

BASECONTROL - CYLINDER REGULATOR

The Right Quality. The Right Performance.



Gas Control Equipment

GCE AS A GLOBAL COMPANY

GCE BUSINESS IN GENERAL

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

GCE GROUP INCLUDES FOUR BUSINESS AREAS:

- Cutting & Welding Technologies
- Valves
- Healthcare
- Druva

ORIGINS

The origins of GCE (Gas Control Equipment) go back as far as the beginning of the twentieth century when oxy-acetylene cutting and welding methods were first invented. GCE group as an independent entity was formed in 1987 through the merging of gas equipment activities by two of the world's leading industrial gas and welding equipment companies into one independent entity. The GCE Group has grown rapidly since its establishment and is leading the restructuring of the European

gas-equipment industry through mergers and acquisitions. Through the years, GCE Group's R&D work has resulted in innovative solutions that have quickly become field standards.

GCE SERVICES

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

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

A COMPLETE RANGE FOR CUTTING & WELDING

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

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

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

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

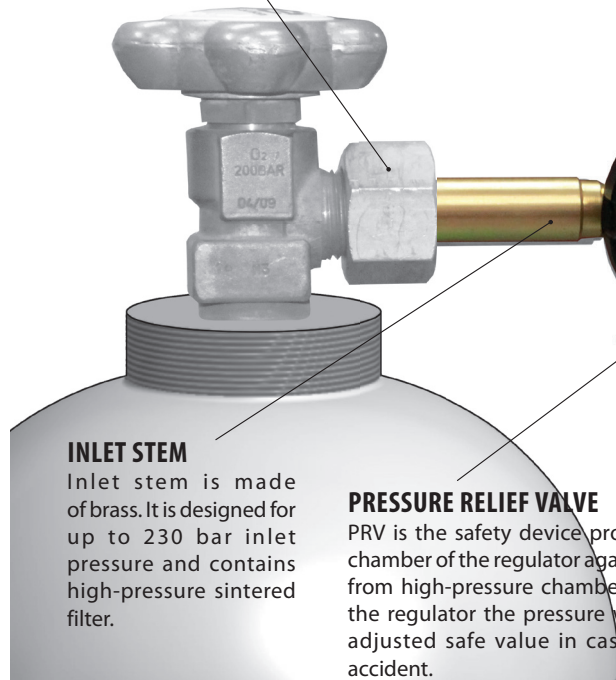
GLOBAL LEADER IN OXY-FUEL TECHNOLOGY

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

GCE BaseControl®

CYLINDER CONNECTION

Gas specific inlet connection is used on each version of the GCE BaseControl®. Quality sealing faces and brass nut ensure gas tight connection with cylinder valve.



INLET STEM

Inlet stem is made of brass. It is designed for up to 230 bar inlet pressure and contains high-pressure sintered filter.

PRESSURE RELIEF VALVE

PRV is the safety device protecting low-pressure chamber of the regulator against over pressurizing from high-pressure chamber. PRV relieves out of the regulator the pressure which could exceed adjusted safe value in case of malfunction or accident.

BODY AND BONNET

The body of the GCE BaseControl® is forged from pressure resistant brass. The channels and faces inside the body are machined using latest technology of CNC machines and tools. The bonnet is Die-casted from the Zn-Al alloy to prepare optimal space for pressure adjustment system and other internal components. Connection between body and bonnet is designed to give high resistance against external and internal stress.

PRESSURE GAUGES

Both high pressure and low pressure gauges show the value on three scales: bar, kPa (kilo pascal) and psi (pound per square inch). The connection to the regulator body is G1/4". Gauges 50mm diameter conform to ISO 5171.

HANDWHEEL

Ergonomic plastic hand wheel allowing the operator to correctly adjust the outlet pressure or flow rate. The pressure adjustment system gives the possibility to set the optimal outlet parameter according to application request.

OUTLET CONNECTION

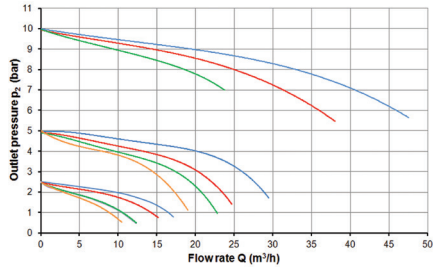
The outlet of the GCE BaseControl® is prepared to make gas-tight connection with outlet flashback arrestor or hose nipple.

FEATURES, ADVANTAGES, BENEFITS

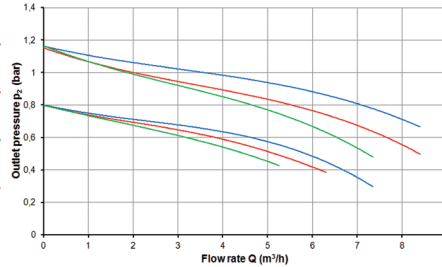
- Cylinder regulator conforming to ISO 2503
- Safe operation with high compressed gases up to 230 bar cylinder filling pressure.
- Available in following variants:
 - Oxygen 230/10 bar
 - Acetylene 25/1,5 bar
 - Propane 25/4 bar
 - Ar/Ar-CO₂ mixtures 230/24 l/min
 - CO₂ 200/24 l/min
 - Gas specific cylinder connection according to standards
 - **GCE BaseControl® SE** regulator with side configuration of the inlet connection (side entry)
 - **GCE BaseControl® BE** regulator with bottom configuration of the inlet connection (bottom entry)
- Oxygen adiabatic shock safety
- Regulating valve protected against mechanical particles of size 50µm by inlet filter
- Protection of the low pressure part with integrated pressure relief valve
- Pressure values are shown on the gauges in three major pressure units scales: bar, kPa, psi
- Flow gauge showing the value in litres per minute (l/min)
- Useful in various applications as e.g.:
 - Shielding gas arc welding
 - Flame welding
 - Oxy-fuel cutting
 - Flame brazing
 - Different heating processes
 - Flame spraying



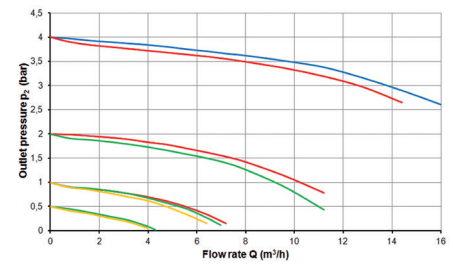
FLOW CHART - OXYGEN



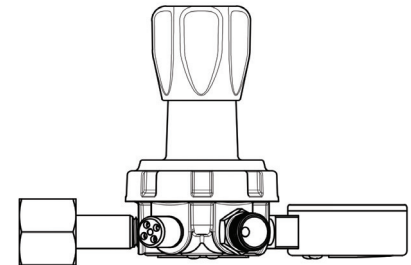
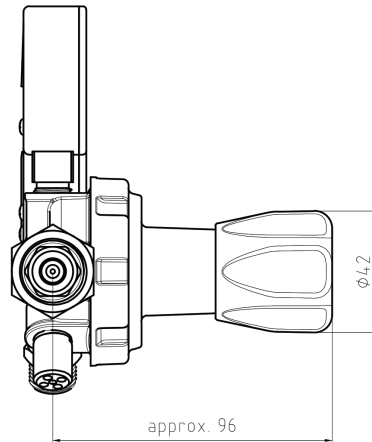
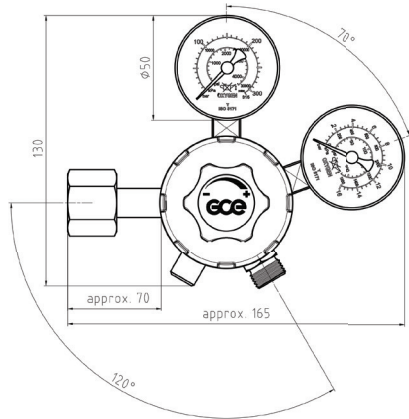
FLOW CHART - ACETYLENE



FLOW CHART - PROPANE



MEASUREMENTS





TECHNICAL DATA

	OXYGEN	AR, AR/O ₂	CO ₂	ACETYLENE	PROPANE
Body	Brass forged				
Bonnet	Zn/Al alloy forged				
Stems, nuts and fittings	Brass				
Diaphragm	EPDM				NBR
Seat sealing	PA			CR	
Inlet/Outlet connection	Gas specific connection				
Maximal inlet pressure	200bar or 230bar	200bar or 230bar	200bar	25bar	25bar
Outlet pressure range	0-10bar	0-24l/min		1,5bar	4bar
Temperature range	from -20°C to 60°C				
Weight	Approx. acc.to gas variant: 1,18 kg				
ISO 2503 Class	3	20	20	2	1



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SECURITY IN ACTION



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