

# MD 2

## Product Specification



### Product Description

The MD 2 PCO<sub>2</sub> unit is designed as a Quality Incident Protection Device for point-of-use Carbon Dioxide gas supplies used for beverage dispense applications. It is designed for installation either in a cellar or “under-the counter” at the retail outlet.

Definition of ‘Quality Incident’: -  
A Quality Incident is defined as gas delivered to the point-of-use location with contamination levels exceeding the specification in *Table 1*.



### Performance

During its life the MD 2 is designed to cope with a total contaminated inlet volume of 110 kg of CO<sub>2</sub> with up to 2 times the levels specified in *Table 1*. Particle removal down to 1 micron. (Calculated at Normal Working Pressure of 8.6 Bar g)

Table 1

Purity 99.9% v/v min.	99.9% v/v minimum
Moisture (H <sub>2</sub> O)	20 ppm v/v max.
Oxygen (O <sub>2</sub> )	30 ppm v/v max.
Nitrogen Monoxide (NO)	2.5 ppm v/v max.
Nitrogen Dioxide (NO <sub>2</sub> )	2.5 ppm v/v max.
Methanol (MeOH)	10 ppm v/v max.
Total Volatile Hydrocarbons (THC as methane)	50 ppm v/v max. (including 20 ppm v/v max. as "Total Non-Methane Hydrocarbons" [TNMHC])
Acetaldehyde (AA)	0.2 ppm v/v max.
Aromatic Hydrocarbon (AHC)	20 ppb v/v max.
Total Sulfur Content (TSC as S) (total sulphur-containing impurities excluding sulfur dioxide)	0.1 ppm v/v max.
Sulfur Dioxide (SO <sub>2</sub> )	1 ppm v/v max.

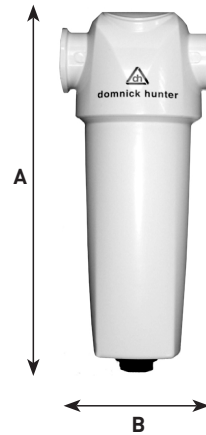
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Maximum Flow Capacity	1.08 kg/h*
Maximum Working Pressure	20.7 bar g
Normal Working Pressure	8.6 bar g
Operating Temperature Max.	40 °C Min. 1.5 °C
Inlet / Outlet Connections	3/8" BSPP / NPT
Dimensions	A 235 mm B 98 mm
Weight (approx.)	1.0 kg

\* Calculated at Normal Working Pressure



### Materials of Construction

All materials have been approved for food grade applications to FDA Code of Federal Regulations.

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

(\* MSDS available on request)

### 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.

### 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.