

## MEDICAL GAS ISOLATING VALVE UNITS

GAS  
VALVE BOXES



# Medical Gas Isolation Control Valve Boxes

## Select from a range of solutions to suit all vital gas applications

ESCO Medicon gas outlets are ideal for all modern medical applications. Designed to meet and exceed the strictest medical standards, our valve boxes can be customised for any facilities or requirement.

Each ESCO Medicon gas valve box assembly is designed to allow for gas sampling, purging, emergency supply connection & testing.

Gas type & valve handle orientation can easily be determined or identified at a distance through a clear polycarbonate safety cover (window) which also allows for the handle to be in any position.

### Standard features includes;

- AS2896 compliant to meet exacting Medical Gas Requirements
- Additional Gas Valves or Gas Pipe Sizes can be specified (as required)
- All Valves are factory pressure tested on assembly
- Simple Cleaning & Serviceability Procedures
- Spare Parts available for replacement (if required)
- Pressure Gauges / Pressure Switches are able to be deleted (as required)
- Previous proven use & specified all over the country

Each box is fully Galvanised with an exterior finish of Polyester Powdercoat. Front surrounds are supplied to suit varying wall surface thickness and feature front (pull-out) Polycarbonate access windows that allow operation of the valves in the open or closed position. The standard unit colour is off white. However, if additional colours are required, we are able to provide this service at an additional cost.

VALVE SIZE	DESCRIPTION
15MM	Valve assembly, wall box, press gauge & press switch with 3 way isolating valve & circuit monitoring board
20MM	Valve assembly, wall box, press gauge & press switch with 3 way isolating valve & circuit monitoring board
25MM	Valve assembly, wall box, press gauge & press switch with 3 way isolating valve & circuit monitoring board
32MM	Valve assembly, wall box, press gauge & press switch with 3 way isolating valve & circuit monitoring board
40MM	Valve assembly, wall box, press gauge & press switch with 3 way isolating valve & circuit monitoring board
50MM	Valve assembly, wall box, press gauge & press switch with 3 way isolating valve & circuit monitoring board

ADDITIONS	DESCRIPTION
ALARM PANEL	Provision to mount ESCO 8 Way or 24 Way Alarm Panel*
ACCESS WINDOW	1 Valve Front Surround & (Pull-Out) Access Window 2 Valve Front Surround & (Pull-Out) Access Window 3 Valve Front Surround & (Pull-Out) Access Window 4 Valve Front Surround & (Pull-Out) Access Window 5 Valve Front Surround & (Pull-Out) Access Window 6 Valve Front Surround & (Pull-Out) Access Window

\*Additional Cost Charged for Infill extension to front surround (semi recessed) size to be nominated

\*Additional Cost Charged for surface mounted valve box (A. Basic cost surface box (Valves not included) or B. Extending gas pipes to ceiling per valve)

\*Additional Cost Charged to fit NIST connections (2) to valve

Reduction for deletion of 3 Way Valve

Reduction for deletion of Pressure Gauge

Reduction for deletion of Pressure Switch

Reduction for deletion of P/Sw Monitor Board # P/Sw circuit monitor board suits Associated Controls Alarm Panel only

\* Adds one Valve Gang to Box Assembly

## MG SERIES

MG Series enable you to safely & securely control, isolate and monitor the state of medical gas delivery to medical facilities. Wall boxes are supplied with 3-way shut-off valve, pressure gauge & pressure switch and include front surround & pull-out polycarbonate cover.

### Modular Isolation Valve Units

Available in 6 Valve Sizes - 15 to 50mm Each Valve Factory Pressure Tested on Assembly

### Medical Gas Monitoring Panel

Available in either 8 Way or 24 Way Alarm Panels able to be fitted to an additional module as required.



GAS  
VALVE BOXES

### Medical gas line valves (lockable) to comply with AS2896

Our range of line valves include the following key components and spare parts;

- Pressure Gauges
- Pressure Switch
- PC Monitor Board
- Pressure Switches
- 3 Way In-Line Valves



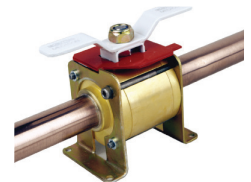
Z29A009



Z12C008



Z06C001



MGLV15  
In-Line Valve  
(Lockable)

## MG Series - delivering medical gas to various rooms, outlets & floors

ESCO Medicon MG Series Gas Alarm Panels & Valve Boxes are designed for simple, effective connection and use.

### Medical Gas Isolation Units (Valve Boxes)

As there can be many different combinations of valve size and quantity per unit, each box is assembled to specific requirements from the following items -

VALVE SIZE	COPPER	TUBE SIZE
15MM	12.7	OD
20MM	19.05	OD
25MM	25.4	OD
32MM	31.75	OD
40MM	38.1	OD
50MM	50.8	OD

### Front Surround & Access Window Assemblies

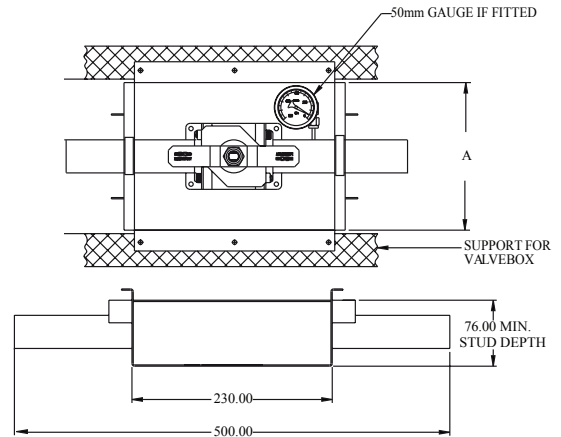
Valve & Wall Box Assemblies require a front surround and access window of matching height to complete. Internal Trim Plate is provided to cover pipes.

No. OF MODULES	'A' DIMENSION	'B' DIMENSION
1	170mm	248mm
2	330mm	408mm
3	490mm	568mm
4	650mm	728mm
5	810mm	888mm
6	970mm	1048mm

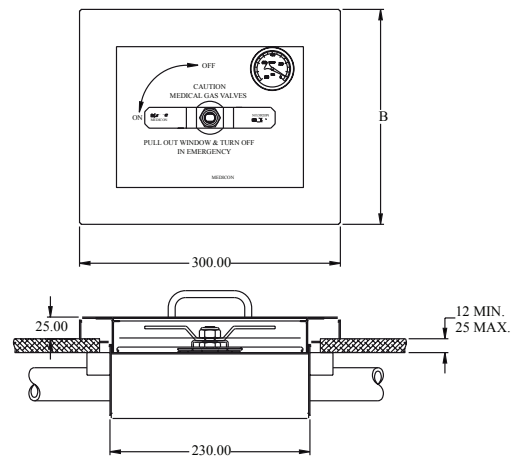
### Medical Gas Line Valves (Lockable)

PART NO.	DESCRIPTION
MGLV13	In-Line Valve with 12.7 OD x 0.91 AS1432 Type B Tail Pipes
MGLV19	In-Line Valve with 19.05OD x 0.91 AS1432 Type B Tail Pipes
MGLV25	In-Line Valve with 25.4 OD x 1.22 AS1432 Type B Tail Pipes
MGLV32	In-Line Valve with 31.75 OD x 1.22 AS1432 Type B Tail Pipes
MGLV38	In-Line Valve with 38.1 OD x 1.22 AS1432 Type B Tail Pipes
MGLV51	In-Line Valve with 50.8 OD x 1.22 AS1432 Type B Tail Pipes
MGLV15	In-Line Valve with 15 OD x 0.7 BSEN1057 Table X Tail Pipes
MGLV22	In-Line Valve with 22 OD x 0.9 BSEN1057 Table X Tail Pipes
MGLV28	In-Line Valve with 28 OD x 0.9 BSEN1057 Table X Tail Pipes
MGLV35	In-Line Valve with 35 OD x 1.2 BSEN1057 Table X Tail Pipes
MGLV42	In-Line Valve with 42 OD x 1.2 BSEN1057 Table X Tail Pipes
MGLV54	In-Line Valve with 54 OD x 1.2 BSEN1057 Table X Tail Pipes

### Rear Panel Detail



### Front Panel Detail



### Valve Unit Spare Parts

PART NO.	DESCRIPTION
Z29A011	Gauge - Negative Pressure (0-100 kPa)
Z29A009	Gauge - Positive Pressure (0-800 kPa)
Z29A010	Gauge - Positive Pressure (0-2500 kPa)
Z06C001	Positive - Pressure Switch (100-1000 kPa)
Z06C065	Positive - Pressure Switch (Tool Gas)
Z06C002	Negative - Pressure Switch (-20 to -100 kPa)
Z12D008	Pressure Switch PC Monitor Board
IDLGFLL	Engraved Gas I.D. Label (front loaded)

Options: 1/8" BSP Female Take Off (T0 for 1, T02 for 2) Price per Take off Micro Switch to signal ON or OFF (MS) with Mounting Feet (MF).



## Medical gas terminal units

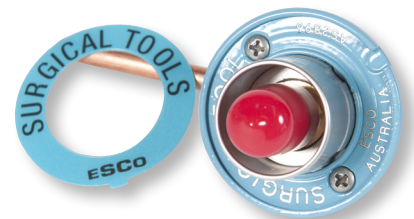
If you need to supply medical gases, suction or air to equipment, our range of Medicon speciality gas outlets to suit all vital gas applications. Designed to meet the strictest medical standards, gas outlets are suitable for all modern medical applications, facilities or requirements.

All ESCO medical gas outlets comply to AS2896 in respect to connection detail and performance. Our complete range includes the following:

- MGOA - Medical Air Self Sealing Outlet
- MGOO - Oxygen Self Sealing Outlet
- MGONO - Nitrous Oxide Self Sealing Outlet
- MGOST - Surgical Tool Self Sealing Outlet
- MGOPS - Pump Suction Self Sealing Outlet
- MGOPGS - Pump-Gas Scavenge Outlet
- MGOVS - Venturi Suction Outlet \*
- MGOVGS - Venturi-Gas Scavenge Outlet \*
- MGOCD - Carbon Dioxide Self Sealing Outlet \*
- MGOENT - Entonox Self Sealing Outlet \*
- MGO CAB - Carbogen Self Sealing Outlet \*
- MGOTQ - Tourniquet outlet  $\frac{3}{8}$ " BSP/F Connection \*
- MGOCAV - Clean Air Outlet  $\frac{3}{8}$ " BSP/F Connection & Control Valve
- MGOLG - Lab Gas Outlet  $\frac{1}{4}$ " NPT/F Connection \*\*
- MGOLGV - Lab Gas Outlet  $\frac{3}{8}$ " BSP/F Connection & Control Valve \*\*

\* Made to order only

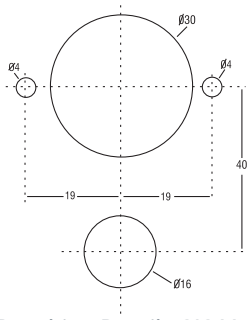
\* Gas type to be nominated when ordering



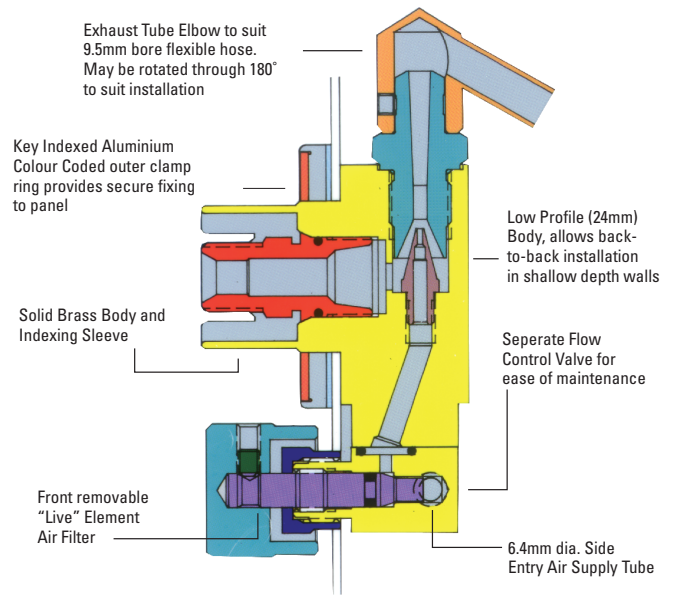
MMS001

# Technical Specifications & Spare Parts Description

## Venturi Operated Suction & Scavenge Outlet



Panel Punching Detail - SIS Venturi  
Maximum Panel Thickness - 2mm



MGOPGS - Pump Gas Scavenge this outlet which is connected to a central vacuum pump system, complies with the connection and performance standards requirements of AS2896. The Flow rate may be controlled by an inbuilt needle valve.

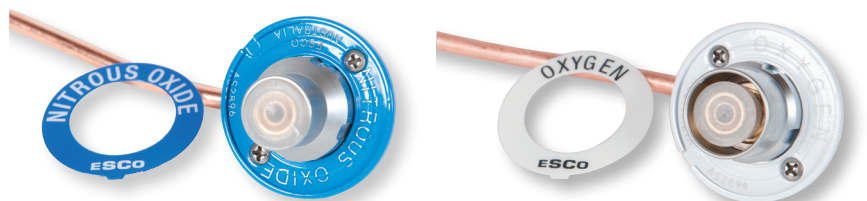
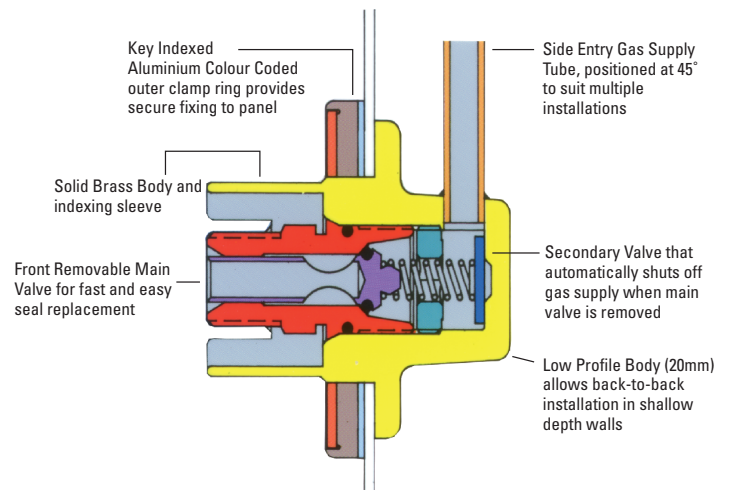
## SIS Fittings

ESCO Medicon gas terminal fittings comply with AS2896 in respect to connection detail and performance. Each unit features a driving gas filter, that can be cleaned without removal of the mounting panel or gas pressure.

In the event of drainage and fluids entering the outlet. The section requiring cleaning may be detached from the incoming gas supply without having to shut-off the supply.

### Standard features includes;

- Unique hose Sleeve Indexing System (SIS) to identify gas type accepting all SIS type gas connections, hoses & leads
- AS2896 compliant to meet exacting medical gas requirements
- Simple cleaning & serviceability procedure
- Spare parts available for replacement (if required)
- Suits all SIS hose fittings & connectors
- Available as individual outlets, or to suit plates, medical service panels, ducts & pendants
- Proven use & specified all over the country

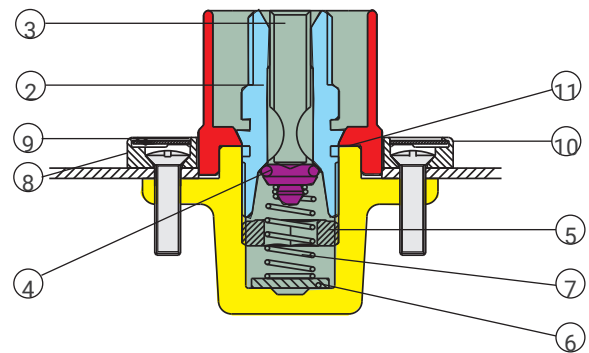


## Medical Gas Terminal Units (SIS Type) - Spare Parts

To carry out the following procedures it is necessary to use specific tools which are available as a set for ESCO - Catalogue number **MGSK**, as well as the Spare Parts Repair Kit **MGSK-2**

### TO CLEAN OUTLET AND REPLACE MAIN VALVE SEAL PROCEED AS FOLLOWS

- a. Remove threaded nipple assembly (item 2) by turning anti-clockwise using special 13mm socket spanner.
- b. On Oxygen, Air, Nitrous Oxide and Surgical Tool outlets secondary valve (item 6) will automatically shut off the gas supply.
- c. Purge the rubbish that may have accumulated in valve or supply pipeline by depressing the secondary valve (item 6) with a small probe. Caution - care should be taken during the operation to avoid eye damage.
- d. Remove the main valve (item 3) from threaded nipple (item 2) and examine this 'O' ring seal (item 4) for damage or deterioration. **Note** - it is fairly common after installation of a pipeline system for copper pipe filings to become embedded in this 'O' ring which should be replaced to prevent leakage.
- e. After cleaning the valve seat, check 'O' ring seal on nipple (item 11) for any damage, then reassemble the unit.



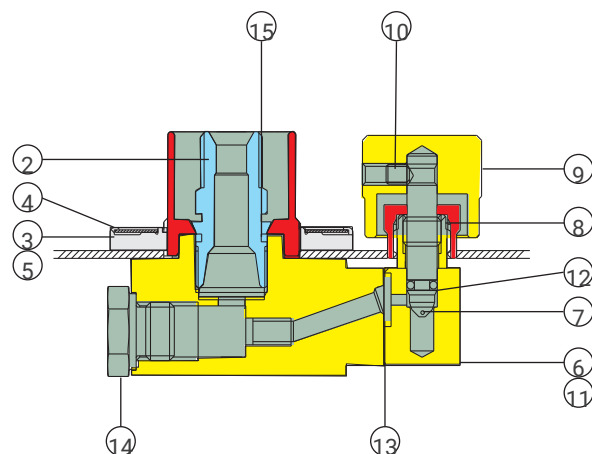
- |                     |                    |
|---------------------|--------------------|
| 2 - Threaded Nipple | 7 - Valve Spring   |
| 3 - Main Valve      | 8 - Retaining Ring |
| 4 - 'O' Ring Seal   | 9 - Name Plate     |
| 5 - Valve Seal      | 10 - Screw (2 off) |
| 6 - Secondary Valve | 11 - 'O' Ring Seal |

## (SIS Type) Suction Pump Operated Terminal Units - Spare Parts

Anaesthetic Gas Cat Number **MGOPGS** (Scavenge Pump)

While virtually no maintenance is required on this valve, disassembly of needle valve may be carried out as follows

- a. Needle Valve Inspection
- b. Remove needle valve knob (item 9) and retaining nut (item 8). Unscrew needle valve (item 7) and examine the 'O' ring (item 12) for damage or deterioration.
- c. Clean Valve of any foreign matter and reassemble.



- |                       |                        |
|-----------------------|------------------------|
| 2 - Threaded Nipple   | 9 - Knob               |
| 3 - Retaining Ring    | 10 - Grub Screw        |
| 4 - Name Plate        | 11 - Cap Screw (2 off) |
| 5 - Screw (2 off)     | 12 - 'O' Ring Seal     |
| 6 - Needle Valve Body | 13 - 'O' Ring Seal     |
| 7 - Needle Valve      | 14 - Outlet Plug       |
| 8 - Retaining Nut     | 15 - 'O' Ring Seal     |

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## ESCO MEDICON

ESCO Medicon is an internationally recognised market leader in the design and manufacture of Medical Gas Terminal fittings, Medical Services Panels and products for use in modern Healthcare, Hospital Day Surgeries, Doctors Rooms, Clinics and Veterinary Surgeries. ESCO also specialise in Electronic Protection devices including RCD's, Alarms, AVAM's, LIOM's, Transformers and UPS Status Indicators for use in vital areas.

ESCO also offers various speciality products, finishes and options to suit any modern facility design requirements.

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industries

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