6200	300	750	8200	4750	2200	9000
HDPX 3006/130	M8932	3200	6400	3800	6200	300	750	8200	5250	2200	10000
HDPX 3009/130	M8933	3200	9600	3800	9200	300	750	11200	5250	2200	12000
HDPX 3012/130	M8934	3200	12800	3800	12200	300	750	14200	5250	2200	15000
HDPX 3014/130	M8935	3200	14400	3800	14200	300	750	16200	5250	2200	17000
HDPX 4006/130	M8936	4200	6400	4800	6200	300	750	8200	6250	2200	12000
HDPX 4009/130	M8937	4200	9600	4800	9200	300	750	11200	6250	2200	14000
HDPX 4012/130	M8938	4200	12800	4800	12200	300	750	14200	6250	2200	17000
HDPX 4014/130	M8939	4200	14400	4800	14200	300	750	16200	6250	2200	19000
HDPX 1503/260	M8940	1700	3200	2300	3200	300	750	5200	3750	2200	4000
HDPX 2004/260	M8941	2200	4800	2800	4200	300	750	6200	4250	2200	6000
HDPX 2006/260	M8942	2200	6400	2800	6200	300	750	8200	4250	2200	8000
HDPX 2504/260	M8943	2700	4800	3300	4200	300	750	6200	4750	2200	7000
HDPX 2506/260	M8944	2700	6400	3300	6200	300	750	8200	4750	2200	9000
HDPX 3006/260	M8945	3200	6400	3800	6200	300	750	8200	5250	2200	10000
HDPX 3009/260	M8946	3200	9600	3800	9200	300	750	11200	5250	2200	12000
HDPX 3012/260	M8947	3200	12800	3800	12200	300	750	14200	5250	2200	15000
HDPX 3014/260	M8948	3200	14400	3800	14200	300	750	16200	5250	2200	17000
HDPX 4006/260	M8949	4200	6400	4800	6200	300	750	8200	6250	2200	12000
HDPX 4009/260	M8950	4200	9600	4800	9200	300	750	11200	6250	2200	14000
HDPX 4012/260	M8951	4200	12800	4800	12200	300	750	14200	6250	2200	17000
HDPX 4014/260	M8952	4200	14400	4800	14200	300	750	16200	6250	2200	19000
HDPX 1503/400	M8953	1700	3200	2300	3200	300	750	5200	3750	2200	4000
HDPX 2004/400	M8954	2200	4800	2800	4200	300	750	6200	4250	2200	6000
HDPX 2006/400	M8955	2200	6400	2800	6200	300	750	8200	4250	2200	8000
HDPX 2504/400	M8956	2700	4800	3300	4200	300	750	6200	4750	2200	7000
HDPX 2506/400	M8957	2700	6400	3300	6200	300	750	8200	4750	2200	9000
HDPX 3006/400	M8958	3200	6400	3800	6200	300	750	8200	5250	2200	10000
HDPX 3009/400	M8959	3200	9600	3800	9200	300	750	11200	5250	2200	12000
HDPX 3012/400	M8960	3200	12800	3800	12200	300	750	14200	5250	2200	15000
HDPX 3014/400	M8961	3200	14400	3800	14200	300	750	16200	5250	2200	17000
HDPX 4006/400	M8962	4200	6400	4800	6200	300	750	8200	6250	2200	12000
HDPX 4009/400	M8963	4200	9600	4800	9200	300	750	11200	6250	2200	14000
HDPX 4012/400	M8964	4200	12800	4800	12200	300	750	14200	6250	2200	17000
HDPX 4014/400	M8965	4200	14400	4800	14200	300	750	16200	6250	2200	19000