

# All about



## CO<sub>2</sub> Cylinder Manifolds



Besides CO2 Cylinder Manifolds we also manufacture and supply:

- Automatic CO2 Production Plants
- CO2 Stack Gas Recovery Plants
- CO2 Gas Recovery Systems for Dry Ice Machines
- Dry Ice Slices/Block/Pelletizer Machines
- Dry Ice Blasting Systems ASCOJET
- Cryogenic and CO2 Static and Transportable Tanks
- CO2 Pumps and Cylinder Filling Systems
- CO2 Atmospheric Vaporisers
- CO2 Detectors
- CO2 Flowmeters
- Low to Low Pressure CO2 Transfer Pumps
- CO2 Testing Equipment (Dew Point / Purity / Carbonation)
- Ancillary CO2 Equipment

For continuous CO2 gas supply with the following advantages:

- High quality
- Accurate and constant gas flow
- Safe operation
- Easy installation
- Low cost investment

Ask us for further details and offer:

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**ASCO CO2 Cylinder Manifold System consists of:**



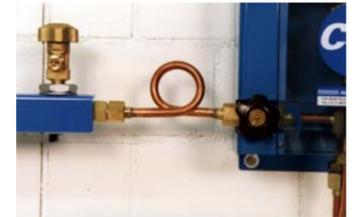
ASCO CO2 cylinder manifold for 5 cylinders

Approx. continuous hourly gas withdrawal rate when using 30 kg CO2 cylinders:

size of manifold	hourly capacity with 50 % of cylinders in use	hourly capacity if all cylinders are in use
2 x 5 CO2 cylinders	15 kg/h	30 kg/h
2 x 10 CO2 cylinders	30 kg/h	60 kg/h
2 x 20 CO2 cylinders	60 kg/h	120 kg/h
2 x 30 CO2 cylinders	90 kg/h	180 kg/h

**High pressure copper connecting pipe**

Diameter 3 x 13 mm, to connect two or more manifolds with the reducing valve RV100.  
Diameter 21.7 x 14G/1" female connections.  
Length 360 mm



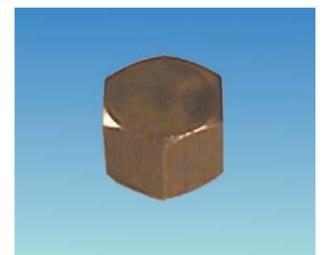
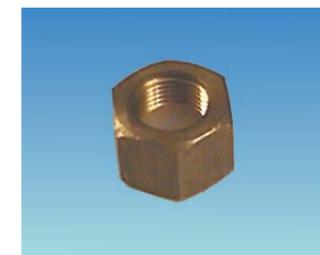
**High pressure copper connecting pipe**

Diameter 4 x 7 mm, to connect the cylinder to the manifold.  
Diameter 21.7 x 14G/1" female connections on the manifold and cylinder side.  
Length 1100 mm



**End plug**

In order to close unused connections on cylinder manifold.



## Connection pipes, valves and plugs for ASCO CO2 cylinder manifolds

### Cylinder Manifold

With all connections and valves



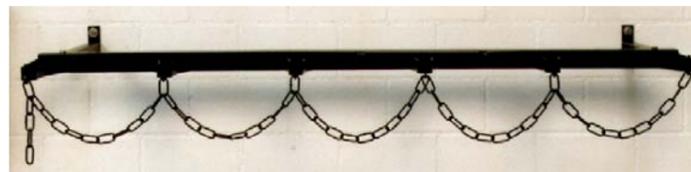
### Right angle valve

Used on the manifolds



### Cylinder support rack

Each suited for 5 cylinders. Protects cylinders with an external diameter of up to 229 mm from accidental falls. Painted in black, complete with support for mounting to the wall.



Po-s.	Description	Features
A	Reducing valve	To reduce the maximum inlet pressure of 200 bar to a maximum outlet pressure of 15 bar. Outlet pressures adjustable.
B	Preheater	For larger hourly CO2 flow rates.
C	Manifold	Works as collector of the CO2 gas coming from the CO2 cylinders.
D	High pressure connecting pipe	As connection between the pressure reducing valve and the manifold or, to connect two or more manifolds together. Diameter: 3 x 13 mm, 21.7 x 14f1" threaded right-hand female connection. Length: 360 mm
E	End plug	Needed to close the manifold on one end.
F	High pressure cylinder connecting pipe	To connect the right-angle valve of the manifold with the cylinder. Diameter: 4 x 7 mm, 21.7 x 14f1" threaded right-hand female connections on the manifold and cylinder side. Length: 1100 mm
G	Right angle valve	Brass connection valve with a 21.7 x 14f1" diameter threaded right-hand male fitting. For mounting onto the manifolds.
H	Cylinder support rack	Protects cylinders from accidental falls. Painted in black, complete with support for mounting to the wall.

### Important:

When choosing the size of the manifold it is important to remember the following rule:

From each standard cylinder (without syphon tube) approx. 10 % of its max. CO2 content can be withdrawn as gas every hour (based on an ambient temperature of approx. 20°C. With higher temperatures a higher withdrawal rate is possible). Higher hourly withdrawals may result in freezing of the cylinders.

## Complete systems with pressure reducing valve and cylinder support racks

Standard **ASCO** CO2 cylinder manifold systems consist of the following but naturally any size requested can be supplied:

### I. Complete 2 x 10 CO2 cylinder manifold comprises:

- 4 pcs cylinder manifolds for 5 cylinders each (C/G)
- 20 pcs high pressure copper pipe coils (F)
- 4 pcs high pressure copper pipe coils (D)
- 2 pcs end plugs (E)
- 1 pce CO2 reducing valve station type RV100PH with preheater (A/B)
- 4 pcs cylinder support racks for 5 cylinders each (H)

### II. Complete 2 x 20 CO2 cylinder manifold comprises:

- 8 pcs cylinder manifolds for 5 cylinders each (C/G)
- 40 pcs high pressure copper pipe coils (F)
- 8 pcs high pressure copper pipe coils (D)
- 2 pcs end plugs (E)
- 1 pce CO2 reducing valve station type RV100PH with preheater (A/B)
- 8 pcs cylinder support racks for 5 cylinders each (H)

### III. Complete 2 x 30 CO2 cylinder manifold comprises:

- 12 pcs cylinder manifolds for 5 cylinders each (C/G)
- 60 pcs high pressure copper pipe coils (F)
- 12 pcs high pressure copper pipe coils (D)
- 2 pcs end plugs (E)
- 1 pce CO2 reducing valve station type RV100PH with preheater (A/B)
- 12 pcs cylinder support racks for 5 cylinders each (H)

### IV. Complete 2 x 40 CO2 cylinder manifold comprises:

- 16 pcs cylinder manifolds for 5 cylinders each (C/G)
- 80 pcs high pressure copper pipe coils (F)
- 16 pcs high pressure copper pipe coils (D)
- 2 pcs end plugs (E)
- 1 pce CO2 reducing valve station type RV100PH with preheater (A/B)
- 16 pcs cylinder support racks for 5 cylinders each (H)

## Reducing valve systems type RV100PH (with preheater) and RV100 (without preheater)



Reducing valve system type RV100

Maximum inlet pressure: 200 bar      Maximum outlet (operating) pressure: 15 bar

#### Features:

- sheet metal board (size 535 x 310 mm) complete with support for mounting to the wall
- reducing valve complete with inlet filter, outlet valve (G 3/4"), high and low pressure gauges, over-pressure safety valve
- shut-off valves for manifolds (two inlets)

Maximum CO2 gas output per hour at various outlet pressures:

Type	at 5 bar	at 10 bar	at 15 bar
RV100PH with preheater	120 kg/h	200 kg/h	270 kg/h
RV100 without preheater	60 kg/h	100 kg/h	135 kg/h



Preheater



Coil inside of preheater