GOUGING TORCHES FLAIR™ 600 & 1600

WHEN CONTINUITY COUNTS!

The construction of the **FLAIR gouging torches** offers the craftsman a **high level of efficiency, reliability and comfort** day in, day out. The efficient air cooling system, the high grade alloy materials, the ergonomic grip with the swivelling injection nozzle and a complete safe construction – all serve to make the FLAIR torches a pleasure to work with. Engineered for a long product life, any maintenance necessary can be quickly and easily carried out without special tools and without the need to carry more than a few interchangeable spare parts.

All FLAIR torches require the use of a special rotating FLAIR monocable. The use of this monocable will considerably reduce the strain on the operator's wrist, which will result in better quality work. **The 360° rotating monocable** is a sturdy combination of an electric cable and a highly flexible compressed air hose. The length is 2.5 meters.

Worldwide, the industry has adopted air carbon-arc gouging enthusiastically and found many uses for the process, e.g. in the metal fabrication and casting finishing, in chemical and petroleum technology, in construction, mining, general repair and maintenance.

FLAIR 600

FLAIR 1600

Why FLAIR™ 600 & 1600 ?

- **360° rotating torch**
  The torch can rotate 360° on the monocable. This results in a comfortable and better freedom of movement.
- **Smooth finished body for perfect airflow**
  Manufactured with the greatest accuracy. The inner body is perfectly shaped which results in a perfect airflow, thus in a better cooling as well as a longer life time.
- **Highly conductive extruded body and nozzle (non-casted)**
  Better conduction and less heat development and consequently a longer product lifetime.
- **Thicker high heat resistant insulation**
  Longer product lifetime but also safer, more comfortable and more productive working conditions.
- **Flexible monocable (2.5 meter)**
  provides more ergonomical, comfortable working conditions.

SPECIFICATIONS

Product	Item Number	Output Power	Open arc voltage	Required Voltage	Compressed air
FLAIR 600	FL060180600-L Flair 600 Gouging torch w/o monocable FL060280601-L Monocable for Flair 600	600A@60%	> 60 VDC	35 – 56 VDC	400 ÷ 900 l/min @ 5÷7bar
FLAIR 1600	FL060181600-L Flair 1600 Gouging torch w/o monocable FL060281601-L Monocable for Flair 1600	1600A@60%			

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LINCOLN ELECTRIC

GOUGING PRODUCTS AND CARBON ELECTRODES

Gouging electrodes

available in a variety of diameters to meet most application needs. They are made of carbon and have a copper coating. The use of high-quality materials ensures a stable arc and a long electrode life.

Item Number	Qty/box	Dimensions		Current (A)	Metal removal		Groove width		Groove depth		Cut depth		Bore diameter	
		(mm)	(in)		(g/cm)	(oz/in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
FL064016010-L	100 pcs	4.0x305	5/32x12	150-200	10	0.90	6-8	0.24-0.31	3.4	0.12-0.16	7	0.28	8	0.31
FL064016025-L	100 pcs	5.0x305	3/16x12	150-200	12	1.08	7-9	0.28-0.35	3-5	0.12-0.20	8	0.31	8	0.31
FL064016030-L	50 pcs	6.3x305	1/4x12	200-250	18	1.61	9-11	0.35-0.43	4-6	0.16-0.24	9	0.35	10	0.39
FL064016040-L	50 pcs	8.0x305	5/16x12	250-350	33	2.96	11-13	0.43-0.51	6-9	0.24-0.35	11	0.43	12	0.47
FL064016050-L	50 pcs	9.5x305	3/8x12	350-450	49	4.39	13-15	0.51-0.59	8-12	0.31-0.47	13	0.51	14	0.55
FL064016060-L	50 pcs	13.0x305	1/2x12	700-900	89	7.97	15-17	0.59-0.67	11-14	0.43-0.55	15	0.59	16	0.63
FL064016065-L	50 pcs	13.0x335	1/2x14	700-900	89	7.97	15-17	0.59-0.67	11-14	0.43-0.55	15	0.59	16	0.63

Flexible monocable (2.5 m)

Thanks to the use of neoprene outer sheet rubber and the air-cooled conductor, the Flair monocable is outstandingly flexible. This results in more freedom of movement and more comfort.

Air arc gouging process

The gouging process is a flexible, efficient and cost effective process. Gouging or cutting occurs when the intense heat of the arc between the carbon electrode and the work piece melts part of the work piece. Meanwhile, air passed through the arc quickly enough to blow the molten material away. Since the air carbon-arc process doesn't need oxidation to maintain the cut, it can gouge or cut metals that the OFC (oxy-fuel cutting) process cannot. Most common metals; carbon steel, stainless steel, many copper alloys and cast irons can be cut using the air carbon-arc process. The metal removal rate depends on the melting rate and the air jet's efficiency in removing molten metal. The air must lift the molten metal clear of the arc before the metal solidifies.

The process requires: a welding power source*, air compressor, carbon electrode and gouging torch. Power sources: Any three-phase welding power source of sufficient capacity may be used for air carbon-arc gouging. Worldwide, the industry has adopted air carbon-arc gouging enthusiastically and found many uses for the process, e.g. in the metal fabrication and casting finishing, in chemical and petroleum technology, in construction, mining, general repair and maintenance.

Applications

Foundries: Cutting off skins, removal of cracks, risers and pads, cleaning of castings, stripping off burrs.

Metallurgy: Marking of casting, checking of depth and superficial faults of billets and blooms.

Shipyards/ Boiler shops: Removal of welding seams, grooving, cutting off bolt heads, bevelling of steel plates.

Steel construction: Gouging of welding seams, smoothing of slag's, bevelling. Cutting of sheets.

Maintenance shops: Various works on pipelines, steel tie beams, solid pieces of metal. Removal of welds.

* Lincoln power sources are : Invertec 400SX, LINC 405-S & -SA LINC 406, LINC 635-S & -SA, R3R600-I, HOT ROD 500S