Company Reg # 2017/260076/07
Vat Reg # 4800190995
Telephone 010 300 8885
7 Dormehl Street, Anderbolt, Boksburg, Gauteng, South Africa

DSE gouging carbons are designed specifically for the air carbon arc metal removal process, which melts metal with an electric arc, then blows it away with a jet of ordinary shop compressed air.

DSE carbons contain a precisely formulated blend of carbon and graphite that produces the most efficient metal removal performance. They offer excellent arc stability, superior metal removal rates, uniform diameter and clean slag – free grooves or cuts.

Available in a number of types and sizes. DSE carbons are ideal for a broad range of applications, such as creating Ugrooves for weld joint preparations, removing old welds, gouging out cracks, cleaning and repairing castings, removing hard surface metal, and for rough machining.

They gouge, cut, bevel, pierce or flush off any metal including stainless steel, carbon steel, manganese steel, chrome-moly alloys, gray, malleable and ductile iron, copper, aluminium, magnesium and nickel alloys – fast precisely and economically.

DSE carbons are made for use in any type of gouging torches connected to a D.C. power supply and compressed air source.

The amperage required depends on the electrode diameter; an electrode is usually selected to make grooves or cuts slightly larger than its diameter.

Features:

- Excellent Arc Stability
- Superior Metal Removal Rate
- Uniform Diameter
- Clean Machinelike Grooves or cuts
- Greater overall Economy

Applications:

- Machining U – Grooves for weld joint preparation
- Removing defective welds
- Cleaning and repairing metal castings
- Removing hard surface metal to facilitate repair
- Cutting non ferrous and other “hard to cut” metals
- Rough machining

Industries:

Construction – Foundries – Metal Fabrication – Transportation Equipment - Machining and Machine Tools – Ship Building – General Maintenance

To employ the process, you need:

- A D. C. Power Source
- A Gouging Torch
- “DSE” Gouging Carbons
- Compressed air (5.6 to 7 kg/cm²)

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Process Description: The Air Carbon Arc process involves:

1. The striking of an arc between the metal work piece and a gouging electrode
2. The melting of metal through use of the arc, and
3. Removal of the molten metal with compressed air that flows parallel to the electrode (air and current flow to the torch through a special coaxial hose)

TECHNICAL INFORMATION:

Electro Size and cutting Performance

Width of Groove	Rod diam x 1.4mm
Depth of Groove	Rod diameter x 0.7 mm

Carbon Electrode STATRC Performance Standard

Electrical Resistance	19μΩm
Breaking Strength	27 Mpa
Bulk Density	1.57 g/cm3
Ash Content	0.8%
Water Content	0.3%

Current Selection by electrode size

Carbon size in dia (mm	6	7	8	9	10	13	16	19
Minimum Amps	300	350	400	450	500	800	1000	1200
Maximum Amps	350	400	450	500	600	1000	1200	1500
Air - psi	80	80	80	80	80	100	100	100
Air-kg/cm²	5.6	5.6	5.6	5.6	5.6	7.0	7.0	7.0

Material Removed Per Electrode

Electrode size in diameter(mm)	6	8	10	12
GMS Electrode	350	600	950	1400
*Efficient length of electrode 300mm				

Current Selection Guide Chart

Current	Indication
Current	Copper layer on electrode burns back approx. .20mm max
Too Low	Slow Cutting and splittering arc
Too High	Over- rapid burning of copper layer on electrode