

CIGWELD

AN ESAB BRAND

COMET GAS CONSUMABLES

next GENERATION COMET BLACK NICKEL

PATENT PENDING



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CIGWELD introduces the next generation of Comet gas consumables, featuring a gas equipment world first in black nickel plating. This patented innovation from CIGWELD provides an additional tough wearing layer for superior durability, plus minimises heat discolouration.

With continued superior performance the CIGWELD Comet Black Nickel series offers a full range of consumables to tackle any gas cutting, gouging, welding or heating task. These consumables are designed and manufactured to exacting tolerances to ensure precise compatibility, quality and lasting performance.



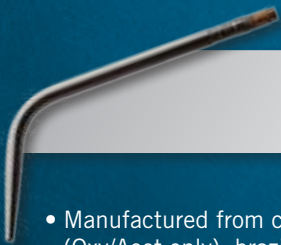
CUTTING

STANDARD SPEED

- **Excellent cut quality** – Gas passages produced using swaging technology (Type 41 only) resulting in an extended, smooth, uniform oxygen jet stream.
- **Less slag adhesion** - Manufactured from copper for extra durability and improved heat dissipation.
- **Narrow kerf width** – Provides cleaner cuts and smoother lines with both hand cutting and profile machine cutting.
- **No flame blow off (Type 44)** – Slotted preheat ports cause a turbulence in the gas flow enabling the flame to hang on to the nozzle.

HI-SPEED CUTTING NOZZLES - OFFER THE ADDITIONAL BENEFITS

- **Tapered gas passage tip** - A small taper in the end of the nozzle alters the expansion of the oxygen jet stream. This, combined with higher oxygen pressure produces a narrower kerf width.
- **Fast and Efficient** – Due to a narrower kerf width, less metal is consumed by the cutting flame and 20-40% less oxygen gas is required to produce the cut. An improvement in cutting speed of up to 50% is achieved without a detrimental effect to cut quality.



- Manufactured from copper, capable of welding mild steel (Oxy/Acet only), brazing (various materials) and soldering (silver solder & soft solder).
- Each welding tip is individually swaged to ensure proper alignment for uniform flame, sizing and free-flow contour.
- Flame tested to ensure optimum quality and performance.



- Concentrated high temperature heat.
- Excellent flame stability.
- Heavy copper construction helps conduct heat away from tip face, keep the tip cool and prevent flashbacks.
- Spanner adjustments milled into ends of Super Heating Tips.
- Gas pressure and identification stamped on every tip.
- A small projection in the middle of the tip face (8x12 HT, SHA1 and SHA2) prevents backfires should the tip touch the work piece.
- Castellations on Super Heating Propane range as an extra resistance to backfire.
- Simple design for ease of cleaning.



- Ideal for back “gouging” welds or defects prior to back fill.
- High speed.
- Available in straight and bent nozzle design.
- Bent nozzles allow for easier gouging in horizontal positions.

PROFESSIONAL
SERIES

STANDARD SPEED CUTTING NOZZLES – OXY / ACETYLENE
TYPE 41

Part Number	Size	Plate Thickness mm	Fuel Gas Flow l/min @ 100kPa	Total Oxygen Flow & Pressure l/min @ kPa
306046	6	1 – 6	2.0	11 (200)
306047	8	6 – 10	3.5	20 (200)
306048	12	12 – 20	4.0	38 (200)
306049	15	25 – 75	7.0	75 (350)
306050	20	100 – 125	9.0	134 (400)
306051	24	150 – 200	12.5	232 (500)
306052	32	225 – 300	20.0	420 (600)


HIGH SPEED CUTTING NOZZLES – OXY / ACETYLENE
TYPE 41

Part Number	Size	Plate Thickness mm	Fuel Gas Flow l/min @ 100kPa	Total Oxygen Flow & Pressure l/min @ kPa	Cutting Speed mm/min
306069	6HS	6 – 8	6.0	31 (650)	700
306070	8HS	8 – 20	6.0	50 (650)	700 – 550
306071	12HS	25 – 75	10.0	107 (650)	500 – 300
306072	15HS	75 – 150	12.0	158 (650)	300 – 200
306073	20HS	150 – 250	13.0	250 (650)	200 – 100
306074	24HS	250 – 300	18.0	320 (650)	90


GOUGING NOZZLES – OXY / ACETYLENE
TYPE 41

Part Number	Size	Plate Thickness mm	Fuel Gas Flow l/min @ 100kPa	Total Oxygen Flow & Pressure l/min @ kPa
306035	32GB	–	15.0	61 (500)
306036	48GB	–	18.0	85 (600)
306037	64GB	–	20.0	112 (650)
306038	32GS	–	15.0	61 (500)


SHEET METAL NOZZLE – OXY / ACETYLENE
TYPE 41

Part Number	Size	Plate Thickness mm	Fuel Gas Flow l/min @ 100kPa	Total Oxygen Flow & Pressure l/min @ kPa
306067	6SM	–	1.5	9 (200)


RIVET CUTTING NOZZLE – OXY / ACETYLENE
TYPE 41

Part Number	Size	Plate Thickness mm	Fuel Gas Flow l/min @ 100kPa	Total Oxygen Flow & Pressure l/min @ kPa
306076	15RC	–	10.0	80 (400)


STANDARD SPEED CUTTING NOZZLES – OXY / LPG OR NATURAL GAS
TYPE 44

Part Number	Size	Plate Thickness mm	Fuel Gas Flow l/min @ 100kPa	Total Oxygen Flow & Pressure l/min @ kPa
306025	6	3 – 6	2.0	11 (200)
306026	8	6 – 12	3.5	30 (200)
306028	12	12 – 20	4.5	58 (250)
306029	15	25 – 75	5.5	99 (400)
306030	20	100 – 125	6.5	171 (400)
306031	24	150 – 200	9.0	256 (500)
306032	32	225 – 300	14.0	456 (600)


HIGH SPEED CUTTING NOZZLES – OXY / LPG OR NATURAL GAS
TYPE 44

Part Number	Size	Plate Thickness mm	Fuel Gas Flow l/min @ 100kPa	Total Oxygen Flow & Pressure l/min @ kPa	Cutting Speed mm/min
306018	6HS	6 – 8	5.0	45 (650)	550
306019	8HS	8 – 20	5.0	64 (650)	550 – 500
306021	12HS	25 – 75	6.5	122 (650)	500 – 300
306022	15HS	75 – 150	7.0	173 (650)	300 – 200
306023	20HS	150 – 250	8.0	267 (650)	200 – 100
306024	24HS	250 – 300	12.0	350 (650)	90


GOUGING NOZZLES – OXY / LPG OR NATURAL GAS
TYPE 44

Part Number	Size	Plate Thickness mm	Fuel Gas Flow l/min @ 100kPa	Total Oxygen Flow & Pressure l/min @ kPa
306033	32GS	–	12.0	94 (500)
306054	32GB	–	12.0	94 (500)
306055	48GB	–	13.0	120 (600)
306056	64GB	–	13.0	150 (650)



ORDERING INFORMATION

WELDING TIPS – OXY / ACETYLENE

TYPE 551

Part Number	Tip Size	Steel Thickness mm	Pressure kPa Oxygen	Pressure kPa Acetylene	Consumption each gas l/min
307056	4	0.9	50	50	1.5
307057	6	1.2	50	50	1.5
307000	8	2	50	50	2.0
307001	10	2.6	50	50	3.0
307002	12	3.2 – 4.0	50	50	4.0
307003	15	5.0 – 6.5	50	50	6.5
307004	20	8.2 – 10.0	50	50	12.0
307005	26	13 – 19	50	50	22
307006	32	25	50	100	38.0
307026	8, 10, 12, 15, 20, 26, 32	2 – 25	–	–	–

BRAZING TIPS – OXY / LPG OR NATURAL GAS

TYPE 554

Part Number	Tip Size	Steel Thickness mm	Pressure kPa Oxygen	Pressure kPa Acetylene
307068	8	2	50	50
307059	15	5.0 – 6.5	50	50

HEATING TIPS – OXY / ACETYLENE

Part Number	Model Number	Tip Size	Operating Pressure kPa		Gas Consumption l/min		Heat Output MJ/hr	Blowpipe	Mixer	Extension Barrel
			Oxy	Fuel	Oxy	Fuel				
306068	10 x 12 HT	10 x 12	350	100	23	22	75	Comet 3	–	–
307007	8 x 12 HT	8 x 12	150	100	45-58	41 – 55	180	Comet 3	304002	–
307121	SHA1	8 x 12	150	100	45-58	41 – 55	180	Comet 3	304003	307123, 307124, 307125
307122	SHA2	12 x 12	200	100	74	65	215	Comet 3	304003	307123, 307124, 307125

HEATING TIPS – OXY / LPG OR NATURAL GAS

Part Number	Model Number	Tip Size	Operating Pressure kPa		Gas Consumption l/min		Heat Output MJ/hr	Blowpipe	Mixer	Extension Barrel
			Oxy	Fuel	Oxy	Fuel				
306034	20 x 9 HT	20 x 9	500	100	48	12	40	Comet 3	–	–
307120	SHP1	18 x 12	500	100	200	50	280	Comet 3	304003	307123, 307124, 307125
307119	SHP2	36 x 12	600	100	300	75	420	Comet 3	304003	307123, 307124, 307125
307118	SHP3	48 x 12	600	100	400	100	560	Comet 3	304166	307123, 307124, 307125
307117	SHP4	48 x 15	1000	300	600	150	840	Comet 3	304166	307123, 307124, 307125

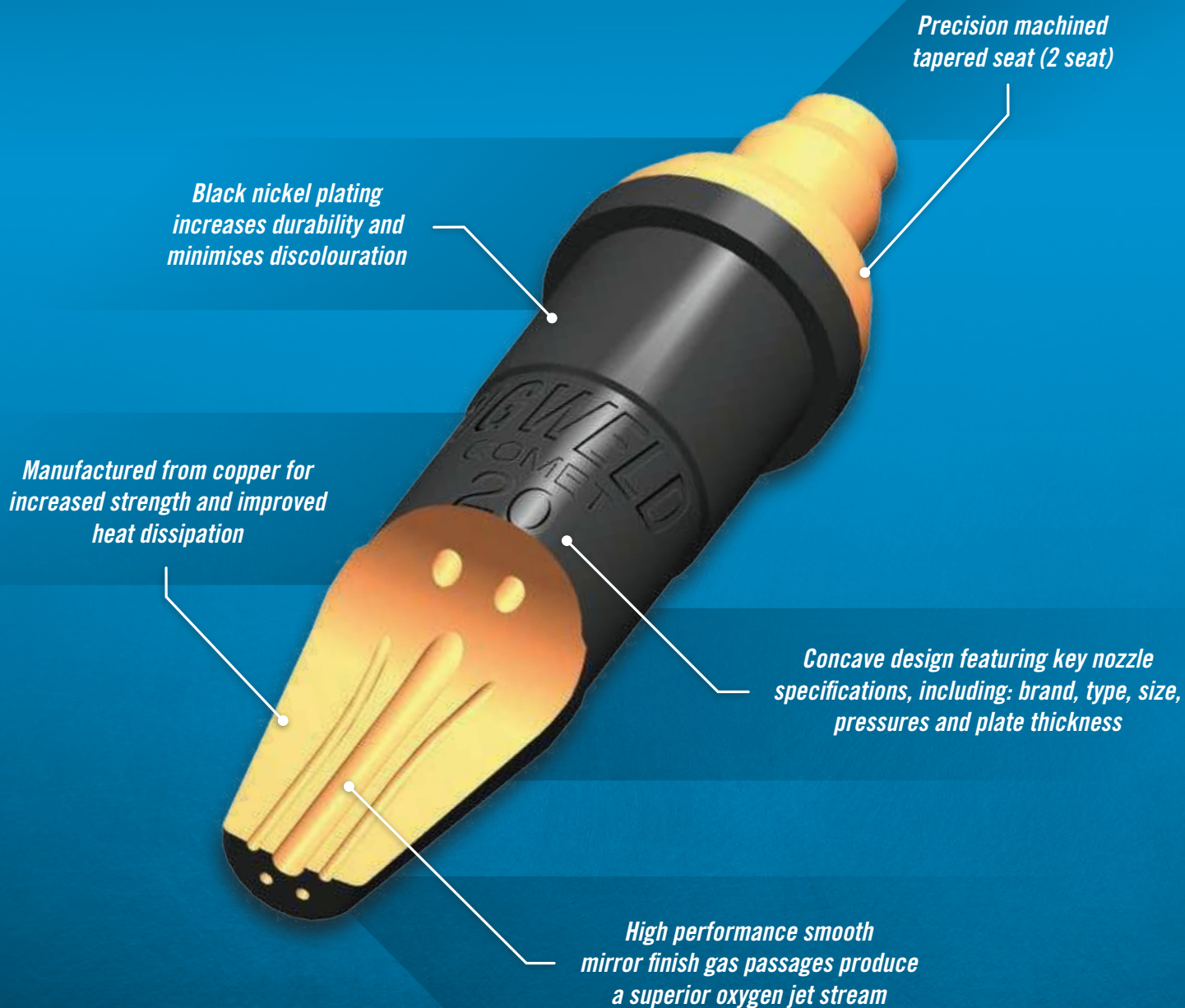
SUPERHEATING BARRELS* (EXTENSION BARRELS)

Part Number	Description	Length
307123	Straight stainless steel barrel	735 mm long
307125	Gooseneck stainless steel barrel	700 mm long
307124	Gooseneck stainless steel barrel	450 mm long

* Stainless steel only.

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**SWAGE
TECHNOLOGY***
HIGHEST QUALITY
CUTTING

Swaging is a method of compressing copper to produce contoured mirror finished gas ports. Firstly, oversized holes are drilled into a nozzle blank. Fine wires are then placed in these holes and the copper is forced down over them. When the wires are withdrawn, they leave long, contoured passageways with a smooth mirror finish. This allows the nozzle to produce a much longer oxygen jet stream, a narrower kerf and a higher quality cut.

* Type 41 Nozzles Only.

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COMET BLACK NICKEL RANGE

STANDARD
& HIGH SPEED



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