

Welders and Pipefitters  
Agree, the Main Thing  
They Like About Our New  
CNC Saddle Machines...

“They are  
**REALLY** Easy  
to Use”



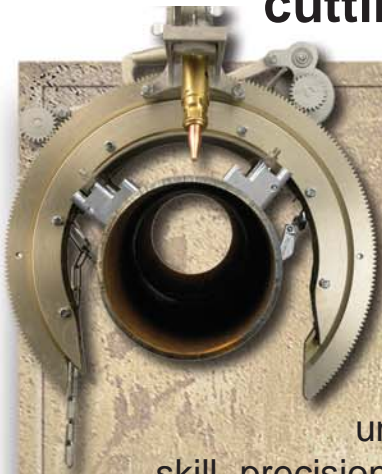
**MATHEY  
DEARMAN**

Smarter. Tougher. **Mathey.**

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# We've taken the industry's most trusted pipe cutting machines and made them...well, smarter.



Our new ground-breaking saddle machines place CNC accuracy into the hands of field welders giving them an unmatched level of skill, precision and productivity.

- Our three models work on a range of pipe diameters from 1½" to 12"
- Compact design and lightweight high-strength aluminum construction
- Easily installed and operated by one person
- Low current-draw electrical system can be powered from any common 15 AMP, 115 or 230 volt outlet
- Create precision shapes in minutes not hours
- One machine replaces literally thousands of saddle templates, contour templates or paper patterns
- Dramatically speeds cutting and reduces or eliminates grinding
- Trial and error manual fit-up is a thing of the past along with its wasted time and materials
- Complete field portability



**MSA**  
1½" to 4"  
O.D. Pipe



**1SA**  
3" to 8"  
O.D. Pipe



**2SA**  
6" to 12"  
O.D. Pipe



# Innovative pipefitter-friendly software interface:

**Step-by-step software gives you complete control**

- Operates on a common laptop computer running Windows XP, or later, operating system
- The computer interface is designed for pipefitters not programmers
- Intuitive software with a short learning curve
- Complete speed and position control during the cutting process
- Plasma torch ignition and stop control with the press of a button

The image displays several overlapping windows from the Mathey CNC software interface, illustrating the step-by-step process of configuring a pipe cut. The windows include:

- Cut Type:** A window titled "Cut Type" with the instruction "Select Cut Type". It features four large buttons with different cut profiles: a straight cut, a beveled cut, a saddle cut, and a branch cut.
- Saddle Selection:** A window titled "Saddle Selection" with the instruction "Select Saddle Option". It shows a diagram of a pipe with a saddle cut and a "Saddle On" label.
- Pipe Diameter (Nominal):** A window titled "Pipe Diameter (Nominal)" with the instruction "Select Pipe Diameter". It features a circular diagram of a pipe with arrows indicating the diameter measurement. The "Pipe Diameter (Nominal)" radio button is selected, and the value "3" is entered in the dropdown menu. A "Custom Pipe Diameter (Inches)" option is also available with a value of "3.500".
- Branch Angle:** A window titled "Branch Angle" with the instruction "Select Angle of Branch Intersection". It shows a diagram of a pipe with a branch cut and an arrow indicating the angle.
- Z Offset:** A window titled "Z Offset" with the instruction "Set Z Offset". It shows a diagram of a pipe with a saddle cut and labels for "0.100 IN" and "13.500 IN". It also includes "Min Z" and "Max Z" labels.
- Mathey CNC - Saddle Hole:** A window titled "Mathey CNC - Saddle Hole" with the instruction "Return to configuration". It features a 3D model of a pipe with a saddle cut. The interface includes a "File Help Plasma Control" menu, a "Return to configuration" button, and a "Go Home" button. The "MACHINE INFORMATION" section shows: Ring Gear Angle: 44.8 Degrees, Carriage position: 2.070 Inches, Torch Speed: 0 IPM. The "CUT INFORMATION" section shows: Min Z: 0.100 in, Max Z: 2.404 in, Start Point: (2.404, 0), End Point: (2.345, 378.5), Z Width: 2.304 in, Cut Length: 19.104 in. The "Time Left" is 01:42. The interface also includes a "Jog Carriage Forward" button, a "Jog Rotate Counter Clockwise" button, a "Jog Rotate Clockwise" button, and a "Jog Carriage Reverse" button. The "Cut Progress" is 0%.

Machine	Nominal Sizes (NPS)	Custom Range (Pipe OD)
MSA	1-½, 2, 2-½, 3, 3-½, 4	1.9"- 4.5"
1SA	3, 3-½, 4, 5, 6, 8	3.5"- 8.625"
2SA	6, 8, 10, 12	6.625"- 12.75"

Product	Part Number
MSA CNC 1½" - 4"	03.0117.MSA
1SA CNC 3" - 8"	03.0117.1SA
2SA CNC 6" - 12"	03.0117.2SA
<b>3 Machine Package (MSA-1SA-2SA)</b>	<b>03.0117.SET</b>
Software Only	03.0117.000

Part Number	Actual Machine Weight	Shipping Information			
		Weight	Length	Width	Height
03.0117.MSA	36 lbs.	85 lbs.	31"	27"	21"
03.0117.1SA	43 lbs.	90 lbs.			
03.0117.2SA	52 lbs.	100 lbs.			

Model	NPS	OD (in)	Available Travel Length (in)	Axial Cut Distance (in)	Max. Allowable Miter Cut Angle (Deg.)
MSA 1SA 2SA	1½	1.9	14	13.52	82
	2	2.375		13.47	80
	2½	2.875		13.53	78
	3	3.5		13.06	75
	3½	4		13.95	74
	4	4.5		13.85	72
	5	5.563		13.77	68
	6	6.625		13.58	64
	8	8.625		13.80	58
	10	10.75		13.76	52
	12	12.75		13.67	47

**Header Axial Distance (in) when header NPS is 12**

Cut Angle (degrees)		Branch NPS														
		½	¾	1	1¼	1½	2	2½	3	3½	4	5	6	8	10	12
90 (T-Cut)	85	0.84	1.05	1.32	1.66	1.90	2.38	2.88	3.50	4.00	4.50	5.56	6.63	8.63	10.75	12.75
	80	0.84	1.05	1.32	1.67	1.91	2.38	2.89	3.51	4.02	4.52	5.58	6.65	8.66	10.79	12.80
	75	0.85	1.07	1.34	1.69	1.93	2.41	2.92	3.55	4.06	4.57	5.65	6.73	8.76	10.92	12.95
	70	0.87	1.09	1.36	1.72	1.97	2.46	2.98	3.62	4.14	4.66	5.76	6.86	8.93	11.13	13.20
	65	0.89	1.12	1.40	1.77	2.02	2.53	3.06	3.72	4.26	4.79	5.92	7.05	9.18	11.44	13.57
	60	0.93	1.16	1.45	1.83	2.10	2.62	3.17	3.86	4.41	4.97	6.14	7.31	9.52	11.86	NA
	55	0.97	1.21	1.52	1.92	2.19	2.74	3.32	4.04	4.62	5.20	6.42	7.65	9.96	12.41	NA
	50	1.03	1.28	1.61	2.03	2.32	2.90	3.51	4.27	4.88	5.49	6.79	8.09	10.53	13.12	NA
	45	1.10	1.37	1.72	2.17	2.48	3.10	3.75	4.57	5.22	5.87	7.26	8.65	11.26	NA	NA
	45	1.19	1.48	1.86	2.35	2.69	3.36	4.07	4.95	5.66	6.36	7.87	9.37	12.20	NA	NA

**Branch Axial Distance (in) when header NPS is 12**

Cut Angle (degrees)		Branch NPS														
		½	¾	1	1¼	1½	2	2½	3	3½	4	5	6	8	10	12
90 (T-Cut)	85	0.01	0.02	0.03	0.05	0.07	0.11	0.16	0.24	0.32	0.41	0.64	0.93	1.68	2.95	6.38
	80	0.07	0.09	0.12	0.15	0.18	0.24	0.31	0.42	0.52	0.63	0.91	1.24	2.08	3.44	6.96
	75	0.15	0.19	0.23	0.29	0.34	0.42	0.52	0.65	0.77	0.91	1.23	1.61	2.54	3.99	7.60
	70	0.23	0.28	0.35	0.44	0.51	0.64	0.77	0.94	1.08	1.24	1.61	2.04	3.06	4.61	8.31
	65	0.31	0.38	0.48	0.60	0.69	0.86	1.05	1.27	1.46	1.64	2.06	2.54	3.66	5.31	9.10
	60	0.39	0.49	0.61	0.77	0.89	1.11	1.34	1.63	1.87	2.10	2.59	3.13	4.35	6.11	10.01
	55	0.48	0.61	0.76	0.96	1.10	1.37	1.66	2.02	2.31	2.60	3.21	3.83	5.16	7.04	11.04
	50	0.59	0.74	0.92	1.16	1.33	1.66	2.01	2.45	2.80	3.15	3.90	4.64	6.11	8.12	12.25
	45	0.70	0.88	1.10	1.39	1.59	1.99	2.41	2.94	3.36	3.78	4.67	5.56	7.25	9.40	13.67
	45	0.84	1.05	1.32	1.66	1.90	2.38	2.88	3.50	4.00	4.50	5.56	6.63	8.63	10.96	NA

**Host Computer Requirements**

Parameter	Requirement
USB Port Protocol	USB 2.0 or Higher
Operating System	Windows XP or Higher
Software	Mathey CNC Software
Software Drivers	ARCUS Drivers and Tools

**Electrical Properties**

Parameter	Minimum	Maximum	Units
AC Voltage In (110 range/220 range)	90/180	132/264	Vac
Operating Temperature (Low Current)	0	70	°C
Operating Temperature (High Current)	0	50	°C
Storage Temperature	-20	85	°C
Storage Humidity (non-condensing)	5	95	%
Operating Humidity (non-condensing)	55	85	%
Vibration (± 7.35 M/(SxS) on X, Y and Z Axis)	5	50	Hz



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