MEDICAL CATALOGUE

GCE® Healthcare

GCE GROUP OVERVIEW

The GCE Group has an extensive product range to service customers within Industrial, Medical, High Purity and Speciality gas aplications. The GCE Group has an extensive product range to service its Industrial, Medical, High Purity customers.
The GCE Group can offer local sales and supply companies in the following locations: Austria, Benelux, Czech Republic, France, Germany, Hungary, Italy, Poland, Portugal, Romania, Spain, Sweden, Switzerland, United, 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 one central distribution centre based in Kladno, just north of Prague.

MARKET LEADERS

The GCE Group is today Europe is leading company in the field of gas control and is involved in the development and manufacturing of all types of equipment for pressure and flow control of high pressure gases. GCE's main business 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 now grown to include high purity and medical gas equipment.

Today's product portfolio fits a large variety of applications, from simple pressure regulators and blowpipes for welding and cutting to sophisticated gas supply systems for medical and electronics industry applications.

GCE CORPORATE RESPONSIBILITY

Today's product portfolio fits a large variety of applications, from simple pressure regulators and blowpipes for welding and cutting to sophisticated gas supply systems for medical and electronics industry applications.

HISTORY

The origins of GCE (Gas Control Equipment) go back to the start of the 20th century when Gas Welding was first invented. The GCE group was formed as an independent company in 1987 through the merging of two of the worlds leading gas and welding companies into one independent unit. GCE has grown rapidly since its establishment and is leading the restructuring of the European gas equipment industry through mergers and acquisitions. Through its extensive research and development programs GCE has set standards that have become the benchmark for the whole industry.

A COMPLETE RANGE FOR HEALTHCARE

Medical gas equipment is at the heart of what we do at GCE Healthcare, we understand the need for high standard of safety, quality and reliability. We maintain a global quality management system and ensure that our products comply with applicable quality and regulatory standards, such as the Medical Device Directive 93/42/EEC, ISO 13845 and more.

GCE is proud of its team of experts, who are dedicated to providing leading solutions for our customers. We work with healthcare professionals and providers around the world, supporting them to meet the needs of their patients.

GCE Healthcare supplies oxygen therapy solutions to home oxygen providers who deliver healthcare services to patients at home. Many home oxygen providers count on our robust supply chain to deliver products to them when required.

Our warehouses in the United Kingdom, Germany, and Czech Republic hold stock of our different products ensuring that we are able to respond quickly to the requirements of our customers.

We are leaders in this very important field and offer a range of competitive and industry leading products that include;

- Portable Oxygen Concentrators
- Stationary Concentrators
- Medical Cylinder regulators
- Electronic and pneumatic gas conserving devices
- Suction pumps
- Associated accessories

CONTENT

HIGH PRESSURE REGULATORS 5
MediSelect® II 6
MediReg® II 8
Varimed 9
MMR 10

HOSPITAL WARD EQUIPMENT 11
Blender 12
Medimeter 14
Vacuum Regulator - Medievac+ 16
Accessories for Medievac 17
Suction ejector - Medieject II 18
Medicollect 19
Mediflow® II 21
Mediflow® Ultra II (Low Pressure Regulator) 22
Trolleys 24
Hoses 25
Mediconnect 25
Rails and clamps 27
Terminal units 29

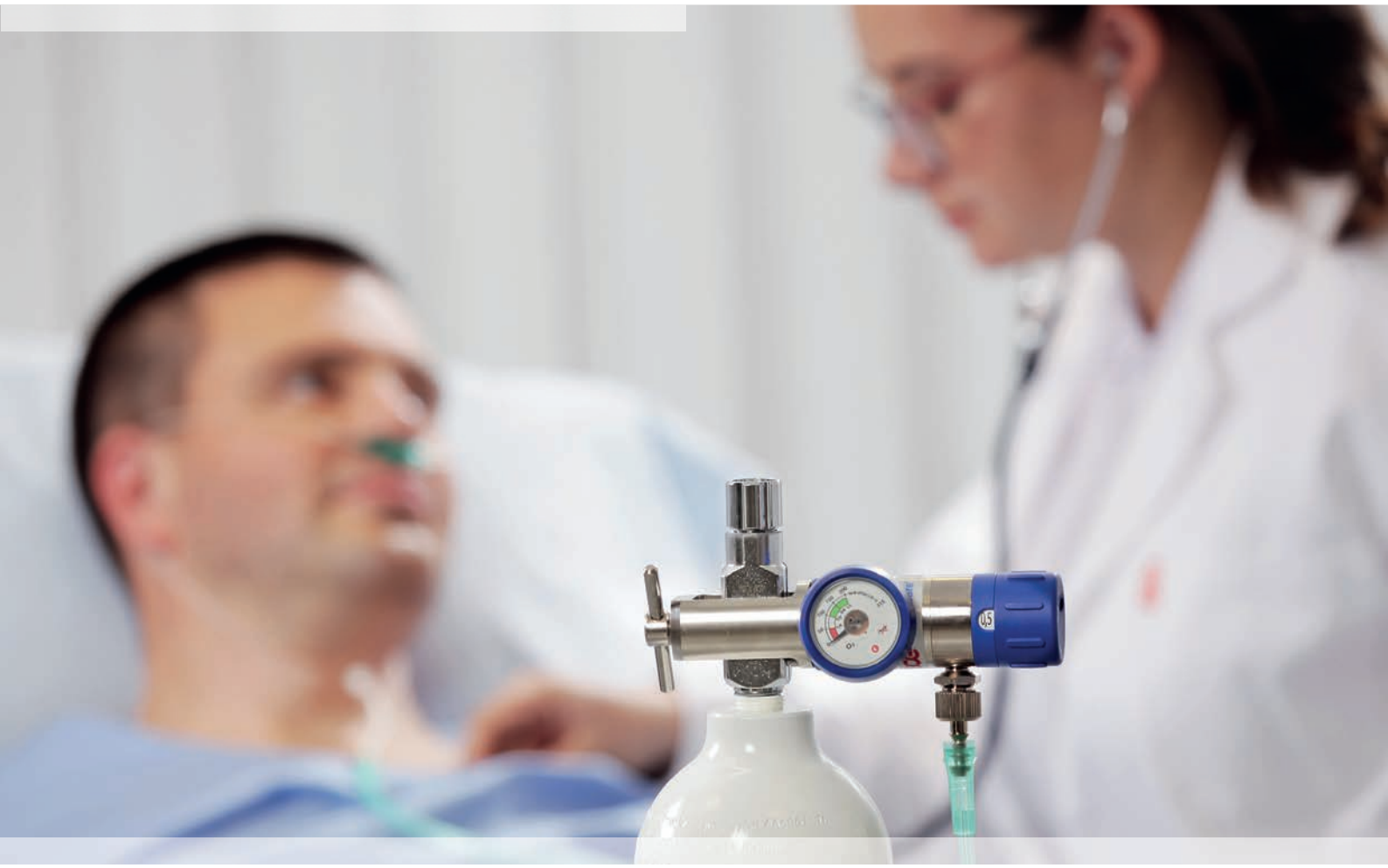
HOMECARE 31
Zen-O *lite*™ - portable oxygen concentrator 32
Zen-O™ - portable oxygen concentrator 34
Nuvo lite mark 5 36
Nuvo 8 37
Nuvo 10 38
ECOlite® 4000 Oxygen Conserver 39
ELITE - Pneumatic Gas conserver 41
Accessorie for oxygen therapy 43
Humidification and filtration 46

EMERGENCY EQUIPMENT 49
Mars II - manual and automatic resuscitation system 50
EASE II 51
Bag valve mask kit 52
Ambulance panel II 53
Ambulance panel system - APS 55

VALVES 57
Medivital® 58
Medical cylinder valves 60

GENERAL BUSINESS TERMS AND CONDITIONS 62

HIGH PRESSURE REGULATORS



GCE® Healthcare

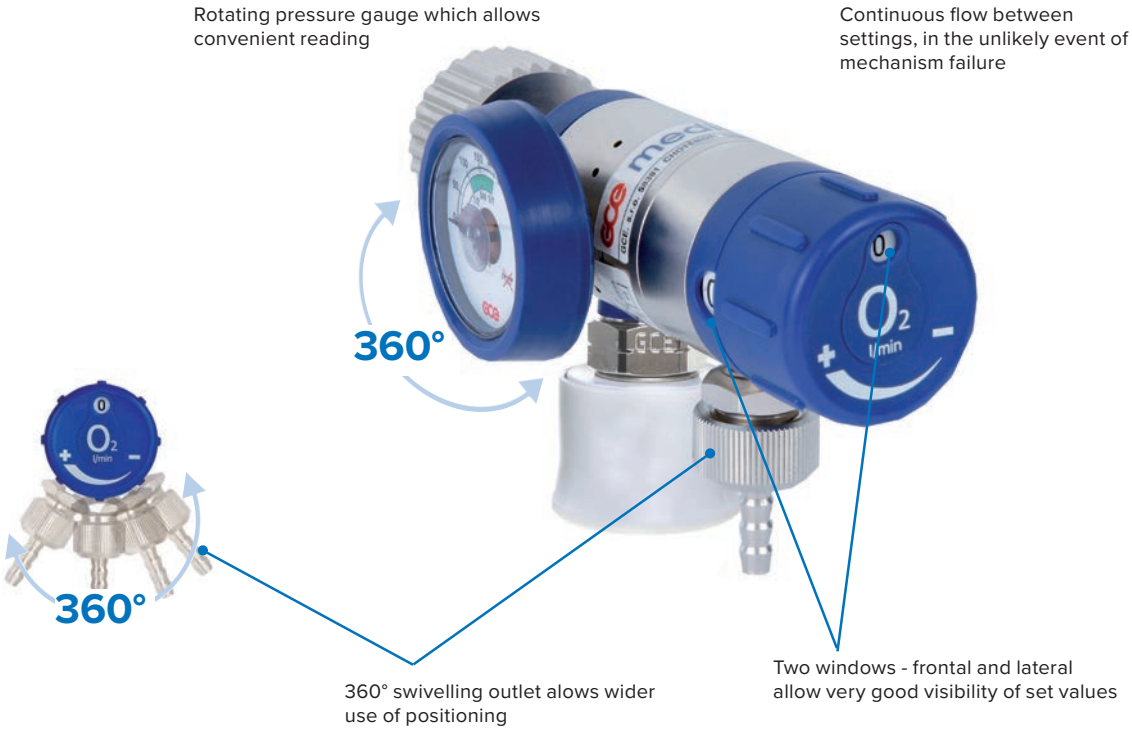
MEDICAL HIGH PRESSURE REGULATOR

MEDISELECT® II

The new generation of medical high pressure gas regulators.

FEATURES / ADVANTAGES / BENEFITS

- Regulator with flow selector
- Rotating pressure gauge which allows convenient reading
- 360° swivelling outlet – it enables better orientation of the nasal cannula or oxygen mask towards the patient (preventing from twisting)
- Innovative self centering flow setting device with continuous flow between settings. In the unlikely event of indent mechanism failure, the patient will still be supplied with medical gas
- Lateral and frontal reading of flow settings
- Higher number of flow disc holes increases treatment options
- Extra flow setting of 25 l/min on the traditional 15 l/min variant, allows use in resuscitation
- The additional 7 l/min is intended for nebulization



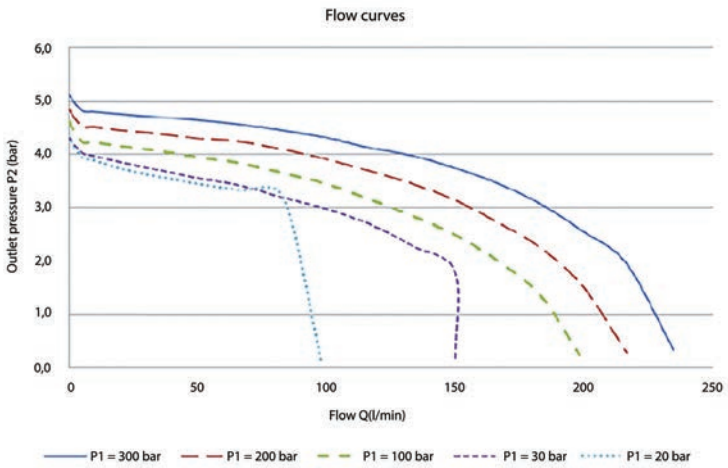
MEDISELECT® II

Mediselect II is a high pressure medical gas regulator with a quick connector and flow selector. Mediselect II is designed with a continuous flow mechanism between flow settings, which allows patients to receive gas therapy in the unlikely event of device failure.

TECHNICAL DATA	
Gas	O_2, Air, N_2O, CO_2, N_2O/O_2, Xe
Inlet pressure range	Up to 300 bar
Nominal outlet pressure	4 bar
Flow ranges*	
0 to 2 lpm	0, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 1, 1.5, 2
0 to 3 lpm	0, 1/64, 1/32, 1/16, 1/8, 1/4, 1/2, 3/4, 1, 1,5, 2, 3
0 to 6 lpm	0, 0.25, 0.5, 0.75, 1, 1.5, 2, 2.5, 3, 4, 5, 6
0 to 25 lpm	0, 1, 2, 3, 4, 5, 6, 7, 9, 12, 15, 25
Inlet connection	According to national standards
Outlet connection	9/16 UNF, M12×1,25, G3/8, G1/4 with hose nipple
Pressure outlet	DIN, AFNOR, SS, CZ etc.
Body material	Nickel-plated brass
Control knob	Polyamide
O-rings	EPDM
Filter	Sintered bronze
Gauge cover	TPE (thermoplastic elastomer)
Regulatory status	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 10524-1 (Pressure regulators for use with medical gases)
	Complies with EN 1789 (Medical vehicles and their equipment - Road ambulances)
Classification	Class IIb

** Flowrates expressed at 23°C and 101,3 kPa*

FLOW CURVE



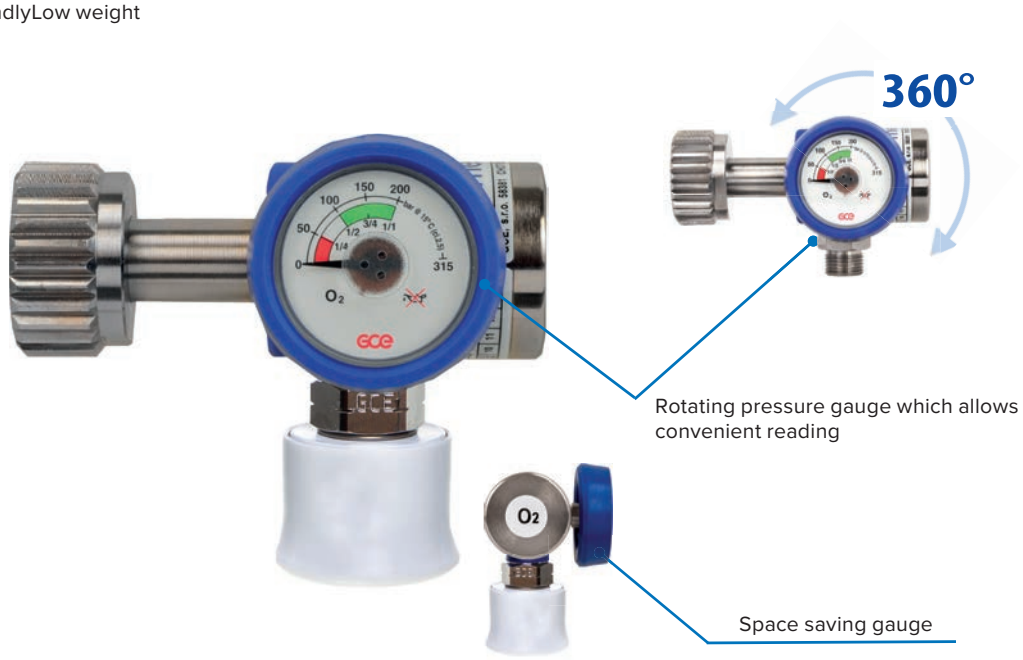
MEDICAL HIGH PRESSURE REGULATOR

MEDIREG® II

The new generation of medical high pressure gas regulators

FEATURES / ADVANTAGES / BENEFITS

- Regulator with pressure outlet, constantly adjusted flow or with flowmeter
- Rotating pressure gauge which allows convenient reading
- Ergonomic and streamlined design
- Easy cleaning surface
- Compact and user friendlyLow weight
- Low weight



MEDIREG® II

TECHNICAL DATA	
Gas	O_2, Air, N_2O, CO_2, N_2O/O_2, Xe, Ar
Inlet pressure range	Up to 300 bar
Nominal outlet pressure	4 bar
Inlet connection	According to national standards
Pressure outlet	DIN, AFNOR, SS, CZ etc.
Body material	Nickel-plated brass
Control knob	Polyamide
O-rings	EPDM
Filter	Sintered bronze
Gauge cover	TPE (thermoplastic elastomer)
Regulatory status	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 10524-1 (Pressure regulators for use with medical gases)
	Complies with EN 1789 (Medical vehicles and their equipment - Road ambulances)
Classification	Class IIb

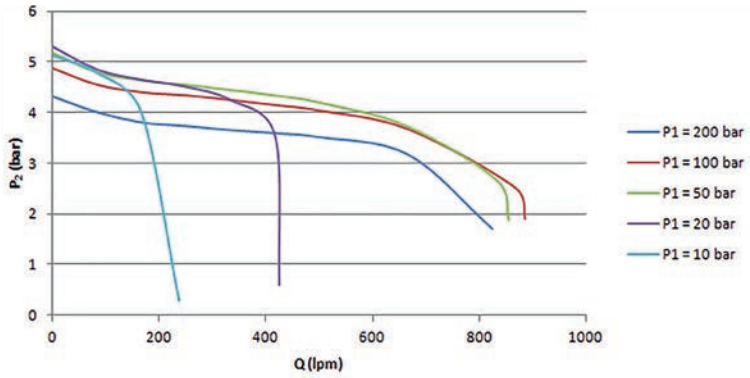
Medireg

VARIMED

Varimed is a single stage high pressure regulator with high flow capacity for use with medical gas cylinders. Varimed can also be connected to other medical devices which include pressure monitors, anaesthetic equipment etc.

TECHNICAL DATA	
Gas	O_2, Air, N_2O
Inlet pressure range	Up to 200 bar
Outlet pressure	3.6 - 5.5 bar
Inlet connection	According to national standards
Outlet connection	According to national standards
Body material	Nickel-plated mazak
Bonet material	Painted mazak
Weight	1,1 kg

FLOW CHARACTERISTIC



MMR

MMR is a dual stage cylinder regulator that provides a stable outlet pressure. The regulator is designed with automatic compensation for the gradual fall of pressure occuring in a gas cylinder when the gas is used.
The regulator is suitable for high flow applications. An optimal field of application for the MMR is for the gas cylinder reserve that will be used, via the pressure monitor or pressure watch if an interruption in the gas supply occurs. MMR gives the stable and even pressure necessary for certain medical gas applications.
The regulator is available for medical air, medical oxygen and instrumental air and has a preset working pressure. A safety valve protects the equipment from overpressure. MMR is a product with high technical performance and reliability.

TECHNICAL DATA	
Weight	2400 g
Capacity	30 m^3/h at P1 = 200 bar (20 000 kPa) and P2 = 5 bar (500 kPa)
Outlet	according to standard SS 8752430

DESCRIPTION CODING FOR REGULATORS

MS15 | **O_2/N_2O** | **W21,8** | **DN** | **MEJ** | **9/16** | **G**

Final product:
MS – MediSelect
MS+ - MediSelect+
MR – MediReg
VM – Varimed
MMR - Multistage

Flow (lpm):
2
6
15
25
2-4
Nothing*
5F**
15F**
30F**

Flow via orifice in pressure outlet (lpm):
4
6
20
25

Outlet pressure range (bar) – for VM with flow knob:
12
6

Gas:
O_2
AIR
O_2/N_2O
N_2O
He/O_2
CO_2
O_2/CO_2
N_2
M (mixture)
N (neutral)

Inlet connector:
SI26 – SI26x1,5
SI22 – SI22,91
CGA540
G3/4
G3/4E – G3/4 external
G3/8
G3/8I – G3/8 internal
G5/8CH – G5/8 China
G5/8B – G5/8 Belgie
G5/8NL – G5/8 Holland
G5/8BS – G5/8 Bullnose
UK
G5/8D
M19 – M19x1,5H
W21,7
W21,8
PI – Pin index
W24x2 – W24x2D
W27x2
W30x14 (w30x2) ???
SI21 – SI21,7
CGA326
M26 – M26x1,5
M30 – M30x1,75
M14x1

Pressure outlet connector (QC):
AS – AS2902 (Australia)
BS – BSI
CM - Camozzi
CB - Carbamed
CG – CGA V-5
CZ – Czech
DN – DIN
DS – DISS
FO – FRO
G1/4
G3/8
IS – ISO 5359
JS – JIS T 7101
JU - Junron
KW – Kawasaki
MD – Medap
M12
M14 – M14x1
M20 – M20x1,5
NF – NF 90-116 (France)
NS – NIST
ON – Oxifar
PD – Parkodex
RT – Rectus
SS – SS8752430 (Sweden)
UN – UNI 9507
UQ – Unique (Lucas)
9/16
WT – Walter
CM - Camozzi

Other device:
MEJ – suct.ej MS
EJ – suct.ej - purchase

Flow outlet connector:
9/16
M12 – M12x1,25
G3/8
G1/4

Brand:
G – GCE branded
S – other brand

* Version without flow head
** MR + flowmeter (shall include also outlet connector type)

HOSPITAL
WARD EQUIPMENT

GCE® Healthcare

QUALITY MIX AIR/O_2
BLENDER

The oxygen concentration can be set easily and accurately between a range of 21% and 100%. A Pressure Alarm sounds if there is any interruption or pressure drop in the gas supply system.
Easy to adjust, allows accurate blending with economical gas consumption and low noise level.

FEATURES / ADVANTAGES / BENEFITS

- Quality Mix provides a continuous and precise mixture of medical Air and Oxygen for infants, children and adults.
- The exact O_2 concentration is easy to adjust and an optional bleed switch enables very low gas consumption, even with fl ow rates of less than 3 l/pm
- The delivered oxygen concentration can be displayed on the optional oxygen monitor.
- Alarm limits can be set to ensure the corresponding oxygen concentration.
- Beyond that you have the possibility to configure your device individually and according to your specific needs enabled through a sophisticated modular system which includes a regulator module, rail clamps, several flowmeters And silencers.

INDIVIDUAL CONFIGURATION
Possibility to configure your device individually and according to your specific needs enabled through a sophisticated modular system which includes a regulator module, rail clamps, several flowmeters And silencers.

COMPLETE INSTALLATION
Above all, the wide range of GCE products like regulators, combination valves and low pressure hoses is available to further simplify the installation.

ROBUST HOUSING
A robust metal housing protects the device from damage especially under tough clinical conditions.

Auxiliary outlet with or withou bleed valve

Main outlet with or withou bleed valve

OXYGEN MONITOR
The delivered oxygen concentration can be displayed on the optional oxygen monitor.

ALARM
Alarm limits can be set to ensure the corresponding oxygen concentration.

AIR inlet

O_2 inlet

TECHNICAL DATA					
Blender Type		**High Flow**		**Low Flow**	
Main flow outlet		15-120		3-30	
Auxiliary flow outlet		2-100		0-30	
Max. combined flow (both outlets)		<120		<30	
Bleed flow at 3,4 bar		<13		<3	
Emergency flow (in the event that Air or O_2 supply failing)		<85		<15	
Pressure drop at inlet pressure from 3,1 to 5,2 bar with a flow rate of 30l/min at 60% FIO_2		<0,21		<0,14	
Alarm sounds when supply pressure drops	**Without regulator module**	on 3,3	off 4,2	on 3,3	off 4,2
	With regulator module	on 2,3	off 3,2	on 2,3	off 3,2
Alarm volume		> 80dB at a distance of 30cm			
Setting range for oxygen concentration		21 - 100%			
Gas inlet pressure		4,5 ± 0,5 bar: air and O_2 differential should be with 0,7 bar			
Accuracy of mixed gas (FIO_2)		± 3% oxygen			
Connection types		DISS inlets and outlets for O_2 and/or NIST inlets for air and O_2			
Dimensions (LxWxH)		130 x 165 x 122 mm			
Weight		1600 g			
Operating temperature		+5°C to +40°C			
Storage temperature		+5°C to +40°C			
Humidity		Max.95 % non-condensing humidity			

CONFIGURATIONS

FLOW-METERING DEVICE
MEDIMETER®

Medimeter is a gas flow device intended for control and measurement of air and oxygen administered to patients. Medimeter flow devices are available in different regional gas connections.

FEATURES / ADVANTAGES / BENEFITS

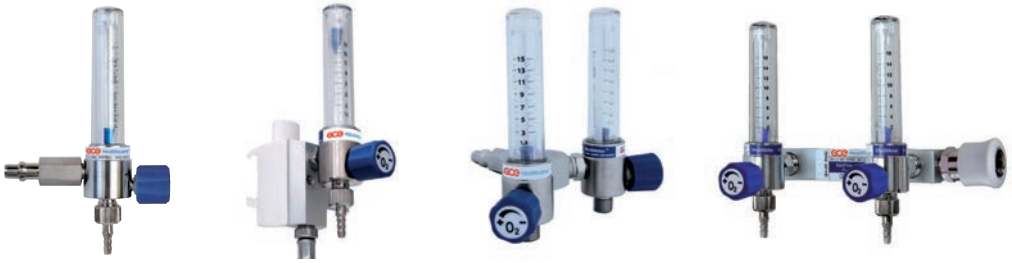
- Flat surface float allows easy and safe reading of flow values by the users
- Ergonomic design, easy for cleaning
- Available with probe connector, rail mounting with a hose and twin versions
- Soft closing mechanism
- Robust float, resistant against impact
- New scale - better reading of flow values

Medimeter with 30° scale

Medimeter with 5° scale

MEDIMETER®

TECHNICAL DATA	
Gas	O_2, Air
Inlet pressure	4,5 bar
Flow ranges	0 - 5 lpm
	0 - 15 lpm
	0 - 30 lpm
Inlet connection	According to national standard
Outlet connection	9/16" UNF; M12×1.25; G3/8; G1/4 (with hose nipple)
Body material	Nickel-plated brass
O-rings	EPDM
Control knob	Polyamide
Body dimensions	
Width	32 mm
Height	160 mm
Depth	60 mm
Weight	280 g (without connector)
Temperature range	
Storage	- 30 °C to + 60 °C
Operation	- 20 °C to + 60 °C
Regulatory status	Complies with medical devic es directive 93/42/EEC
	Complies with EN 15 002 (Flow - metering devices for connection to terminal units)



VACUUM REGULATOR

MEDIEVAC+

FEATURES / ADVANTAGES / BENEFITS

- Compact and lightweight medical vacuum regulator system, which allows the user to efficiently and safely control suction therapy
- The suction level of the Medievac+ is regulated via an easy accessible, front mounted control knob
- A special feature of the Medievac+ on-off valve is easy resumption of the selected de-pressure value, when the treatment is interrupted
- The Medievac+ gauge can easily be rotated, allowing the vacuum pressure to be clearly viewed by the operator
- The gauge scale is colour coded in sections to display a clear indication of suction level
- Two versions of adjustable pressures are available to cover all therapy needs (-250, -600 and -1000 mbar)
- The -250 mbar version has a safety valve, which will automatically shut off to guarantee maximum protection of the patient, in the unlikely event of de-pressure increase

THE COMPACTNESS OF THE DEVICE OFFERS

- Fast connection to the vacuum source
- Quick and convenient mounting of accessories (for example safety jar)
- Good accessibility of other devices connected to close located terminal units

CONTROL KNOB

The 'most' technical control knob is designed with a mechanism which ensures it cannot be broken if it is overthightened.

ENCAPSULATED FILTER

Hygienic and easy to install, it protects the device against particles ascent 0.3 µm

ROTATING GAUGE

ADVANTAGE FOR NURSE:
Orientate the gauge in your direction in order to read the setting.

ADVANTAGE FOR TECHNICAL:
Absence of visible thread on foot allows a better resistance of the body in every replacement.

ON/OFF SWITCH

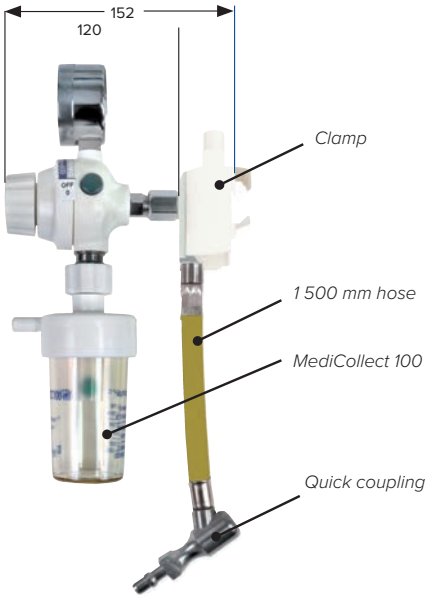
Allows maintaining the setting during use: the visible color shows the functionality status of the regulator: (green = working; red = stopped)

EFFICIENT!

Maximum flow of 70l/min clean lines for a more effective cleaning.

VACUUM REGULATOR - MEDIEVAC+

TECHNICAL DATA	
ON-OFF function	ON: green button visible
	To switch ON: push on the red button
Inlet pressure	- 250 mbar (Measured from atmospheric pressure)
	- 600 mbar
	- 950 mbar
Max. suction flow	70 l/min ±5 l/min
Accuracy of gauge	±2,5 % of full scale
Safety valve	Medievac+ 250 only, max. - 290 mbar opening
Inlet connection	According to national standard
Outlet connection	G1/2" male
Height	133 mm; 260 mm (with safety jar)
Width	63 mm
Depth	77 mm (without connector) EEC
Body material	ABS
Regulatory status	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 10079-3 (Medical suction Equipment, Part 3: Suction equipment powered from a vacuum or pressure source)



ACCESSORIES FOR MEDIEVAC

Safety jar

Safety jar with filter

Filter

The Medievac+ vacuum regulator system includes an optional accessory, the safety jar. It is an additional protection of the vacuum regulator and the hospital vacuum network, when the collection jars overflow. The filling capacity of 100 ml and the safety valve function, provide the user with extra time to stop the suction therapy.
The jar can be easily and safely disconnected from the vacuum regulator and autoclaved at 134 °C for 18 minutes, in line with hospital protocols. GCE Healthcare also recommends the use of the front mounted filter that is connected on the safety jar for increased safety. The plastic shell of the filter is very convenient to mount; it enables hygienic handling as direct contact with the membrane is avoided. The use of this filter is also recommended by the standard (EN ISO 10079-3 part 6.5.2.1). Medievac+ compliance is based on EN ISO 10079-3 standard.

Art. Nr.	Description
548900291594	Safety jar 100 ml
548900291595	Safety jar 100 ml including filter
K291603	Filter (x10)
K293492	Hose nipple G1/2 + o-ring

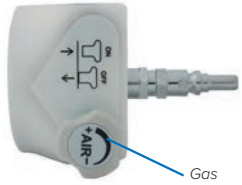
NEXT GENERATION OF SUCTION EJECTOR

MEDIEJECT II

MediEject II is the next generation of suction ejector from GCE Healthcare that uses the venturi principle to generate vacuum. The MediEject II has best in class performance in vacuum depth, gas consumption and noise level.
MediEject II is mainly used in healthcare organizations where a vacuum source is not available. MediEject II can be used instead of a vacuum regulator and can be used for suction of blood, secretions and food particles from the oral cavity, the nose/ pharyngeal space and the bronchial system.
MediEject II is available in wide range of inlet probe connectors that conforms to various international standards like DIN, BSI, SS and also available in NIST versions.

FEATURES / ADVANTAGES / BENEFITS

- 10 years life time
- Maintenance free
- One knob for ON/OFF and Vacuum control system
- Egonomic shape
- Easy to clean
- Excellent vacuum performances
- Low gas consumption
- Low noise level
- Available in hose and probe version



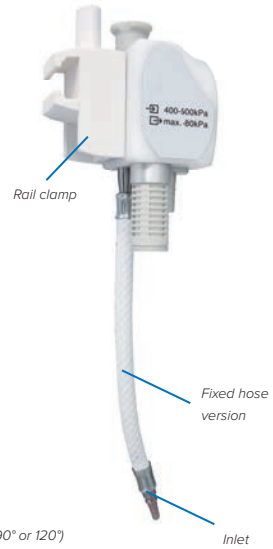
TECHNICAL DATA	
Driving gas	O_2, AIR
Inlet	all regional standards in probe or hose version
Inlet pressure	4-5 bar (400 - 500 kPa)
Max gas consumption at inlet 4 bar)	25 lpm
Free flow suction at inlet pressure 4 bar	30 lpm
Noice level close/open suction	35/45 dB
Suction effect	-0.8 bar (-80 kPa)
Dimensions	
Total Width	70 mm
Depth (only body, no plate/ clamp/probe)	52 mm
Max Height	150 mm
Weight	0.550 kg
Regulations	MDD 93/42/EEC-MDD 2007/47/EC
	EN ISO 10079-3 – Suction equipment
	EN 1789 – Ambulance Standard
	MRI Compatible

VERSION - PROBE

VERSION - NIST

VERSION - T-SLIDE

VERSION - RAIL CLAMP



MEDICOLLECT

325111944

325111945

325111946

0727432

0727431

The GCE Healthcare Medicollect Suction System is designed for use with a vacuum source (vacuum regulator, vacuum injector, etc.) in a hospital environment when collecting bodily liquids and secretions from patients during a medical procedure.

GCE Medicollect range o ers two main groups of collection jars. The primary line is a range of reusable jars that are air-tight, autoclavable and have an overfl ow valve.

The Medicollect range also includes di erent sizes of disposable suction jars and bags, which removes the need to autoclave and associated costs.

The bags are also available with Super Absorber which turns fl uid into the gel which helps reduce the risk of contamination during handling and transportation.

FEATURES AND BENEFITS

> Easy to clean
> Safe. simple and easy to use
> Fitted with overfi ll protection
> Bag version fi tted with a bacteria fi lter
> Bag version available with Super Absorber

Art. Nr.	Description	Size (H×W×D)	Weight (g)	Autoclave	Durability
325111944	Lid	137×53	78	121°C / 20´	30 Autoclave cycles
325111945	Bag 1000	230×180×80	29	-	-
325111946	Bag 2000	300×180×80	35	-	-
0727605	Bag 1000 (SA*)	230×180×80	31	-	-
0727606	Bag 2000 (SA*)	300×180×80	37	-	-
0727432	Jar 1000	133×150	290	121°C / 20´	30 Autoclave cycles
0727431	Jar 2000	133×250	432	121°C / 20´	30 Autoclave cycles

** super absorber*

K291530

K291620

373234593

K291538

K291539

K006968

0727435

REUSABLE SYSTEM

Art. Nr.	Description	Size (H×W×D)	Weight (g)	Autoclave	Durability
K291530	Jar 2000 + Lid	302×135×130	600	121°C / 20´	30 Autoclave cycles
K291540	Jar 1000 + Lid	236×115×110	340	121°C / 20´	30 Autoclave cycles
K291620	Jar 2000 + Lid	302×135×130	600	134°C / 18´	30 Autoclave cycles
K291619	Jar 1000 + Lid	236×115×110	340	134°C / 18´	30 Autoclave cycles

TECHNICAL DATA		Bag version	Reusable version
Material	**Jar**	Polycarbonate (121°C)	Polycarbonate (121°C), Polysulfone (134°C)
	Lid	Polycarbonate, Thermoplastic elastamer (TPE)	Polypropylene
	Hose nipple	Polyethylene 230×180×80	chrome plated brass
	Bag		-
Anti-overflow arrangement		Integrated	Ball valve
Connector on patient side		Hose adapter for internal 9	
Maximum applicable vacuum		-95 kPa (-950 mbar)	
Minimum applicable vacuum*		-20 kPa (-100 mbar)	
Maximum flow rate		100 l/min	
Storage conditions		-40 ± 2°C to +60 ±5°C and 10 to 100% RH	
Operating conditions		-18 ± 2°C to +40 ±5°C and 40 to 70% RH	
Dimensions of T-slide (rail clamp)		40 mm × 30 mm × 5 mm	

** for the correct function of the overfi lling protection device*

ACCESSORIES

Art. Nr.	Description
373234593	Suction hose adapter 9 mm
373234931	T-connection for suction
302532P	Hose; 0.35 m; ø 6/12
325113237	Silicone hose; 25 m; 6×12
9435440	Silicone hose; 5 m; 6×12
9435450	Silicone hose; 1 m; 6×12
K291538	Catheter holder (without plate)
K291539	Catheter holder (with plate)
K006968	Manual vacuum stop device, non sterile for adults
0727435	Universal rail clamp 10 x 25 mm and 10 x 30 mm for T-slide application

FLOW-METERING DEVICE

MEDIFLOW® II

MediFlow® is a flow selector intended for use during resuscitation and for CPAP.

The flow is adjusted via an easy accessible front mounted control knob. The new flow control technology is featuring an improved flow setting function and is guaranteeing continuous flow to the patient, even in the unlikely event, that the flow control knob is placed in between two flow settings.

FEATURES / ADVANTAGES / BENEFITS

- Innovative self centering flow setting device with continuous flow between settings. In the unlikely event of indent mechanism failure, the patient will still be supplied by medicinal gas
- Lateral and frontal reading of flow setting
- Enables to get up to 50 lpm for supplying machines (not for use directly to patient)
- 360° swivelling outlet - it enables better orintation of the tube (preventing from twisting)

TECHNICAL DATA	
Gas type	O_2, AIR
Inlet pressure	4,5 bar
Flow ranges	0 - 6 lpm
	0 - 15 lpm
	0 - 25 lpm
	0 - 50 lpm
Inlet connection	According to national standard
Outlet connection	9/16” UNF; M12×1,25; G3/8; G 1/4 by probe or by hose connection
Body material	Nickel-plated brass
O-rings	EPDM
Body dimensions	
Width	32 mm
Height	160 mm
Depth	60 mm
Weight	280 g (without connector)
Temperature range	
Storage	- 30 °C t o + 60 °C
Operation	- 20 °C t o + 60 °C
Regulations	Complies with medical devic es directive 93/42/EEC
	Complies with EN 10524-4 (Low pressure regulators)
	Complies with Standard EN 1789 (Medical vehicles and their equipment)

FLOW-METERING DEVICE

MEDIFLOW® ULTRA II

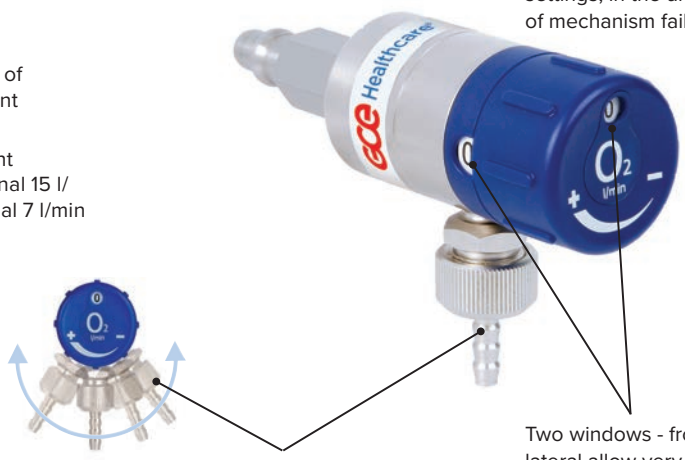
MediFlow® Ultra is the new generation of medical gas flow selector device with built-in regulator. It covers a comprehensive combination of inlet and outlet connections and offers various options for all medical applications, from neonatal care through to resuscitation.

FEATURES / ADVANTAGES / BENEFITS

- Built-in regulator provides a very stable and precise flow, independent of the pressure in the medical central gas system or cylinder.
- Innovative self centering flow setting device with continuous flow between settings. In the unlikely event of indent mechanism failure, the patient will still be supplied by medicinal gas.
- Lateral and frontal reading of flow settings.
- 360° swivelling outlet – it enables better orientation of the nasal cannula or oxygen mask towards the patient (preventing from twisting).
- Higher number of flow disc holes increases treatment options. Extra flow setting of 25 l/min on the traditional 15 l/min variant, allows use in resuscitation. The additional 7 l/min is intended for nebulization.
- Ergonomic and streamlined design.

Independence of the pressure fluctuation with inlet pressure range of 2.8 – 8 bar

Continuous flow between settings, in the unlikely event of mechanism failure.



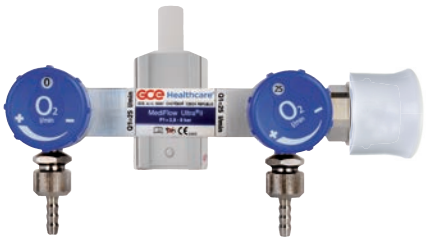
360° swivelling outlet alows wider use of positioning

Two windows - frontal and lateral allow very good visibility of set values

Flow selector connected to hospital terminal unit

TECHNICAL DATA		
Inlet pressure range	2,8 - 8 bar	
Max. outlet pressure	2,1 bar (without flow)	
Flow ranges	0 - 2 lpm	0 - 0.1- 0.2 - 0.3 - 0.4 - 0.5 - 0.6 - 0.7 - 0.8 - 1 - 1.5 - 2
	0 - 6 lpm	0 - 0.25 - 0.5 - 0.75 - 1 - 1.5 - 2 - 2.5 - 3 - 4 - 5 - 6
	0 - 25 lpm	0 - 1 - 2 - 3 - 4 - 5 - 6 - 7 - 9 - 12 - 15 - 25
Inlet connection	According to national standard	
Outlet connection	9/16 UNF; M12×1.25; G3/8; G1/4 with hose nipple	
Body material	Nickel-plated brass	
Control knob	polyamide	
O-rings	EPDM	
Filter	sintered bronze and stainless steel	
Body dimensions		
Diameter	39 mm	
Length	77 mm	
Weight	350 g	
Regulatory status	Complies with Medical Devices Directive 93/42/EEC	
	Complies with EN 10524-4 (Low pressure regulators)	
	Complies with Standard EN 1789 (Medical vehicles and their equipment)	

** Flowrates expressed at 23 °C and 101,3 kPa*



DESCRIPTION CODING FOR HOSPITAL WARD EQUIPMENT

MM15 | **DY** | **AIR** | **DN120-CN1,5** | **9/16** | **G**

Final product:
MM – Medimeter
MFU – Mediflow Ultra II
MF – Mediflow II
MF+ - Mediflow+
MEJ – Medieject
ME+ – Medievac+
DUOLINE - Duoline

Flow (lpm):
2
5
6
15
25
30
50
15+5

Vacuum (mbar):
250
600
1000
1000+250

Duo version
M (Multistar)
M5 (Multistar 5)
DY (Y shape)
DS (straight shape)
D (for CN and CE)

Gas:
O_2
AIR
O_2-AIR
(use for both)
For Medievac will not be used VAC

Inlet connector (QC):
AS – AS2902 (Australia)
BS – BSI
CB - Carbamed
CG – CGA V-5
CZ – Czech
DN – DIN
DS – DISS
FO – FRO
CH - Chemetron
IS – ISO 5359
JS – JIS T 7101
JU - Junron
KW – Kawasaki
MD – Medap
M12 – M12x1 F, no QC
M10 – no QC
NF – NF 90-116 (Francie)
NS – NIST
OH - Ohmeda
ON – Oxifar
PD - Parkodex
SS – SS8752430 (Sweden)
UN – UNI 9507
G1/4M
WT -Walter

Angle of QC:
Nothing - straight
90 – 90°
120 – 120°

Rail mounting:
CE – clamp EU
CN – clamp Nordic
PM – plate metal
CS – clamp with screw
WP – wall plate (for M5)
CM – clamp metal
CP – clamp plastic
(univers.FLM shall be replaced)

Length of hose (m):
1
1.5
3

Outlet connector:
G3/8
9/16
G1/4
M12 – M12x1,25
G1/2 (vacuum)

Brand:
G – GCE branded
S – other brand

TROLLEYS

TROLLEYS

325396136

Art. Nr.	Description
14090630	Trolley for 10 l cylinder, 5-wheels, static
325396136	Trolley for 10 or 20 l cylinder, without belt
	Dimensions H×W×D (mm): 935×426×352
325396137	Trolley for 10 and 20 l cylinders, 3×10 l or 2×20 l without belt
	Dimensions H×W×D (mm): 935×426×352
500009601P	Trolley for 2.5 or 5 l cylinder
325397691	Trolley for gas cylinder, D =116 mm

325396137

14090630

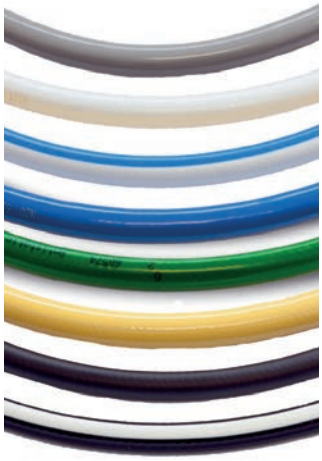
325397691

ACCESSORIES

Art. Nr.	Description	Trolley
500009602	Belt for 2.5 l cylinder	
325396138	Belt for 5 or 10 l cylinder	325396136, 325396137
325396139	Belt for 20 l cylinder	325396136, 325396137

HOSES

LOW PRESSURE HOSE FOR MEDICAL GASES



- The dimensions and colours of our polyvinyl chloride manufactured, textile-reinforced hoses are in accordance with the current hospital standard.
- Maximum working pressure 14 bar.
- The hoses for medical breathing oxygen and nitrous oxide are marked with the chemical denomination of the gas.
- The medical breathing air hose is marked "Air".
- Warranty time 2 years

Art. Nr.	Denomination	Color	Environment	Dimension (inner/outer)	Roll (m)
14119000	O_2	white	Antistatic	6.7/12.7	30
14119001	O_2	black	Antistatic	6,7/12,7	30
14119002	Medical breathing air/ O_2	black	Antistatic	6,7/12,7	30
14119003	O_2	green	Antistatic	6,7/12,7	30
14119004	Medical breathing air	black	Antistatic	6,7/12,7	30
14119006	LOT	black	Antistatic	6,7/12,7	30
14119008	Medical breathing air	black/white	Antistatic	6,7/12,7	30
14119010	VAC	yellow	Antistatic	10/16	30
14119009	N_2O	blue	Antistatic	6,7/12,7	30
14119011	O_2 /N_2O	blue/white	Antistatic	6,7/12,7	30
14119038	CO_2	white	Antistatic	6,7/12,7	30
14119040	Medical breathing air	black/white	Antistatic	8/14	30
14119041	CO_2	grey	Antistatic	6/11	30

MEDICONNECT - LOW PRESSURE HOSES

Mediconnect is a new generation of flexible hoses for gas supply, intended for use with respiratory, anaesthetic and emergency equipment.

- Resistant to abrasion and change of color
- Latex and phthalate free
- Containing antistatic inner layer
- Colour coding of ISO 5359 (obtionally neutral coding)
- Wide range of country specific connections
- Lengths of hoses from 0.5 to 5 m; to be specified by customer

TECHNICAL DATA	
Gas pressure	O_2, air, N_2O, vacuum, CO_2, N_2O/O_2 and Air 800
Material	Polyvinyl chlorid, containing plasticizer, with brilliant polish, antistatic
Inner/outer diameter	6.7 × 12.7 mm (vacuum excluded - VAC 10x16 mm)
Wall	3 mm
Hardness (Shore A)	88 ± 5
Density	1.25 ± 0.02 g/cm^3
Tensile strength	= 10 MPa
Fracture strain	= 200 %
Working pressure	max. 14 bar / 20°C
Rupture pressure	56 bar / 20 °C respectively 40 bar / 40 °C
Operation temperature	- 20 °C to + 60 °C
Classification	Class IIa
Regulatory status	Complies with Medical Devices Directive 93/42/EEC
	Complies with ISO 5359 (Low pressure hoses)

EXAMPLES OF PROBES

NORDIC STANDARD

FRENCH STANDARD

DISS STANDARD

CZECH STANDARD

BRITISH STANDARD

NIST STANDARD

GERMAN STANDARD

EXPLANATION OF THE ORDERING INFORMATION

MCN | **O_2** | **BL** | **S** | **0,5 m** | **DN 120 - M12M** | **G**

Final product:
MCN - Mediconnect

Gases:
O_2
AIR
N_2O
VAC
CO_2
O_2-AIR

Colors of hose:
BLC = black
WH = white
BL/WH = black/white
BLU/WH = blue/white
GRN = green
BLU = blue
YEL = yellow
GRY = grey

Making of spiral hose:
S (only when spiral hose)

Length of hoses (m):
0,5
1
1,5
3
4
5

1. and 2. connectors):
BS – BSI
CB - Carbamed
CZ – Czech
DN – DIN
DN5
DNF – DIN QC
DNRPV – DIN with RPV
DS – DISS
FO – FRO
CH - Chemetron
JU - Junron
KW – Kawasaki
MD – Medap
M12M – M12x1M
M15M – M15x1M
M17M – M17x1M
M20F – M20x1,5F
NF – NF
NS – NIST
OH - Ohmeda
ON – Oxifar
PD – Parkodex
R1/4F
SS – SS8752430 (Sweden)
UN – UNI 9507
UQ – Unique (Lucas)
WT – Walther
9/16F
G3/8F

90 = 90°
12 = 120°

Brand:
G – GCE branded
S – other brand

RAILS AND CLAMPS

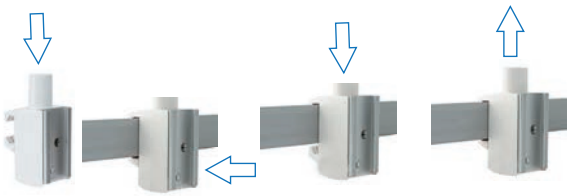
RAILS AND CLAMPS

Rail clamps are parts of rail systems and are intended for fastening the medical devices (flowmeters, suction equipment, lighting, etc.) to the railing. Design of new GCE rail clamps is providing a high level of modularity. Max. load at vertical axis - 50 kg.

FEATURES / ADVANTAGES / BENEFITS

- The Mediclamp is universal and can be applied to all applicable rail systems; 1: 10 x 25 mm, 2: 10 x 30 mm
- Easy to clean
- Light in weight
- Spring activated
- Ergonomic shape
- MRI compatible
- Fulfills the Ambulance standards

MOUNTING OF CLAMP



VARIABLE INSERTS

PERMANENT CONNECTIONS
Special aluminum plate for permanent connection with the products like MediEject, Duoline and etc.

The plate can be simply adapted to customer needs by making additional holes.

SPK33810004

T-SLIDE
T-slide insert made from aluminum for T-plate application

0727435

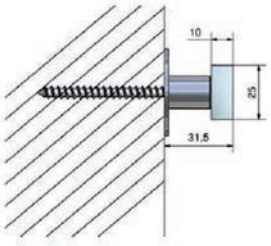
RAIL CLAMP HOSE KIT
The main body of the kit (gas flow passage) made from aluminum intended for connection of a flexible hose or NIST QC.

SPK33810006

EU RAIL COMPLETE (25×10 EU), WITHOUT SCREWS

Art. Nr.	Denomination (meter)	Material
325197656	1,0	Stainless Steel
325197657	1,5	Stainless Steel
325197658	2,0	Stainless Steel
325197659	3,0	Stainless Steel
325113122*	3,0	Stainless Steel

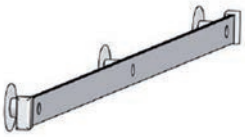
** Only rail, without end protection washer and distance.*



ACCESSORIES

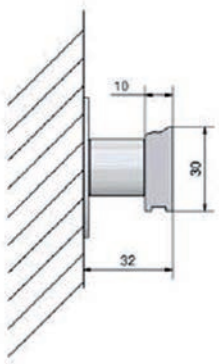
Art. Nr.	Description	Material
325112959	Distance 20 mm	Stainless Steel (pack of 5)
325112960	Washer D 40 mm	Stainless Steel (pack of 5)
325112961	End protection	Plastic

RAIL COMPLETE (30x10 NORDIC), WITHOUT SCREWS



Art. Nr.	Denomination (meter)	Material
325197665	1,0	Aluminium
325197666	1,5	Aluminium
325197667	2,0	Aluminium
325197668	3,0	Aluminium
183037406P*	3,0	Aluminium

** Only rail, without end protection washer and distance.*



ACCESSORIES

Art. Nr.	Description	Material
180901001P	End protection (10 pcs)	Plastic
182037404P	Washer (10 pcs)	Aluminium
329000223	Distance 20 mm	Aluminium

TERMINAL UNITS

Installation plug

Medical terminal units provide quick and easy connection of hospital ward gas equipment to the hospital gas source. The type of medical gasoutlets are decided by national standards in each country and sometimes from local requests in each hospital. GCE complies with ISO 7396 and national installation standards with secure products where every product is fully tested in production. Our Medical gas outlets are in accordance with ISO EN 9170-1, ISO EN 9170-2 international standards.

- Wall housing is compatible with all GCE MediUnit standards like DIN, BSI, SS, CZ
- All functional components are from brass
- Simple installation
- Fast connection and disconnection
- Designed for medical environment, Small size and Easy to clean
- Complies with colour coding and description by standard
- After 10 years it is possible to upgrade the units with a special upgrade pack
- Recessed, Exposed and Bed head installation versions
- Bed head installation version (customized solution on request)

INSTALLATION TOOLS

Art. Nr.	Description
MP_00345	QC installation key
MP_00324	Button remover
MP_01157ST	Pendants/bedhead unit – installation tool
0732040	Installation plug (10 pcs)

TECHNICAL DATA	
Gases	O_2, N_2O, Air, CO_2, N_2, VAC, Air–800, Ar, AGSS, O_2/N_2O
Dimensions	
Height	73 mm
Width	73 mm
Depth	63 mm
Maximum pressure	20 bar
Working pressure	4–5 bar (breathing gases)
	7–10 bar (instrumental gases)
	(-0,4)–(-0,9) bar (vacuum)
Regulatory status	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 7396-1 (Central Gas Supply System)
	Complies with EN ISO 9170-1 (Terminal units)
	Complies with EN ISO 9170-2 (Terminal units for AGSS)
	Complies with DIN 13260-2 (DIN gas specific connections)
	Complies with SS 8752430 (SS gas specific connections)
	Complies with BS 5682 (BSI gas specific connections)
	Complies with CSN 85 2762 (Czech gas specific connections)
	Complies with NF S 90-116 (AFNOR gas specific connections)
	Complies with FD S 90-119 (AFNOR Air-800 gas specific connection)
	present SIS HB 370 and HTM 02-01
	present HTM 02-01

HOMECARE

Healthcare

LIGHTWEIGHT PORTABLE OXYGEN CONCENTRATOR

ZEN-O lite™

Zen-O lite™ is a lightweight portable oxygen concentrator from GCE Healthcare that delivers up to 1050ml of oxygen to patients that require long term oxygen therapy. Zen-O lite™ is simple to use and is suitable for everyday use. Zen-O lite™ is manufactured to the exacting standards of the European Medical Device Directive and the United States Food and Drug Administration.

FEATURES / ADVANTAGES / BENEFITS

- **REPLACEABLE SIEVE MODULES**
  Zen-O *lite*™ is designed with easily replaceable sieve modules. The sieve modules can be swapped in under 5 minutes by either the user or home oxygen provider.
- **BREATH DETECTION INDICATOR**
  A system indicator flashes each time a breath is detected during use, giving users the assurance that oxygen is being delivered.
- **ALARM**
  Zen-O *lite*™ is designed with various audible and visual alarms, to prompt the user of a required action.
- **SUITABLE FOR AIR TRAVEL**
  Zen-O *lite*™ is suitable for air travel and has met all relevant international safety standards including guidelines issued by the United States Federal Aviation Administration (FAA).
- **DURABLE**
  Zen-O *lite*™ is built to last and is supplied with a 3 year warranty, the battery, sieve tubes and other accessories have a 1 year warranty.
- **ECO MODE**
  The Eco Mode feature allows users to switch the operation of the device from delivery a fixed pulse of oxygen at each inhalation to a fixed volume of oxygen per minute, to allow for longer battery duration.
- **AUTO-MODE**
  The Auto-mode feature activates after 60 seconds if no breath is detected, the device will automatically deliver pulses at a rate of 18 breaths per minute to the user. This feature allows users to continue receiving some oxygen if the cannula is dislodged.

ZEN-O *lite*™ - PORTABLE OXYGEN CONCENTRATOR

Art. Nr.	Description
RS-00608-G-S	Zen-O lite™ portable concentrator with one 8 cell battery
RS-00608-G-D	Zen-O lite™ portable concentrator with two 8 cell batteries
RS-00601	Zen-O lite™ rechargeable battery
RS-00602	Zen-O lite™ AC power supply w/EU cord
RS-00603	Zen-O lite™ AC power supply w/UK cord
RS-00604	Zen-O lite™ AC power supply w/US cord
RS-00605	Zen-O lite™ DC power supply
RS-00606	Zen-O lite™ carry bag
RS-00616	Replacement sieve modules
RS-00617	Zen-O lite™ cannula wrench
RS-00619	Zen-O lite™ rucksack
RS-00512	Zen-O lite™ cannula filter pk of 10
RS-00515	Zen-O lite™ external battery charger - US
RS-00516	Zen-O lite™ external battery charger - EU
RS-00517	Zen-O lite™ external battery charger - UK
RS-00523	Zen-O™ accessories bag
MM6012	Adult high low cannula 7ft. Pack of 25pcs*
MM6013	Adult high low cannula 25ft. Pack of 10pcs*

Each POC includes an oxygen concentrator with carry bag, battery, user manual, AC and DC power supply cords.

** Suitable for Zen-O™ and Zen-O lite™ portable oxygen concentrators.*

Zen-O lite™ carry bag

Zen-O lite™ rucksack

TECHNICAL DATA	
Size (W×D×H)	249 mm × 97 mm × 235 mm
	(9.8" × 3.8" × 9.25")
Weight	2.5 kg (5.5 lbs) without carry bag
Power requirements	AC adaptor: 100-240V AC (+/- 10%) 50-60 Hz in, 24V DC, 5.0A out
	DC adaptor: 11.5 - 16V DC in, 24V, 5.0A out
Purity	87% - 96% at all settings
Maximum oxygen discharge pressure	20.5 psi
Inspiratory trigger sensitivity	-0.12 cm/H_20
Humidity range	5 % to 93 % ± 2 % non-condensing
Temperature	
Operation	5°C (41°F) and 40°C (104°F)
Storage	-20°C (-4°F) and 60°C (140°F)
Setting	Adjustable in 0.5 increments from 1.0 to 5.0
Noise level	37 dB(A)*
Operating altitude	0' to 13000' (0m to 4,000) relative to sea level,
	1060 down to 575 mbar
Battery duration	Approx. 4 hours*

** At setting 2*

Battery

AC power supply

DC power supply

PORTABLE OXYGEN CONCENTRATOR

ZEN-O™

Zen-O™ portable oxygen concentrator delivers up to 2 litres of oxygen in either pulse or continuous mode. Zen-O™ is manufactured to meet the exacting standards of the European Medical Device directive and the United States Food and Drug Administration.

FEATURES / ADVANTAGES / BENEFITS

- **DUAL MODE**
  Zen-O™ offers patients the best of both worlds. Patients can alternate between continuous flow and pulse mode oxygen therapy.
- **SIMPLE AND EASY TO USE**
  Zen-O™ is designed with patients in mind, it is simple to use with intuitive button operation and LCD panel.
- **RESPONSIVE TO PATIENT NEEDS**
  Using advanced patented technology, Zen-O™ can deliver up to 2 litres per minute of oxygen in response to the patient's need. Unlike other devices that deliver a fixed amount of oxygen, Zen-O™ automatically increases the amount of oxygen delivered if a patient's breathe rate rises.
- **DURABLE AND RELIABLE**
  Zen-O™ is rugged and is supplied with a 3 year warranty or 15,000 hours of total use, giving you the assurance of quality and reliability.
- **EASILY REPLACEABLE SIEVE BED**
  Zen-O™ has been designed with sieve beds that can be replaced easily by most homecare providers without the need to return the device to a distributor.
- **VISUAL AND AUDIBLE ALARMS**
  The device is designed with various audible and visual alarm prompts such as low battery, no breath detected, service required and low oxygen purity.
- **ECO MODE**
  The Eco Mode feature allows users to switch the operation of the device from delivery a fixed pulse of oxygen at each inhalation to a fixed volume of oxygen per minute, to allow for longer battery duration.
- **AUTO-MODE**
  The Auto-mode feature activates after 60 seconds if no breath is detected, the device will automatically deliver pulses at a rate of 18 breaths per minute to the user. This feature allows users to continue receiving some oxygen if the cannula is dislodged.

Zen-O™ with bag and pull cart

Zen-O can hold up to two 12 cell batteries

EU cords, AC and DC power supply

Art. Nr.	Description
RS-00502-G-S	Zen-O™ concentrator 12 cell
RS-00502-G-D	Zen-O™ concentrator 2 battery package
RS-00501	Zen-O™ battery 12 cell
RS-00509	Zen-O™ carry bag
RS-00507	Zen-O™ cart
RS-00508	Zen-O™ DC adapter
RS-00511	POC filter wrench
RS-00512	POC cannula filter pk of 10
RS-00513	Sieve bed assembly
RS-00515	Zen-O™ External battery charger - US
RS-00516	Zen-O™ External battery charger - EU
RS-00517	Zen-O™ External battery charger - UK
RS-00520	Zen-O™ AC power supply w/EU cord
RS-00521	Zen-O™ AC power supply w/UK cord
RS-00522	Zen-O™ AC power supply w/US cord
RS-00523	Zen-O™ accessories bag
MM6012	Adult high low cannula 7ft. Pack of 25pcs*
MM6013	Adult high low cannula 25ft. Pack of 10pcs*

** Suitable for Zen-O™ and Zen-O lite™ portable oxygen concentrators.*

TECHNICAL DATA	
Size (W×D×H)	212 mm × 168 mm × 313 mm (8.3" × 6.6" ×12.3")
Weight	4.66 kg with one 12 cell battery
Power requirements	AC adaptor: 100-240V AC (+/- 10%) 50-60 Hz in, 24V DC, 6.25A out
	DC adaptor: 11.5-16V DC in, 19V, 7.9A out
Purity	87% - 96% at all settings
Maximum oxygen discharge pressure	20.5 psi
Inspiratory trigger sensitivity	-0.12cm/H_20
Humidity range	5 % to 93 % ± 2 % non-condensing
Operating attitude	0´ to 13,000´ (0m to 4,000m)
Temperature	
Operation	5°C (41°F) and 40°C (104°F)
Storage	-20°C (-4°F) and 60°C (140°F)
Setting	Adjustable in 0.5 increments from 1.0 to 6.0 in pulse mode and from 0.5 to 2.0 in continuous mode
Noise level	38 dB(A) tested to Prüfmethode 14-1 03/2007 MDS-Hi*
	42 dB(A) tested to ISO 3744*
Alarm types	Low oxygen purity
	No breath detected
	Low battery
	Service required
Battery duration	Approx. 4 hours with a single battery or 8 hours with 2 batteries at 18 BPM*

** At setting 2*

STATIONARY OXYGEN CONCENTRATOR

NUVO LITE MARK 5

The Nuvo lite provides oxygen to patients that require Long Term Oxygen Therapy (LTOT) in the comfort of their home.
Nuvo lite is a compact and light stationary oxygen concentrator, that uses standard PSA technology to provide oxygen flow of up to 5 litres per minute. The Nuvo lite oxygen concentrator separates the oxygen from other gases in the air and delivers the oxygen at high concentration to the patient.
The Nuvo lite has an integrated oxygen sensing device for monitoring oxygen levels, and a 'No-Flow' alarm to alert the patient if there is no supply of oxygen.

- Lightweight - a mere 14,5 kg
- Sleek compact cabinet design with handle
- Lockable flow control valve
- Adjustable flow rate up to 5 litres per minute
- Quiet operation

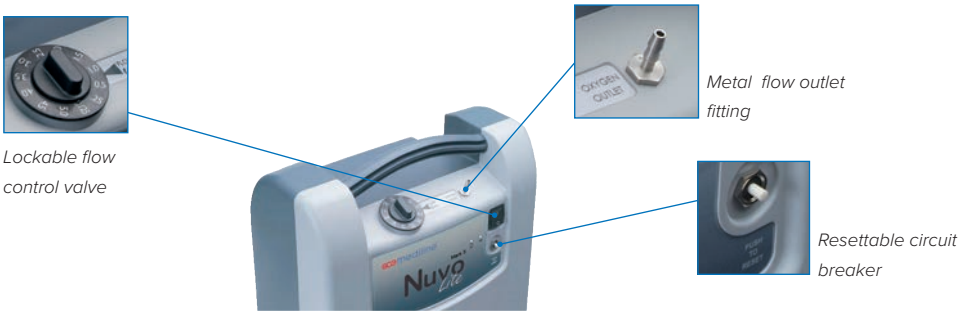
Art. Nr.	Description
14111211	Concentrator Nuvo Lite Mark 5

ACCESSORIES

Art. Nr.	Description
14111220	Compressor intake filter
14111222	Cabinet filter
14090328	Product filter
14090417	Single use humidifier bottle
14090510	Cannula with 2.1 m long

TECHNICAL DATA	
Power supply	230 V, 50 Hz
Av. power consumption	300 W
Fuse	5 A
O_2 concentration	at 2 l/min: >90 %
	at 5 l/min: 90 % (+6,5% - 3%)
Sound level	40 dBA
Storage temperature	-20 to +60 °C
Ambient temperature limit	+5 to +40 °C
Weight	14.5kg
Dimensions (B×H×T):	36 × 23 × 58.5 (cm)
Technology	PSA (pressure swing absorbation)
Standard	ISO 8359, EN 60601-1
Medical class	IIb
The Nuvo lite meets the requirements of eh Medical Device Directive 93/42/EEC	

THE NUVO LITE MARK 5 TECHNOLOGY



STATIONARY OXYGEN CONCENTRATOR

NUVO 8

The Nuvo 8 oxygen concentrator provides oxygen of up to 8 litres per minute to patients that require Long Term Oxygen Therapy (LTOT). The device is manufactured to provide a combination of enhanced features, reliability of technology and ease of use.
The Nuvo 8 concentrator has an integrated oxygen sensing device for monitoring oxygen levels, and a 'No-Flow' alarm to alert the patient if there is no supply of oxygen.

- Quiet operation with less than 48 dba
- Sleek design for easy handling
- Simple and easy to use
- Quick snap rear panel allows easy access to filter, gauge and battery
- Patented RPSA technology

Art. Nr.	Description
14111811	Concentrator Nuvo 8

ACCESSORIES

Art. Nr.	Description
14111275	Compressor intake filter
14111266	Cabinet filter
14111280	Bacteria filter
14090417	Single use humidifier

TECHNICAL DATA	
Electrical requirement	230 V - 60 Hz
Flow delivery rate	0,5 to 8 litres per minute
Oxygen concentration	0.5 to 7 liters per minute – 93% (+6.5% / -3%)
	At 8 liters per minute – 90% (+6.5% / -3%)
Power consumption	400 watts
Operating pressure	1.2 bar
Oxygen monitoring system	Only available on model 985
	Pressure
	Low Oxygen Concentration Pressure
	Current overload or line surge shutdown
	Thermal Switch
	40 psi Pressure Relief Valve
	Low Battery Test
Filters	Cabinet, Compressor Intake & Bacteria
Weight	25.12 kg
Dimensions (L×W×H)	39.4 cm × 39.6 cm × 70.6 cm
Operating Environment	
Ambient Temperature	50°F to 100°F (10°C to 40°C)
Humidity	15% to 95%, non-condensing
Storage Range	
Temperature	0°F to 140°F (-0°C to 50°C)
Humidity	15% to 95%, non-condensing

STATIONARY OXYGEN CONCENTRATOR

NUVO 10

The Nuvo 10 oxygen concentrator provides oxygen at flowrates up to 10 litres per minute, giving healthcare professionals the option to prescribe higher flowrates of oxygen if required by their patients.

> Built on the reliable Nuvo platform
> Easy access to lter and hour meter
> Superior grade molecular sieve
> Spring mounted high e ciency compressor
> 3 year warranty

ACCESSORIES

Art. Nr.	Description
14111711	Nuvo 10 oxygen concentrator oxygen concentrator
14111280	Bacteria filter
14111266	Cabinet lter
14111275	Air inlet lter
14090417	Single use humidifier

TECHNICAL DATA	
Electrical requirement	230 V
Flow delivery rate	2 to 10 litres per minute
Oxygen concentration	90% (+5% / - 3%)
Power consumption	600 watts
Outlet pressure	1,38 bar (40 psi pressure relief valve)
Alarms	Low pressure
	Low oxygen concentration
	Current overload or line surge shutdown
Weight	29,3 kg
Dimensions (L×W×H)	39 cm × 40 cm × 76 cm (16”W x 16”D x 30”H)
Operating Environment	
Ambient Temperature	5 to 40°C
Humidity	15 % to 95 % non-condensing
Storage Range	
Temperature	-20 to 60°C
Humidity	15 % to 95 % non-condensing

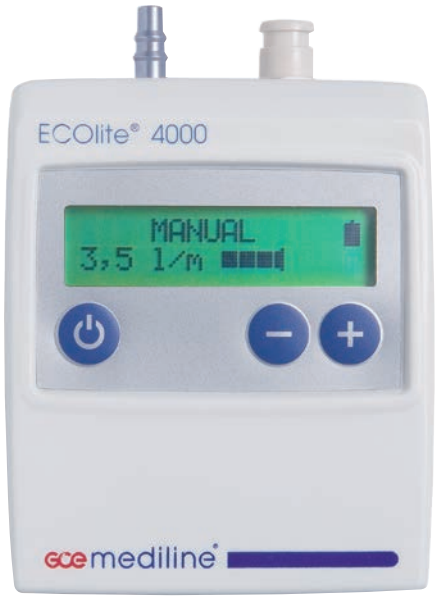
ELECTRONIC OXYGEN GAS CONSERVING DEVICE

ECOLITE® 4000

ECOlite® 4000 is an electronic oxygen gas conservingdevice that supports efficient long term oxygen therapy treatment (LTOT). With the ECOlite® 4000, oxygen is delivered only during the inspiration phase during a breathing cycle allowing savings of up to 10 times compared to continuous flow oxygen therapy.

FEATURES / ADVANTAGES / BENEFITS

- **ADVANCED TECHNOLOGY**
  A special feature of the ECOlite® 4000 is the small internal regulator, that allows the user to select a supply inlet pressure of between 1.6 to 5 bar.
- **AUTOMATIC AND MANUAL FLOW RATES**
  The device offers automatic and manual operating modes. In the automatic mode the amount of oxygen delivered increases in relation to the set flow rates of 15 to 30 breaths per minute, to a maximum of 8 Litres Per Minute (LPM). In the manual mode the flow rates are from 0.5 to 8 LPM.
- **FIXED FLOW RATE**
  The ECOlite 4000 allows home oxygen providers to select and lock a fixed flow rate prescribed by a clinician during the initial installation.
- **VISUAL AND AUDIO ALARMS**
  The ECOlite 4000 alerts users and carers if there is no oxygen supply, no breathing is detected or battery power is low.
- **DURABLE**
  The ECOlite 4000 has a robust design and is built to last up 10 years*. The device is supplied with a 2 year device warranty.



325112719

14090535

14090631

Art. Nr.	Description
325197478	ECOlite® 4000 COMPL DE
325197479	ECOlite® 4000 COMPL UK
325197544	ECOlite® 4000 COMPL SE
325197545	ECOlite® 4000 COMPL FRA
325197617	ECOlite® 4000 COMPL 1.6 BAR

ACCESSORIES

Art. Nr.	Description
14111220	Standard Nasal cannula
14111222	Spiral Hose SE
14090329	Spiral Hose UK
14090417	Spiral Hose 1.6 bar
14090510	Spiral Hose DE
325197699	Supply hose ECOlite® 4000 3/8
14090535	ECOlite® 4000 Carry Bag
14090631	ECOlite® 4000 Carry Bag Trolley
325112719	Belt bag

TECHNICAL DATA - FUNCTIONAL PERFORMANCE	
Settings	Manual/Automatic
Triggering	At each breath
Sensitivity	0,13 cm H_2O
Regulating pressure	1,6 bar
Accuracy	0,5 - 1,5 l/min +/- 30%
	2 - 8 l/min +/- 15%
Cycle output	0.5 to 8 l/min coresponding to 5 - 80 ml per bolus
Alarms	Low battery
	No Oxygen supply
	No inhalation

TECHNICAL DATA - POWER SUPPLY	
Battery	RO6, AA, Alkaline 1.5 V
Oxygen supply pressure	Between 1,6 and 5 bar
Flow	Minimum 4 litres per minute

TECHNICAL DATA - DIMENSIONS AND WEIGHT	
Dimensions	
Height	101 mm
Width	85 mm
Depth	32 mm
Weight	184 g without battery

TECHNICAL DATA - ENVIRONMENTAL CONDITION	
Ambient temperature	
Operational	-10°C to +40°C
Storage	-40°C to +70°C
Relative humidity	25 % to 95 %

REGULATORY STATUS

The device meets the requirements of the Medical Device Directive 93/42/EEC relating to medical devices, Class IIa.

PNEUMATIC GAS SAVER

ELITE

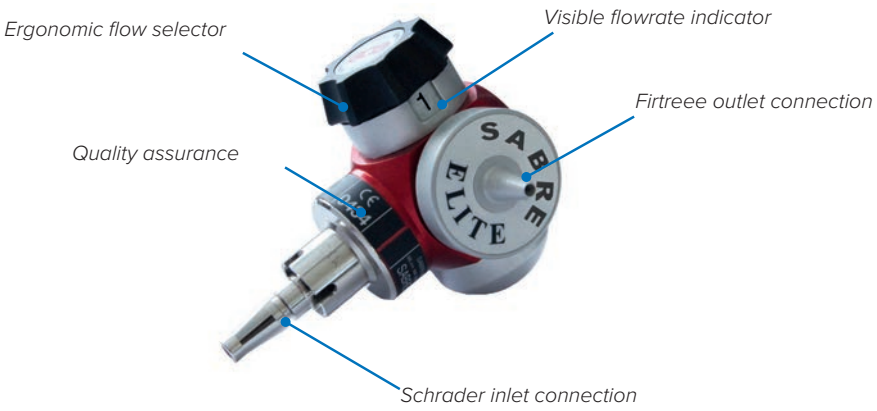
The SABRE ELITE oxygen conserving device enables oxygen patients to use their cylinders for longer. The ELITE delivers oxygen when a patient inhales during a breathing cycle, thereby saving gas and enabling the oxygen cylinder to last up to 3 times longer when compared to constant flow oxygen therapy.

FEATURES / ADVANTAGES / BENEFITS

- **EASY TO USE**
  The ELITE is simple to use and connects easily to the schrader outlet on a cylinder or regulator. The ergonomic design allows carers and oxygen patients to easily select the preferred flowrate.
- **LOW ONGOING COST**
  The ELITE is fully pneumatic and has very low ongoing costs. Device maintenance is only required after 5 years from date of manufacture.
- **VARIOUS CYLINDER CONNECTIONS**
  The ELITE can be supplied with different cylinder connections defined by regional or local standards.
- **OPERATIONAL SAVINGS FOR HOMECARE PROVIDERS**
  With the ELITE enabling gas cylinders to last longer and saving oxygen, home oxygen providers can save money on reduced number of trips to exchange cylinders for patients.
- **WARRANTY**
  The ELITE conserving device is supplied with a 2 year manufacturer warranty.

ELITE attached
to an integral valve cylinder

TECHNICAL DATA	
Inlet pressure	up to 200 bar
Flow settings	1.0/1.2/1.5/2.0/2.5/3.0/3.5/ 4.0/4.5/5.0/ 5.5/6.0 l/min
	Version with up to 8 litres per minute is available



CYLINDER DURATION CHART ELITE VS. CONSTANT FLOW (HRS.MIN)

CYLINDER SIZE (LITRES)	CYLINDER PRESSURE (BAR)	FLOWRATE (L/MIN) WITH ELITE					FLOWRATE (L/MIN) - CONSTANT FLOW				
		1	2	3	4	6	1	2	3	4	6
0.5	137	3.25	1.42	1.08	0.51	0.34	1.08	0.34	0.23	0.17	0.11
1	137	6.51	3.25	2.17	1.42	1.08	2.17	1.08	0.46	0.34	0.23
1.7	137	11.38	5.49	3.52	2.54	1.56	3.53	1.56	1.18	0.58	0.39
2	137	13.42	6.51	4.34	3.25	2.17	4.34	2.17	1.31	1.09	0.46
2.7	137	18.29	9.14	6.09	4.37	3.04	6.10	3.05	2.03	1.32	1.02
9.4	137	64.23	32.11	21.27	16.05	10.43	21.28	10.44	7.09	5.22	3.35
0.5	200	5.00	2.30	1.40	1.15	0.50	1.40	0.50	0.33	0.25	0.17
1	200	10.00	5.00	3.20	2.30	1.40	3.20	1.40	1.07	0.50	0.33
1.7	200	17.00	8.30	5.40	4.15	2.50	5.40	2.50	1.53	1.25	0.57
2	200	20.00	10.00	6.40	5.00	3.20	6.40	3.20	2.13	1.40	1.07
2.7	200	27.00	13.30	9.00	6.45	4.30	9.00	4.30	3.00	2.15	1.30
9.4	200	94.00	47.00	31.20	23.30	15.40	31.20	15.40	10.27	7.50	5.13

ACCESSORIES FOR OXYGEN THERAPY

AQUAPAK 340 ML TP AQUAPAK STERILE WATER PACKS

AQUAPAK® prefilled humidifiers combine an easyto-use adaptor with a choice of two sterile water reservoir bottles. The humidifier adaptor incorporates an audible alarm that alerts the clinician to flow restriction or occlusion of the humidifier or oxygen tubing.

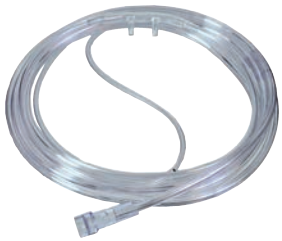
> latex-free
> single use
> individually packed

Art. Nr.	Description
14090563	Aquapak 340 ml. Pack of 20
14090561	Aquapak 650 ml. Pack of 10

DISPOSABLE HUMIDIFIER BOTTLE

Art. Nr.	Description
14090417	Single use disposable humidifier bottle, 500ml volume. Pack of 50

NASAL CANNULA



Art. Nr.	Description
14112132	Adult nasal cannula (2.1m), non-flared tip. Flow rate 1-7 LPM. Pack of 50
14090510	Adult nasal cannula (2.1m), flared tip. Flow rate 1-7 LPM pack of 50
14090513	Adult nasal cannula (2.1m). Flow rate 1-4 LPM. Pack of 50
MM6012	Adult high low cannula 7ft. Pack of 25pcs*
MM6013	Adult high low cannula 25ft. Pack of 10pcs*

** Suitable for Zen-O™ and Zen-O lite™ portable oxygen concentrators.*

OXYGEN ADULT MASK

> complete with 2,1 m oxygen hose

Art. Nr.	Description
14090500	Oxygen mask suitable for 5 - 10 LPM. pack of 50

OXYGEN CONNECTION TUBES

Art. Nr.	Description
14112138	Connection tube 4.2 m
14090496	Connection tube 7.5 m
14090495	Connection tube 15 m

OXYGEN TUBE EXTENSION ADAPTER

Art. Nr.	Description
14090515	Extention adapter for oxygen tubing, masks etc
14090516	"T" extension adapter for cannula tube

WATER TRAPS

Art. Nr.	Description
14112017	Oxygen tubing water trap. Pack of 10
7001	Oxygen tubing water trap with threaded end cap. Pack of 25

ANGLE TRIM FOR AQUAPAK

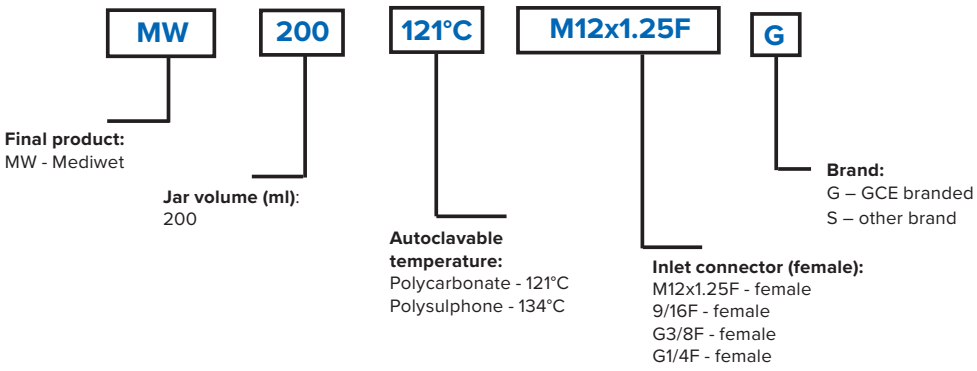
Art. Nr.	Description
14090526	Angle nozzle 9/16 male thread

MEDIWET

Art. Nr.	Description	Volume	Connection	Material
K293491	MEDIWET II 200	200 ml	M12x1,25	
K293498	MEDIWET II 200	200 ml	M12x1,25	
K294401	MEDIWET II 200	200 ml	9/16“	
K294402	MEDIWET II 200	200 ml	9/16“	
K294416	MEDIWET II 200	200 ml	G3/8“	Polycarbonate
K294432	MEDIWET II 200	200 ml	G3/8“	Polysulfone
K294435	MEDIWET II 200	200 ml	G1/4“	
K294452	MEDIWET II 200	200 ml	G1/4“	

TECHNICAL DATA	
Contents	Only sterile water or boiled cold water
Dimensions	Height 190 x 67 Width (incl hose nipple) x 57Ø mm
Weight	Polysulphone version 115 g
Capacity	200 ml of water
Consumption	6 ml of water per hour at a gas flow of 10 l/min at 20 °C
Material	Jar autoclavable at 134 °C: polysulphone
	Jar autoclavable at 121 °C: polycarbonate
	Lid and outlet hose nipple: polypropylene
	Inlet nut: Chromed brass
	Diffuser: Polyethylene
	Hose, flat gasket: Silicone
	O-ring: EPDM
Outlet connection	Tapered hose nipple for hose 6x9 mm (recommended length 2 m)
Cleaning	Water, non abrasive detergent. N ever use solvents.
Disinfection	An alcoholic solution, or other solution compatible with the material according to the disinfectant manufacturer.
Autoclave	Polysulphone version 134 °C for 5 minutes
Special case	Diffuser: exchange at every cleaning - do not sterilise!
Maintenance	Check that the humidifier is whole and air tight before use. Monthly exchange of gaskets is recommended. Exchange the diffuser when its microperforations no longer exist.
Durability	Minimum 20 autoclave cycles under the condition that all instructions accompanying the product are adhered.

DESCRIPTION CODING FOR MEDIWET



HUMIDIFICATION AND FILTRATION

Heat and moisture exchange for the protection of patients, staff and devices from cross contamination.

HUMID VENT 1 - HEAT AND MOISTURE EXCHANGER

Art. Nr.	Description
14112056	Heat and Moisture exchanger. Pack of 50

> Tidal Volume 50 - 600 ml
> Sterile
> Medium Hygroscopic and bacteriostatic microwell paper
> Moisture output 29 mg H_2O at V_t 300 ml

HUMID VENT 2

Art. Nr.	Description
14112064	Sterile, pack of 20
14112065	Clean, pack of 20

> Tidal Volume 150 - 1500 ml
> Moisture output 28 mg H_2O at V_T 600 ml

HUMID VENT COMPACT

Art. Nr.	Description
14112077	Humid vent compact - Sterile (pack of 25)
14090608	Humid vent compact - Clean (pack of 25)

> Compact Design
> Tidal Volume 150 - 1000 ml
> Moisture output 30 mg H_2O at V_t 1000 ml

HUMID VENT FILTER PEDI

Art. Nr.	Description
14112055	Humid Vent Pedi - Sterile (pack of 20)
14090606	Humid Vent Pedi - Sterile (pack of 20)

> Suitable for paediatric patients
> Compact Design

TRACH VENT

Art. Nr.	Description
14090610	Humid Vent Pedi - Sterile (pack of 20)

> Sterile
> Medium Hygroscopic and bacteriostatic microwell paper
> Suitable for adults and children

TRACH VENT HOLDER

Art. Nr.	Description
14090613	Trach Vent holder. Pack of 30

TRACH-VENT+

Art. Nr.	Description
14112161	TRACH-VENT+ pack of 50

> Sterile
> Medium Hygroscopic and bacteriostatic microwell paper
> Moisture loss 8.4 mg H_2O/l at V_t 500 ml
> Moisture Output 29.2 mg H_2O/l at V_t 500 ml

ISO GARD FILTER

Art. Nr.	Description
14112076	ISO GARD filter - Sterile (pack of 25)
14090604	ISO GARD filter - Clean (pack of 25)

> Connectors 22 M/15 F-15 M/22 F
> Tidal volume 150 - 1000ml
> Hydrophobic depth filter
> Resistance to Flow: at 60 l/min, 1.6cm H_2O

ISO GARD FILTER (SMALL)

Art. Nr.	Description
14112080	ISO GARD filter Small - Sterile (pack of 25)

> Connectors 22 M/15 F-15 M
> Tidal volume 150 - 1000ml
> Hydrophobic depth filter
> Resistance to Flow: at 60 l/min, 1.9 cm H_2O

ISO-GARD HEPA LIGHT

Art. Nr.	Description
14112089	ISO-GARD HEPA light - Clean pack of 20

> Hydrophobic depth filter
> Resistance to Flow: 2.8 cm H2O at 60 l/min

OXY-VENT WITH TUBING

Art. Nr.	Description
14090612	Oxy-vent with tubing pack of 10

OXY-VENT WITHOUT TUBING

Art. Nr.	Description
14090611	Oxy-vent without tubing pack of 20

EMERGENCY EQUIPMENT

GCE® Healthcare

MANUAL AND AUTOMATIC RESUSCITATION SYSTEM

MARS II

MARS II is a leading resuscitator developed for healthcare professionals and first responders. MARS II is specifically designed to help emergency personnel, respond to patients that require resuscitation. The device can be used in confined spaces, low oxygen/toxic environments.

FEATURES / ADVANTAGES / BENEFITS

- Simple to use
- Robust design to withstand harsh environments
- Can be enabled for automatic or manual (CPR) resuscitation

MARS II meets the requirments of ISO 10651-5:2006 and European Resuscitation Council Guidelines for Resuscitation 2010 for ventilatory resuscitators.
The MARS II is available in all regional gas-standards.
MARS II can be used for children (20 kg), small adults and adults.

MARS II IS AVAILABLE IN 2 DIFFERENT VERSIONS:

1. Standard version (all settings)
2. Industrial or Mining version (adult setting)

TECHNICAL DATA - MARS II CONTROL MODULE	
Gas	O_2
Material	Brass, aluminium main inside parts, abs cover
Dimensions	165 × 110 × 63 mm
Weight	1300 g
Regulator Inlet connections	According regional high pressure standards
Input pressure (with reg.)	200 - 20 bar
Inlet pressure (without reg.)	3.6 - 6 bar @ 100lpm
Working pressure	3 bar
Inlet connection (module)	national standard
Regulator performance	min 100 lpm and min 3 bar
Inlet filter	30µm
Time to revert to automatic resuscitation	5 - 7 seconds
Gas consumption	0.15 lpm

1033026

TECHNICAL DATA - MARS II DEMAND VALVE	
Material	Polycarbonate, silicone, rubber, stainless steel
Dimensiones	120 × 50 × 70 mm
Weight	175 g
Inspiratory resistance	
Cracking pressure @ 5 lpm	-0.23 kPa
Triggering pressure @ 60 lpm	-0.44 kPa
Expiratory resistance @ 60 lpm	+0.48 kPa
Demand valve flow	
Spontaneous breathing	0 - 100 lpm
Relief valve triggering pressure	55 cm H_2O
Alarm valve triggering pressure	46 cm H_2O

EMERGENCY ANALGESIC SUPPLY SYSTEM

EASE II

EASE II demand valve is a robust and compact device used by patients to self administer medical gas therapy. EASE II can be used to administer nitrous oxide and oxygen mixture (commonly known as ENTONOX, LIVOPAN, OXYNOX, MEOPA, KALINOX) for pain relief or medical oxygen therapy. The EASE II demand valve is designed in a way that creates minimal breathing resistance to the patient and can deliver high flows when required.

> Deliver up to 300 litres per minute of gas
> Portable first stage regulator and cylinder version for immediate care and pre-hospital applications
> Conforms to global standards

EASE II O_2 is recommended during diving accidents and cluster headaches therapy.
EASE II N_2O/O_2 is recommended during pain releave therapy.

FEATURES / ADVANTAGES / BENEFITS

- Low inspiratory effort demand valve
- Test/ Purge facility on the demand valve
- Easy grip handle and wrist strap
- Replaceable patient/bacterial filter
- Easy to clean and reassemble for cross infection protocol
- Hose fitted with probes by the national standards for connection into cylinder system or wall outlet
- Autoclavable at 134 C°
- 5 year service interval

Regulators can be included.
Scavenging adapter is mandatory in combination with an active exhaust system.

TECHNICAL DATA - DEMAND VALVE	
Gas	O_2 /N_2O
Material	Polycarbonate, silicone rubber, stainless steel
Dimensions	50 × 50 × 63 mm
Gas supply	Requirement 2,8 to 7,0 bar at >200 l/min
Inspiratory resistance (At 2,8 bar supply press.)	Cracking pressure 0.15-0.2 kPa
	-0.2 kPa at 10 l/min
	-0.7 kPa at 200 l/min
Expiratory resistance	Cracking pressure at zero flow +0,35 kPa at 120 l/min
Operating temperature	-20°C to +60°C used Oxygen
	+5°C to +40°C used 50/50 O_2/N_2O
Storage temperature	-30°C to +60°C

TECHNICAL DATA - HOSE ASSEMBLY	
Connection	Available in different regional standards
Working pressure	7 bar
Burst pressure	44 bar
Material	PVC, anti-static in accordance with ISO 5359
Weight	0.5 kg (3 m length)

BAG VALVE MASK KIT

The Bag Valve Mask (BVM) kit is supplied with the BVM, mask extension tube, masks, guedel airways (sizes 2, 3 & 4). The BVM only is re-useable and can be autoclaved at 134 C°.

Art. Nr.	Description
325113013P	Bag Valve Mask kit

TECHNICAL DATA - BAG VALVE MASK	
Size	Adult
Bellow Capacity	1500 ml
Oxygen Reservoir Capacity	2600 ml
Face Mask	Sizes 4 & 5
Mask Extension Tube	300 mm

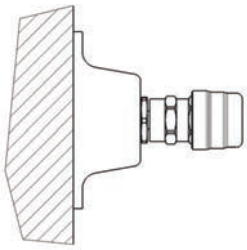
Note: Product is latex free.

AMBULANCE PANEL II

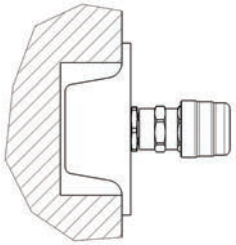
The Ambulance Panel II is the new generation of ambulance panels. It is designed for permanent installation and use in road ambulances. Long experience in this market has resulted in a product that gives the customer a lot of options and fl exibility. Due to the design and functions there are a big range of variants available. The functions and variants can be combined upon customer's request.
The modular concept means that same components can be used for many variants, resulting in short lead times and full fl exibility. The Ambulance Panel II is designed with same Shape for recessed and exposed.

RECESSED
Recessed mounting is when the ambulance panel is mounted in the wall. The inlet could either be mounted at the end or at the back depending on the wall construction and the space behind the wall. The only part that will be outside the wall is the quick connector.

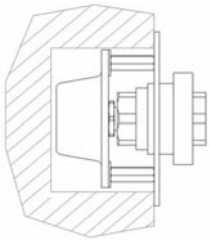
EXPOSED
Exposed mounting is when the ambulance panel is mounted on the wall in the ambulance. The inlet could as the recessed, also be located at the end or at the back. When using the end inlet the hoses are fastened on the wall and fully visible. For some countries and regulations this is a must and the Ambulance Panel II has the features complying to these requests. The panel is fastened easily by 4 screws. Depending on the wall construction the fastening could either be done by a counter fastening frame or nuts and washers.



Sketch of expossed mounted panel



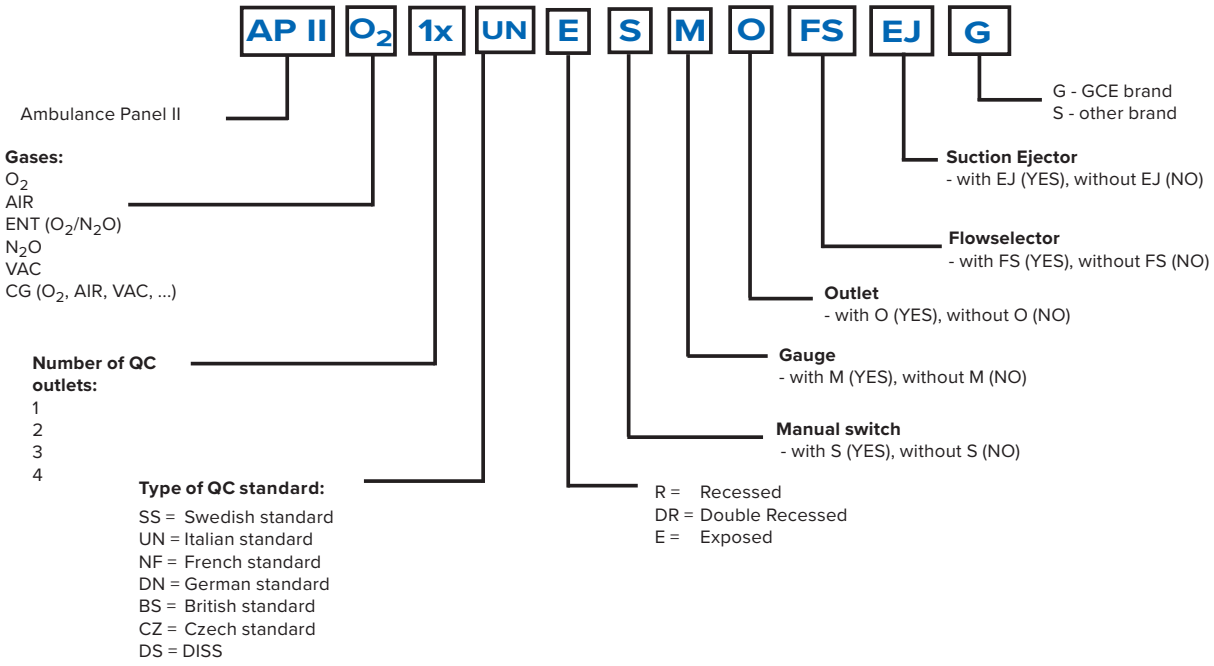
Sketch of recessed mounted panel



Sketch of double recessed mounted panel

TECHNICAL DATA	
Capacity QC:	60 l/min
Capacity FLS:	0–15 l/min, 0–25 l/min
Connection:	G3/8"
Weight:	example AP II O2 2xSS R: 754g
QC strandards:	SS, DIN, NF, BS, UNI, CZ
Gases	O_2, Air, N_2O/O_2, N_2O, VAC
Classification	Class IIb
Regulatory status:	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN 1789:2008
	Production in accordance with EN ISO 9001 and EN ISO 13485
Manufacturer:	GCE, s.r.o., Žižkova 381, 583 81 Chotebor, CZ

EXPLANATION OF THE ORDERING INFORMATION



EXAMPLE:

AP II O_2 1x DN R S G

meaning: an ambulance panel II for oxygen, one quick connector, german standard, recessed with switch and gauge.

AMBULANCE PANEL SYSTEM - APS

The Ambulance Panel System is a bespoken system containing an ambulance panel, hoses and regulators ready to be mounted in an ambulance. Ambulance Panel System is modular system of individual CE marked components and complies with EN 1789. The Ambulance Panel System has three main components: regulators, hose assemblies and panels. The modular design of the individual components means that they are infinitely variable. The individual components can then be combined in many different configurations giving the end user total flexibility.

Medireg

Varimed

Standard Ambulance Hose

Steel reinforced

AMBULANCE REGULATORS

The Ambulance Panel System can be delivered with two types of ambulance regulators, Medireg and Varimed. The Ambulance Panel System can also be used with combivalves*. Generally Medireg is for lower capacity and Varimed for higher capacity and this capacity is determined by the equipment that is used in the ambulance. The ambulance regulators are designed to withstand the conditions in the road ambulance and are manufactured according to EN ISO 10524-1. The ambulance regulators are delivered with either standard 3/8” connections or quick connectors. The Varimed and Medireg can be delivered with electronic signal gauge to be connected to the ambulance monitoring or gas monitoring systems.

** Some restrictions regarding pressure monitoring when Ambulance Panel System includes electronic monitoring system.*

AMBULANCE HOSE

The hoses connect to the regulators and the panels. The hoses are made up to individual specifications and are clamped and tested ready to install in the ambulance. The hoses can be delivered static or antistatic. The standard connection is 3/8”. The low pressure hoses can also be delivered stainless steel reinforced.

AMBULANCE PANEL

The new ambulance panel range from GCE offers unrivalled flexibility in its installation and design. The modular concept uses common components leading to shorter lead times for manufacture and installation. Modules are infinitely variable and can incorporate gauges, switchovers, outlets or integral flow selectors and suction. Low profile back plates ensure close fitting to the ambulance wall whilst rounded edges avoid patients being exposed to sharp corners. The clear and simple gauge and switch over system allows easy surveillance and visibility by ambulance staff.

VALVES

GCE® Healthcare

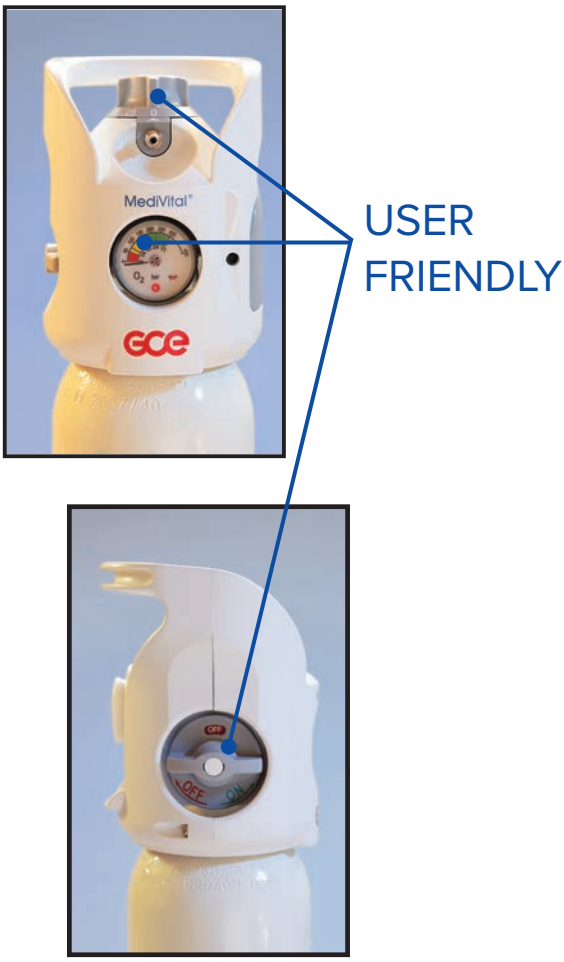
MEDICAL COMBI VALVES

MEDIVITAL®

Medivital is a pressure regulator integrated with cylinder valve for fitting to gas cylinders used for medical gases.

FEATURES / ADVANTAGES / BENEFITS

- 15 year life time ensured by extended endurance and cycle testing for future market requirements
- Slow opening shut off valve with new patented design
- Shock resistant gauge
- Flow selector designed for optimal gas flow and patient safety
- Guard design provides maximum protection for the valve



USER FRIENDLY

> Suitable for use in Homecare, Emergency and Hospital applications
> Easy read Flow Selector and Gauge
> Shut off valve with clear open/closed status colour coded marking
> Ergonomic guard design allows easy handling of the cylinder package by all users
> Compact and lightweight design less than 1150 g
> Easy clean guard material

HIGHEST SAFETY

> Testing in accordance with the following standards, EN ISO 10524-3, ASTM G175 Pill test, EN ISO 10297
> CE marked in accordance with the Medical directive 93/42/EEC and TPED 2010/35 EU
> Phthalate and halogenated polymer free components
> MRI compatible up to Tesla 3
> For use with medical Oxygen, Air and O_2/N_2O mixed gases up to 300 bar working pressure

ACCESSORIES

Art. Nr.	Description
0727421	Bed hanger (10pcs)
0727427	Bed hanger with black plastic sleeves (10 pcs)
0727418	Humidifier holder 9/16 (10pcs)
9442820	Connecting hose for humidifier holder 40 cm (10 pcs)
0727422	Valving tool (1pce)
on request	Filling adaptor


Bed hanger


Bed hanger - plastic


Humidifier holder


Connecting hose

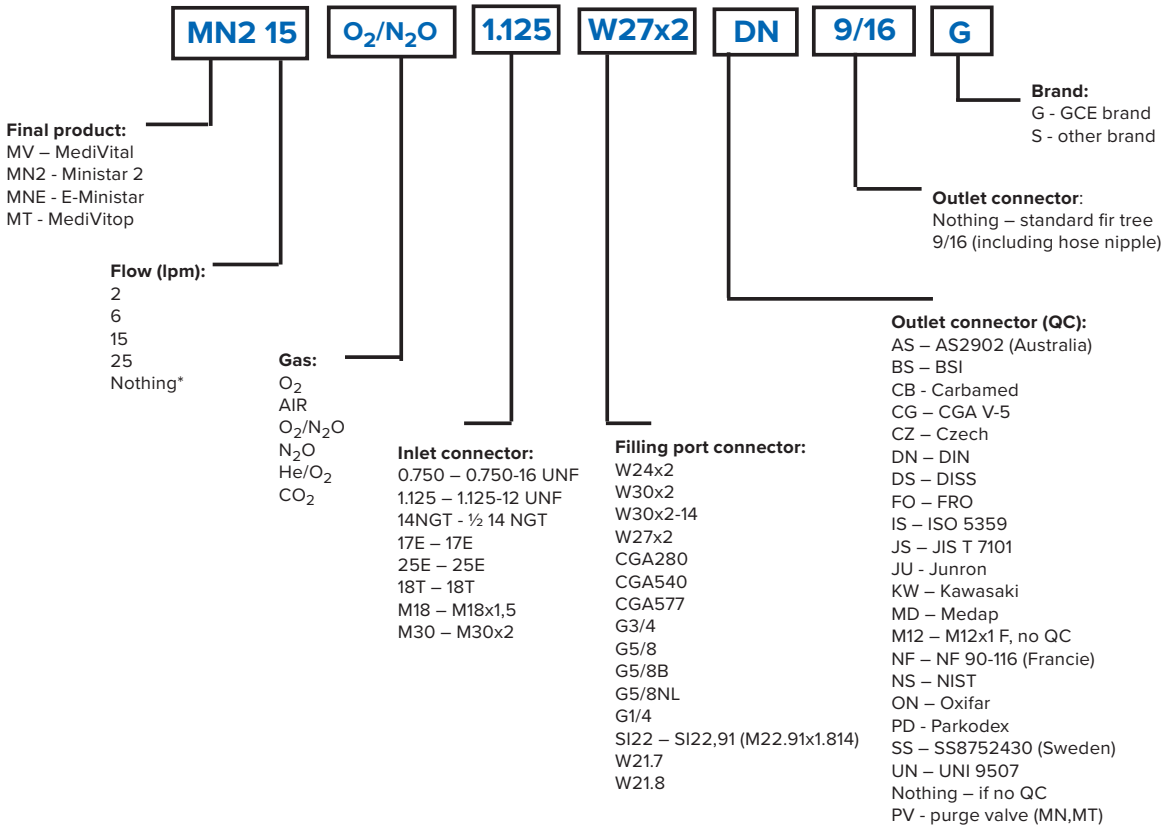

Valving tool


Filling adaptor

TECHNICAL DATA		
Gas	O_2, Air, O_2/N_2O	
Inlet pressure	Up to 300 bar (4500 psi)	
Outlet pressure	3.6 to 5.5 bar - acc. to EN ISO 10524-3 (or per customer specification)	
RPV closing	> 3 bar	
PRV opening and re-closing	> 5.5 bar	
Flow ranges	0-6, 0-15 and 0-25 lpm	
Materials	Metallic parts (gas wetted): brass	
	Elastomers: EPDM, silicon, PUR	
	Plastics: PA66, PEEK	
	Springs (gas wetted): CuBe2, CuSn6	
Dimensions (h×w×d)	153 × 112 × 118 mm	
Weight*	1150 g	
Inlet stem	Tapered or parallel threads (17E, 25E, M18×1,5 per customer specification)	
Filling port	ISO 5145, NEVOC or per customer specification	
Regulatory status	Complies with MDD 93/42/EEC	Complies with TPED 2010/35 EU
	Complies with EN ISO 10524-3	Complies with EN ISO 10297
	Complies with EN 1789	Complies with ASTM G175
	Production in accordance with EN ISO 9001 and EN ISO 13485	
Classification	IIb	

** Standard Combivalve (flow control unit 0 - 15 l/min, flow outlet, DIN quick coupling pressure outlet) with guard. All technical data are given for information only and are subject to modifications by the manufacturer.*

DESCRIPTION CODING FOR VALVES



MEDICAL CYLINDER VALVES

GCE offers wide range of cylinder valves for medical gases. They are produced, tested and packed in clean conditions. Strict manufacturing rules and procedures applied for the manufacture of GCE medical cylinder valves, using top quality materials and tools to guarantee reliability and safety.

FEATURES / ADVANTAGES / BENEFITS

- Available in all of common inlet and outlet connection
- For all medical gases
- Handwheels in different colours and materials
- Handwheel caps with customer logo
- Optional RPV for most of valves
- Variants with burst disc or dip tube

For valves with residual pressure valve GCE offers filling adaptors that guarantee compatibility with GCE RPV cassette design. Our valves are CE and π marked.

TECHNICAL DATA		
Gas	O_2, Air, N_2, Ar, CO_2, N_2O, He and others	
Inlet pressure	Up to 300 bar (4500 psi)	
RPV closing	> 2 bar	
Inlet connection	Tapered or parallel threads	
	(17E, 25E, M18x1,5 or per customer specification)	
Outlet connection	According to national standards	
Materials	Chrome plated brass	
Burst disc	190, 216, 250, 300 bar, for CO_2 and N_2O, other gases optional	
Operating temperature	-20°C to +65°C	
Storage and transport temperature	-40°C to +65°C	
Regulatory status	Complies with MDD 93/42/EEC	TPED 2010/35 EU
	EN ISO 10297	EN ISO 15996
	Production in accordance with EN ISO 9001 and EN ISO 13485	
Classification	IIb	

SMALL MEDICAL VALVES (SMV)

> Inlet pressure: up to 200 bar
> Inlet connection: 17E, M18x1.5
> Ergonomic hand wheel

OPTIONS

> Residual pressure valve
> Burst disc
> Dip tube
> Hand wheel in different colours
> Customer logo on the hand wheel cap

PIN INDEX VALVES

> Inlet pressure: up to 200 bar
> Inlet connection: 17E, 25E, M18x1.5, 0.750UNF

OPTIONS

> Burst disc
> Dip tube
> Hand wheel or opening mechanism with the key

STANDARD CYLINDER VALVES (IN LINE)

> Inlet pressure: up to 200 bar
> Inlet connection: 17E, 25E, 3/4“NGT, 0.750UNF, 1.125UNF

OPTIONS

> Residual pressure valve
> Burst disc
> Dip tube
> Hand wheel plastic or aluminium
> Hand wheel with space for RF chip
> Customer logo on the hand wheel cap

STANDARD CYLINDER VALVES (OFF LINE)

> Inlet pressure: up to 300 bar
> Inlet connection: 17E, 25E

OPTIONS

> Excess flow system or probe
> Steering wheel with chip/Tag forpark control
> Steering wheel with color logo of your company

GENERAL BUSINESS TERMS AND CONDITIONS

PREAMBLE

1. These General Conditions shall apply when the parties agree in writing or otherwise thereto. Deviations from the Conditions shall not apply unless agreed in writing.
When used in these conditions the term "written" or "in writing" refers to a document signed by both parties or a letter, fax, electronic mail or other means agreed by the parties.

PRODUCT INFORMATION

2. Data in product information and price lists are binding only to the extent that they are expressly referred to in the contract.

TECHNICAL DOCUMENTS AND TECHNICAL INFORMATION

3. All drawings and other technical documents regarding the goods or their manufacture submitted by one party to the other, prior or subsequent to the formation of the contract, shall remain the property of the submitting party. Drawings, technical documents or other technical information received by one party shall not, without the consent of the other party, be used for any other purpose than that for which they were submitted. They may not without the consent of the other party be copied, reproduced, transmitted or otherwise communicated to a third party.

4. The Seller shall, not later than by delivery of the goods, free of charge provide the Buyer with one copy, or the larger number of copies that may have been agreed, of drawings and other technical documents, which are sufficiently detailed to permit the Buyer to carry out installation, commissioning, operation and maintenance (including running repairs) of all parts of the goods.
The Seller shall not, however, be obliged to supply manufacturing drawings of the goods or spare parts.

DELIVERY TEST

5. Where a delivery test has been agreed, it shall, unless otherwise agreed, be carried out where the goods are manufactured.
If technical requirements for the test have not been agreed, the test shall be carried out in accordance with general practice in the industry concerned in the country where the goods are manufactured.

6. The Seller shall notify the Buyer in writing of the delivery test in sufficient time to permit the Buyer to be present at the test.
If the Buyer has received such notice, the test may be carried out even if the Buyer is not represented at the test.
The Seller shall record the test. The test report shall be sent to the Buyer. The report shall, unless otherwise shown by the Buyer, be considered to correctly describe the execution of the test and its results.

7. If at the delivery test the goods are found not to be in accordance with the contract, the Seller shall as soon as possible ensure that the goods comply with the contract. If so required by the Buyer a new test shall thereafter be carried out. The Buyer may not, however, require a new test if the defect was insignificant.

8. If no other division of the costs has been agreed, the Seller shall bear all costs for delivery tests carried out where the goods are manufactured. The Buyer shall, however, at such delivery tests bear all costs for his representatives, including costs for travel and subsistence.

DELIVERY

9. Where a trade term has been agreed, it shall be interpreted in accordance with the INCOTERMS in force at the formation of the contract. If no trade term is specifically agreed, the delivery shall be Ex Works.

TIME FOR DELIVERY. DELAY

10. If, instead of a fixed date for delivery, the parties have agreed on a period of time within which delivery shall take place, such period shall start to run at the formation of the contract.

11. If the Seller finds that he will not be able to deliver the goods at the agreed time or if delay on his part seems likely, he shall without undue delay notify the Buyer thereof in writing, stating the reason for the delay and if possible the time when delivery can be expected. If the Seller fails to give such notice, he shall, regardless of the provisions of Clauses 13 and 14, reimburse the Buyer for any additional expenses, which the latter incurs and which he would have avoided, had he received notice in time.

12. If delay in delivery is caused by a circumstance which under Clause 36 constitutes ground for relief or by an act or omission on the part of the Buyer, including suspension by the Seller under Clause 18, the time for delivery shall be extended by a period, which is reasonable having regard to the circumstances in the case. The time for delivery shall be extended even if the reason for delay occurs after the originally agreed time for delivery.

13. If the Seller fails to deliver the goods on time, the Buyer is entitled to liquidated damages from the date on which delivery should have taken place. The liquidated damages shall be payable at a rate of 0.5 per cent of the agreed price for each complete week of delay. If the delay concerns only a part of the goods, the liquidated damages shall be calculated on the part of the price which is properly attributable to the part of the goods which cannot be taken in use due to the delay.
The liquidated damages shall not exceed 7.5 per cent of that part of the price on which it is calculated. The liquidated damages become due at the Buyer's written demand but not before all of the goods have been delivered or the contract is terminated under Clause 14.
The Buyer loses his right to liquidated damages if he has not lodged a written claim for such damages within six months after the time when delivery should have taken place.

14. If the Buyer is entitled to maximum liquidated damages under Clause 13, and the goods are still not delivered, the Buyer may in writing demand delivery within a final reasonable period which shall not be less than one week.
If the Seller fails to deliver within such final period and this is not due to any circumstance for which the Buyer is responsible, the Buyer may, by written notice to the Seller, terminate the contract in respect of that part of the goods which cannot be taken in use due to the delay.
In case of such termination the Buyer shall also be entitled to compensation for the loss he suffers because of the Seller's delay to the extent that the loss exceeds the maximum of liquidated damages which the Buyer may claim under Clause 13. This compensation shall not exceed 7.5 per cent of that part of the price which is properly attributable to the part of the goods in respect of which the contract is terminated.
The Buyer shall also have the right to terminate the contract by written notice to the Seller if it is clear that there will be a delay, which under Clause 13 would entitle the Buyer to maximum liquidated damages. In case of termination on this ground the Buyer shall be entitled to both maximum liquidated damages and compensation under the third paragraph of this Clause.
Except for liquidated damages under Clause 13 and termination of the contract with limited compensation under this Clause 14, all other claims in respect of the Seller's delay shall be excluded.
This limitation of the Seller's liability shall not apply, however, where the Seller has been guilty of gross negligence.

15. If the Buyer finds that he will be unable to accept delivery of the goods on the agreed date, or if delay on his part seems likely, he shall without undue delay notify the Seller thereof in writing stating the reason for the delay and, if possible, the time when he will be able to accept delivery.
If the Buyer fails to accept delivery on the agreed date, he shall nevertheless make any payment which is dependent on delivery as if the goods in question had been delivered. The Seller shall arrange storage of the goods at the Buyer's risk and expense. If the Buyer so requires, the Seller shall insure the goods at the Buyer's expense.

16. Unless the Buyer's failure to accept delivery as referred to in Clause 15 is due to any such circumstance as described in Clause 36, the Seller may by written notice require the Buyer to accept delivery within a reasonable period.
If, for any reason for which the Seller is not responsible, the Buyer fails to accept delivery within such period, the Seller may, by written notice to the Buyer, terminate the contract in respect of that part of the goods which is ready for delivery but has not been delivered due to the Buyer's default. The Seller shall then be entitled to compensation for the loss he has suffered by reason of the Buyer's default. The compensation shall not exceed that part of the price which is properly attributable to the part of the goods in respect of which the contract is terminated.

PAYMENT

17. Unless otherwise agreed, the agreed purchase price, together with value added tax, if any, shall be invoiced with one third at the formation of the contract, one third when the Seller gives written notice that the bulk of the goods are ready for delivery. Final payment shall be invoiced at delivery of the goods. The invoiced amount becomes due 30 days after the date of the invoice.

18. If the Buyer fails to pay, the Seller shall be entitled to interest from the due date at the rate of interest determined by the law on late payments in the Seller's country.
If the Buyer fails to pay by the due date, the Seller shall also, after having notified the Buyer in writing thereof, suspend performance of his contractual obligations until payment is made.

19. If the Buyer has failed to pay the amount due within three months after the due date, the Seller may terminate the contract by written notice to the Buyer and, in addition to interest on late payment, claim compensation for the loss he has suffered. The compensation shall not exceed the agreed purchase price.

RETENTION OF TITLE

20. The goods shall remain the property of the Seller until paid for in full, to the extent that such retention of title is valid.

LIABILITY FOR DEFECTS

21. The Seller shall, in accordance with the provisions of Clauses 23–33 below, remedy any defect in the goods resulting from faulty design, materials or workmanship.
The Seller is not liable for defects arising out of material provided by the Buyer or a design stipulated or specified by him.

22. The Seller's liability does not cover defects caused by circumstances, which arise after the risk has passed to the Buyer.
The liability does not, for example, cover defects due to conditions of operation deviating from those anticipated in the contract or to improper use of the goods. Nor does it cover defects due to faulty maintenance or incorrect installation from the Buyer's side, alterations undertaken without the Seller's written consent or faulty repairs by the Buyer. Finally the liability does not cover normal wear and tear or deterioration.

23. The Seller's liability is limited to defects which appear within a period of one year from the date of delivery of the goods. If the goods are used more intensely than agreed, this period shall be reduced proportionately.

24. For parts, which have been repaired or replaced under Clause 21, the Seller shall have the same liability for defects as for the original goods for a period of one year. For other parts of the goods the liability period referred to in Clause 23 shall be extended only by the period during which the goods could not be used due to a defect for which the Seller is liable.

25. The Buyer shall notify the Seller in writing of a defect without undue delay after the defect has appeared and in no case later than two weeks after the expiry of the liability period defined in Clause 23 as supplemented by Clause 24. The notice shall contain a description of how the defect manifests itself. If the Buyer fails to notify the Seller in writing within the above time limits, he loses his right to make any claim in respect of the defect. If there is reason to believe that the defect may cause damage, notice shall be given forthwith. If notice is not given forthwith, the Buyer loses the right to make any claim based on damage which occurs and which could have been avoided if such notice had been given.

26. After receipt of a written notice under Clause 25, the Seller shall remedy the defect without undue delay. Within this limit the time for remedial work shall be chosen in order not to interfere unnecessarily with the Buyer's activities.
The Seller shall bear the costs as specified in Clauses 21–32.
Remedial work shall be carried out at the Buyer's premises unless the Seller finds it appropriate to have the defective part or the goods sent to him for repair or replacement at his own premises.
The Seller shall carry out dismantling and re-installation of the part if this requires special knowledge. If such special knowledge is not required, the Seller has fulfilled his obligations in respect of the defect when he delivers a duly repaired or replaced part to the Buyer.

27. If the Buyer gives such notice as referred to in Clause 25, and no defect is found for which the Seller is liable, the Seller shall be entitled to compensation for the work and costs which he has incurred as a result of the notice.

28. If remedy of the defect requires intervention in other equipment than the goods, the Buyer shall be responsible for any work or costs caused thereby.

29. All transports in connection with repair or replacement shall be at the Seller's risk and expense.The Buyer shall follow the Seller's instructions regarding how the transport shall be carried out.

30. The Buyer shall bear the increase in costs for remedying a defect which the Seller incurs when the goods are located elsewhere than at the destination stated in the contract or – if no destination has been stated – the place of delivery.

31. Defective parts, which have been replaced under Clause 21, shall be placed at the Seller's disposal and shall become his property.

32. If the Seller fails to fulfil his obligations under Clause 26 within a reasonable time, the Buyer may by written notice require him to do so within a final time. If the Seller fails to fulfil his obligations within that time limit, the Buyer may at his option:
a) have the necessary remedial work carried out and/or have new parts manufactured at the Seller's risk and expense, provided that the Buyer proceeds in a reasonable manner, or
b) demand a reduction of the agreed purchase price not exceeding 15 per cent thereof.
If the defect is substantial, the Buyer may instead terminate the contract by written notice to the Seller. The Buyer shall also be entitled to such termination where the defect remains substantial after measures referred to in a). In case of termination, the Buyer shall be entitled to compensation for the loss he has suffered. The compensation shall not, however, exceed 15 per cent of the agreed purchase price.

33. Regardless of the provisions of Clauses 21–32, the Seller shall have no liability for defects in any part of the goods for more than two years from the start of the liability period referred to in Clause 23.

34. The Seller shall have no liability for defects save as stipulated in Clauses 21–33. This applies to any loss the defect may cause, such as loss of production, loss of profit and other consequential economic loss. This limitation of the Seller's liability shall not apply, however, if he has been guilty of gross negligence.

LIABILITY FOR DAMAGE TO PROPERTY CAUSED BY THE GOODS

35. The Buyer shall indemnify and hold the Seller harmless to the extent that the Seller incurs liability towards any third party in respect of loss or damage for which the Seller is not liable towards the Buyer according to the second and third paragraphs of this Clause.
The Seller shall have no liability for damage caused by the goods:
a) to any (movable or immovable) property, or consequential loss due to such damage, occurring while the goods are in the Buyer's possession, or
b) to products manufactured by the Buyer or to products of which the Buyer's products form a part.
The above limitations of the Seller's liability shall not apply if he has been guilty of gross negligence.
If a third party lodges a claim for compensation against Seller or Buyer for loss or damage referred to in this Clause, the other party to the contract shall forthwith be notified thereof in writing.
The Seller and the Buyer shall be mutually obliged to let themselves be summoned to the court or arbitral tribunal which examines claims against either of them based on damage or loss alleged to have been caused by the goods.
The liability as between the Seller and the Buyer shall, however, always be settled by arbitration in accordance with Clause 39.

GROUNDS FOR RELIEF (FORCE MAJEURE)

36. The following circumstances shall constitute grounds for relief if they impede the performance of the contract or makes performance unreasonably onerous: industrial disputes and any other circumstance beyond the control of the parties, such as fire, war, mobilization or military call up of a comparable scope, requisition, seizure, trade and currency restrictions, insurrection and civil commotion, shortage of transport, general shortage of materials, restrictions in the supply of power and defects or delays in deliveries by sub-contractors caused by any such circumstance as referred to in this Clause.
The above described circumstances shall constitute grounds for relief only if their effect on the performance of the contract could not be foreseen at the time of formation of the contract.

37. The party wishing to claim relief under Clause 36 shall without delay notify the other party in writing on the intervention and on the cessation of such circumstance.
If grounds for relief prevent the Buyer from fulfilling his obligations, he shall reimburse the expenses incurred by the seller in securing and protecting the goods.

38. Notwithstanding other provisions of these General Conditions, either party shall be entitled to terminate the contract by notice in writing to the other party, if performance of the contract is delayed more than six months by reason of any grounds for relief as described in Clause 36.

DISPUTES. APPLICABLE LAW

39. Disputes arising out of or in connection with the contract shall not be brought before the court, but shall be finally settled by arbitration in accordance with the law on arbitration applicable in the Seller's country.

40. All disputes arising out of the contract shall be judged according to the law of the Seller's country.

REGIONAL OFFICES

EUROPE

CZECH REPUBLIC
FRANCE
GERMANY
HUNGARY
ITALY
POLAND
PORTUGAL
ROMANIA
SPAIN
SWEDEN
UNITED KINGDOM & IRELAND

AMERICA

LATIN AMERICA
MEXICO
USA

ASIA

CHINA
INDIA
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Gas Control Equipment

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