

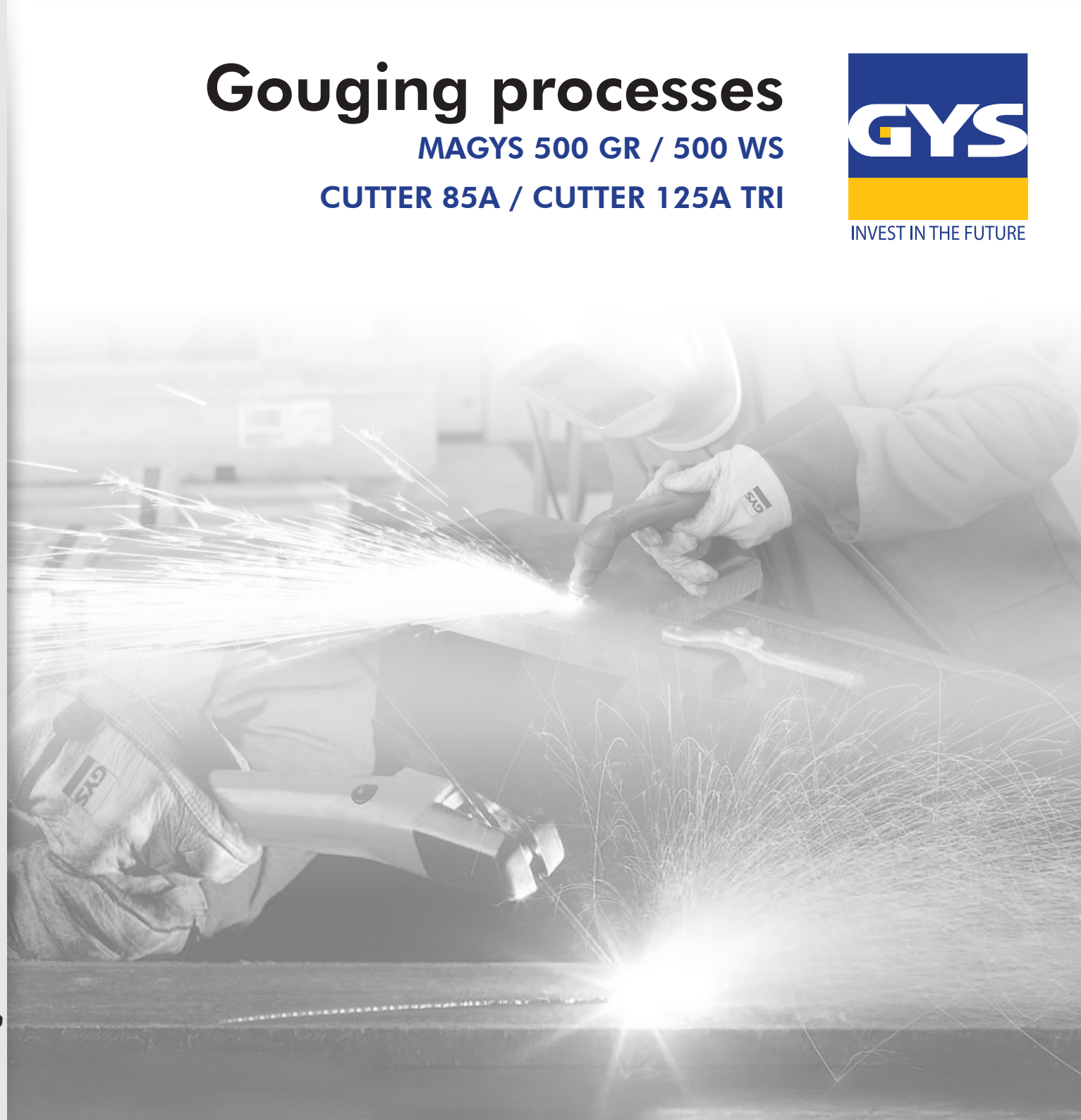
Gouging processes

MAGYS 500 GR / 500 WS

CUTTER 85A / CUTTER 125A TRI

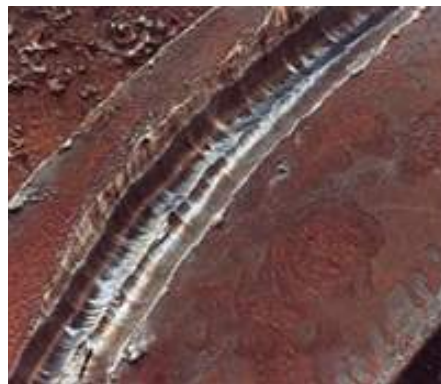
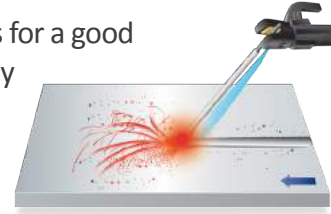


Arc-air® Gouging
Plasma Gouging



Arc-air® Gouging

The purpose of this process is to use copper coated carbon gouging electrodes for a good transfer between the electrode and the metal. The melted metal is removed by compressed air. The Oxygen present in the compressed air will oxidise the metal in fusion thus limiting its grip to the metal.



APPLICATIONS

- Remove defective welds.
- Remove cracks and re-weld.
- Remove excess material.
- Prepare surface for root welding.
- Prepare joints before welding.

EFFICIENCY

- Speed is comparable to the oxy-fuel gouging process.
- Oxy-fuel gouging requires more effort from the operator.
- Around 60% more efficient than grinding.

REQUIRED EQUIPMENT

- MAGYS 500 GR / 500 WS generator.
- Gouging torch.
- Gouging electrodes.
- Dry compressed air.
- Protection.



- Easy to do.
- Drilling is possible.
- No cut effort (Hardened steel).
- Limited cost compared to gas gouging or grinding.
- Versatile – where a MIG machine has a gouging feature, just add a gouging torch.
- Safe as inflammable gas used (acetylene + oxygen for oxy-fuel gouging). Always wear protection..



- Noisy.
- Airborn particles (fume and projection).
- Process is more expensive than Plasma gouging (consumable life is shorter).
- Average finish quality, requires grinding.

Plasma Gouging

This process is the best alternative to traditional gouging more particularly when precision and safety are priorities. With a removal capability of up to 8 kg/h, Plasma gouging improves operating conditions by reducing noise and fumes. Using the same process as Plasma cutting it enables the removal of metal efficiently, precisely and cleanly.



APPLICATIONS

- Correct defective welds.
- Prepare weld reinforcements on a root weld.
- Remove surface defects (cracks, holes, inclusions, etc)
- Deburr moulded parts.
- Remove carrots (foundry).

EFFICIENCY

- The Plasma arc produces a very accurate groove.
- Suitable for application on all ferrous and non-ferrous materials.

REQUIRED EQUIPMENT

- Plasma cutter 85A / 125 TRI.
- 2 Consumables for the manual torch MT-125 (special gouging tip and shield).
- Gas (compressed air, nitrogen or argon/H)
- Protection.



- Easy to use.
- Gouge all conductive materials.
- No carbon filler.
- Heated area reduced.
- Instantaneously weldable without preparing the edges.
- Less noise and fumes.
- Professional finishing.
- Higher consumable life.



- Dedicated machine, not multipurpose eg: welding also.

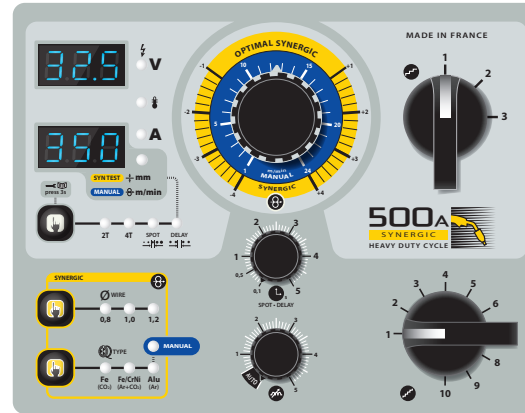
Accessories and consumables



Arc Air® Gouging - MAGYS 500 GR / 500 WS



1	Gouging electrode holder 1000 A	 041516						
2	Gouging adaptor 5 m	 040670						
3	Gouging electrodes	 <table border="1"> <tr> <td>∅ 6,4 mm</td> <td>(x50)</td> <td>086081</td> </tr> <tr> <td>∅ 8 mm</td> <td>(x50)</td> <td>086098</td> </tr> </table>	∅ 6,4 mm	(x50)	086081	∅ 8 mm	(x50)	086098
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Gouging start-up



	Electrode	Maximum current	Weight of metal removed	Groove profil		Drilling ∅
				Width	Depth	
	∅ 4 x 305 mm	250 A	0,6 kg/h	6-8 mm	3-4 mm	8 mm
	∅ 5 x 305 mm	300 A	0,7 kg/h	7-9 mm	3-5 mm	8 mm
	∅ 6,4 x 305 mm	400 A	1 kg/h	9-11 mm	4-6 mm	8 mm
	∅ 8 x 305 mm	450 A	2 kg/h	11-13 mm	6-9 mm	12 mm

- 1 Connect and screw the gouging torch to the compressed air supply.
- 2 Screw the gouging adaptor to the torch and connect it to the rear of the Magys.
- 3 The earth clamp connector is located at the front of the Magys.
- 4 Press the MODE key for 3 seconds then push the TYPE key to activate the Fc0 : Arc Air® function
- 5 Set the voltage potentiometers to their maximum (position 3-10).

Plasma Gouging - CUTTER 85A / 125A TRI



1	Manual Torch MT-125	 6m - 039506 12m - 039513						
2	Shield and tip (special gouging)	<table border="1"> <tr> <th>Shield</th> <th>Tip</th> </tr> <tr> <td></td> <td></td> </tr> <tr> <td>039254 (x1)</td> <td>65A<85A - 039261 (x5) 105A - 029278 (x5) 125A - 029285 (x5)</td> </tr> </table>	Shield	Tip			039254 (x1)	65A<85A - 039261 (x5) 105A - 029278 (x5) 125A - 029285 (x5)
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039254 (x1)	65A<85A - 039261 (x5) 105A - 029278 (x5) 125A - 029285 (x5)							



- 1 Fit the tip and the shield (special gouging) onto the MT-125.
- 2 Select the gouging mode on the Plasma control panel.
- 3 Select the appropriate output according to the following table.

Amp range	Metal removal rate	Groove profil	
		Width	Depth
45 A	2 kg/h	5-6 mm	2-3 mm
65 A	4 kg/h	6-7 mm	3-4 mm
85 A	8 kg/h	7-8 mm	5-6 mm
125A	12 kg/h	-	-