CUTTING AND WELDING
GAS CONTROL EQUIPMENT

GCE GROUP OVERVIEW

The GCE Group has an extensive product range to serve customers within Industrial, Medical, High Purity and special gas applications.
The GCE Group offers local sales and supply companies in the following locations: Austria, Benelux, Czech Republic, France, Germany, Hungary, Italy, Poland, Portugal, Romania, Spain, Sweden, Switzerland, United Kingdom, China and Russia. In addition GCE has recently opened new sales offices in India, Middle East (Dubai), Panama and Mexico and has its main production facilities based in the Czech Republic and China. GCE has a central distribution centre based in Kladno, just north of Prague.

GLOBAL BRAND RECOGNITION

GCE is associated with leading trademarks and brands such as DruVa, Mediline, Mujelli, Propaline, Kayser, Krass, Butbro, Charledave, Propaline, Rhöna, Sabre medical, Murex, AGA, BOC, Linde and ESAB. Our quality management system is certified to ISO 9001 and our products are tested and approved by BAM, BSI, Norske Veritas, US Dot, UL, CEN, DIN and SIS.

All GCE medical production facilities have EN approvals for CE marking and an increasing number of GCE facilities has systems that have been granted approval to the environmental standard ISO 14000.

MARKET LEADERS

The GCE Group is today an europe´s leading company in the field of gas control and involved in the development and manufacturing of

all types of equipment for pressure and flow control of high pressure gases. GCE's main business was originally concentrated in the oxy-acetylene cutting and welding market. However, with almost 100 years of experience in the handling of high pressure gases, the product range has grown to include high purity and medical gas equipment.

GCE CORPORATE RESPONSIBILITY

GCE provides high quality premium products. Today's portfolio fits a large variety of applications, from pressure regulators and blowpipes for cutting and welding to sophisticated gas supply systems for medical and electronics industry applications.

HISTORY

The origins of GCE go back to the beginning of the twentieth century when oxy-acetylene cutting and welding methods were first invented. GCE itself was formed in 1987 through the merging of two gas equipment activities from the world's leading industrial gas companies into one entity.

The GCE Group has grown rapidly since its foundation and leads the restructuring of the European gas equipment industry through mergers and acquisitions. Headquarters are based in Malmö, Sweden with the Group having activities in all European markets, and developing businesses in Russia, China, India and South America.

The major Production centres are located in Europe and Asia. Worldwide in excess of 850 people are employed within the GCE group today.

GCE CUTTING AND WELDING TECHNOLOGIES

Welding is one of the leading processes within metal fabrication. Driven by innovations it is widely used as the main technology in areas such as construction, automotive, the transport sector, shipyard industries, offshore and several others.
Metal sheets are fabricated by thermal cutting processes and joined to ensure a rigid and high quality construction. High quality standards and fundamental safety precautions are prerequisite in all works related to cutting and welding technologies.

GCE Cutting and Welding Technologies (GCE CWT) is one of the global market leaders in gas welding, oxy-fuel cutting, brazing and heating processes. GCE CWT provides a full range of gas pressure regulators, arc welding, gas economizers, safety equipment and a comprehensive global range of torches specially designed to meet international standards and local market requirements.
With strong focus on innovations and global market coverage GCE provides solutions which fit to the customer needs. Experienced sales teams supported by application, marketing and technical experts promote the latest GCE solutions within global distribution network on daily basis. Dedicated production team cooperates in two main production facilities and the complete organisation is formed as a Value stream team creating added value to all stakeholders.

SIMPLY SAFE

Safety is always a primary concern in an oxygen/fuel process and GCE is fully committed to the elimination of all risks in this process.
It is not only visible on the complete range of safety devices for oxy-fuel applications. Safety is the main objective within all range of GCE CWT products, applications and as well as within internal production processes.

QUALITY TIME

All equipment from GCE is engineered and produced with highest focus on quality. High quality is the base for all activities and by using Lean processes and 6-Sigma tools we constantly refine and develop existing procedures. All GCE CWT products are designed, tested and manufactured within the quality management system ISO 9001 and in accordance with following regulations and global standards (selected short-list) :

- 2014/68/EC, Pressure Equipment Directive
- 2006/42/EC Machinery Directive
- ISO 2503, Cylinder regulators
- ISO 5172, Cutting, welding, heating torches and nozzles
- EN 730, ISO 5175, Safety devices
- ISO 3821, Rubber hoses
- EN 561, Quick couplers
- ISO 5171, Pressure gauges

ALL SYSTEMS GO

GCE is one of the global drivers of oxy-fuel innovations. Well known solutions are innovative safety systems, pressure regulators and heating equipment. A new program of Intelligent Torches and Systems for oxy-fuel cutting has been launched recently and there is still significant potential to increase the efficiency of oxy-fuel cutting technology. This is the reason for GCE to continuously develop the GCE FIT+® cutting torch solutions. Together with our partner, IHT Automation, GCE believes that a higher level of integrated automation is the future of oxy-fuel cutting. The current result of the development is the range of automated cutting systems which became as simple as a “plug and play” solution.

CUSTOMERS FIRST

Everything we do is conducted in close co-operation with our customers and users. GCE is a service-oriented company which keeps close contact with both its customers and end-users. Thanks to a high level of experience and technical competence within cutting and welding technologies GCE has today a global network of loyal distributors which enables to develop right solutions for the global as well as for local markets.
It’s no coincidence that, where the challenge and demands are the greatest, you will find GCE hard at work.

CONTENT

CYLINDER REGULATORS

PREMIUM CYLINDER REGULATOR SERIES

GCE PROCONTROL®

"We challenged our skilled engineers to develop follower of our top-seller Dincontrol which has been presented in the market already for 18 years and has become a leader among the premium cylinder regulators in terms of Accuracy, Safety, and Reliability. We made a few modifications to ensure keeping the focus on these three main features. From customer feedback, we have seen the weakest part of the regulator has been the gauges. We are now adding Durability to the features of GCE ProControl® by protecting the gauges to minimise the risk of breakdown and user productivity interruption. The investment in gauge protection is paid back in a very short time."

FEATURES / ADVANTAGES / BENEFITS

- High-performance regulator following all common technical gas applications needs
- Safety focused design following ISO 2503
- Robust rubber gauge protection with back lid preventing damages and impurities
- Prolonged lifetime saving costs related to services, spares, and replacements
- Encapsulated regulating technology for precise parameters stability
- Easy handling for the operator by ergonomic arrangement
- Three scale pressure gauges acc. to ISO 5171 with high contrast pointer for better gas pressure clarity

HIGHLY DURABLE REGULATOR

Mechanical damages are the most frequent and most costly reason for regulator failure. It happens usually during transport of the installed oxy-fuel sets, during cylinder exchange or when transporting heavy parts and constructions on the cranes in the welding areas. The improved, robust gauge protection minimizes production breaks, service, and replacement cost and saves the gas leaking through broken gauges.

HIGH OPERATION SAFETY

GCE ProControl® has been designed for use with all common technical gases up to 300bar cylinder pressure. All safety-related specifics of the oxygen and flammable gases, as well as high-pressure hazards, have been considered in product design. It has passed a full set of type tests conforming to ISO 2503. The product safety has been also proven by long-term field test with selected users making various applications.

PRECISE ADJUSTMENT

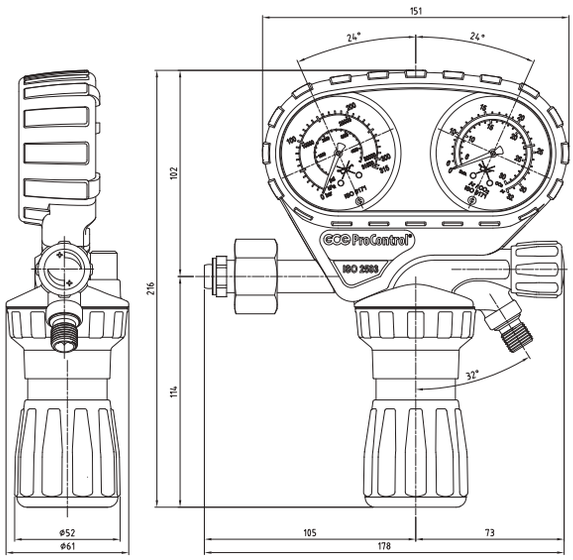
Gas pressure and flow accuracy are the main parameters which the user requires from the pressure regulator. But GCE ProControl® users do not need to know that. They just use the gas for the application they are working with.

ERGONOMIC DESIGN

9 of 10 users have confirmed they like to work with GCE ProControl®. When fitted on the cylinder valve the position of the pressure adjusting mechanism makes setting easy. Outlet shut-off valve in the right position gives the chance to switch off the gas flow without depressurising the regulator. This also increases the lifetime of the internal parts and saves cost with operation breakdowns and related services. Pressure gauges with three main unit high-contrast scales allow reading the set value also in difficult light conditions. The Instruction for Use can be scanned from the QR code present on the product label during all its lifetime.

SUITS TO APPLICATION

GCE ProControl® fits users of common technical gases because product variants specific for all markets, gases, and pressures are available.



Pressure gauges are precise measuring instruments. They are the most sensitive regulator components exposed fully to the industrial environment. Robust rubber cap gives optimal protection against potentially rough handling. Consumption of the spare pressure gauges is three times lower in the markets where using gauge protections is a common habit already today, compared to markets with not protected regulators. The savings are even more significant if customer changes regulator completely.

- *Increased product lifetime and operation safety*
- *Decreased operation shutdowns and gas lost and safety risk when leaking through damaged gauges.*

Exact gas pressure measurement. Easy reading of the gas parameters with a threeunit scale and contrast pointer.

The back lid closes the rubber protection cap to eliminate dust and other impurities.

Outlet shut- off valve for contemporary operation breaks.

On-line instructions for use directly on the body stay available for entire regulator lifetime.

Stabile gas outlet pressure and optimal flow performance for the gas application. Encapsulated regulating valve technology.

Accurate parameter setting with an optimized pressure adjusting mechanism.

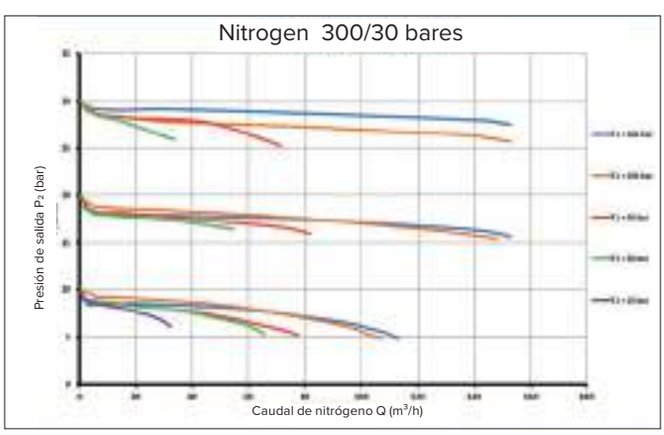
Protection against humidity for the toughest conditions.

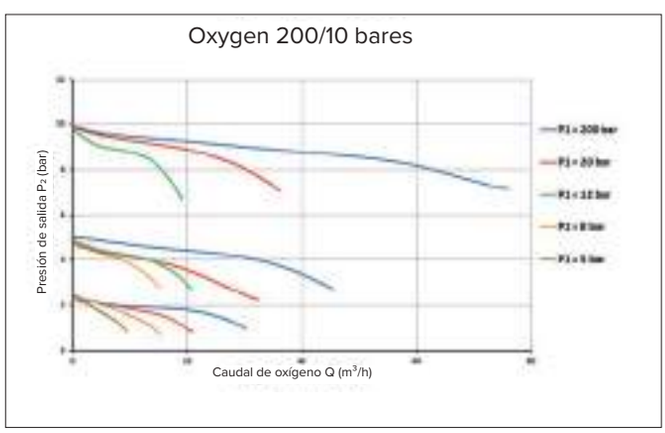
Safe operation with pre-adjusted pressure relief valve.

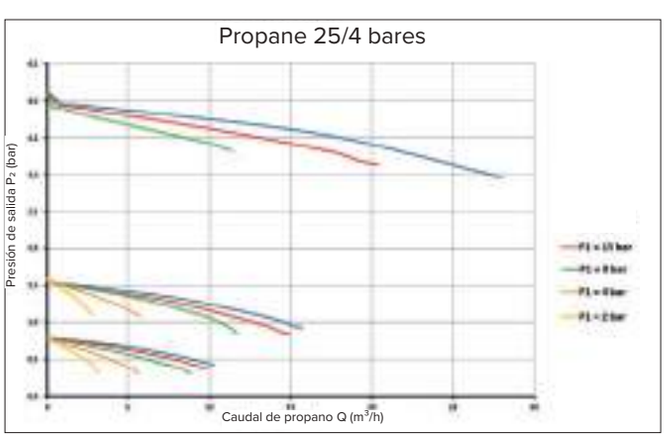
Ergonomic handwheel for easier handling.

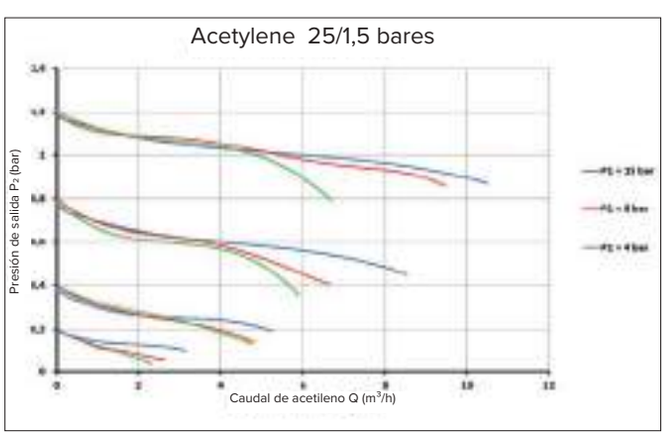
TECHNICAL DATA					
Gas	O_2, N_2, H_2, He	Ar, Ar/CO_2	CO_2	Acetylene	Propane
Body	Brass forged				
Bonnet	Zn/Al alloy Die Cast				
Stems, nuts and fittings	Brass				
Diaphragm	EPDM				NBR
Seat sealing	PA			CR	
Inlet/Outlet connection	Gas specific connection				
Maximal inlet pressure	200 or 300 bar		200 bar	25 bar	
Outlet pressure range	0-10 bar	0-16l/min 0-24l/min 0-30l/min F. G.: 0-50l/min		1,5 bar	4 bar
	0-20 bar				
	0-30 bar				
	0-50 bar				
Temperature range	From -20°C to 60°C				
Weight	Approx. according to gas variant: 1,9 kg				
Pressure relief valve	Used in all variants				

** F.G. ... Forming gas*









Art. - Nr.	Gas	Inlet pressure	Outlet pressure	Inlet connection	Outlet connection	Hose nipple and nut	Note
GCE PROCONTROL® REGULATOR 200 BAR - SINGLE STAGE							
PC0780630	Oxygen	200 bar	10/16 bar	W21,8x1/14"	G1/4"	yes	
PC0780621	Oxygen	200 bar	10/16 bar	G3/4"	G1/4"	no	
PC0780614	Oxygen	200 bar	10/16 bar	G3/4"	G1/4"	yes	
PC0780628	Oxygen	200 bar	20/40 bar	W21,8x1/14"	G1/4"	yes	
PC0780912	Oxygen	200 bar	20/40 bar	G3/4"	G1/4"	yes	
PCARV0536	Oxygen	200 bar	30/60 bar	G3/4"	G1/4"	yes	
PC0780863	Acetylene	25 bar	1,5/2,5 bar	YOKE	G3/8" LH	yes 11,5/8,5 UN	with Preheater
PC0780699	Argon	200 bar	10/16 bar	W21,8x1/14"	G1/4"	no	
PC0870164	Argon	200 bar	20/40 bar	W21,8x1/14"	G1/4"	no	
PC0780865	Argon	200 bar	30 l/min	G1/2"	G1/4"	yes	
PC0780623	Argon	200 bar	30 l/min	W21,8x1/14"	G1/4"	no	
PC0782908	CO_2	200 bar	10/16 bar	W21,8x1/14"	G3/8"	yes	
PCARV0073	CO_2	200 bar	15/30 bar	W21,8x1/14"	G1/4"	yes	
PC0782909	CO_2	200 bar	20/40 bar	W21,8x1/14"	G3/8"	yes	
PC0780864	CO_2	200 bar	30 l/min	W21,8x1/14"	G3/8"	yes	
PC0780647	CO_2	200 bar	30 l/min	G3/4"	G1/4"	yes	
PC0780624	Nitrogen	200 bar	10/16 bar	W24,32x1/14"	G1/4"	yes	
PC0870163	Nitrogen	200 bar	20/40 bar	W24,32x1/14"	G1/4"	no	
PC0780976	Nitrogen	200 bar	30/60 bar	W24,32x1/14"	G1/4"	no	
PCARV0835	Inert	200 bar	50/80 bar	W24,32x1/14"	G1/4"	yes	
PC0780694	Air	200 bar	10/16 bar	G5/8"	G1/4"	no	
PC0780629	Air	200 bar	20/40 bar	G5/8"	G1/4"	yes	
PC0780926	Air	200 bar	30/60 bar	G5/8"	G1/4"	yes	
PC0870050	Air	200 bar	50/80 bar	G5/8"	G1/4"	no	
PC0780625	Hydrogen	200 bar	10/16 bar	W21,8x1/14" LH	G3/8" LH	yes	
PCARV0357	Hydrogen	200 bar	10/16 bar	W21,8x1/14" LH	G3/8" LH	yes	
PC0870162	Hydrogen	200 bar	20/40 bar	W21,8x1/14" LH	G3/8" LH	no	
PCARV0729	Helium	200 bar	10/16 bar	G1/2"	G1/4"	yes	
PCARV0160	Helium	200 bar	10/16 bar	W21,8x1/14"	G1/4"	yes	
PC0780833	Testing Gas	200 bar	10/16 bar	M19x1,5 LH	G3/8" LH	no	
PC0780697	Formier Gas	200 bar	50 l/min	W21,8x1/14" LH	G3/8" LH	no	
PC0782922	Propane	20 bar	1,5/2,5 bar	W21,8x1/14" LH	G3/8" LH	yes	
PROCONTROL® REGULATOR 300 BAR - SINGLE STAGE							
PC0780974	Oxygen	300 bar	10/16 bar	W30x2	G1/4"	no	
PC0781357	Oxygen	300 bar	10/16 bar	W30x2	G1/4"	yes	
PC0783833	Oxygen	300 bar	20/40 bar	W30x2	G1/4"	no	
PC0783834	Argon	300 bar	20/40 bar	W30x2	G1/4"	yes	
PC0780998	Argon	300 bar	30 l/min	W30x2	G1/4"	no	
PC0780997	Nitrogen	300 bar	10/16 bar	W30x2	G1/4"	no	
PC0783890	Nitrogen	300 bar	50/80 bar	W30x2	G1/4"	no	
PC0782966	Air	300 bar	10/16 bar	W30x2	G1/4"	yes	
PC0781498	Air	300 bar	10/16 bar	W30x2 NEVOC 16,6 - 19,4	G1/4"	yes	
PC0870173	Air	300 bar	20/40 bar	W30x2	G1/4"	yes	
PC0782984	Hydrogen	300 bar	10/16 bar	W30x2 LH	G3/8" LH	no	
PC0870172	Hydrogen	300 bar	20/40 bar	W30x2 LH	G3/8" LH	no	
PC0783883	Formier Gas	300 bar	30 l/min	W30x2 LH	G3/8" LH	no	
PROCONTROL® REGULATOR 200 BAR WITH FLOWMETER - SINGLE STAGE							
PC0783055	CO_2	200 bar	30 l/min	G3/4"	G1/4"	yes	with Preheater
PC0780938	CO_2	200 bar	30 l/min	W21,8x1/14"	G1/4"	yes	
PC0780844	Argon	200 bar	16 l/min	W21,8x1/14"	G1/4"	no	
PC0780843	Argon	200 bar	30 l/min	W21,8x1/14"	G1/4"	no	
PC0780937	Argon	200 bar	30 l/min	G1/2"	G1/4"	yes	
PC0780845	Nitrogen	200 bar	30 l/min	W24,32x1/14"	G1/4"	no	
PC0780846	Hydrogen	200 bar	30 l/min	W21,8x1/14" LH	G3/8" LH	yes	
PC0780847	Formier Gas	200 bar	50 l/min	W21,8x1/14" LH	G3/8" LH	no	
PROCONTROL® REGULATOR 300 BAR WITH FLOWMETER - SINGLE STAGE							
PC0782987	Argon	300 bar	30 l/min	W30x2	G1/4"	no	
PC0781351	Argon	300 bar	30 l/min	W30x2	G1/4"	yes	
PC0782985	Hydrogen	300 bar	30 l/min	W30x2 LH	G3/8" LH	yes	
PC0783882	Formier Gas	300 bar	30 l/min	W30x2 LH	G3/8" LH	no	
PC0782986	Formier Gas	300 bar	50 l/min	W30x2 LH	G3/8" LH	no	

CYLINDER REGULATOR
UNICONTROL

Cylinder regulator UNICONTROL is the premium regulator for applications of all technical gases up to 300bar service. It has been designed to suit to small and medium gas consumption, in line with ISO 2503. With its compact design the regulator fits to all common cylinder guards including the latest composite cylinder designs from gas market leaders.

High reliability of the design and long lifetime enables product use in both indoor and outdoor applications. Internal encapsulated valve technology ensures stabile gas and flow regulation as well as smooth parameters adjustment. With side entry and bottom entry, it can be used with all common types of cylinder valves. Variant for shielding gas arc welding with flow meter can be extended with second flow meter for two welders operation or for use with weld root shielding gas (forming gas).

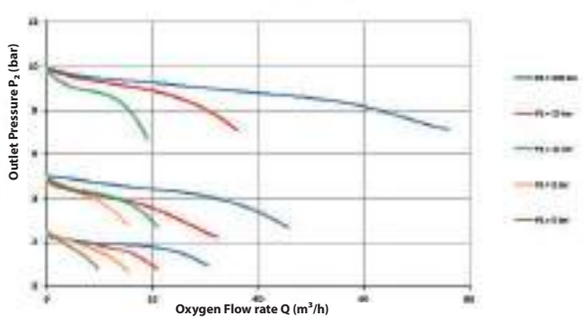
FEATURES / ADVANTAGES / BENEFITS

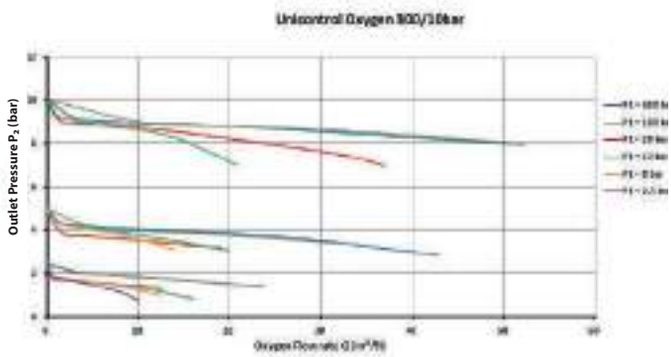
- UNICONTROLegulators fully conform to all paragraphs of International Standard ISO 2503.
- Uncompromised safety during handling and operation. The UNICONTROL regulators use a filter protected fully encapsulated valve, well proven over several generations of GCE regulators.
- The body is made of solid forged, high quality brass, polished and chemically stabilized.
- The zinc die-cast bonnet is protected by a double layer powder painting to providing a guarantee corrosion resistance even in very aggressive environments.
- For operational safety the intergrated Pressure Relief Valve, located on the rear of the body is designed to protect low pressure part of gas supply against overpressurizing.
- Type-tested and certified by BAM Berlin (The German State Testing Institute).

Art. Nr.	Gas	Inlet pressure (bar)	Outlet pressure (bar)	Inlet connection	Outlet connection
0870034	Ar/CO_2	200	30 l/min	W21,8*x 1/14"	G1/4"
0870005	Ar/CO_2	200	30 l/min	W21,8* × 1/14"	G1/4"
0870036	Ar/CO_2	300	2 × 30 l/min	W30x2	G1/4"
0870037	Ar/CO_2	300	30 l/min	W30x2	G1/4"
0783558	Propane	25	4 bar	W20 × 1/14"LH	G 3/8" LH

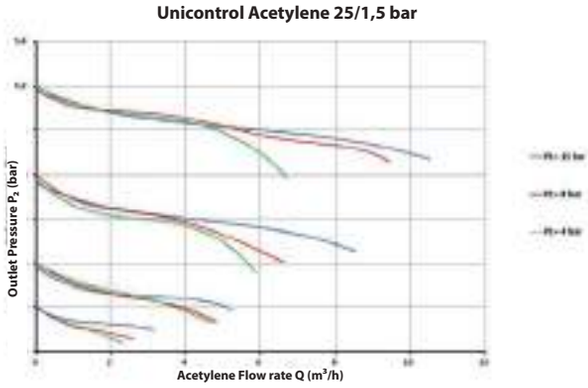
TECHNICAL DATA					
Gas	O_2, N_2, H_2, He	Ar, Ar/CO_2	CO_2	Acetylene	Propane
Body	Brass forged				
Bonnet	Zn/Al alloy Die Cast				
Stems, nuts and fittings	Brass				
Diaphragm	EPDM				NBR
Seat sealing	PA			CR	
Inlet/Outlet connection	Gas specific connection				
Maximal inlet pressure	200 or 300 bar		200 bar	25 bar	
Outlet pressure range	0-10 bar 0-20 bar 0-30 bar 0-50 bar	0-16l/min 0-32l/min		1,5 bar	4 bar
Temperature range	From -20°C to 60°C				
Weight	Approx. according to gas variant: 1,4 kg				
ISO 2503					

Unicontrol Oxygen 200/10 bar

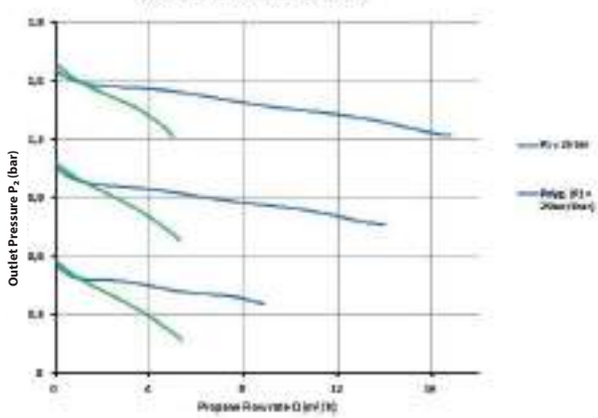


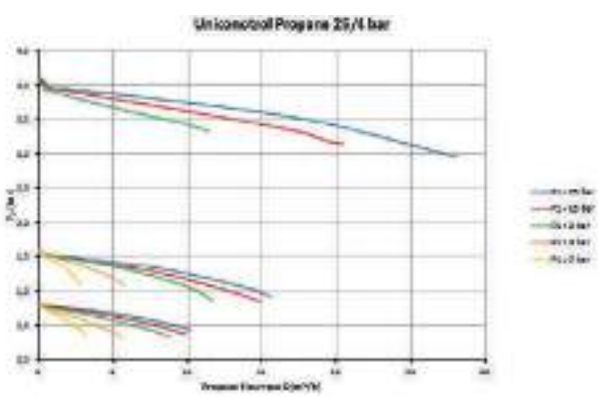


Unicontrol Acetylene 25/1,5 bar



Unicontrol Propane 25/1,5bar





CYLINDER REGULATOR
JETCONTROL 600 (S SERIES)

JETCONTROL 600 (S Series) are single stage, two gauge cylinder regulators extensively used in oil refineries, refrigeration laboratories or industrial processes requiring precise and stable delivery of high pressure industrial gases. It is excellent tool for high pressure testing of vessels and various pipelines for gas and liquid supply.

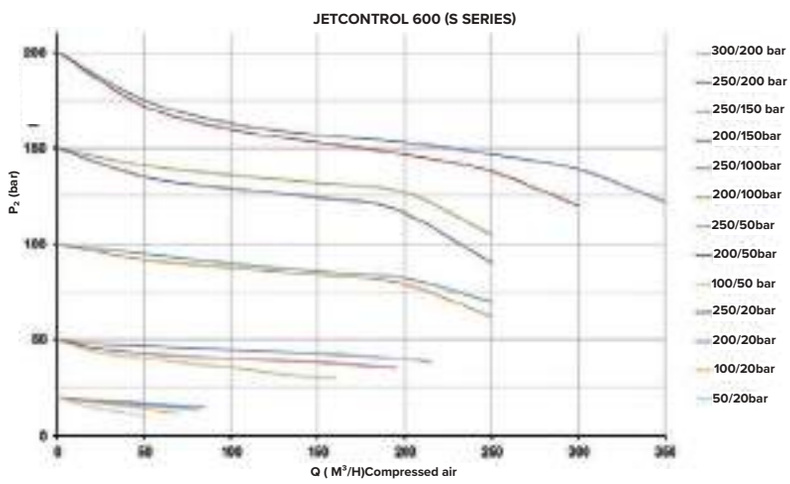
Regulators are primarily designed, tested and manufactured to operate on max. inlet pressure up to 300 bar and providing pressure outlet up to 206 Bar. Its robust design, top grade materials and strictly controlled manufacturing and testing procedures guarantee high operational safety even if working with small molecular gases (like helium or hydrogen) at very high pressures.

Key components are manufactured from high tensile brass, use of extra safe and accurate bulkhead gauges, double layer high grade stainless steel diaphragms and efficient metal filters help to prolong regulator service life and ensure trouble-free operation of JETCONTROL 600 (S Series) regulators

FEATURES / ADVANTAGES / BENEFITS

- Robust design for high outlet pressure up to 206 bar.
- Smooth outlet pressure adjustment thanks to massive T-bar with long lever to generate bigger torque and with bronze bushing to reduce friction
- Top safe bulkhead design, high accuracy pressure gauges.
- Inlet connection complying to local standards with both side entry and bottom entry orientation.
- Body and bonnet made of a special high tensile Brass alloy.
- Easy connection of the outlet pipe with Parker fittings
- Double layer stainless steel diaphragm
- Higher corrosion resistance with transparent powder painting

TECHNICAL DATA				
Gas	N_2	Ar	He	H_2
Body	High tensile brass, chemically stabilized and transparent powder painted			
Bonnet	High tensile brass, chemically stabilized and transparent powder painted			
Stems, nuts and fittings	High tensile brass			
Diaphragm	Stainless steel, two layer			
Seat sealing	PA			
Inlet/Outlet connection	Gas specific connection, outlet with Parker fitting			
Maximal inlet pressure	300 bar			
Outlet pressure range	0-28 bar 0-103 bar 0-206 bar			
Temperature range	From -20°C to 60°C			
Weight	Approx. 2kg			
ISO 2503				



JETCONTROL 600

Art. Nr.	Gas	Inlet (bar)	Outlet (bar)	Inlet connections	Outlet connections
0762552	Inert	200	28	W21,8 × 1/14"	W21,8x1/14"
0762553	Inert	200	103	W21,8 × 1/14"	W21,8x1/14"
0762523	Inert	230	206	W21,8 × 1/14"	W21,8x1/14"
0762548	Oxygen	300	28	W30x2	W21,8x1/14"
0762549	Oxygen	300	103	W30x2	W21,8x1/14"
0762555	Compressed air	200	103	G5/8"	W21,8x1/14"
0762522	Compressed air	230	206	G5/8"	W21,8x1/14"
0762551	Compressed air	300	103	W30x2	W21,8x1/14"
0762542	Compressed air	300	206	W30x2	W21,8x1/14"
0762556	Inert	200	28	W24,32	W21,8x1/14"
0762557	Inert	200	103	W24,32	W21,8x1/14"
0762547	Inert	300	103	W30x2	W21,8x1/14"
0762543	Inert/Nitrogen	300	200	W30x2	W21,8x1/14"
0766011	Inert	300	270	W30x2	W30x2
0762530	Nitrogen	230	206	W24,32	W21,8x1/14"
0762526	Hydrogen	230	206	W21,8 × 1/14" LH	W21,8x1/14" LH
0762529	Oxygen	230	206	G3/4"	W21,8x1/14"
0762537	Nitrogen	230	206	W24,32 × 1/14"	W21,8x1/14"

Outlet connections on S series regulators with delivery pressures above 28 bar are compression type, suitable for 1/4" OD tube pipework connection.

CYLINDER REGULATOR
ECOSAVER

The GCE ECOSAVER is the high end product in the category of cylinder regulators with integrated gas economizer. It reduces shielding gas consumption during MIG/MAG/TIG welding operations by keeping high quality of the welds. It is an optimal tool for each welding shop decreasing process costs by controlling gas consumption.
Standard pressure regulator for shielding gas provides instable gas flow with flow peaks. These peaks of the waste gas increases cost of the welding operation and also leads to the poor welds. ECOSAVER optimizes gas flow keeping it constantly on the preadjusted level.

This prevents pressure and flow surges from being created in the system. Surges can create gas wastage and give rise to a poor weld. Weld quality and gas consumption are optimised when the ECO Saver is used as part of the control system.

FEATURES / ADVANTAGES / BENEFITS

- Cylinder regulator with gas saver and flow meter.
- Applicable with all type of the shielding gases for MIG/MAG/TIG welding (Ar, Ar-CO_2, Ar-CO_2-O_2, CO_2 etc)
- Provides consistent and stable gas conditions around the weld.
- Available with connections for most markets
- Less «downtime» from changing cylinders which in turn increases productivity.
- Improved weld quality with less porosity.
- Fewer spare cylinders required in stock which reduces rental charges.
- Reduces the number of deliveries required per year.

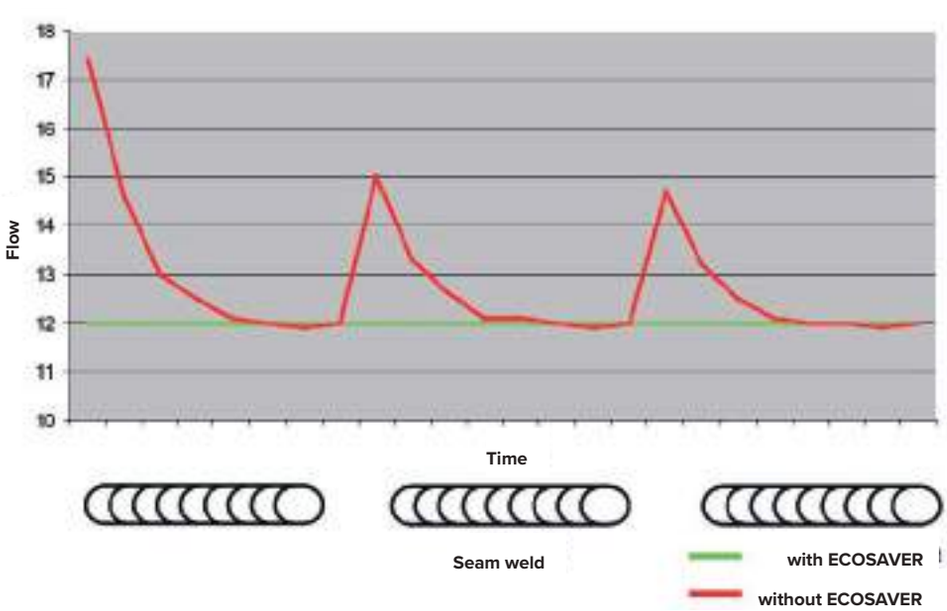
TECHNICAL DATA	
Gas	Ar, Ar/CO_2, CO_2
Body	Brass forged
Bonnet	Zn/Al alloy Die Cast
Stems, nuts and fittings	Brass
Diaphragm	EPDM
Seat sealing	PA
Inlet/Outlet connection	Gas specific connection
Maximal Inlet pressure	230 or 300 bar
Outlet Pressure range	0-24l/min
Temperature range	From -20°C to 60°C
Weight	Approx. according to gas variant: 2,1 kg
ISO 2503 Class	10

GAS SAVINGS

Shielding Gas is a significant consumable cost in the welding process, and savings with ecosaver can also be very significant. The type of welding determines the savings, highest benefits during spot welding, (significant on/off cycling at the gas supply). However valuable reduction in costs can still be achieved even on longer seam runs. Typical expected savings:

TYPE OF WELD	GAS SAVING
Spot welding	40-45%
Mostly spot welding plus some seam welding	30-35%
Equal spot / seam	25-30%
Mostly seam welding	18-22%

COMPARISON OF REGULATOR WITH AND WITHOUT ECOSAVER



Art.Nr.	Type	Inlet pressure	Outlet pressure	Inlet connection	Outlet connection
F21210013	Ar/CO_2	200 bar	30 l/min	W21,8x1/14"	G1/4"

CYLINDER REGULATOR

GAS ECONOMISER GS40

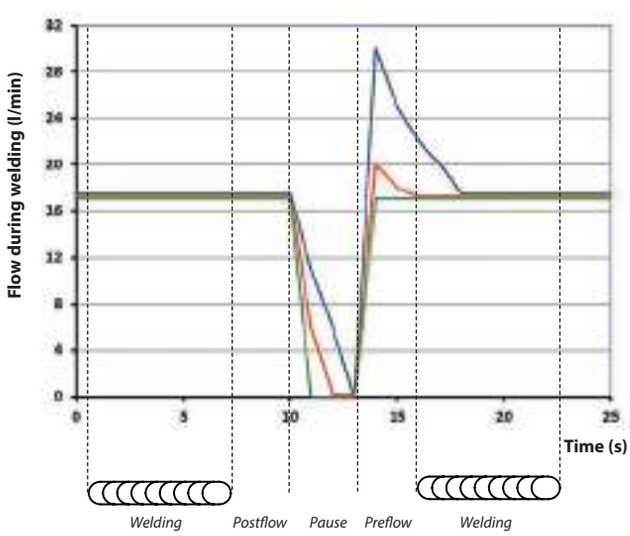
The GCE Gas economiser is the leading accessory for shielding gas arc welding as MIG, MAG and TIG welding technologies. With its small and compact design, the GS40 can be installed downstream most common cylinder pressure regulators or outlet point regulators with flow control. GS40 stabilizes flow and optimises shielding gas pressure in the hose during welding process.Cost of the shielding gas is important factor influencing total cost balance of the welding operation. The savings with GS40 represents up to 0,5ltr of the shielding gas on each average weld. Optimal gas delivery with proper defined pressure and flow-rate improves quality of welding. Cost saving and quality improvement in this area give the advantage to the user on the competitive market.

FEATURES / ADVANTAGES / BENEFITS

- Shielding gas saving up to 40%.
- Savings represents up to 0,5 ltr of the shielding gas on each average weld.
- Increases welding quality by delivering of the optimal amount of the shielding gas.
- Minimizes weld porosity.
- Stabilizes outlet pressure of the standard cylinder regulator which eliminates gas flow surges and flow turbulences.
- Can be installed with all common shielding gas regulators including outlet point regulators.
- Adjustable variant to be used with regulators with flow-meters.
- Fixed variant for regulators with litre-scaled pressure gauges.

TECHNICAL DATA	
Gas	Ar, Ar/CO_2, CO_2
Body	Aluminium
Bonnet	Zn/Al alloy Die Cast
Stems, nuts and fittings	Brass
Diaphragm	EPDM
Seat sealing	PA
Inlet/Outlet connection (EN 560)	Country specific connection
Maximal inlet pressure	30 bar
Outlet Pressure range	0-32l/min
Temperature range	From -20°C to 60°C
Weight	Approx. according to gas variant: 0,4 kg

PRINCIPLE OF GAS SAVING



- Regulator without gas economiser
- Regulator with GS40F
- Regulator with GS40A

Art. Nr.	Type	Max. inlet pressure (bar)	Inlet / Outlet connection
F21310005	Adjustable	30	G1/4”
F21310006	Fix	30	G1/4”
F21310008	Adjustable	30	G3/8”
F21310009	Fix	30	G3/8”

CYLINDER REGULATOR

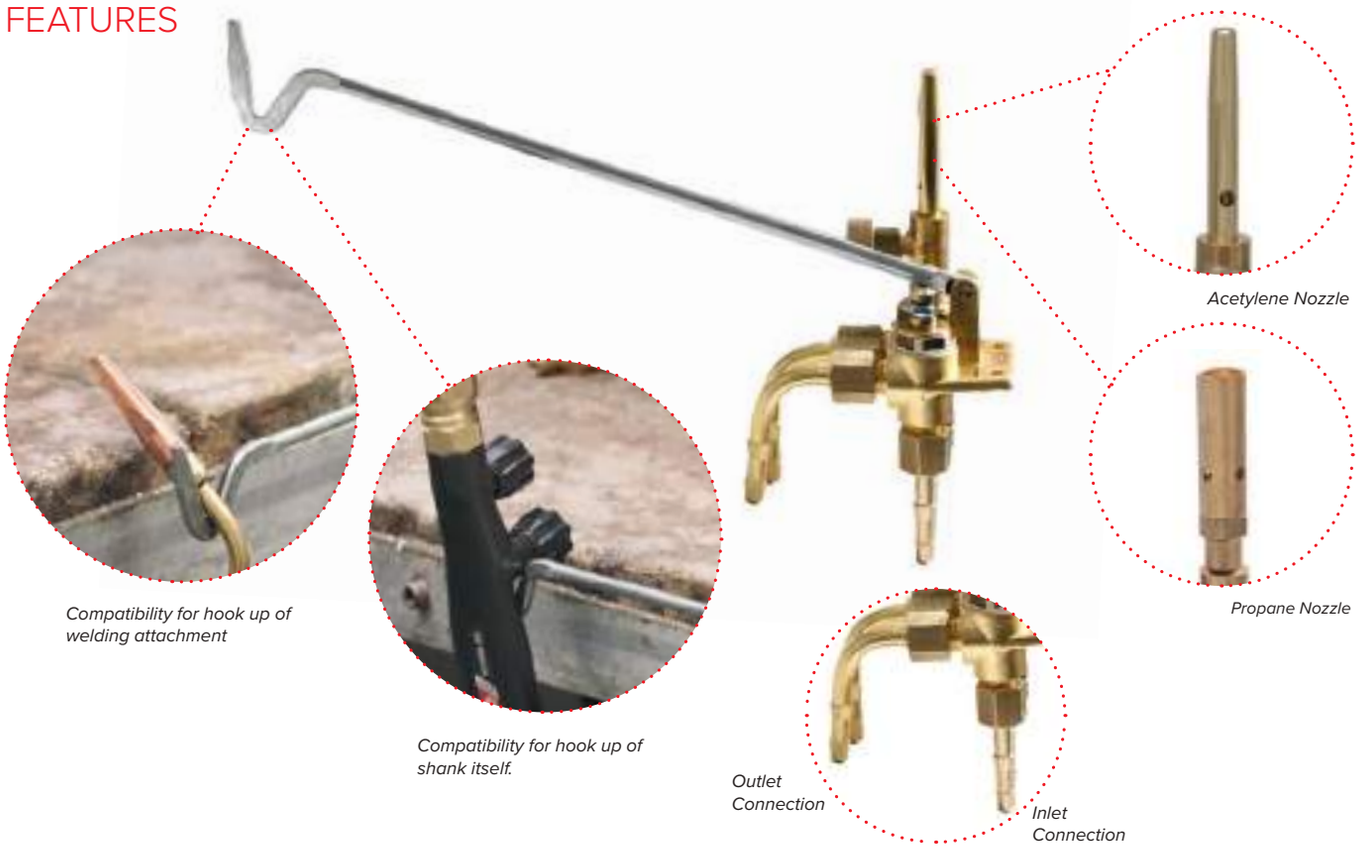
GAS ECONOMISER GS20

The GS20 is a gas saver that is intended for use in welding and soldering work where you regularly interrupt and start again. The GS 20 can save a lot of gas and the use of the GS 20 also results in a safe handling of the burner, which is not lit during breaks. The pilot fl ame is lit all the time which makes it easy to light the burner after every break. When hanging up the burner, the fuel gas valve is fi rst closed to avoid bangs that can cause soot in the burner.

FEATURES / ADVANTAGES / BENEFITS

- Considerable savings in gas costs can be achieved by the use of a gas economiser in welding and brazing operations.
- The torch is held on the hooked arm when not in use which shuts of the gas supply to the torch.
- When unhooked the torch can be immediately re-ignited from the pilot light without having to re-adjust the valves.
- With the GS 20 follows inlet and outlet nuts and hose nipples.
- Compatibility for hook up of welding attachment or shank itself.
- Connections according to European standard EN 560.

FEATURES



VARIANTS AVAILABLE

Art. Nr.	Gas	Connection	Previous item number
F22510002	Acetylene	G3/8"LH; G1/4"	0767763 0767916 66390
F22510003	Propane	G3/8"LH; G1/4"	0767915 0767917 14008003
F160106	Acetylene	M16x1,5; M16x1,5LH	F160106

For other versions available, please contact your local GCE sales office.

Description	PCE
Gas Saver	1
Inlet nut and hose nipple G3/8"LH	1
Inlet nut and hose nipple G1/4"	1
Outlet nut and hose nipple G3/8"LH	1
Outlet hose nipple G3/8"LH	1
Outlet nut and hose nipple G1/4"	1

DESIGNED TO FOLLOW THE NEEDS OF BRAZING WORKERS AND WELDERS

Easy On

Tiny flame available during work

Fluent adjustment of the flame

Automaticaly off when not used

CYLINDER REGULATOR
BASECONTROL DIN

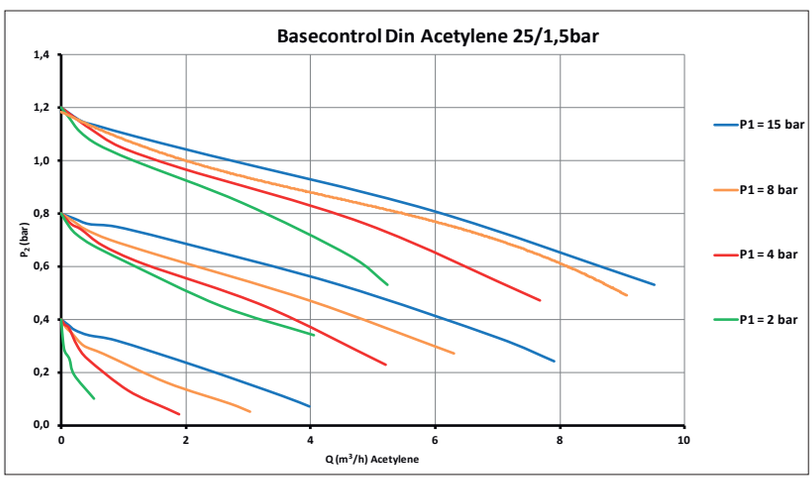
Basecontrol DIN is a small, compact cylinder regulator dedicated for lower gas consumptions up to 230 bar inlet pressure, in accordance with ISO 2503. It is new product in GCE range of cylinder regulators completing the offer for all types of the customers and applications.

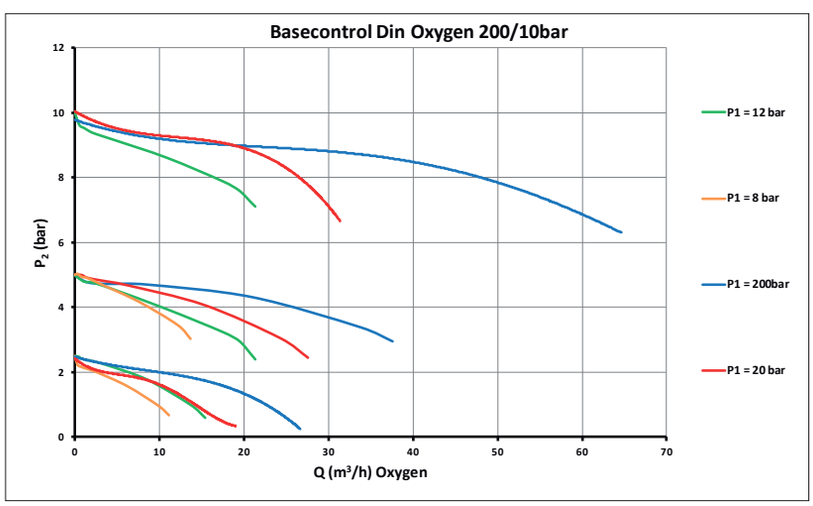
Lightweight design with robust features of Basecontrol DIN predestines its use for small size cylinders and small workshops, mobile applications and on-site applications. But it can be also used with heavy duty load in 24/7 operated industries.

FEATURES / ADVANTAGES / BENEFITS

- Single stage regulator according to ISO 2503 for operation up to 230bar service.
- Diaphragm casting (bonnet) orientated downwards for higher safety of the handling.
- Pressure gauges with three scales in bar, kPa, psi.
- Light-weight design for use with small and also standard size cylinder
- Pressure relief valve to protect against overpressurizing.
- Inlet connection complying to local standards.
- Ergonomic handwheel for easy pressure adjustment.
- Useful for common applications of technical gases.

TECHNICAL DATA					
Gas	Oxygen	Ar, Ar/CO_2	CO_2	Acetylene	Propane
Body	Brass forged				
Bonnet	Zn/Al alloy Die Cast				
Stems, nuts and fittings	Brass				
Diaphragm	EPDM				NBR
Seat sealing	PA			CR	
Inlet/Outlet connection	Gas specific connection				
Maximal inlet pressure	230 bar		200 bar	25 bar	
Outlet pressure range	0-10 bar	0-24 l/min		1,5 bar	4 bar
Temperature range	From -20°C to 60°C				
Weight	Approx. according to gas variant: 1,18 kg				
Gas	3	20	20	2	1





Art. Nr.	Gas	Inlet pressure (bar)	Outlet pressure (bar)	Inlet connection	Outlet connection
0870295	Acetylene	25	1,5	Yoke	G3/8"LH
0870293	Ar/ CO_2	200	24 l/min	W21,8 × 1/14"	G1/4"
0870292	Oxygen	200	10	W21,8 × 1/14"	G1/4"
0870476	Argon	200	24 l/min	G1/2"	G1/4"
0870452*	Propane	25	4	W21,8 × 1/14" LH	G3/8"LH

* Only with LP gauge

CYLINDER REGULATOR
BASECONTROL SE, BE

BASECONTROL is the single stage cylinder regulator for common applications of technical gases up to 230 bar service. It has been designed for small and medium gas consumption, in line with ISO 2503.

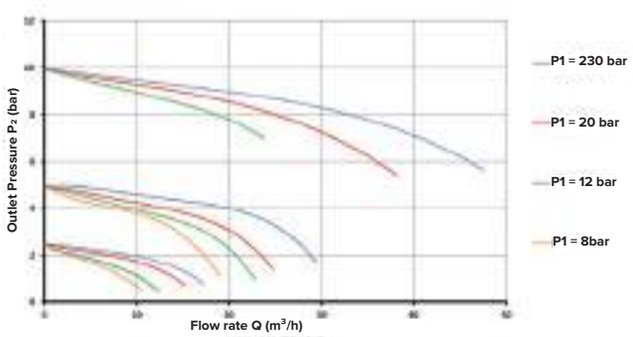
Regulator provides very good outlet pressure stability thanks to big diaphragm diameter. Compact, light-weight body fits to use during on-side handling or for maintenance operations in the workshop combined with small size cylinders (5-50 liters). Design is made with side entry (SE) and bottom entry (BE) to fit for all common types of cylinder valves.

FEATURES / ADVANTAGES / BENEFITS

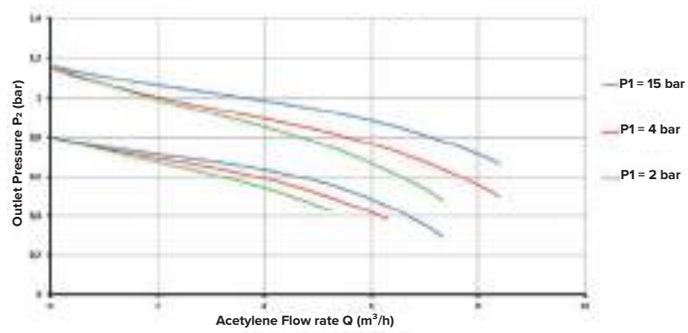
- Single stage regulator according to ISO 2503 for safe operation up to 230 bar service.
- Pressure gauges with three scales in bar, kPa, psi.
- Light-weight design for use with small cylinder
- Safe handling with pressure relief valve
- Inlet connection complying to local standard with both side entry (SE) and bottom entry (BE) orientation.
- Ergonomic handwheel for easy pressure adjustment.

TECHNICAL DATA					
Gas	O_2, N_2, Ar	Ar, Ar/CO_2	CO_2	C_2H_2	C_3C_8
Body	Brass forged				
Bonnet	Zn/Al alloy Die Cast				
Stems, nuts and fittings	Brass				
Diaphragm	EPDM				NBR
Seat sealing	PA			CR	
Inlet/Outlet connection	Gas specific connection				
Maximal inlet pressure	230 bar		200 bar	25 bar	
Outlet pressure range	0-10 bar	0-24l/min		1,5 bar	4 bar
Temperature range	From -20°C to 60°C				
Weight	Approx. according to gas variant: 1,18 kg				
ISO 2503	3	20		1	

Basecontrol Oxygen 230/10bar



Basecontrol SE Acetylene 25/1,5 bar



Art. Nr.	Gas	Inlet pressure (bar)	Outlet pressure (bar)	Inlet connection	Outlet connection
0870304	Oxygen	200	10	W21,8 × 1/14”	G1/4
0870305	Acetylene	25	1,5	YOKE special	G3/8”LH
0870306	Propane	25	4	W21,8 × 1/14” LH	G3/8”LH
0870307	Ar/CO_2	200	24 l/min	G1/2, BS10	G1/4
0870308	Ar/CO_2	200	24 l/min	W21,8 × 1/14”	G1/4
0870316	Oxygen	200	10	G3/4"	G1/4
0870317	Nitrogen	200	10	W24,32x1/14"	G1/4
0870359*	CO_2	200	30 l/min	W21,8 × 1/14”	G3/8”

*with flowmeter

9415100

PRESSURE GAUGES - ISO 5171

¼" BSPP

Art. Nr.	Gas	Pressure	Diameter	Finish
9415080	Acetylene	2,5 / 1,5 bar	63 mm	Gold
9426050	Acetylene	40 / 25 bar	63 mm	Gold
388411361080P	General purpose	40 / 20 bar	63 mm	Gold
9426150	General purpose	80 / 50 bar	63 mm	Gold
388411361401P	General purpose	400 / 300 bar	63 mm	Gold
9415090	General purpose	16 / 10 bar	63 mm	Gold
9415100	General purpose	315 / 200 bar	63 mm	Gold
9425530	General purpose	2,5 / 1,5 bar	63 mm	Gold
9426620	Oxygen	40 / 20 bar	63 mm	Gold
388411360400P	Oxygen	400 / 300 bar	63 mm	Gold
388411360872P	Oxygen	16 / 10 bar	63 mm	Gold
9415070	Oxygen	315 / 200 bar	63 mm	Gold
SPK21990047	Formier gas	75 / 50 l/min	63 mm	Gold
3884011360483P	Ar/CO_2	32 / 24 l/min	63 mm	Gold

SPP4C00081

PRESSURE GAUGES FOR BACESONTROL - ISO 5171

Art. Nr.	Description
SPP4C00004	SP GAUGE 50BL G14B 315/200 OXY
SPP4C00005	SP GAUGE 50BL G14B 16/10 OXY
SPP4C00006	SP GAUGE 50BL G14B 315/200 NEU
SPP4C00007	SP GAUGE 50BL G14B 16/10 NEU
SPP4C00008	SP GAUGE 50BL G14B 24L AR/CO2
SPP4C00009	SP GAUGE 50BL G14B 40/25 ACE
SPP4C00010	SP GAUGE 50BL G14B 2.5/1.5 ACE
SPP4C00011	SP GAUGE 50BL G14B 40/25 PROP
SPP4C00012	SP GAUGE 50BL G14B 6/4 PROP
SPP4C00078	SP GAUGE 50BL G14B 315/230 NEU
SPP4C00081	SP GAUGE 50BL G14B 315/230 OXY

SAFETY DEVICES FOR REGULATORS
SAFETY DEVICES FOR TORCHES
QUICK COUPLINGS

SAFETY DEVICES FOR REGULATORS

SAFE-GUARD-5

The latest innovation from GCE the SAFE-GUARD-5 offers the maximum level of protection required by ISO 5175-1 to prevent dangerous flashbacks from reaching the regulator and cylinder supply sources.

There are many conditions that can cause a flashback, the fitting a flashback arrestor is commonsense. By using the Safe-Guard-5 on regulator outlets you reach the highest level of safety available on the market

FEATURES / ADVANTAGES / BENEFITS

- Maximum number of safety features defined by ISO 5175
- High visibility of trip/reset lever coupled with quick acting reset even when pressurised
- Angled inlet to minimise hose damage
- 100% production flame tested for Flashback resistance
- Inspection dates can be marked on product for easy reference

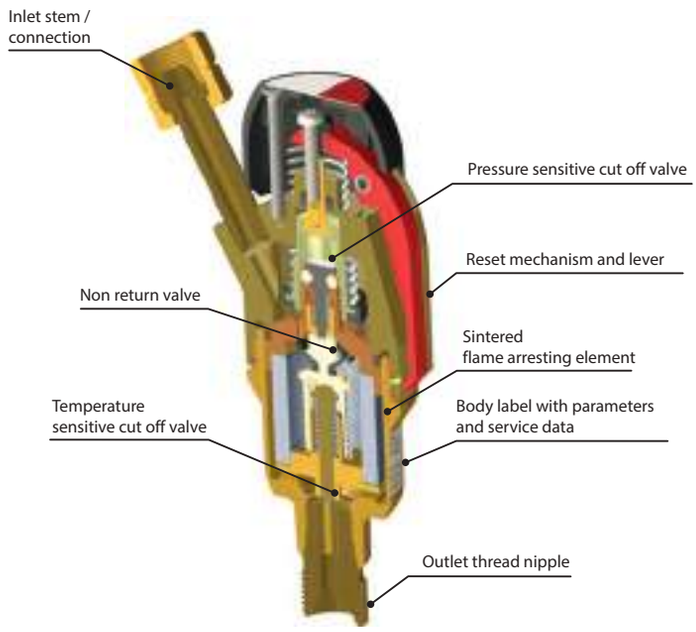
FUNCTIONS :

- **Flame arresting element (FA)**
- **Non return valve (NV)**
- **Pressure sensitive cut off valve (PV)**
- **Temperature sensitive cut off valve (TV)**
- **Reset mechanism to clearly advise unit activation (RM)**

INTERNAL SAFETY DEVICES

GCE – SIMPLY SAFE

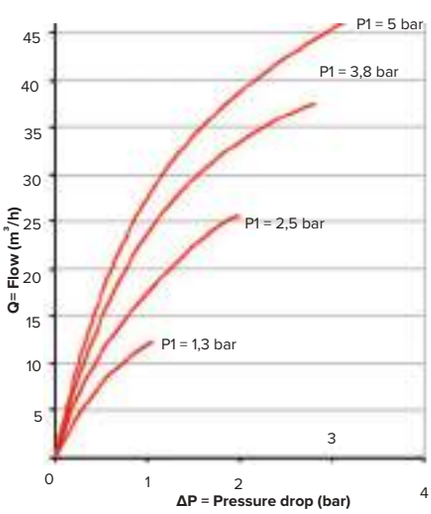
Flash back arrestors must be present on regulators/gas outlets for acetylene by regulations in many countries. In some also required for oxygen. Sever accidents are reported frequently due to disrespects of safety.



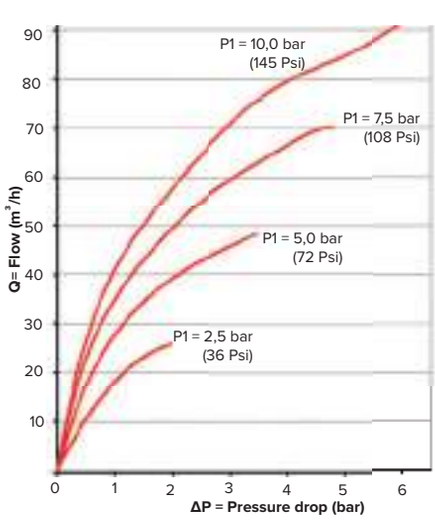
CONVERSION COEFFICIENT			
	OXYGEN	**HYDROGEN**	**ACETYLENE**
Gas	O_2	H_2	C_2H_2
Coefficient	× 0,95	× 3,75	× 1,04
	PROPANE	**METHANE**	**ETHYLENE**
Gas	C_3H_8	CH_4	C_2H_4
Coefficient	× 0,8	× 1,33	× 1,02

FLOW CHART

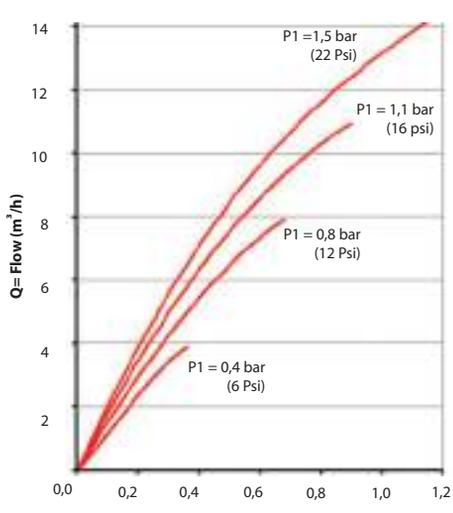
FUEL GAS



OXYGEN



ACETYLENE



Art. Nr.	Gas	Working pressure	Inlet connection	Outlet connection	Country
0764456	Fuel	1,5 bar (A), 5 bar (M), 5 bar (P)	G3/8" LH F	G3/8" LH M	Europe
0764457	Oxygen	10 bar	G3/8" F	G3/8" M	Europe
0764458	Oxygen	10 bar	G1/4" F	G1/4" M	Europe
0764461	Fuel	1,5 bar (A), 5 bar (M), 5 bar (P)	9/16" UNF LH F	9/16" UNF LH M	America
0764462	Oxygen	10 bar	9/16" UNF F	9/16" UNF M	America
0764463	Oxygen	10 bar	M16×1,5 F	M16×1,5 M	France, China
0764464	Fuel	1,5 bar (A), 5 bar (M), 5 bar (P)	M16×1,5 LH F	M16×1,5 LH M	France, China

SAFETY DEVICES FOR REGULATORS

SAFE-GUARD-3

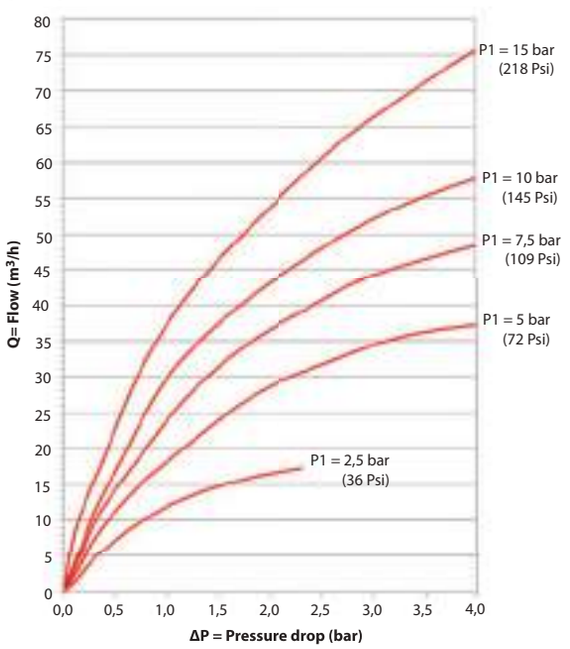
The new SAFE-GUARD-3 for regulator mounting, available from July 2014, contains a host of new upgrades to performance, filtration, Instructions, and product marking. Complies fully with ISO 5175-1

FEATURES / ADVANTAGES / BENEFITS

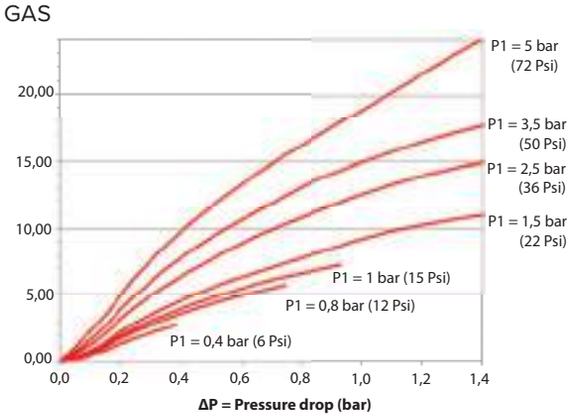
- FA Sintered flame arresting element
- NV Non return valve to prevent reverse flow of gases
- TV Thermal trip device, activated by heat to permanently cut off the gas supply.

FLOW CHART

OXYGEN



GAS



Art. Nr.	Gas	Working pressure	Inlet connection	Outlet connection
0764469	Oxygen	25 bar	G1/4" F	G1/4" M
0764470	Oxygen	15 bar	G3/8" F	G3/8" M
0764472	Oxygen	15 bar	M16×1,5 F	M16×1,5 M
0764474	Oxygen	25 bar	9/16" UNF F	9/16" UNF M
0764471	Fuel	A: 1,5 bar; PM: 5 bar; H: 3,5 bar	G3/8" LH F	G3/8" LH M
0764473	Fuel	A: 1,5 bar; PM: 5 bar; H: 3,5 bar	M16×1,5 LH F	M16×1,5 LH M
0764475	Fuel	A: 1,5 bar; PM: 5 bar; H: 3,5 bar	9/16" UNF LH F	9/16" UNF LH M
F28710071*	Oxygen	20 bar	QC-F	G3/8
F28710072*	Fuel	A: 1,5 bar; PM: 5 bar; H: 3,5 bar	QC-F	G3/8

** special type for combination valves with QC*

SAFETY DEVICES FOR TORCHES

SAFE-GUARD-2

The GCE SAFE-GUARD-2 range of basic flashback arrestors are available for connecting to regulators, hose lines and to torches.

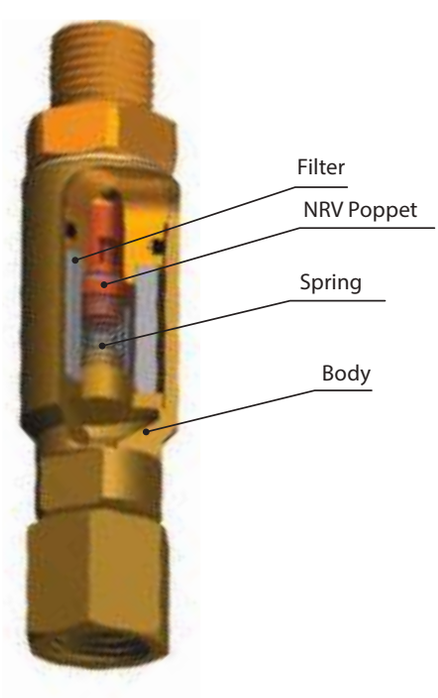
Max Manufactured to ISO 5175-1 and designed to prevent flashbacks in oxy/fuel systems, they includes the safety features of sintered flame arresting element (FA) to quench flashback plus non return valve (NV) to prevent reverse flow of gases.

FEATURES / ADVANTAGES / BENEFITS

FOUR MODELS ARE AVAILABLE FOR CONNECTION TO :

- regulator (model RP),
- hose line to hose line (model TT),
- torch to hose line (model TF)
- torch threaded inlet/outlet (model FF).
- Gas service; Oxygen (O) 10 bar, acetylene (A) 1.5 bar and hydrogen (H), propane (P), methane (M) 5bar.

INTERNAL SAFETY DEVICES

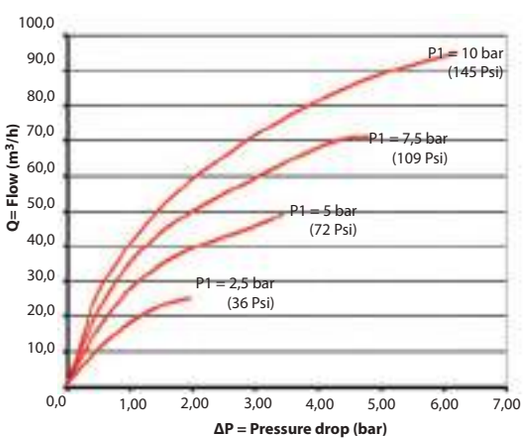


GAS OPTIONS AND SERVICE PRESSURE	
Right Hand	
Oxygen	10 bar
Left Hand	
Acetylene	1,5 bar
Hydrogen	5 bar
Propane	5 bar
Hydrogen	5 bar
Methane	5 bar
Natural Gas	5 bar
MPS	5 bar
MAPP	5 bar

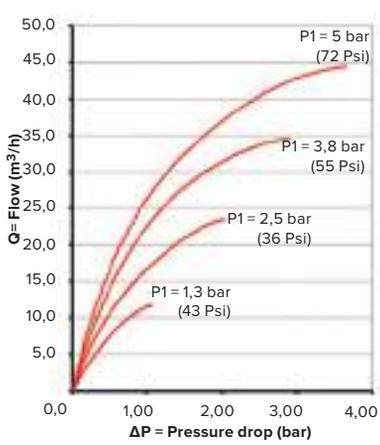
CONVERSION COEFFICIENT			
	OXYGEN	**HYDROGEN**	**ACETYLENE**
Gas	O_2	H_2	C_2H_2
Coefficient	× 0,95	× 3,75	× 1,04
	PROPANE	**METHANE**	**ETHYLENE**
Gas	C_3H_8	CH_4	C_2H_4
Coefficient	× 0,8	× 1,33	× 1,02

FLOW CHART - SAFE-GUARD-2

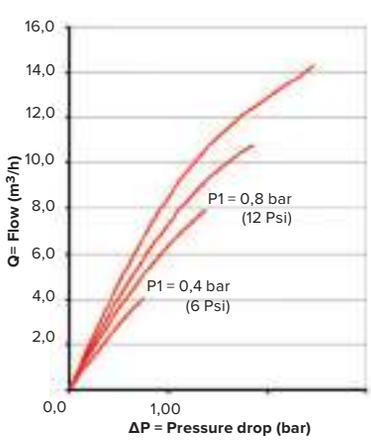
OXYGEN



PROPANE, METHANE, ETHYLENE



ACETYLENE



Art. Nr.	Gas	Connect to	Connecting	Inlet connection	Outlet connection	Pressure (bar)
81910	Oxygen	Torch	thread/thread	G1/4”	G1/4”	10
81900	Oxygen	Torch	thread/thread	G3/8”	G3/8”	10
0762495	Oxygen	Torch	thread/thread	9/16”	9/16”	10
81960	Fuel	Torch	thread/thread	G1/4” LH	G1/4” LH	1,5 (A) 5 (P)
81950	Fuel	Torch	thread/thread	G3/8” LH	G3/8” LH	1,5 (A) 5 (P)
0762496	Fuel	Torch	thread/thread	9/16” LH	9/16” LH	1,5 (A) 5 (P)
80910	Oxygen	Torch	hose/thread	6.3/10mm tube	G1/4”	10
80900	Oxygen	Torch	hose/thread	6.3/10mm tube	G3/8”	10
E0080900	Oxygen	Torch	hose/thread	6.3/10mm tube	M16×1,5	10
80960	Fuel	Torch	hose/thread	6.3/10mm tube	G1/4” LH	1,5 (A) 5 (P)
80950	Fuel	Torch	hose/thread	6.3/10mm tube	G3/8” LH	1,5 (A) 5 (P)
E0080950	Fuel	Torch	hose/thread	6.3/10mm tube	M16×1,5 LH	1,5 (A) 5 (P)

** A - Acetylene*
** P - Propane*

Art. Nr.	Gas	Connect to	Connecting	Inlet connection	Outlet connection	Pressure (bar)
80700	Oxygen	Hose	hose/hose	6.3/10mm tube	6.3/10mm tube	10
80750	Fuel	Hose	hose/hose	6.3/10mm tube	6.3/10mm tube	1.5 (A) 5 (P)

FR 20

Art. Nr.	Gas	Conne-ct to	Connecting	Inlet connection	Outlet connection	Pressure (bar)
0762216	Fuel	Torch	thread/thread	G3/8" RH	G3/8" RH	1.5 (A) 5 (P)
0762217	Fuel	Torch	thread/thread	G3/8" LH	G3/8" LH	1.5 (A) 5 (P)
0762220	Oxygen	Torch	thread/thread	G3/8" RH	G3/8" RH	10
0764427	Fuel	Torch	thread/thread	G1/4" LH	G1/4" LH	1.5 (A) 5 (P)
0762215	Oxygen	Torch	thread/thread	G1/4" RH	G1/4" RH	10
0762265				SET SP20		

** A - Acetylene*
** P - Propane*

SAFETY DEVICES FOR TORCHES

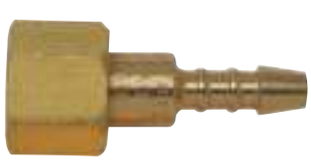
SAFE-GUARD-1

The GCE SAFEGUARD1 is a non-return valve that prevents reverse flow of gases back into a hose. They are manufactured to our own approved design and the unique method of assembly eliminates the use of soldered or bonded joints. They are suitable to be used with Oxygen, Acetylene, Propane or Natural Gas and operate e ectively on either nozzle mix or injector type torches.

Max service pressure is 16 bar within a temperature range of -30°C to +50°C. The design is compact, not bigger than an ordinary hose nipple. Still ressure losses involved are insigni cant and the set working pressure therefore stay unchanged. GCE SAFEGUARD is manufactured in accordance with European standard ISO 5175-2

GCE recommends that the GCE SAFEGUARD1always are mounted on the torch inlet for both oxygen and fuel gas. Furthermore GCE recommend to check the function of the nonreturnvalve as a minimum every six month.

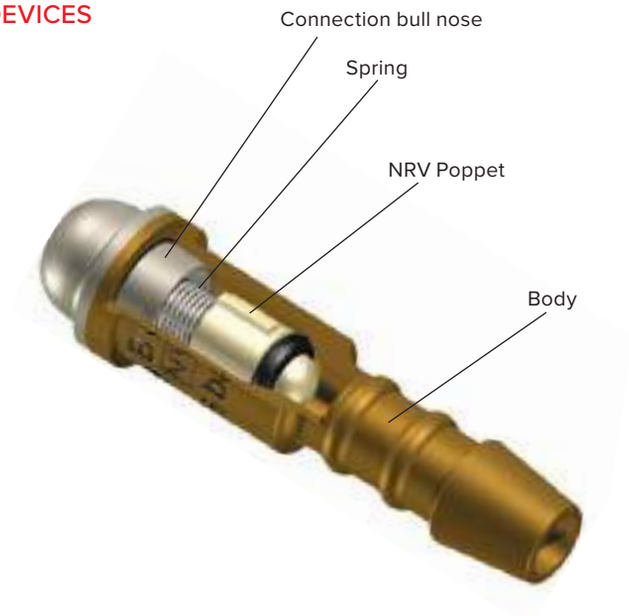
Safe-Guard -1 - without nut



GCE Safe-Guard -1 / BV 12 (Including Nut)

Safe-Guard -1 - threaded both ends

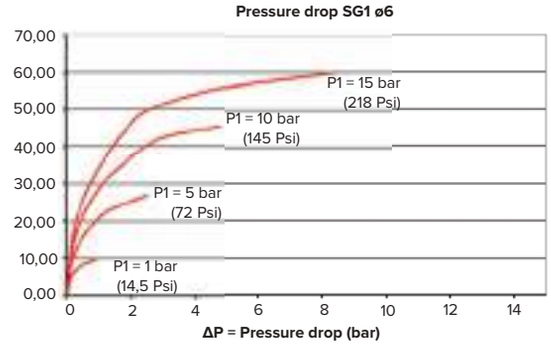
INTERNAL SAFETY DEVICES



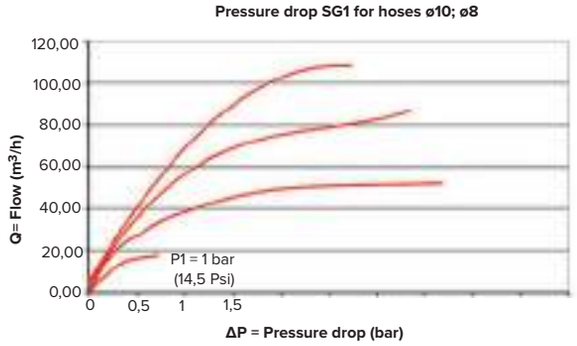
CONVERSION COEFFICIENT			
	OXYGEN	**HYDROGEN**	**ACETYLENE**
Gas	O_2	H_2	C_2H_2
Coefficient	× 0,95	× 3,75	× 1,04
	PROPANE	**METHANE**	**ETHYLENE**
Gas	C_3H_8	CH_4	C_2H_4
Coefficient	× 0,8	× 1,33	× 1,02

FLOW CHART

Pressure drop SG1 ø6



Pressure drop SG1 for hoses ø10; ø8



Art. Nr.	Gas	Fitting	Hose (mm)	Quantity
9402370	Fuel	9/16" UNF LH	6,3	1
871122	Fuel	G3/8" LH	6,3	1
871112	Fuel	G3/8" LH	8	1
871102	Fuel	G3/8" LH	10	1
0764437	Fuel	M16×1,5 LH	6,3	1
0764439	Fuel	M16×1,5 LH	8	1
9402990	Oxygen	9/16" UNF	6,3	1
871121	Oxygen	G3/8"	6,3	1
871111	Oxygen	G3/8"	8	1
871101	Oxygen	G3/8"	10	1
0764436	Oxygen	M16×1,5	6,3	1
0764438	Oxygen	M16×1,5	8	1

QUICK COUPLINGS IN ACCORDANCE WITH EN561/ISO7289

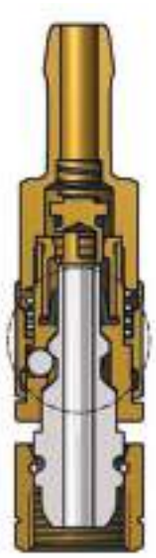
QUICK COUPLINGS

GCE offers a range of Quick Couplings suitable for easy and quick connection to regulators, cutting & welding torches and gas hoses.

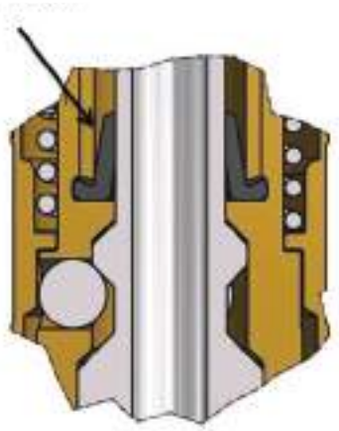
They are manufactured in accordance with EN561/ISO7289 standard. The couplings are made of brass and the hose pins made of stainless steel. The couplings are color coded depending on which gas they are used for and available for oxygen, fuel and inert gases.

FEATURES / ADVANTAGES / BENEFITS

- Robust design - For heavy duty usage
- Colour coding - according to gas type
- Pull design - Easy connection without accidental disconnection
- Stainless Steel Coupling Pin - Longer life
- Gas cut-o - Automatically cut o gas ow when disconnected
- To Hat Seal - gives an excellent sealing without any risks for leakage.



Top Hat Seal



ISO Connector

ISO Coupling Pin

ISO Coupling Threaded

Quick Coupler QC010

Quick Coupler QC020

QUICK COUPLER QC030

DESCRIPTION

Quick connection according to EN561 ISO 7289.

Standard hose connection according to EN 560.

Stainless steel Coupling pin with colour coding by O-ring for better recognizing. According to ISO 7289.

Color coded sleeve for easy gas identi cation.

Standard hose connection according to EN 560. Marking of thread dimension for easy identi cation.

Hose nipples design according to EN 1256 available for most common sizes of hoses.

NEW TYPE OF MOUNTING

1. Coupling pin put into the Quick connector.

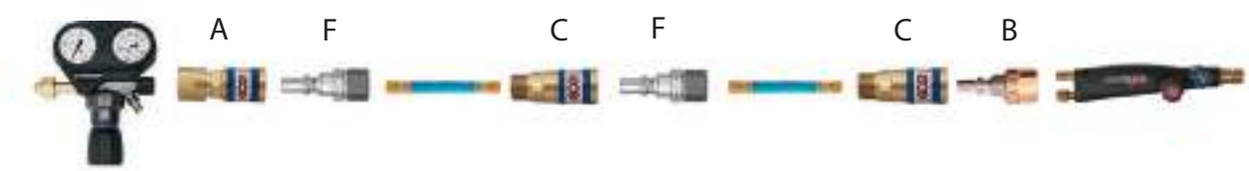
2. Pull the “blue” sleeve of the Quick connector and insert the coupling pin into the Quick connector.

3. Mounting is nished. O-ring is visible.

COMBINATIONS OF CONNECTIONS

The GCE range of quick couplings has several application possibilities. The type QC-010 is developed special for connection to regulators whereas the others can be used in connections between hoses and hoses to torches.

- A Quick connector Type QC-010
- B Coupling nut
- C Quick connector Type QC-020
- D Quick connector Type QC-030
- E Coupling pin - hose nipple
- F Coupling pin - thread



ISO CONNECTOR

Art. Nr.	Application	Gas	Connection
F28710007	Torch Shank	Fuel gas	G3/8" LH
F28710008	Torch Shank	Fuel gas	9/16 LH UNF
F28710009	Torch Shank	Inert gas	G1/4"
F28710010	Torch Shank	Oxygen	G3/8"
F28710011	Torch Shank	Oxygen	9/16 UNF
F28710012	Torch Shank	Oxygen	G1/4"
F28710049	Torch Shank	Oxygen	M16×1,5
F28710050	Torch Shank	Fuel gas	M16×1,5LH

ISO COUPLING PIN

Art. Nr.	Application	Gas	Connection
F28710013	Hose	Fuel gas	9 mm
F28710014	Hose	Fuel gas	8 mm
F28710015	Hose	Fuel gas	6,3 mm
F28710016	Hose	Fuel gas	4 mm
F28710017	Hose	Inert gas	6,3 mm
F28710018	Hose	Inert gas	4 mm
F28710019	Hose	Oxygen	6,3 mm
F28710020	Hose	Oxygen	8 mm
F28710021	Hose	Oxygen	9 mm
F28710022	Hose	Oxygen	4 mm

ISO COUPLING THREADED

Art. Nr.	Application	Gas	Connection
F28710023	Hose	Fuel gas	G3/8" LH
F28710024	Hose	Inert gas	G1/4" RH
F28710025	Hose	Oxygen	G1/4" RH

QUICK COUPLER QC-010

Art. Nr.	Application	Gas	Connection
F28710026	Regulator	Fuel gas	G3/8" LH
F28710027	Regulator	Fuel gas	M16×1,5 LH
F28710028	Regulator	Fuel gas	9/16 LH UNF
F28710031	Regulator	Oxygen	G3/8"
F28710032	Regulator	Oxygen	G1/4"
F28710033	Regulator	Oxygen	M16×1,5
F28710034	Regulator	Oxygen	9/16 UNF
F28710029	Regulator	Inert gas	G1/4"
F28710030	Regulator	Inert gas	G3/8"

QUICK COUPLER QC-020

Art. Nr.	Application	Gas	Connection
F28710035	Hose	Fuel gas	G3/8" LH
F28710036	Hose	Inert gas	G1/4"
F28710037	Hose	Inert gas	G3/8"
F28710038	Hose	Oxygen	G3/8"
F28710039	Hose	Oxygen	G1/4"
F28710051	Hose	Oxygen	M16×1,5
F28710052	Hose	Fuel gas	M16×1,5LH

QUICK COUPLER QC-030

Art. Nr.	Application	Gas	Connection
F28710040	Hose	Fuel gas	6,3 mm
F28710041	Hose	Fuel gas	4 mm
F28710042	Hose	Fuel gas	8 mm
F28710044	Hose	Inert gas	4 mm
F28710045	Hose	Oxygen	6,3 mm
F28710046	Hose	Oxygen	4 mm
F28710047	Hose	Oxygen	8 mm

COMBINED TORCH SYSTEMS
WELDING TORCHES

CUTTING AND WELDING SETS

VARGA COMBINED CUTTING AND WELDING SET

COMBINED CUTTING AND WELDING SET

Art. Nr.	
71730003	Varga set with 4 attachments
71730002	Varga set with 8 attachments
71730001	Varga set with 6 attachments
71740001	Varga set with 4 attachments
71740002	Varga set with 6 attachments

VARGA SHANK

Art. Nr.	
0763457	Varga shank G3/8 LH G1/4
9394780	Oxygen valves
9394790	Valve for fuel gas
4175230	Oxygen knob
4175240	Acetylene knob
SPK22990029	Varga handle handle with screws

VARGA WELDING ATTACHMENTS

Art. Nr.	Size	Welding thickness (mm)
0763458	Varga welding attachment No. 1	0,5-1,0
0763459	Varga welding attachment No. 2	1,0-2,0
0763460	Varga welding attachment No. 3	2,0-4,0
0763461	Varga welding attachment No. 4	4,0-6,0
0763462	Varga welding attachment No. 5	6,0-9,0
0763463	Varga welding attachment No. 6	9,0-14,0
0763464	Varga welding attachment No. 7	14,0-20,0
0763465	Varga welding attachment No. 8	20,0-30,0
Acetylen pressure: 0,2-0,7 bar		
Oxygen pressure: 2,5-3,5 bar		

VARGA WELDING ATTACHMENTS

Art. Nr.		
0763467	Varga welding attachment No. 1	0,5-1,0
0763468	Varga welding attachment No. 2	1,0-2,0
0763469	Varga welding attachment No. 3	2,0-4,0
0763470	Varga welding attachment No. 4	4,0-6,0
Acetylen pressure: 0,2-0,7 bar		
Oxygen pressure: 2,5-3,5 bar		

VARGA CUTTING ATTACHMENTS

Art. Nr.	
G0763031	Varga cutting attachment + cutting nozzle 3 - 30 mm, Acetylene

HEATING TORCH

Art. Nr.	
C10000086	Varga multiflame heating torch 2500 l/h
C10000043	Varga multiflame heating torch 5000 l/h
C10000117	Varga multiflame heating torch propane
C10000042	Varga multiflame heating torch propane

O-RING

Art. Nr.	
548901394262	Varga O-Ring for Varga w.a.
0763040	Varga O-Ring for old type

CUTTING GUIDE

Art. Nr.	
548900100035	Varga cutting guide

CIRCLE CUTTING GUIDE

Art. Nr.	
548900100038P	Circle cutting guide

WELDING TIP

Art. Nr.	
9381710	Varga welding tip 1
9381720	Varga welding tip 2
9381730	Varga welding tip 3
9381740	Varga welding tip 4
9381750	Varga welding tip 5
9381760	Varga welding tip 6
9381770	Varga welding tip 7
9381780	Varga welding tip 8

FLARE NUT

Art. Nr.	
4174831P	Varga flare nut

CUTTING NOZZLE

Art. Nr.	Size	Cutting range mm	Oxygen pressure (bar)	Acetylene pressure (bar)	Consumption of the oxygen (m^3/h)	Consumption of the acetylene (m^3/h)
14001022	V1	3-30	2-4	0,3	2,1	0,36
14001023	V2	30-80	4-6	0,3	5,4	0,55
14001024	V3	80-150	6-8	0,4	10,5	0,56
14001025	VKA	3-150				

CUTTING AND WELDING SETS

RK-20 CUTTING AND WELDING SET

CUTTING AND WELDING SET

Art. Nr.	
G71580304	RK-20 set with 4 attachments
G71610004	RK-20 set with 8 attachments
G71610006	RK-20 set with 6 attachments
G72520002	RK-20 set with 4 attachments
G72520103	RK-20 set with 6 attachments

RK20 SHANK

Art. Nr.	
G0767669	Shank KOMBI RK20 G3/8 LH G1/4

SPP22990012	Trim valve Oxygen/Acetylene
548900100031P	Quick connection nut RK20

RK20 WELDING ATTACHMENTS

Art. Nr.		Welding thickness (mm)
9431630	Welding attachment acetylene	0,5-1,0
9431510	Welding attachment acetylene	1,0-2,2,0
9431590	Welding attachment acetylene	2,0-4,0
9431610	Welding attachment acetylene	4,0-6,0
9407030	Welding attachment acetylene	6,0-9,0
9407040	Welding attachment acetylene	9,0-14,0
9407050	Welding attachment acetylene	14,0-20,0
9407060	Welding attachment acetylene	20,0-30,0

Art. Nr.		Size
9407070	Welding attachment propane	1
9407080	Welding attachment propane	2
9407090	Welding attachment propane	3
9407100	Welding attachment propane	4

RK 20 FLEXIBLE WELDING ATTACHMENTS

Art. Nr.		Welding thickness (mm)
9407130	Welding attachment flexible acetylene	0,5-1,0
9407140	Welding attachment flexible acetylene	1,0-2,0
9407150	Welding attachment flexible acetylene	2,0-4,0
9407160	Welding attachment flexible acetylene	4,0-6,0
9407170	Welding attachment flexible acetylene	6,0-9,0

CUTTING ATTACHMENTS

Art. Nr.	
G0763056	Cutting attachment, knob type AC.
G0763031	Cutting attachment, lever type AC. Cutting nozzle 3-8 mm
G0767794	Cutting attachment, lever type propane Cutting nozzle 3-8 mm

HEATING TORCH

Art. Nr.	
71231908	Heating attachment, multiflame 2000 l/h 2H
71231907	Heating attachment, multiflame 2500 l/h NEF/B7
71231909	Heating attachment, multiflame 4000 l/h 4H
71231910	Heating attachment, multiflame 5000 l/h NEF/S13

WASHER

Art. Nr.	
71236004	Washer

CUTTING GUIDE

Art. Nr.	
548900100039	Cutting guide

CIRCLE CUTTING GUIDE

Art. Nr.	
548900100038	Circle cutting guide RK20

CUTTING NOZZLE LS ACETYLENE

Art. Nr.	Size	Cutting range mm	Oxygen pressure (bar)	Acetylene pressure (bar)	Consumption of the oxygen (m^3/h)	Consumption of the acetylene (m^3/h)
14001108	LS1	3-8	2-3	0,3-0,8	1,5-2,0	0,36
14001109	LS2	8-20			2,0-3,0	0,55
14001110	LS3	20-50	2-4		3,0-5,0	0,6
14001111	LS4	50-100	3-5		7,0-10,0	0,8
14001112	LS5	100-200	4-6	0,5-0,8	12,0-20,0	1,0
14001113	LS6	200-300	4-7		25,0-30,0	1,2

CUTTING NOZZLE LH PROPANE

Art. Nr.	Size	Cutting range (mm)	Oxygen pressure (bar)	Propane pressure (bar)	Consumption of the oxygen (m^3/h)	Consumption of the propane (m^3/h)
14001117	LH1	3 - 8	4	0,1-1,0	2,0-6,0	0,5-0,9
14001118	LH2	8 -20				
14001119	LH3	20 - 50				
14001120	LH4	50 - 100	3,5-5,5		11,0	0,5-1,1
14001121	LH5	100 - 200	4,5-6,5		15,0-20,0	1,6
14001122	LH6	200 - 300	6,5-8,5		15,0-25,0	0,8-1,8

HEATING NOZZLE L

Art. Nr.	Gas	Size	Cutting range (mm)
14001114	Fuel	L1-4	3 - 100
14001123	Acetylene	LS5-6	100 - 300
14001115	Propane	LH5-6	100 - 300

TORCHES - COMBINED OXY-FUEL SYSTEMS

X11® ORIGINAL

The GCE X11® Original is a complete system for cutting, welding, heating and soldering. With its ergonomic design and wide range, developed by GCE, it's probably the most attractive product for light duty applications on the market.

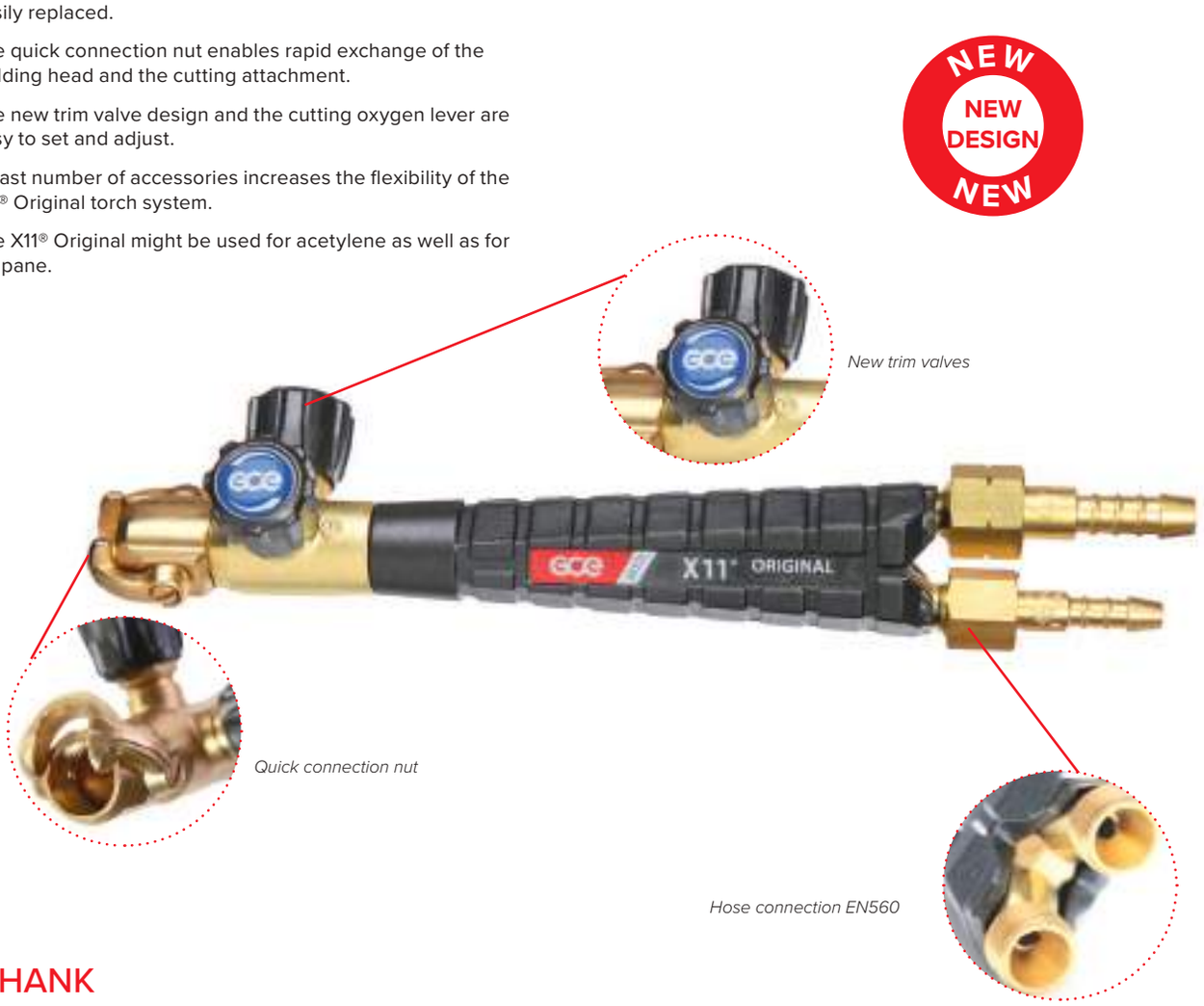
GCE offers a wide range of complete X11 sets for various applications. They are all special designed to make it easy for the user to select what's needed for the work to be done. The equipment is packed in robust boxes for good protection and easy transportation.

The X11® Original is a complete system comprising everything you likely need for general welding, heating, brazing and cutting applications.

The X11® Original fully meets the requirements of EN ISO 5172 and is manufactured according to the Quality Management System ISO 9001.

FEATURES / ADVANTAGES / BENEFITS

- The teflon washers on all attachments, for perfect seal, are easily replaced.
- The quick connection nut enables rapid exchange of the welding head and the cutting attachment.
- The new trim valve design and the cutting oxygen lever are easy to set and adjust.
- A vast number of accessories increases the flexibility of the X11® Original torch system.
- The X11® Original might be used for acetylene as well as for propane.

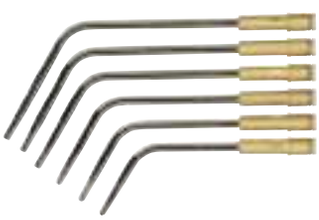


X11 SHANK

Art. Nr.	Oxygen	Fuel gas
0767535	G1/4"	G3/8"LH
0767537	G1/4	G1/4"LH

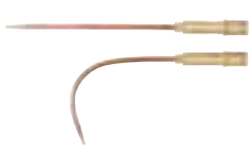
WELDING AND HEATING HEADS

The single flame, backfire safe, welding heads come in a flow range from 40 l/h up to 1250 l/h and have spanner grips for easy exchange of tips.
The welding tips are made of chrome-plated copper for efficient heat dissipation and are fully swaged to give a perfect flame.
Flexible welding tips, heating attachments up to 2500 l/h and soldering heads are also available.



WELDING ATTACHMENTS

Art. Nr.	Size Nr.	Gas flow (l/h)	Thickness (mm)
9430540	0	40	0,2 - 0,5
9431640	1A	80	0,5 - 1,0
9390440P	2A	160	1,0 - 2,0
9389890P	E2A	230	1,5 - 3,0
9390460P	3A	315	2,0 - 4,0
9389900P	E3A	400	3,5 - 5,0
9390480P	4A	500	4,0 - 6,0
9389910P	E4A	650	5,0 - 7,0
9389380P	5A	800	6,0 - 9,0
Acetylene pressure: 0,1-0,8 bar			
Oxygen pressure: 2,5 bar			



FLEXIBLE ATTACHMENTS

Art. Nr.	Size Nr.	Gas flow (l/h)	Thickness (mm)
9390590	1	80	0,5 - 1,0
9429790	2	160	1,0 - 2,0
9389580P	3	315	2,0 - 4,0
9390620	4	500	4,0 - 6,0
9389600	5	800	6,0 - 9,0
Acetylene pressure: 0,1-0,8 bar			
Oxygen pressure: 2,5 bar			

HEATING ATTACHMENT MULTIFLAME - ACETYLENE

Art. Nr.	Gas flow (l/h)
202232204P	500
202232205	800
202232205	1000
Acetyelene pressure: 0,5-0,8 bar	
Oxygen pressure: 2,5 bar	

HEATING ATTACHMENT - PROPANE

Art. Nr.	Type
763658	Multiflame 90 l/h
0763658	Multiflame 1000 l/h

CUTTING ATTACHMENT

Cuting attachment X11 has 90 degrees head angle for simple and basic cutting operations and user friendly llever for easy opening of the cutting oxygen flow. With the GCE X11 Original cutting attachment it is possible to cut up 100 mm thickness.

Art. Nr.	Gas	Notice
0764151	Acetylene	Nozzle HA411 No.1 included
0767545	Acetylene	Nozzle HA411 No.1 included
N560172	Acetylene	Nozzle HA411 No.1 included
0763614	Fuel gas	Ace, propane, methane, natural gas

0767550

Easily replaceable teflon washers

CUTTING NOZZLES

HA 411

HP 433

ANME

PNME

ACCESSORIES

Art. Nr.	Type	Position
163811162890P	Spanner 6-gap	
9430450	Circle cutting device Ø 60-200 mm	3
9414770	Twin wheel cutting guide, injector	1
9414760	Cleaning needles in a case	
9414750	Teflon washers, 5 pcs/package	

COMPLETE X11® ORIGINAL BOX

Art. Nr.	Shank	Cutting attachment	Welding attachment	Nozzles	Other equipment
71680001	X11 G1/4" + G1/4"LH	X11 P 190 ACE 90° L	2A 160l, 3A 315l, 4A 500l	HA411 - No.2, No.3	cleaning needles, BV12 + nuts, QC, plastic case

TORCHES - COMBINED OXY-FUEL SYSTEMS

X21® ORIGINAL

The GCE X21® Original with large capacity for welding, cutting, soldering, heating and straightening. X21® Original is a combined gas welding and gas cutting torch for manual work. It is a pressure torch (II) that is designed on the basis of the stringent demands stipulated by standard EN ISO 5172.

X21 is a versatile and complete torch system, with cutting attachments for injector or pressure principle, and with round or oval shank, for all medium and heavy duty cutting, welding, and heating jobs. With the pressure principle you use 3-cone cutting nozzles, with the injector principle you use fl at seal cutting nozzles. The choice is yours.

All X21 equipment fully meets the requirement of EN ISO 5172 and is manufactured at our factory under the Quality Management System ISO 9001.

X21 satisfies the high expectations that users have of a quality torch. With the X 21 pressure torch, the gases are mixed in the torch head, which increases safety against flashbacks. Pressure torches entail that Oxygen and fuel gas for the heating flame have the same inlet pressure to the nozzle.

X21® Original is available for the fuel gases Acetylene and Propane (LPG). Using Propane as the fuel gas, all the processes apart from gas welding can be used.

FEATURES / ADVANTAGES / BENEFITS

- Choose between round and oval torch handle
- Potential to weld material thicknesses up to 14 mm
- Cut up to 500 mm
- Perfect for flame cleaning and straightening
- Large range of accessories
- Equipment for powder cutting available

AVAILABLE SHANK TYPES

Art. Nr.	Type
0764658	Round type G3/8” + G3/8” LH (hose nipples 6,3 mm)
0767946	Round type G3/8” + G3/8” LH (BV12 - 6,3 mm)
0763939	Flat type shank G3/8”-G3/8”LH

X21 Original Round Shank

X21 Original Flat Shank

CUTTING ATTACHMENT

There are two types of cutting attachment with lever valve or wheel valve suitable for both acetylene and propane. Angles for nozzle head are available in 90°, 75°, 45° and 0°. With X21 it's possible to steel material in thicknesses up to 500 mm. GCE offer a wide range of 3-cone nozzle designs for various applications. The X21 cutting attachment is available both as injector and pressure torch.

Art. Nr.	Version	Heating gas	Type	Head angle	Lenght (mm)
0767941	Lever	Ace/Prop	Nozzle mix	90°	319
0764561	Lever	Ace/Prop	Nozzle mix	75°	322
0763932	Hand wheel	Ace/Prop	Nozzle mix	90°	319

CUTTING NOZZLES, 3-CONE (NOZZLE MIX)

ANME: Acetylene

PNME: Propane natural gas

COOLEX HA 311

COOLEX P337

AGN COOLEX

PNME: COOLEX

COOLEX A 361 GOUGING AND RIVET CUTTING NOZZLE FOR ACETYLENE

COOLEX A 341 BENT RIVET NOZZLE FOR ACETYLENE

FGA COOLEX: ACETYLENE

ALSO OTHER NOZZLES AVAILABLE PLEASE SEE PAGE 59.

READ MORE ABOUT THE PATENTED **COOLEX SYSTEM** ON PAGE 68.

X21 FOR WELDING

WELDING ATTACHMENT OXYGEN-ACETYLENE

Art. Nr.	Size Nr.	Gas flow (l/h)	Thickness (mm)
9389430P	0	40	0,2 - 0,5
9389440P	1	80	0,5 - 1,0
9389450P	2	160	1,0 - 2,0
9389460P	2E	230	2,0 - 3,0
9389470P	3	315	2,0 - 4,0
9389480P	3E	400	3,5 - 5,0
9389490P	4	500	4,0 - 6,0
9389500P	4E	650	5,0 - 7,0
9389510P	5	800	6,0 - 9,0
9389520P	5E	1000	7,0 - 10,0
9389530P	6	1250	9,0 - 14,0
Acetylen pressure: 0,3 bar			
Oxygen pressure: 2-6 bar			

X21 FOR HEATING

In addition to various welding attachments, there are three single flame heating attachments for Acetylene, ranging from 1800 to 5000 l/h, as well as three multiple flame heating attachments ranging from 1000 to 5000 l/h. In addition there are four multiple flame heating attachments for Propane, ranging from 1000 to 7000 l/h.

HEATING ATTACHMENT, SINGLE FLAME OXYGEN-ACETYLENE

Art. Nr.	Size Nr.	Working pressure Oxygen (bar)	Working pressure Acetylene (bar)
9389540P	1800 l/h	3	0,3
9389550	2500 l/h	6	0,4
219100228	5000 l/h	8	0,6

HEATING ATTACHMENT, MULTIFLAME OXYGEN-ACETYLENE

Art. Nr.	Size Nr.	Working pressure Oxygen (bar)	Working pressure Acetylene (bar)
202232210	1000 l/h	3	0,3
202232211	2500 l/h	6	0,4
202232212	5000 l/h	8	0,6

HEATING ATTACHMENT, MULTIFLAME OXYGEN-PROPANE

Art. Nr.	Size Nr.	Working pressure Oxygen (bar)	Working pressure Propane (bar)
202232217	1 000 l/h	0,9	0,7
202232218	2 000 l/h	2,4	0,8
202232219	4 000 l/h	4,9	1,9
202232220	7 000 l/h	8,0	2,5

HEATING NOZZLES NEF/B

Nozzle channel´s location

Art. Nr.	Type	Size
14067535	NEF/B	6
14004169	NEF/B	7
14004170	NEF/B	9

TORCH PREFORMANCE DATA

Nozzle size	Oxygen pressure (bar)	Acetylene pressure (bar)	Oxygen consumption (m^3/h)	Acetylene consumption (m^3/h)
6	2,5	0,5	1,1	1,0
7	6,0	0,4	2,5	2,15
9	8,0	0,6	5	4,1

Nozzle channel´s location

HEATING NOZZLES S,D

Nozzle channel´s location

Nozzle channel´s location

Art. Nr.	Size/Type	Connection
14003133	5S	M13x1
14003235	D2	W12x20
14003236	D3	W12x20
14003225	D5	W12x20

TORCH PREFORMANCE DATA

Nozzle size	Oxygen pressure (bar)	Propane pressure (bar)	Oxygen consumption (m^3/h)	Propane consumption (m^3/h)
5S	5	0,5	3,3 - 4,2	1,03 - 1,5
D2	5	0,5 - 0,7	6,5 - 8,5	2,0 - 3,0
D3	6	0,8 - 1,3	13,0 - 18,6	4,0 - 5,5
D5	6	1,3 - 1,5	23,0 - 30,0	6,6 - 7,2

X21 FOR FLAME STRAIGHTENING

Art. Nr.	Type	Working pressure Oxygen (bar)	Working pressure Acetylene (bar)	Lenght (mm)
14070514	3 nozzles	7	0,7	730
202232267	5 nozzles	7	0,7	690

5 Nozzles For Acetylene

3 Nozzles For Acetylene

X21 FOR FLAME CLEANING

Art. Nr.	Width of head (mm)	Working pressure Oxygen (bar)	Working pressure Acetylene (bar)
202235735	50	3	0,7
202235736	150	5	0,7
202235731	250	5	0,8

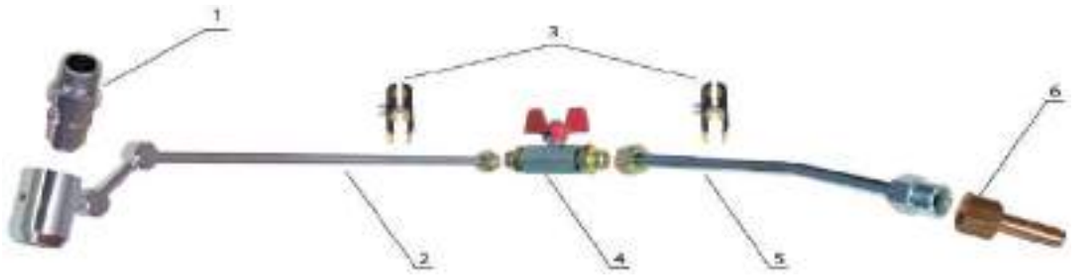
Acetylene

Acetylene

X21 FOR POWDER CUTTING

Lenght	Head angle
655 mm	75°

POWDER ATTACHMENT



TECHNICAL DATA	
Weight	0,320 kg
Length	360 mm
Gas	Acetylene, Propane

DESCRIPTION	POSITION
Powder nozzle	1
Powder head with neck	2
Clamp	3
Ball valve	4
Tube with fittings	5
Hose nipple 6,3xG3/8“	6

COMPLETE KITS

Art. Nr.	Shank	Cutting attachment	Welding attachment	Nozzles	Other equipment
0767937	Round type G3/8	90° lever	6 sizes	HA311 - 3 sizes	spanner, cleaning needles, cutt.guide, BV12 + nuts, set of O-rings, red metal case
0764267	Round type G3/8	90° lever	2 sizes	HA311 - 1 size	cleaning needles, BV12 + nuts, red metal case

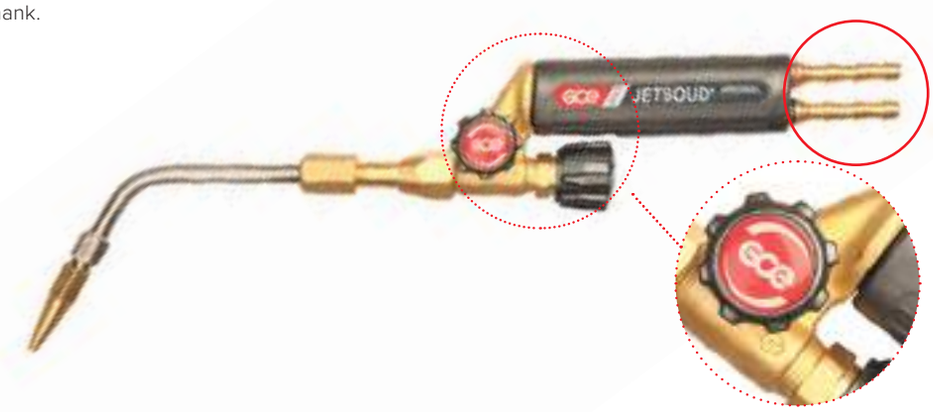
MANUAL TORCHES - WELDING TORCH

JETSOUD SI

This torch is light and easy to handle and developed specially for refrigerator technicians and installers of air- conditioning equipment, who require a torch being easy to handle for reaching narrow or difficult points.

JETSOUD torch allows reducing the movement of the operator's wrist. People who have already used the JETSOUD torch appreciate its perfect flame regulation also with low flow-rates, thanks to the possibility of regulating oxygen flow by means of a pin (micro regulation). This means that the attachment and the knob are on the same axis.

The JETSOUD SI has FBAs built into the shank to ensure the highest safety during welding. It is not necessary to add on any other protective equipment for shank.



NOUVEAU NEW DESIGN NEW

JETSOUD torch is delivered with mounted nozzle (consumption 250 l/h) and set of 6 nozzles with consumption (40, 63, 100, 160, 315 and 400 l/h).

FEATURES / ADVANTAGES / BENEFITS

- Low weight 0,320
- Compatible for acetylene and propane
- Integrated FBAs
- EN ISO 5172

TECHNICAL DATA	
Weight	0,320 kg
Length	360 mm
Gas	Acetylene, Propane

G1/4" / G1/4" LH G1/4" / G1/4" LH

JETSOUD SI	1
Nozzles for welding (6 pcs) - Acetylene	2
Nozzles for welding (6 pcs) - Propane	2
Double flame attachment	3
Flexible welding attachment 160 l/h	4
Flexible welding attachment 250 l/h	4
Flexible welding attachment 315 l/h	4

JETSOUD DETAILS

Art. Nr.	Type
22290270	160 l/h FLEXI WELDING ATTACHMENT - ACETYLENE
22290271	250 l/h FLEXI WELDING ATTACHMENT - ACETYLENE
22290272	315 l/h FLEXI WELDING ATTACHMENT - ACETYLENE
9429810	315 l/h DOUBLE BRAZING ATTACHMENT

JETSOUD

New Item number	Type*	Description	Previous Item number	Gas	Connection	Packaging
G0764572	SI	**JETSOUD SI TORCH (FBA)**	0764572	Acetylene	Hose	Box

Multifunction Nozzle Star Pack

New Trim Valves

Flashback Arrestors Integrated

TECHNICAL DATA

Welding range (mm)	Nozzles consumption (l/h)	Pressure (bar)		
		Oxygen	Acetylene	Propane
0,4 - 0,5	40	1 - 1,5	0,2 - 0,5	0,1 - 0,4
0,6	63			
1	100			
1,5	160			
2,5	250			
3	315			
4	400			
5	500			

WELDING TORCHES

New Item number	Type*	Description	Previous Item number	Gas	Connection	Packaging
G0767789	OT	**JETSOUD TORCH**	0767789 0767951 0767788	Acetylene	Hose	Box
GA121022EMB	OT	**JETSOUD TORCH**	A120953EMB A121022EMB	Acetylene	Hose	Blister
G0767919	OT	**JETSOUD TORCH**	0764174 0766188 0766277 0767919 0767945	Acetylene	G1/4	Box
G0767920	OT	**JETSOUD TORCH**	0767920 0767944	Propane	G1/4	Box
G0767952	OT	**JETSOUD TORCH**	0767904 0767952	Propane	Hose	Box
G0764572	SI	**JETSOUD SI TORCH (FBA)**	0764572	Acetylene	Hose	Box

Each torch package contains a nozzle star tooling including 6 nozzles + 1 nozzle on the torch.

JETSOUD SETS

Item number	Type*	Description	Gas	Packaging	
A170178	OT	**WELDING SET JETSOUD OT SIMPLE**	Acetylene	Black case	Jetsoud Torch, Welding attachement 160L, Welding attachement 250L, Heating nozzle 400L
0764282	SI	**WELDING SET JETSOUD**	Acetylene	Black case	Jetsoud Torch with FBA, Welding attachement 160L, Welding attachement 250L, Heating nozzle 400L

Type OT Removable Welding Attachement*
Type SI Removable Welding Attachement and Flashback Arrestors integrated*

For other versions available, please contact your local GCE sales office for information.

A170178 Welding Set Jetsoud

FLEXI WELDING ATTACHMENT

Item number	Gas	Consumption (l/h)	PCE	Packaging
22290270	Acetylene	160	1	Plastic Bag
22290271	Acetylene	250	1	Plastic Bag
22290272	Acetylene	315	1	Plastic Bag
22290273	Acetylene	400	1	Plastic Bag
22290274	Acetylene	500	1	Plastic Bag
A290270EMB	Acetylene	160	1	Blister
A290271EMB	Acetylene	250	1	Blister
A290272EMB	Acetylene	315	1	Blister
A290273EMB	Acetylene	400	1	Blister
A290274EMB	Acetylene	500	1	Blister

DOUBLE BRAZING ATTACHMENT

Item number	Gas	Consumption (l/h)	PCE	Packaging
9429810	ACE/P/NATURAL GAS	up to 400	1	Plastic Bag

WELDING ATTACHMENT (WITH FORGED TIPS)

Item number	Gas	Consumption (l/h)	PCE	Packaging
22290203	Acetylen	100	1	Plastic Bag
22290204	Acetylen	160	1	Plastic Bag
22290205	Acetylen	250	1	Plastic Bag
22290206	Acetylen	315	1	Plastic Bag
22290207	Acetylen	400	1	Plastic Bag
A290203EMB	Acetylen	100	1	Blister
A290204EMB	Acetylen	160	1	Blister
A290205EMB	Acetylen	250	1	Blister
A290206EMB	Acetylen	315	1	Blister
A290207EMB	Acetylen	400	1	Blister

MULTIFUNCTION NOZZLE STAR PACK

Nozzle holder for 6 nozzles. Integrated nozzle tooling.

Item number	Gas	Description	Nozzles (PCE)	Packaging
L192111	Acetylene	**NOZZLE SET JETSOUD**	7	Plastic Bag
L192111EMB	Acetylene	**NOZZLE SET JETSOUD**	7	Blister
L192112	Propane	**NOZZLE SET JETSOUD**	7	Plastic Bag

Multifunction Nozzle Star Pack

SINGLE NOZZLES

Item number	Gas	Description	PCE	Packaging
9400710	Acetylene	**WELD NOZZLE A 40L**	1	Plastic Bag
F0018063	Acetylene	**WELD NOZZLE A 63L**	1	Plastic Bag
F0018100	Acetylene	**WELD NOZZLE A 100L**	1	Plastic Bag
F0018160	Acetylene	**WELD NOZZLE A 160L**	1	Plastic Bag
F0018250	Acetylene	**WELD NOZZLE A 250L**	1	Plastic Bag
F0018315	Acetylene	**WELD NOZZLE A 315L**	1	Plastic Bag
F0018400	Acetylene	**WELD NOZZLE A 400L**	1	Plastic Bag
F0018500	Acetylene	**WELD NOZZLE A 500L**	1	Plastic Bag
F0019100	Propane	**WELD NOZZLE P 100L**	1	Plastic Bag

MULTI FLAME NOZZLES

Item number	Gas	Description	PCE	Packaging
L191237	Acetylene	**NOZZLE MULTI A 400L**	1	Plastic Bag
L191236EMB	Acetylene	**NOZZLE MULTI A 400L**	1	Blister

MANUAL TORCHES - CUTTING TORCHES AND NOZZLES

X501® ORIGINAL

X501 is a reliable and safe torch even under the toughest conditions! The hand cutting torch X 501 is an injector burner (mixer with suction - i), which is used for manual cutting and heating using a mix of oxygen and acetylene or propane. Cutting can be done in steel material up 300 mm thickness.

The hand cutting torch meets all technical requirements and has been developed on the basis of current engineering practice in accordance to EN ISO 5172 standard.

FEATURES / ADVANTAGES / BENEFITS

- High operating safety even at acetylene pressure
- The new trim valve design for regulation of preheating oxyge and fuel gas are forward mounted for easiest control of the flame
- the cutting oxygen lever is specially designed to give maximum control of all operations, ideal for piercing, gouging and rivet washing
- Length, balance and profile are chosen for best control of operation
- High flow rate

Article number	Fuel Gas	Lenght (mm)	Head angle	Cutting oxygen valve type	Inlet connection	Nozzle type
G0764607	Propane	1450	75°	lever	G3/8" - G3/8" LH	PRU
G0766185	Acetylene	450	90°	wing nut	G1/4" - G3/8" LH	AC, FHA
G0767680	Acetylene	530	85°	lever	G1/4" - G3/8" LH	AC, FHA, R
G0767681	Propane	530	85°	lever	G1/4" - G3/8" LH	MPL, PUZ
G0767682	Acetylene	530	90°	lever	G1/4" - G3/8" LH	AB
G0767683	Propane	810	75°	lever	G1/4" - G3/8" LH	NFF, NX
G0767734*	Propane	810	75°	lever	G1/4" - G3/8" LH	NFF, NX
G0767796	Propane	530	90°	lever	G1/4" - G3/8" LH	NFF, NX

** with SG1*

MANUAL TORCHES - CUTTING TORCHES AND NOZZLES

X511® ORIGINAL

GCE X511® Original, the solution for all Industrial Cutting applications.

The GCE X511® Original cutting torch ranges is made for perfect cutting, developed to meet industry's highest demand. The design and profi le is chosen to give perfect balance and optimum control in continuous operation.

SAFE AND SECURE

The main body components are brass, designed to withstand rough treatment. The strong metal handle in combination with stainless steel tubes makes the torch robust and safe to use.

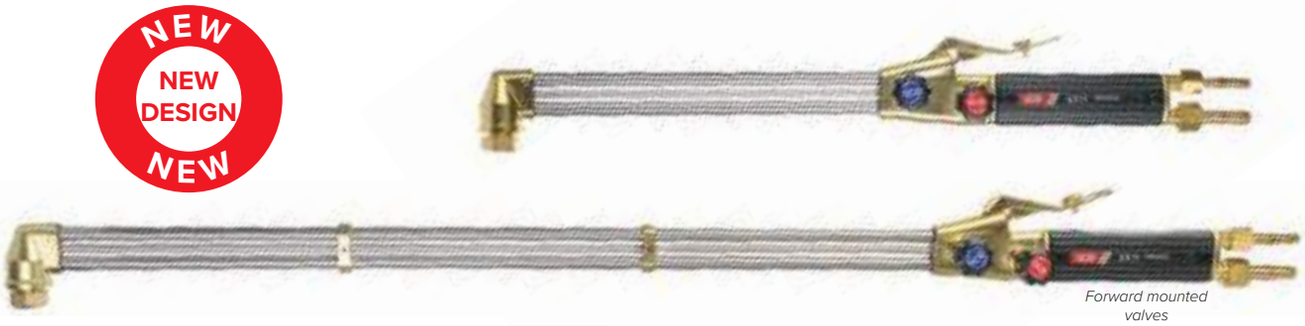
EASY TO HANDLE

The well designed control knobs make it simple and fast to control the flame and the valves are designed to give smoothest possible control. The position of the lever gives ease and comfort of operation.

HIGH CAPACITY

The X511 Diamond cutting torch is made for nozzle mix nozzles and has capacity for cutting 500 mm (=20 inch). All standard three cone nozzles fit.

NEW NEW DESIGN NEW



Forward mounted valves

FEATURES / ADVANTAGES / BENEFITS

- High quality brass cutter with stainless steel tubes
- Oval handle for positive grip
- The new trim valve design for regulation of preheating oxygen and fuel gas are forward mounted for easiest control of the flame
- The cutting oxygen lever is specially designed to give maximum control of all operations, ideal for piercing, gouging and rivet cutting
- Length, balance and profile are chosen for best control of operation
- Low weight
- The knob valves have a self centering stainless steel valve stem for positive seating and long life
- Large capacity, cuts sheet 500 mm thick

SPECIFICATIONS OF VERSIONS X511®

Art. Nr.	Lenght (mm)	Angle	Inlet connection Oxygen	Inlet connection Fuel gas
0767690	470	75°	G3/8“	G3/8” LH
0767689	470	75°	G1/4“	G3/8” LH
0767699	470	90°	G3/8“	G3/8” LH
0767688	470	90°	G1/4“	G3/8” LH
0763391	470	180°	G1/4“	G3/8” LH
0767693	855	75°	G3/8“	G3/8” LH
0767691	855	90°	G1/4“	G3/8” LH
0767694	855	180°	G1/4“	G3/8” LH
0767697	1155	75°	G1/4“	G3/8” LH
0767696	1155	75°	G3/8“	G3/8” LH
0767695	1155	90°	G1/4“	G3/8” LH
0767698	1155	180°	G1/4“	G3/8” LH

ACETYLENE NOZZLES

AC STANDARD CUTTING NOZZLES FOR ACETYLENE

Cutting nozzle

Heating nozzle

Art Nr.	Thickness (mm)	Cutting speed	Pressure (bar)			Flow rare (Nm^3/h)	
			Cutting oxygen	Heating oxygen	Acetylene	Oxygen	Acetylene
14001010	3 - 10	730 - 600	2,0 - 3,0	2	0,5	1,7 - 2,2	0,3
14001011	10 - 25	620 - 410	4,5 - 5,0	2,5	0,5	2,8 - 3,3	0,35
14001012	25 - 40	410 - 340	4,0 - 5,0	2,5	0,5	2,8 - 3,3	0,35
14001013	40 - 60	340 - 310	4,0 - 5,0	2,5	0,5	4,6 - 5,6	0,35
14001014	60 - 100	320 - 250	5,0 - 6,0	3	0,5	8,6 - 10,0	0,4
14001015	100 - 200	270 - 210	6,5 - 7,5	3,5	0,5	12,6 - 13,6	0,5
14001016	200 - 300	150 - 110	6,5 - 7,5	6,5 - 7,5	0,5	29,6 - 33,5	0,8
14001020	3 - 100				Heating nozzle		
14001021	100 - 300				Heating nozzle		

FHA NOZZLES

Art. Nr.	Type	Thickness (mm)
14001440	Cutting nozzle	63,2
14001441	Cutting nozzle	63,2
14001442	Cutting nozzle	63,2
14001443	Cutting nozzle	63,2
14001444	Heating nozzle	71
14001445	Heating nozzle	71

R NOZZLES

Art. Nr.	Type	Thickness (mm)	Oxygen pressure (bar)	Fuel gas pressure (bar)	Consumption of the oxygen (m^3/h)	Consumption of the fuel gas (m^3/h)
14001700	Cutting nozzle	3 - 10	2,5 - 3,5	0,3	1,2 – 1,5	0,3
14001701	Cutting nozzle	10 - 25	3,0 - 4,0	0,3	1,5 – 2,8	0,4
14001704	Cutting nozzle	25 - 40	3,5 - 4,5	0,3	2,8 – 5,1	0,5
14001702	Cutting nozzle	40 - 60	4,0 - 5,0	0,5	4,2 – 5,5	0,6
14001703	Cutting nozzle	60 - 100	4,5 - 5,5	0,8	5,5 – 8,9	0,8

AB NOZZLES

Art. Nr.	Type	Thickness (mm)	Oxygen pressure (bar)	Fuel gas pressure (bar)	Consumption of the oxygen (m^3/h)	Consumption of the fuel gas (m^3/h)
14001650	Cutting nozzle	3 - 10	2,5 – 3,5	0,3	1,6 – 2,0	0,30
14001651	Cutting nozzle	10 - 25	3,0 – 4,0	0,3	2,8 – 3,5	0,40
14001652	Cutting nozzle	25 - 40	3,5 – 4,5	0,3	4,5 – 5,3	0,60
14001653	Cutting nozzle	40 - 60	4,5 – 5,0	0,3	6,5 – 8,0	0,70
14001654	Cutting nozzle	60 - 100	4,5 – 5,5	0,3	10,0 – 13,0	0,80
14001655	Cutting nozzle	100 - 200	5,0 – 6,0	0,8	15,0 – 19,0	1,00
14001656	Cutting nozzle	200 - 300	7,0 – 8,0	0,8	24,0 – 28,0	1,50

HA 411

Art. Nr.	Size	Cutting range mm	Acetylene pressure (bar)	Consumption of the acetylene (m^3/h)	Oxygen pressure (bar)	Consumption of the oxygen (m^3/h)	Cutting speed (mm/min)
0768826	1	1-3	0,2-1	0,1-0,2	1,5	0,2-0,3	1200-600
0768827	2	3-10	0,2-1	0,1-0,2	1,5-2,0	0,5-0,6	600-500
0768828	3	10-25	0,2-1	0,3	3,0-4,0	1,6-2,0	500-320
0768829	4	25-50	0,2-1	0,3	4,0-4,5	3,8-4,2	320-200
0768830	5	50-100 (2-4“)	0,2-1	0,3-0,5	3,0-6,5	5,0-9,8	200-150

PUZ NOZZLES

Art Nr.	Thickness	Cutting speed	Pressure (bar)			Flow rare (Nm^3/h)		
			Cutting oxygen	Heating oxygen	Fuel gas	Cutting oxygen	Heating oxygen	Fuel gas
14001350	3 - 10	600 - 550	2,0-3,0	2	0,2	1,3 - 1,7	1,3	0,33
14001351	10 - 25	560 - 400	4,5 - 5,0	2,5	0,2	2,8 - 3,4	1,5	0,38
14001352	25 - 40	400 - 340	4,0 - 5,0	2,5	0,2	2,8 - 3,4	1,5	0,3
14001353	40 - 60	340 - 310	4,5 - 5,5	2,5	0,2	4,6 - 5,6	1,5	0,38
14001354	60 - 100	310 - 260	5,0 - 6,0	2,5	0,2	8,1 - 9,5	1,5	0,38
14001355	100 - 200	260 - 180	5,5 - 6,5	3,0 - 5,0	0,3	12,6 - 14,4	1,7 - 2,5	0,50 - 0,70
14001356	200 - 300	180 - 110	6,5 - 8,5	5,0 - 7,0	0,3	12,6 - 14,4	2,5 - 3,3	0,70 - 0,90
14001147	3 - 100	Heating nozzle, Propane/natural gas						
14001148	100 - 300	Heating nozzle, Propane/natural gas						
14001587	3 - 100	Heating nozzle, mixed fuel gas						

PROPANE NOZZLES

PRU NOZZLES

Art. Nr.	Type	Thickness (mm)
14001189	Cutting nozzle	300 - 400
14001190	Cutting nozzle	400 - 500
14001634	Cutting nozzle	500 - 600
14001249	Heating nozzle	300 - 600

MPL NOZZLES

Art. Nr.	Type	Thickness (mm)	Oxygen pressure (bar)	Fuel gas pressure (bar)	Consumption of the oxygen (m^3/h)	Consumption of the fuel gas (m^3/h)
14001260	Cutting nozzle	3 - 10	2,0 – 3,0	0,2	2,6 – 3,0	0,35
14001261	Cutting nozzle	10 - 25	3,5 – 4,5	0,2	3,2 – 4,1	0,4
14001262	Cutting nozzle	25 - 40	4,0 – 5,0	0,2	4,3 – 4,9	0,4
14001263	Cutting nozzle	40 - 60	4,5 – 5,5	0,2	6,1 – 7,1	0,4
14001264	Cutting nozzle	60 - 100	5,0 – 6,0	0,2	9,6 – 11,0	0,4
14001265	Cutting nozzle	100 - 200	5,5 – 8,5	0,3	14,3 – 16,9	0,55
14001266	Cutting nozzle	200 - 300	6,5 – 8,5	0,3	25,6 – 32,4	0,75

NFF NOZZLE

Art. Nr.	Size	Cutting range (mm)	Oxygen pressure (bar)	Fuel gas pressure (bar)	Consumption of the oxygen (m^3/h)	Consumption of the fuel gas (m^3/h)
0769201	NFF-1	6-25	2,5 – 3,5	0,5	3,5 – 4,5	0,4
0769202	NFF-2	25-50	3,0 – 4,0	0,5	4,0 – 4,8	0,4
0769203	NFF-3	50-75	3,0 – 4,5	0,5	5,0 – 6,5	0,4
0769204	NFF-4	75-150	3,5 – 5,5	0,5	6,5 – 9,5	0,5
0769205	NFF-5	150-200	4,5 – 5,5	0,5	10,0 – 14,0	0,6
0769206	NFF-6	200-300	5,0 – 6,5	0,5	15,0 – 19,0	0,7

NX NOZZLE

Art. Nr.	Size	Thickness (mm)	Oxygen pressure (bar)	Fuel gas pressure (bar)	Consumption of the oxygen (m^3/h)	Consumption of the fuel gas (m^3/h)
0769207	NX-000	2 - 5	1,0 – 2,0	0,5	1,5 – 2,0	0,2
0769208	NX-00	5 - 10	1,5 – 2,0	0,5	2,0 – 3,0	0,3
0769209	NX-0	10 - 15	2,0 – 3,0	0,5	3,0 – 3,5	0,35
0769210	NX-1	15 - 25	2,5 – 3,5	0,5	3,5 – 4,5	0,4
0769211	NX-2	25 - 50	3,5 – 4,0	0,5	4,0 – 4,8	0,4
0769212	NX-3	50 - 75	3,0 – 4,5	0,5	5,0 – 6,5	0,4
0769213	NX-4	75 - 150	3,5 – 5,5	0,5	6,5 – 9,5	0,5
0769214	NX-5	150 - 200	4,5 – 5,5	0,5	10,0 – 14,0	0,6
0769215	NX-6	200 - 300	5,5 – 6,5	0,5	15,0 – 19,0	0,7

HP 433

Art. Nr.	Size	Cutting range mm	Propane pressure (bar)	Consumption of the Propane (m^3/h)	Oxygen pressure (bar)	Consumption of the oxygen (m^3/h)	Cutting speed (mm/min)
0769075	1	1-3 (1/8“)	0,2-1 (3-15)	0,1	1,0 - 2,0	0,2-0,8	425
0769076	2	3-8 (1/8-5/16“)	0,2-1 (3-15)	0,1-0,2	1,5-3,0	1,0-1,4	485-360
0769077	3	8-20 (5/16-1“)	0,2-1 (3-15)	0,2	2,0-4,0	1,7-3,0	380-265
0769078	4	20-50 (1-2“)	0,2-1 (3-15)	0,2	2,5-5,0	3,6-6,0	310-215

ACETYLENE NOZZLES

ANM

Art. Nr.	Size	Cutting range (mm)	Acetylene pressure (bar)	Consumption of the acetylene (m^3/h)	Oxygen pressure (bar)	Consumption of the oxygen (m^3/h)
0768554	1/32“	3-6 (0-1/4“)	0,2	0,3	2	1,25
0768555	3/64“	5-12 (1/4-1/2“)	0,2-0,3	0,5	2	2,3
0768556	1/16“	10-75 (1-3“)	0,2	0,45	3-4	4,5-5,45
0768557	5/64“	70-100 (3-4“)	0,2	0,79	3-5	7,4-9,8
0768558	3/32“	90-150 (4-6“)	0,2	0,85	3-6	9,4-10,3
0768559	1/8“	190-300 (6-12“)	0,3	1,24-1,4	4-7	14,8-25

ANME

Art. Nr.	Size	Cutting range (mm)	Acetylene pressure (bar)	Consumption of the acetylene (m^3/h)	Oxygen pressure (bar)	Consumption of the oxygen (m^3/h)
0768670	1/32“	3-6 (0-1/4“)	0,3	0,3	2,5-3,5	1,25-1,65
0768635	3/64“	5-12 (1/4-1/2“)	0,3	0,5	2,5-3,5	1,25-1,65
0768599	1/16“	10-75 (1/2-3“)	0,3	0,45	3,5-4,5	3,2-4,45
0768636	5/64“	70-100 (3-4“)	0,5	0,6	4,5-5,5	8,4-9,8
0768662	3/32“	90-150 (4-6“)	0,5	0,75	5,5-6,0	9,2-14,6
0768598	7/64“	140-200 (5-8“)	0,5	0,9	5-6,5	12,5-18,5
0769041	1/8“	190-300 (6-12“)	0,3	1,24-1,4	4,2-6	14,8-25

AGN

Art. Nr.	Cutting range (mm)	Acetylene pressure (bar)	Consumption of the acetylene (m^3/h)	Oxygen pressure (bar)	Consumption of the oxygen (m^3/h)
0768812	3-10 (1/8-1/2“)	0,3	0,3	2,5-3,5	1,25-1,65
0768649	10-25 (1/2-1“)	0,3	0,4	3-4	2,12-3,2
0768897	25-40 (1-1.5“)	0,3	0,45	3,5-4,5	3,2-4,45
0768898	40-60 (1-2“)	0,5	0,5	4,5-5	4,5-5,5
0768899	60-100 (2-4“)	0,5	0,6	4,5-5,5	8,4-9,8
0769033	100-200 (4-7“)	0,5	0,75	5-6,5	13-15
0769034	200-300 (7-12“)	0,8	1	6-7,5	15-19

ARCNM

Art. Nr.	Nozzle	Acetylene Pressure (bar)	Oxygen Pressure (bar)
0769230	ARCNM	0,5-1	3

G1 ACETYLEN

Art. Nr.	Depth	Acetylene pressure (bar)	Consumption of the acetylene (m^3/h)	Oxygen pressure (bar)	Consumption of the oxygen (m^3/h)
0768885	9-12 (1/2)	1 (10)	1,5	6-8 (90-120)	9,3-10,9

G1 ACETYLENE

Art. Nr.	Cutting range (mm)	Size	Acetylene pressure (bar)	Consumption of the acetylene (m^3/h)	Oxygen pressure (bar)	Consumption of the oxygen (m^3/h)
0768629	3-10	AD 7/10	0,3-0,5	0,35	1,5	1,2
0768630	10-25	AD 10/10	0,3-0,5	0,5	1,5-2,5	1,4-3,5
0768631	25-50	AD 12/10	0,3-0,5	0,5	2,5-3,5	3,5-8
0768632	50-80	AD 16/10	0,3-0,5	0,5	3,5-4,5	6-12
0768633	80-120	AD 20/10	0,3-0,5	0,75	4-5,5	8-18
0768634	120-200	AD 25/10	0,3-0,5	0,75	5,5-6,5	14-34
0768566	200-300	AD 30/10	0,3-0,5	0,75	6,5-8	28-48

G1 COOLEX® ACETYLENE

Art. Nr.	Cutting range (mm)	Size	Acetylene pressure (bar)	Consumption of the acetylene (m^3/h)	Oxygen pressure (bar)	Consumption of the oxygen (m^3/h)
0768764	3-10	AD 7/10	0,3-0,5	0,35	1,5	1,2
0768644	10-25	AD 10/10	0,3-0,5	0,5	1,5-2,5	1,4-3,5
0768732	25-50	AD 12/10	0,3-0,5	0,5	2,5-3,5	3,5-8
0768567	50-80	AD 16/10	0,3-0,5	0,5	3,5-4,5	6-12
0768677	80-120	AD 20/10	0,3-0,5	0,75	4-5,5	8-18
0768678	120-200	AD 25/10	0,3-0,5	0,75	5,5-6,5	14-34
0768731	200-300	AD 30/10	0,3-0,5	0,75	6,5-8	28-48

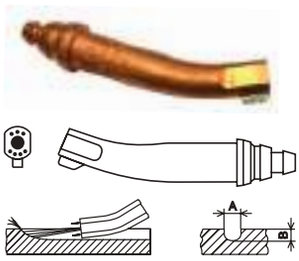
HA311 COOLEX®

Art. Nr.	Size	Cutting range mm	Oxygen pressure (bar)	Acetylene pressure (bar)	Consumption of the oxygen (m^3/h)	Consumption of the acetylene (m^3/h)
0768645	1	1 - 3	0,5 - 2,5	0,2	1,3	0,1
0768568	2	3 - 10	1,0 - 2,5	0,2	1,6	0,3
0768569	3	10 - 25	1,5 - 4,0	0,2	3,6	0,4
0768570	4	25 - 50	1,5 - 4,0	0,2	6,8	0,5
0768571	5	50 - 100	3,0 - 6,0	0,2	7,8 - 14,1	0,7
0768572	6	100 - 200	5,0 - 8,0	0,2	15,8 - 23,9	0,9
0768627	7	200 - 300	5,0 - 8,0	0,3	23,6 - 36,7	1,2
0768628	8	300 - 500	7,0 - 12,0	0,3	43,1 - 68,3	3,0

HA317 COOLEX®

Art. Nr.	Cutting range mm	Oxygen pressure (bar)	Acetylene pressure (bar)	Consumption of the oxygen (m^3/h)	Consumption of the acetylene (m^3/h)
0768560	0 - 50	1,0 - 3,0	0,3 - 0,8	3,2 - 6,3	0,74 - 1
0768561	50 - 100	2,0 - 5,0	0,3 - 0,8	6,4 - 12,4	1
0768562	100 - 200	4,0 - 7,5	0,5 - 0,8	14,5 - 23	1 - 1,3
0768563	200 - 300	4,0 - 7,5	0,5 - 0,8	24 - 35,7	1,4
0768564	300 - 500	6,0 - 8,5	0,8	39,6 - 53,3	2,8 - 3

FGA COOLEX®



Art. Nr.	Size	Range (mm)	Oxygen pressure (bar)	Acetylene pressure (bar)	Consumption of the oxygen (m3/h)	Consumption of the acetylene (m3/h)
0768698	1W	3 - 8	4 - 5	0,5	5 - 6	0,5
0768661	2W	6 - 11	5 - 6	0,5	12 - 14	0,5
0768699	3W	10 - 13	6 - 8	0,5	20 - 22	0,5

AGN COOLEX®

Art. Nr.	Cutting range mm	Oxygen pressure (bar)	Acetylene pressure (bar)	Consumption of the oxygen (m3/h)	Consumption of the acetylene (m3/h)
0768691	3 - 10	2,5 - 3,5	0,3	1,25 - 1,65	0,3
0768692	10 - 25	3,0 - 4,0	0,3	2,12 - 3,20	0,4
0768693	25 - 40	3,5 - 4,5	0,3	3,20 - 4,45	0,45
0768694	40 - 60	4,5 - 5,0	0,5	4,50 - 5,50	0,5
0768695	60 - 150	4,5 - 5,5	0,5	8,40 - 9,80	0,6

PROPANE NOZZLES

HP331

Art. Nr.	Size	Cutting range (mm)	Oxygen pressure (bar)	Propane pressure (bar)	Consumption of the oxygen (m^3/h)	Consumption of the propane (m^3/h)	quantity of the slots
0769298	1	1-3 (1/8)	1 - 2	0,3	1,25 - 1,65	0,3	18
0769299	2	3-10 (1/8-1/2)	1 - 2	0,3	2,12 - 3,20	0,4	18
0769267	3	10-25 (1/2-1)	1 - 2,5	0,3	3,20 - 4,45	0,45	18
0769301	4	25-50 (1-2)	2 - 3	0,5	4,50 - 5,50	0,5	18
0769302	5	50-100 (2-4)	3 - 6	0,5	8,40 - 9,80	0,6	20
0769303	6	100-200 (4-7)	3 - 6	0,6 - 1,5	16,20 - 27,20	0,6	20
0769304	7	200-300 (7-12)	4 - 8	0,6 - 1,5	25 - 45	1	26
0769305	8	300-500 (12-19)	6 - 12	0,6 - 1,5	45 - 75	1	26

PNM

Art. Nr.	Cutting range (mm)	Oxygen pressure (bar)	Propane pressure (bar)	Consumption of the oxygen (m^3/h)	Consumption of the propane (m^3/h)
0768880	3 - 6	2	0,3	2,3	0,3
0768865	5 - 12	2	0,3	3,4	0,4
0768879	10 - 75	3	0,3	4,7	0,45
0768878	70 - 100	3,5	0,5	10	0,6
0769481	90 - 150	4	0,5	15,5	0,75
0769482	190 - 300	7	0,8	32	1,4

PNME

Art. Nr.	Cutting range (mm)	Oxygen pressure (bar)	Propane pressure (bar)	Consumption of the oxygen (m^3/h)	Consumption of the propane (m^3/h)
0769494	3 - 6	2,5 - 3,5	0,3	1,8-2,95	0,3
0769495	5 - 12	3,0 - 4,0	0,3	3,3-4,95	0,4
0769496	10 - 75	3,5 - 4,5	0,3	5,0-8,6	0,45
0769497	70 - 100	4,5 - 5,5	0,5	9,4-12,8	0,6
0769498	90 - 150	5,5 - 6,5	0,5	14-18,6	0,75
0769499	140 - 200	5,5 - 6,5	0,6	15,5-25,5	0,9
0769501	190 - 300	5,5 - 6,5	0,8	26,9-32	1,4

G1 PROPANE

Art. Nr.	Cutting range (mm)	Size	Propane pressure (bar)	Consumption of the propane (m^3/h)	Oxygen pressure (bar)	Consumption of the oxygen (m^3/h)
0768764	3-10	AD 7/10	0,3-0,5	0,35	1,5	1,2
0768644	10-25	AD 10/10	0,3-0,5	0,5	1,5-2,5	1,4-3,5
0768732	25-50	AD 12/10	0,3-0,5	0,5	2,5-3,5	3,5-8
0768567	50-80	AD 16/10	0,3-0,5	0,5	3,5-4,5	6-12
0768677	80-120	AD 20/10	0,3-0,5	0,75	4-5,5	8-18
0768678	120-200	AD 25/10	0,3-0,5	0,75	5,5-6,5	14-34
0768731	200-300	AD 30/10	0,3-0,5	0,75	6,5-8	28-48

PNME COOLEX®

Art. Nr.	Range (mm)	Oxygen pressure (bar)	Propane pressure (bar)	Consumption of the oxygen (m^3/h)	Consumption of the propane (m^3/h)
0768652	3 - 10	2,5 - 3,5	0,3	1,25 - 1,65	0,3
0768653	10 - 25	3,0 - 4,0	0,3	2,12 - 3,20	0,4
0768696	25 - 40	3,5 - 4,5	0,3	3,20 - 4,45	0,45
0768697	40 - 60	4,5 - 5,5	0,5	4,50 - 5,50	0,5
0768654	60 - 150	4,5 - 5,5	0,5	8,40 - 9,80	0,6

HP 337-COOLEX® POWDER

Art. Nr.	Size	Cutting range (mm)	Oxygen pressure (bar)	Propane pressure (bar)	Consumption of the oxygen (m^3/h)	Consumption of the propane (m^3/h)	quantity of the slots
0768681	1	0 - 50	4	0,3	8 - 10	0,3	10
0768682	2	50 - 100	5	0,3	9 - 15	0,4	10
0768683	3	100 - 200	7	0,3	28 - 35	0,45	10
0768684	4	200 - 300	8	1,5	76 - 80	0,5	12
0768685	5	300 - 500	12	0,5	150	0,6	??
Different design							
14001276	1	0 - 50	5	0,3	1,25 - 1,65	0,3	10
14001277	2	50 - 100	7	0,3	2,12 - 3,20	0,4	10
14001278	3	100 - 200	8	0,3	3,20 - 4,45	0,45	12
14001279	4	200 - 300	12	0,5	4,50 - 5,50	0,5	10

HP331 COOLEX®

Art. Nr.	Size	Range (mm)	Oxygen pressure (bar)	Propane pressure (bar)	Consumption of the oxygen (m^3/h)	Consumption of the propane (m^3/h)	quantity of the slots
0768660	1	1 - 3	1 - 2	0,3	1,25 - 1,65	0,3	18
0768659	2	3 - 10	1 - 2	0,3	2,12 - 3,20	0,4	18
0768658	3	10 - 25	1 - 2,5	0,3	3,20 - 4,45	0,45	18
0768657	4	25 - 50	2 - 3	0,5	4,50 - 5,50	0,5	18
0768656	5	50 - 100	3 - 6	0,5	8,40 - 9,80	0,6	20
0768655	6	100 - 200	3 - 6	0,6 - 1,5	16,20 - 27,20	0,6	20
0768680	7	200 - 300	4 - 8	0,6 - 1,5	25 - 45	1	26
0768679	8	300 - 500	6 - 12	0,6 - 1,5	45 - 75	1	26

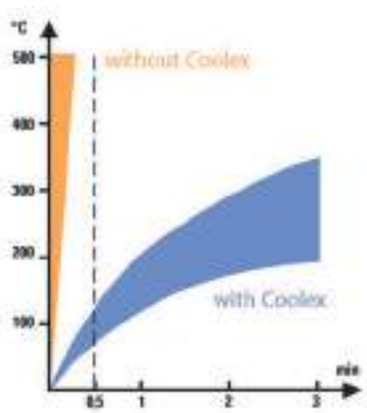
PREMIUM NOZZLES FOR GCE X511 ORIGINAL CUTTING TORCH COOLEX® – 3 CONE SEALED CUTTING NOZZLES

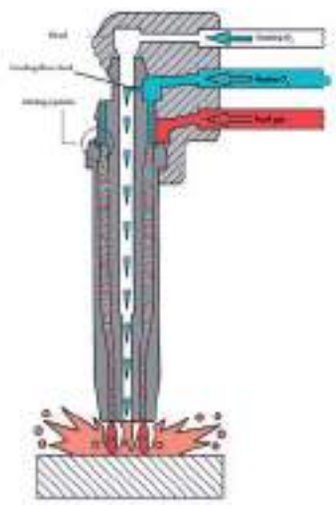
COOLEX® is the generic name for GCE,s 3-cone sealed cutting nozzles which are an innovative development based on conventional cutting nozzles. The COOLEX® nozzles have a cooling flow duct patented by GCE.

In a conventional cutting nozzle, hot gas penetrates from the heating flame into the cutting duct, causing inappropriate heating of the cutting nozzle, often up to 500°. The COOLEX® nozzles with a cooling flow duct reduce the temperature of the nozzles and increase the operational function and the life time of the nozzle.

THE RESULTS :

- Lower temperature
- Fewer operational interruptions





COOLEX CUTTING NOZZLES

HA311 COOLEX®

HA317 COOLEX®

PNME COOLEX®

COOLEX A 341 BENT RIVET NOZZLE FOR ACETYLENE

HP337 COOLEX®

COOLEX A 361 GOUGING AND RIVET CUTTING NOZZLE FOR ACETYLENE

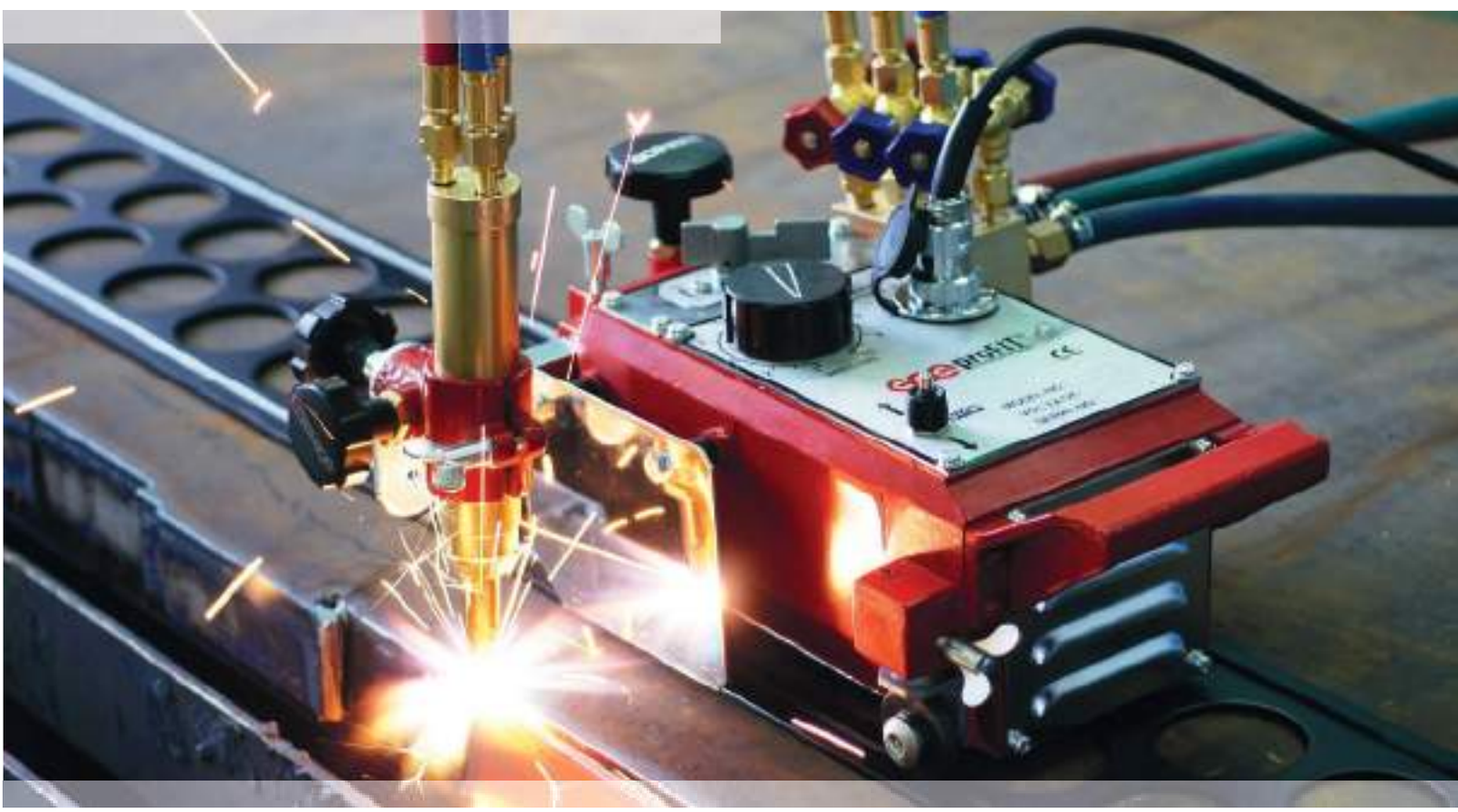
FGA COOLEX: ACETYLENE

AGN COOLEX®

HP331 COOLEX®

MACHINE CUTTING – PORTABLE MACHINES

CUTTING EQUIPMENT FOR AUTOMATED CUTTING MACHINES



RANGE OF PORTABLE CUTTING MACHINES GCE PROFIT

GCE PROFIT SLM,
STRAIGHT LINE CUTTING MACHINE

GCE proFIT® SLM is a universal cutting machine with lightweight design mainly for oxy-fuel cutting applications up to 150 mm metal sheet thickness (up to 100 mm with two cutting torches). It is a rugged but precise portable machine which has many features and benefits. For example it can be used for straight cuts guided by the rail, manually-guided shape cuts, circular cuts and Strip Cutting when using two torches. The cutting torch can be fixed in a vertical position or angled for bevel cutting of metal sheet edges. The machine is Ideal for small workshops or as an additional tool to a gantry machine. It can be used indoor but also due to its flexibilty it can be used outdoors on the construction sites.

FEATURES / ADVANTAGES / BENEFITS

- Lightweight portable machine for one-hand manipulation
- Easy installation and operation
- Interlocking, 1,8 m long guide rail
- All common fuel gases service
- Nozzle mixing (IC 30° cone) cutting torches or BIR+, an injector cutting torch technology
- Basic one-torch configuration can be extended for two-torch operation
- Strip cutting and bevel cutting with two torches
- Precise drive system is ensuring constant cutting speed
- Exact adjustment of the torch position
- High speed of motor drive enables machine to be used also for plasma cutting

TECHNICAL DATA	
Cutting capacity:	up to 150 mm with one torch, up to 100 mm with two torches
Cutting speed:	50 – 1600mm/min
Operation:	forward and reverse with variable speed
Power supply:	230V AC / 50 Hz
Oxygen inlet connection:	G1/4“, up to 8 bar, hose min. DN8
Fuel gas inlet connection:	G3/8“LH, up to 1 bar, hose min. DN8
Body dimensions:	175 × 350 × 140 (W × L × H in mm)
Weight:	9,5kg (with one torch configuration)
Rail:	Zn- coated, 1,8m

Art. Nr.	Description
0870613	GCE proFIT SLM 230V with nozzle-mixing cutting torch
0870614	GCE proFIT SLM 230V without cutting torch
0870615	GCE proFIT SLM 110V with nozzle-mixing cutting torch
0870617	Rail track 1,8m, Zinc coated
0870618	Rail track 1,2m, Zinc coated
F25310012*	Cutting torch BIR+ 110/32PMY, G1/4, G3/8, G3/8LH
F25310013*	Cutting torch BIR+ 110/32A, G1/4, G3/8, G3/8LH
F25310014*	Cutting torch nozzle mixing, G1/4, G3/8, G3/8LH
F25310015*	Cutting torch nozzle mixing, 9/16 UNF
0870616	Extension kit for 2-torches
0870665	Circle cutting kit

** One of these torches has to be selected and ordered for the machine item 0870614*

BASIC MACHINE PACKAGE INCLUDES:

- Equipment for one torch-cutting application
- One nozzle mix cutting torch with basic cutting nozzle

(The basic package of machine 0870614 does not include cutting torch. One of the torches above needs to be selected.)-

- Torch holder, torch bar, stainless steel heat shield
- Internal gas hoses, gas manifold with shut-off valves
- Power cable 8m with plug DIN

(*Guide rail is not included, to be ordered and delivered separately.)*

RANGE OF PORTABLE CUTTING MACHINES GCE PROFIT

GCE PROFIT PCM,
PIPE CUTTING MACHINE

GCE proFIT® PCM is a universal manually driven cutting machine for oxy-fuel applications with lightweight design, ideal for cutting of pipes up to 100 mm of tube wall thickness.

TECHNICAL DATA	
Cutting capacity:	up to 100mm of tube wall thickness
Cutting speed:	manually driven
Operation:	forward and reverse manually operated
Oxygen inlet connection	G1/4“, up to 8 bar, hose min. DN8
Fuel gas inlet connection:	G3/8“LH, up to 1 bar, hose min. DN8
Body dimensions:	(400 × 500 ×600) (Wx L x H in mm)
Weight:	15 kg
Chain links:	Zn- coated, length 1300 mm, for tube diameter 1000 mm

Art. Nr.	Description
0870648	GCE proFIT PCM 230V with nozzle-mixing cutting torch
3C00448	Additional chain links, 82 detachable links, 2,4m

BASIC MACHINE PACKAGE INCLUDES:

- Manually driven machine
- One nozzle mix cutting torch with basic cutting nozzle
- Torch holder, torch bar, chain tightening mechanism
- Internal gas hoses, gas manifold with shut-off valves
- Basic chain for tube diameter up to 1000 mm
- For ANME/PNME cutting nozzle please see page 43/44

CUTTING EQUIPMENT FOR AUTOMATED CUTTING MACHINES

GCE BIR+

GCE BIR+ is injector cutting system consisting of vaious types of torches combined with three lines of cutting nozzles. The system can perform steel cutting up to 300mm plate thickness with all common fuel gas types. GCE BIR+ fits to almost all types of automated cutting machines or cutting robots. With its full complience with EN ISO 5172, robust design and excellent cutting performance, GCE BIR+ is one of the most popular cutting systems.

CUTTING SYSTEM DESCRIPTION

Hose nipples with sleve nuts
Easy connection to gas hoses.
EN 560, EN 1256, ISO 3821

Flashback arrestors
Safety first. Devices for system protection against backfire.
EN 730-1, ISO 5175

Pressure gauges
Optional. Installed for exact gas pressures checking. ISO 5171

Shut-off valves
Precise flame adjustment, fast cutting oxygen shut-off and opening.

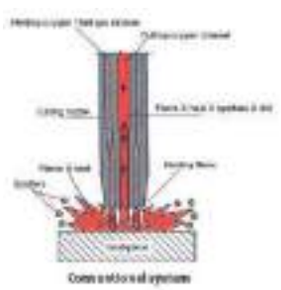
Cutting torch
Safe and efficient tool. It is to be mounted into the machine torch holder. ISO 5172

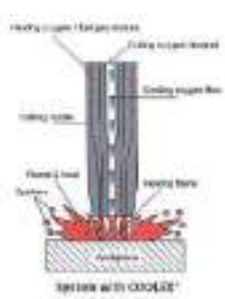
Cutting nozzle
The heart of the system. Very precise nozzle
to get process productivity and final product quality. ISO 5172

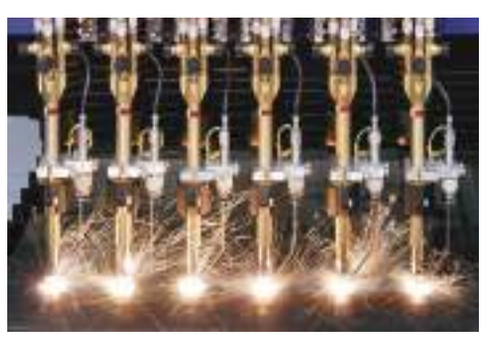
Heating nozzle
Reliable nozzle to control heating flame. Protected against heat and spatters during steel plate piercing and cutting process. ISO 5172

FEATURES / ADVANTAGES / BENEFITS

- High speed oxy-fuel cutting system
- Compatible with all modern cutting machines and robots
- Simple installation of the torch and nozzles
- Safe solution for all fuel gas types
- Easy handling for machine operators
- Detailed cutting parameters charts available
- Cutting performance up to 300mm steel plate thickness
- High quality cuts in accordance with EN ISO 9013
- Prolonged lifetime of the system thanks to incorporated COOLEX®
- Various range of cutting nozzles and accessories for all cutting applications







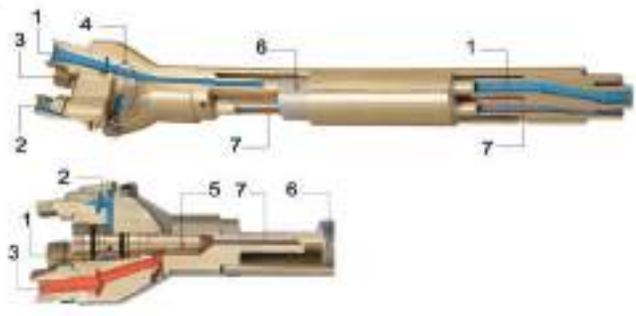
GENERAL CONDITIONS FOR HIGH QUALITY AND EFFICIENT CUTTING

GCE machine cutting nozzles are designed to reach the cuts of quality level 1 according to EN ISO 9013. It is possible to reach maximal cutting speed by setting-up recommended cutting parameters of particular nozzles shown below, cutting of straight cuts, by using of clean metal sheet surface, oxygen with purity 99,5% or better. Correct values of gases pressures are to be measured at the torch inlet. Parameters are prepared for mild steel with maximal carbon content of 0,25%. Quality cutting machine with proper gas supply system, original GCE cutting equipment and new, undamaged, original cutting and heating nozzles are to be applied.

MACHINE CUTTING TORCH BIR+™

Art. Nr.	Length / diameter	Gas	Connection
14055239	110/32	A	G3/8", G3/8"LH, G1/4"
14055218	220/32	A	G3/8", G3/8"LH, G1/4"
14055241	320/32	A	G3/8", G3/8"LH, G1/4"
14055242	110/32	PM	G3/8", G3/8"LH, G1/4"
14055219	220/32	PM	G3/8", G3/8"LH, G1/4"
14055240	320/32	PM	G3/8", G3/8"LH, G1/4"

Other lengths and diameters on customer request.



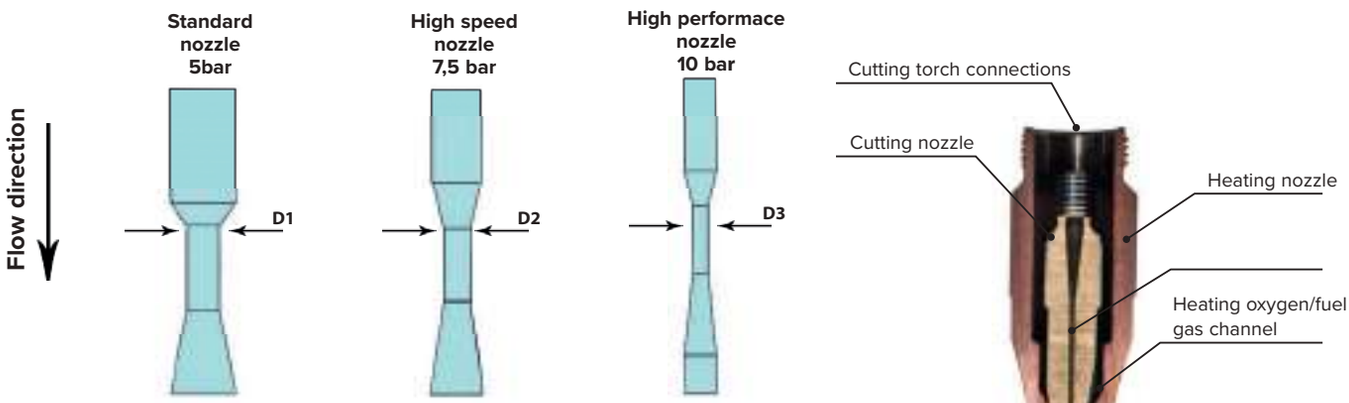
1 Cutting oxygen
2 Heating oxygen
3 Fuel gas
4 COOLEX® flow valve
5 Injector
6 Aluminium cooling body
7 Fuel gas/oxygen mixture

OVERVIEW OF CUTTING NOZZLES GCE BIR+™

Fuel Gas	Standard cutting	High speed cutting	High performance cuttin
A	AC	ASD	AHD
PMYF	PUZ	PSD	PHD

Cutting nozzles are always delivered in the 5 units package, heating nozzle package contains 1 unit

DESIGN OF CUTTING OXYGEN CHANNEL



Oxygen Pressure	P1	<	P2	<	P3
Oxygen Flow Speed	S1	<	S2	<	S3
Diameter	D1	>	D2	>	D3
Oxygen Volume	V1	=	V2	=	V3

AC STANDARD CUTTING NOZZLES FOR ACETYLENE

Cutting nozzle

Heating nozzle

Art Nr.	Thickness	Cutting speed	Pressure (bar)			Flow rare (Nm^3/h)		
			Cutting oxygen	Heating oxygen	Acetylene	Cutting oxygen	Heating oxygen	Acetylene
14001010	3 - 10	730 - 600	2,0 - 3,0	2	0,5	1,3 - 1,7	0,4	0,3
14001011	10 - 25	620 - 410	4,5 - 5,0	2,5	0,5	2,3 - 2,8	0,5	0,35
14001012	25 - 40	410 - 340	4,0 - 5,0	2,5	0,5	2,3 - 2,8	0,5	0,35
14001013	40 - 60	340 - 310	4,0 - 5,0	2,5	0,5	4,1 - 5,1	0,5	0,35
14001014	60 - 100	320 - 250	5,0 - 6,0	3	0,5	8,1 - 9,5	0,5	0,4
14001015	100 - 200	270 - 210	6,5 - 7,5	3,5	0,5	12,0 - 13,0	0,6	0,5
14001016	200 - 300	150 - 110	6,5 - 7,5	6,5 - 7,5	0,5	28,5 - 32,5	1,1	0,8
14001020	3 - 100	Heating nozzle						
14001021	100 - 300	Heating nozzle						

ASD HIGH SPEED CUTTING NOZZLES FOR ACETYLENE

Art Nr.	Thickness	Cutting speed	Pressure (bar)			Flow rare (Nm^3/h)		
			Cutting oxygen	Heating oxygen	Acetylene	Cutting oxygen	Heating oxygen	Acetylene
14001217	3 - 5	800 - 750	2,0 - 3,0	2,0 - 2,5	0,6	0,4 - 0,5	0,4	0,3
14001218	6 - 10	750 - 700	4,0 - 5,0	2,5	0,6	1,2 - 1,5	0,5	0,35
14001219	10 - 25	650 - 500	6,5 - 7,5	2,5	0,6	3,2 - 3,7	0,5	0,35
14001220	25 - 40	500 - 420	6,5 - 8,5	2,5	0,6	4,6 - 5,5	0,5	0,35
14001221	40 - 60	420 - 360	6,5 - 8,5	2,5	0,6	5,6 - 7,1	0,5	0,35
14001222	60 - 100	360 - 270	6,5 - 8,5	2,5	0,6	9,1 - 11,0	0,5	0,35
14001223	100 - 150	270 - 210	6,5 - 7,0	3,5	0,6	12,1 - 12,9	0,6	0,5
14001224	150 - 230	210 - 140	6,5 - 7,5	6,5 - 7,5	0,6	19,4 - 22,0	1,1	0,85
14001225	230 - 300	150 - 110	6,5 - 7,5	6,5 - 7,5	0,6	28,5 - 32,5	1,1	0,85
14001226	3 - 150	Heating nozzle						
14001238	150 - 300	Heating nozzle						

AHD HIGH PERFORMANCE CUTTING NOZZLES FOR ACETYLENE

Art Nr.	Thickness	Cutting speed	Pressure (bar)			Flow rare (Nm^3/h)		
			Cutting oxygen	Heating oxygen	Acetylene	Cutting oxygen	Heating oxygen	Acetylene
14001519	3-5	800-750	2,0-3,0	2,5	0,5	0,4-0,5	0,4	0,35
14001520	6 - 10	750 - 700	4,0 - 5,0	3	0,5	1,0 - 1,2	0,5	0,4
14001521	10 - 25	725 - 530	9,0 - 12,0	3	0,5	2,7 - 3,6	0,5	0,4
14001522	25 - 50	530 - 420	8,5 - 11,5	3	0,5	3,6 - 4,6	0,5	0,4
14001523	50 - 80	420 - 330	9,0 - 12,0	3	0,5	6,7 - 8,6	0,5	0,4
14001524	80 - 100	300 - 280	9,5 - 11,5	3	0,6	8,9 - 10,1	0,5	0,4
14001525	100 - 150	280 - 210	6,5 - 7,0	4	0,6	12,1 - 12,9	0,6	0,5
14001526	3 - 150	Heating nozzle						

PUZ STANDARD CUTTING NOZZLES FOR LPG, PROPANE, NATURAL GAS (PMYF)

Art Nr.	Thickness	Cutting speed	Pressure (bar)			Flow rare (Nm^3/h)		
			Cutting oxygen	Heating oxygen	Propane	Cutting oxygen	Heating oxygen	Propane
14001350	3 - 10	600 - 550	2,0-3,0	2	0,2	1,3 - 1,7	1,3	0,33
14001351	10 - 25	560 - 400	4,5 - 5,0	2,5	0,2	2,8 - 3,4	1,5	0,38
14001352	25 - 40	400 - 340	4,0 - 5,0	2,5	0,2	2,8 - 3,4	1,5	0,3
14001353	40 - 60	340 - 310	4,5 - 5,5	2,5	0,2	4,6 - 5,6	1,5	0,38
14001354	60 - 100	310 - 260	5,0 - 6,0	2,5	0,2	8,1 - 9,5	1,5	0,38
14001355	100 - 200	260 - 180	5,5 - 6,5	3,0 - 5,0	0,3	12,6 - 14,4	1,7 - 2,5	0,50 - 0,70
14001356	200 - 300	180 - 110	6,5 - 8,5	5,0 - 7,0	0,3	12,6 - 14,4	2,5 - 3,3	0,70 - 0,90
14001147	3 - 100	Heating nozzle, Propane/natural gas						
14001148	100 - 300	Heating nozzle, Propane/natural gas						
14001587	3 - 100	Heating nozzle, mixed fuel gas						

PSD HIGH SPEED CUTTING NOZZLES FOR LPG, PROPANE, NATURAL GAS (PMYF)

Art Nr.	Thickness	Cutting speed	Pressure (bar)			Flow rare (Nm^3/h)		
			Cutting oxygen	Heating oxygen	Propane	Cutting oxygen	Heating oxygen	Propane
14001227	3 - 6	750 - 740	2,0 - 5,0	1,5	0,2	0,5-1,0	1	0,25
14001228	7 - 15	670 - 560	5,0 - 7,0	2	0,2	1,6 - 2,0	1,3	0,32
14001229	15 - 25	560 - 460	6,0 - 7,0	2	0,2	2,5 - 3,1	1,3	0,32
14001230	25 - 40	460 - 400	6,0 - 7,5	2	0,2	3,8 - 4,5	1,3	0,32
14001231	40 - 60	400 - 340	5,5 - 7,5	2	0,2	4,2 - 5,6	1,3	0,32
14001232	60 - 100	340 - 270	6,0 - 8,5	2	0,2	7,6 - 10,6	1,3	0,32
14001250*	100 - 150	270 - 180	6,5 - 7,5	2,5	0,3	11,5 - 13,0	1,4	0,35
14001233	100 - 200	270 - 180	7,5 - 9,5	4,5	0,6	13,3 - 15,6	2,4	0,6
14001234	200 - 250	180 - 130	6,5 - 8,5	4,5	0,6	18,0 - 22,0	2,4	0,6
14001235	250 - 300	130 - 110	6,5 - 8,5	5	0,6	23,0 - 30,0	2,5	0,62
14001236	3 - 100	Heating nozzle						
14001237	100 - 300	Heating nozzle						

*Cutting nozzle 14001250 preferable for hole piercing. Please use it only together with heating nozzle 14001236 !

PHD HIGH PERFORMANCE CUTTING NOZZLES FOR LPG, PROPANE, NATURAL GAS (PMYF)

Art Nr.	Thickness	Cutting speed	Pressure (bar)			Flow rare (Nm^3/h)		
			Cutting oxygen	Heating oxygen	Propane	Cutting oxygen	Heating oxygen	Propane
14001512	6 - 10	750 - 690	4,0 - 5,0	2,5	0,2	1,0 - 1,2	1,3	0,33
14001513	10 - 25	690 - 500	9,0 - 12,0	2,5	0,2	2,7 - 3,6	1,3	0,38
14001514	25 - 50	500 - 390	8,5 - 11,0	2,5	0,2	3,6 - 4,6	1,3	0,38
14001515	50 - 80	390 - 320	9,0 - 12,0	2,5	0,2	6,7 - 8,6	1,3	0,38
14001516	80 - 100	320 - 280	9,5 - 11,0	2,5	0,2	8,9 - 10,1	1,3	0,38
14001517	3 - 100	Heating nozzle, propane						
14001518	3 - 100	Heating nozzle, mixed fuel gas						

FLASHBACK ARRESTORS FOR MACHINE CUTTING TORCHES EN ISO 5175-1

Art. Nr.	Gas	Connection (EN 560)
14008408	Cutting oxygen	G3/8“
14008263	Heating oxygen	G1/4“
14008278	Fuel gas	G3/8“ LH

ADJUSTMENT VALVES

Art. Nr.	Application	Connection (EN 560)
14056015	Cutting oxygen	G3/8“
14056016	Heating oxygen	G1/4“
14056017	Fuel gas	G3/8“LH
203010607P	Oxygen	UNF 9/16”
203010609P	Fuel gas	UNF 9/16”LH

HOSE CONNECTION PARTS

Art. Nr.	Descripiton
4599440P	Hose nipple for internal hose diamater 8mm
4599380P	Hose nipple for internal hose diamater 6,3mm
548200018934P	Sleeve nut G3/8
548200018932P	Sleeve nut G3/8LH
4599400P	Sleeve nut G1/4

CUTTING ACCESSORIES

Art. Nr.	Connection (EN 560)
0764659	Bevel cutting attachment
14055509	Strip cutting attachment

CLEANING ACCESSORIES

Art. Nr.	Descripiton
14008157	Brass cleaning brush
14056010P	Stainless steel conical cleaning needle for cutting oxygen channels
548814071191P	Cleaning needle set (10 pieces)

PROPANE EQUIPMENT

(UNIVERSAL, EUROMAT, LOMAT,LOMEN, REGULATORS, HOSES)

LOMEN “CLASSIC” (LORCH PROPALINE)

BRAZING TORCH WT - LOMEN

Art. Nr.	Gas	Working pressure	Consumption PB	Output	Length	Weight	Connection
455	P, PB	1,5 bar	65 g/h	0,86 kW	60 mm	0,134 kg	M 15 × 1

FLAT SOLDERING BIT UNIVERSAL, LOMEN

Art. Nr.	Type	Weight (kg)
836	250 g	0,250
810	350 g	0,350
828	500 g	0,500

GUARD WT-LOMEN

Art. Nr.	Weight (kg)
23002	0,250

LOMEN PROPAN SET CLASSIC - 3 PORTABLE

- Lomen Classic shank, soldering bit with holder, windscreen, copper pieces 350 g, Hammer cranked form, Point burner 5 mm and 7 mm, paint stripper burner 40 mm, high pressure hose 40 mm, high pressure hose 2 m, G 3/8LH, regulator fixed pressure 1, 5 bar for small cylinder 425 g, with suspensoin, gas lighters, steel box art. nr. 626.

Art. Nr.
4192

LOMEN TORCH SPOT

Art. Nr.	Diameter	Gas consumption	Capacity
562	5 mm	0,120 kg/h	1,54 kW/h
570	7 mm	0,200 kg/h	2,58 kW/h

PAINT STRIPPER LOMEN

Art. Nr.	Flame widh	Gas pressure	Gas consumption	Capacity
23697	40 mm	1,5 bar	0,106 kg/h	1,37 kW/h

PIPE HEATER 1/2" LOMEN

Art. Nr.	For pipes up to Ø	Gas pressure	Gas consumption
	1/2”	1,5 bar	0,117 kg/h

SHANK LOMEN

Art. Nr.	Gas	Lenght	Weight	Torch connection	Connection
25767	P, PB	220 mm	0,354 kg	M 15 × 1	G 3/8" LH

SHANK LOMEN WITH SOLDERING BIT HOLDER

- Fine tuning spindle of stainless steel, adjustable flame, swivel hose connection, soldering bit holder, ergonomic wood handle.

Art. Nr.	Gas pressure	Gas consumption	Hose connection
25957	1,5 bar	0,065 kg/h	G 3/8" LH

SOLDERING BIT UNIVERSAL, LOMEN

Art. Nr.	Type	Weight (kg)
844	250 g	0,250
851	350 g	0,350
869	500 g	0,500

SOLDERING IRON WT

- Automatic one-hand ignition with push of a button, soldrin bit withholder intergreated, piezo igniter, stainless steel outlet piece.
- Fine adjustable tainless steel valve, adjustable flame, swivel hose connection ergonomic wood handle, windscreen, copper pieces 350 g, hammer shaped

Art. Nr.	Type
2584	WT - LOMEN PIEZO
26179	WT - LOMEN

TECHNICAL DATA		
Type	WT - LOMEN PIEZO	WT - LOMEN
Gas	P, PB	P, PB
Working pressure	1,5 bar	1,5 bar
Consumption PB	65 g/h	65 g/h
Output	0,86 kW	0,86 kW
Length	360 mm	330 mm
Weight	0,899 kg	0,899
Connection	G 3/8" LH	G 3/8" LH

SOLDERING TORCH ADAPTER IGNIT

- Automatic one-hand ignition with push off a button, soldering bit holder integrated, piezo igniter, stainlesss steel outpliece, suitable for Lomen shnk art. nr. 25767.

Art. Nr.	Gas pressure	Gas consumption
2568	1,5 bar	0,060 kg/h

SUPPPORT WT LOMEN

Art. Nr.	Weight
23010	0,180 kg

AIR PROPANE EQUIPMENT

UNIVERSAL

Ideal for plumbing, heating, and ventilation trades, the GCE air propane shanks are available in two designs where one is equipped with an adjustable pilot flame. Spot/turbo (copper pipe)/special burners connect directly to the shank for all plumbing applications. Heating heads are connected via stainless tubes for larger heating jobs such as road working/roofing/bitumen heating.

SHANK UNIVERSAL

Combined shut-off valve and adjusting knob.

USE: designed for use with soldering, brazing and heating torches UNIVERSAL

With lever and adjustable pilot flame

Art. Nr.	Type	Gas	Working pressure (bar)	Consumption (kg/h)	Lenght (mm)	Weight (kg)	Torch, Tube, Outlet connection	Inlet connection
20669	lever	P, PB	4,0 bar	12 kg/h	195	0,36	M 14 x 1	G 3/8‴LH
0763230	hand wheel	P, PB	4,0 bar	12 kg/h	195	0,39	M 14 x 1	G 3/8 ″LH

SOLDERING TORCH B UNIVERSAL

USE: for soldering and brazing; for point heating.

Art. Nr.	Type	Gas	Working pressure (bar)	Consumption (g/h)	Output (kW)	Lenght (mm)	Weight (kg)	Connection
0763222	B 3 mm	P, PB	1,0 - 2,5	30 - 39	0,39-0,50	120	0,09	M 14 x 1
0763223	B 5 mm	P, PB	1,0 - 1,5	54 - 66	0,69-0,85	120	0,09	M 14 x 1
0763224	B 7 mm	P, PB	1,0 - 1,5	162 - 210	2,08-2,70	138	0,11	M 14 x 1

BRAZING TORCH TURBO UNIVERSAL

USE: for soldering and brazing, especially of copper piping systems.

Art. Nr.	Type	Gas	Working pressure (bar)	Consumption PB (g/h)	Output (kW)	Lenght (mm)	Weight (kg)	For copper pipe	Connection
4895	TURBO Ø12	P, PB	1,5 - 2,5	63 - 112	0,81 - 1,44	155	0,131	12 mm	M 14 x 1
4903	TURBO Ø14	P, PB	1,5 - 2,5	210 - 338	2,70 - 4,35	178	0,148	18 mm	M 14 x 1
4911	TURBO Ø17	P, PB	1,5 - 2,5	272 - 384	3,50 - 4,94	184	0,168	22 mm	M 14 x 1
4929	TURBO Ø20	P,PB	1,5 - 2,5	432 - 532	5,56 - 6,85	210	0,228	28 mm	M 14 x 1

HEATING TORCH H UNIVERSAL

USE:for industrial heating; roofing and construction work. Use with neck tube.

Art. Nr.	Type	Gas	Working pressure (bar)	Consumption (g/h)	Output (kw)	Lenght (mm)	Weight (kg)	Connection
4044	H Ø30	P, PB	1,0 - 2,0	664 - 1056	8,55 - 13,59	88	0,115	M 20 x 1
9401920	H Ø40	P, PB	1,0 - 2,0	1200 - 1902	15,44 - 24,48	95	0,210	M 20 x 1
4077	H Ø50	P, PB	1,5 - 4,0	3780 - 7590	48,68 - 97,69	115	0,298	M 20 x 1
9401940	H Ø60	P,PB	1,5 - 4,0	5030 - 9744	64,74 - 125,41	125	0,338	M 20 x 1
0763221	H Ø80	P.PB	1,5 - 4,0	5650 - 10570	72,72 - 136,04	155	0,628	M 20 x 1

NECK TUBE UNIVERSAL

Manufactured in stainless steel.
USE:
designed to connect UNIVERSAL heating torches to shank UNIVERSAL. Head connection M 20×1 MALE. Torch connection M 14×1 FEMALE.

Art. Nr.	Type	Connection	Weight (kg)	Torch Connection	Quantity
2279	150 mm	M14 × 1	0,113	M 20 x 1	1
23572	220 mm	M14 × 1	0,140	M 20 x 1	1
2287	350 mm	M14 × 1	0,190	M 20 x 1	1
2329	600 mm	M14 × 1	0,288	M 20 x 1	1
9381280	750 mm	M14 × 1	0,346	M 20 x 1	1

SUPPORT H-UNIVERSAL

USE:
Allows hot heating torches to be rested safety on a horizontal surface. Assembled onto the neck tube of the torch.

Art. Nr.	Weight	Quantity
12476	0,15 kg	1

MULTI-NECK TUBES

USE:
designed to connect UNIVERSAL heating torches to the neck tube.

Art. Nr.	Type	Connection	Width	Weight	Quantity
0763232	2 outlets	M20 × 1	150 mm	0,14 kg	1
0763233	4 outlets	M20 × 1	450 mm	0,29 kg	1

SETS UNIVERSAL PROPALINE

Propaline 1

Shank with a gas saver, heating torch H50, neck tube 350 mm, torch AT, hose nipple, nut G 3/8” LH

Art. Nr.	Description	Quantity
0763248	Propaline 1	1

Propaline 2

Shank with a gas saver, heating torch H40 and H60, support H, neck tube 350 mm and 600 mm, hose nipple, nut G 3/8” LH.

Art. Nr.	Description	Quantity
0763249	Propaline 2	1

Propaline 3

Shank with a gas saver, brazing turbo torch Ø20, Ø17, Ø14, hose nipple, nut G 3/8” LH.

Art. Nr.	Description	Quantity
0763250	Propaline 3	1

Propaline 4

Shank with a gas saver, heating torch H20, neck tube 600 mm, hose nipple, nut G 3/8” LH.

Art. Nr.	Description	Quantity
0763257	Propaline 4	1

PROPANE EQUIPMENT

EUROMAT

The Euromat range with its modern design has is comparable to the Unversal range has some further multifunctional features. The system with the „CLICK" has advantages in handling and igniting the flame. The plug-in / snap-in connection allows the assembly of all inserts without using any tools. For additional convenience, the combination of piezo-automatic ignition and lockable moment lever provides an ergonomic design which allows precise work with maximum efficiency.

FEATURES

- Use for propane application such as brazing soldering, shrinking and heating
- Based on the Bunsen principle with.
- Ergonomic plastic handle
- Piezo ignition for single hand operation
- Tool free insert plug in mounting
- Rotating inlet connection
- Working pressure from 0,5 to 4,0 bar

Art. Nr.	Type	Gas	Working pressure	Lenght (mm)	Weight (kg)	Connection
3046	SHANK	P, PB	up to 4 bar	180	0,331	G 3/8 LH

Brazing torch

Art. Nr.	Type	Gas	Working pressure (bar)	Consumption PB (g/h)	Output (kW)	Lenght (mm)	Weight (kg)
17178	TT TURBO Ø13	P, PB	1,5 - 2,0	110	1,43	180	0,119
17186	TT TURBO Ø15	P, PB	1,5 - 2,0	180	2,32	180	0,130
17202	TT TURBO Ø17	P, PB	1,5 - 2,0	320	4,12	185	0,132
17210	TT TURBO Ø19	P, PB	1,5 - 2,0	415	5,34	185	0,140
17228	TT TURBO Ø22	P, PB	1,5 - 2,0	510	6,57	190	0,156

Soldering torch PT Euromat

Art. Nr.	Type	Gas	Working pressure (bar)	Consumption PB (g/h)	Output (kW)	Lenght (mm)	Weight (kg)
17129	PT 3	P, PB	1,5 - 2,0	41	0,53	180	0,140
17137	PT 5	P, PB	1,5 - 2,0	120	1,55	180	0,146
17145	PT 7	P, PB	1,5 - 2,0	222	2,86	185	0,150
17152	PT 9	P, PB	1,5 - 2,0	380	4,89	185	0,160
17160	PT 11	P, PB	1,5 - 2,0	511	6,58	190	0,178

Schrink torch Euromat

Art. Nr.	Type	Gas	Working pressure (bar)	Consumption PB (g/h)	Output (kW)	Lenght (mm)
3822	Ø 22	P, PB	1,5 - 2,0	424	5,46	200
4226	Ø 30	P, PB	1,5 - 2,0	985	12,7	220

Hot air shrinkage torch Euromat multi

Art. Nr.	Type	Gas	Working pressure (bar)	Consumption PB (g/h)	Output (kW)	Lenght (mm)	Weight (kg)
17251	PT 3	P, PB	1,5 - 2,0	150	6,95	200	0,350

PROPANE EQUIPMENT

LOMAT PIEZO

The Lomat piezo product range is our latest innovative generation of propane equipment. The piezo functionality and the ergonomic design of both shanks and attachments set the Lomat range in front of development. A reinforced piezo ignition of 12000 volts set a new standard for propane equipment.The Lomat system covers all areas of application of the propane brazing and heating technology and offer piezo ignition for all burners.

FEATURES

- Use for propane application such as brazing soldering, shrinking and heating
- Based on the Bunsen principle with.
- Ergonomic plastic handle
- Piezo ignition for single hand operation
- Tool free insert plug in mounting
- Rotating inlet connection
- Working pressure from 0,5 to 4,0 bar

SHANK LOMAT PIEZO

Art. Nr.	Type	Gas	Length (mm)	Working Pressure	Capacity	Connection
18069	SHANK	P, PB	180	max. 4 bar	12 kg/h	G 3/8 LH

Soldering torch Lomat Piezo

Art. Nr.	Type (mm ø)	Consumption (kg/h at 2,0 bar)	Output (kW/h)	Length (mm)	Weight (kg)
18762	5	0,120	1,55	200	0,195
18770	7	0,320	2,86	210	0,212

Brazing turbo torch Lomat piezo

Art. Nr.	Type (mm ø)	Consumption (kg/h at 2,0 bar)	Output (kW/h)	Length (mm)	Weight (kg)
18788	15	0,180	2,32	195	0,195
18804	17	0,320	4,12	205	0,210
18796	22	0,510	6,57	200	0,200

Shrinking torch Lomat Piezo

Art. Nr.	Type (mm ø)	Consum. PB (kg/h)	Output (kW)	Lenght (mm)	Weight (kg)
18929	22	0,424	5,45	205	0,230
18937	30	0,985	12,68	205	0,286

Hot air shrinkage torch Lomat Piezo

Art. Nr.	Type	Gas	Working pressure	Consum. PB (g/h)	Output (kW/h)	Length (mm)	Weight (kg)
20073	Hot Air Shrinkage Torch 30	P, PB	1,0 - 2,5 bar	0,180 kg/h	2,32	320	0,4

Soldering iron torch Lomat Piezo

Art. Nr.	Gas)	Working pressure	Consum. PB	Output kW	Length	Weight
18887	P, PB	1,0 - 2,0 bar	40 g/h	0,50	250 mm	0,660 kg

Heating torch Lomat Piezo

Art. Nr.	Head-Ø (mm)	Lenght (mm)	Pipe (mm)	Consum. PB (g/h)	Output kW/h
19877	60	530	500	7600	97,28
19885	60	790	750	9800	125,40
19893	60	940	900	9800	125,40

PROPANE EQUIPMENT
REGULATORS

According to existing regulations, propane regulators must be equipped with hose break valves. The purpose of the pressure regulators is to secure correct pressure at each individual job. The GCE Propaline regulators are of high quality, robust, and reliable. They are made of brass and stainless steel according to DIN-regulations, and they are approved according to DIN DVWG.

FEATURES

- Fuel gas propane
- Operating pressure
  - › variable: 0.5 bar - 4 bar
  - › fixed: 1.5 bar, 2.5 bar, 4 bar
- Capacity: max. 3, 4, 5, 10, 12, and 16 kg / h
- Inlet thread: W 21.8 × 1/14 left, G 3/8” LH
- Outlet thread: G 3/8” LH
- Hose breakage protection:
  - integrated,
  - mountable
- Pressure indication: with and without manometer.

PRESSURE REGULATOR PROPANE BUTANE

REGULATOR PROPANE BUTANE FIX

Art.-Nr.	Type	Gas	Working Pressure (bar)	Capacity (kg/h)	Outlet Connection (mm)	Inlet Connection
0760547	Regulator with integrated hose break valve	P, PB	Fixed 4 bar	Max 14	W 21,8 × 1/14 LH	G 3/8 LH
73170	Regulator with integrated hose break valve	P, PB	Fixed 1,5 bar	Max 14	W 21,8 × 1/14 LH	G 3/8 LH

REGULATOR PROPANE BUTANE WITH GUAGE (0,5 - 4 BAR)

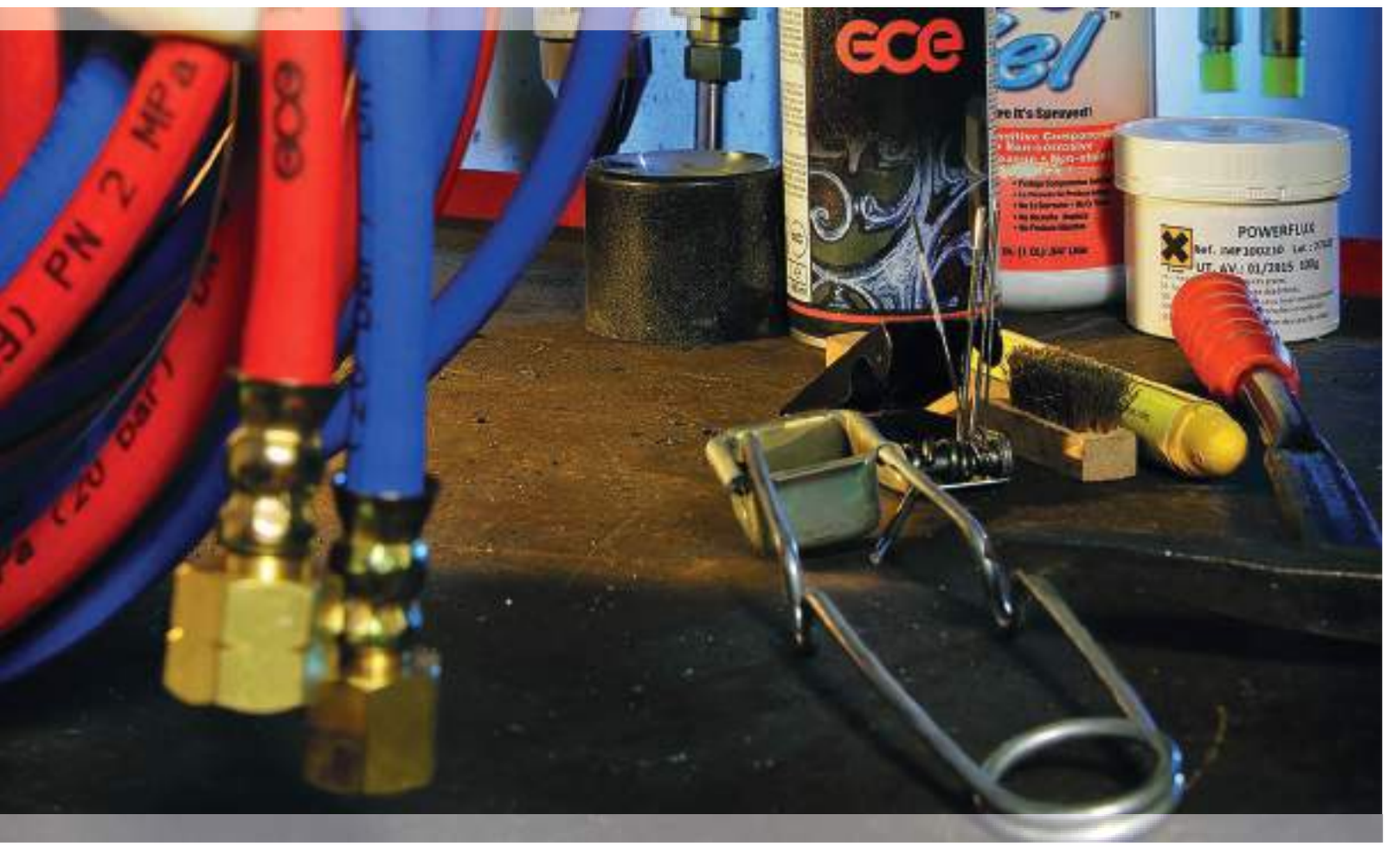
Art.-Nr.	Type	Inlet Pressure (bar)	Outlet Pressure (mbar)	Nominal flowrate (kg/h)	Inlet Connection	Hose Nipple ø (mm)
548900060704P	RTP 21 MODEL 188	1,8 - 8,0	30	1,5	W 21 21,8 × 1/14“ LH	8
548900060707P	RTP 3 MODEL 323	1,8 - 8,0	30	2,5	W 21,8 × 1/14“ LH	8
548900060708P	RTP 4 MODEL 324	1,8 - 8,0	50	2,5	W 21,8 × 1/14“ LH	8

RTP 21

RTP 3

RTP 4

RUBBER HOSES AND ACCESSORIES



DC INVERTER MMA / LIFT TIG WELDERS

ARCONTROL DIGITAL

ARControl welders are general MMA arc welder adopting the latest pulse width modulation (PWM) technology and the insulated gate bipolar transistor (IGTB) power module. Suitable for stick-electrode welding and Tig welding. Easy and accurate amperage control by means of digital display.
Extremely low weight, very small size, portable. Supplied in a hard case and equipped with electrode holder, earth clamp, cables and connectors.

CE
EN 60974-1
EN 60974-10

FEATURES / ADVANTAGES / BENEFITS

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

TECHNICAL DATA	ARCONTROL 135	ARCONTROL 160	ARCONTROL 200
Welding Current Range (A)	10-135	10-160	10-200
Duty Cycle (40°C 10 min) at max A	25%-135 A	30% -160A	30%-200A
	60%-112 A	60% -135 A	100%-110A
	100% -105A	100%-120 A	
Electrode Diameter	ø2.5ø3.2	ø2.5ø3.2ø4.0	ø2.5ø3.2ø4.0
Electrode Type	6013,7018,etc.	6013,7018,etc.	6013,7018,etc.
Net Weight (Kg)	3.55 Kg	4.5 Kg	4.6 Kg
Dimensions (mm)	325×114×208	325×114×208	330×135×250

DC INVERTER PLASMA CUTTING MACHINE

GLADIUS

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 themaximum performance. Two versions to meet your needs : with or without air compressor.

CE

EN 60974-1
EN 60974-10

RoHS compliant

NOUVEAU NEW NEUES

FEATURES / ADVANTAGES / BENEFITS

EXCELLENT PERFORMANCES

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.

EQUIPPED WITH

Earth Clamp (with cable)

Hand Cutting Torch SOLARIS M60 (4 m) with Central connection EURO type

Central connection EURO type

WITH OR WITHOUT
AIR COMPRESSOR

TECHNICAL DATA	GLADIUS 40	GLADIUS 40 COMPR
Duty Cycle (40°C 10 min)	60% 40A	60% 40A
Severance Cut (mm)	≤20 mm (Carbon Steel)	≤14 mm (Carbon Steel)
Production Cut (mm)	≤20 mm (Carbon Steel)	≤12 mm (Carbon Steel)
Net Weight (Kg)	5.7 Kg	18 Kg
Use with Power Generator	YES	NO

PLASMA HAND CUTTING

SOLARIS

The **Solaris** 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.

CE
EN 60974-7

FEATURES / ADVANTAGES / BENEFITS

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

IGNITION WITH HIGH FREQUENCY:

- Torch SOLARIS B
- Torch SOLARIS F

IGNITION WITHOUT HIGH FREQUENCY:

- Torch SOLARIS M

Ergonomic handle

Trigger protection

Central connection EURO type

Accessories included

Art.-Nr.	Description	Duty Cycle 60%	Air Pressure (bar)	Air Flow (l/min)	Cutting thickness (mm)
TP001000	SOLARIS B50 – 6m	50 A	4.5 – 5.0	165	10-15
TP001010	SOLARIS B70 – 6m	70 A	4.5 – 5.0	170	18-24
TP001020	SOLARIS B100 - 6m	100 A	4.5 – 5.0	180	24-30
TP001030	SOLARIS B150 - 6m	150 A	4.5 – 5.0	200	35-40

MIG WELDING

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.

CE
EN 60974-7

RoHS compliant

FEATURES / ADVANTAGES / BENEFITS

- 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
- Contact tip, gas nozzle and liner included. 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.

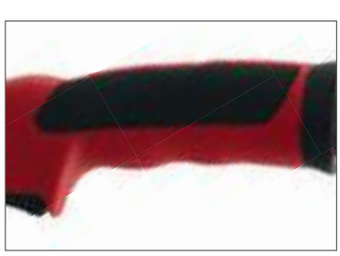
WATER COOLED
AIR COOLED

Rotating rear connection to govern welding wire feeder

Push button feature to protect against accidental starting

Strong and ergonomic connection EURO type

Ball joint at the handle improving the handling



Anti-slip rubber insert on the handle

Art.-Nr.	Description
102P959A40N	TORCH MIGSTAR PRO 150 - 4 m
102P959A50N	TORCH MIGSTAR PRO 150 - 5 m
112P959A30N	TORCH MIGSTAR PRO 240 - 3 m
112P959A40N	TORCH MIGSTAR PRO 240 - 4 m
112P959A50N	TORCH MIGSTAR PRO 240 - 5 m
103P959A30N	TORCH MIGSTAR PRO 252 - 3 m
103P959A40N	TORCH MIGSTAR PRO 252 - 4 m
103P959A50N	TORCH MIGSTAR PRO 252 - 5 m
114P959A30N	TORCH MIGSTAR PRO 360 - 3 m
114P959A40N	TORCH MIGSTAR PRO 360 - 4 m
114P959A50N	TORCH MIGSTAR PRO 360 - 5 m

TIG WELDING
TIGSTAR PRO

The new generation of GCE TIG Torches 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.

CE
EN 60974-7

FEATURES / ADVANTAGES / BENEFITS

- 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.

WATER COOLED
AIR COOLED

All the torches are equipped with DINSE connection and 1/4", 3/8" and quick gas connections.

Very flexible

Art.-Nr.	Description	Connection
415P09C108N	TORCH TIGSTAR PRO 9 8m	25mm (small)
405P09V104N	TORCH TIGSTAR PRO 9V 4m	25mm (small)
415P17C104N	TORCH TIGSTAR PRO 17 - 4 m	25mm (small)
415P17C114N	TORCH TIGSTAR PRO 17 - 4 m	35 mm (big)
415P17C108N	TORCH TIGSTAR PRO 17 - 8 m	25 mm (small)
405P17V104N	TORCH TIGSTAR PRO 17V - 4 m	25 mm (small)
405P17V114N	TORCH TIGSTAR PRO 17V - 4 m	35 mm (big)
415P26C104N	TORCH TIGSTAR PRO 26 - 4 m	35 mm (big)
415P26C108N	TORCH TIGSTAR PRO 26 - 8 m	35 mm (big)
405P26V104N	TORCH TIGSTAR PRO 26V - 4 m	35 mm (big)
415P18C104N	TORCH TIGSTAR PRO 18 - 4 m	35 mm (big)
415P18C108N	TORCH TIGSTAR PRO 18 -8 m	35 mm (big)
415P20C104N	TORCH TIGSTAR PRO 20 - 4 m	35 mm (big)
415P20C108N	TORCH TIGSTAR PRO 20 - 8 m	35 mm (big)

TIG WELDING
TUNGSTEN ELECTRODES

A complete range of tungsten electrodes with excellent performance and reliability, tested by thousands of operators during many years.

ISO 6848

ELECTRODES TYPES

- GREEN - WP(W20) - Tungsten Pure
- RED - WTH20 (WT20) - Tungsten + Thorium 2%
- GREY + WCe20 (WC20) - Tungsten + CERIUM 2%
- GOLD - WLA15 (WL15) - Tungsten + Lanthanum 1,5%
- BLUE - WLa20 (WL20) Tungsten + Lanthanum 2%

COLOR	TYPE	CURRENT	FOR WELDING	ARC IGNITION	ARC STABILITY	CURRENT CARRYING CAPACITY	LIFETIME
GREEN	Pure	AC	Aluminium, Magnesium, Nickel and their alloys	Medium	Good	Low	Low
RED	Thoriated ThO2 - 2%	DC	Carbon steel, Stainless steel, Nickel alloys and Titanium	Excellent	Excellent	Excellent	Very good
GREY	Ceriated CeO2 - 2%	AC & DC (low amp)	Carbon steel, Stainless steel, Nickel alloys and Titanium	Very good	Very good	Very good	Very good
GOLD	Lanthanated La2O3 - 1,5%	AC & DC	Carbon steel, Stainless steel, Titanium, Aluminium and its alloys	Excellent	Excellent	Excellent	Very good
BLUE	Lanthanated La2O3 - 2%	AC & DC	Carbon steel, Stainless steel, Nickel alloys, Aluminium, Magnesium, Titanium, Cobalt, Copper alloys, etc.	Excellent	Excellent	Excellent	Excellent

2% LANTHANUM ELECTRODES (BLUE)

Excellent performance, no radioactivity.

When choosing a tungsten electrode, arc ignition, stability and lifetime are the criteria to consider. That‘s why historically the thoriated electrode (RED) is the most commonly used. But despite the content of thorium oxide is very limited, during grinding the user can inhale powders containing radioactive elements. However, despite the very low content of thorium oxide, during grinding the user can inhale thorium powder containing radioactive elements which, although far below the threshold considered to be hazardous, may cause health problems.
Nowadays a non-radioactive electrode better than thoriated already exists. It is the BLUE electrode with lanthanum 2%. Lanthanum is the best electrode. It can guarantee an excellent arc ignition, re-ignition and arc stability by maintaining a perfect tip geometry for longer. It has a longer lifetime and can be use both with AC and DC. It doesn‘t contain any radioactive element.

- **Can be used with alternating or direct current (AC and DC).**
- **Excellent arc ignition.**
- **Best arc stability thanks to a lower deformation of the electrode tip.**
- **Longer lifetime.**
- **No radioactivity**

MMA WELDING

ELECTRODE HOLDERS AND EARTH CLAMPS

The GCE range of ELECTRODE HOLDERS and EARTH CLAMPS includes a large selection of models for the most exigent users. The selection of electrode holders includes models with different designs and insulations. They are all manufactured with the best material with attention to details. Always the best handling and safety. The earth clamps, made from plated steel or cast brass body, are all designed to be strong and to offer always the best conductivity minimizing the electric discharges. Accurate design of point of contact and cable fixing in different position depending on the user's need. A complete offer, fully in compliance with EN standards, for occasional and professional users, for all the uses up to heavy duty applications.

CE

EN 60974-11
EN 60974-13

Art.-Nr.	Description
17200350	Electrode holder Pratica 2 – 350 (cable 35 - 50 mm^2)
17200520	Electrode holder Pratica 3 – 520 (cable 50 - 70 mm^2)
WP21054	Electrode holder DELFIN–1 250A (cable 25 - 35 mm^2)
WP21055	Electrode holder DELFIN–2 300A (cable 35 - 50 mm^2)
WP21056	Electrode holder DELFIN–3 400A (cable 50 - 70 mm^2)
53104	Electrode holder Crocodile 400 (cable 35 mm^2)
53106	Electrode holder Crocodile 600 (cable 70 mm^2)
548800000160	Electrode holder Shark 200 (cable 16 mm^2)
548800000260	Electrode holder Shark 300 (cable 25 mm^2)
548800000350	Electrode holder Shark 400 (cable 35 mm^2)
548800000500	Electrode holder Shark 550 (cable 50 mm^2)
53524	Electrode holder Twist 400 (cable 35 mm^2)
53526	Electrode holder Twist 600 (cable 70 mm^2)
D150102	Electrode holder Vestale® 500 (cable 95 mm^2)
D150104	Electrode Cobra® (cable 35 mm^2)
D150103	Electrode holder Stubby® 300 (cable 50 mm^2)
D150105S	Electrode holder Stunty 400 (cable 50 - 70 mm^2)

MMA WELDING

WELDING CABLES AND CONNECTORS

GCE Arc Welding Cables are superior cables made with copper conductor, insulated with rubber, flame retardant and oil and chemical resistant, conform to 2006/95/EC (LVD). All these cables are subjected to accurate controls to guarantee the best conductivity. GCE cable connections are DINSE style connectors. Brass body and insulation in rubber (for cables) or heat resistant resin (for machine).

CE

Art.-Nr.	Body size	Plug size	Cable (mm^2)	Max A
711P001105	21 mm	13 mm (big)	35 - 50	300 A
711P001205	21 mm	13 mm (big)	50 - 70	400 A
711P001305	21 mm	13 mm (big)	70 - 95	500 A
711P001003	14 mm	9 mm (small)	10 - 25	200 A
711P001103	21 mm	13 mm (big)	35 - 50	300 A
711P001203	21 mm	13 mm (big)	50 - 70	400 A
711P001303	21 mm	13 mm (big)	70 - 95	500 A
711P001004	14 mm	9 mm (small)	10 - 25	200 A
711P001104	21 mm	13 mm (big)	35 - 50	400 A
711P001304	21 mm	13 mm (big)	70 - 95	500 A

MMA WELDING

STICK ELECTRODES

GCE has selected a range of the most popular electrodes types, widely used in most applications, with the goal to offer excellent weldability without compromising the mechanical properties of the weld beads.

APPLICATION	PRODUCT	FEATURE
Carbon Steel Welding	ARC MAGIC S	Universal
	DIANE TS	Enhanced mechanical characteristics
	DIANE BT	Special for repairing
Difficult weld Steel Welding	INOX 29.10R	Multipurpose, high security
Stainless Steel Welding	INOX RR316LC	Stainless steel 316L
Dissimilar Metals Welding	INOX 29.10R	Multipurpose, high security
Cast Iron Welding	FUN No1	Lamellar cast iron
Hardfacing	DIROK RB 600	Universal (55-60 HRC)

UN- ALLOYED STEEL

HIGH ALLOYED STEEL

CAST IRON

HARDFACING

BRAZING

FILLER METALS

GCE offers a wide variety of brazing and soldering solutions, with the goal of always offering high quality alloys. All our alloys are Cadmium Free and are carfully designed to offer great mechanical properties. Our fluxes are accurately selected to have the best performance and low hazards for operators and enviroment.

COPPER-PHOSPHORUS ALLOYS

SILVER ALLOYS

BRASS ALLOYS

MILD STEEL ALLOYS

SOLDERING TIN

GAS HOSES

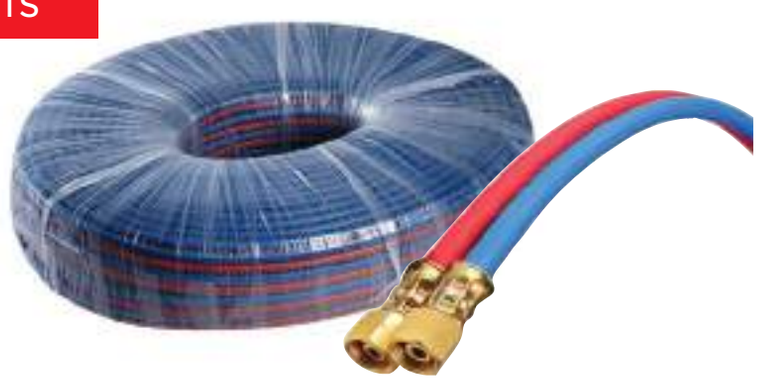
RUBBER HOSES

GCE offers a wide range of rubber welding hoses conform to standard ISO 3821.
Rubber hoses are offered in bulk or ready to use, already fitted with the most used connections and equipped with the non-return valve for user's safety. Our choice includes single hoses, twins or coupled, for Oxugen, Acetylene, Propane and inert gases.

ISO 3821

FEATURES / ADVANTAGES / BENEFITS

- High Quality rubber
- Inner tube resistant to welding gas
- Reinforcement in high tensile synthetic textile
- Outer tube resistant to abraison and weather
- Working pressure 20 bar



Art.-Nr.	ø int	ø ext	coil
RH001000-050	4 mm	11 mm	50 m
272063035204	6,3 mm	12,3 mm	20 m
272063035404	6,3 mm	12,3 mm	40 m
RH004000-050	6,3 mm	13,3 mm	50 m
RH005000-050	6,3 mm	16,3 mm	50 m
RH006000-050	8 mm	15 mm	50 m
RH007000-050	9 mm	16 mm	50 m
RH008000-050	10 mm	17 mm	50 m
RH014000-050	6,3 mm	13,3 mm	50 m
RH016000-050	8 mm	15 mm	50 m
RH017000-050	9 mm	16 mm	50 m
272100035201	10 mm	17 mm	40 m
272100035401	10 mm	17 mm	50 m
RH018000-050	10 mm	17 mm	50 m
272140612040	6 mm	12 mm	40 m
272321009131	4 mm	11 mm	50 m
272063035206	6,3 mm	13,3 mm	20 m
272321063035	6,3 mm	13,3 mm	50 m
272321009136	8 mm	16 mm	50 m
272321035090	9 mm	16 mm	50 m
272100035402	10 mm	17 mm	20 m
272100035202	10 mm	17 mm	40 m
272321311006	10 mm	17 mm	50 m

GAS WELDING HOSE REELS

CE

NOUVEAU NEW NEUES

The **HOSE REELS OSV** is a professional device to distribute the welding gases (oxygen, acetylene, propane) to the workplace without leaving the hoses around the workshop.

The hose reel is equipped with an **AUTOMATIC REWIND** system which allows an easy recall of the hose.

Suppled **WITHOUT HOSE**, it is equipped with G3/8M connections and can be combined with fitted hose (sold separately). In addition, it is equipped with nuts and hose nipples for a full compatibility with different hose sizes and gases.

- The hose can be stopped at the desired lenght
- The hot-galvanized steel structure is moulded and coated with electrostatic polyester powder, resistant to UV rays
- The open structure allows an easy assembly and replacement of the hose and the control of the rewinding
- The hose guide can be fixed in 3 different positions allowing the installation in multiple positions.
- Lateral covers to protect the hose connections.

Art.-Nr.	Description
TH030100	HOSE REELS OSV without hose
TH030200	SWIVEL BRACKET

ACCESSORIES

APICS LIGHTER

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!

- No naked flames in the workplace.
- No need to light the pilot flame and extinguish every morning and evening.
- No need to adjust gas levels during the day.
- No build up of combustible gases if the pilot flame is accidentally extinguished.
- Through a new patented ignitor system.

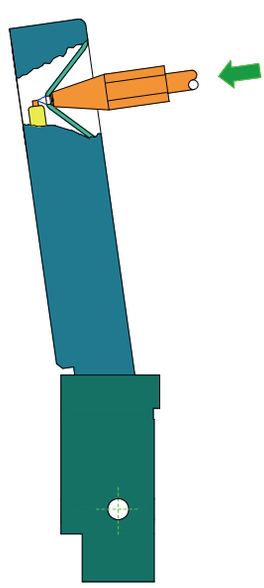
NOUVEAU NEW NEUES

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 CO2 emissions (200kg CO2 is estimated emission from a pilot flame economiser).

CE

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



Art. Nr.	Description
548026032009	APICS SAFE LIGHTER Piezo Electric

TOOLS

The range of accessories includes a selection of sparkle lighters, mirrors, nozzle cleaners, wire brushes and chipping hammers. All these tools are accurately selected to offer a long service life.

Art.-Nr.	Description
15010101	Mirror 70×80×1 in steel with Magnetic base
15011101	Mirror 70×80×1 in steel with Handle
15013101	Spare mirror plate 70×80×1 in steel
548900001349	WELD REVOLVING GAUGE
9430850	10 needles (12pcs), ø 0,5-2,8 mm *
9430860	14 needles (12pcs), ø 0,5-1,6 mm *
14008480	Brush BR5, ø 0,30-0,35
14008472	Brush BR 1, ø 0,30-0,35
14008475	Brush BR2, ø 0,30-0,35
14008157	Brush JUNIOR, ø 0,15
WP21103	Chipping hammer with metal handle
WP21104	Chipping Hammer with wooden handle
WP21106	Pliers MIG multipurpose

** not in blister*

CHEMICALS

SPRAYS

GCE high quality technical sprays are specifically developed for welding applications. GCE chemicals are designed to be always eco-friendly.

ANTISPATTER SPRAYS AND LIQUID
GALVANIZING SPRAYS(ZINC, INOX)
LEAK DETECTORS
CRACKS DETECTORS
MULTIFUNCTION

Art.-Nr.	Description
WP22003	ANTISPATTER PLUS SPRAY 400ml 2
392P000071	ANTISPATTER 300 ml spray
WP22009	ANTISPATTER CREAM 300 g
WP22008	ANTISPATTER 5 L Tank
WP220080	ANTISPATTER 25 L Tank
WP22005B	ZINCSPRAY 400 ml
WP220051	INOXSPRAY 400 ml
WP22028	GAS LEAK Detector 400 ml
WP22028B	GAS LEAK Detector 400 ml
WP22036	MULTISPRAY 400 ml
WP22030	Spray Cleaner 400 ml
WP22032	Spray Penetrant 400 ml
WP22034	Spray Developer 400 ml
548900140303	GAS LEAK OX Detector 400 ml, Oxygen Compatible

MARKERS

A selection of markers (liquid paint, solid paint, soapstone), with different tips and colours to mark many kind of surfaces: rough metals, rusty or dirty, ceramic, glass, wood, etc. The range includes also markers for temperature indication.

Art.-Nr.	Description
548900080226	B MARKER - GREEN
548960080220	B MARKER - WHITE
548960084811	B MARKER - YELLOW
548960084812	B MARKER - RED
WP23040	MARKER BALL STYLMARK - YELLOW
WP23041	MARKER BALL STYLMARK - WHITE
WP23042	MARKER BALL STYLMARK - RED
548900084600	BALL MARKER (LIQUID IN BOTTLE) - WHITE
548900096820	VALVE ACTION MARKER - WHITE
548900096821	VALVE ACTION MARKER - YELLOW
548900096823	VALVE ACTION MARKER - BLACK
548960080129	MARKER SOAPSTONE FLAT 125 × 4 × 12 MM
548960080130	MARKER SOAPSTONE ROUND 125 × ø 5 MM
548960080140	MARKER SOAPSTONE FLAT
548960080141	MARKER SOAPSTONE ROUND
548960084601	BALL MARKER (LIQUID IN BOTTLE) YELLOW
548960086490	THERMOCHALK THERMOMELT THERMOMELT 83°C
548960086401	THERMOCHALK THERMOMELT THERMOMELT 100°C
548900086562	THERMOCHALK THERMOMELT THERMOMELT 121°C
548960084664	THERMOCHALK THERMOMELT THERMOMELT 150°C
548960086410	THERMOCHALK THERMOMELT THERMOMELT 175°C
548960086706	THERMOCHALK THERMOMELT THERMOMELT 184°C
548960086516	THERMOCHALK THERMOMELT THERMOMELT 200°C
548960086563	THERMOCHALK THERMOMELT THERMOMELT 250°C
548960086626	THERMOCHALK THERMOMELT THERMOMELT 300°C
548960086698	THERMOCHALK THERMOMELT THERMOMELT 350°C
548960086734	THERMOCHALK THERMOMELT THERMOMELT 400°C
548960086770	THERMOCHALK THERMOMELT THERMOMELT 450°C
548960086807	THERMOCHALK THERMOMELT THERMOMELT 500°C
548960086824	THERMOCHALK THERMOMELT THERMOMELT 550°C
548960086842	THERMOCHALK THERMOMELT THERMOMELT 600°C
548960086860	THERMOCHALK THERMOMELT THERMOMELT 650°C
548960086870	THERMOCHALK THERMOMELT THERMOMELT 700°C
548960086878	THERMOCHALK THERMOMELT THERMOMELT 750°C
548960086887	THERMOCHALK THERMOMELT THERMOMELT 800°C
548900011575	HEAT-SEAL STIK 31 Bar, 177 °C
231412100001	OMNIFIT 230M 50G


Markal
BALL PAINT
MARKER


Markal
Markal B
Markal STYLMARK

PREPARATION OF JOINTS

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).

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.

- 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, copperbronze, coppersteel).
- Cost saving
- Double tips marker or big size marker (22 mm)

PATENTED FORMULA

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

AUTODARKENING GOGGLE

SUPERVISOR

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.

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

CE

EN-379
EN-12941

FEATURES / ADVANTAGES / BENEFITS

- 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

Art.-Nr.	Description
19007000	GOGGLE SUPERVISOR LCD 5-11

GENERAL APPLICATIONS

Supervision, inspection and control of Cutting & Welding operations.

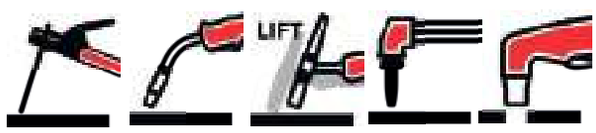
AUTODARKENING HELMET WITH VENTILATION

MACH 3 WIND

Mach 3 Wind is an integrated protection system which combines the high technology of a LCD filter with 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 ColorView Infotrack allows to see the workpiece in colors and to monitor the welding time and environment´s temperature.

CE

EN-379
EN-12941



FEATURES / ADVANTAGES / BENEFITS

THE NEW COLORVIEW OPTICAL TECHNOLOGY

- Stop to the green shades. Now weld in colors ! The ColorView optical technology lets you see the workpiece in real colors.

INFOTRACKSYSTEM

- The InfotrackSystem monitors the welding arc time and detects the workplace temperature.
- Moreover, with clock and alarm.

EXTRAORDINARY HEADGEAR

- 5 adjustment points
- Integrated comfort cushion pad

ADVANCED RESPIRATOR

- Air flow adjustment (160 or 200 l/min).
- Multiple alarms.
- Easy-to-read control panel for monitoring and control of the device.
- Tough outer case. A barrier to stop debris from entering the unit.

TECHNICAL DATA VENTILATION UNIT	
Particle filter:	EN 12941 TH2 P SL
Airflow:	160-200 l/min adjustable
Alarms:	Visual, Acoustic, Vibrant
Battery:	10 h use, rechargeable
Odour filter:	Optional
Weight:	PAPR: 1350 g Air Hose: 220 g

TECHNICAL DATA LCD FILTER	
OPTICAL CLASS:	1/1/1/2 (one of the best on the market)
Viewing Area:	97x60 mm (max comfort)
Sensing:	4 sensors
Reaction time:	0,05 msec
Weld mode:	# 9-13 (MIG/TIG)
Cut mode:	# 5-9 (OXYGAS)
X mode:	# 9-13 (PLASMA and high sensitivity processes)
GRINF mode:	External button

Art.-Nr.	Description
19009001	Mach III WIND - INFOTRACK (old model)

AUTODARKENING HELMETS

MACH 3

Mach 3 is a LCD mask designed to satisfy the most exigent welders. Suitable for TIG, PLASMA and OXYGAS cutting and welding. This helmet is one of the most performant on the market. The new LCD filter ColorView Infotrack with digital control allows to see the workpiece in colors and to monitor the welding time and environment´s temperature. This mask is equipped the new comfortable headgear.

CE
EN 379

SOLAR CELLS + BATTERIES

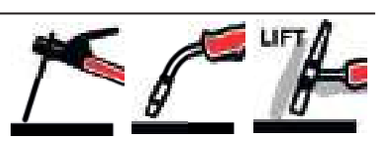
TECHNICAL DATA	
OPTICAL CLASS:	1/1/1/2 (one of the best on the market)
Viewing Area:	97×60 mm (max comfort)
Sensing:	4 sensors
Reaction time:	0,05 msec
WELD mode:	regolazione digitale
Tempo di ritorno al chiaro:	regolazione digitale
WELD mode:	#9-13 (MIG/TIG)
CUT mode:	#5-9 (OXYGAS)
Xmode:	#9-13 (PLASMA and high sensitivity processes)
GRIND mode:	external button

Art.-Nr.	Description
19009000	MACH III - INFOTRACK (old model)
AD010001	Mach 3 - INFOTRACK with ColorView LCD filter

MACH 2

Mach 3 is a LCD mask designed to satisfy the most exigent welders. Suitable for TIG, PLASMA and OXYGAS cutting and welding. This helmet is one of the most performant on the market. The new LCD filter ColorView Infotrack with digital control allows to see the workpiece in colors and to monitor the welding time and environment´s temperature. This mask is equipped the new comfortable headgear.

CE
EN-379



SOLAR CELLS + BATTERIES

TECHNICAL DATA	
OPTICAL CLASS:	1/1/1/2 (one of the best on the market)
Viewing Area:	97×47 mm double LCD layer
Sensing:	2 sensors
Reaction time:	0,05 msec
Dark shade:	#9-13 external adjustment
Grinding mode:	internal adjustment disabling sensors

Art.-Nr.	Description
19008001	MACH II DIN 9-13 TIG SENSITIVE

AUTODARKENING HELMETS

ECLIPSE 3.s

Eclipse 3.s is an extraordinary and professional TIG mask, extra sensitive at an incredible price! The new LCD filter has now the variable shade selection 5-9 and 9-13. Provided with 4 sensors and an incredibly large view area for a great improvement of working conditions. Very high quality performance.

CE
EN 379

SOLAR CELLS + BATTERIES

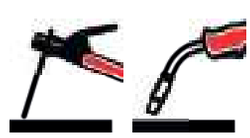
TECHNICAL DATA	
OPTICAL CLASS:	1/2/1/1 (one of the best on the market)
Viewing Area:	100x60 mm Extra large
Sensing:	4 sensors
Reaction time:	0,08 msec
WELD mode:	regolazione digitale
Tempo di ritorno al chiaro:	regolazione digitale
WELD mode:	#9-13 (MIG/TIG)
CUT mode:	#5-9 (OXYGAS)
GRIND mode:	yes

Art.-Nr.	Description
AD010003	Eclipse 3.s - 5/9 - 13

ECLIPSE 2.s

Eclipse 2.s is a very reliable mask for MIG/Electrode welding, working only with solar cells (no batteries). The new LCD filter has now one of the best optical class on the market and now comes with an enlarged viewing area and the grind function.

CE
EN-379



SOLAR CELLS + BATTERIES

TECHNICAL DATA	
OPTICAL CLASS:	1/1/1/2 (one of the best on the market)
Viewing Area:	96×42mm
Sensing:	2 sensors
Reaction time:	0,1 msec
Dark shade:	#9-13 external adjustment
Grinding mode:	yes

Art.-Nr.	Description
AD010004	Eclipse 2.s - with new LCD filter

HEAD PROTECTION

HELMETS & SHIELDS

GCE's program for labour protection includes a variety of devices for head and face protection. Lightweight helmets in different materials (polycarbonate, fiberglass reinforced or cellulose fiber) to protect the entire head where to mount the lens of desired shade. A flip-up frame (optional) can be mounted on some models to allow easy switch from a shaded lens to a clear one.

CE
EN 175

Hand shields in different materials (polyamide, nylon or cellulose fiber) for face protection, with different sizes of window to allow a perfect view of the workpiece. Users can choose among different shapes according to preference to have always the best protection according to welding position. Easy replacement of lenses. All our PPEs conform to standard EN 175..

Art.-Nr.	Description
548910000016	HAND SHIELD MM1010 (90 X 110 MM)
G100202	HAND SHIELD STR SIMPLE (105X50)
548914011001	HAND SHIELD ELETTRA (75×98 MM) QT. 20
548914011002	HAND SHIELD VULCAN (75×98 MM) QT. 20
548910000017	HELMET EUROPE (90 × 110 MM) QT. 5
G100223	HELMET LYON (50 × 108 MM) QT. 5
17001804	HELMET EURO (90 × 110)
548100000020	HEADGEAR FOR ALL MODELS
548914011003	HELMET COMFORT (75x98)
WP14032	VISOR HOLDER
WP14034	VISOR SHIELD CLEAR 2 MM
WP14037	VISOR SHIELD CLEAR 1 MM
WP14036	VISOR SHIELD DIN5 2 MM DIN 5

CE
EN 175

Vulcan

Elettra

MM10

PERSONAL PROTECTION

GOGGLES

GCE can boast a complete range of goggles specific for welding and grinding operations. Starting from basic models, very simple and economic to the most sophisticated and trendy with extraflexible frame. Every model has its own feature to better fit user's need. Frame flexibility and adjustability, vents, lenses in glass or polycarbonate, antifog and anti-scratch treatments, replaceable lens, etc.

CE

Flexer

Panoramic

Bomber

Traditional

Visual Flame

Art.-Nr.	Description
19007000	GOGGLE SUPERVISOR LCD 5-11
WP14028	GOGGLE FLEXER DIN5
WP14022	GOGGLE PANORAMIC CLEAR
17004430	GOGGLE SKI CLEAR
17006500	GOGGLE PANORAMA CLEAR
17008790	GOGGLE VISUAL ROUND DIN5
17007220	GOGGLE SKI FLIP DIN5
17007170	GOGGLE VISUAL SWIM DIN5
17107200	GOGGLE VISUAL FLIP METAL DIN5

PERSONAL PROTECTION

WORKWEAR AND GLOVES

It‘s absolutely important to protect the body during welding. GCE has chosen the popular leather tanned and worked in Italy for its workwear range. This choice allows us to provide high quality garments with a very extended durability compared to standard products on the market and with the excellent softness and wearability of Italian style clothing. The range of gloves includes models for general purpose as well as models specific for welders MIG and TIG with extended cuff.

Art.-Nr.	Description
WP13024	JACKET CLASS L
WP13026	JACKET CLASS XL
WP13027	JACKET CLASS XXL
12010	APRON SMALL, 60 X 90 CM
12010L	APRON BIG, 80 X 110 CM
WP13018	GAITERS (1 PAIR)
WP13062	SLEEVES WITH ELASTICS (1 PAIR)
WP13064	SLEEVES WITH STRINGS (1 PAIR)
12064	BALACLAVAS FIREPROOF PRO
12068	BALACLAVAS FIREPROOF TOTAL
548914013005	MUJ-SOLO FOR RIGHT HAND 10-SIZE
548914013006	MUJ-SOLO FOR LEFT HAND 10-SIZE
G100315	MANUDOCK REINFORCED, 10-SIZE, QT. 12
G100313	MÉCANO SOUPLE BIG XL (QT. 12)
G100318	SOUDARGON 15CM (QT. 10)
G100501	Lucifer 150°C (QT. 10)

CIA - CENTRE OF INDUSTRIAL APPLICATIONS

GCE is one of the worlds leading companies in gas equipment and oxy-fuel applications. GCE has almost 100 years experience in the development, manufacture of oxy-fuel equipment and applications.

The Centre for Industrial Applications was founded in Czech facility in 2008. It is mainly used by customer support to assist transfer of knowledge to the GCE distribution network and to end users of GCE products. The Research and Development team members visit the CIA daily to test new products and applications. CIA is also used to develop training programmes, product demonstrations and professional seminars. An important role of the facility is to assist customers in oxy-fuel applications, identify optimal product set up and process parameters, specifically in:

- CNC oxy-fuel cutting
- Manual oxy-fuel cutting
- Powder cutting
- Oxygen lancing
- Various preheating of metals, glass and plastics
- Flame straightening of steel constructions
- Flame cleaning
- Flame brazing
- Gas welding

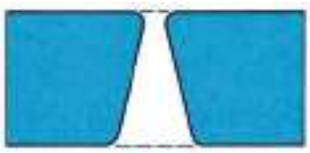
CIA is based in Czech Republic. An up to date CNC cutting machine is available along with portable cutting machines and an entire range of GCE oxy--fuel equipment. Supply systems of all common fuel gases are installed with a high capacity oxygen system. This enables the simulation of conditions similar to reality as in most metal fabricating facilities.

Solutions of various oxy-fuel technologies can be investigated either in the GCE facility or worldwide on site at the customer. A team of qualified technicians with extensive practical experience is available to provide a comprehensive support service to a worldwide network of GCE products users.

ADJUSTMENT RECOMMENDATION FOR PERFECT MACHINE CUTTING

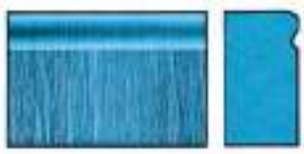
NARROWING OF KERF (DIVERGENT)

- Forward speed of torch too fast
- Distance between nozzle and sheet metal too big
- Dirty and / or damaged nozzle



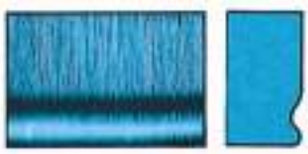
NARROWING OF KERF (CONVERGENT)

- Forward speed of torch too fast
- Distance between nozzle and sheet metal too big
- Cutting oxygen pressure too high



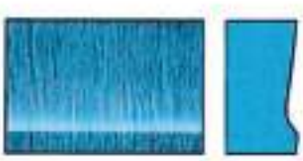
CONCAVE CUT SURFACE BENEATH TOP EDGE

- Cutting oxygen pressure too high
- Dirty and / or damaged nozzle
- Distance between nozzle and sheet metal too big



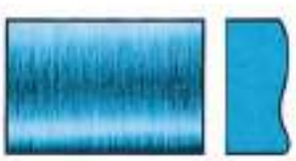
STEP AT BOTTOM EDGE

- Forward speed of torch too fast
- Dirty and / or damaged nozzle



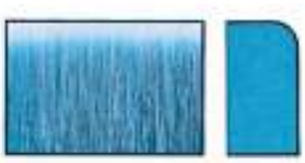
CONCAVE CUT SURFACE PROFILE

- Forward speed of torch too fast
- Dirty and/or damaged nozzle or nozzle size too small for the thickness to be cut
- Cutting oxygen pressure too low



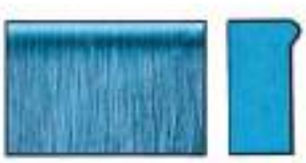
IRREGULAR CUT SURFACE PROFILE

- Cutting oxygen pressure too low
- Dirty and / or damaged nozzle
- Forward speed of torch too fast



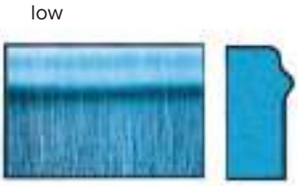
EDGE MELTING ON

- Forward speed of torch too slow
- Heating flame too strong
- Distance between nozzle and sheet metal too big to too small
- Nozzle size too big for the thickness to be cut



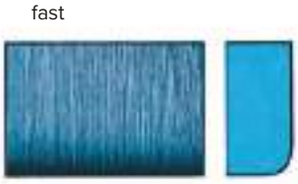
STRING OF SOLIDIFIED DROPLETS

- Heating flame too strong
- Distance between nozzle and sheet metal too small
- Scaled or corroded sheet metal surface



MELTED DOWN TOP EDGE WITH ADHERENT SLAG

- Cutting oxygen pressure too high
- Heating flame too strong
- Distance between nozzle and sheet metal too big

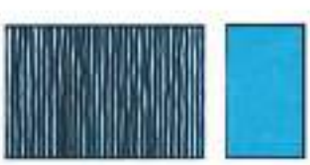


LOWER EDGE ROUNDED

- Cutting oxygen pressure too high
- Forward speed of torch too fast
- Dirty and / or damaged nozzle

EXCESSIVE CUT DRAG LINE DEPTH

- Forward speed of torch too fast or irregular
- Distance between nozzle and sheet metal too small
- Heating flame too strong



IRREGULAR DEPTH OF CUT LINE

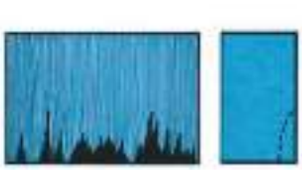
- Forward speed of torch too fast or irregular
- Flame too weak

SINGLE GOUGES

- Forward speed of torch too slow
- Scaled or corroded or dirty sheet metal surface
- Distance between nozzle and sheet metal too small
- Flame too weak
- Flame extinguished with a ban
- Sheet metal with finely divided inclusions

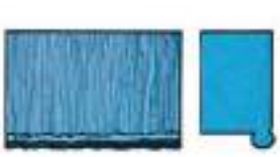
GROUPED GOUGE AREAS

- Forward speed of torch too fast
- Scaled or corroded or dirty sheet metal surface
- Distance between nozzle and sheet metal too small
- Flame too weak



GROUPED GOUGES IN THE BOTTOM HALF OF THE CUT

- Forward speed of torch too slow
- Dirty and / or damaged nozzle



FIRMLY ADHERENT SLAG LINE AND BOTTOM EDGE

- Forward speed of torch too fast or too slow
- Distance between nozzle and sheet metal too big
- Cutting oxygen pressure too low
- Nozzle size too small for the thickness to be cut
- Flame too weak
- Scaled or corroded or dirty (colour) sheet metal surface

FUEL GASES

Methane (Natural Gas) - CH_4

Ethane - C_2H_6

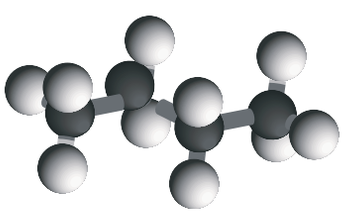
Ethene (ethylene) - C_2H_4

Ethine (acetylene) - C_2H_2

Propane - C_3H_8

Propene (propylene) - C_3H_6

Propyne (methylacetylene) - C_3H_4

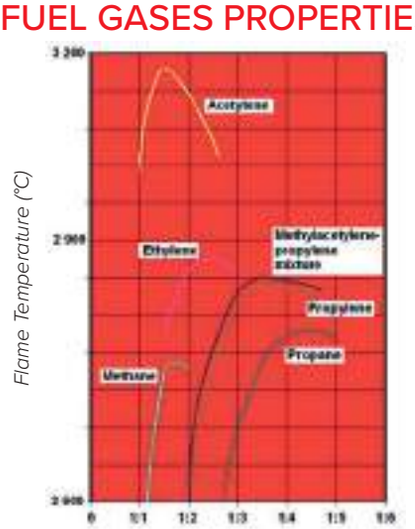


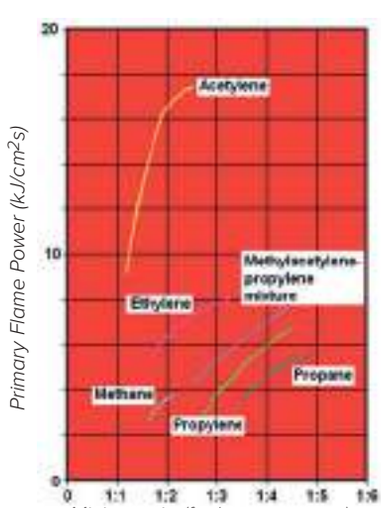
n. - Butane - C_4H_{10}

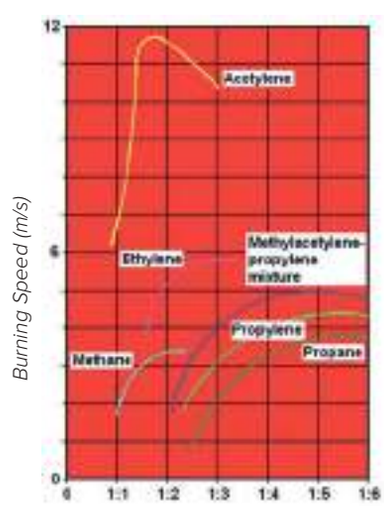
1 - Butene - C_4H_8

Butadiene - C_4H_6

FUEL GASES PROPERTIES







FUEL GASES PROPERTIES

Fuel gas type			Heating power		Mixing ratio		Flame temperature (°C)		Density	
					V oxygen/ V fuel gas				1 bar, 15°C	liquid form
			MJ/m³	MJ/kg	N	M	N	M	kg/m³	kg/l
Hydrogen	H_2	**H**	10,758	119,533	0,36	0,42	2 835	2 856	0,09	0,07
Methane	CH_4	**M**	31,814	44,186	1,6	1,8	2 770	2 786	0,72	0,42
Acetylene	**C2H2**	**A**	56,93	48,678	1,1	1,5	3 106	3 160	1,17	0,62
Ethylene	C_2H_4	**F**	55,674	47,6	1,8	2,4	2 902	2 924	1,17	0,57
Propylene	C_3H_6	**Y**	89,999	46,153	2,8	3,5	2 872	2 896	1,95	0,58
Propane	C_3H_8	**P**	93,557	46,315	3,75	4,3	2 810	2 828	2,02	0,53

Glossary: V - volume, N - mixing ratio with neutral flame, M - mixing ratio with maximal flame temperature, S - stoichiometric mixing ratio

MAIN STANDARDS FOR INDUSTRIAL EQUIPMENT

EN ISO 10297	Transportable gas cylinders - Cylinder valves - Specification and type testing
EN ISO 22435	Gas cylinders - Cylinder valves with integrated pressure regulators - Specification and type testing
EN ISO 2503	Gas welding equipment - Pressure regulators and pressure regulators with flow-metering devices for gas cylinders used in welding, cutting and allied processes up to 300 bar (30 MPa)
EN ISO 7291	Gas welding equipment - Pressure regulators for manifold systems used in welding, cutting and allied processes up to 300 bar
ISO 14114	Gas welding equipment - Acetylene manifold systems for welding, cutting and allied processes -- General requirements
EN ISO 5172	Gas welding equipment - Blowpipes for gas welding, heating and cutting -- Specifications and tests
EN ISO 5171	Gas welding equipment - Pressure gauges used in welding, cutting and allied processes
ISO 5175	Equipment used in gas welding, cutting and allied processes - Safety devices for fuel gases and oxygen or compressed air - General specifications, requirements and tests
EN 730-1	Gas welding equipment - Safety devices - Incorporating a flame (flashback) arrestor
EN 730-2	Gas welding equipment - Safety devices - Not incorporating a flame (flashback) arrestor
ISO 9090	Gas tightness of equipment for gas welding and allied processes

THREAD CONNECTION FOR PRESSURE REGULATORS FOR WORKING PRESSURE UP TO 200 BAR

Gas/Country Standard	Sweden SS 2238	Czech Republic ČSN 078600	Germany DIN 477	France NF E 29-650	UK BS 341	Spain MIE-AP7	Italy UNI 11144
Oxygen	W21,8	W21,8	G3/4	SI22,91	G5/8	W22,91	W21,7
Acetylene	G3/4	Yoke	Yoke or M24×2LH	Yoke or W22,91LH	G5/8 LH	Yoke or W22,91LH	Yoke or G5/8LH
Argon	W24,32	W21,8	W21,8	SI21,7	G5/8	W21,7	W24,5
Nitrogen	W24,32	W24,32	W24,32	SI21,7	G5/8	W21,7	W21,7
Air	G5/8	G5/8	G5/8	SI30x1,75	G5/8	M30×1.75	W30
Hydrogen	W21,8LH	W21,8 LH	W21,8 LH	SI21,7LH	G5/8 LH	W21,7LH	W20 LH
Carbon dioxide	W21,8	G3/4	W21,8	SI21,7	W0,860	W21,7	W21,7

WHITWORTH PARALLEL PIPE THREAD DIN ISO 228 BSPP (DIN 259)

NOMINAL DIAME-TER	MAJOR DIAMETER MM	MINOR DIAME-TER NUT MM	TAPPING DRILL SIZE MM	TPI	PITCH MM
G 1/4“	13,16	11,89	11,8	19	1,337
G 3/8“	16,66	15,39	15,25	19	1,337
G 1/2“	20,95	19,17	19	14	1,814
G 5/8“	22,91	21,13	21	14	1,814
G 3/4“	26,44	24,66	24,5	14	1,814
G 1“	33,25	30,93	30,75	11	2,309

G = British Standard Pipe Parallel Thread, with sealant compound (parallel, cylindrical), external

NPT AMERICAN TAPER PIPE THREAD ANSI B 1.20.1

NOMINAL DIAMETER	MAJOR DIAMETER MM	TAPPING DRILL SIZE MM	TPI	PITCH MM
1/4“ NPT	13,616	10,7	18	1,411
3/8 NPT	17,055	14,1	18	1,411
1/2“ NPT	21,223	17,4	14	1,814

American Taper Pipe Thread, with sealant compound.

WHITWORTH PARALLEL PIPE THREAD DIN 477-1

NOMINAL DIAME-TER	MAJOR DIAME-TER MM	MINOR DIAME-TER NUT MM	TAPPING DRILL SIZE MM	TPI	PITCH MM
W21,8	21,8	20,638	19,476	14	1,814
W24,32	24,32	23,158	21,996	14	1,814
W1	25,4	23,368	21,336	8	3,175

FLOW RATES CONVERSION COEFFICIENT

TEST GAS	CONVERSION COEFFICIENT								
	AIR	OXYGEN	NITRO-GEN	ARGON	HYDRO-GEN	HELIUM	ACETYLE-NE	LPG	CO_2
Air	1	0,95	1,02	0,851	3,81	2,695	1,05	0,800	0,808
Nitrogen	0,983	0,93	1	0,837	3,75	2,65	1,03	0,784	0,792

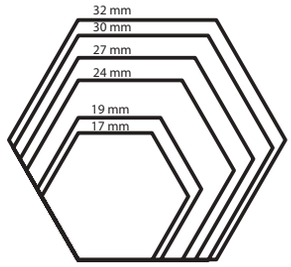
FLAME PROPERTIES

Fuel gas type			Heating power		Mixing ratio V oxygen/ V fuel gas		Flame temperature (°C)		Relative density to air
			MJ/m³	MJ/kg	N	M	N	M	1 bar, 15°C
Hydrogen	H_2	H	10,758	119,533	0,36	0,42	2 835	2 856	0,007
Methane	CH_4	M	31,814	44,186	1,6	1,8	2 770	2 786	0,556
Acetylene	C_2H_2	A	56,93	48,678	1,1	1,5	3 106	3 160	0,923
Ethylene	C_2H_4	F	55,674	47,6	1,8	2,4	2 902	2 924	0,98
Propylene	C_3H_6	Y	89,999	46,153	2,8	3,5	2 872	2 896	1,506
Propane	C_3H_8	P	93,557	46,315	3,75	4,3	2 810	2 828	1,589

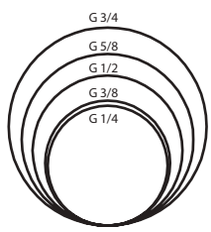
EXPLOSIVE LIMITS

Acetylene	Low	2,5	2,5
	High	93	80
Propane	Low	2,2	2,2
	High	45	9,5
Natural Gas (Methan)	Low	5	5
	High	60	15
Hydrogen	Low	4	4
	High	94	74,5

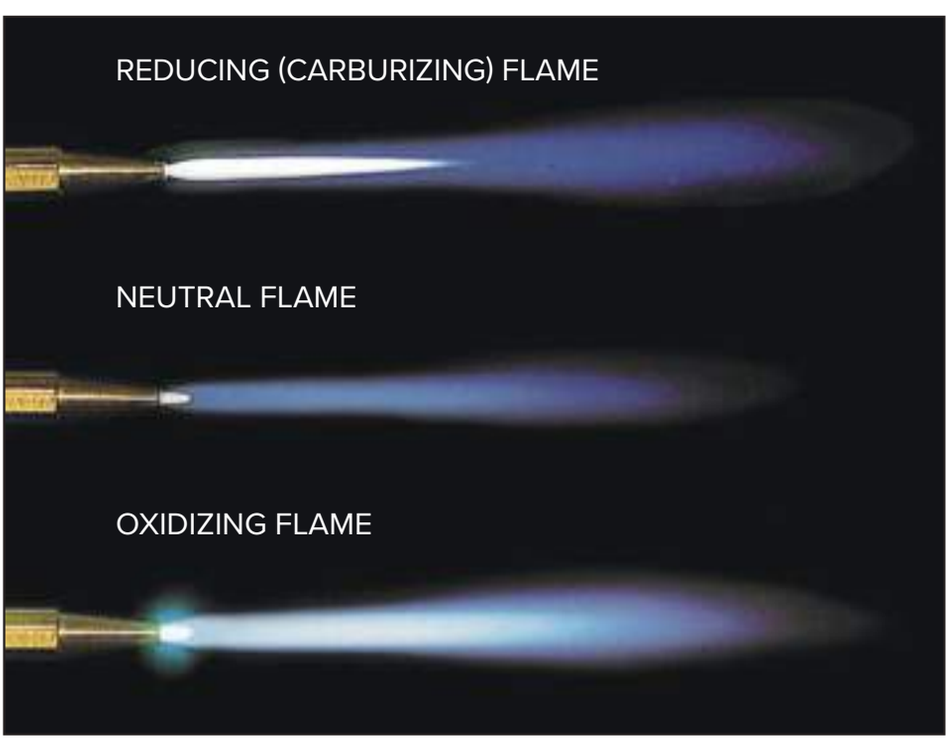
NUT MEASUREMENT (M 1:1)



13,16 mm = G 1/4
16,66 mm = G 3/8
20,95 mm = G 1/2
22,91 mm = G 5/8
26,44 mm = G 3/4
30 mm = W 21,8
32 mm = W 24,32; G 3/4



G 1/4 = 13,16 mm
G 3/8 = 16,66 mm
G 1/2 = 20,95 mm
G 5/8 = 22,91 mm
G 3/4 = 26,44 mm



TRANSPORT SYMBOLS OF HAZARDOUS SUBSTANCES (ADR, ABSTRACT ONLY)


Non-flammable gas


Flammable gas

Oxidizer


Toxic gas

WELDING PROCESS

Mark		Shielding gas	Application
MAG	Metal Active Gas	CO_2 , $Ar+CO_2$, $Ar+O_2$	Carbon steel, Stainless steel
MIG	Metal Inert Gas	Ar, Ar+He	Aluminium and Aluminium alloy, Titanium, Copper
TIG (WIG)	Tungsten Inert Gas (Wolfram Inert Gas)	Ar	Carbon steel, Stainless steel, Titanium, Copper, Aluminium and Aluminium alloy

GAS CYLINDER IDENTIFICATION - COLOUR CODING ACCORDING TO EN 1089-3 FOR INDUSTRIAL GASES

O_2

AIR
$Ar+CO_2$

Ar

C_2H_2

CO_2

H_2
CH_4

He

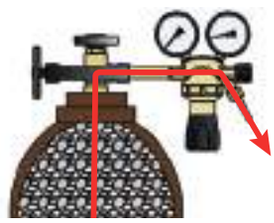
N_2

AsH_3
CO
NH_3

O_2+N_2O
O_2+CO_2
O_2+He

N_2O

Short-term consumption (max.10 min.)	For a 1 shift (approx. 8 hours)	Continuous consumption
max. 1 m^3/hour	max. 0,5 m^3/hour	max. 0,35 m^3/hour



GAS PROPERTIES

Gas	Formula	Letter code (ISO 7291)	Density at 1.013 bar 15°C	Cylinder pressure at 20°C (bar)
Acetylene	C_2H_2	A	1,109	18
Argon	Ar	N	1,691	200
Helium	He	N	0,169	200
Carbon Dioxide	CO_2	CO_2	1,872	53,7
Propane	C_2H_8	P	1,901	8,3
Oxygen	O_2	O	1,354	200
Nitrogen	N_2	N	1,185	200
Hydrogen	H_2	H	0,0852	200

FLOWS

	m^3/h	Litre/h	Litre/min
m^3/h	1	1000	16,667
Litre/h	0,001	1	0,0167
Litre/min	0,06	60	1

VOLUMES

	cm^3	dm^3/Litre	m^3
cm^3	1	1×10^{-3}	1×10^{-6}
dm^3/Litre	1000	1	1×10^{-3}
m^3	1×10^{6}	1000	1

PRESSURE UNITS

	bar	mbar	kPa	MPa	atm	psi
bar	1	1×10^{3}	100	0,1	0,986	14,504
mbar	1×10^{-3}	1	0,1	1×10^{-4}	$9,869 \times 10^{-4}$	0,0145
kPa	1×10^{-2}	10	1	1×10^{-3}	$9,869 \times 10^{-3}$	0,145
MPa	10	1×10^{4}	1×10^{3}	1	9,869	145,038
atm	1,013	1013	$1,013 \times 10^{2}$	0,101	1	14,696
psi	0,0689	68,948	6,895	$6,89 \times 10^{-3}$	$6,895 \times 10^{-2}$	1

GENERAL SAFETY PRECAUTIONS AND RECOMMENDED PROCEDURES

GCE BUTBRO RUBBER HOSE

Use only hose in good condition, fitted with special hose connections attached by permanent ferrules. Do not expose the hose to heat, traffic, slag and sparks from welding and cutting operations, oil or grease. Scrap it as soon as it becomes leaky. Good hose will re-pay the cost many times by long life, safe operation and elimination of waste through leaks.

GCE BUTBRO PRESSURE REGULATORS

Always treat a regulator as a precision instrument. Do not expose it to knocks, jars or violent pressure caused by the sudden opening of the cylinder valve. Release the pressure on the control spring when shutting down. Never use the regulator on any gas except for that for which it was designed do not use regulator with broken gauges.
Never use oil or grease.

GCE BUTBRO BLOW PIPES / CUTTERS

For lighting up and extinguishing any type of blow pipe the maker's instructions should always be followed. To clean the nozzle, use the manufacturer's nozzle cleaner set.

GCE BUTBRO GOGGLES

Goggles should be worn at all times when welding and cutting.

ASSEMBLY OF EQUIPMENT

1. Stand both both cylinders vertical. Oxygen cylinders are painted black. Acetylene are painted maroon, and propane cylinders are painted red.

2. See that joining surfaces in cylinder valves and regulators are free from oil and grease.

3. Open the valve on the oxygen cylinder momentarily in order to snift the cylinder valve, dislodging dirt or obstructions, close valve.

4. Open a fuel gas cylinder valve as in item 3.

5. Check pressure rating on regulator is suitable for cylinder in use. Screw the oxygen regulator in to the oxygen cylinder valve. The cylinder valve and the regulator inlet stem, and the regulator outlet connection have a right hand screw thread.

6. Screw the fuel gas regulator in to the gas cylinder valve.
The cylinder valve, the regulator inlet and the regulator outlet have left hand screw thread.

7. Tighten the regulator in to the cylinder valve Do not use excessive force, but make certain that the joints are gas tight.

8. Connect the hose to the screwed outlets of the regulator by means of screw connections secured in the ends of the hose.
Blow the hose through before attaching to regulator or to the blow pipe in order to remove dust or dirt, or chalk when the hose is new.
OXYGEN MUST NOT BE USED FOR THIS PURPOSE.

9. Connect the other ends of the hose, that fitted with a hose check valve; to the blow pipe, the fuel gas hose to the left hand connections, the oxygen hose to the right hand connection. Keep the blow pipe control valves closed.

10. Fit the appropriate sized nozzle to the blow pipe.
To obtain best possible results from GCE BUTBRO blow pipes
always use GCE BUTBRO precision nozzles.

LIGHTNING UP PROCEDURE WELDING BLOW PIPES

11. Open the cylinder valve slowly by means of the cylinder key. Do not open suddenly or there may be serious damage to the regulator and the possibility of an accident. Open the cylinder valve spindle one turn only.Open the fuel gas control valve on the blowpipe and adjust the regulator to give the correct working pressure (this ensures that any air or oxygen is purged from the hose). Repeat the above procedure for the oxygen side.

12A. Open the fuel gas control valve and light gas preferably by means of a GCE BUTBRO spark light making sure that the spark lighter is held at right angles to the nozzle.

12B. Reduce or increase the acetylene supply to the blow pipe valve until the flame just ceases to smoke.

12C. Slowly turn on the oxygen by the blow pipe control valve until the white inner cone in the flame is sharply defined with the merest trace of an acetylene haze. The blow pipe is now correctly adjusted for welding.

CUTTING BLOW PIPES

A. Proceed with assembly of the equipment exactly as outlined for the welding equipment, but remember the following points.

B. After fitting the correct size cutting nozzle, open the cylinder valves and after purging both hoses set the working oxygen pressure on the regulator with the oxygen passing through the cutting oxygen valve on the cutter, hence out through the nozzle. Shut all the valves on the blow pipe, open the fuel gas valve slowly and ignite the gas. Open the heating oxygen valve on the cutter slowly, and adjust the flame to neutral. Now depress the cutting oxygen lever and again adjust the heating gas controls to give a neutral flame. Depress the cutting oxygen lever, and the cutter is ready for use. These instructions apply to the nozzle mix type cutters since these are of the most modern design.

C. When cutting with a combined welding/cutting torch, the oxygen valve on the shank should remain fully open and all adjustments to the oxygens stream made with the oxygen valve on the cutting attachment, as detailed in (B above).

CLOSING DOWN PROCEDURE

13A WELDING EQUIPMENT
Turn off the acetylene first by the blow pipe control valve and then the oxygen. Close the cylinder valve. Open the blow pipe valves one at a time to release the pressure in the hose, i.e. open the oxygen valve and close it; open the fuel gas valve and close it. Unscrew the pressure regulating screws on the oxygen and acetylene regulators.

13B. CUTTING BLOW PIPES
On completion of the work, close the oxygen cutting valve, then the fuel gas and heating oxygen valves. Close the cylinder valves, open and close the cutter, oxygen and fuel gas valves one at a time to release pressure in the hose, unscrew the pressure regulating screws on the oxygen and acetylene regulators.

14. It is most important to emphasise the earlier instructions, that prior to re-lighting either the welding blow pipe or the cutter, the hoses must be purged to ensure a pure and adequate supply of oxygen/fuel gas. Back-fires may occur by one of a combination of circumstances, e.g. defective equipment, incorrect gas pressures, incorrect lighting-up proceedure or careless handling of the blow pipe in use, such as permitting the nozzle to touch the work, overheating the tip of the nozzle, or working with a loose nozzle. Usually the back-fire is arrested at the injector in case of low pressure equipment or the source where the gases are mixed, e.g. the head of the cutting blowpipe, and if prompt action is taken in turning off first the oxygen, and then the blowpipe may be re-lit as soon as the cause of the trouble has been eliminated.
In some cases, however, a back-fire may pass beyond the torch and go back into either the oxygen or the fuel gas hoses; it is then termed a 'flash-back' and its effect is more serious in that it may result in immediate damage to hoses and regulators. In extreme cases there is also a possibility of injury to the operator. The outward signs of flash-back my be squealing or hissing noise, sparks coming out of the nozzle; heavy black smoke; or the blowpipe handle may get hot. If the flame burns back far enough it may even burst through the hose.
Both blow-backs and flash-backs can be avoided by adherence to recommended procedure in the case of

equipment. Investigation shows that such occurrences often occur purely through overfamiliarity leading eventually to neglect of ordinary safeguards.

For example, the blowpipe settings, or a light being applied before the flow of fuel gas is properly established.

IF THE FLAME SNAPS OUT WHEN THE BLOW PIPE IS IN USE IT IS BECAUSE:
A. The regulator pressure, and/or gas flow, are incorrect - either too high or too low.

B. The nozzle has been obstructed.

C. The nozzle is held too close to the work.

D. The nozzle has become overheated.

When this happens completely shut both the blowpipe valves, check the regulator setting, cylinder pressures, and re-light in accordance with the proceedure. In the case of 'D', close the acetylene valve, reduce oxygen flow to a trickle, and plunge the nozzle and head into cold water.

GCE BUTBRO HOSE CHECK VALVES

The hose check valve is a safeguard which will operate independently and without attention from the operator. The device is essentially a non-return valve, the purpose of which is to prevent back feeding or the reverse flow of gases. It must in all cases be fitted to the inlet connections of the blowpipe.

GCE BUTBRO FLASHBACK ARRESTORS

The GCE BUTBRO flashback arrestor is a device to be fitted in the system to protect the upstream equipment. GCE BUTBRO flashback arrestors can be mounted to regulators, in line or to torches depending on the application. The flashback arrestor will contain between 1 and 5 features, depending on its specification.

FA Sintered flame arresting element to put out the flame.

NV Non return valve to prevent the reverse flow of gases.

PV Pressure trip device to temporarily shut off gas supply. The device can be reset after the problem is corrected.

TV Thermal trip device - to permanently shut off gas supply in the case of overheating.

SI Status indicator shows if the unit is ready for use.

NOTES

CENTRAL GAS SYSTEMS RANGE **DRUVA TECH** ALSO AVAILABLE

- **gas manifolds and stabilizers**
- **pressure monitors, gas alarms and valves**
- **terminal units**

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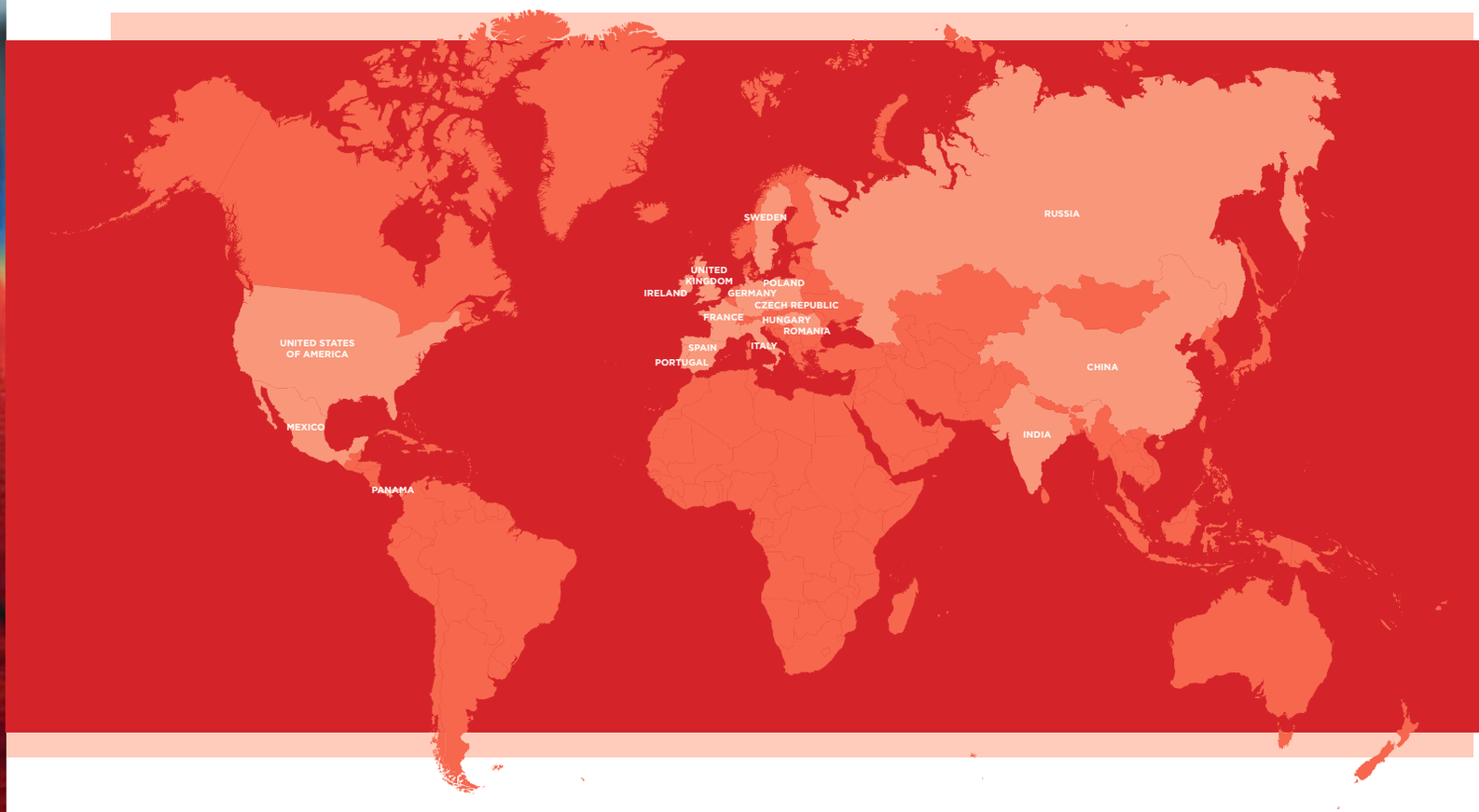

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