

# PCO<sub>2</sub> – MD2

## Carbon Dioxide Polishers

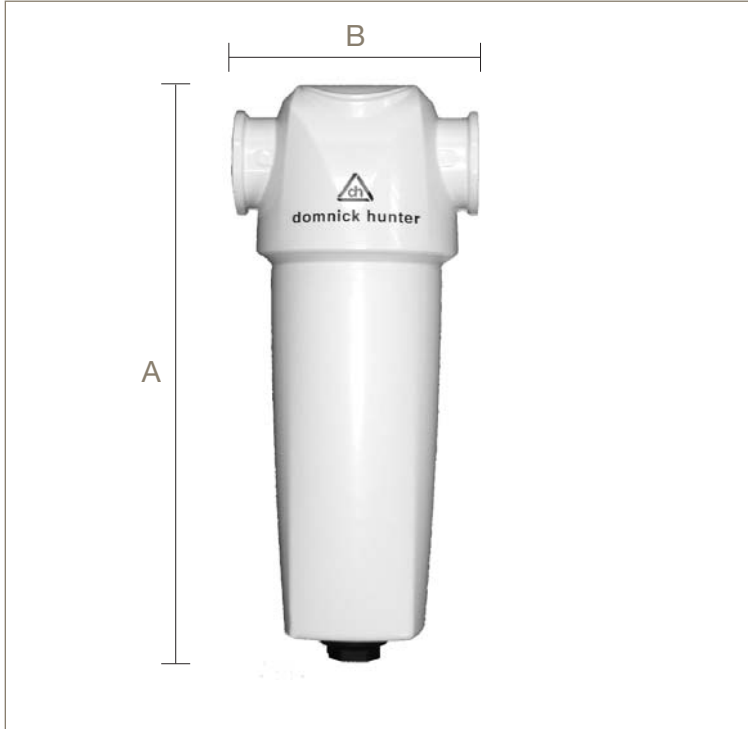
for the Beverage Retail Dispense Industry

In response to increased awareness of the impact on beverage characteristics that potential CO<sub>2</sub> impurities can have, domnick hunter has developed a range of PCO<sub>2</sub> carbon dioxide purifiers for the retail dispense industry. Acting as vapour polishers, these are designed to bring ‘out of specification’ gas back to within beverage quality guidelines.

The PCO<sub>2</sub> systems are designed to offer in-line quality incident protection against peak levels of trace contaminants that may occasionally be present in retail dispense beverage grade carbon dioxide. Potential CO<sub>2</sub> impurities may be residual contaminants carried over from the feed source or could be introduced into the bulk liquid CO<sub>2</sub> or gas cylinders from the distribution system. In either case, the domnick hunter PCO<sub>2</sub> system offers added insurance against potential contamination of the beverage, thus avoiding potential costly product spoilage and consumer dissatisfaction.

### Benefits

- As recommended in the ISBT fountain CO<sub>2</sub> quality guideline
- Added CO<sub>2</sub> security for retail dispense outlets
- System designed specifically for the retail dispense industry
- FDA approved



### Specification

Maximum Flow Capacity	2.5	kg/h
Operating Pressure	Max.	20.7 bar g
Nominal		8.6 bar g
Operating Temperature	Max.	40°C
	Min.	1.5°C
Inlet / Outlet Connections	3/8"	BSPT/NPT
Dimensions	A	235mm
	B	98mm
Weight (approx.)	1.0	kg



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# Product Selection

## Performance

During its life the MD 2 is designed to cope with a total contaminated inlet volume of CO<sub>2</sub> with up to 10 times the levels specified in Table 1. Particle removal down to 1 micron.

## Service Life

The in-service life of the MD 2 when used in accordance with the performance specification is 6 months from date of installation.

## Packaging

The MD 2 units will be supplied in a box, the adsorption element being vacuum-sealed in low permeability, laminated plastic film and individually packed within the box. Each boxed unit shall contain a pressure housing, adsorption element, user guide and be labelled with the model, part number, date of manufacture and install by date.

TABLE 1		
<b>Carbon Dioxide</b>	99%	v/v minimum
<b>Total Volatile Hydrocarbons (VOC's) &gt;C4</b>	20	ppmv (measured as methane)
<b>To include</b>		
<b>Aromatic Hydrocarbons</b>	0.02	ppmv
<b>Cyclic Hydrocarbons</b>	0.02	ppmv
<b>Acetaldehyde</b>	0.2	ppmv
<b>Alcohols</b>	10	ppmv
<b>Other Oxygenates</b>	0.02	ppmv
<b>Carbonyl Sulphide</b>	0.1	ppmv
<b>Hydrogen Sulphide</b>	0.1	ppmv
<b>Moisture</b>	20	ppmv

## Storage Conditions

The MD 2 unit should be stored in a clean, dry environment out of direct sunlight. The ambient temperatures should be between 1.5°C and 40°C. The sealed packaging should be checked as being intact before opening for use to verify that ingress of

contamination from the environment had not occurred. The MD 2 may be stored in its original packaging for 12 months. When installed at any time within this period it will perform as per this specification. However, after this period, its performance cannot be guaranteed.

## Materials of Construction

All materials have been approved for food grade applications to FDA Code of Federal Regulations, Title 21

<b>Housing</b>	<b>Pressure die cast Aluminium</b>
<b>Pressure Release Plug</b>	<b>PA 66 (30% Glass Filled Nylon)</b>
<b>Sealing O-Rings</b>	<b>High Nitrile</b>
<b>Lubricant</b>	<b>Molycote 111</b>
<b>Paint</b>	<b>All external surfaces epoxy powder coated</b>
<b>Adsorption Element Casing</b>	<b>Food Grade Polypropylene</b>
<b>Adsorbants</b>	<b>Dryfil ® Mixed bed *</b>
	<b>(* MSDS available on request)</b>

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Parker Hannifin Ltd  
domnick hunter division  
Dukesway, Team Valley Trading Estate  
Gateshead, Tyne and Wear  
England NE11 0PZ  
Tel: +44 (0)191 402 9000  
Fax: +44 (0)191 482 6296  
www.domnickhunter.com

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