

# SELMACH™

MACHINERY

Making Metal Work



## High Definition CNC Plasma Cutting Machine

The Ajan High Definition CNC metal cutting plasma offer high quality profile cutting for a range of materials, delivering both excellent edge squareness and a virtually dross free finish, while maintaining production feed rates. The machines are constructed to a heavy industrial standard and, by manufacturing the machine totally in house including all of the electronic components, Ajan ensure that they can offer the required support to the machine for the duration of its working life. All models come complete with Ajan CAD/CAM software including comprehensive features and free software upgrades.



Options include the advanced bevel cutting plasma head, oxy cutting torches and a heavy industrial extraction/ filtration system, developed specifically for these models; alternatively they can be connected to a new or existing factory ducted system.

**WATCH THE  
MACHINE IN  
ACTION**





**CNC UNIT**



**ZONED  
EXTRACTION SYSTEM**



The optional extraction and filtration system can be used to extract smoke and fumes from the plasma table during cutting. This is especially important for cutting aluminium, where the dust and fumes can be explosive if not handled correctly.

Alternatively, existing extraction systems can be used.



**WIDE GANTRY PROVIDES  
CUTTING STABILITY**



**INDEPENDENT  
GANTRY RAILS**

Ajan Electronics produces all machine parts in its own factories; the plasma generator, CNC unit, cutting torch, consumables, servo motors, moving parts, all electronic parts and steel structure which means we can source any replacement parts you might need quickly and easily, reducing downtime.



## Machine Features

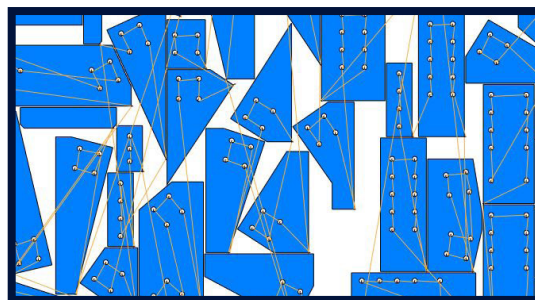
- High Definition plasma cutting technology
- Automatic gas console
- Automatic torch height control
- Ajan CNC control unit using industry standard DIN/ISO 'G' codes
- Able to work with DXF, ESSI and NC toolpath files
- CAD drawing software
- CAM nesting and optimisation software
- Consistent quality, virtually dross free finish without the requirement for secondary operation
- 'Optohole' technology for bolt hole optimisation
- Strong steel frame designed to withstand constant high speed production
- X and Y axis precision rack and pinion system with AC servo motors
- Resume cutting feature
- Rapid traverse speed
- Marking and cutting of material performed with the same plasma torch
- 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

## Optional Equipment

- Oxy fuel units
- 4-axis bevel cutting head
- 5-axis bevel cutting head
- High efficiency extraction / filtration system
- Tube Cutting Attachment

Ajan is a globally known brand in metal cutting and machining. In software fields Ajan provides effective solutions to the customers with the self-developed nesting software named AJANCAM.

AJANCAM automatic nesting and optimisation software is easy to learn and practical to use. AJANCAM increases productivity providing quick and effective machining with less remnants. New versions of AJANCAM will be developed and release in consideration of customer satisfaction and their feedback.



## AJANCAM SOFTWARE

### Cutting Torches

The Ajan can be fitted with a range of different torches, depending on what your cutting requirements are, using either the standard, straight cut touch, a bevel cutting torch, and an optional, interchangeable Oxy Fuel cutting Torch.

The Ajan Oxy-fuel cutting system with it's CNC control unit provides an efficient cutting up to 200mm thickness of mild steel.

An optional manual bevel cutting adapter is available.



**STRAIGHT  
CUT  
TORCH**



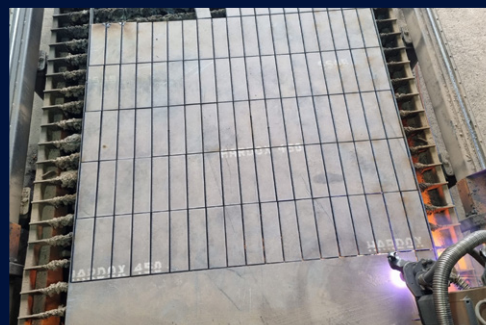
**BEVEL  
CUTTING  
SYSTEM**



**OXY  
FUEL  
TORCH**

***"We can get bigger sheets on there, and as a result there are fewer offcuts, therefore reducing our costs. It is much faster and our clearing up time is much reduced compared to the old one - with the Ajan there is very little cleaning required. It has a bigger capacity, so we can fulfil more of our customer needs, do extra jobs above what we had the capability to do before."***

**James Silk - J. Silk Agricultural Co. Ltd**



## TECHNICAL SPECIFICATIONS

MODEL			1503/130	1503/260	2004/130	2004/260	2006/130	2006/260
Plasma Output		Amps	30-130	30-260	30-130	30-260	30-130	30-260
Capacity from Pierce	Mild Steel	mm	25	40	25	40	25	40
	Stainless	mm	20	25	20	25	20	25
	Aluminium	mm	20	25	20	25	20	25
Capacity from Edge Start	Mild Steel	mm	30	65	30	65	30	65
	Stainless	mm	25	50	25	50	25	50
	Aluminium	mm	25	50	25	50	25	50
X Axis Stroke		mm	1500		1500		1500	
Y Axis Stroke		mm	3000		4000		6000	
Table Height		mm						
Table Loading		kg/m <sup>2</sup>						
Length		mm	5900		7250		9100	
Width		mm	3365		3865		3865	
Height		mm	TBA		TBA		TBA	
Weight		kg	TBA		TBA		TBA	

Looking for different bed sizes? The Ajan Plasma Table is modular by design, and can accommodate a wide range of sizes

## OPTIONAL - Pipe Cutting Attachment

Ajan CNC SERIES has been designed for satisfying the requirements of the user's to be able to cut pipes and sheet metal with CNC plasma cutting system.

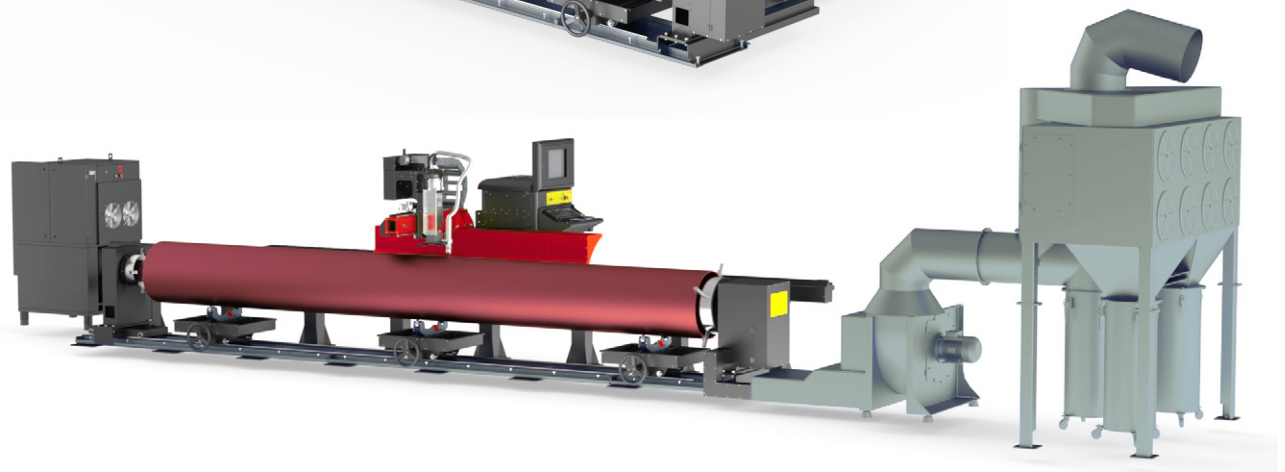
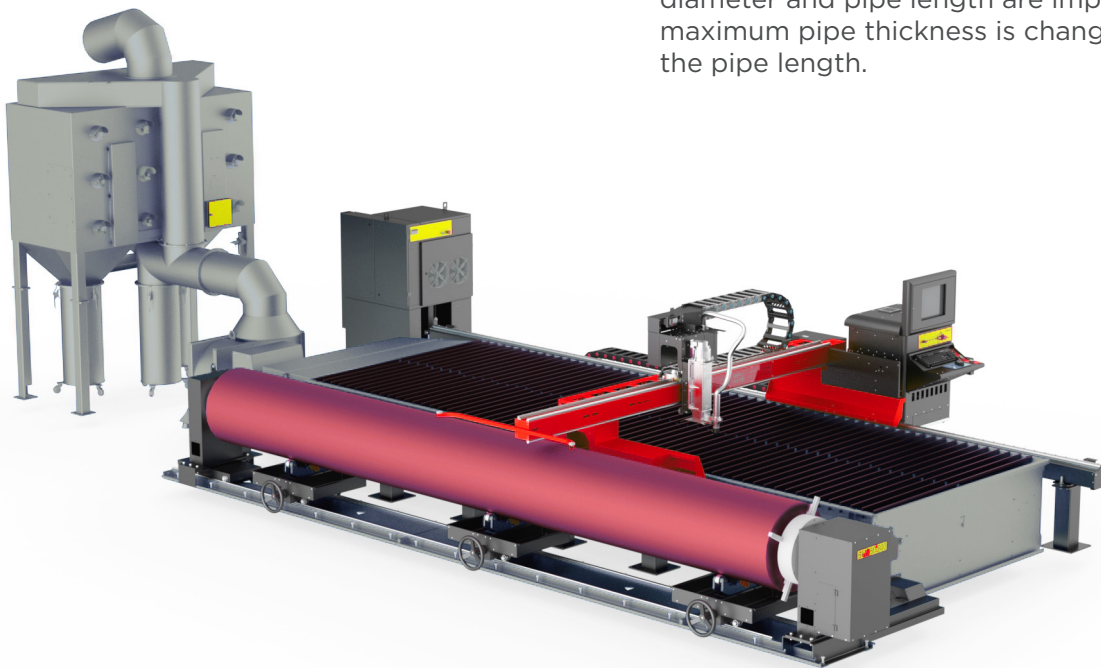
First of all, the most important differences from the similar machines are that the conventional plasma cutting generator hasn't been used and it has been equipped with Precision Plasma series 130 Ampere or 260 Ampere precise cutting plasma generator, torch and the required gas selections can be made automatically. For that reason, it can cut steel, chrome and aluminium pipes with high accuracy.

- Ability to cut pipes ranged between 50 and 600 mm diameter
- Steel constructed body
- Precision Plasma 130 / 260 Amp Generator
- Marking
- Automatic Torch Height Control
- Working with standart DIN / ISO G codes ability
- Ability of working with DXF and NC toolpath files
- Resume Feature
- Backward contour positioning
- Automatic Microjoint

## COMBINED PIPE CUTTING UNIT

PARAMETER	Unit	
X Axis (Pipe Length)	mm	6000 / 1200
Min. Working Diameter	mm	Ø 50
Max. Working Diameter	mm	Ø 600
Max Pipe Thickness*		
130 Amps	mm	25
260 Amps	mm	40

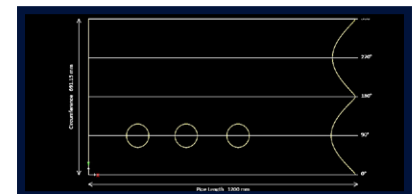
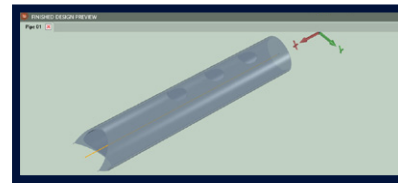
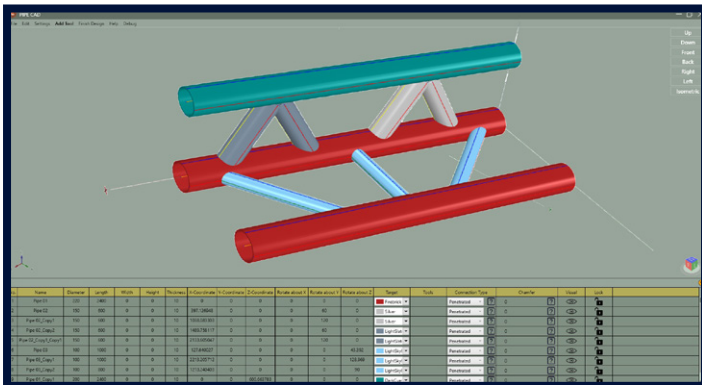
\* Maximum pipe thickness represent the maximum thickness that the plasma machine can cut. The pipe diameter and pipe length are important factors. The maximum pipe thickness is changeable according to the pipe length.



## OPTIONAL - PipeCad (Pipe Cutting Software)

PipeCad gives you the ability to design the pipe shape you want to cut, the software is intuitive and simple to use. Suitable for metric and imperial measurement units. You can generate and output the Model created as XML, OBJ and STL files.

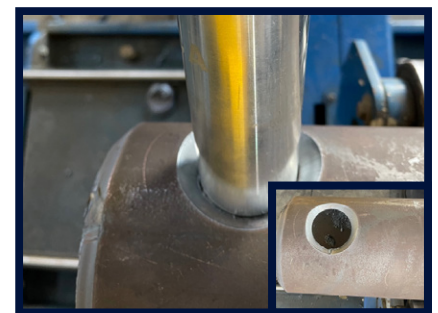
By selecting the pipe that you want to set as a cut Target and finish the design you will get the 3d model of the final shape of the pipe also a DXF file of representing the shape unfolded. Moving from the PIPE CAD to PIPE CAM is done automatically by pressing NEW JOB to cut.



**CHAMFER CUT**



**FLAT HOLE CUT**



**WELD ANGLE CHAMFER**



**SADDLE NOZZLE CUTS**



**MITRE CUTS**



**SLOT / EDGE CUTS**