

# CIGWELD

AN ESAB BRAND



DESIGNED  
& TESTED  
IN AUSTRALIA  
FOR OVER 100 YEARS

# SUPRE GOUGE

## GOUGING CARBONS



## FAST, CLEAN, SMOOTH, HASSLE-FREE GOUGING

### DESCRIPTION

Arcair DC gouging carbons are made by mixing carbon/graphite with a binder, baking, and then coating with a controlled thickness of copper.

- **Pointed** type rods is the standard all purpose gouging electrode. Controlled copper coating improves electrical conductivity providing more efficient, cooler operation and helps maintain electrode diameter at the point of the arc.
- **Jointed** carbons have the added benefit of working without stub loss, with each rod having a female socket and matching male tang. They can be used with semi and fully automatic torches.
- **Flat** carbons are specially designed for close tolerance metal removal and scarfing applications, producing a rectangular groove.

Air-carbon arc gouging is done in the down hand, vertical, horizontal and overhead position with a stick out of 180mm and an electrode angle of approximately 35 degrees, depending on the application.

**The groove width obtained will be approximately 3mm wider than the carbon size**

The gouging action occurs when the arc is struck, removing molten metal as the electrode is moved along the workpiece. A slow travel speed produces a deep groove, a fast travel speed produces a shallow groove. The air flow must be turned on before gouging commences. The operator must ensure that adequate eye (shade 12-14), ear and clothing protection is worn.

### HIGH EFFICEINCY GOUGING CARBONS

- Superior arc stability
- Able to remove metal from a wide range of common ferrous & non-ferrous metals
- Designed for DC operation
- CIGWELD's high efficiency gouging carbon takes carbon technology and performance to a new level.
- The improved outer strength of these carbons allows for additional stick out length

**TIP:** If carbons are damp, they should be redried at 180°C for 10 hours, otherwise they might shatter.

CIGWELD Data Sheet **Supre Gouge PDS V1-2023**

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## APPLICATIONS

Arcair gouging carbons are used for the efficient gouging, back gouging, plate edge preparation, touching up and removal of old or defective hard facing and stainless-steel weld deposits.

They are used for:

- Reworking plates
- Dies
- Castings
- Pipes
- Armour plating etc.

They gouge and sever ferrous and non-ferrous metals such as carbon steel, low alloy steel, stainless steel, cast iron, nickel alloys (nickel less than 80%), magnesium alloys and aluminium on DCEP. Copper alloys, aluminium bronze alloys and aluminium nickel bronze alloys can be gouged using DCEN



## GOUGING METHODS

**Severing** (cutting) is a form of gouging where the operator holds the electrode at a steeper travel angle ( $70^{\circ}$  -  $80^{\circ}$ ) to the workpiece and moves the arc in a sawing motion (Figure 1). A gouging carbon can cut non-ferrous materials 1.5 times its own thickness. (Figure 1)

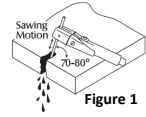


Figure 1

**Washing** is a form of gouging that allows the removal of metal from large areas, hard facing deposits and riser pads on castings. An arc is struck and then the electrode is weaved from side to side using a travel angle of  $15^{\circ}$  -  $70^{\circ}$  to the workpiece, depending on the required depth of the gouge. (Figure 2)

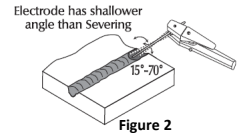


Figure 2

**Beveling** can be achieved by using a travel angle of  $90^{\circ}$  degrees and a work angle equal to the bevel angle (Figure 3).

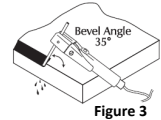


Figure 3



## PACKAGING AND OPERATING DATA

	Part Number	Size (mm)	Rods per PK	Packet	Carton QTY	Current Range (amps)	Gouge Width (mm)	Gouge depth Single Pass (mm)	Air Pressure (kPa)	(L/min)
<b>POINTED</b>	22035003	4.8mm	100	1.1kg	10	150 - 200	8	6	550 - 690	450
	22045003	6.5mm	50	0.8kg	10	250 - 350	10	10	550 - 690	450
	22055003	8.0mm	50	1.3kg	10	300 - 400	11	13	550 - 690	450
	22065003	9.5mm	50	1.6kg	5	400 - 550	13	14	550 - 690	450
	22075003	13.0mm	50	3.7kg	3	800 - 950	16	19	550 - 690	930
<b>JOINTED</b>	24106003	16.0mm	20	2.9kg	5	950 - 1200	19	24	550 - 690	930
	24126003	19.0mm	10	2.0kg	5	1200 - 1550	22	28	550 - 690	930
<b>FLAT</b>	35035003	15.0mm	50	2.4kg	10	350 - 400	18	8	550 - 690	450

## OPTIONAL ACCESSORIES

POWER SOURCE		MIG/ TIG/ STICK/GOUGING
Transmig 555i Plant	W1400555	
ESAB Warrior 500i Power Source	0465350885	
ESAB Warrior 500i/ Robust Plant	W1009760	
ESAB Warrior 750i Power Source	0445555882	
ESAB Warrior 750i/ Robust Plant	W1009770	
OPTIONAL STICK & GOUGING ACCESSORIES		STICK / GOUGING
Arcair Extreme K4000 Gouging Torch	AA61082008	



W1400555



W1009760



W1009770



AA61082008