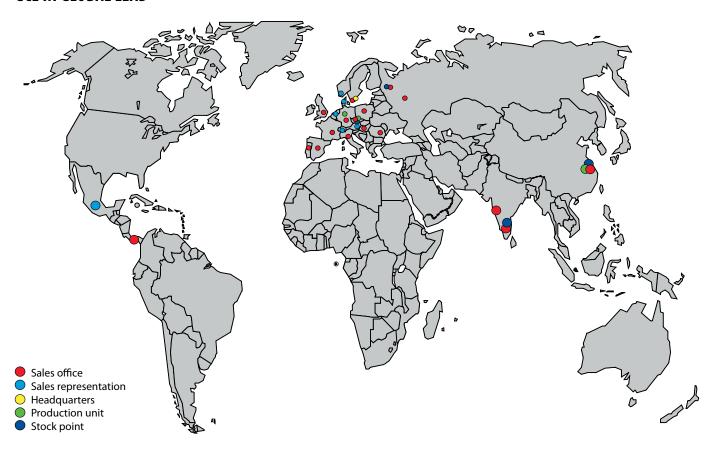


#### **GCE IN GLOBAL LEAD**



#### GCE BUSINESS IN GENERAL

GCE's main business originally concentrated on the oxy-acetylene cutting and welding market, but with almost 100 years of experience in the handling of high pressure gases, the product range has grown rapidly. Today's product portfolio fits a large variety of applications, from simple pressure regulators and blowpipes for welding and cutting to highly sophisticated gas supply systems for the medical and electronics industry and analytical laboratory equipment.

#### **GCE GROUP INCLUDES FOUR BUSINESS AREAS:**

- Cutting & Welding Technology
- Valves
- Healthcare
- Druva

#### **ORIGINS**

The origins of GCE (Gas Control Equipment) go back as far as the beginning of the twentieth century when oxy-acetylene cutting and welding methods were first invented. GCE group as an independent entity was formed in 1987 through the merging of gas equipment activities by two of the world's leading industrial gas and welding equipment companies into one independent entity. The GCE Group has grown rapidly since its establishment and is leading the restructuring of the European gas-equipment industry through mergers and acquisitions. Through the years, GCE Group's R&D work has resulted in innovative solutions that have quickly become field standards.

#### **GCE SERVICES**

GCE's main customers in industrial area are wholesalers and local distributors, though in some markets gas companies also distribute equipment and cooperate with GCE Group.

For these companies we provide local commercial support, professional support and marketing activities. Key end-customers such as shipyards, repair shops and OEM customers, such as welding machine manufacturers, account for a significant part of the sales volume.

#### A COMPLETE RANGE FOR CUTTING & WELDING

GCE Group is one of the world's leading producers of industrial regulators for cutting and welding. The range covers a broad spectrum of products, for different applications, that have been designed according to the requirements of most European standards such as DIN, Afnor, BSI and Nordic.

The torch range includes products for heating, cutting, brazing and flame-cleaning applications designed in accordance with the preferences of individual markets and customers. Regulators, torches, nozzles and other products are also increasingly combined in sets and sold to users as a single package.

GCE Group is a pioneer in the field of safety equipment and currently produces a comprehensive range of flashback arrestors and hose check valves. A range of nozzles, including the longlife COOLEX® nozzle, completes GCE's Cutting & Welding range.

GCE Group's ranges include various types of gas equipment enabling safe handling of gases in central gas supply systems and brewery equipment, to machine cutting products. We offer cylinder valves and combination valves, pressure control units, gas manifolds, outlet points, shut-off valves, alarm and safety units, high-pressure flexible hoses and accessories for different applications, gases, pressures and flow rates. All products have to meet demanding requirements for rugged durability, leak-proof sealing and overall safety. Uniquely qualified in this area, GCE stands at the forefront of international development of these products.

#### GLOBAL LEADER IN OXY-FUEL TECHNOLOGY

With extensive experience in the development and production of machine cutting torches and cutting nozzles, GCE Group is a global leader in oxy-fuel cutting technology. The design of the products is based on GCE's extensive knowledge and expertise in the oxy-fuel area.



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## **DC INVERTER MMA / LIFT TIG WELDERS**



ARControl welders are general MMA arc welder adopting the latest pulse width modulation (PWM) technology and the insulated gate bipolar transistor (IGTB) power module.

Extremely low weight, very small size, portable.

Supplied in a hard case and equipped with electrode holder, earth clamp, cables and connectors.

#### **EXCELLENT PERFORMANCES**

• The constant current output makes the welding arc more stable.

• Fast and dynamic response speed reduces the impact from the arc length fluctuation to the current.

Accurate stepless current adjustment and pre-setting function.



#### **GENERATOR FRIENDLY**

Designed to work with diesel generators and to avoid failures due to voltage spikes.

#### **AUTOMATIC PROTECTION**

Equipped with temperature, voltage and current sensors for high protection from under voltage, over current, overheating.

#### EXTRA FUNCTIONS.

Hot Start, Anti-sticking, Arc Force



#### **DIGITAL DISPLAY**

Variable amperage control with digital meter, for a welding current instant display.



#### **GENERAL APPLICATIONS**

Suitable for MMA arc welding and TIG lift welding.

440V TESTED IN PRODUCTION





Art. Nr.	Descr.	Qt.	Stock class
ARC010	ARControl 135 Digital	1	
ARC020	ARControl 160 Digital	1	
ARC030	ARControl 200 Digital	1	

	ARControl 135	ARControl 160	ARControl 200
Power Supply Voltage	230V	230V	230V
Duty Cycle (40°C 10min)	25% at 135A	30% at 160A	30% at 200A
Protection Class	IP23	IP23	IP23
Insulation Class	Н	Н	Н
Cooling	AF	AF	AF
Electrode Diameter	ø2.5 ø3.2	ø2.5 ø3.2 ø4.0	ø2.5 ø3.2 ø4.0
Net Weight (Kg)	3.55	4.5	4.6
Connections	25 mm <sup>2</sup> (small)	25 mm <sup>2</sup> (small)	35 mm <sup>2</sup> (hig)





### DC INVERTER PLASMA CUTTING MACHINE



# 6ladius plasma cutting

GLADIUS machines are a new generation of a portable equipment for manual plasma cutting. They are equipped with inverter technology and pilot arc controller that ensure an optimal current adjustment, excellent performance and cutting quality with increased capability and speed. GLADIUS machines are combined with a high-quality cutting torch (without HF) specifically tested to obtain the maximum performance. Two versions to meet your needs: with or without air compressor.

#### PILOT ARC CONTROLLER

Increases cutting capabilities and speed. Extends tip's life. Ideal for grid cutting.

#### **AUTOMATIC PROTECTIONS**

Equipped with sensors to protect and alarm for overheating and over-current.

#### LIGHTWEIGHT

Extremely low weight and versatility.

#### **AIR FILTERING**

Air filtering with automatic water drainage (model without compressor).

#### **EOUIPPED WITH**

- Earth Clamp (with cable)
- Hand Cutting Torch SOLARIS M60 (Direct connection)



Art. Nr.	Descr.	Qt.
PLPM040	PLASMA CUTTER GLADIUS 40	1
PLPM040COM	PLASMA CUTTER GLADIUS 40 COMPR	1

#### **TECHNICAL DATA**

	Gladius 40	Gladius 40 COMPR
Power Supply Voltage (V)	230 V ± 10% single-phase	230 V ± 10% single-phase
Frequency (Hz)	50/60 Hz	50/60 Hz
Rated Input Power (KW)	4.8 KW	4.9 KW
Rated Input Current (A)	33 A	32 A
Duty Cycle (40°C 10Min)	60% 40A	60% 40A
Max. No Load Voltage (V)	220 V	220 V
Cutting Current Range (A)	20~40 A	20~40 A
Severance Cut (mm)	≤25 mm (Carbon Steel)	≤14 mm (Carbon Steel)
Production Cut (mm)	≤20 mm (Carbon Steel)	≤12 mm (Carbon Steel)
	≤20 mm (Stainless Steel)	≤12 mm (Stainless Steel)
	≤16 mm (Aluminum)	≤12 mm (Aluminum)
	≤12 mm (Copper)	≤5 mm (Copper)
Net Weight (Kg)	5.7 Kg	18 Kg
Insulation Class	Н	Н
Protection Class	IP23	IP23
Cooling	AF	AF
Use with Power Generator	YES	NO

EN 60974-1 EN 60974-10 EN 60974-7



# **VERY HIGH RELIABILITY, VERY GOOD PRICE!**

# **MIGSTAR PRO**

The new powerful generation of GCE MIG torches feature extraordinary technical characteristics, advanced technology and an ergonomic anti-slide shank. They're specifically designed to enable the users to a comfortable and practice operations. Available in two variants: Air cooled and water cooled. Excellent value for money.



#### **FEATURES**

- Optimum cooling (Air or Water)
- Ergonomic handle with anti-slide rubber inserts.
- Ball joint at the handle improving the handling
- Push button feature to protect against accidental starting
- Strong and ergonomic connection EURO type
- Ball joint at the connection extending the cables lifetime and governing the welding wire feeder.
- Textile covers for water hoses offering maximum protection.
- Non detachable plastic caps for water hoses.
- Contact tip, gas nozzle and liner included.



Anti-slip rubber insert on the handle



Ball joint at the handle improving the handling



Strong and ergonomic connection EURO type



Rotating connection to govern welding wire feeder



#### AIR COOLED

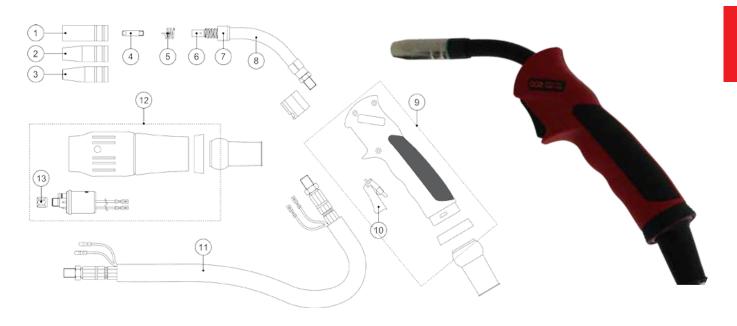
AIII COOLLD							
Art. Nr.	Descr.	CO <sub>2</sub> 60%	Mix 60%		mm <sup>2</sup>	Qt.	Stock class
102P959A30N	TORCH MIGSTAR PRO 150-3	180 A	150 A	0,6-1,0	16 mm <sup>2</sup>	1	
102P959A40N	TORCH MIGSTAR PRO 150-4	180 A	150 A	0,6-1,0	16 mm <sup>2</sup>	1	
102P959A50N	TORCH MIGSTAR PRO 150-5	180 A	150 A	0,6-1,0	16 mm <sup>2</sup>	1	
112P959A30N	TORCH MIGSTAR PRO 240-3	250 A	220 A	0,6-1,2	25 mm <sup>2</sup>	1	
112P959A40N	TORCH MIGSTAR PRO 240-4	250 A	220 A	0,6-1,2	25 mm <sup>2</sup>	1	
112P959A50N	TORCH MIGSTAR PRO 240-5	250 A	220 A	0,6-1,2	25 mm <sup>2</sup>	1	
103P959A30N	TORCH MIGSTAR PRO 252-3	230 A	200 A	0,6-1,2	25 mm <sup>2</sup>	1	
103P959A40N	TORCH MIGSTAR PRO 252-4	230 A	200 A	0,6-1,2	25 mm <sup>2</sup>	1	
103P959A50N	TORCH MIGSTAR PRO 252-5	230 A	200 A	0,6-1,2	25 mm <sup>2</sup>	1	
114P959A30N	TORCH MIGSTAR PRO 360-3	340 A	300 A	0,8-1,6	42 mm <sup>2</sup>	1	
114P959A40N	TORCH MIGSTAR PRO 360-4	340 A	300 A	0,8-1,6	42 mm <sup>2</sup>	1	
114P959A50N	TORCH MIGSTAR PRO 360-5	340 A	300 A	0,8-1,6	42 mm <sup>2</sup>	1	

#### WATER COOLED

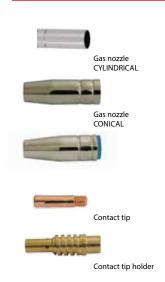
Art. Nr.	Descr.	CO <sub>2</sub> 100%	Mix 100%	Ø Ø	Qt. Stock class
134P959A30N	TORCH MIGSTAR PRO 511-3	500 A	450 A	0,8-1,6	1
134P959A40N	TORCH MIGSTAR PRO 511-4	500 A	450 A	0,8-1,6	1
134P959A50N	TORCH MIGSTAR PRO 511-5	500 A	450 A	0,8-1,6	1



#### **TORCH MIGSTAR PRO 150 (AIR COOLED)**



#### MIGSTAR 150 - SPARE PARTS

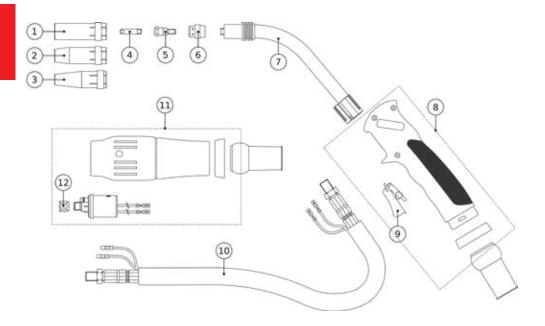


Art. Nr.	Descr.		Dimensions	Pos.	Qt.	Stock class
345P011002	Gas nozzles	145.0041	D.16 mm CYLINDRICAL	1	10	
345P012002	Gas nozzles	145.0075	D.12 mm CONICAL	2	10	
345P013002	Gas nozzles	145.0123	D.9,5 mm CONICAL	3	10	
340P061073	Contact tip E-Cu	140.0008	M6×25 - D.0,6 mm	4	25	
340P081073	Contact tip E-Cu	140.0059	M6×25 - D.0,8 mm	4	25	
340P091073	Contact tip E-Cu	140.0177	M6×25 - D.0,9 mm	4	25	
340P101073	Contact tip E-Cu	140.0253	M6×25 - D.1,0 mm	4	25	
340P121073	Contact tip E-Cu	140.0387	M6×25 - D.1,2 mm	4	25	
102P002011	Nozzle spring	002.0058		5	10	
102P002037	Contact tip holder/Diffusor	002.0078	M6	6	10	
102P002003	Insulator	002.0050		7	10	
102P001010	Swan neck	002.0009		8	1	

Art. Nr.	Descr.	Pos.	Qt.	Stock class
WP90010	Plastic handle complete for MIGSTAR PRO AIR COOLED	9	1	
WP90009	Trigger black for MIGSTAR PRO	10	5	
360P161130	Complete cable 16 mm <sup>2</sup> 3 m	11	1	
360P161140	Complete cable 16 mm <sup>2</sup> 4 m	11	1	
360P161150	Complete cable 16 mm <sup>2</sup> 5 m	11	1	
WP90014	Connection EURO set complete for torch air cooled	12	1	
701P002005	Liner nut	13	10	
	Liners for all kind of torches - see next pages			



#### **TORCH MIGSTAR PRO 240 (AIR COOLED)**



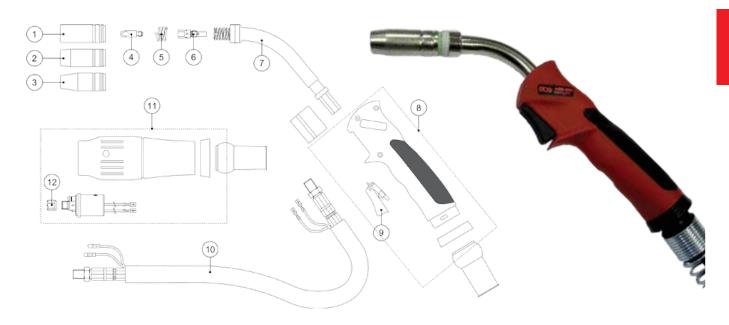
#### MIGSTAR 240 - SPARE PARTS

Art. Nr.	Descr.		Dimensions	Pos.	Qt.	Stock class
345P011012	Gas nozzle	145.0047	D.17 mm CYLINDRICAL	1	10	
345P012012	Gas nozzle	145.0080	D.12,5 mm CONICAL	2	10	
345P013012	Gas nozzle	145.0128	D.10 mm CONICAL	3	10	
340P061073	Contact tip E-Cu	140.0008	M6×25 – D.0.6 mm	4	25	
340P081073	Contact tip E-Cu	140.0059	M6×25 – D.0.8 mm	4	25	
340P091073	Contact tip E-Cu	140.0177	M6×25 – D.0.9 mm	4	25	
340P101073	Contact tip E-Cu	140.0253	M6×25 – D.1.0 mm	4	25	
340P121073	Contact tip E-Cu	140.0387	M6×25 – D.1.2 mm	4	25	
342P006012	Contact tip holder	142.0003	M6×26 mm	5	10	
112P002023	White diffuser Plastic	012.0183	20 mm	6	10	
112P001013	Swan neck	012.0001		7	1	

Art. Nr.	Descr.	Pos.	Qt.	Stock class
WP90010	Plastic handle complete for MIGSTAR PRO AIR COOLED	8	1	
WP90009	Trigger black for MIGSTAR PRO	9	5	
360P251130	Complete cable 25 mm <sup>2</sup> 3 m	10	1	
360P251140	Complete cable 25 mm <sup>2</sup> 4 m	10	1	
360P251150	Complete cable 25 mm <sup>2</sup> 5 m	10	1	
WP90017	Connection EURO set complete for torch air cooled	11	1	
701P002005	Liner nut	12	10	
	Liners for all kind of torches - see next pages			



#### **TORCH MIGSTAR PRO 252 (AIR COOLED)**



#### MIGSTAR 252 – SPARE PARTS

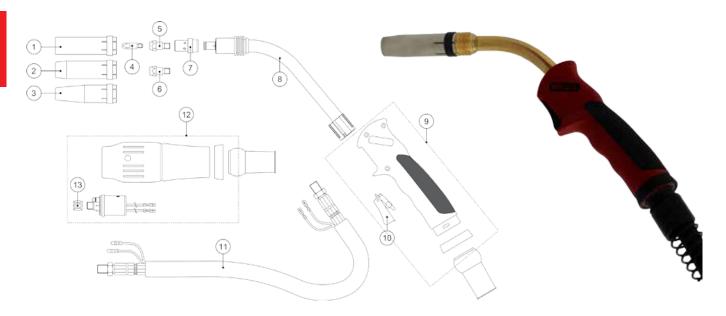


Art. Nr.	Descr.		Dimensions	Pos.	Qt.	Stock
						class
345P011003	Gas nozzles	145.0042	D.18 mm CYLINDRICAL	1	10	
345P012003	Gas nozzles	145.0076	D.15 mm CONICAL	2	10	
345P013003	Gas nozzles	145.0124	D.11,5 mm CONICAL	3	10	
340P061069	Contact tip E-Cu	140.0005	M6×28 - D.0,6 mm	4	25	
340P081069	Contact tip E-Cu	140.0051	M6×28 - D.0,8 mm	4	25	
340P091069	Contact tip E-Cu	140.0169	M6×28 - D.0,9 mm	4	25	
340P101069	Contact tip E-Cu	140.0242	M6×28 - D.1,0 mm	4	25	
340P121069	Contact tip E-Cu	140.0379	M6×28 - D.1,2 mm	4	25	
340P141069	Contact tip E-Cu		M6×28 - D.1,4 mm	4	25	
340P083069	Contact tip CuCrZr	140.0054	M6×28 - D.0,8 mm	4	25	
340P103069	Contact tip CuCrZr	140.0245	M6×28 - D.1,0 mm	4	25	
340P123069	Contact tip CuCrZr	140.0382	M6×28 - D.1,2 mm	4	25	
103P002006	Nozzle spring	003.0013		5	10	
342P006003	Contact tip holder/Diffusor	142.0001	M6×35 mm	6	10	
104P001008	Swan neck	004.0012		7	1	

Art. Nr.	Descr.	Pos.	Qt.	Stock class
WP90010	Plastic handle complete for MIGSTAR PRO AIR COOLED	8	1	
WP90009	Trigger black for MIGSTAR PRO	9	5	
360P251130	Complete cable 25 mm <sup>2</sup> 3 m	10	1	
360P251140	Complete cable 25 mm <sup>2</sup> 4 m	10	1	
360P251150	Complete cable 25 mm <sup>2</sup> 5 m	10	1	
WP90014	Connection EURO set complete for torch air cooled	11	1	
701P002005	Liner nut	12	10	
	Liners for all kind of torches - see next pages			



#### **TORCH MIGSTAR PRO 360 (AIR COOLED)**



#### MIGSTAR 360 - SPARE PARTS



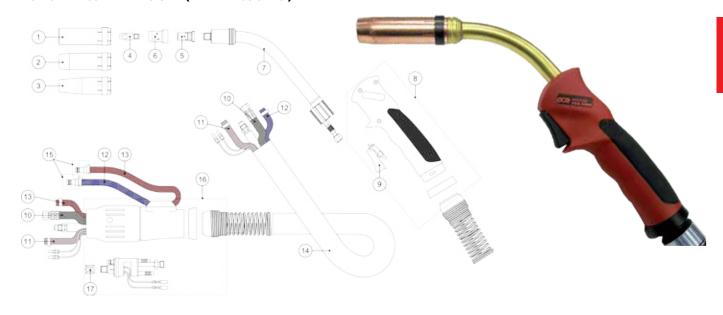
Art. Nr.	Descr.		Dimensions	Pos.	Qt.	Stock class
345P011010	Gas nozzles	145.0045	D.19 mm CYLINDRICAL	1	10	
345P012010	Gas nozzles	145.0078	D.16 mm CONICAL	2	10	
345P013010	Gas nozzles	145.0126	D.12 mm CONICAL	3	10	
340P061069	Contact tip E-Cu	140.0005	M6×28 - D.0,6 mm	4	25	
340P081069	Contact tip E-Cu	140.0051	M6×28 - D.0,8 mm	4	25	
340P091069	Contact tip E-Cu	140.0169	M6×28 - D.0,9 mm	4	25	
340P101069	Contact tip E-Cu	140.0242	M6×28 - D.1,0 mm	4	25	
340P121069	Contact tip E-Cu	140.0379	M6×28 - D.1,2 mm	4	25	
340P141069	Contact tip E-Cu		M6×28 - D.1,4 mm	4	25	
340P083069	Contact tip CuCrZr	140.0054	M6×28 - D.0,8 mm	4	25	
340P103069	Contact tip CuCrZr	140.0245	M6×28 - D.1,0 mm	4	25	
340P123069	Contact tip CuCrZr	140.0382	M6×28 - D.1,2 mm	4	25	
342P006014	Contact tip holder standard	142.0005	M6×28 mm	5	10	
342P008014*	Contact tip holder special	142.0020	M8×28 mm	6	10	
114P102004	White diffuser Plastic	014.0261	32,5 mm	7	10	
114P002005	White diffuser Ceramic	014.0023	32,5 mm	7	10	
114P001001	Swan neck	014.0006		8	1	

<sup>\*</sup> this contact tip holder must be used with contact tip M8 (see spare parts of torch 511)

Art. Nr.	Descr.	Pos.	Qt.	Stock class
WP90010	Plastic handle complete for MIGSTAR PRO AIR COOLED	9	1	
WP90009	Trigger black for MIGSTAR PRO	10	5	
360P501130	Complete cable 42 mm <sup>2</sup> 3 m	11	1	
360P501140	Complete cable 42 mm <sup>2</sup> 4 m	11	1	
360P501150	Complete cable 42 mm <sup>2</sup> 5 m	11	1	
WP90014	Connection EURO set complete for torch air cooled	12	1	
701P002005	Liner nut	13	10	
	Liners for all kind of torches - see next pages			



#### **TORCH MIGSTAR PRO 511 (WATER COOLED)**



#### **MIGSTAR 511 H20 - SPARE PARTS**



Gas nozzle CONICAL



Contact tip



Contact tip holder



Gas white diffuser

Art. Nr.	Descr.		Dimensions	Pos.	Qt.	Stock class
345P011030	Gas nozzles	145.0051	D.20 mm CYLINDRICAL	1	10	
345P012030	Gas nozzles	145.0085	D.16 mm CONICAL	2	10	
345P013030	Gas nozzles	145.0132	D.14 mm CONICAL	3	10	
340P081262	Contact tip E-Cu	140.0114	M8×30 - D.0,8 mm	4	25	
340P101262	Contact tip E-Cu	140.0313	M8×30 - D.1,0 mm	4	25	
340P121262	Contact tip E-Cu	140.0442	M8×30 - D.1,2 mm	4	25	
340P141262	Contact tip E-Cu		M8×30 - D.1,4 mm	4	25	
340P161262	Contact tip E-Cu	140.0587	M8×30 - D.1,6 mm	4	25	
341P101262	Contact tip E-Cu ALU	141.0008	M8×30 - D.1,0 mm	4	25	
341P121262	Contact tip E-Cu ALU	141.0015	M8×30 - D.1,2 mm	4	25	
341P161262	Contact tip E-Cu ALU	141.0022	M8×30 - D.1,6 mm	4	25	
340P083262	Contact tip CuCrZr(Long life)	140.0117	M8×30 - D.0,8 mm	4	25	
340P103262	Contact tip CuCrZr(Long life)	140.0316	M8×30 - D.1,0 mm	4	25	
340P123262	Contact tip CuCrZr(Long life)	140.0445	M8×30 - D.1,2 mm	4	25	
340P143262	Contact tip CuCrZr(Long life)		M8×30 - D.1,4 mm	4	25	
340P163262	Contact tip CuCrZr(Long life)	140.0590	M8×30 - D.1,6 mm	4	25	
342P008033	Contact tip holder	142.0022	M8x25 mm	5	10	
130P102001	Gas diffuser white plastic	030.0145	28 mm	6	10	
130P002031	Gas diffuser brown HD		28 mm	6	10	
130P102031	Gas diffuser white ceramic	030.0190	28 mm	6	10	
134P001001	Swan neck	032.0002		7	1	

Art. Nr.	Descr.		Pos.	Qt.	Stock class
WP90012	Plastic handle complete for MIGSTA	R PRO WATER COOLED	8	1	
WP90009	Trigger black for MIGSTAR PRO		9	5	
319P162130GCE	Cable complete (power+water)	3 m	10	1	
319P162140GCE	Cable complete (power+water)	4 m	10	1	
319P162150GCE	Cable complete (power+water)	5 m	10	1	
302P010000	Gas hose		11	100	
303P050000	Water hose Blue		12	100	
303P060000	Water hose Red		13	100	
307P252800	External black liner		14	40	
701P002064	Quick connection H₂O		15	10	
WP90016	Connection EURO set complete for t	orch water cooled	16	1	
701P002005	Liner nut		17	10	
	Liners for all kind of torches - see ne	xt pages			



#### **TORCH MIGSTAR PRO**

#### **LINERS FOR ALL KIND OF TORCHES**

#### LINERS IN TEFLON FOR ALUMINUM WIRES



Art. Nr.	Long	0	Color	Qt.	Stock class
326P154035	3 m	0,6-0,9 mm	Blue	1	
326P154045	4 m	0,6-0,9 mm	Blue	1	
326P154055	5 m	0,6-0,9 mm	Blue	1	
326P204035	3 m	1,0-1,2 mm	Red	1	
326P204045	4 m	1,0-1,2 mm	Red	1	
326P204055	5 m	1,0-1,2 mm	Red	1	
326P274735	3 m	1,2-1,6 mm	Yellow	1	
326P274745	4 m	1,2-1,6 mm	Yellow	1	
326P274755	5 m	1,2-1,6 mm	Yellow	1	

#### LINERS FOR STEEL WIRES



EINTERS FOR STEEL	Willes				
Art. Nr.	Long	0	Color	Qt.	Stock class
324P154534	3 m	0,6-0,9 mm	Blue	1	
324P154544	4 m	0,6-0,9 mm	Blue	1	
324P154554	5 m	0,6-0,9 mm	Blue	1	
324P204534	3 m	1,0-1,2 mm	Red	1	
324P204544	4 m	1,0-1,2 mm	Red	1	
324P204554	5 m	1,0-1,2 mm	Red	1	
324P254534	3 m	1,2-1,6 mm	Yellow	1	
324P254544	4 m	1,2-1,6 mm	Yellow	1	
324P254554	5 m	1,2-1,6 mm	Yellow	1	



# **VERY HIGH RELIABILITY, VERY GOOD PRICE!**

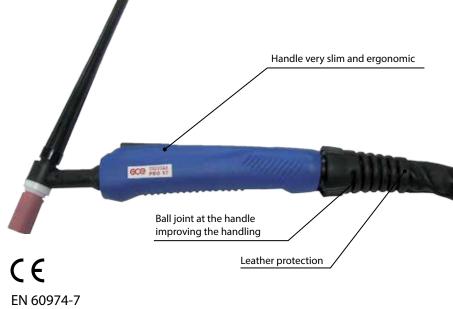
# TIGSTAR PRO

The new generation of GCE TIG Brenner with extraordinary technical characteristics at a very good PRICE! They're provided with a very slim and ergonomic shank, a ball joint at the handle and an ultra soft leather protection for cable (n/a on V version) making them fully handy. Available in two variants: Air cooled and water cooled. The spare parts are fully compatible with standard market Brenner.

#### **FFATIIRES**

- Optimum cooling (Air or Water)
- Very slim and ergonomic handle.
- Ball joint at the handle improving the handling
- Standard trigger version or knob version (model V)
- Plug TIG included (G1/4 G3/8 quick connection)
- Soft leather cover for cable (n/a on V version)
- Provided with a spare parts set (ceramic nozzle, collet body, collet, back cup long)





#### THE ONLY ONES WITH LEATHER CLAD CABLE!

The first 75cm of torch cable nearest to operator are clad in soft leather (n/a on Brenner with knob control valve).

This gives great flexibilty of movement and very good protection against spatter.



#### MAXIMUM EASY USE!

All TIGSTAR Brenner are delivered complete with connection.

The gas connections included in the box are for all possible needs (1/4 or 3/8 or quick)



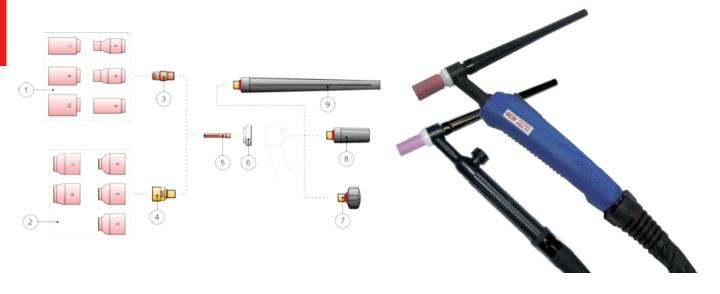
V version (with knob valve)

AIK COULED							
Art. Nr.	Descr.	Duty DC 35%	AC 35%	Ø	•	Qt.	Stock class
415P09C104N	TIGSTAR PRO 9 4M	110A	95A	0,5-1,6	25mm (small)	1	
415P09C108N	TIGSTAR PRO 9 8M	110A	95A	0,5-1,6	25mm (small)	1	
405P09V104N	TIGSTAR PRO 9 V 4M	110A	95A	0,5-1,6	25mm (small)	1	
415P17C104N	TIGSTAR PRO 17 4M	140A	125A	0,5-2,4	25mm (small)	1	
415P17C114N	TIGSTAR PRO 17 4M	140A	125A	0,5-2,4	50mm (standard)	1	
415P17C108N	TIGSTAR PRO 17 8M	140A	125A	0,5-2,4	25mm (small)	1	
405P17V104N	TIGSTAR PRO 17 V 4M	140A	125A	0,5-2,4	25mm (small)	1	
405P17V114N	TIGSTAR PRO 17 V 4M	140A	125A	0,5-2,4	50mm (standard)	1	
415P26C104N	TIGSTAR PRO 26 4M	180A	150A	0,5-4,0	50mm (standard)	1	
415P26C108N	TIGSTAR PRO 26 8M	180A	150A	0,5-4,0	50mm (standard)	1	
405P26V104N	TIGSTAR PRO 26 V 4M	180A	150A	0,5-4,0	50mm (standard)	1	

WATER COOLED								
Art. Nr.	Descr.	DC 100%	AC 100%	Ø	*	Qt.	Stock class	
415P20C104N	TIGSTAR PRO 20 4M	250A	220A	0,5-3,2	50mm (standard)	1		
415P20C108N	TIGSTAR PRO 20 8M	250A	220A	0,5-3,2	50mm (standard)	1		
415P18C104N	TIGSTAR PRO 18 4M	320A	240A	0,5-4,0	50mm (standard)	1		
415P18C108N	TIGSTAR PRO 18 8M	320A	240A	0.5-4.0	50mm (standard)	1		



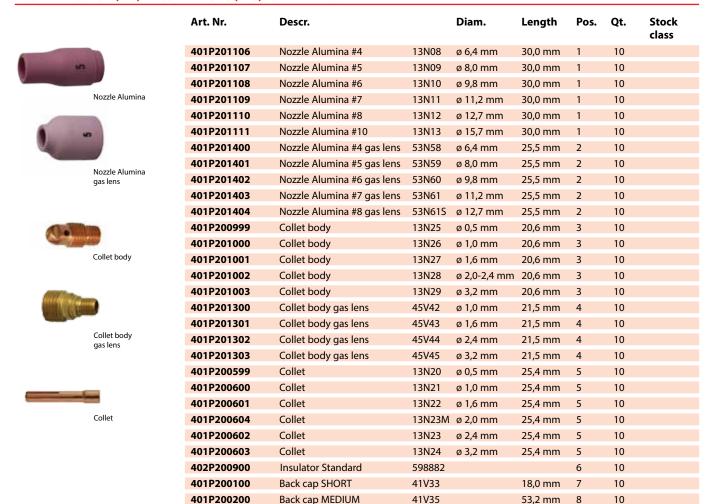
# TORCH TIGSTAR PRO 9 - 9V (AIR COOLED) TORCH TIGSTAR PRO 20 (WATER COOLED)



#### TIGSTAR PRO 9 - 9V (AIR) - TIGSTAR PRO 20 (H2O) - SPARE PARTS

401P200300

Back cap LONG



The products listed here are fully compatible with other brands of equipment. References to other companies' products, numbers and registered trademarks are for market's convenience only.

41V24

147,5 mm 9

10



# TORCH TIGSTAR PRO 17 - 17V - 26 - 26V (AIR COOLED) TORCH TIGSTAR PRO 18 (WATER COOLED)



#### TIGSTAR PRO 17 - 17V - 26 - 26V (AIR) - TIGSTAR PRO 18 (H2O) - SPARE PARTS

402P170200

Back cap LONG



The products listed here are fully compatible with other brands of equipment. References to other companies' products, numbers and registered trademarks are for market's convenience only.

57Y02

116,0 mm 10

10



#### **TIG TORCHES**

#### **TIG TORCHES - CONNECTIONS**



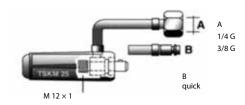
#### THE TIGSTAR PRO TORCHES ARE SUPPLIED COMPLETE WITH CONNECTIONS.

Connection Plug TIG 25mm (G1/4 - G3/8 - quick gas connection) Suitable for small INVERTERS (up to 160A-200A)

Art. Nr. Descr.

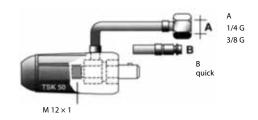
701P101028 Plug TIG 25 mm Stock class

Qt.



Connection Plug TIG 50mm (G1/4 - G3/8 - quick gas connection) Suitable for medium/big welding machines (200A-350A)

Art. Nr.	Descr.	Qt.	Stock class
701P101027	Plug TIG 50 mm	1	



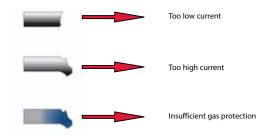
#### **TECHNICAL DATA**

ALUMINIUM WELDING						
plate (mm)	A (AC)	Electrode				
1,0-1,5	20-50	1,6				
2,0	40-70	2,4				
3,0	60-100	3,2				
4,0	90-130	3,2				
5,0	120-170	4,0				
6,0	170-250	4,8				
	>300	6,4				

#### STEEL WELDING

plate (mm)	A (AC)	Electrode
0,4-0,6	5-25	1,6
0,6-1,0	20-60	1,6
1,5-2,0	40-100	3,2
3,0-4,0	80-140	3,2
5,0	120-170	4,0
5,0->5	150->250	4,8

#### CAUSES OF ABNORMAL CONSUMPTION OF ELECTRODES





#### **TUNGSTEN ELECTRODES**

#### **TUNGSTEN ELECTRODES**

TUNGSTEN	DIIDE	CDEEN	/M20\
IUNGSIEN	PIIKE -	GKFFN	(W/II)

Good welding electrode. Specific for the welding of aluminum.

STANDARD: ISO 6848

Art. Nr.	Descr.	ISO 6848 symbol	Oxide addition	Dimension	Qt.	Stock class
400P010175	PURE (Green)	WP	-	1,0×175 mm	10	
400P016175	PURE (Green)	WP	-	1,6×175 mm	10	
400P020175	PURE (Green)	WP	-	2,0×175 mm	10	
400P024175	PURE (Green)	WP	-	2,4×175 mm	10	
400P032175	PURE (Green)	WP	-	3,2×175 mm	10	
400P040175	PURE (Green)	WP	-	4,0×175 mm	10	
400P048175	PURE (Green)	WP	-	4,8×175 mm	5	MTO

#### TUNGSTEN + THORIUM 2% - RED (WT20)

Excellent welding performance. These electrodes are the most widely used in the world. Specific for the welding of stainless steel.

STANDARD: ISO 6848

Art. Nr.	Descr.	ISO 6848 symbol	Oxide addition	Dimension	Qt.	Stock class
400P210150	THORIATED (Red)	WTh20	ThO2 - 2%	1,0×150 mm	10	
400P216150	THORIATED (Red)	WTh20	ThO2 - 2%	1,6×150 mm	10	
400P220150	THORIATED (Red)	WTh20	ThO2 - 2%	2,0×150 mm	10	
400P224150	THORIATED (Red)	WTh20	ThO2 - 2%	2,4×150 mm	10	
400P232150	THORIATED (Red)	WTh20	ThO2 - 2%	3,2×150 mm	10	
400P210175	THORIATED (Red)	WTh20	ThO2 - 2%	1,0×175 mm	10	
400P216175	THORIATED (Red)	WTh20	ThO2 - 2%	1,6×175 mm	10	
400P220175	THORIATED (Red)	WTh20	ThO2 - 2%	2,0×175 mm	10	
400P224175	THORIATED (Red)	WTh20	ThO2 - 2%	2,4×175 mm	10	
400P232175	THORIATED (Red)	WTh20	ThO2 - 2%	3,2×175 mm	10	
400P240175	THORIATED (Red)	WTh20	ThO2 - 2%	4,0×175 mm	10	
400P248175	THORIATED (Red)	WTh20	ThO2 - 2%	4,8×175 mm	5	MTO

#### TUNGSTEN + CERIUM 2% - GREY (WC20)

Excellent welding performance, even better than the thoriated electrodes (red). Non-toxic, non-polluting, low fumes emission. Specific for the welding of stainless steel and aluminum.

STANDARD: ISO 6848

Art. Nr.	Descr.	ISO 6848 symbol	Oxide addition	Dimension	Qt.	Stock class
400P510175	CERIATED (grey)	WCe20	CeO2 - 2%	1,0×175 mm	10	
400P516175	CERIATED (grey)	WCe20	CeO2 - 2%	1,6×175 mm	10	
400P520175	CERIATED (grey)	WCe20	CeO2 - 2%	2,0×175 mm	10	
400P524175	CERIATED (grey)	WCe20	CeO2 - 2%	2,4×175 mm	10	
400P532175	CERIATED (grey)	WCe20	CeO2 - 2%	3,2×175 mm	10	
400P540175	CERIATED (grey)	WCe20	CeO2 - 2%	4,0×175 mm	10	MTO
400P548175	CERIATED (grey)	WCe20	CeO2 - 2%	4,8×175 mm	5	MTO

## TUNGSTEN + LANTHANUM 1,5% - GOLD (WL15)

Excellent welding performance, even at low amperage. 100% non-radioactive. No risk to health. Suitable in any TIG welding application.

STANDARD: ISO 6848

Art. Nr.	Descr.	ISO 6848 symbol	Oxide addition	Dimension	Qt.	Stock class
400P910175	LANTHANATED (gold)	WLa15	La2O3 - 1,5%	1,0×175 mm	10	
400P916175	LANTHANATED (gold)	WLa15	La2O3 - 1,5%	1,6×175 mm	10	
400P920175	LANTHANATED (gold)	WLa15	La2O3 - 1,5%	2,0×175 mm	10	
400P924175	LANTHANATED (gold)	WLa15	La2O3 - 1,5%	2,4×175 mm	10	
400P932175	LANTHANATED (gold)	WLa15	La2O3 - 1,5%	3,2×175 mm	10	
400P940175	LANTHANATED (gold)	WLa15	La2O3 - 1,5%	4,0×175 mm	10	MTO
400P948175	LANTHANATED (gold)	WLa15	La2O3 - 1,5%	4,8×175 mm	5	MTO
400P916175 400P920175 400P924175 400P932175 400P940175	LANTHANATED (gold) LANTHANATED (gold) LANTHANATED (gold) LANTHANATED (gold) LANTHANATED (gold)	WLa15 WLa15 WLa15 WLa15 WLa15	La2O3 - 1,5% La2O3 - 1,5% La2O3 - 1,5% La2O3 - 1,5% La2O3 - 1,5%	1,6×175 mm 2,0×175 mm 2,4×175 mm 3,2×175 mm 4,0×175 mm	10 10 10 10 10	

### TUNGSTEN + LANTHANUM 2% - BLUE (WL20)

Excellent welding performance. Longer cleaning and geometry of tip, extending the lifetime. 100% non-radioactive. No risk to health. Suitable especially in automated systems.

STANDARD: ISO 6848

Art. Nr.	Descr.	ISO 6848 symbol	Oxide addition	Dimension	Qt.	Stock class
400P310175	LANTHANATED (blue)	WLa20	La2O3 – 2%	1,0×175 mm	10	
400P316175	LANTHANATED (blue)	WLa20	La2O3 – 2%	1,6×175 mm	10	
400P320175	LANTHANATED (blue)	WLa20	La2O3 – 2%	2,0×175 mm	10	
400P324175	LANTHANATED (blue)	WLa20	La2O3 – 2%	2,4×175 mm	10	
400P332175	LANTHANATED (blue)	WLa20	La2O3 – 2%	3,2×175 mm	10	
400P340175	LANTHANATED (blue)	WLa20	La2O3 – 2%	4,0×175 mm	10	MTO
400P348175	LANTHANATED (blue)	WLa20	La2O3 – 2%	4,8×175 mm	5	MTO



Stock class

24-30mm 1

180 l/min

## PLASMA HAND CUTTING TORCHES



# OLARIS

The torches are the new torches for Hand Plasma Cutting by GCE with excellent performance. High cutting speed and high quality of cut make these torches very efficient. Ergonomic handle and central connections provide ease of use and practicability. Suitable for the most demanding users. Excellent value for money.

EN 60974-7

#### **FEATURES**

- Ergonomic handle.
- Trigger protection against accidental starting.
- Strong and ergonomic Central connection.
- Ignition with high frequency
- Consumables fully interchangeable with torches of other brands.
- Accessories included.



**Ergonomic Handle** 



Trigger protection



Central connection



Accessories included

**AIR COOLED** 

TP001020



Art. Nr.	Descr.		Duty Cycle <b>60</b> %	$\bigcirc$	<u></u>	<u> </u>	Qt.
TP001000	TORCH B50 – 6m	50 A	4.5-5.0 bar		165 l/min	10-15mm	1
TP001010	TORCH B70 – 6m	70 A	4.5-5.0 bar		170 l/min	18-24mm	1

TORCH B100 - 6m

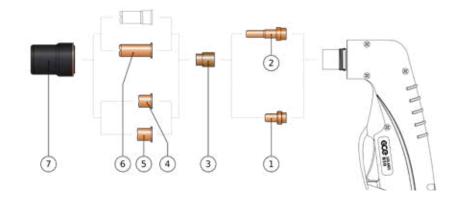
<b>TP001030</b> TORC	H B150 – 6m 150 A	4.5-5.0 bar	200 l/min	35-40mm	1
<b>TP001100</b> TORC	H F81 – 6m 80 A	4.5-5.0 bar	155 l/min	20-25mm	1
IPOULIOU TORCE	H F01 - 0111 60 A	4.5-5.0 bai	133 1/111111	20-2311111	1
<b>TP001110</b> TORC	H F101 – 6m 100 A	4.5-5.0 bar	180 l/min	25-30mm	1
<b>TP001120</b> TORC	H F141 – 6m 140 A	4.5-5.0 bar	210 l/min	35-40mm	1

100 A 4.5-5.0 bar



#### **PLASMA TORCH B50**



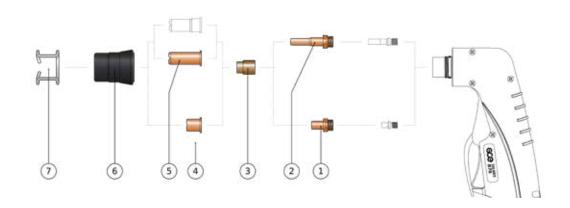


#### **B50 – SPARE PARTS**

Art. Nr.	Descr.		Pos.	Qt.	Stock class
TP002200	Electrode Hf	1521- Hf	1	10	
TP002203	Electrode Extended Hf	1518- Hf	2	10	
TP002150	Swirl ring	20101	3	2	
TP002301-10	Tip D.1,0 mm (50A)	1304	4	10	
TP002302-10	Tip D.1,0 mm Long life (50A)	1396	5	10	
TP002302-11	Tip D.1,1 mm Long life (60A)		5	10	
TP002303-10	Tip Extended D.1,0 mm (50A)	1370	6	10	
TP002304-10	Tip Extended D.1,0 mm Long life (50A)	1395	6	10	
TP002304-11	Tip Extended D.1,1 mm Long life (60A)		6	10	
TP002400	Shield Cup	5710121	7	2	

#### **PLASMA TORCH B70**





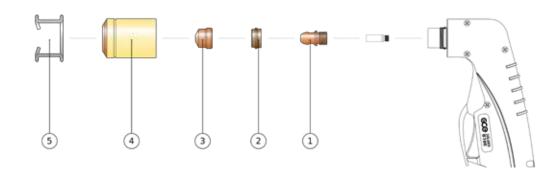
#### **B70 – SPARE PARTS**

Art. Nr.	Descr.		Pos.	Qt.	Stock class
TP002201	Electrode Hf	1402	1	10	
TP002204	Electrode Extended Hf	1368	2	10	
TP002150	Swirl ring	20101	3	2	
TP002302-10	Tip D.1,0 mm Long life (50A)	1396	4	10	
TP002302-11	Tip D.1,1 mm Long life (60A)		4	10	
TP002302-12	Tip D.1,2 mm Long life (70A)	1308	4	10	
TP002304-10	Tip Extended D.1,0 mm Long life (50A)	1395	5	10	
TP002304-11	Tip Extended D.1,1 mm Long life (60A)		5	10	
TP002304-12	Tip Extended D.1,2 mm Long life (70A)		5	10	
TP002402	Shield Cup	5710171	6	2	
TP002450	Spacer spring	1394	7	10	



#### **PLASMA TORCH B100**



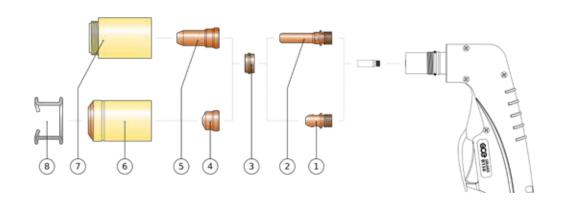


#### **B100 – SPARE PARTS**

Art. Nr.	Descr.		Pos.	Qt.	Stock class
TP002202	Electrode Hf	1376	1	10	
TP002151	Swirl ring	1377	2	2	
TP002310-13	Tip D.1,35 mm (100A)	1372	3	10	
TP002310-16	Tip D.1,6 mm (130A)	1373	3	10	
TP002410	Shield Cup		4		
TP002451	Spacer spring	1386	5	10	

#### PLASMA TORCH B150





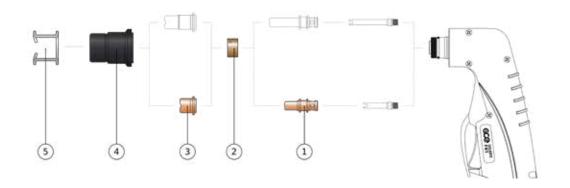
#### **B150 – SPARE PARTS**

Art. Nr.	Descr.		Pos.	Qt.	Stock class
TP002202	Electrode Hf	1376	1	10	
TP002205	Electrode Extended Hf	1517	2	10	
TP002151	Swirl ring	1377	3	2	
TP002310-13	Tip D.1,35 mm (100A)	1372	4	10	
TP002310-16	Tip D.1,6 mm (130A)	1373	4	10	
TP002310-18	Tip D.1,8 mm (150A)	1374	4	10	
TP002312-13	Tip Extended D.1,35 mm (100A)	5	10		
TP002312-16	Tip Extended D.1,6 mm (130A)		5	10	
TP002312-18	Tip Extended D.1,8 mm (150A)		5	10	
TP002403	Shield Cup	1389	6	2	
TP002404	Shield Cup Contact	60350	7	2	
TP002451	Spacer spring	1386	8	10	



#### PLASMA TORCH F81



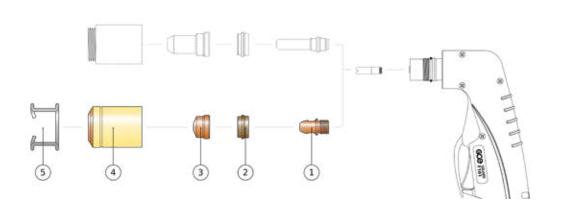


#### F81 – SPARE PARTS

Art. Nr.	Descr.		Pos.	Qt.	Stock class
TP002206	Electrode Hf	PE0109	1	10	
TP002152	Swirl ring	PE0107	2	2	
TP002313-11	Tip D.1,1 mm (60A)	PD0105-11	3	10	
TP002313-12	Tip D.1,2 mm (80A)	PD0105-12	3	10	
TP002405	Shield Cup	PC0115	4	2	
TP002452	Spacer spring	CV0028	5	10	

#### PLASMA TORCH F101





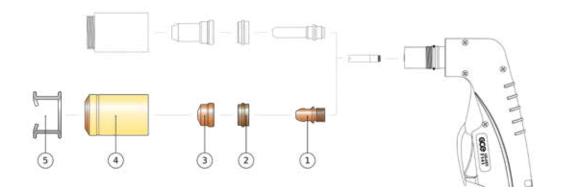
#### F101 - SPARE PARTS

Art. Nr.	Descr.		Pos.	Qt.	Stock class
TP002207	Electrode Hf	PR0101	1	10	
TP002153	Swirl ring	PE0101	2	2	
TP002315-14	Tip D.1,4 mm (100A)	PD0101-14	3	10	
TP002315-17	Tip D.1,7 mm (130A)	PD0101-17	3	10	
TP002406	Shield Cup Long life	PC0111	4	2	
TP002453	Spacer spring	CV0011	5	10	



### PLASMA TORCH F141



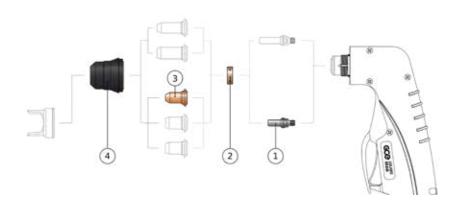


#### F141 - SPARE PARTS

Art. Nr.	Descr.		Pos.	Qt.	Stock class
TP002207	Electrode Hf	PR0101	1	10	
TP002153	Swirl ring	PE0101	2	2	
TP002315-14	Tip D.1,4 mm (100A)	PD0101-14	3	10	
TP002315-17	Tip D.1,7 mm (130A)	PD0101-17	3	10	
TP002408	Shield Cup Long life	PC0102	4	2	
TP002453	Spacer spring	CV0011	5	10	

#### **PLASMA TORCH M60**





#### M60 - SPARE PARTS

Art. Nr.	Descr.		Pos.	Qt.	Stock class
TP002212	Electrode – Back striking	52582	1	10	
TP002155	Swirl ring	60028	2	2	
TP002320-08	Tip D.0,8 mm (30A) – Back striking	51318.08	3	10	
TP002320-09	Tip D.0,9 mm (40A) – Back striking	51318.09	3	10	
TP002320-10	Tip D.1,0 mm (50A) – Back striking	51318.10	3	10	
TP002412	Shield Cup 6 holes (GLADIUS 40)	60389	4	2	
TP002415	Shield Cup 4 holes (GLADIUS 40 COMP)		4	2	



#### **AIR CARBON-ARC TORCHES**

#### **AIR CARBON-ARC GOUGING TORCHES**





The air carbon-arc process physically removes metal, not chemically as in oxy-fuel cutting. Gouging or cutting occurs when the intense heat of the arc between the carbon electrode and the workpiece melts part of the workpiece. Simultaneously, air passes through the arc quickly enough to blow the molten material away.

#### DIMENSIONS

- Torch: 25 cm
- Cable: 210 cm (7 ft.)
- 360° swivel cable (no cable twist)
- impact and heat resistant insulators

Art. Nr.	Descr.		Qt. Stock class
52040	Torch 600 A	for medium duty application	1
52041	Torch 1000 A	for heavy duty application	1
52042	Torch 1250 A	for heavy duty application	1
52043	Torch 1600 A		1

#### **CARBON ELECTRODES POINTED**

Art. Nr.	Long	0	Qt.	Stock class
52104	305 mm	4 mm	100	
52105	305 mm	5 mm	100	
52106	305 mm	6 mm	100	
52108	305 mm	8 mm	100	
52110	305 mm	10 mm	100	
52113	305 mm	13 mm	100	
52119	305 mm	19 mm	100	



#### **ELECTRODE HOLDERS**

#### **PRATICA**



Ergonomic handle with anti-slip notches. Clamp with grooves allowing the electrode to be fitted in multi positions for an easier positioning to the work piece.

- STANDARD: EN 60974-11
- Insulation class B
- Electrode fixing in 7 positions
- Solid brass body

#### **MADE IN ITALY**

#### **TECHNICAL DATA**

	kg	1,2,3	A 35%	A 60%	Ø	$mm^2$
Pratica 1	330 g	200 mm	260 A	200 A	4,0	25-35
Pratica 2	390 g	245 mm	350 A	250 A	5,0	35-50
Pratica 3	480 g	275 mm	520 A	400 A	6,3	50-70

Art. Nr.	Descr.	Qt. Stock class
17200260	Electrode holder Pratica 1-260	1
17200350	Electrode holder Pratica 2-350	1
17200520	Electrode holder Pratica 3-520	1

#### **DELFIN**



High specification electrode holder with heavy front insulation and anti-slip handle. The clamp with grooves allows the electrode to be fitted in multi positions for an easier positioning to the work piece. The retaining spring completely protected is easy to remove. The design of the electrode clamp offers extra protection, as the electrode is surrounded by insulating material reducing the possibility of accidental contact with the operator or other metallic parts.

- STANDARD: EN 60974-11
- Insulation class B

	kg	1 2 3	A 35%	A 60%	Ø	$mm^2$
DELFIN-1	-	-	250 A	200 A	2,5-4,0	25-35
DELFIN-2	-	-	300 A	250 A	3,2-5,0	35-50
DELFIN-3	-	-	400 A	300 A	4,0-6,3	50-70

Art. Nr.	Descr.	Qt. Stock class
WP21054	Electrode holder DELFIN-1 250A	1
WP21055	Electrode holder DELFIN-2 300A	1
WP21056	Electrode holder DELFIN-3 400A	1



#### **ELECTRODE HOLDERS**

#### **CROCODILE**



Crocodile electrode holders have a ribbed handle providing a firm grip and good balance. The spring is shielded to prevent damage from spatter and cable fixing is by means of a bolt and copper ferrule (supplied). One of the most popular electrode holders on the market, these are heavy duty.

- STANDARD: EN 60974-11
- Insulation class B

#### TECHNICAL DATA

	kg\	1 2 3	A 35%	<b>A</b> <b>60</b> %	Ø	$mm^2$
Crocodile 400	445 g	235 mm	400 A	300 A	4,0	35
Crocodile 600	630 g	250 mm	600 A	450 A	6,3	70

Art. Nr.	Descr.	Qt. Stock class
53104	Electrode holder Crocodile 400	1
53106	Electrode holder Crocodile 600	1

#### SHARK



Electrode holder for all welding applications, available for high current values. High impact resistance and very easy to use.

- STANDARD: EN 60974-11
- Insulation class B

#### TECHNICAL DATA

	kg	1, 2, 3	A 35%	<b>A</b> <b>60</b> %	Ø	mm <sup>2</sup>
Shark 200	-	-	150 A	115 A	2,5	16
Shark 300	-	-	250 A	200 A	3,2	25
Shark 400	-	-	350 A	270 A	4,0	35
Shark 550	-	-	500 A	380 A	5,0	50

# **EXCELLENT VALUE FOR MONEY**

Art. Nr.	Descr.	Qt.	Stock class
548800000160	Electrode holder Shark 200	1	
548800000260	Electrode holder Shark 300	1	
548800000350	Electrode holder Shark 400	1	
548800000500	Electrode holder Shark 550	1	

#### **TWIST**



TWIST is an electrode holder completely shielded in the front part. The electrode is positioned at 90 degrees and blocked by rotating the shank. In operation the electrode is completely hidden from the outside reducing the risk of short circuit. Suitable particularly for welding in plain or vertical.

- STANDARD: EN 60974-11
- Insulation class B

	kg	1, 2, 3,	A 35%	A 60%	Ø	mm <sup>2</sup>
Twist 400	-	-	400 A	300 A	4,0	35
Twist 600	-	-	600 A	450 A	6,3	70

Art. Nr.	Descr.	Qt. Stock class
53524	Electrode holder Twist 400	1
53526	Electrode holder Twist 600	1



#### **ELECTRODE HOLDERS**

#### **VESTALE®**





The electrode holder VESTALE® is completely made in France. The design is very compact making the device strong and reliable. The electrode is fixed by screwing. Completely insulated.

STANDARD: EN 60974-11

#### **MADE IN FRANCE**

#### TECHNICAL DATA

	kg	1, 2, 3	A 35%	A 60%	Ø	mm <sup>2</sup>
Vestale® 500	485 g	-	600 A	500 A	6,3	95

 Art. Nr.
 Descr.
 Qt. class
 Stock class

 D150102
 Vestale\* 500
 1

#### **COBRA®**



COBRA® is an electrode holder entirely made in France with a compact design. The electrode is fixed by brass clamps. Completely insulated. STANDARD: EN 60974-11

#### **MADE IN FRANCE**

#### TECHNICAL DATA



Art. Nr. Descr. Qt. Stock class

D150104 Cobra® 1

#### **STUBBY**®



The original STUBBY fixes the electrode by rotating the shank. STANDARD: EN 60974-11 Insulation class: B.

#### **MADE IN FRANCE**

#### **TECHNICAL DATA**

	<b>k</b> g	1 2 3	<b>A</b> 35%	<b>A</b> <b>60</b> %	Ø	$mm^2$	
Stubby® 300	450 g	-	400 A	300 A	6,3	50	

 Art. Nr.
 Descr.
 Qt. stock class

 D150103
 Stubby\* 300
 1

#### **STUNTY**



W --- CE

The electrode holder STUNTY has a brass body and a handle with rubber shock-proof coating. The electrode can be fixed in two positions by rotating the shank.

STANDARD: EN 60974-11 Insulation class: A

	kg	1.2.3	A 35%	A 60%	Ø	mm <sup>2</sup>
Stunty 200	350g	220 mm	200 A	150 A	3,2	25-35
Stunty 400	545a	255 mm	300 A	250 A	5.0	50-70

Art. Nr.	Descr.	Qt.	Stock class
D150104S	Stunty 200	1	
D150105S	Stunty 400	1	



#### **EARTH CLAMPS**

#### **ECO-MAS**



Earth clamps designed for semi-professional use, for general use with small welding machines (transformers or small inverters up to 150A). Cable fixing directly at the point of contact.

STANDARD: EN 60974-13

#### **TECHNICAL DATA**

	kg	1 2 3	A 35%	A 60%	$mm^2$	
Eco-mas 150	190 g	170 mm	200 A	150 A	16-25	
Eco-mas 200	190 g	170 mm	250 A	200 A	25-35	

Art. Nr.	Descr.	Shunt	Qt.	Stock class
WP21038	Eco-mas 150	Copper plate	1	
WP21039	Eco-mas 200	Copper braid	1	

#### **ECO-MAS PLUS**



Earth clamps designed for semi-professional use, for general use with small welding machines. Cable fixing directly at the point of contact. Insulated handle. STANDARD: BS-638.5

#### **TECHNICAL DATA**

	<b>k</b> g	1 2 3	A 35%	A 60%	$mm^2$	
Eco-mas plus 200	-	-	200 A	150 A	-	
Eco-mas plus 400	-	-	400 A	300 A	-	

Qt.

Stock

		class
10000022	Eco-mas plus 200	1
10000023	Eco-mas plus 400	1

#### **ZBS**



Earth clamps for professional use with copper plate shunt and and copper contacts.

Cable fixing at the body. STANDARD: BS-638.5

	kg	1 2 3	A 35%	A 60%	$mm^2$	
ZBS-35	-	-	200 A	160 A	35	
ZBS-70	-	-	400 A	315 A	70	
ZBS-90	-	-	600 A	500 A	95	

Art. Nr.	Descr.	Shunt	Qt. Stock class
090000340	ZBS-35	Copper plate	1
09000341	ZBS-70	Copper plate	1
09000342	ZBS-90	Copper plate	1



#### **EARTH CLAMPS**

#### **CLASSIC-MAS**



HIGH PERFORMANCE earth clamps realized with attention to details. The model 400 is equipped with copper braid inside while the model 650 with double copper braid with the aim to optimize the conductivity and minimize the electric discharge. Thanks to the very good contacts realization, an high conductivity is always guaranteed. The clamp spring is soft and easy to use. For all professional users.

STANDARD: EN 60974-13

#### **TECHNICAL DATA**

	kg	1 2 3	A 35%	A 60%	mm <sup>2</sup>	
Classic-mas 200	280 g	170 mm	250 A	200 A	25	
Classic-mas 400	310 g	200 mm	400 A	300 A	50	
Classic-ma5s 650	550 a	210 mm	600 A	500 A	70	

Art. Nr.	Descr.	Shunt	Qt.	Stock class
WP21009	Classic-mas 200	copper plate	1	
53204	Classic-mas 400	copper braid	1	
WP21037	Classic-mas 650	double copper braid	1	

#### **BRASS-MAS PRO**



Earth clamp for professional use. For big welding machines. Cast brass construction.

STANDARD: EN 60974-13

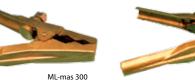
#### **TECHNICAL DATA**

	kg	1 2 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	A 35%	A 60%	$mm^2$	
Brass-mas PRO 300	-	-	250 A	200 A	25	
Brass-mas PRO 500	-	-	500 A	400 A	50	

\rt. Nr.	Descr.	Qt.	Stock class
VP21046	Brass-mas PRO 300	1	
WP21041	Brass-mas PRO 500	1	

#### **ML-MAS**





Earth clamp for professional use. For big welding machines. Cast brass construction.

STANDARD: EN 60974-13

#### TECHNICAL DATA

ML-mas 500

	kg	1 2 3	A 35%	A 60%	mm <sup>2</sup>	
ML-mas 300	-	-	250 A	200 A	25	
MI -mas 500	-	-	400 A	300 A	35	

Art. Nr.	Descr.	Qt.	Stock class
D150215	ML-mas 300 (French style)	1	
D150216	ML-mas 500 (French style)	1	

#### X-MAS





Earth clamp with cable fixing at the point of contact. STANDARD: BS-638.5

	kg	1 2 3	A 35%	A 60%	mm <sup>2</sup>	
X-mas 300	-	-	400 A	300 A	35	
X-mas 400	-	-	500 A	400 A	50	
X-mas 500	-	-	600 A	500 A	70	

Art. Nr.	Descr.	Qt.	Stock class
B1300A	X-mas 300	1	
B2400A	X-mas 400	1	
B3500A	X-mas 500	1	



#### **EARTH CLAMPS**

#### IOR-MAS



Earth clamp with spring fastening system STANDARD: BS-638.5

#### TECHNICAL DATA

	kg	1 2 3	A 35%	<b>A</b> <b>60</b> %	mm <sup>2</sup>	
LOR-mas 300	470 g	-	300 A	250 A	35-50	
LOR-mas 600	740 g	-	600 A	500 A	70-95	

Art. Nr.	Descr.	Qt.	Stock class
D150202	LOR-mas 300	1	
D150205	LOR-mas 600	1	

#### **STRONG-MAS**



ULTRA PROFESSIONAL screw driven earth clamps intended for semi permanent use where a perfect electrical connection is essential (600A). Insulated handle. STANDARD: EN 60974-13

- aluminum body
- handle in fiber

#### TECHNICAL DATA

	kg	1, 2, 3	A 35%	A <b>60</b> %	mm <sup>2</sup>	
Strong-mas 600	-	-	600 A	450 A	50-70	

Art. Nr.	Descr.	Qt.	Stock class
WP21044	Strong-mas 600	1	

#### **SCREW-MAS**



Earth clamps cast out of brass for high conductivity, with a wide footprint to give maximum contact area. Designed for industrial applications where a permanent contact and the maximum conductivity are required.

STANDARD: EN 60974-13

	<b>k</b> g	1 2 3	A 35%	<b>A</b> <b>60</b> %	$mm^2$	
Screw-mas 500	-	-	500 A	400 A	50	
Screw-mas 600	-	-	600 A	500 A	70	

Art. Nr.	Descr.	Qt.	Stock class
WP21042	Screw-mas 500	1	
WP21043	Screw-mas 600	1	



#### **COMPLETE KIT FOR MMA WELDING**

#### **READY-KIT**



#### **READY KIT 160**

COMPLETE WELDING KIT for use with electrodes up to 3,25 mm

#### **COMPOSITION:**

- Electrode holder with 3m cable.
- Earth clamp with 2m cable.
- Welding mask with glass DIN10 (75×98 mm).
- Brush/hammer for welding spatter.
- Connectors 25 mm.

Art. Nr.

Descr.

Qt.

Stock class

WP21005

WP21028

Ready-KIT 160A



#### READY KIT 300 PROF

PROFESSIONAL WELDING KIT for use with electrodes up to 4 mm

#### **COMPOSITION:**

- Electrode holder with 4m cable.
- Earth clamp with 4m cable.
- Welding mask with glass DIN11 (75×98 mm).
- Professional brush with wood shank.
- Hammer with wooden handle.
- Connectors 35 mm.

Art. Nr.	Descr.	Qt.	Stock class
WP21028	Ready-KIT 300A PROF	1	



#### **CABLES AND CONNECTORS**

#### **COPPER CABLES WITH COVER IN PVC**





Multipurpose cable with copper conductor, insulated with polyvinyl chloride, flame retardant and oil and chemical resistant, conform to 2006/95/EEN (Low Voltage Directive).

Art. Nr.		mm <sup>2</sup>	A 60%	Qt. Stock class
341000111016	PVC	16 mm <sup>2</sup>	175 A	100 m
341000111025	PVC	25 mm <sup>2</sup>	230 A	100 m
341000111035	PVC	35 mm <sup>2</sup>	290 A	50 m
341000111050	PVC	50 mm <sup>2</sup>	365 A	50 m
341000111070	PVC	70 mm <sup>2</sup>	460 A	50 m
341000111095	PVC	95 mm²	560 A	50 m
341000111120	PVC	120 mm <sup>2</sup>	650 A	50 m

#### **COPPER CABLES WITH COVER IN NEOPRENE (WELDING CABLES)**



Arc welding cable with copper conductor, insulated with rubber, flame retardant and oil and chemical resistant, conform to 2006/95/EEN (Low Voltage Directive).

Type designation: H01N2-D

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Art. Nr.		$\frac{1}{\text{mm}^2}$	60%	Qt. Stock class
WP21160	Neoprene	16 mm <sup>2</sup>	175 A	100 m
WP21162	Neoprene	25 mm <sup>2</sup>	230 A	100 m
WP21164	Neoprene	35 mm <sup>2</sup>	290 A	100 m
WP21166	Neoprene	50 mm <sup>2</sup>	365 A	50 m
WP21168	Neonrene	70 mm <sup>2</sup>	460 A	50 m

#### **SOCKETS AND PLUGS**

EN 60974-12









WELDING	CARLE	20CKF12	& PLUGS

Art. Nr.			mm <sup>2</sup>	Qt.	Stock class
711P001003	Socket TB	9 mm (small)	10-25 mm <sup>2</sup>	1	
711P001053	Socket TB	13 mm	25-35 mm <sup>2</sup>	1	
711P001103	Socket TB	13 mm	35-50 mm <sup>2</sup>	1	
711P001203	Socket TB	13 mm	50-70 mm <sup>2</sup>	1	
711P001303	Socket TB	13 mm	70-95 mm <sup>2</sup>	1	
711P001005	Plug TSB	9 mm (small)	10-25 mm <sup>2</sup>	1	
711P001055	Plug TSB	13 mm	25-35 mm <sup>2</sup>	1	
711P001105	Plug TSB	13 mm	35-50 mm <sup>2</sup>	1	
711P001205	Plug TSB	13 mm	50-70 mm <sup>2</sup>	1	
711P001305	Plug TSB	13 mm	70-95 mm <sup>2</sup>	1	





#### MACHINE CABLE SOCKETS & PLUGS

Art. Nr.			mm <sup>2</sup>	Qt.	Stock class
711P001004	Socket TEB	9 mm (small)	10-25 mm <sup>2</sup>	1	
711P001104	Socket TEB	13 mm	35-50 mm <sup>2</sup>	1	
711P001204	Socket TEB	13 mm	50-70 mm <sup>2</sup>	1	
711P001304	Socket TEB	13 mm	70-95 mm <sup>2</sup>	1	
711P001106	Plug TKB	13 mm	35-50 mm <sup>2</sup>	1	
711P001206	Plug TKB	13 mm	50-70 mm <sup>2</sup>	1	
711P001306	Plug TKB	13 mm	70-95 mm <sup>2</sup>	1	

#### CONNECTORS



Art. Nr.	Descr.	Hole 0	Qt. S	tock class
53316	lug for cable 16 mm <sup>2</sup>	10 mm	10	
53325	lug for cable 25 mm <sup>2</sup>	12 mm	10	
53335	lug for cable 35 mm <sup>2</sup>	12 mm	10	
53350	lug for cable 50 mm <sup>2</sup>	12 mm	10	
53370	lug for cable 70 mm <sup>2</sup>	12 mm	10	









#### **ELECTRODES RUTILES FOR MMA WELDING (SMAW)**

#### **RUTILE ELECTRODE - (ARC MAGIC S)**



#### ALL POSITIONS RUTILE ELECTRODE.

This electrode can really be used universally. It can be used in any position and with many different applications. It provides an exceptional self-assurance for welders. Good weld bead appearance. Easy slag removal.

#### WEIDARIE STEEL RANGE

General purpose construction steels

#### MAIN APPLICATION:

Metal structures in general, sheet metal, piping, metal works, containers, tanks, boilers, handicrafts, ironmongery, etc ...

#### **ADVANTAGES:**

- Universal all positions
- Excellent handling
- Smooth and stable arc
- Self-releasing slag

Art. Nr.	Long	0	Pcs/pack	Kg/pack	Packs/box	Stock class
C101021N	300 mm	1,6 mm	693	4,5	3	
C101022N	300 mm	2 mm	372	4	3	
C101023N	350 mm	2,5 mm	280	5	3	
C101024N	350 mm	3,2 mm	170	5	3	
C101025N	450 mm	3,2 mm	175	6,5	3	
C101026N	350 mm	4 mm	115	5	3	
C101027N	450 mm	4 mm	111	6,5	3	

Art. Nr.	Long	0	Pcs/pack	Kg/pack	Packs/box	Stock class
E220101N	300 mm	2 mm	93	1	1	
E220102N	350 mm	2,5 mm	56	1	1	
E220103N	350 mm	3,2 mm	34	1	1	



#### TECHNICAL DATA

Standards:	ISO 2560-A: E 42 0 RC 11 AWS A5.1: E 6013 EN 499: E 42 0 RC 11
Typical Weld Metal Composition (%):	Fe (base) C<0,10 Mn=0,6 Si=0,4 S<0,025 P<0,025
All Weld Metal Mechanical Properties:	Rp0.2 >400 MPa Rm 510-580 MPa A5 >22%
Electrode polarity:	Negative
Output Circuit Voltage (OCV):	~ 40V

#### **RUTILE ELECTRODE WITH HIGH MECHANICAL CHARACTERISTICS - (DIANE TS)**



#### ALL POSITIONS RUTILE ELECTRODE.

Universal rutile electrode to be used in any position and with many different applications. Mechanical characteristics slightly superior to the ARC MAGIC S.

Exceptional operability for welders. Good resistance to splitting and good weld bead appearance. Easy slag removal.

#### **WELDABLE STEEL RANGE:**

General purpose construction steels

#### MAIN APPLICATION:

Metal structures in general, sheet metal, piping, metal works, containers, tanks, boilers, handicrafts, ironmongery, etc ...

#### **ADVANTAGES:**

- Universal all positions
- Excellent handling for welders
- Smooth and stable arc
- Self-releasing slag

Art. Nr.	Long	0	Pcs/pack	Kg/pack	Packs/box	Stock class
C101332N	350 mm	2,5 mm	280	5	3	
C101333N	350 mm	3,2 mm	170	5	3	
C101335N	350 mm	4 mm	115	5	3	



TECHNICAE DAIN	
Standards:	AWS A5.1: E 6013 EN 499: E 42 0 RC 11 ISO 2560-A: E 42 0 RC 11
Typical Weld Metal Composition (%):	Fe (base) C<0,10 Mn=0,45 Si=0,4 S<0,025 P<0,025
All Weld Metal Mechanical Properties:	Re >420 MPa Rm 510-580 MPa A5 >22%
Electrode polarity:	Negative
Output Circuit Voltage (OCV):	~ 40V



## **BASIC ELECTRODES FOR MMA WELDING (SMAW)**

## **BASIC ELECTRODE WITH HIGH WELDABILITY - (DIANE BT)**



## BASIC ELECTRODE DOUBLE COATED.

Basic coated electrode presenting exceptional welding characteristics due to its double coating. Arc very stable. Almost spatter-free. Easy removal of the slag.

Recommended for root passes and on badly prepared joints. INCREDIBLY EASY TO USE.

#### **WELDABLE STEEL RANGE:**

Construction steels for general use, Tube steels, Ship steels, Steels for Boiler and Pressure Vessels, High strength steels, Heat resisting steels, Cold tough steels.

#### MAIN APPLICATION:

Frames, heavy supports, shipbuilding, pressure vessels, metal constructions and all repair works.

#### **ADVANTAGES:**

- Excellent handling for welders
- High resistance to cracking
- Smooth and stable arc
- Easy slag removal

Art. Nr.	Long	0	Pcs/pack	Kg/pack	Packs/box	Stock class
C102404N	350 mm	2,5 mm	250	5	3	
C102405N	350 mm	3,2 mm	150	5	3	
C102407N	450 mm	4 mm	90	6	3	



Standards:	AWS A5.1: E 7016 EN 499: E 38 2 B 12 H10
	ISO 2560-A: E 38 2 B 12 H10
Typical Weld Metal Composition (%):	Fe (base) C<0,10 Si0,7 Mn0,9 P<0,02 S<0,02
All Weld Metal Mechanical Properties:	Re 450 MPa Rm 550 MPa A5 27%
Electrode polarity:	Positive
Output Circuit Voltage (OCV):	~ 70V



## STAINLESS STEEL ELECTRODES FOR MMA WELDING (SMAW)

## STAINLESS STEEL 316L RUTILE-BASIC ELECTRODE - (INOX RR316LC)



#### STAINLESS STEEL RUTILE ELECTRODE.

It is a Rutile-basic electrode, providing a weld metal in low carbon austenitic stainless steel (316L). Used for welding of 18/8/3 austenitic stainless steels and cladded steels. It provides an excellent resistance to corrosion. Smooth welding. Easy slag removal.

#### **WELDABLE STEEL RANGE:**

18/8/3 type stainless steels (316L) and similar grades.

#### MAIN APPLICATION:

Chemical and petrochemical industries, ship building, tanks, pipes, heat exchangers, food industry.

#### **ADVANTAGES:**

- Low carbon universal stainless steel
- Excellent corrosion resistance
- **Excellent handling for welders** 
  - Coating with very low moisture absorption

Art. Nr.	Long	0	Pcs/pack	Kg/pack	Packs/box	Stock class
E310101N	250 mm	1,6 mm	477	3	1	
E310102N	300 mm	2,0 mm	332	4	1	
E310103N	300 mm	2,5 mm	212	4	1	
E310104N	350 mm	3,2 mm	140	5	1	
Art. Nr.	Long	0	Pcs/pack	Kg/pack	Packs/box	Stock class

Art. Nr.	Long	0	Pcs/pack	Kg/pack	Packs/box	Stock class
E220105N	300 mm	2,5 mm	23	0,420	1	
E220106N	350 mm	3,2 mm	13	0,440	1	

#### TECHNICAL DATA



Standards:	AWS A5.4: E316L-16 EN 1600: E 19 12 3L R 32
	ISO 3581-A: E 19 12 3L R 32
Typical Weld Metal Composition (%):	Fe (base) C<0,03 Si0,8 Mn0,7 Cr18,5 Ni12,0 Mo2,7
All Weld Metal Mechanical Properties:	Rp0.2 >400 MPa Rm >560 MPa A5 >35%
Electrode polarity:	Positive
Output Circuit Voltage (OCV):	~ 70V

#### STAINLESS STEEL 312 ELECTRODE - (INOX 29.10R)



#### STAINLESS STEEL RUTILE ELECTRODE FOR REPAIRING.

Rutile-basic electrode with an enhanced mechanical characteristic of the deposit of stainless steel. Highly resistant to cracking. Welding all low-alloy and high-alloy steels. It is a multipurpose electrode for high security repairs. Soft fusion, nice appearance of the beads, self releasing slag.

#### **WELDABLE STEEL RANGE:**

Carbon steel, galvanized steel, stainless steel, tool steel, manganese steel, etc...

#### MAIN APPLICATION:

Repairing and maintenance on dissimilar, difficult-toweld or unidentified steels.

Suitable for buffer layers before hardfacing, building up piston rods, gears...

### **ADVANTAGES:**

- Ideally universal
- High resistance
- Stainless deposit
- Nice appearance of the weld beads

Art. Nr.	Long	0	Pcs/pack	Kg/pack	Packs/box	Stock class
E290101N	300 mm	2,5 mm	216	4	1	
E290102N	350 mm	3,2 mm	145	5	1	
Art. Nr.	Long	0	Pcs/pack	Kg/pack	Packs/box	Stock class
E220110N	300 mm	2,5 mm	22	0,400	1	
E220111N	350 mm	3,2 mm	13	0,420	1	



Chemical analysis of the deposit:	Fe (base) C<0,10 Mn=0,6 Si=1,0 Cr=29,0 Ni=9,5 Mo=0,5
Mechanical characteristics of the deposit:	Rp0,2>500 MPa Rm=750/850 MPa A%>20
Standards:	EN 1600/ISO 3581-A: E29.9 R 32; AWS A5-4(E312-16)



## **CAST IRON ELECTRODES FOR MMA WELDING (SMAW)**

## **NICKEL PURE ELECTRODE - (FUN N°1)**



#### PURE NICKEL ELECTRODE.

Graphite electrode with high percentage of nickel, for cold repairing of different grades of cast iron. Very soft fusion. High conductivity.

## WELDABLE STEEL RANGE:

All grey lamellar cast irons.

### MAIN APPLICATION:

Repairing of engine blocks, frames of tool machines, gear reducers, valve and pump bodies, cast parts.

### **ADVANTAGES:**

- Excellent weldability in all positions, without preheating.
- Homogeneous and easy-machining deposit.
- Great deposit extension for lamellar cast iron
- Ideal for repairing old cast iron

Art. Nr.	Long	0	Pcs/pack	Kg/pack	Packs/box	Stock class
E660101N	350 mm	2,5 mm	235	5	1	
E660102N	350 mm	3,2 mm	145	5	1	
E660104N	350 mm	2,5 mm	47	1	1	
E660108N	350 mm	3,2 mm	29	1	1	

Art. Nr.	Long	0	Pcs/pack	Kg/pack	Packs/box	Stock class
E220125N	350 mm	2,5 mm	6	0,130	1	
E220126N	350 mm	3,2 mm	4	0,130	1	



TECHNICAL DATA	
Typical Weld Metal Composition (%):	C1,2 Si<2,0 Mn<1,0 Fe<2,0 Ni>95,0
All Weld Metal Mechanical Properties:	Rm >300 MPa Hardness ~180 HB
Electrode polarity:	Positive, Negative
Output Circuit Voltage (OCV):	~ 40V
Standards:	AWS A 5.15: ENi-CI DIN 8573: E Ni BG 11
	ISO 1071: F C Ni-Cl 3



## HARDFACING ELECTRODES FOR MMA WELDING (SMAW)

## **HARDFACING ELECTRODE - (DIROK RB 600)**



### RUTILE ELECTRODE FOR HARDFACING.

Rutile-basic coated electrode for surfacing of machines and construction parts suffering from wear and tear, as well as of tools made of low-alloyed and cast steels. Resistant to medium abrasion, shock and pressure.

Electrodes are easy to weld even on small welding equipment with low open arc voltage. Soft flow, almost no spatters, self releasing slag, nice aspect of the weld beads, crack free deposit, machinable by grinding.

### **WELDABLE STEEL RANGE:**

Low alloyed steels, high alloyed steels, wear plates.

## MAIN APPLICATIONS:

Hardfacing of moulds, scrapers, buckets and bucket teeth, excavator parts, chisels, conveyer screws, track links, cutting tools, crusher cones.

### **ADVANTAGES:**

- Universal all positions
- Good resistance to abrasion, shock and pressure
- Self releasing slag
- Machinable by grinding

Art. Nr.	Long	0	Pcs/pack	Kg/pack	Packs/box	Stock class
E600101N	450 mm	3,2 mm	143	6,5	3	
E600102N	450 mm	4 mm	91	6,5	3	
E600103N	450 mm	5 mm	65	6,5	3	
Art. Nr.	Long	0	Pcs/pack	Kg/pack	Packs/box	Stock class
E220115N	450 mm	3,2 mm	19	0,860	1	



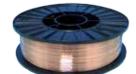
Typical Weld Metal Composition (%):	Fe (base) C1,0 Si0,5 Mn1,3 Cr4.5
Hardness:	~600 HB; 55-60 HRC Obtained in pour weld metal, 2-3 layers
Electrode polarity:	Negative
Output Circuit Voltage (OCV):	~ 45V
Standards:	DIN 8555: E2-UM-60 EN 14700: E Fe2



## **SOLID WIRES FOR MIG/MAG WELDING (GMAW)**

## **SOLID WIRES FOR MILD STEEL (SG2)**





#### **UN-ALLOYED STEEL WIRE**

Copper coated solid wire for the GMAW of mild steels.

Suitable for general metal constructions, automotive, shipbuilding, carpentry, etc.

ISO 14341-A: G 42 4 M21 3Si1

AWS A5.18: ER70S-6

CSA W48:06: B-G49A5 C G6

Art. Nr.	Description	0	Kg/pack	Spool	Winding	Stock class
C130106	MIGIRON	0,6 mm	5 kg	plastic D.20	random	
C130102	MIGIRON	0,8 mm	15 kg	plastic D.30	orderly	
C130107	MIGIRON	0,8 mm	5 kg	plastic D.20	random	
C130103	MIGIRON	1,0 mm	15 kg	plastic D.30	orderly	
C130104	MIGIRON	1,2 mm	15 kg	plastic D.30	orderly	

#### **TECHNICAL DATA**



Typical composition of the wire (%):	Fe (base) C0,07 Mn1,45 Si0,85 Cu0,30max
Mechanical properties of all-weld metal:	Rm: 560MPa Rp(0,2%): 460MPa A%: 30
Welding current:	D.C. Positive

#### **SOLID WIRES FOR GALVANIZED STEEL**



#### **UN-ALLOYED STEEL WIRE**

Copper coated solid steel wire for welding galvanized and zinc plated steels. Suitable for general metal constructions, automotive, shipbuilding, carpentry, etc.

ISO 14341-A: G2Ti

	AWS	A5.1	8: EF	R70S-2
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Art. Nr.	Description	0	Kg/pack	Spool	Winding	Stock class
C150124	MIGALVA	0,6 mm	5 kg	plastic D.20	random	
C150126	MIGALVA	0,8 mm	5 kg	plastic D.20	random	
C150125	MIGALVA	0,8 mm	15 kg	plastic D.30	orderly	

#### **TECHNICAL DATA**

Typical composition of the wire (%):	Fe (base) C0,06 Si0,6 Mn1,2 Al0,1 Ti0,1 Cu0,2 Zr0,08 S0,01 P0,015
Mechanical properties of all-weld metal:	Rm: 560MPa Re: 460MPa A%: 28
Welding current:	D.C. Positive

## **SOLID WIRES FOR BRONZES (CuSi3)**



## **COPPER ALLOY WIRE**

To repair galvanised metal plates and or plates with high elastic limit. Perfect for car repair business. Argon gas must be used. Recommended for welding of bronzes.

ISO 24373: S Cu 6560 (CuSi3Mn1)

AWS A5.7: ERCuSi-A

EN 14640: S Cu 6560 (CuSi3Mn1)

Art. Nr.	Description	0	Kg/pack	Spool	Winding	Stock class
C150408	MIGALVA HQ	0,8 mm	5 kg	plastic D.20	random	
C150410	MIGALVA HQ	1,0 mm	5 kg	plastic D.20	random	

## TECHNICAL DATA

Typical composition of the wire (%):	Cu (base) Sn0,8 Mn1,0 Si3,0 Zn<0,1 Al<0,01 Pb<0,02
Mechanical properties of all-weld metal:	Rm: 350MPa Rp(0,2%): 150MPa A%: 42
Welding current:	D.C. Positive

## **SOLID WIRES FOR ALUMINUM**



#### **ALUMINUM ALLOY WIRE**

Aluminium solid wire suitable for welding aluminum alloys with 3-5% Mg. Used in shipbuilding for its excellent resistance to corrosion by salt water and for its excellent mechanical properties, but also for the construction of trucks and containers for the transport of salts and phosphates.

EN ISO 18273: S Al 5356 (AlMg5Cr) AWS A5.10: ER5356

Art. Nr.	Description	0	Kg/pack	Packs	Stock class
C140401	MIGALU AG5	1,0 mm	6 kg	1	
C140402	MIGALU AG5	1,2 mm	6 kg	1	

Typical composition of the wire (%):	Al(base) Si0,06 Fe0,17 Cu0,004 Mn0,15 Mg4,8 Zn0,01 Cr0,12 Ti0,08
Mechanical properties of all-weld metal:	Rm: 300MPa Rp(0,2%): 130MPa A%: 29
Welding current:	D.C. Positive



## STAINLESS STEEL BASED ALLOYS FOR TIG WELDING (GTAW)

## **STAINLESS STEEL 308**



Filler alloy for TIG welding of stainless steels (304L, 304, 347, 321, etc).

#### **IDEAL FOR:**

Welding of piping systems, works of fine thickness equal or lower than 3 mm and for penetration passes. Suitable also for oxy-acetylene welding (not oxy-propane).

ISO 14343-A: W 199L

#### AWS A5.9: ER308L

Art. Nr.	Description	Long	0	Qt.	Stock class
B100302K	GAZINOX 308 L Si	1 m	1,2 mm	5 kg	
B100303K	GAZINOX 308 L Si	1 m	1,6 mm	5 kg	
B100304K	GAZINOX 308 L Si	1 m	2 mm	5 kg	

### TECHNICAL DATA

Chemical composition (%):	Fe (base) C=0,015	5 Cr=19,5 Ni=9,8 Si=0,4	12 Mn=1,8	
Mechanical properties:	Rm: 600 N/mm <sup>2</sup>	Rp(0.2): 430 N/mm <sup>2</sup>	A%: 38%	

- Gazinox use in TIG is without deoxidiser
- For welding of stainless steel with oxy-gas use the Gazargent rods

## **STAINLESS STEEL 316**



Filler alloy for TIG welding of stabilised stainless steels (316, 316L, etc) or not stabilised. Service temperature from  $-120^{\circ}\text{C}$  up to  $+400^{\circ}\text{C}$ . Applied in the chemical and petrochemical industries, refineries, food industries.

#### **IDEAL FOR:**

Welding of piping systems, works of fine thickness equal or lower than 3 mm and for penetration passes. Suitable also for oxy-acetylene welding (not oxy-propane).

ISO 14343-A: W 19 12 3 L DIN 8556-86: X2 CrNiMo 19.12

ΕN	1207	/2-99:	W 19	12 3 L	

#### AWS A5.9-95: ER316L

Art. Nr.	Description	Long	0	Qt.	Stock class
B100402K	GAZINOX 316 L Si	1 m	1,2 mm	5 kg	
B100403K	GAZINOX 316 L Si	1 m	1,6 mm	5 kg	
B100404	GAZINOX 316 L Si	1 m	2 mm	5 kg	
B100406K	GAZINOX 316 L Si	1 m	2,5 mm	5 kg	
B100405K	GAZINOX 316 L Si	1 m	3,2 mm	5 kg	

Chemical composition (%):	Fe (base) C=0,02 Cr=18,6 Ni=12,4 Mo=2,8 Si=0,45 Mn=1,8		
Mechanical properties:	Rm: 650 N/mm <sup>2</sup> Rp(0.2): 450 N/mm <sup>2</sup> A%: 38%		

- Gazinox use in TIG is without deoxidiser
- For welding of stainless steel with oxy-gas use the Gazargent rods



## **ALUMINUM BASED ALLOYS FOR TIG WELDING (GTAW)**

## **ALUMINUM (AG5)**



Filler metal for TIG welding of aluminum alloys. Welding of all aluminum parts. Mg max: 5%. Piping, bodywork, maintenance, marine, rail, automotive.

ISO 18273: S AI 5356 (AIMg5Cr)

AWS A5.10: ER 5356

Art. Nr.	Description	Long	0	Rods/pack	Qt.	Stock class
B110401K	GAZALU AG5	1 m	1,6 mm	376	2 kg	
B110403K	GAZALU AG5	1 m	2 mm	240	2 kg	
B110408K	GAZALU AG5	1 m	2,4 mm	94	2 kg	
B110404K	GAZALU AG5	1 m	3,2 mm	84	2 kg	

#### **TECHNICAL DATA**

Chemical composition (%):	Al (base) - Si 0,05	- Fe 0,13 - Mn 0,15	- Mg 4,8 - Ti 0,13 - Cr 0,1 - others
Mechanical properties:	Rm: 290 N/mm <sup>2</sup>	Re: 120N/mm <sup>2</sup>	A%:30
Melting range:	560 - 630° C		

#### **ALUMINUM (AS 12)**



Filler metal for autogenous welding or TIG welding of aluminium alloys. Welding of aluminium castings with Si>7%. High tensile strength and corrosion-proof. Low melting temperature.

#### **IDEAL FOR:**

Aluminum welding OXY-ACETYLENE or TIG. Smooth melting without bubbling and slag.

ISO 18273: S Al 4047 (AlSi12)

AWS A5.10: ER 4047

Art. Nr.	Description	Long	0	Qt.	Stock class
B110501K	GAZALU AS 12	1 m	2 mm	5 kg	
B110503K	GAZALU AS 12	1 m	3,2 mm	5 kg	

#### **TECHNICAL DATA**

Chemical composition (%):	Al (base) - Si 12,0	- Fe <0,5 - Cu 0,00	07 - Mn 0,05 - Mg 0,02 - Zn 0,03 - others
Mechanical properties:	Rm: 140 N/mm <sup>2</sup>	Re: 70N/mm <sup>2</sup>	A%:18
Melting range:	570 - 590° C		

## **FLUX POWDER (DEOXIDISER)**

Art. Nr.	Description	Pack	Qt.	Stock class
B140112	FLUX GAZALU*	200 g	1	
	(for aluminium alloys AG5 and AS12)			

## **ALUMINUM BASED ALLOYS FOR OXYGAS WELDING**

## **FLUX CORED ALUMINUM (SELF FLUX)**



ALUMINUM RODS FLUX CORED for OXYGAS welding.

Ideal for welding plates, profiles and joining of PURE ALUMINUM materials when it's not possible to use the electric welding. Not suitable for repairs in the field of refrigeration or air conditioning.

UNIS/DINS: Al 99,5

BS 2901 Pt 4: 1050 A

AFNOR: A 5

AA: 1050

Art. Nr.	Description	Long.	0	Qt.	Stock class
MA60015	GAZALU AD	0,8 m	2 mm	1kg	
MA60020	GAZALU AD	0,8 m	3 mm	1kg	

Chemical composition (%):	Al (base) Si=0,25 Fe=0,4 Cu 0,05 Mn=0,03 others
Mechanical properties:	Rm: 120 N/mm <sup>2</sup> ; A%: 25
Melting range:	610 - 640° C



## **IRON BASED ALLOYS FOR BRAZING**

## **COPPER COATED MILD STEEL**



Filler alloy for autogenous welding of mild steels. Autogenous welding of all pieces in soft steel. Piping, vehicle bodywork and maintenance. Also suitable for use by plumbers and boiler repairers.

#### IDEAL FOR

Joining extra soft steels by oxy-acetylene welding (not oxy-propane). Soft melting without bubbling or slag. Copperplated steel doesn't rust, no mess, no bubbling during welding.

#### **DIN EN ISO 10016-2**

Art. Nr.	Description	Long	0	Qt.	Stock class
B100201K	GAZOFER CU	1 m	1,5 mm	10 kg	
B100202K	GAZOFER CU	1 m	2 mm	10 kg	
B150340	GAZOFER CU	0,5 m	2 mm	1 kg	
B100203K	GAZOFER CU	1 m	2,5 mm	10 kg	
B100204K	GAZOFER CU	1 m	3 mm	10 kg	
B150341	GAZOFER CU	0,5 m	3 mm	1 kg	
B100205K	GAZOFER CU	1 m	4 mm	10 kg	
B100206K	GAZOFER CU	1 m	5 mm	10 kg	

#### **TECHNICAL DATA**

Chemical composition (%):	Fe (base) C=0,1 Si=0,2 Mn=0,5 P=0,02 S=0,02
Mechanical properties:	Rm: 550 N/mm <sup>2</sup> ; A%: 6
Melting range:	>1200° C

#### **USED WITHOUT WELDING POWDER**

### **BLACK ANNEALED IRON**



Offers excellent flexibility and softness thanks to the annealing process.

#### **IDEAL FOR:**

Autogenous welding of common steels and iron (in the field of construction, agricultural, mechanical and general steelwork).

DIN	6.1	ALLIC A E O D A E
DIN 8554	: G-I	AWS A5.2: R 45

Art. Nr.	Description	Long	0	Qt.	Stock class
MA10005	IRON	1 m	2,0 mm	10 kg	
MA10010	IRON	1 m	3,0 mm	10 kg	

Chemical composition (%):	Fe (base) C=0,06 Mn=0,4 Si=0,1
Melting range:	1425 - 1540° C



## **COPPER BASED ALLOYS FOR BRAZING**

## **BRASS WITH SILICON (FLUX COATED)**



 $For brazing ferrous \,metals \,and \,copper \,alloys. \,Brazing \,of \,alloys, \,steels, \,bronzes, \,galvanized \,metals. \,Pipe \,making, \,vehicle \,bodywork, \,maintenance, \,ironmongery, \,farming \,implements.$ 

#### IDFAL FOR

Brass alloys. High quality resistant and malleable braze welds. Excellent fluidity with no evaporation of zinc on galvanized steels.

EN 1044 : CU	302 DIN 8513 : I	CuZn39Sn	AWS A5-8:	RB CuZn-	Al
Art. Nr.	Description	Long	0	Qt.	Stock class
B130201	GAZOBRONZE COATED	1 m	1,5 mm	174	
B130202	GAZOBRONZE COATED	1 m	2 mm	120	
B130203	GAZOBRONZE COATED	1 m	2,5 mm	80	
B130204	GAZOBRONZE COATED	1 m	3 mm	60	
B130205	GAZOBRONZE COATED	1 m	4 mm	40	

Art. Nr.	Description	Long	0	Qt.	Stock class
B150318	GAZOBRONZE COATED	0,5 m	2 mm	1 kg	9
B150319	GAZOBRONZE COATED	0,5 m	3 mm	1 kg	3

#### **TECHNICAL DATA**

Chemical composition (%):	Cu=59 Zn=39,8 Si=0,2 others
Mechanical properties:	Rm: 450 N/mm <sup>2</sup> ; A%: 35
Melting range:	870-890° C

## **BRASS WITH SILICON (UNCOATED)**



For brazing ferrous metals and copper alloys. Brazing of alloys, steels, bronzes and galvanized metals. Pipe making, vehicle bodywork, maintenance, ironmongery, farming implements.

#### IDFAL FOR:

 $Brass\ alloys.\ High\ quality, resistant\ and\ malleable\ braze\ welds.\ Excellent\ fluidity\ with\ no\ zinc\ evaporation\ on\ galvanized\ steel.$ 

EN 1044 : CU30	DIN 8513:	L-CuZn39Sn	AWS A5-8	: RB CuZr	n-Al
Art. Nr.	Description	Long	0	Qt.	Stock class
B130101K	GAZOBRONZE UNCOATED	1 m	1,5 mm	10 kg	
B130102K	GAZOBRONZE UNCOATED	1 m	2 mm	10 kg	
B130103K	GAZOBRONZE UNCOATED	1 m	2,5 mm	10 kg	
B130104K	GAZOBRONZE UNCOATED	1 m	3 mm	10 kg	
B130105K	GAZOBRONZE UNCOATED	1 m	4 mm	10 kg	

### TECHNICAL DATA

Chemical composition (%):	Cu=59 Zn=39,8 Si=0,2 others
Mechanical properties:	Rm: 450 N/mm <sup>2</sup> ; A%: 35
Melting range:	870-890° C

To be used with GAZOBRONZE powder deoxidiser B140106.

## **FLUX POWDER (DEOXIDISER)**



Art. Nr.	Description	Pack	Qt.	Stock class
B140106	GAZOBRONZE POWDER	250 g	1	



## **COPPER BASED ALLOYS FOR BRAZING**

## **BRASS WITH NICKEL (FLUX COATED)**



 $For welding ferrous \, metals \, and \, copper \, alloys \, put \, under \, a \, lot \, of \, stress. \, Braze \, welding \, of \, alloys, \, steels, \, bronzes, \, galvanized \, and \, copper \, alloys \, put \, under \, a \, lot \, of \, stress. \, Braze \, welding \, of \, alloys, \, steels, \, bronzes, \, galvanized \, and \, copper \, alloys \, put \, under \, a \, lot \, of \, stress. \, Braze \, welding \, of \, alloys, \, steels, \, bronzes, \, galvanized \, and \, copper \, alloys \, put \, under \, a \, lot \, of \, stress. \, Braze \, welding \, of \, alloys, \, steels, \, bronzes, \, galvanized \, and \, copper \, alloys \, put \, under \, a \, lot \, of \, stress. \, Braze \, welding \, of \, alloys, \, steels, \, bronzes, \, galvanized \, and \, copper \, alloys \, put \, under \, a \, lot \, of \, stress. \, Braze \, welding \, of \, alloys, \, steels, \, bronzes, \, galvanized \, and \, copper \, alloys \, put \, alloys \, alloys$ metals, nickel. Manufacturing of or repairs to tools, tubular structures – wherever the welding is put to the test.

Brass alloys with high nickel content. Strong mechanical resistance. Flows very Lissely. Extremely flexible coating (difficult to crumble even when you bend the rod).

EN 1044 : CU305 ISO 3677 : B-Cu49ZnNi(Si)-890/920 DIN 8513: L-CuNi10Zn AWS A5-8: RBCuZn-D

Art. Nr.	Description	Long	0	Qt.	Stock class
B150322	GAZOBRONZE NI COATED	1 m	2 mm	1 kg	I
B150323	GAZOBRONZE NI COATED	1 m	3 mm	1 kg	

## TECHNICAL DATA

Chemical composition (%):	Cu=48 Zn=41,6 Ni=10,0 others=0,4
Mechanical properties:	Rm: 750 N/mm <sup>2</sup> ; A%: 25
Melting range:	890-920° C

Coated alloy that does not require a deoxidizer. If desired, the GAZOBRONZE B140106 (250g) deoxidizer in powder form can be added.



## COPPER-PHOSPHORUS BASED ALLOYS FOR BRAZING

### **COPPER-PHOSPHORUS**



Phosphor-copper alloy for brazing copper alloys. Assembly of copper pipes and tubing through capillary actionheating, sanitary fittings.

#### **CAPILLARY-ACTION BRAZING:**

Flows very smoothly. Copper and phosphor alloy with low fusion point for brazing copper without using pickling products. Reserved exclusively for brazing copper and copper alloys. To be used with an oxyacetylene or oxy-propane welding torch with neutral flame adjustment.

ISO 17672: CuP 180 EN 1044: CP 202 DIN 8513: L-CuP7

AWS A5-8: BCuP-2 ISO 3677: B-Cu93P 710-825

Art. Nr.	Description	Long.	Ø	Qt.	Stock class
B130408	GAZPHOS 01	0,5 m	2 mm	500 g	DFW
B130405	GAZPHOS 01	0,5 m	2 mm	1 kg	DFW
B130406	GAZPHOS 01	0,5 m	2 mm	5 kg	MTO
B130407	GAZPHOS 01	0,5 m	3 mm	1 kg	МТО

#### **TECHNICAL DATA**

Chemical composition (%):	Cu=93 P=7
Mechanical properties:	Rm: 500 N/mm <sup>2</sup> ; A%: 4
Melting range:	710-820° C

ON COPPER THE ALLOY IS SELF-PICKLING. FOR BRAZING ON BRASS OR BRONZE USE THE PICKLING PRODUCT FLUXOBRAZ ATG, ART. NR. B140110 (150G).

#### **COPPER-PHOSPHORUS WITH SILVER 2%**



Phosphor-copper alloy with 2% silver for brazing copper alloys. Assembly of copper pipes and tubing through capillary action. Heating, sanitary fittings. Refrigeration industry.

#### CAPILLARY-ACTION BRAZING:

Flows very smoothly (thanks in part to the silver). Low fusion point copper and phosphor alloy for brazing copper without pickling products. Reserved exclusively for brazing copper and copper alloys. To be used with an oxy-acetylene or oxy-propane welding torch with neutral flame adjustment.

ISO 17672: CuP 279 EN 1044: CP105 DIN 8513: L-Ag2P

AWS A5-8: BCuP-6 ISO 3677: B-Cu91PAg 650-820

Art. Nr.	Description	Long.	Ø	Qt.	Stock class
B130801	GAZPHOS 2	0,5 m	2 mm	1 kg	DFW
B130802	GAZPHOS 2	0,5 m	2 mm	500 g	MTO

### **TECHNICAL DATA**

Chemical composition (%):	Cu=91 P=7 Ag=2
Mechanical properties:	Rm: 550 N/mm <sup>2</sup> ; A%: 6
Melting range:	650-820° C

ON COPPER THE ALLOY IS SELF-PICKLING. FOR BRAZING ON BRASS OR BRONZE USE THE PICKLING PRODUCT FLUXOBRAZ ATG, ART. NR. B140110 (150G).

#### **FLUX PASTE (DEOXIDISER)**



FLUXOBRAZ ATG (certified by gas company ATG FR) can be utilized as deoxidizer also for silver alloys.

Art. Nr.	Description	Pack	Qt.	Stock class
B140110	FLUXOBRAZ ATG	150 g	1	DFW



## COPPER-PHOSPHORUS BASED ALLOYS FOR BRAZING

### **COPPER-PHOSPHORUS WITH SILVER 5%**



Copper-phosphor alloy with 5% silver for brazing copper alloys. assembly of copper pipes and tubing through capillary action. Heating, sanitary fittings. Refrigeration industry.

#### **CAPILLARY-ACTION BRAZING:**

Flows very smoothly (thanks in part to the silver). Low fusion point copper and phosphor alloy for brazing copper without pickling products. Reserved exclusively for brazing copper and copper alloys. To be used with an oxy-acetylene or oxy-propane welding torch with neutral flame adjustment..

ISO 17672 : CuP 281 EN 1044 : CP104 DIN 8513 : L-Ag5P

AWS A5-8: BCuP-3 ISO 3677: B-Cu89PAg 650-810

Art. Nr.	Description	Long.	Ø	Qt.	Stock class
B130502	GAZPHOS 5	0,5 m	2 mm	250 g	ATO

#### **TECHNICAL DATA**

Chemical composition (%):	Cu=89 P=6 Ag=5
Mechanical properties:	Rm: 650 N/mm <sup>2</sup> ; A%: 8
Melting range:	650-810° C

ON COPPER THE ALLOY IS SELF-PICKLING. FOR BRAZING ON BRASS OR BRONZE USE THE PICKLING PRODUCT FLUXOBRAZ ATG, ART. NR. B140110 (150G).

#### **COPPER-PHOSPHORUS WITH SILVER 6% ATG APPROVED**



Copper-phosphor alloy with 6% silver for capillary-action HIGH TEMPERATURE brazing of copper piping. FRENCH MINISTRY OF INDUSTRY (ATG) APPROVED. Assembly of copper pipes and tubing through capillary action, e.g. combustible gas piping (except acetylene). All pieces in copper, brass and bronze. Capillary-action brazing for securing pipes and connectors: Flows very smoothly (thanks in part to the silver). Low fusion point copper and phosphor alloy for brazing copper without pickling products. Reserved exclusively for brazing copper and copper alloys. To be used with an oxy-acetylene or oxy-propane welding torch with neutral flame adjustment.

ISO 17672 : close to CuP 283a NF A 81-362 (12/2010) : CuP291 EN 1044 : CP103

DIN 8513 : L-Ag6PNi ISO 3677 : B-Cu87PAg(Ni)-645/725

#### ATG APPROVED

Art. Nr.	Description	Long.	Ø	Qt.	Stock class
B131003	GAZPHOS 6 B ATG	0,5 m	2 mm	1 kg	MTO
B131004	GAZPHOS 6 B ATG	0,5 m	2 mm	500 g	ATO
B131005	GAZPHOS 6 B ATG	0,5 m	2 mm	250 g	DFW

#### TECHNICAL DATA

Chemical composition (%):	Cu=86,6 P=7,3 Ag=6,0 Ni=0,1
Mechanical properties:	Rm: 650 N/mm <sup>2</sup> ; A%: 8
Melting range:	645-725°C

USE THE PICKLING POWDER FLUXOBRAZ ATG, ART. NR. B140110 (150G).

#### **FLUX PASTE (DEOXIDISER)**



FLUXOBRAZ ATG (certified by gas company ATG FR) can be utilized as deoxidizer also for silver alloys.

Art. Nr.	Description	Pack	Qt.	Stock class	
B140110	FLUXOBRAZ ATG	150 a	1	DFW	



## **COPPER-PHOSPHORUS BASED ALLOYS FOR BRAZING**

## **COPPER-PHOSPHORUS WITH SILVER 15%**



Copper-phosphor alloy with 15% silver for welding copper alloys. assembly of copper pipes and tubing through capillary action. Heating, sanitary fittings. Refrigeration industry.

Particularly suitable for electrical connections.

#### **CAPILLARY-ACTION BRAZING:**

Flows very smoothly (thanks to the silver). Ternary copper-silver-phosphor alloy w ith low fusion point for brazing copper without pickling products. Reserved exclusively for brazing copper and copper alloys. GAZOPHOS 15 is to be used with an oxy-acetylene or oxy-propane welding torch with neutral flame adjustment.

ISO 17672: CuP 284 EN 1044: CP102 DIN 8513: L-Ag15P

AWS A5-8: BCuP-5 ISO 3677: B-Cu80AgP 650-800

Art. Nr.	Description	Long	Ø	Qt.	Stock class
B130901	GAZPHOS 15	0,5 m	2 mm	1 kg	
B130902	GAZPHOS 15	0,5 m	2 mm	250 g	

#### **TECHNICAL DATA**

Chemical composition (%):	Cu=80,0 P=5,0 Ag=15,0
Mechanical properties:	Rm: 650 N/mm <sup>2</sup> ; A%: 10
Melting range:	650-800°C

On copper the alloy is self-pickling. For brazing on brass or bronze use the pickling product FLUXOBRAZ ATG, Art. Nr. B140110 (150g).

## **FLUX PASTE (DEOXIDISER)**



FLUXOBRAZ ATG (certified by gas company ATG FR) can be utilized as deoxidizer also for silver alloys.

Art. Nr.	Description	Pack	Qt.	Stock class
B140110	FLUXOBRAZ ATG	150 g	1	



## SILVER BASED ALLOYS (CADMIUM FREE) FOR BRAZING

## **SILVER 20% (FLUX COATED)**



Alloy with high silver content (20%) for assembly of steel/brass/copper pieces. assembling badly made pieces. Low-temperature brazing in general.

#### **CAPILLARY-ACTION BRAZING:**

Flows very smoothly (thanks to the silver). Copper-silver-zinc alloy with low fusion point for brazing copper and copper alloys, steels and stainless steels. Extremely flexible coating (it does not crumble when you bend the rod). GAZARGENT 20 is to be used with an oxy-acetylene, oxy-propane or oxy-butane welding torch with neutral flame adjustment. **CADMIUM FREE.** 

ISO 3677: B-Cu46ZnAqSi-690/810 EN 1044: close to AG206 DIN 8513: L-Aq20

#### **REDUCED COATING**

Art. Nr.	Descr.	Long	Ø	Flux ratio	Rods/pack	Weight	Stock class
B130905	GAZARGENT 20 COATED	0,5 m	2 mm	26%	14	250 g	
STANDARD COATING Art. Nr.	Descr.	Long	ø	Flux ratio	Rods/pack	Weight	Stock class
B130950	GAZARGENT 20 COATED	0,5 m	2 mm	40%	45	1 ka	

#### **TECHNICAL DATA**

Chemical Composition (%):	Ag20 Cu46 Zn33,8 Si0,2
Mechanical properties:	Rm: 400 N/mm <sup>2</sup> A%: 20
Melting range:	690-810°C

## **SILVER 30% (FLUX COATED)**



Alloy with high silver content (30%) for assembly of steel/brass/copper. Wide joints in piping, plumbing, climate control and exchangers. Brazing generally at low temperatures.

#### CAPILLARY-ACTION BRAZING:

Flows very smoothly (thanks to the silver). copper-silver-zinc alloy with low fusion point for brazing copper and copper alloys, steels and stainless steels. Extremely flexible coating (it does not crumble when you bend the rod). GAZARGENT 30 is to be used with an oxy-acetylene, oxy-propane or oxy-butane welding torch with neutral flame adjustment. **CADMIUM FREE.** 

ISO 17672: Ag 130

ISO 3677: B-Cu36ZnAgSn-665/755 EN 1044: AG107 DIN 8513: L-Ag30Sn

#### **REDUCED COATING**

Art. Nr.	Descr.	Long	Ø Flux ratio	Rods/pack	Weight	Stock class
B130607	GAZARGENT 30 COATED	0,5 m	2 mm 26%	14	250 g	

Chemical Composition (%):	Ag30 Cu36 Zn32 Sn2	
Mechanical properties:	Rm: 500 N/mm <sup>2</sup> A%: 18	
Melting range:	665-755℃	



## SILVER BASED ALLOYS (CADMIUM FREE) FOR BRAZING

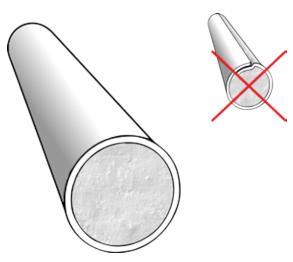
### SILVER 34% (TUBULAR FLUX CORED) - TBW BRAZARGENT 5034



## **PRODUCT ADVANTAGES:**

- Protection of operators (no contact with the flux)
- Absence of residues after operation (no binder in the flux)
- Adapted to any gap: perfect penetration and impermeability (depending on the alloy)
- Innovative product, unique concept worldwide
- · High fluidity and excellent capillarity
- Strong reduction of fumes emissions during application
- Excellent control of deposit of flux and metal
- Optimisation of post-braze cleaning (perfection of process)
- · Excellent flux/metal ratio: increased profitability
- Use in flame, induction or oven/furnace brazing
- Assembly of all kind of metals (steel, copper, stainless steel, brass...)
- Less heat required in comparing to solid wire (less mass)
- Ease of storage and transport thanks to the absence of flux coating





ISO	17672	: Ag	134			
ISO	3677:	B-Cu	36Ac	ıZnSı	n-630	/730

EN 1044: AG106 DIN 8513: L-Ag34	Sn
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Art. Nr.	Descr.	Long	Ø	Flux ratio	Rods/pack	Weight	Stock class
B130650	GAZARGENT 34 CORED	0,5 m	1,6 mm	12%	150	1 kg	
	TUBULAR						

Chemical Composition (%):	Ag34 Cu36 Zn27 Sn3
Mechanical properties:	Rm: 500 N/mm <sup>2</sup> A%: 20
Melting range:	630-730°C



DIN 8513: L-Ag40Sn

DIN 8513: L-Ag40Sn

## SILVER BASED ALLOYS (CADMIUM FREE) FOR BRAZING

### **SILVER 40% (FLUX COATED)**



COATED ALLOY WITH 40% SILVER. Alloy for universal use. Brazing, generally at low temperatures, of copper, copper alloys and all kinds of steel, including stainless. Water/gas pipes. Climate control systems.

#### **CAPILLARY-ACTION BRAZING:**

Very fluid and elastic (thanks to the silver). Copper-silver-zinc alloy with low fusion point for brazing copper and copper alloys, steels and stainless steels. Excellent capillary attraction.

GAZARGENT 40 is to be used with an oxy-acetylene, oxy-propane or oxy-butane welding torch with neutral flame adjustment. CADMIUM FREE.

ISO 17672: Ag 140 AWS A5.8: BAg-28

ISO 3677: B-Ag40CuZnSn-650/710 EN 1044: AG105

#### **REDUCED COATING**

Art. Nr.	Descr.	Long	Ø	Flux ratio	Rods/pack	Weight	Stock class
MA40020	GAZARGENT 40 COATED	0,5 m	1,5 mm	30%	90	1 kg	
B130609	GAZARGENT 40 COATED	0,5 m	2 mm	24%	60	1 kg	
B130611	GAZARGENT 40 COATED	0,5 m	2 mm	24%	15	250 g	
B130612	GAZARGENT 40 COATED	0,5 m	2 mm	24%	6	100 g	

#### STANDARD COATING

Art. Nr.	Descr.	Long	Ø	Flux ratio	Rods/pack	Weight	Stock class
B130620	GAZARGENT 40 COATED	0,5 m	2 mm	40%	45	1 kg	

#### **TECHNICAL DATA**

Chemical Composition (%):	Ag40 Cu30 Zn28 Sn2
Mechanical properties:	Rm: 500 N/mm <sup>2</sup> A%: 17
Melting range:	650-710°C

## **SILVER 40% (UNCOATED)**



UNCOATED ALLOY WITH 40% SILVER. Alloy for universal use. Brazing, generally at low temperatures, of copper, copper alloys and all kinds of steel, including stainless. Water/gas pipes. Climate control systems.

Very fluid and elastic (thanks to the silver). Copper-silver-zinc alloy with low fusion point for brazing copper and coalloys, steels and stainless steels. Excellent capillary attraction.

GAZARGENT 40 is to be used with an oxy-acetylene, oxy-propane or oxy-butane welding torch with neutral flame adjustment. CADMIUM FREE. Suitable for food grade.

ISO 17672: Ag 140 AWS A5.8: BAg-28 ISO 3677: B-Ag40CuZnSn-650/710 EN 1044: AG105

Art. Nr.	Descr.	Long	Ø	Rods/pack	Weight Stock class
B130703	GAZARGENT 40 UNCOATED	0,5 m	1,5 mm	32	250 g
B150325	GAZARGENT 40 UNCOATED	0,5 m	2 mm	8	100 g
B150326	GAZARGENT 40 UNCOATED	0,5 m	2 mm	20	250 g
B130702	GAZARGENT 40 UNCOATED	0,5 m	2 mm	80	1 kg

#### **TECHNICAL DATA**

Chemical Composition (%):	Ag40 Cu30 Zn28 Sn2
Mechanical properties:	Rm: 500 N/mm <sup>2</sup> A%: 17
Melting range:	650-710°C

Utilize in combination with deoxidizer powder GAZARGENT 750 ref B140115.

#### **FLUX (DEOXIDISER)**





Art. Nr.	Description	Pack	Qt.	Stock class
B140115	GAZARGENT 750 (powder)	80 g		1
B140110	FLUXOBRAZ ATG (paste)	150 g		1



## SILVER BASED ALLOYS (CADMIUM FREE) FOR BRAZING

### **SILVER 40% (UNCOATED) - ATG APPROVED**



UNCOATED ALLOY WITH 40% SILVER, FRENCH MINISTRY OF INDUSTRY (ATG) approved. Alloy for universal use. Brazing, generally at low temperatures, of copper, copper alloys and all kinds of steel, including stainless. Water/gas pipes. Climate control systems. Conforms to French government specifications ATG B521 & B524.

#### CAPILLARY-ACTION BRAZING:

Very fluid and elastic (thanks to the silver). Copper-silver-zinc alloy with low fusion point for brazing copper and copper alloys, steels and stainless steels. Excellent capillary attraction even on pieces with very small Description. GAZARGENT 40 is to be used with an oxy-acetylene, oxy-propane or oxy-butane welding torch with neutral flame adjustment. **CADMIUM FREE.** 

ISO 17672: Ag 140 AWS A5.8: BAg-28 ISO 3677: B-Ag40CuZnSn-650/710 EN 1044: AG105

044: AG105 DIN 8513: L-Ag40Sn

#### ATG APPROVED

Art. Nr.	Descr.	Long	Ø	Rods/pack	Weight	Stock class
B150328	GAZARGENT SC 40B ATG UNCOATED	0,5 m	2 mm	20	250 g	
B150327	GAZARGENT SC 40B ATG UNCOATED	0,5 m	2 mm	8	100 g	

#### **TECHNICAL DATA**

Chemical Composition (%): Ag40 Cu30 Zn28 Sn2

Mechanical properties: Rm: 500 N/mm² A%: 17

Melting range: 650-710°C

Utilize in combination with deoxidizer powder FLOXOBRAZ ATG cod B140110 (150g).

### **FLUX PASTE (DEOXIDISER)**



FLUXOBRAZ ATG (certified by gas company ATG FR) can be utilized as deoxidizer also for silver alloys.

Art. Nr.	Description	Pack	Qt.	Stock class
B140110	FLUXOBRAZ ATG	150 g	1	

## SILVER BASED ALLOYS (CADMIUM FREE) FOR BRAZING

### **SILVER 55% (FLUX COATED)**



COATED ALLOY WITH 55% SILVER. Alloy with very high silver content for assembly of stainless steel/brass/copper. Especially suitable for medical gases, purified gases and in the food industry. Alloy for universal use. Brazing, generally at low temperatures, of copper, copper alloys and all kinds of steel, including stainless. Narrow joints on stainless steel. Pipes for water/gas and for purified gases or gases destined for food production. Climate control, sanitary fittings.

## **CAPILLARY-ACTION BRAZING:**

Very fluid and elastic (thanks to the silver). Ternary copper-silver-zinc alloy with low fusion point and low fusion interval for brazing copper and copper alloys, steels and stainless steels. Excellent capillary attraction. GAZARGENT 2011 is to be used with an oxy-acetylene, oxy-propane or oxy-butane welding torch with neutral flame adjustment. **CADMIUM-FREE.** 

ISO 17672: Ag 155

ISO 3677: B-Ag55ZnCuSn-630/660 EN 1044: AG103 DIN 8513: L-Ag55Sn

## SUITABLE FOR FOODS

Art. Nr.	Descr.	Long	Ø	Flux ratio	Rods/pack	Weight	Stock class
B130721	GAZARGENT 55 COATED	0,5 m	1,5 mm	30%	45	500 g	
B130719	GAZARGENT 55 COATED	0,5 m	2 mm	24%	27	500 g	

Chemical Composition (%):	Ag55 Cu21 Zn22 Sn2
Mechanical properties:	Rm: 510 N/mm <sup>2</sup> A%: 11
Melting range:	630-660°C



2×500 g

## TIN BASED ALLOYS WITH LEAD FOR BRAZING

### **TIN 33% - Sn33Pb67 (WITH LEAD)**

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 $\label{thm:continuous} Suitable for zincwork, roofing, tinplate work.$ 

#### **SOLID RODS**

Art. Nr.	Description	Deoxidizer	Pcs/pack	Qt.	Stock class
B135202K	GAZETAIN B33 Rod	POWERFLOW	5	1 kg	

#### **STRIPS**

Art. Nr.	Description	Deoxidizer	Pcs/pack	Qt.	Stock class
B135206K	GAZETAIN B33 Stripe	POWERFLOW	2	1,5 kg	

1 strip = 0.8 kg

#### **TECHNICAL DATA**

Chemical composition (%):	Sn=33 Pb=67
Melting range:	183-243°C

#### **TIN 40% - Sn40Pb60 (WITH LEAD)**

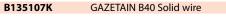
Suitable for zincwork, heating systems. Paste allows more precise joining of parts.

ISO 9453 : S-Pb60Sn40 (114)



Art. N		Description	0	Deoxidizer		Qt.	Stock class
SOLID	WIDE						
B1352	203K	GAZETAIN B40 Rod		POWERFLOW	5	1 kg	
Art. N	lr.	Description		Deoxidizer	Pcs/pack	Qt.	Stock class

2 mm POWERFLOW



TEOM COMED TIME					
Art. Nr.	Description	0	Deoxidizer	Qt.	Stock class
B135006K	GAZETAIN B40 Flux cored wire	2 mm	Included	4×250	) g
B135007K	GAZETAIN B40 Flux cored wire	2 mm	Included	2×500	) g
B135011KG	GAZETAIN B40 Flux cored wire	3 mm	Included	2×500	) g

Self fluxing alloy. May be used POWERFLOW CREAM for additional fluxing.

#### PASTE ACID FREE

FLUX CORED WIRE

Art. Nr.	Description	Deoxidizer	Qt. Stock class
B140127K	GAZETAIN B40 Paste	Included	250 g
B140128	GAZETAIN B40 Paste	Included	1 kg

## TECHNICAL DATA

Chemical composition (%):	Sn=40 Pb=60
Melting range:	183-235℃

### **TIN 60% - Sn60Pb40 (WITH LEAD)**

 $Soldering\ of\ iron-copper,\ zinc\ and\ lead\ alloys,\ piping\ in\ copper,\ plumbing,\ electrical\ materials,\ space\ industry.$ 

## PASTE ACID FREE

Art. Nr.	Description	Deoxidizer	Qt.	Stock class
B140105K	GAZETAIN B60 Paste	Included	1 kg	

Chemical composition (%):	Sn=60 Pb=40	
Melting range:	183-190℃	







## TIN BASED ALLOYS LEAD FREE FOR BRAZING

## TIN 97% WITH COPPER (LEAD FREE) - Sn97Cu3





Suitable for plumbing, automotive, electrical and joining of many electronic components. ISO 9453 : S-Sn97Cu3 (402)

### **SOLID WIRE**

Art. Nr.	Description	0	Deoxidizer	Qt. Stock class
B135111K	GAZETAIN B97 Solid wire	2 mm	POWERFLOW	4×250g

#### **FLUX CORED WIRE**

Art. Nr.	Description	0	Deoxidizer	Qt.	Stock class
B135010K	GAZETAIN B97 Flux cored wire	2 mm	Included	4×250 g	
B135009K	GAZETAIN B97 Flux cored wire	2 mm	Included	2×500 g	
Salf fluxing alloy May be used POWERELLIX for additional fluxing					

TECHNICAL DATA	
Chemical composition (%):	Sn=97 Cu=3
Melting range:	230-250°C

## **TIN 96,5% WITH SILVER (LEAD FREE)**



Lead free alloy may be used in plumbing installations, particularly where soft water is in use. It is widely used in food handling equipment where lead contamination must be avoided.

ISO 9453 : S-Sn96Ag4 (703)

### **SOLID WIRE**

Art. Nr.	Description	Ø	Deoxidizer	Qt.	Stock class
B135110K	GAZETAIN B96 Solid wire	2 mm	POWERFLOW	4×250 g	

## TECHNICAL DATA

Chemical composition (%):	Sn=96,5 Ag=3,5
Melting range:	221℃

## **POWERFLOW PICKLING CREAM**

POWERFLOW is a pickling paste suitable for both tin alloys with lead and lead free.

Soldering of iron-copper, zinc and lead alloys, piping in copper, plumbing, electrical materials, space industry.

Art. Nr.	Description	Pack	Qt.	Stock class
B140102	POWERFLOW CREAM	100 g	1	



## TABLE OF USE OF FILLER METALS FOR BRAZING

	LEAD	ZINC	ALUMINIUM	NICKEL	CAST IRON	STAINLESS STEEL	GALVA- NIZED STEEL	IRON/ STEEL	BRASS	COPPER
COPPER	Gazetain	Gazetain	Alloy 16AF	Gazargent	Gazargent Gazobronze	Gazargent	Gazobronze Gazargent	Gazobronze Gazargent Gazetain	Gazobronze Gazphos Gazargent Gazetain	Gazphos Gazobronze Gazargent Gazetain
BRASS	Gazetain	Gazetain	Alloy 16AF	Gazargent	Gazargent	Gazargent	Gazargent	Gazargent Gazetain	Gazobronze Gazargent Gazetain	
IRON/ STEEL	Gazetain	Gazetain	-	Gazargent	Gazargent Gazobronze Gazobronze Ni	Gazargent	Gazobronze Gazargent	Gazofer Gazobronze Gazobron- ze Ni Gazargent Gazetain		
GALVA- NIZED STEEL	Gazetain	Gazetain	-	Gazargent	Gazobronze Gazargent	Gazargent	Gazobronze Gazargent			
STAINLESS STEEL	Gazetain	Gazetain	-	Gazargent	Gazargent	Gazargent				
CAST IRON	-	-	-	Gazargent	Gazobronze Gazargent					
NICKEL	-	-	-	Gazargent						
ALUMINI- UM	-	-	Gazalu Alloy 16AF							
ZINC	Gazetain	Gazetain		-						
LEAD	Gazetain		-							

# DO YOU NEED HELP TO CHOOSE THE RIGHT FILLER METAL?

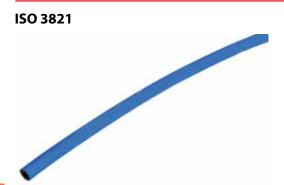








## SINGLE HOSE OXYGEN (BLUE) ISO 3821 (FOR WELDING AND ALLIED PROCESSES)



Rubber hose for use with Oxygen in cutting and welding and allied processes. Not suitable for LPG, MPS and CNG.

- Inner tube: Synthetic rubber resistant to the welding gases
- Reinforcement: High tensile synthetic textile
- External cover: Blue synthetic rubber resistant to abrasion and weather

#### TECHNICAL DATA

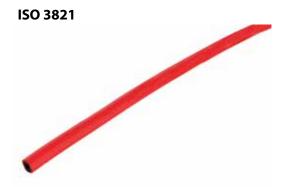
Temperature:	-20°C / +60°C
Safety factor:	3:1
Marking:	In compliance with the below mentioned standard
Working pressure:	20 bar
Bursting pressure:	60 bar
Standards:	ISO 3821

## WORKING PRESSURE 20 bar

Art. Nr.	Ø int × Ø ext	Surface	Coil	Stock class
272321004035	4×11 mm	Grooved	50 m	
272063035204	6,3×12,3 mm	Smooth	20 m	
272063035404	6,3×12,3 mm	Smooth	40 m	
272321006040	6,3×13,3 mm	Grooved	50 m	
272321063050	6,3×16,3 mm	Grooved	50 m	
272321311304	8×15 mm	Grooved	50 m	
272321090035	9×16 mm	Grooved	50 m	
272100035200	10×17 mm	Smooth	20 m	
272100035400	10×17 mm	Smooth	40 m	
272321311306	10×17 mm	Grooved	50 m	
272321012550	12,5×22,5 mm	Grooved	50 m	

<sup>\*</sup>The full length may be a combination of max two short lengths.

## SINGLE HOSE ACETYLENE (RED) ISO 3821 (FOR WELDING AND ALLIED PROCESSES)



Rubber hose for use with Acetylene in cutting and welding and allied processes. Not suitable for LPG, MPS and CNG.

- Inner tube: Synthetic rubber resistant to the welding gases
- Reinforcement: High tensile synthetic textile
- External cover: Red synthetic rubber resistant to abrasion and weather

## TECHNICAL DATA

Temperature:	-20°C / +60°C
Safety factor:	3:1
Marking:	In compliance with the below mentioned standard
Working pressure:	20 bar
Bursting pressure:	60 bar
Standards:	ISO 3821

## WORKING PRESSURE 20 bar

Art. Nr. Ø int × Ø ext Surface Coil	
<b>272321104035</b> 4×11 mm Grooved 50 m	
<b>272063035205</b> 6,3×12,3 mm Smooth 20 m	
<b>272063035405</b> 6,3×12,3 mm Smooth 40 m	
<b>272321006041</b> 6,3×13,3 mm Grooved 50 m	
<b>272321009035</b> 8×15 mm Grooved 50 m	
<b>272321119050</b> 9×16 mm Grooved 50 m	
<b>272100035201</b> 10×17 mm Smooth 20 m	
<b>272100035401</b> 10×17 mm Smooth 40 m	
<b>272321311206</b> 10×17 mm Grooved 50 m	

<sup>\*</sup> The full length may be a combination of max two short lengths.



## SINGLE HOSE ARGON (BLACK) ISO 3821 (FOR WELDING AND ALLIED PROCESSES)



Rubber hose for use with Argon in cutting and welding and allied processes. Suitable also for hydrogen,  $CO_2$ , Nitrogen for welding and cutting. Not suitable for LPG, MPS and CNG.

- Inner tube: Synthetic rubber resistant to the welding gases
- Reinforcement: High tensile synthetic textile
- External cover: Black synthetic rubber resistant to abrasion and weather

#### **TECHNICAL DATA**

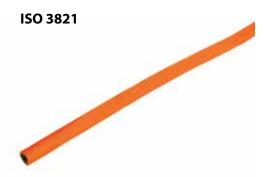
Temperature:	-20°C / +60°C
Safety factor:	3:1
Marking:	In compliance with the below mentioned standard
Working pressure:	20 bar
Bursting pressure:	60 bar
Standards:	ISO 3821

## WORKING PRESSURE 20 bar

Art. Nr.	Ø int × Ø ext	Surface	Coil	Stock class
272140612040	6×12 mm	Smooth	40m	

<sup>\*</sup> The full length may be a combination of max two short lengths.

## SINGLE HOSE PROPANE/BUTANE (ORANGE) ISO 3821 (FOR WELDING AND ALLIED PROCESSES)



Rubber hose for use with Propane/Butane in cutting and welding and allied processes. Suitable for Liquid Petroleum Gas (LPG), Methylacetylene-propadiene (MPS) gas, Compressed Natural Gas (CNG).

- Inner tube: Synthetic rubber resistant to LPG and Propane/Butane gases
- Reinforcement: High tensile synthetic textile
- External cover: Orange synthetic rubber resistant to abrasion and weather

## **TECHNICAL DATA**

Temperature:	-20°C / +60°C
Safety factor:	3:1
Marking:	In compliance with the below mentioned standard
Working pressure:	20 bar
Bursting pressure:	60 bar
Standards:	ISO 3821

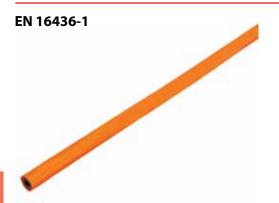
# WORKING PRESSURE 20 bar

Art. Nr.	Ø int × Ø ext	Surface	Coil	Stock class
272321009131	4×11 mm	Smooth	50 m	
272063035206	6,3×13,3 mm	Smooth	20 m	
272321063035	6,3×13,3 mm	Smooth	50 m	
272080035203	8×15 mm	Smooth	20 m	
272321009136	8×15 mm	Smooth	50 m	
272321035090	9 ×16 mm	Smooth	50 m	
272100035202	10×17 mm	Smooth	20 m	
272100035402	10×17 mm	Smooth	40 m	
272321311006	10×17 mm	Smooth	50 m	
272221222050	12,5×22,5mm	Smooth	50m	

<sup>\*</sup> The full length may be a combination of max two short lengths.



## SINGLE HOSE PROPANE/BUTANE (ORANGE) EN 16436-1



Rubber hose for transport od Propane, Butane. Suitable for Liquid Petroleum Gas (LPG), Methylacetylene-propadiene (MPS) gas, Compressed Natural Gas (CNG)

- Inner tube: Synthetic rubber resistant to LPG and Peropane/Butane gases
- Reinforcement: High tensile synthetic textile
- External cover: Orange synthetic rubber resistant to abrasion and weather

### **TECHNICAL DATA**

Temperature:	-30°C / +70°C
Safety factor:	3:1
Marking:	In compliance with the below mentioned standard
Working pressure:	30 bar
Bursting pressure:	75 bar
Standards:	EN 16436-1 (replaces DIN 4815-1, during 2015)

## WORKING PRESSURE 30 bar

Art. Nr.	Ø int × Ø ext	Surface	Coil	Stock class
272030035004	4×12 mm	Smooth	50 m	
272030005063	6,3×16,3 mm	Smooth	50 m	

<sup>\*</sup> The full length may be a combination of max two short lengths.

According to standards the rubber hoses do not expire. It's reasonable to replace them periodically according to their wear and the common sense.

### **HOSE CLIPS**



#### HOSE CLIPS MUJ-FIT ONE EAR

Stainless steel clip with one ear and double coating for quick mounting and to protect the hose from pinches and damages.

Art. Nr.	Descr.	Hoses	Qt.	Stock class
WP24020	Clip 6-13 mm 1-EAR	6×13; 6×14 mm	20	
WP24022	Clip 8-15 mm 1-EAR	8×15; 8×16 mm	20	



### **DOUBLE EAR**

Art. Nr.	Descr.	Hoses	Qt.	Stock class
90330	Clip 13-15 mm 2-EARS	6×13; 6×14 mm	20	
90340	Clip 15-18 mm 2-EARS	8×15; 8×16 mm	20	



## WITH SCREW

Art. Nr.	Descr.	Hoses	Qt.	Stock class
C10000046	Clip 8-12 mm SCREW	5×12-6×13; 6×14 mm	20	
C10000047	Clip 10-16 mm SCREW	8×15; 8×16 mm	20	
WP90352	Clip 12-20 mm SCREW	10×17: 12.5×22.5 mm	20	

## **PLIERS FOR HOSE CLIP**

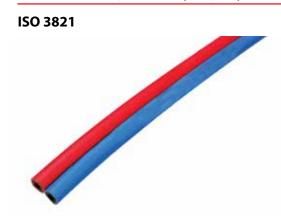
Pliers with not sharp jaws to tighten the clips. No damage for both clip and hose.



Art. Nr.	Descr.	Qt.	Stock class
WP24024	Pliers for hose clip	1	



## TWIN HOSE OXYGEN/ACETYLENE (BLUE/RED) ISO 3821 (FOR WELDING AND ALLIED PROCESSES)



Rubber twin hose for use with Oxygen/Acetylene cutting and welding and allied processes.

Not suitable for LPG, MPS and CNG

- Inner tube: Synthetic rubber resistant to the welding gases
- Reinforcement: High tensile synthetic textile
- External cover: Blue/red synthetic rubber resistant to abrasion and weather

#### TECHNICAL DATA

Temperature:	-20°C / +60°C
Safety factor:	3:1
Marking:	In compliance with the below mentioned standard
Working pressure:	20 bar
Bursting pressure:	60 bar
Standards:	ISO 3821

## WORKING PRESSURE 20 bar

	ОХҮ	ACE		
Art. Nr.	Ø int × Ø ext	$\emptyset$ int $\times$ $\emptyset$ ext	Coil	Stock class
272333044030	4×11 mm	4×11 mm	25 m	
272333044004	4×11 mm	4×11 mm	40 m	
272333166025	6,3×13,3 mm	6,3×13,3 mm	25 m	
272333066617	6,3×13,3 mm	6,3×13,3 mm	40 m	
272333066100	6,3×13,3 mm	6,3×13,3 mm	100 m	
272333086010	6,3×13,3 mm	8,0×15,0 mm	25 m	
272333068022	6,3×13,3 mm	8,0×15,0 mm	40 m	
272333169025	6,3×13,3 mm	9,0×16,0 mm	25 m	
272333069070	6,3×16,3 mm	9,0×16,0 mm	25 m	
272333088050	8×15 mm	8×15 mm	25 m	
272333088100	8×15 mm	8×15 mm	100 m	
272312727025	10×17 mm	10×17 mm	25 m	
272333110081	10×17 mm	10×17 mm	40 m	

<sup>\*</sup> The full length may be a combination of max two short lengths.

## TWIN HOSE OXYGEN/PROPANE (BLUE/ORANGE) ISO 3821 (FOR WELDING AND ALLIED PROCESSES)



Rubber twin hose for use with Oxygen/Propane cutting and welding and allied processes.

Suitable for Liquid Petroleum Gas (LPG), Methylacetylene-propadiene (MPS) gas, Compressed Natural Gas (CNG)

- Inner tube OXY: Synthetic rubber resistant to the welding gases
- Inner tube PROP: Synthetic rubber resistant to LPG and Propane/Butane gases
- Reinforcement: High tensile synthetic textile
- External cover: Blue/orange synthetic rubber resistant to abrasion and weather

## **TECHNICAL DATA**

Temperature:	-20°C / +60°C
Safety factor:	3:1
Marking:	In compliance with the below mentioned standard
Working pressure:	20 bar
Bursting pressure:	60 bar
Standards:	ISO 3821

## WORKING PRESSURE 20 bar

	OXY	PROP		
Art. Nr.	Ø int × Ø ext	$\emptyset$ int $\times$ $\emptyset$ ext	Coil	Stock class
272333030609	6.3×16.3 mm	9.0×16.0 mm	50 m	

<sup>\*</sup> The full length may be a combination of max two short lengths.



## SINGLE HOSE OXYGEN (BLUE) ISO 3821 WITH FITTINGS AND NON RETURN VALVE (FOR WELDING AND ALLIED PROCESSES)

## ISO 3821 EN 1256



Rubber hose for use with Oxygen in cutting and welding and allied processes. Not suitable for LPG, MPS and CNG

- Inner tube: Synthetic rubber resistant to the welding gases
- Reinforcement: High tensile synthetic textile
- External cover: Blue synthetic rubber resistant to abrasion and weather
- NON RETURN VALVE in the outlet

#### **TECHNICAL DATA**

Temperature:	-20°C / +60°C
Safety factor:	3:1
Marking:	In compliance with the below mentioned standard
Working pressure:	20 bar
Bursting pressure:	60 bar
Standards:	ISO 3821(hose) EN 1256 (hose assembly)

## WORKING PRESSURE 20 bar

Art. Nr.	Ø int × Ø ext	Inlet-Outlet	Coil	Stock class
841065	6×13 mm	G3/8 - G1/4	5 m	
841067	6×13 mm	G3/8 - G3/8	5 m	
841068	6×13 mm	G3/8 - G3/8	10 m	
841071	6×13 mm	9/16"UNF - 9/16"UNF	10 m	
841064	6×13 mm	9/16"UNF - 9/16"UNF	20 m	
841089	8×15 mm	G3/8 - G3/8	10 m	
841105	10×17 mm	G3/8 - G3/8	5 m	
841109	10×17 mm	G3/8 - G3/8	10 m	
841102	10×17 mm	G3/8 - G3/8	20 m	

## SINGLE HOSE ACETYLENE (RED) ISO 3821 WITH FITTINGS AND NON RETURN VALVE (FOR WELDING AND ALLIED PROCESSES)

## ISO 3821 EN 1256



Rubber hose for use with Acetylene in cutting and welding and allied processes. Not suitable for LPG, MPS and CNG

- Inner tube: Synthetic rubber resistant to the welding gases
- Reinforcement: High tensile synthetic textile
- External cover: Red synthetic rubber resistant to abrasion and weather
- NON RETURN VALVE in the outlet

#### TECHNICAL DATA

Temperature:	-20°C / +60°C
Safety factor:	3:1
Marking:	In compliance with the below mentioned standard
Working pressure:	20 bar
Bursting pressure:	60 bar
Standards:	ISO 3821(hose) EN 1256 (hose assembly)

WORKING PRESSURE 20 bar

Art. Nr.	Ø int × Ø ext	Inlet-Outlet	Coil	Stock class
849065	6×13 mm	G3/8LH - G1/4LH	5m	
849064	6×13 mm	G3/8LH - G3/8LH	5 m	
849068	6×13 mm	G3/8LH - G3/8LH	10 m	
849071	6×13 mm	9/16"UNF LH - 9/16"UNF LH	10 m	
849067	6×13 mm	9/16"UNF LH - 9/16"UNF LH	20 m	
849089	8×15 mm	G3/8LH - G3/8LH	10 m	
849105	10×17 mm	G3/8LH - G3/8LH	5 m	
849109	10×17 mm	G3/8LH - G3/8LH	10 m	
849102	10×17 mm	G3/8LH - G3/8LH	20 m	



## SINGLE HOSE PROPANE/BUTANE (ORANGE) ISO 3821 WITH FITTINGS AND NON RETURN VALVE (FOR WELDING AND ALLIED PROCESSES)

## ISO 3821 EN 1256



Rubber hose for use with Propane/Butane in cutting and welding and allied processes.

Suitable for Liquid Petroleum Gas (LPG), Methylacetylene-propadiene (MPS) gas, Compressed Natural Gas (CNG)

- Inner tube: Synthetic rubber resistant to LPG and Propane/Butane gases
- Reinforcement: High tensile synthetic textile
- External cover: Orange synthetic rubber resistant to abrasion and weather
- NON RETURN VALVE in the outlet

#### TECHNICAL DATA

Temperature:	-20°C / +60°C
Safety factor:	3:1
Marking:	In compliance with the below mentioned standard
Working pressure:	20 bar
Bursting pressure:	60 bar
Standards:	ISO 3821(hose) EN 1256 (hose assembly)

## WORKING PRESSURE 20 bar

Art. Nr.	Ø int × Ø ext	Inlet-Outlet	Coil	Stock class
849113	6×13 mm	G3/8LH - G3/8LH	5 m	
849114	6×13 mm	G3/8LH - G3/8LH	10 m	
849117	8×15 mm	G3/8LH - G3/8LH	10 m	
849119	10×17 mm	G3/8LH - G3/8LH	5 m	
849120	10×17 mm	G3/8LH - G3/8LH	10 m	
849121	10×17 mm	G3/8LH - G3/8LH	20 m	

## SINGLE HOSE PROPANE/BUTANE (ORANGE) EN 16436-1 WITH FITTINGS

## EN 16436-1 EN 1256



Rubber hose for transport of Propane, Butane.

Suitable for Liquid Petroleum Gas (LPG), Methylacetylene-propadiene (MPS) gas, Compressed Natural Gas (CNG).

- Inner tube: Synthetic rubber resistant to LPG and Propane/Butane gases
- Reinforcement: High tensile synthetic textile
- External cover: Orange synthetic rubber resistant to abrasion and weather

#### TECHNICAL DATA

Temperature:	-30°C / +70°C
Safety factor:	3:1
Marking:	In compliance with the below mentioned standard
Working pressure:	30 bar
Bursting pressure:	75 bar
Standards:	EN 16436-1 (hose) EN 1256 (hose assembly)
	Standard EN 16436-1 replaces DIN 4815-1, during 2015

## WORKING PRESSURE 30 bar

Art. Nr.	Ø int × Ø ext	Inlet-Outlet	Coil	Stock class
546900002154	4×12 mm	G3/8LH - G3/8LH	1,5 m	
546900002162	4×12 mm	G3/8LH - G3/8LH	2 m	
546900016956	4×12 mm	G3/8LH - G3/8LH	2,5 m	
546900002188	4×12 mm	G3/8LH - G3/8LH	3 m	
546900002238	4×12 mm	G3/8LH - G3/8LH	4 m	
546900002196	4×12 mm	G3/8LH - G3/8LH	5 m	
546900002345	4×12 mm	G3/8LH - G3/8LH	10 m	
546900002071	4×12 mm	G3/8LH - M 10×1 LH	2 m	
546900002097	4×12 mm	G3/8LH - M 10×1 LH	3 m	
546900002113	4×12 mm	G3/8LH - M 10×1 LH	5 m	
546900037184	6×16 mm	G3/8LH - G3/8LH	3 m	
546900036202	6×16 mm	G3/8LH - G3/8LH	5 m	
546900039792	6×16 mm	G3/8LH - G3/8LH	10 m	



## TWIN HOSE OXYGEN/ACETYLENE (BLUE/RED) ISO 3821 WITH FITTINGS AND NON RETURN VALVE (FOR WELDING AND ALLIED PROCESSES)

ISO 3821 EN 1256



Rubber twin hose for use with Oxygen/Acetylene cutting and welding and allied processes.

Not suitable for LPG, MPS and CNG

- Inner tube: Synthetic rubber resistant to the welding gases
- Reinforcement: High tensile synthetic textile
- External cover: Blue/red synthetic rubber resistant to abrasion and weather
- NON RETURN VALVE in the outlet

#### **TECHNICAL DATA**

Temperature:	-20°C / +60°C
Marking:	In compliance with the below mentioned standard
Working pressure:	20 bar
Bursting pressure:	60 bar
Standards:	ISO 3821 (hose) EN-1256 (hose assembly)

WORKING PRESSURE 20 bar

	OXY	OXY	ACE	ACE		
Art. Nr.	Ø int × Ø ext	Inlet-Outlet	Ø int × Ø ext	Inlet-Outlet	Coil	Stock class
849060	6,3×13,3 mm	G3/8-G1/4	6,3×13,3 mm	G3/8LH-G1/4LH	5 m	
849066	6,3×13,3 mm	G3/8-G1/4	6,3×13,3 mm	G3/8LH-G1/4LH	10 m	
9634900P	6,3×13,3 mm	M16×1,5-M16×1,5	6,3×13,3 mm	M16×1,5LH-M16×1,5LH	5 m	
841060	6,3×13,3 mm	G3/8-G3/8	6,3×13,3 mm	G3/8LH-G3/8LH	5 m	
849061	6,3×13,3 mm	G3/8-G3/8	6,3×13,3 mm	G3/8LH-G3/8LH	10 m	
841080	8×15 mm	G3/8-G3/8	8×15 mm	G3/8LH-G3/8LH	5 m	
841081	8×15 mm	G3/8-G3/8	8×15 mm	G3/8LH-G3/8LH	10 m	
849110	10×17 mm	G3/8-G3/8	10×17 mm	G3/8LH-G3/8LH	5 m	
849111	10×17 mm	G3/8-G3/8	10×17 mm	G3/8LH-G3/8LH	10 m	
849112	10×17 mm	G3/8-G3/8	10×17 mm	G3/8LH-G3/8LH	20 m	

## TWIN HOSE OXYGEN/ACETYLENE (BLUE/RED) ISO 3821 WITH FITTINGS AND TERMINAL CLAMP (FOR WELDING AND ALLIED PROCESSES)

ISO 3821 EN 1256



Rubber twin hose for use with Oxygen/Acetylene cutting and welding and allied processes.

Not suitable for LPG, MPS and CNG

- Inner tube: Synthetic rubber resistant to the welding gases
- Reinforcement: High tensile synthetic textile
- External cover: Blue/red synthetic rubber resistant to abrasion and weather
- with TERMINAL CLAMP

#### TECHNICAL DATA

Temperature:	-20°C / +60°C
Marking:	In compliance with the below mentioned standard
Working pressure:	20 bar
Bursting pressure:	60 bar
Standards:	ISO 3821 (hose) EN-1256 (hose assembly)

WORKING PRESSURE 20 bar

	OXY	OXY	ACE	ACE		
Art. Nr.	Ø int × Ø ext	Inlet-Outlet	$\emptyset$ int $\times$ $\emptyset$ ext	Inlet-Outlet	Coil	Stock class
14008011	4×11 mm	G1/4-G1/4	4×11 mm	G3/8LH-G3/8LH	10 m	
14008246	4×11 mm	G1/4-G1/4	4×11 mm	G3/8LH-G3/8LH	20 m	
14008242	6,3×13,3 mm	G1/4-G1/4	6,3×13,3 mm	G3/8LH-G3/8LH	10 m	
14008265	6,3×13,3 mm	G1/4-G1/4	6,3×13,3 mm	G3/8LH-G3/8LH	15 m	
14008243	6,3×13,3 mm	G1/4-G1/4	6,3×13,3 mm	G3/8LH-G3/8LH	20 m	
14008266	6,3×13,3 mm	G1/4-G1/4	6,3×13,3 mm	G3/8LH-G3/8LH	25 m	
14008244	6,3×13,3 mm	G1/4-G1/4	6,3×13,3 mm	G3/8LH-G3/8LH	30 m	
14008269	6,3×16,0 mm	G1/4-G1/4	9,0×16,0 mm	G3/8LH-G3/8LH	5 m	
14008239	6,3×16,0 mm	G1/4-G1/4	9,0×16,0 mm	G3/8LH-G3/8LH	10 m	
14008270	6,3×16,0 mm	G1/4-G1/4	9,0×16,0 mm	G3/8LH-G3/8LH	15 m	
14008240	6,3×16,0 mm	G1/4-G1/4	9,0×16,0 mm	G3/8LH-G3/8LH	20 m	
14008241	6,3×16,0 mm	G1/4-G1/4	9,0×16,0 mm	G3/8LH-G3/8LH	30 m	
14008245	6,3×16,0 mm	G1/4-G1/4	9,0×16,0 mm	G3/8LH-G3/8LH	40 m	



## COUPLED HOSES OXYGEN/ACETYLENE (BLUE/RED) ISO 3821 WITH FITTINGS AND TERMINAL CLAMP (FOR WELDING AND ALLIED PROCESSES)

ISO 3821 EN 1256



Rubber twin hose for use with Oxygen/Acetylene cutting and welding and allied processes.

Not suitable for LPG, MPS and CNG

- Inner tube: Synthetic rubber resistant to the welding gases
- Reinforcement: High tensile synthetic textile
- External cover: Blue/red synthetic rubber resistant to abrasion and weather
- with TERMINAL CLAMP

### TECHNICAL DATA

Temperature:	-20°C / +60°C
Marking:	In compliance with the below mentioned standard
Working pressure:	20 bar
Bursting pressure:	60 bar
Standards:	ISO 3821 (hose) EN-1256 (hose assembly)

## WORKING PRESSURE 20 bar

	OXY	OXY	ACE	ACE		
Art. Nr.	Ø int × Ø ext	Inlet-Outlet	$\emptyset$ int $\times$ $\emptyset$ ext	Inlet-Outlet	Coil	Stock class
14008222	4×11 mm	G1/4-G1/4	4×11 mm	G3/8LH-G3/8LH	5 m	
14008223	4×11 mm	G1/4-G1/4	4×11 mm	G3/8LH-G3/8LH	10 m	
14008224	4×11 mm	G1/4-G1/4	4×11 mm	G3/8LH-G3/8LH	15 m	
14008225	4×11 mm	G1/4-G1/4	4×11 mm	G3/8LH-G3/8LH	20 m	
14008226	4×11 mm	G1/4-G1/4	4×11 mm	G3/8LH-G3/8LH	30 m	
14008268	4×11 mm	G1/4-G1/4	4×11 mm	G3/8LH-G3/8LH	40 m	
14008217	6,3×13,3 mm	G1/4-G1/4	6,3×13,3 mm	G3/8LH-G3/8LH	5 m	
14008218	6,3×13,3 mm	G1/4-G1/4	6,3×13,3 mm	G3/8LH-G3/8LH	10 m	
14008219	6,3×13,3 mm	G1/4-G1/4	6,3×13,3 mm	G3/8LH-G3/8LH	15 m	
14008220	6,3×13,3 mm	G1/4-G1/4	6,3×13,3 mm	G3/8LH-G3/8LH	20 m	
14008221	6,3×13,3 mm	G1/4-G1/4	6,3×13,3 mm	G3/8LH-G3/8LH	30 m	
14008028	6,3 ×16,0 mm	G1/4-G1/4	9,0×16,0 mm	G3/8LH-G3/8LH	5 m	
14008029	6,3 ×16,0 mm	G1/4-G1/4	9,0×16,0 mm	G3/8LH-G3/8LH	10 m	
14008061	6,3 ×16,0 mm	G1/4-G1/4	9,0×16,0 mm	G3/8LH-G3/8LH	15 m	
14008062	6,3 ×16,0 mm	G1/4-G1/4	9,0×16,0 mm	G3/8LH-G3/8LH	20 m	
14008250	6,3 ×16,0 mm	G1/4-G1/4	9,0×16,0 mm	G3/8LH-G3/8LH	25 m	
14008216	6,3 ×16,0 mm	G1/4-G1/4	9,0×16,0 mm	G3/8LH-G3/8LH	30 m	
14008237	6,3 ×16,0 mm	G1/4-G1/4	9,0×16,0 mm	G3/8LH-G3/8LH	40 m	



## COUPLED HOSES OXYGEN/PROPANE (BLUE/ORANGE) ISO 3821 WITH FITTINGS AND TERMINAL CLAMP (FOR WELDING AND ALLIED PROCESSES)

ISO 3821 EN 1256



Coupled rubber hoses for use with Oxygen/Propane cutting and welding and allied processes.

. Suitable for Liquid Petroleum Gas (LPG), Methylacetylene-propadiene (MPS) gas, Compressed Natural Gas (CNG).

- Inner tube OXY: Synthetic rubber resistant to the welding gases
- Inner tube PROP: Synthetic rubber resistant to LPG nad Propane/Butane gases
- Reinforcement: High tensile synthetic textile
- External cover: Blue/Orange synthetic rubber resistant to abrasion and weather
- with TERMINAL CLAMP

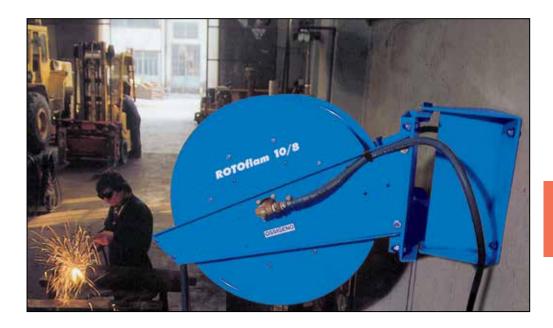
### **TECHNICAL DATA**

Temperature:	-20°C / +60°C
Marking:	In compliance with the below mentioned standard
Working pressure:	20 bar
Bursting pressure:	60 bar
Standards:	ISO 3821 (hose) EN-1256 (hose assembly)

## WORKING PRESSURE 20 bar

	OXY	OXY	PROP	PROP		
Art. Nr.	Ø int × Ø ext	Inlet-Outlet	$\emptyset$ int $\times$ $\emptyset$ ext	Inlet-Outlet	Coil	Stock class
14008227	6,3×13,3 mm	G1/4-G1/4	6,3×13,3 mm	G3/8LH-G3/8LH	5 m	
14008228	6,3×13,3 mm	G1/4-G1/4	6,3×13,3 mm	G3/8LH-G3/8LH	10 m	
14008229	6,3×13,3 mm	G1/4-G1/4	6,3×13,3 mm	G3/8LH-G3/8LH	15 m	
14008230	(6,3×13,3 mm	G1/4-G1/4	6,3×13,3 mm	G3/8LH-G3/8LH	20 m	
14008231	6,3×13,3 mm	G1/4-G1/4	6,3×13,3 mm	G3/8LH-G3/8LH	25 m	
14008232	6,3×16,0 mm	G1/4-G1/4	9,0×16,0 mm	G3/8LH-G3/8LH	30 m	
14008233	6,3×16,0 mm	G1/4-G1/4	9,0×16,0 mm	G3/8LH-G3/8LH	40 m	

## **GAS WELDING HOSE REELS**

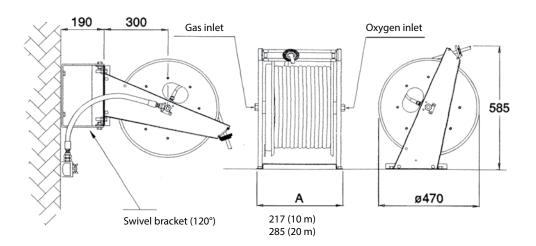


**ROTOFLAM** is a professional hose reels wall system that puts an end to the problem of hoses left untidily around the workshop. It reduces the risk of damage and kinking the hose and eliminates the accidents caused by tripping. Extends the hoses lifetime by a good housekeeping. When stored, the hose is not in contact with the floor of the workplace, so there is less possibility for collecting oil, grease and dust.

The "LOCK SYSTEM" device allows you to use only the hose that you need.

Pull the free end of the hose to the required length and then release, and the tube hangs out of position. To rewind, pull the hose out another few inches and then release and the hose will be rewound on the reel.

Art. Nr.	Descr.	Qt.	Stock class
WP24012	Hose reels ROTOFLAM 10 m (with twin hose OXY-ACE 8×15)	1	
WP24014	Hose reels ROTOFLAM 20 m (with twin hose OXY-ACE 8×15)	1	
WP24010	Swivel bracket (120°) for ROTOFLAM 20 m	1	





# NEW! APICS

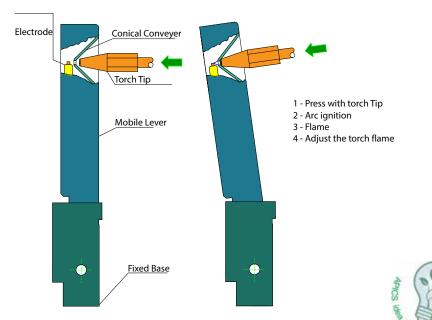
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Directive 2004/108/EC EN 55014-1 EN 55014-1 +EC +A1 +IS1

#### ARE YOU WORKING WITH A GAS ECONOMISER?

Do you really want to pay for pilot lights which are on all day long? Do you want to improve the safety of your working environment? Looking to increase efficiency?







APICS is a "stand alone" lighter for oxy/acetylene Brenner for welding cutting and heating. Can also be used for oxy/propane in conjunction with an existing conventional gas economiser.

#### PILOT FLAME CAN DEFINITELY BE SWITCHED OFF!

#### So:

- No naked flames in the workplace.
- No need to light pilot in the morning, switch off in the evening. No need to adjust gas levels during the course of the day.
- No build up of combustible gases in the event of pilot light being extinguished.

### **HOW DOES IT WORK?**

Through a new patented ignitor system.

#### HANDS FREE (COMPARED TO SPARK LIGHTERS)!

Simply fix APICS to the work bench, then press with the torch tip to ignite ...

Maintenance free! Constructed in long lasting stainless steel.

Apics helps the environment by reducing CO<sub>2</sub> emissions (200kg CO<sub>2</sub> is estimated emission from a pilot flame economiser).

### **SPARE PARTS KIT INCLUDES:**

- 1 electrode ceramic high voltage + spring + sealing ring
- 1 conical conveyer AISI 430
- 2 pieces (inner + outer) of high temperature heat-shrink lining

#### **LIGHTERS**

Art. Nr.	Descr.	Qt.	Stock class
548026032009	APICS SAFE LIGHTER Piezo Electric	Î.	
548026032010	APICS SPARE PARTS KIT	1	



## **TOOLS**

## LIGHTERS



Art. Nr.	Descr.	Qt.	Stock class
14008541P	Set 5 Lighters with spring	1	
14008546	Spare flint for Lighter with spring 3×20 mm	10	





Art. Nr.	Descr.	Qt.	class
54800003001BP	Set 5 Lighters with cup	1	
F161008EMB	Lighter with cup + 5 flints (blister)	1	
5480003001XC	Spare flint for Lighter with cup	10	
9430570	Set 50 spare flints for Lighter with cup	1	



Art. Nr.	Descr.	Qt.	Stock class
9430830	Set 10 Lighters gun	1	
548809562651P	Set 10 spare flints for Lighter gun 2.2×6 mm	1	



## **TOOLS**

## **MIRROR**



Resistant to temperatures up to 600°C



Art. Nr.	Descr.	Qt.	Stock class
15010101	Mirror 70×80×1 in steel with Magnetic base	1	
15011101	Mirror 70×80×1 in steel with Handle	1	
SPARE PARTS Art. Nr.	Descr.	Qt.	Stock class
15013101	Spare mirror plate 70×80×1 in steel	10	
F161001EMB	Set 5 Spare mirror plates 70×80×1 in steel (blister)	1	

### **NOZZLE CLEANER**



Art. Nr.	Descr.			Qt.	Stock class
F161054EMB	Nozzle Cleaner	BLISTER ø 0,5-2,3 mm	12 needles	1	
548814071191P	ø 0,5-1,6 mm *		(10pcs) 14 needles	1	
9430860	ø 0,5-1,6 mm *		(12pcs) 14 needles	1	
9430850	ø 0,5-2,8 mm *		(12pcs) 10 needles	1	





## **GAS ECONOMISER**





#### **SAVE GAS UP TO 30-35%**

The device Pluscontrol GS35 must be applied to the outlet of all Argon or  $\rm CO_2$  regulators of any brand. It solves the big problem of huge waste of gas when opening the torch solenoid valve, a few known.

In that moment, in fact, the hose between the regulator and the solenoid valve remains full of gas at a high pressure due to previous stop of the flow (closing of the solenoid valve). As soon as you press the torch trigger (MIG or TIG) there is a release of a huge flow of gas which gets wasted.

Pluscontrol GS35 helps to save up to 30-35% of your gas.

Art. Nr.	Descr.	Inlet/Outlet	Qt.	Stock class
0762726	PLUSCONTROL GS35 Ar/CO <sub>2</sub> CHROME-PLATED	G1/4"F - G1/4"M		
0762724	PLUSCONTROL GS35 Ar/CO <sub>2</sub> CHROME-PLATED	G3/8"F - G3/8"M		
0762736	PLUSCONTROL GS35 Ar/CO <sub>2</sub> BRASS	9/16"F - 9/16"M		
0762728	PLUSCONTROL GS35 Ar/CO <sub>2</sub> BRASS	G1/4"F - G1/4"M		
391P000004	FLOWMETER 30 I/m			



## **TOOLS**

## **WIRE BRUSHES**



Art. Nr.	Descr.	Qt.	Stock class
14008472	Wire Brush BR1 Steel	4	
14008475	Wire Brush BR2 Stainless Steel	4	
14008480	Wire Brush BR5 Brass	4	
14008157	Wire Brush JUNIOR Brass	4	

## CHARACTERISTICS

	Bristles	Rows	Wire Type	Wire Ø
Wire Brush BR1	Steel	4	Smooth	0,30-0,35 mm
Wire Brush BR2	Stainless Steel	4	Smooth	0,30-0,35 mm
Wire Brush BR5	Brass	4	Rippled	0,30-0,35 mm
Wire Brush JUNIOR	Brass	3	Rippled	0,15 mm

## **CHIPPING HAMMERS**



Art. Nr.	Descr.	1.1.1	<b>k</b> g∖	Qt.	Stock class
WP21103	Chipping hammer with metal handle	260 mm	260 g	1	
WP21104	Chipping Hammer with wooden handle	270 mm	240 g	1	

## PLIERS MIG MULTIPURPOSE



Pliers MIG multipurpose professional new type Allows you to:

- Clean the spatters inside the MIG nozzle without removing
- Screw / unscrew the MIG contact tips
- Cut the exceeding wire out of the contact tip before starting to weld.

Art. Nr.	Descr.	Qt.	Stock class
WP21106	Pliers MIG multipurpose	1	

## **HEATED ELECTRODE QUIVERS**



For storage of electrodes in a dry heated environment until the moment of use. Two models available, 110V or 240V, both operate on AC or DC supply. Capacity 9 Kg, max electrode length 450mm, nominal 110°C, 150W.

Art. Nr.	Descr.	Qt.	Stock class
53701	110V (AC-DC)	1	
53702	230-240V (AC-DC)	1	



## **SPRAYS**

## **ANTISPATTER SPRAY**



**ANTISPATTER 400 ml** is a silicone free, ecologically friendly spray which is used to stop weld spatter from adhering to the torch nozzle and the work piece. Post weld cleaning requirements are reduced to a minimum. The spray is mentholated for efficiency without affecting the welding results.

Also available in 5 litres version for brush application.

Art. Nr.	Descr.	Language	Qt.	Stock class
WP22001	ANTISPATTER 400 ml	(IT-FR-DE-GB-ES)	25	
WP22001B	ANTISPATTER 400 ml	(HU-RO-PL-PT-CZ)	25	

### **ANTISPATTER SPRAY NOT FLAMMABLE**



#### ANTISPATTER NOT FLAMMABLE 300ml (400g)

Silicone free, ecologically friendly spray which is used to stop weld spatter from adhering to the torch nozzle and the work piece. This spray doesn't contain flammable propellant.

Art. Nr.	Descr.	Language	Qt.	Stock class
392P000071	ANTISPATTER 300 ml spray	(HU-RO-PL-PT-CZ)	25	

### **ANTISPATTER CREAM 300 G**





#### ANTISPATTER Cream 300g

For specific protection of the torch nozzle from weld spatter. Dip the torch nozzle into the cream, shake to remove excess, then start welding operation.

Art. Nr.	Descr.	Language	Qt.	Stock class
WP22009	ANTISPATTER CREAM 300 a	(IT)	1	

## **ANTISPATTER LIQUID**



## ANTISPATTER Liquid

Antispatter liquid to be applied with a brush.

It is used to stop weld spatter from adhering to the torch nozzle and the work piece.

Art. Nr.	Descr.	Language	Qt.	Stock class
WP22008	ANTISPATTER 5 L Tank	(IT)	5	
WP220080	ANTISPATTER 25 L Tank	(IT)	25	

## **GALVANIZING SPRAY**



For really fast professional results, ideal for protecting freshly exposed metal surfaces from atmospheric oxidation. Also acts as a primer for subsequent painting.



Art. Nr.	Descr.	Language	Qt.	Stock class
WP22005	ZINCSPRAY 400 ml	(IT-FR-DE-GB-ES)	25	
WP22005B	ZINCSPRAY 400 ml	(HU-RO-PL-PT-CZ)	25	
WP220051	INOXSPRAY 400 ml	(IT)	12	



#### **SPRAYS**

#### **LEAK DETECTION SPRAY**



#### GAS LEAK STANDARD DUTY LEAK DETECTION SPRAY 400ml

GAS LEAK DETECTOR is a spray that once sprayed on pipes and surfaces reveals the gas leak via the formation of bubbles.  $Ideal \ for plumbers \ and \ HVAC \ engineers \ to \ check \ all \ the \ pipes \ connections. \ Safe \ and \ convenient, \ replaces \ completely$ the old method with soapy water. Can also be used on refrigeration systems to verify refrigerant gas leakage.

Art. Nr.	Descr.	Language	Qt.	Stock class
WP22028	GAS LEAK Detector 400 ml	(IT-FR-DE-GB-ES)	25	
WP22028B	GAS LEAK Detector 400 ml	(HU-RO-PL-PT-CZ)	25	

#### GAS LEAK OXYGEN DUTY LEAK DETECTION SPRAY 400ML

GAS LEAK DETECTOR OXYGEN COMPATIBLE is a spray that once sprayed on pipes and surfaces reveals the gas leak via the formation of bubbles. It is compatible with OXYGEN hence it can be used to detect leaks on oxygen systems.

Art. Nr.	Descr.	Language	Qt.	Stock class
548900140303	GAS LEAK OX Detector 400 ml*	(IT-FR-DE-GB-ES)	6	

<sup>\*</sup> Oxygen Compatible

#### **MULTISPRAY**



#### MULTISPRAY is a highly searching fluid with five functions;

Penetrating agent for rusted nuts/bolts. Water repellent action. Antioxidant preventing rust formation. General lubrication. Metal polish. The lubrication properties of this spray are particularly long lasting, making it a must have tool for general use in the workshop.

Art. Nr.	Descr.	Language	Qt.	Stock class
WP22036	MULTISPRAY 400 ml	(IT-FR-DE-GB-ES)	25	

#### **CRACK DETECTORS SPRAY**



- 1 porosity
- 2 work hardening 3 cold cracking



#### **TESTING OF SEAMS**

First use the cleaner to prepare the surface, making sure it is free from oil and grease which could affect results. Apply the dye and wait approx 15 minutes penetration to occur. Remove any excess dye with water, dry, and then apply the developer. Any defects will color the developer in 10-15 minutes.

Art. Nr.	Descr.	Qt.	Stock class
WP22030	Spray Cleaner 400 ml	12	
WP22032	Spray Penetrant 400 ml	12	
WP22034	Spray Developer 400 ml	12	



#### **MARKERS**

#### **MARKER B**



Markal Paintstik® B Markers are true lead free paints in stick form . Weather-resistant, UV-resistant. Ideal for layout, color coding, fabrication and identification. Marks through oil and water. Marks on smooth, rough, rusty or dirty surfaces. Non-toxic.

For use on metal, wood, plastic, concrete, rubber, glass, card-board and paper.

Art. Nr.	Color	Qt.	Stock class
548900080223	Black	12	
548900080224	Orange	12	
548900080226	Green	12	
548960080220	White	12	
548960084811	Yellow	12	
548960084812	Red	12	
548900080225	Blue	12	

#### **MARKER BALL N**



Ball marker in tube suitable for many kind of surfaces: metal, ceramic, glass, wood, paper, plastic.

Fast drying paint, very well resistant to temperatures up to 200°C.

Paint formula without halogens, sulphides, lead, cadmium, zinc, mercury. NON TOXIC

50ml tubes double wall reinforced (Aluminum-Plastic) to avoid accidental spillage. Operating temperature: -20°C +70°C

Tip Ball 3mm (1/8")

Art. Nr.	Color	Qt.	Stock class
WP23026	Yellow	10	
WP23027	White	10	
WP23025	Red	10	

#### **BALL MARKER (LIQUID IN BOTTLE)**



Liquid paint marker with ball tip. An ideal replacement for tube markers.

Much less waste of color. Features an auto cleaning closure to prevent clogging.

Unbreakable plastic bottle very durable and resistant to impact or crushing.

Suitable for any hard surface, wet, oily or rippled (metal, wood, glass, plastic, concrete, stones, etc.) Lead free, NON TOXIC. The paint dries in 5 min.

Resistant to weather and fade.

Operating temperature: -46°C +66°C

Tip Ball 3mm (1/8")





Art. Nr.	Color	Qt.	Stock class
548900084600	White	1	
548960084601	Yellow	1	



Qt.

Stock

#### **MARKERS**

#### **VALVE ACTION MARKER**



Valve Action is a quick-drying liquid paint marker suitable for long-lasting markings, resistant to wear and weathering. The paint is Xylene-free, reduces the health risks and is safe for the use on any surface. Suitable for steel, iron, plastics, glass, rubber, textiles, etc.

- Quick drying permanent paint.
- Xylene-free paint

Art. Nr.

- For low corrosion applications
- Round tip wear resistant D.3 mm
- Metal tank to reduce the risk of breaking.

Descr.

548960080141 HOLDER for Soapstone Round



Art. Nr.	Color	Qt.	Stock class
548900096820	WHITE	12	
548900096821	YELLOW	12	
548900096823	BLACK	12	

#### **MARKER SOAPSTONE**



Delivered in practical plastic bags with 10 pcs.



Marker in soap-stone available in round or flat shape. A holder can be purchased separately to protect markers, prevent
break up in use, and allow maximum consumption of the product.

				class
548960080129	Soapstone FLAT	125×4×12 mm	20	
548960080130	Soapstone ROUND	125×0 5 mm	20	
Art. Nr.	Descr.		Qt.	Stock
			•	class

#### THERMOCHALK THERMOMELT



A very quick way to measure the surface temperature. When the surface temperatures reaches the desired level the paint melts. Operates in narrow range for maximum accuracy. The 100 degree version is ideal for ensuring moisture has been driven off prior to welding.

Art. Nr.	Descr.	Qt.	Stock class
548960086490	THERMOMELT 83°C	12	
548960086401	THERMOMELT 100°C	12	
548900086562	THERMOMELT 121°C	12	
548960084664	THERMOMELT 150°C	12	
548960086410	THERMOMELT 175°C	12	
548960086706	THERMOMELT 184°C	12	
548960086516	THERMOMELT 200°C	12	
548960086563	THERMOMELT 250°C	12	
548960086626	THERMOMELT 300°C	12	
548960086698	THERMOMELT 350°C	12	
548960086734	THERMOMELT 400°C	12	
548960086770	THERMOMELT 450°C	12	
548960086807	THERMOMELT 500°C	12	
548960086824	THERMOMELT 550°C	12	
548960086842	THERMOMELT 600°C	12	
548960086860	THERMOMELT 650°C	12	
548960086870	THERMOMELT 700°C	12	
548960086878	THERMOMELT 750°C	12	
548960086887	THERMOMELT 800°C	12	





# **BRASOTEK**

BRASOTEK is an innovative product for the preparation of the joints before brazing. This liquid product allows for a perfect cleaning through chemical reaction without any hazard for the operator. Once applied with the extremely practical marker, BRASOTEK develops a protective coating that keeps the pieces clean and deoxidized much longer (up to 2 hours).

Oxidation is the worst enemy of welds.

BRASOTEK removes completely all the dirt and the oxides from the surfaces to be joined, boosting the penetration of filler metal in depth. It facilitates the preheating by improving heat distribution and helping to prevent burns. It reduces the preparation time because the pieces are processed only once, without using steel wool, abrasive paper or wire brush.

For brazing alloys copper-copper, copper-iron, copper-brass, copper-bronze, copper-inox, brass-inox. Not for preparation of alloys for arc-welding or aluminum materials.

Particularly suitable in the sectors of refrigeration, maintenance, installers, etc.

#### NON-TOXIC, NON-POLLUTING

- Reduced use of fluxes.
- Significant working time reduction.
- Reduction of risks for the operator.
- Perfect welding of different metals (copper-brass, copper-bronze, coppersteel).
- Cost saving
- Double tips marker or big size marker (22mm)







Art. Nr.	Description	Qt.	Stock class
WP25000	BRASOTEK KIT (Marker + 1 Cartridge)	1	
WP25001	BRASOTEK KIT XL (Marker + 2 Cartridges)	1	
WP25010	BRASOTEK REFILL SET (4 Cartridges)	1	





#### THERMAL PROTECTION

#### **HELIOS 1000 THERMAL MAT**



Insulating thermal mat made of high-quality silica fibers coupled both sides with felt layers of PAN (carbon fiber). This mat is perfect when there's the need to protect small things near the piece to be welded from high temperatures and welding spatters above all when welding on-site. Suitable for welders that operate on-site (repair of cars, small workshops, heating & ventilation, plumbing, etc.).

- Asbestos-free and ceramics-free.
- Usable from both sides.
- Reinforced edges with stitching.
- Black color anti-glare.
- Resistant to most chemicals.
- Excellent flexibility and handling.

#### PROTECTION FROM HEAT UP TO 1000°C.

#### TECHNICAL DATA

Material: silica fibers and carbon fiber
Dimensions: 210×290 mm

Heat protection: up to 1000°C

Art. Nr.	Description	Qt.	Stock class
A200153	THERMAL MAT HELIOS 1000 in blister	1	

#### ISOL'DAVES THERMAL SCREEN



ISOL'DAVES is a thermal protection screen suitable to protect surfaces and things from heat during the welding operation on-site.

It is a cover made of silica fibers (wool) needled with one layer of aluminum antidust. Suitable for all kind of thermal protection.

- High thermal stability
- Antidust aluminum side
- Keeps its flexible and fibrous textile, even at high temperatures
- High tensile strength
- High flexibility
- Easy to cut and shape, easy to install

#### PROTECTION FROM HEAT UP TO 900°C.

#### TECHNICAL DATA

Material:	Silica fibers and aluminum
Heat protection:	up to 900°C (wool side) up to 600°C (aluminum side)

Art. Nr.	Description	Qt.	Stock class
A200145	Set 3pcs ISOL'DAVES heat protection screens	1	



#### **WELDING CURTAINS**

#### **WELDING CURTAINS ONE PIECE - EN 1598**



Modular welding curtains for a fast and easy mounting. The curtains have reinforced edges and holes and can be hung to frames with 7 sliding hooks. They can be combined by means of press studs allowing always a fast access to the workplace (easy to open and to close).

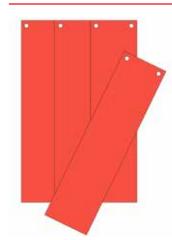
Protective against hazardous UV- and IR-rays and resistant to ignition. In compliance with EN-1598.

#### RISK FACTORS ACCORDING TO EN-1598:

Dark green(T75): approx. 0,05 Green (T55): approx. 0,40 Red (T40): approx. 0,80

Art. Nr.	Color	h	→ th	kg\	Qt.	Stock class
TTVT75M130180	T75 Dark Green (matt)	1800×1300 mm	0,4 mm	1,5 kg	1	
TTVT75M130200	T75 Dark Green (matt)	2000×1300 mm	0,4 mm	1,6 kg	1	
TTVT55M130180	T55 Green	1800×1300 mm	0,4 mm	1,5 kg	1	
TTVT55M130200	T55 Green	2000×1300 mm	0,4 mm	1,6 kg	1	
TTVT40M130180	T40 Red	1800×1300 mm	0,4 mm	1,5 kg	1	
TTVT40M130200	T40 Red	2000×1300 mm	0,4 mm	1,6 kg	1	

#### **WELDING CURTAINS STRIPES - EN 1598**



The best way to obtain a curtain with the desired length with the advantage to access in any point by passing trough the strips. Thanks to the new mounting accessories, the curtains can be fixed to any pipe (1") in wall or ceiling structures. The strips are 570 mm wide and are supplied in two different lengths: 1800mm for standard applications and 2800mm for suspending from high ceilings. The stripes overlap 7cm, so 4 stripes allow to cover 2,05m wide. One stripe per package.

Protective against hazardous UV- and IR-rays and resistant to ignition.

In compliance with EN-1598.

Art. Nr.	Color	h	→ th	(kg	Qt.	Stock class
TTLT4011800	T40 Red	1800×570 mm	1,0 mm	1,25 kg	1	
TTLT4012800	T40 Red	2800×570 mm	1,0 mm	2,00 kg	1	

#### **MOUNTING ACCESSORIES**



Art. Nr.	Descr.	Qt.	Stock class
TTVZHAKEN	Hooks for curtains	7*	
TTL-Z-WABE-R	Pipe holder (1")+L	1	
TTL-Z-S-SCHELLE	Curtain holder for pipe 1"	1	
TTL-Z-R-SCHELLE	Pipe holder 1"	1	

<sup>\* 7</sup> pcs for each curtain





#### **PROTECTIVE SCREENS**

#### TRANSECO - PROTECTIVE SCREEN MOBILE PANEL WITH WELDING CURTAIN - EN 1598



TRANSECO is a mobile protective screen, but at the same time very stable. Thanks to its overlapping feet it can be conbined and expanded. Tha frame is made from steel tube with epoxy powder coating.

The curtain with its folded edges comes stretched between the top and the bottom. The kit comes complete for an easy assembly.

Protective against hazardous UV- and IR- rays and resistant ignition.

In compliance with EN-1598.

#### TECHNICAL DATA

Frame size:	H.1870 × W.1455 mm
Curtain size:	H.1600 × W.1400 × T.0,4 mm
Ground clearance:	approx 250 mm
Weight:	8,2 kg

Art. Nr.	Descr.	Color	Qt.	Stock class
TTOTTVET75M	TransEco T75	Dark green (matt)	1	
TTOTTVET55	TransEco T55	Green	1	
TTOTTVET40	TransEco T40	Red	1	

#### FREE STANDING WELDING SCREEN - EN 1598



Mobile protective screen with curved shape for an easy moving without risk of entanglement.

The frame is made from steel tube with epoxy powder coating. The curtain is stretched on the frame using retainig clips.

The kit comes complete for an easy assembly. Protective against hazardous UV- and IR- rays resistant to ignition.

In compliance with EN-1598

#### TECHNICAL DATA

Frame size:	H.6' × W.6' (1830 × 1830 mm)
Curtain size:	H.5′3" × W.5′9" (1600 × 1750 mm)
Ground clearance:	approx 6" (150 mm)

Art. Nr.	Descr.	Color	Qt.	Stock class
55440TC	Free Standing screen T55	Green	1	



#### **PROTECTIVE SCREENS**

#### TRANSFLEX - PROTECTIVE SCREEN MOBILE PANEL WITH WELDING CURTAIN EN-1598



TRANSFLEX is a mobile protective screen mounted on wheels for increased mobility. The frame is made of steel tube coated with epoxy powder.

The curtain can be hung to the top of frame by means of sliding hooks supplied with the kit. The kit comes complete for an easy assembly.

Protective against hazardous UV- and IR- rays and resistant to ignition. In compliance with En-1598.

#### Including wheels

#### TECHNICAL DATA

Frame size:	H.1995 × W.2100 mm
Curtain size:	H.1950 × W.2100 mm × T.0,4 mm
Ground clearance:	approx 300 mm

Art. Nr.	Descr.	Color	Qt.	Stock class
TTOTTVS075M	TransFlex T75	Dark green (matt)	1	
TTOTTVS055	TransFlex T55	Green	1	
TTOTTVS040	TransFlex T40	Red	1	

#### **SPARE PARTS**

Art. Nr.	Descr.	Qt.	Stock class
TTOZROLLE100	Set of 4 wheels	1	

#### TRANSFLEX - PROTECTIVE SCREEN MOBILE PANEL AND WITH WELDING CURTAIN - EN 1598 (WITH EXTENSIONS)



TRANSFLEX WITH EXTENSIONS is mobile protective screen mounted on wheels for increased mobility. The frame is made of steel tube coated with epoxy powder and is provided with two side extensions swivel that allow to reach 3,7 m opening and separate the workplace with a single device.

The curtain can be hung to the top of frame by means of sliding hooks supplied with the kit. The kit comes complete for an easy assembly.

Protective against hazardous UV- and IR- rays and resistant to ignition.

In compliance with EN-1598.

### Including wheels

#### TECHNICAL DATA

Frame size:	H.1995 × W.3700 mm (1 base 2100 mm +
	2 arms 800 mm)
Curtain size:	H.1950 × W.3700 mm × T.0,4 mm
Ground clearance:	approx 300 mm

Art. Nr.	Descr.	Color	Thickness	Qt.	Stock class
TTOTTVST75M	TransFlex T75	Dark green (matt)	0,4 mm	1	
TTOTTVST55	TransFlex T55	Green	0,4 mm	1	
TTOTTVST40	TransFlex T40	Red	0,4 mm	1	
TTOTTLST40	TransFlex T40	Red	1,0 mm	1	

#### **SPARE PARTS**

Art. Nr.	Descr.	Qt.	Stock class
TTOZROLLE100	Set of 4 running wheels	1	







# THE LCD RANGE

# **YOUR CHOICE!!**

#### ONE OF THE MOST IMPORTANT LCD RANGES ON THE MARKET WHEN IT COMES TO EYE PROTECTION!

The GCE range includes many models designed to satisfy even the most demanding welders and suitable for any kind of usage.

Starting from economic model ideal for basic and standard usages up to the most professional models with digital regulation and ventilation. Extended warranty (up to 3 years) on many models.

In addition ALL the models are provided with Delay Adjustment (Dark to Light time delay) and some models are suitable for pulsed arc welding MIG/TIG, where the pulses would otherwise cause (at low value) a momentary opening of the darkened lens.



All GCE LCD masks conform to the following standards:

EN-379 (LCD filter) EN-175 (Helmet)

#### WHAT TO LOOK AT WHEN CHOOSING A LCD MASK SUITABLE FOR TIG WELDING

The TIG welding is a process of arc welding with infusible electrode (tungsten) that allows to perform high-quality joints. This technology uses a very low amperage current to start the welding arc.

A mask for TIG welding must therefore ensure high sensitivity to low amperages.

The sensitivity depends on the quality of the sensors, the number of sensors and on the quality of the electronics. But it is not always true that the maximum sensitivity is the best. If the welder works near others operators, it may happen that their arc interferes with the mask, obscuring it.

Therefore it' opportune to adjust the sensitivity to avoid this kind of problems.

All GCE masks have the sensitivity adjustment.

#### RECOMMENDED SHADES

WELDING	А	MP	ERE	Ē						·							·	·				·	•	
PROCESS	C	,5	1 2	,5 	5 	10 1	5 2	20 3	30 4	40	50 <i>6</i>	50 10	00 12	25 1	50 17	75 200	225 2	50 2	75 30	00 3: 	50 40	0 45	0 500	
COVERED ELECTRODE	Shac	hade 9 Shade 10 Shade 11 Shade 12 S				Shad	le 13		1	4														
MIG PLATE WELDING	Shac	hade 10 Shade 11 Shade 12					Shad	le 13		1	4													
TIG	Shac	le 9						Shac	de 10	Sha	de 11		Shad	le 12		Shade 13	1	Shac	de 14					
MAG	Shac	le 10										Shad	le 11	Shad	de 12	Shade 13	1			Shad	le 14		Shade	15
ARC GOUGING	Shac	Shade 10 Shade 11 Shade 12 13						14		15														
PLASMA CUTTING	Shac	hade 11 Shade 12 Shade 13																						
PLASMA WELDING	4	5	6	7	8	9	10		11		12			13			14						15	







# **Auto Darkening Goggle**

The SUPERVISOR Auto Darkening Goggle is a new generation product for labour protection that ensures safety and the maximum comfort to the worker. The SUPERVISOR Auto Darkening Goggle can work as a standard safety goggle and then automatically change its shade stage to protect your eyes from hazardous lights or harmful rays.



#### EN-379

Shades and sensitivity can be adjusted by means of a control panel. Lightweight and simple frame, tight fit, and extra comfort will reduce the pressure on your face throughout the working time. Highly Effective for operations of Grinding, supervision of Arc Welding, Spot Welding, Gas Cutting & Welding, Plasma Cutting, Gouging, etc.

#### HELMETS WITH LCD FILTER FEATURES

- Optical Class: 1/1/1/2
- Shade Adjustment # 5/11
- Sensitivity with 5 steps Adjustment
- Lightweight (only 107 g)
- Ultrasoft rubber pad
- Low Battery Alarm
- Auto power off
- Free hands for your operations
- · Perfect fit also with hard hat
- Storage case included
- Neck cord, spare batteries and spare protection lens included

#### **GENERAL APPLICATIONS**

Supervision, inspection and control of Cutting & Welding operations.





Storage case

Art. Nr.	Descr.	Qt.	Stock class
19007000	GOGGLE SUPERVISOR LCD 5-11	1	







#### WE CAN MAKE YOUR WORK ENVIRONMENT HEALTHIER AND MORE COMFORTABLE

# **AACH III W**

 $Mach\,III\,W ind\ is\ an\ integrated\ protection\ system\ which\ combines\ the\ high\ technology\ of\ a\ LCD\ filter\ plus\ digital\ controls\ with\ the\ advanced$ Powered Air Purifying Respirator (PAPR) with rechargeable battery. The ventilation system, the connection equipment and the lightweight helmet ensure comfort and ease of use rarely seen before.

The new LCD filter INFOTRACK allows control of welding time and environment's temperature.





Belt clip for mask hanging included



EXTRAORDINARY HEADGEAR Very light and Durable. Easy to mount and adjust. The better weight's distribution reduces the pressure on the head

**MMA** 









Art. Nr.

19009001

Descr.

Mach III WIND - INFOTRACK

Ot.

Stock class



Welding Time Measurement



External button for grinding



Acoustic and vibration alarm where ventilation is not effective. System alerts operator to a problem even in noisy working areas!

#### HELMETS WITH LCD FILTER FEATURES

- OPTICAL CLASS: 1/1/1/2
- Large viewing area for maximum comfort (97×60 mm)
- 4 sensors
- Environment's Temperature measurement.
- Welding Time tracking and Alarm setting.
- Digital regulation of all the parameters on a LCD display
- WELD-mode (# 9-13) suitable for MIG/TIG welding
- CUT-mode (# 5-9) suitable for Oxygas cutting and welding
- X-mode (# 9-13 high sensitive) suitable for Plasma and all the processes requiring high sensitivity
- GRIND-mode (external button) suitable for grinding operations
- Sensitivity adjustment
- Delay time adjustment (dark to light time)
- Headgear light and fully adjustable
- Weight: Helmet 610g

#### **VENTILATION UNIT FEATURES**

- Particle filter certified EN 12941 TH2 P(SL) (typically 2 months use)
- Odour filter with active charcoal (optional).
- Acoustic and vibration alarm where ventilation is not effective
- Adjustable ventilation air flow (160 l/min or 200 l/min)
- Rechargeable battery (typical 10 hours use)
- Battery Recharge time: 3 hours
- Battery charger included
- Supplied with belt and shoulder bands (for a better comfort)
- Flow meter included to verify actual system ventilation
- Air hose length: 87cm
- Weight: PAPR 1350g Air hose 220g

WARRANTY: 24 months



# LCD AUTODARKENING HELMETS WITH RESPIRATORY PROTECTION DEVICE

# MACH III WIND - SPARE PARTS FOR HELMET







Art. Nr.	Descr.	Qt.	Stock class
19009013WTK	Helmet blue MACH III WIND - INFOTRACK	1	
19009015TK	LCD filter MACH III - INFOTRACK	1	
WP110350	Battery for LCD filter (CR2450 Lithium battery)	1	
19009017	External Protective Lens flat MACH III - old model	10	
19009017C	External Protective Lens curved MACH III - INFOTRACK	5	
19009019	Internal Protective Lens 63×106×1	10	
19009028C	Rubber gasket for curved glass - INFOTRACK	1	
19009029C	Front filter frame blue for curved glass - INFOTRACK	1	
19009038	Heat protection frame for LCD (aluminium)	1	
WP110347TK	Headgear MACH Comfort - new model	1	
14008384	Sweatband for headgear MACH (old) and MACH Comfort (new)	5	
19009021	Face sealing hood in blue cotton	1	
19009011	Air hose (87 cm) complete with connectors and cover (blue)	1	
	Magnifying lenses on request		

# MACH III WIND - SPARE PARTS FOR VENTILATION UNIT

Art. Nr.	Descr.	Qt.	Stock class
19009007	Ventilation unit cover	1	
19009008	Sparks filter	1	
19009005	Pre-filter	10	
19009003	Particle filter TH2 P(SL)	1	
19009009	Odour filter with active charcoal (optional)	1	
19009027	Ventilation unit (Motor + cover)	1	
19009023	Battery for ventilation unit	1	
19009025	Battery Charger Single	1	
19009030	Belt set	1	
19009031	Belt cushion	1	
19009032	Shoulder strap	1	





### LCD AUTODARKENING HELMETS WITH RESPIRATORY PROTECTION DEVICE

# OPTO WIND

The mask OPTO WIND is a new generation product for labor protection. The device combines the LCD technology for eye protection with an ultralight Powered Air Purifying Respirator with a replaceable, high efficiency particle filter system and ensure the maximum comfort to the worker.

The visual alarm and the multiple alarm (audible, visual and vibration) alert the operator also in noisy workplaces.





Supplied in a sporty bag



Air flow indicator included

# Ultralight Ventilation Unit !! Only 920 g (no need of shoulder strap)



Airflow adjustment with 8 steps (170 to 240 l/min)



Visual, audible and vibrating alarm





#### HELMET WITH LCD FILTER TECHNICAL DATA

THE MITTER THE TECHNICAL DATA					
OPTICAL CLASS:	1/3/1/×				
Viewing Area:	94×35 mm				
Arc sensing:	2 sensors				
Reaction time:	0,1 msec				
Dark shade:	# 9-13 internal adjustment				
Sensitivity:	Internal adjustment				
Delay time:	Internal adjustment				
Grinding mode:	Internal button				
Warranty:	24 months				

# VENTILATION UNIT TECHNICAL DATA

VENTILATION ONLY TECHNICA	VENTILATION ONLY TECHNICAE DATA					
Particle filter:	Certified EN 12941 TH2 P R SL (typically 180 hours use)					
Air flow:	8 steps adjustment (170 to 240 l/min)					
Alarms:	Acoustic, Visual and Vibrating					
Operating time:	Min. 8 hours (typical 9 hours at 180 l/min)					
Battery:	Replaceable and rechargeable					
Charging cycles:	>350 (4/6 hours recharging time)					
Battery charger:	EURO type included					
Air flow indicator:	Included					
Weight:	920 g (no need of shoulder strap)					

Art. Nr.	Descr.	Qt.	Stock class
WP11420	OPTO WIND	1	



# LCD AUTODARKENING HELMETS WITH RESPIRATORY PROTECTION DEVICE

# **OPTO WIND - SPARE PARTS FOR HELMET**

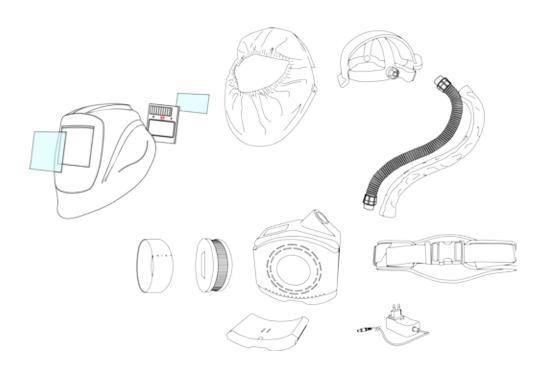


Art. Nr.	Descr.	Qt.	Stock class
WP11420-02	Helmet OPTO WIND	1	
WP11420-03	LCD filter OPTO WIND	1	
548980003920	External Protective Lens 90×110	10	
WP110344	Internal Protective Lens 51×107	10	
WP11420-06	Headgear with air duct and sweatband assembly	1	
WP11420-16	Sweatband	2	
WP11420-05	Face sealing hood	1	
WP11420-07	Air hose complete with connectors and cover	1	



#### **OPTO WIND - SPARE PARTS FOR VENTILATION UNIT**

Art. Nr.	Descr.	Qt.	Stock class
WP11420-15	Ventilation unit cover	1	
WP11420-08	Pre-filter	10	
WP11420-09	Particle filter TH2 P R SL	1	
WP11420-10	Ventilation unit complete with cover	1	
WP11420-11	Battery for ventilation unit	1	
WP11420-12	Battery Charger Single EURO Type	1	
WP11420-13	Belt set	1	
WP11420-14	Air flow indicator	1	





#### LCD AUTODARKENING HELMETS

#### MACH III DIN 9-13 - TIG SENSITIVE, PLASMA, OXYGAS - DIGITAL FILTER INFOTRACK



LCD mask designed for satisfy the most exigent welders. Suitable for TIG, PLASMA and OXYGAS cutting and welding. The new DIGITAL LCD filter INFOTRACK allows to control lots of functions and parameters (including **working time measurement and environment's temperature**.) It comes with the new comfortable headgear. This helmet is one of the most performant on the market.











#### IT WORKS WITH BATTERIES + SOLAR CELLS

#### **TECHNICAL DATA**

OPTICAL CLASS:	1/1/1/2 (one of the best on the market)
Viewing Area:	97×60 mm (max comfort)
Sensing:	4 sensors
Reaction time:	0,05 msec
Sensitivity:	digital adjustment
Delay time:	digital adjustment
WELD mode:	# 9-13 (MIG/TIG)
CUT mode:	# 5-9 (OXYGAS)
X mode:	# 9-13 (PLASMA and high sensitivity processes)
X mode: GRIND mode:	# 9-13 (PLASMA and high sensitivity processes) external button
	•
GRIND mode:	external button
GRIND mode: Optionals:	external button Magnifying lenses

Art. Nr.	Descr.	Qt.	Stock class
19009000	MACH III XXL TIG SENSITIVE - PLASMA - OXYGAS	1	

#### **ECLIPSE 3 DIN 9-13 - TIG SENSITIVE**



Provided with 4 sensors and an incredibly large view area for a great improvement of working conditions. Very high quality performance.

Extraordinary professional TIG mask extra sensitive at an incredible price!







Certified by DIN CERTCO (Germany)

#### IT WORKS WITH BATTERIES + SOLAR CELLS

#### **TECHNICAL DATA**

OPTICAL CLASS:	1/1/1/2 (one of the best on the market)
View Area:	100×60 mm Extra large
Sensing:	4 sensors
Reaction time:	0,1 msec
Dark Shade:	# 9-13 internal adjustment
Sensitivity:	internal adjustment stepless
Delay time:	from 0,1sec to 0,9sec internal adjustment stepless
Grinding mode:	internal button
Headgear:	Multiple positions adjustment
Standards:	EN-379 (filter) EN-175 (helmet)
Warranty:	24 months (+6 months)

comming soon new headgear with adjustment nose-filter distance

 Art. Nr.
 Descr.
 Qt. class
 Stock class

 0764703E
 ECLIPSE 3 DIN 9-13 - TIG SENSITIVE
 1



#### LCD AUTODARKENING HELMETS

#### **MACH II DIN 9-13 - TIG SENSITIVE**



LCD mask specifically designed for TIG welding, it works with batteries and solar cells. Thanks to the very quick reaction time (0,05msec), the double LCD layer filter and the new comfortable headgear it provides a very high quality performance.







#### IT WORKS WITH BATTERIES + SOLAR CELLS

#### **TECHNICAL DATA**

OPTICAL CLASS:	1/1/1/2 (one of the best on the market)
View Area:	97×47 mm double LCD layer
Sensing:	2 sensors
Reaction time:	0,05 msec
Dark shade:	# 9-13 external adjustment
Sensitivity:	internal adjustment stepless
Delay time:	from 0,1sec to 1,0sec internal adjustment stepless
Grinding mode:	internal adjustment disabling sensors
Optionals:	Magnifying lenses
Headgear:	New model COMFORT Multiple positions adjustment
Standards:	EN-379 (filter) EN-175 (helmet)
Warranty:	24 months

Art. Nr. Descr. Qt. Stock class

19008001 MACH II DIN 9-13 - TIG SENSITIVE 1

#### **OPTOVARIO DIN 9-13 SE - TIG SENSITIVE**



**VIEWING AREA 40% WIDER** 

LCD mask with one of the best design on the market. Suitable for TIG welding, it works only with solar cells (no batteries) and it is covered by a very long warranty. New filter with digital display with indications about delay, DIN and sensitivity adjustment. Wraparound design ideal for working in tight spaces (plumbers).







# IT WORKS WITHOUT BATTERIES

#### TECHNICAL DATA

OPTICAL CLASS:	1/1/1/2 (one of the best on the market)
View Area:	96×48 mm
Sensing:	2 sensors
Reaction time:	0,1 msec
Dark shade:	# 9-13 external adjustment
Sensitivity:	external adjustment
Delay time:	internal adjustment
Grinding mode:	disabling sensors
Helmet:	designed to ease the work in tight spaces
Headgear:	Multiple positions adjustment (including nose-filter
	distance)
Standards:	EN-379 (filter) EN-175 (helmet)
Warranty:	36 months (+6 months)

Art. Nr. Descr. Qt. Stock class
WP11444SEU OPTOVARIO DIN 9-13 SE - TIG SENSITIVE 1



# **LCD MASKS**

# **ECLIPSE II DIN 9-13**



Very reliable mask for MIG/Electrode welding, working only with solar cells (no batteries), with a good view area and a very competitive price.





• Certified by DIN CERTCO (Cermany)

#### IT WORKS WITHOUT BATTERIES

#### TECHNICAL DATA

OPTICAL CLASS:	1/3/1/2
View Area:	92×42 mm
Sensing:	2 sensors
Reaction time:	0,1 msec
Dark shade:	# 9-13 external adjustment
Sensitivity:	internal adjustment stepless
Delay time:	from 0,1sec to 0,9sec internal adjustment stepless
Headgear:	Multiple positions adjustment
Standards:	EN-379 (filter) EN-175 (helmet)
Warranty:	24 months (+6 months)

Art. Nr.	Descr.	Qt.	Stock class
0764702E	ECLIPSE II DIN 9-13	1	

# **OPTOVARIO DIN 9-13 HQ**



LCD mask designed for MIG/Electrode welding. It works with batteries and solar cells. Good design, good view area and a very competitive price.





# IT WORKS WITH BATTERIES + SOLAR CELLS

#### TECHNICAL DATA

OPTICAL CLASS:	1/2/1/3
View Area:	97×47 mm
Sensing:	2 sensors
Reaction time:	0,1 msec
Dark shade:	# 9-13 external adjustment
Sensitivity:	internal adjustment stepless
Delay time:	from 0,1sec to 1,0sec internal adjustment stepless
Grinding mode:	disabling sensors
Headgear:	Multiple positions adjustment
Standards:	EN-379 (filter) EN-175 (helmet)
Warranty:	24 months

Art. Nr.	Descr.	Qt.	Stock class
WP11444HQ	Optovario DIN 9-13 HQ	1	



# **LCD AUTODARKENING HELMETS**

# **SPARE PARTS**

	EXTERNAL PROTECTIVE LENS	INTERNAL PROTECTIVE LENS	HEADGEAR	SWEATBAND	HELMET	NAPE CUSHION
0764702E ECLIPSE II 9-13 Q	90×110 <b>548980003920</b> 10	47 × 103,5 <b>WP11474S</b> 10	<b>HG2001</b> 1	<b>WP11476</b> 5	<b>AS3000F</b> 1	
WP11444SEU OPTOVARIO 9-13 SE Q	100 × 120 (SHAPED) <b>WP11500</b> 10	90 × 110 <b>548980003920</b> 10	<b>WP11504</b> 1	<b>WP11420-16</b> 2	<b>WP11502</b> 1	
WP11444HQ OPTOVARIO 9-13HQ Q	100 × 122 (SHAPED) <b>WP110346</b> 10	51 × 107 <b>WP110344</b> 10	<b>WP110347</b> 1	<b>14008384</b> 5		
0764703E ECLIPSE 3 9-13 Q	114 × 133 <b>WP110360</b> 5	66 × 106 <b>WP110330</b> 5	<b>HG2001</b> 1	<b>WP11476</b> 5	<b>AS4001F</b> 1	
19008001 MACH II DIN 9-13	100 × 122 (SHAPED)	51 × 107 <b>WP110344</b>	(old model) <b>WP110347</b> 1	14008384	14008382	(old model) <b>WP110349</b> 1
Q	<b>WP110346</b> 10	10	(COMFORT model) <b>WP110347TK</b> 1	5	1	
19009000 MACH III DIN 9-13 Q	FLAT (old model) <b>19009017</b> 10	63 × 106 × 1 <b>19009019</b>	(old model) <b>WP110347</b> 1	14008384	(old model) <b>19009013</b> 1	(old model) <b>WP110349</b> 1
	CURVED (Infotrack) <b>19009017C</b> 5	10	(COMFORT model) <b>WP110347TK</b> 1	5	(Infotrack) <b>19009013TK</b> 1	



# WHAT FEATURES DEFINE THE QUALITY OF A LCD MASK?

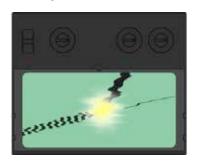
#### THE OPTICAL CLASS

The optical class is defined by the standard EN-379 and is one of the most important characteristics to look at when choosing a LCD mask. It is composed of 4 values which corresponds to the rating of 4 optical features.

The rating may be 1 (excellent), 2 (good) or 3 (sufficient).

#### Feature 1: OPTICAL CLASS

This is the evaluation of LCD surface. Is the view perfectly regular?
Are there image's distortions?



#### **Feature 2: LIGHT DIFFUSION**

This is the evaluation of homogeneity of LCD in dark status.

Are there areas lighter or darker?



#### Feature 3: LIGHT TRANSMITTANCE

This is the evaluation of Light Transmittance.

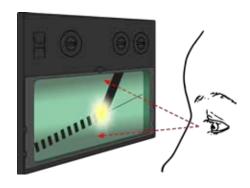
Does the light pass through the filter without spreading in a bigger halo?



#### Feature 4: ANGULAR DEPENDENCY

This is the evaluation of the darkening variation depending on the viewing angle.

Looking through the filter in different directions (for instance during overhead welding) is the dark status always the same?



#### FOR EXAMPLE A FILTER WITH INDICATION 1/1/1/2 WILL HAVE:

- Excellent Optical Class (1)
- Excellent Class of light Diffusion (1)
- Excellent light transmission (1)
- Good angular dependence (2)

#### SWITCHING TIME FROM CLEAR TO DARK STATUS.

Usually the switching time is 0,02-0,05 msec. This is very good and possible only with LCD filters working with batteries support. The LCD filters working only with solar cells may reach a switching time 0,1-0,3 msec, anyway very good.

0,1 msec is a tenth of a thousandth of a second, a speed practically imperceptible to the human eye.

This feature is clearly indicated in our catalogue.

#### THE SOLAR CELLS WHAT ARE THEY FOR?

The solar cells provide the power to the LCD filter.

On some models they can be the unique power supply.

The strength is that it's never necessary to replace the batteries. The weakness is that the switching time cannot be less than 0,1 msec (anyway very good).

On some other models they can be the additional power to the batteries.

The strength is that the switching time can be less than 0,1 msec (also 0,05 msec) and a longer batteries lifetime.

The weakness is that the user is forced to replace the batteries when necessary.



# **HELMETS & SHIELDS**

# EUROPE (90 imes 110) - VERONA (75 imes 98) - LYON (51 imes 108)



Extraordinary! With the Europe, Verona and Lyon range you do not commit to flip front or fixed front style at the time of purchase.

The style can be changed after purchase with the cassette for flip option, which can be quickly and easily assembled onto the mask without the need for any special tools. In this way the inventory of complete helmets can be reduced by holding a small stock of cassettes.

The headgear is fully adjustable for maximum comfort.

Supplied without lenses.

#### **FEATURES**

- Material: Polypropylene
- Dimensions: 210×345×180 mm
- Weight: 420 g
- Headgear: fully adjustable for maximum comfort
- Standard: EN 175







Art. Nr.	Descr.	View Area	Qt.	Stock class
548910000017	Helmet Europe	90×110 mm	5	
WP11064	Helmet Verona	75×98 mm	5	
G100223	Helmet Lyon	50×108 mm	5	

#### **OPTIONALS - FLIP SYSTEM CASSETTE**

Art. Nr.	Descr.	Qt	Stock class
WP11065E	Flip for helmet Europe (90×110)	1	
WP11065	Flip for helmet Verona (75×98)	1	
G100223F	Flip for helmet Lyon (50×108 - 50×105)	1	

#### **SPARE PARTS**

Art. Nr.	Descr.	Qt.	Stock class
548100000020	Headgear for all models	1	



Qt.

Stock class

#### **HELMETS & SHIELDS**

#### **EURO (90 × 110 mm)**



The helmet EURO is an strong helmet made from polyamide fiberglass-reinforced which prolong durability. Provided with comfortable headgear.

#### FFATURES

• Material: Polyamide fiberglass-reinforced

**View Area** 

90×110 mm

• Dimensions: 380×260×210 mm

Weight: 440 g

Heat resistance: up to 140°C

• Standard: EN-175

COMFORT	$(75 \times 98)$	



The helmet COMFORT is a cellulose fibre helmet with a professional headgear adjustment system which can be modified while wearing the helmet. It is particularly suitable for those application where the user is unable to hold the mask with the hands.

#### Supplied without lens.

#### **FEATURES**

Descr.

Helmet EURO

- Material: Cellulose fiber
- Dimensions: 325×210×178 mm
- Weight: 320 g
- Standard: EN-175
- PPE Category: II

Art. Nr.	Descr.	View Area	Qt.	Stock class
548914011003	Helmet COMFORT	75×98 mm	10	

#### **VISOR**



Visor is a face shield for eyes and face protection. Standard headgear, with the possibility to hold clear shield for grinding, or shade 5 shield for cutting and welding.

- Standard: EN-166
- PPE Category: III
- Antiscratch (mod. DIN 5)
- IR&UV Protections (mod. DIN 5)
- UV Protection (mod. CLEAR)



Art. Nr.	Descr.	Standards	Qt.	Stock class
WP14032	Visor Holder		1	
WP14034	Visor Shield Clear 2 mm	EN 166 - EN 170	1	
WP14037	Visor Shield Clear 1 mm	EN 166 - EN 170	1	
WP14036	Visor Shield DIN5 2 mm	EN 166 - EN 169 - EN 175	1	



#### **HAND SHIELDS**

#### MM1010 (GLASS 90 × 110 mm)



Hand shield in polyamide provided with quick coupling handle.

#### **FFATIIRES**

- Material: polyamide
- Dimensions: 240×395×98 mm
- Weight 305 g
- Standard: EN-175

Art. Nr.	Descr.	View area	Qt.	Stock class
548910000016	Hand shield MM1010	90×110 mm	1	

#### **EU2000 (GLASS 90 × 110 mm)**



EU2000 is a hand shield made from ABS plastic. The special shaped design is studied to protect the face sides and the hand.

#### FFATIIRES

- Material: ABS plastic
- Dimensions: 450×260×170 mm
- Weight: 390 g
- Standard: EN-175

Art. Nr.	Descr.	View area	Qt.	Stock class
17001801	Hand shield EU2000	90×110 mm	1	

### STR SIMPLE (GLASS $50 \times 105 \text{ mm}$ )



STR SIMPLE is a black nylon hand shield showing good heat resistance in the event of accidental contact with hot electrodes.



Art. Nr.	Descr.	View Area	Qt.	Stock class
G100202	Hand shield STR SIMPLE	50×105 mm	1	



#### HAND SHIELDS

#### ELETTRA (GLASS 75 × 98 mm)





ELETTRA is a hand shield made from cellulose fiber. It is one of the most popular masks for the use with small-medium machines (up to 250A). The new and exclusive "quick glass" fixing system allows a very speedy change of the 75×98 mm lenses without the need of any tool. No metallic rivets are used in the production process!

Supplied without lens.

#### **FEATURES**

- Material: Cellulose fiber
- Dimensions: 75×255×378 mm
- Weight: 260 g
- Standard: EN-175
- PPE Category: II



Art. Nr.	Descr.	View Area	Qt.	Stock class
548914011001	Hand shield ELETTRA	75×98 mm	20	

#### VULCAN (GLASS 75 × 98 mm)



VULCAN is a professional hand shield manufactured from cellulose fiber. It has a specific design with inclined throat protection making the mask suitable for welding in uncomfortable positions. It is suitable for all kind of electrode welding and MIG/MAG applications.

The new and exclusive "quick glass" fixing system allows a very speedy change of the 75×98 mm lenses without the need of any tool. No metallic rivets are used in the production process!

#### Supplied without lens.

#### **FEATURES**

- Material: Cellulose fiber
- Dimensions: 260×390×81 mm
- Weight: 320 g
- Standard: EN-175
- PPE Category: II



Art. Nr.	Descr.	View Area	Qt.	Stock class
548914011002	Hand shield VULCAN	75×98 mm	20	

#### GOLIA (GLASS 75 × 98 mm)



GOLIA is an OVERSIZED hand shield for professional use which guarantee the maximum protection to the side of the face and the throat. Manufactured in cellulose fiber, suitable for all kind of MIG and electrode welding. **Supplied without lens.** 

#### **FEATURES**

- Material: Cellulose fiber
- Dimensions: 260×390×126 mm
- Weight: 300 g
- Standard: EN-175
- PPE Category: II

Art. Nr.	Descr.	View Area	Qt.	Stock class
WP11060	Hand shield GOLIA	75×98 mm	5	



# **SPARE PART LENSES**

# LENSES 75 $\times$ 98 mm

#### IR & UV PROTECTION



Art. Nr.	Material	Shade	Color	Dimension	Qt. Stock class
WP11021	Glass	Clear	Clear	75×98 mm	10
WP11072	Glass	DIN9	Green	75×98 mm	10
WP11074	Glass	DIN10	Green	75×98 mm	10
WP11076	Glass	DIN11	Green	75×98 mm	10
WP11078	Glass	DIN12	Green	75×98 mm	10
WP11080	Glass	DIN13	Green	75×98 mm	10
WP11066	Glass	DIN10	SILVERED MIRROR	75×98 mm	10
WP11067	Glass	DIN11	SILVERED MIRROR	75×98 mm	10
WP11022	Glass	DIN12	SILVERED MIRROR	75×98 mm	10
WP11023	Glass	DIN13	SILVERED MIRROR	75×98 mm	10

# LENSES 90 imes 110 mm

#### **IR & UV PROTECTION**



Art. Nr.	Material	Shade	Color	Dimension	Qt.	Stock class
548980003921	Glass	Clear	Clear	90×110 mm	10	
548980055011	Glass	DIN8	Green	90×110 mm	10	
548980055012	Glass	DIN9	Green	90×110 mm	10	
548980055013	Glass	DIN10	Green	90×110 mm	10	
548980056013	Glass	DIN11	Green	90×110 mm	10	
548980050013	Glass	DIN12	Green	90×110 mm	10	
548980057014	Glass	DIN13	Green	90×110 mm	10	
548980057015	Glass	DIN14	Green	90×110 mm	10	
548900200100	Glass	DIN10	SILVERED MIRROR	90×110 mm	10	
548900200110	Glass	DIN11	SILVERED MIRROR	90×110 mm	10	
548900200120	Glass	DIN12	SILVERED MIRROR	90×110 mm	10	
548900200130	Glass	DIN13	SILVERED MIRROR	90×110 mm	10	

#### LENSES 50 $\times$ 105 mm

IR & UV PROTECTION



Art. Nr.	Material	Shade	Color	Dimension	Qt.	Stock class
G100208	Polycarbona	ate Clear	Clear	50×105 mm	10	
G100209	Glass	Clear	Clear	50×105 mm	10	
G100216	Glass	DIN5	Green	50×105 mm	10	
G100210	Glass	DIN9	Green	50×105 mm	10	
G100211	Glass	DIN10	Green	50×105 mm	10	
G100212	Glass	DIN11	Green	50×105 mm	10	
G100213	Glass	DIN12	Green	50×105 mm	10	
G100214	Glass	DIN13	Green	50×105 mm	10	

# LENSES 51 $\times$ 108 mm (2" $\times$ 41/4")



Art. Nr.	Material	Shade	Color	Dimension	Qt. Stock class
55799	Polycarbona	te Clear	Clear	51×108 mm (2" × 41/4	") 10
55700	Glass	Clear	Clear	51×108 mm (2" × 41/4	") 10
55710	Glass	DIN10	Green	51×108 mm (2" × 41/4	") 10
55711	Glass	DIN11	Green	51×108 mm (2" × 41/4	") 10
55712	Glass	DIN12	Green	51×108 mm (2" × 41/4	") 10

# LENSES 83 $\times$ 108 mm (3½" $\times$ 4½")





Art. Nr.	Material	Shade	Color	Dimension	Qt.	Stock class
55699	Polycarbona	te Clear	Clear	83×108 mm (31/4"	× 4½) 10	



#### **DIDO**



DIDO is a goggle combining a very modern and trendy design with the maximum attention to wearability and protection. The legs can be adjusted in lenght and inclination and are provided with soft terminal tips to eliminate local pressure and increase fit.

Provided with side protection. Impact-resistant polycarbonate lenses.

- Optical class: 1
- Weight: 28 g
- Antiscratch
- Antifog (mod. DIN 5)
- IR&UV Protection (mod. DIN 5)
- UV Protection (mod. CLEAR)
- · Adjustable in lenght and inclination
- PPE Category: II









Art.Nr.	Descr.	Standards	Qt.	Stock class
WP14080	DIDO DIN5	EN 166, EN 169, EN 175	10	
WP14082	DIDO CLEAR	EN 166, EN 170	10	



FLEXER is an extraordinary goggle with aggressive design and attention to detail. The curved profile with wraparound lenses provides extra coverage around the eyes and the extremely flexible frame fits the face without adjustments. Provided with anti-slip nose pad in soft rubber. Impact-resistant polycarbonate lenses. Easier to stow than normal goggles.

- Optical class: 1
- Weight: 31 g
- Antiscratch
- Antifog (mod. DIN 5)
- IR&UV Protection (mod. DIN 5)
- UV Protection (mod. CLEAR)
- PPE Category: II









Art.Nr.	Descr.	Standards	Qt.	Stock class
WP14028	FLEXER DIN5	EN 166, EN 169, EN 175	10	
WP14029	FLEXER clear	EN 166, EN 170	10	

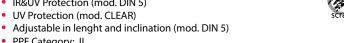
# **PANORAMIC**



**PANORAMIC** google has a wide field of view. This is the perfect solution for applications where front and side protection is required. High quality at an affordable price, ideal in a tough environment. Protection from the side screens.

- Optical class: 1
- Weight: 34 g
- Antiscratch
- IR&UV Protection (mod. DIN 5)

- PPE Category: II









Art.Nr.	Descr.	Standards	Qt.	Stock class
WP14021	PANORAMIC DIN5	EN 166, EN 169, EN 175	10	
WP14022	PANORAMIC CLEAR	EN 166, EN 170	10	

#### **VISUAL ROUND**



**VISUAL ROUND** combines comfort with practicality.

Equipped with tilting side shields with slits for ventilation.

The 50 mm round lenses made from glass are quickly replaceable by the screw on the top of the goggle.

- Optical class: 1
- Weight: 46 g
- R

- PPE Category: II

Replaceable lenses diam. 50mm in glass	an scratc
Antiscratch	scratci
IR&UV Protection	

Art.Nr.	Descr.	Standards	Qt.	Stock class
17008790	VISUAL ROUND DIN5	EN 166, EN 169, EN 175	5	



#### **TRADITIONAL**



A traditional style google with lenses in glass for use in welding and grinding applications. Easy replacement of lenses by the screw in the centre of the goggle. Provided with tilting side protection against spatters with vertical slits for ventilation.

- Optical class: 1(CLEAR) 2 (DIN 5)
- Weight: 54 g
- Replaceable lenses in glass
- IR&UV Protection (mod. DIN 5)
- PPE Category: II



ITIONAL DIN5	EN 166, EN 169, EN 175	1	
ITIONAL DIN5 in blister	EN 166, EN 169, EN 175	1	
ITIONAL CLEAR	EN 166	1	
ITIONAL CLEAR in blister	EN 166	1	
1	TIONAL DIN5 in blister TIONAL CLEAR	TIONAL DIN5 in blister EN 166, EN 169, EN 175 TIONAL CLEAR EN 166	TIONAL DIN5 in blister         EN 166, EN 169, EN 175         1           TIONAL CLEAR         EN 166         1

#### SPARE PARTS

Art.Nr.	Descr.	Qt.	Stock class
WP14052	1 pair Spare lenses DIN5	5	
WP14050	1 pair Spare lenses CLEAR	5	

#### **VISUAL SWIM**



**VISUAL SWIM** is a bocal style goggle with frame in aluminium with borders in soft rubber and equipped with side vents.

The 50mm round lenses made from glass are easy replaceable by screw-system. The excellent fit to the face is provided by the adjustable elastic headband.

- Optical class: 1
- Weight: 91 g
- Replaceable lenses diam. 50mm in glass
- Side vents



Art.Nr.	Descr.	Standards	Qt.	Stock class
17007170	VISUAL SWIM DIN5	EN 166, EN 169	1	
G100108EMB	VISUAL SWIM DIN5 in blister	EN 166, EN 169	1	

#### **VISUAL FLIP METAL**



**VISUAL FLIP METAL** is a goggle equipped with a very resistant frame in aluminium with borders in soft rubber and with side vents. The lenses are made from of glass and can be replaced. The flip-up device allows quick switch of lenses for different applications.

- Weight: 109 g
- Replaceable lenses diam. 50mm in glass
- Side vents
- IR&UV Protection



Descr.StandardsQt.Stock classVISUAL FLIP METAL DIN5EN 166, EN 169, EN 1751

### **VISUAL FLAME**



**VISUAL FLAME** is the classic flame cutting/welding goggle. The frame is made of soft and heat resistant PVC with vents and elastic headband. The lenses are made of glass and can be easily replaced.

Comfortable, light and inexpensive.

- Optical class: 1
- Weight: 64 g
- Replaceable lenses in glass
- Antiscratch
- IR&UV Protection (mod. DIN 5)
- PPE Category: II

	Art.Nr.	Descr.	Standards	Qt.	Stock class
	548914014011	VISUAL FLAME DIN5	EN 166, EN, 167, EN 168, EN 169, EN 175	1	
	548914014013	VISUAL FLAME CLEAR	EN 166	1	







#### **VISUAL FLIP**



**VISUAL FLIP** offers total visibility or DIN5 protection without removing the goggles. The nylon frame is very resistant and is equipped with side protections and flip-up device.

- The fixed lenses are in polycarbonate while the flip-up lenses are in glass (not replaceable).
- Optical class: 1
- Weight: 78 g
- Antiscratch
- IR&UV Protection
- PPE Category: II





Art.Nr.	Descr.	Standards	Qt.	Stock class
WP14064	VISUAL FLIP DIN5	EN 166, EN 169, EN 175	1	

#### **BOMBER**



Extraordinary goggle with curved and sporty design and side protection specifically designed to have the maximum view. Strong and wide legs and adjustable in length and inclination. Impact-resistant polycarbonate lenses.

- Optical class: 1
- Weight: 36 g
- Antiscratch
- UV Protection
- Adjustable in lenght and inclination
- PPE Category: II





Art.Nr.	Descr.	Standards	Qt.	Stock class
WP14061	Bomber TR clear	EN 166, EN 170	10	

#### **PANORAMA**



**PANORAMA** is a goggle for protection against projection of particles. It can be uses in conjuction with prescription glasses.

Ideal for use where the goggle must be removed frequently. The big side vents offer maximum comfort even when worn for long time. Lenses are in polycarbonate.

- Optical class: 1
- Weight: 43 g
- UV Protection
- Side vents
- PPE Category: II



Art.Nr.	Descr.	Standards	Qt.	Stock class
17006500	PANORAMA CLEAR	EN 166, EN 170	10	

#### SKI



**SKI** is a mask/goggle for professional use.

The indirect ventilation with air intakes keeps the mist formation to a minimum and allow protection against large dust particles, droplets and splashes of liquid.

The essential frame with the adjustable elastic headband is ideal for each type of fit and allows the use in conjustion with prescription glasses.

Lenses are in polycarbone.

- Optical class: 1
- Weight: 71 g
- Antiscratch
- Antifog
- PPE Category: II





Art.Nr.	Descr.	Standards	Qt. Stock class
17004430	SKI CLEAR	EN166	10



#### **SKI FLIP**



**SKI FLIP** is a mask/goggle suitable for multiple operations without changing googles! Fitted with 4 vents (diam. 2,5mm) to avoid misting.

The soft nylon frame with elastic headband is fully adjustable to each type of fit.

The flip-up device allows quick switching from clear to shaded lenses.

Both framed lenses and flip-up lenses are in polycarbonate diameter 50 mm and are replaceable.

- Optical class: 1
- Weight: 133 g
- Replaceable lenses
- Antiscratch
- IR&UV Protection
- IR&UV Protection
- PPE Category: II

Art.Nr.	Descr.	Standards	Qt.	Stock class
17007220	SKI Flip DIN5	EN166, EN 169, EN 175	1	
G100137EMB	SKI Flip DIN5 in blister	EN166, EN 169, EN 175	1	

#### VISUAL SQUARE DIN5 (50 × 105 mm)



**VISUAL SQUARE** is a mask/goggle suitable for multiple operations fitted with 4 vents to avoid misting and rectangular viewing area  $50 \times 105$  mm.

The soft nylon frame with elastic headband is fully adjustable to each type of fit.

The flip-up device allows quick switching from clear to shaded lenses. Lenses are replaceable.

- Optical class: 1
- Weight: 171 g
- Replaceable lenses
- IR&UV Protection



Art. Nr.	Descr.	Standards	Qt.	Stock class
09002002	Visual Square DIN5	EN 166	1	
G100216	Glass DIN5 50×105 mm spare part		10	

#### **COVER PROF DIN5**

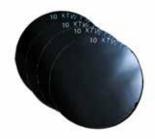


**COVER PROF** is a complete system to protect your head and eyes. It combines the practicality of a goggle with flip/up (clear + DIN5 lens) and a leather hood for head protection in an unique device. it provides protection for neck, throat, face and head while vents avoid lens misting. The lenses are replaceable.

- Optical class: 1
- Weight: 321 g
- Replaceable lenses
- Antiscrach
- IR&UV Protection
- PPE Category: II



#### **LENSES ROUND 50 MM**



Art. Nr.	Material	Shade	Color	Dimensions	Qt.	Stock class
548980000050	Glass	Clear	Clear	Diam. 50 mm	10	
548980050102	Glass	DIN 4	Green	Diam. 50 mm	10	
548980051042	Glass	DIN 5	Green	Diam. 50 mm	10	
548980051043	Glass	DIN 6	Green	Diam. 50 mm	10	
548980051044	Glass	DIN 7	Green	Diam. 50 mm	10	
548980051045	Glass	DIN 8	Green	Diam. 50 mm	10	
548980051046	Glass	DIN 9	Green	Diam. 50 mm	10	
548980051047	Glass	DIN 10	Green	Diam. 50 mm	10	
548980051048	Glass	DIN 11	Green	Diam. 50 mm	10	



#### **WORKWEAR**

#### **JACKET CLASS**



The JACKET CLASS combines the good resistance and the high quality of Italian leather manufactured to obtain an extraordinary softness product, with a modern design and the maximum comfort.

The Jacket is equipped also with buttons protection flap with easy and quick Velcro closure (useful in case of emergency). STANDARD: UNI EN ISO 11611

• PPE Category: II



Completely hand crafted in Italy with Italian extra-soft leather and certified (one certificate copy included with each product).

Art. Nr.	Descr.	Color	Size	Qt.	Stock class
WP13024	CLASS L	White	52/L	1	
WP13026	CLASS XL	White	54/XL	1	
WP13027	CLASS XXL	White	56/XXL	1	

#### **SLEEVES**



Supplied in pairs, these leather sleeves offer maximum protection for your arms from welding spatters.

#### **AVAILABLE IN TWO VERSIONS:**

**WITH ELASTICS** - quick and easy to put on and remove with stretch armbands. **WITH STRINGS** - professional version, longer and more protective for shoulders, with drawstrings that pass behind the neck assuring stable positioning during welding.

This product must be used in conjunction with appropriate welding gloves. STANDARD: UNI EN ISO 11611

• PPE Category: II

Art. Nr.	Descr.	Color	Qt.	Stock class
WP13062	SLEEVES with ELASTICS (1 pair)	White	1	
WP13064	SLEEVES with STRINGCS (1 pair)	White	1	



#### **WORKWEAR**

#### **BALACLAVAS**





Balaclava caps, produced from flame retardant cotton PROBAN, these offer good protection from sparks emitted from welding and grinding operations. The cotton PROBAN can be washed many times and still retain its characteristics, different from standard cotton that can loose its characteristics after 2 or 3 washes. STANDARD: UNI EN ISO 11611

• PPE Category: I

Art. Nr.	Descr.	Protection	Qt.	Stock class
12064	PRO	Head, throat	1	
12068	TOTAL	Head, throat, neck, shoulders	1	



#### **APRONS**





Leather apron to protect the body from welding spatters. STANDARD: UNI EN ISO 11611  $\,$ 

PPE Category: II

Art. Nr.	Descr.	Size	Color	Qt.	Stock class
12010	Apron SMALL	60×90 cm	White	1	
12010L	Apron BIG	80×110 cm	White	1	

#### **GAITERS**



Gaiters made from leather with quick connection for foot protection against welding spatters. STANDARD: UNI EN ISO 11611

PPE Category: II

Art. Nr.	Descr.	Color	Qt.	Stock class
WP13018	Gaiters (1pair)	White	ĵ.	



#### **GLOVES**

#### **MANUCUIR – (GENERAL PURPOSE GLOVES)**



Five fingers protection gloves. Palm in cow split leather, back in cotton fabric, lining in the palm.

- EN 420
- EN 388 (1 1 1 1)
- Dexterity Level 4



Art. Nr.	Descr.	Size	Qt.	Stock class
G100330	Manucuir	10	12	

#### **MANUDOCK REINFORCED – (GENERAL PURPOSE GLOVES)**



Five fingers protection gloves. Palm in cow split leather, back in cotton fabric.

- EN 420
- EN 388 (2 3 3 1)
- Dexterity Level 3



Art. Nr.	Descr.	Size	Qt.	Stock class
G100315	Manudock reinforced	10	12	

#### **MECANO SOUPLE MEDIUM – (GENERAL PURPOSE GLOVES)**



Five fingers protection gloves with artificial fur lining. Palm in fine pig grain leather, back in pig split leather.

EN 388

- EN 420
- EN 388 (2 x 1 x)
- Dexterity Level 4



Art. Nr.	Descr.	Size	Qt.	Stock class
G100324	Mécano Souple Medium	9	12	

# MECANO SOUPLE BIG - (GENERAL PURPOSE GLOVES)



Five fingers protection gloves made from pig split leather.

- EN 420
- EN 388 (2 1 1 1)
- Dexterity Level 4



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War and		Art. Nr.	Descr.	Size	Qt.	Stock class
	1	G100313	Mécano Souple Big	10	12	
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#### **GLOVES**

#### **MUJ-SOLO**



#### SOFT LEATHER GLOVE

MUJ-SOLO is one of the best glove when it comes to protection and comfort at work. No other glove offers such a combination of softness (by grain leather), durability (by the special type of leather) and the additional "heat protection" offered by the innovative insert.

This insert is specially treated to improve its insulation properties, offering enhanced safety to the operator. Invisible seams make the glove exceptionally comfortable and extremely elegant.

The prolonged cuff offers a high degree of protection to the lower arm.

Ideal for professional repetitive use, this glove is available in either right hand or left hand versions.

- PPE Category: II
- EN 420
- EN 388 (2 1 3 2)



Art. Nr.	Descr.	Size	Qt.	Stock class
548914013005	MUJ-SOLO for Right hand	10	1	
548914013006	MUJ-SOLO for Left hand	10	1	

#### **MANUSOUD - (GLOVES FOR WELDERS)**



 $Five fingers \ protection \ gloves for \ welders \ made from \ cow \ leather \ without \ lining.$ 

- EN 420
- EN 388 (2 1 2 1)
- EN 407 (2 1 x x 2 x)
- EN 12477 Type BDexterity Level 4





 Descr.
 Size
 Qt.
 Stock class

 Manusoud 15cm
 10
 10

#### **SOUDARGON - (GLOVES FOR WELDERS)**



Five fingers protection gloves for welders made from cowsplit leather without lining.

- EN 420
- EN 388 (2 1 2 3)
- EN 407 (4 1 x x 3 x)
- EN 12477 Type B
- Dexterity Level 4





2123 41x

 Art. Nr.
 Descr.
 Size
 Qt.
 Stock class

 G100318
 Soudargon 15cm
 11
 10

#### **LUCIFER 150° – (GLOVES FOR WELDERS)**



Five fingers protection gloves for welders made from cowsplit leather with full lining in cotton and covered seams. Length 35 cm.

- EN 420
- EN 388 (2 1 4 3)
- EN 407 (3 1 3 x 3 x)
- EN 12477 Type A
- Dexterity Level 3





 Art. Nr.
 Descr.
 Size
 Qt.
 Stock class

 G100501
 Lucifer 150°C
 11
 10



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GCE Group is one of the world's leading companies in the field of gas control equipment. The headquarters are in Malmö, Sweden, and the two major supply units are located in Europe and Asia.

The company operates 15 subsidiaries around the world and employs more than 850 people. GCE Group includes four business areas – Cutting&Welding technology, Valves, Healthcare and Druva. Today's product portfolio corresponds to a large variety of applications, from single pressure regulators and blowpipes for cutting and welding to sophisticated gas supply systems for medical and electronics industry applications.

