



domnick hunter

**Breathing and Medical Air Packages**

**Complies with European  
Pharmacopoeia & International  
Breathing Air Standards**

# Compressed Air 1,000,000 times cleaner

## Breathe easier with domnick hunter

As a filtration specialist with over 35 years experience and expertise in the compressed air purification industry, domnick hunter is a logical and reliable source for a wide range of breathing air products.

domnick hunter breathing air systems are in constant use throughout the world, protecting lives in virtually every type of industry.

The BA DME/M breathing air range is specifically designed for stationary applications in factories, hospitals etc, where quality breathing air is mandatory.

### Typical applications

- Hospitals
- Spray painting
- Shot blasting
- Pharmaceutical manufacture
- Petrochemical refineries
- Tunnelling
- Asbestos removal

### Features / Benefits

- Integrated solution that has been designed/tested to meet international air quality standards
- A large range of standard sizes to suit any requirement
- Flow capacities up to 800 cfm (1360 m<sup>3</sup>/hr)
- Up to 80% of compressed air dryer energy can be saved with Dewpoint Dependent Switching (optional)
- Duplex option for duty/standby installations



BAM-106

### International Breathing Air Standards

Item	European	UK	USA	CANADA	Australia	New Zealand	domnick hunter BA DME/M Packages
	EN 12021	BS4275	ANSI/CGA	Z1801.1-00	AS 2299	NZS 5813	
Nitrogen (N <sub>2</sub> )				78 - 80%			
Oxygen (O <sub>2</sub> )	21% (+/- 1%)	20 - 23%	21% (+/- 2%)	20 - 22%		21% (+/- 2%)	
Carbon Dioxide (CO <sub>2</sub> )	<500 ppm	<500 ppm	<1000 ppm	<500 ppm	<900 mg/m <sup>3</sup>	<900 mg/m <sup>3</sup>	<300 ppm
Carbon Monoxide (CO)	<15 ppm	<5 ppm	<20 ppm	<5 ppm	<10 ppm	<10 ppm	<5 ppm
Oil mist	0.5 mg/m <sup>3</sup>	0.5 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>	1 mg/m <sup>3</sup>	1 mg/m <sup>3</sup>	1 mg/m <sup>3</sup>	0.003 mg/m <sup>3</sup>
Pressure dewpoint	5°C below lowest temp	5°C below lowest temp		5°C below lowest temp	100 mg/m <sup>3</sup>	100 mg/m <sup>3</sup>	-40°C pressure dewpoint
Odour and Taste	Free	Free	Free	Free	Free	Free	Free
Volatile Hydrocarbons				<5 ppm halogenated & non-methane			
Methane (CH <sub>4</sub> )				<10 ppm			

# ner than the air we normally breathe

## Hospital / Medical Quality Air

A clean air supply is regarded as a vital part of every hospital infrastructure. Compressed air can be used for a wide variety of applications, such as anaesthetics, lung ventilation, intensive therapy, pneumatic surgery tools, nebulisers, and many more, where the quality of the air is vitally important.

It is therefore not surprising that the European Union has recently issued a document in which air for

medical use is listed as a medicine and the document further details exacting quality standards to which the air supply must comply.

Medical air is one of few medicines that is manufactured on-site at the hospital. Its preparation, therefore, needs to be given close attention.

domnick hunter BA DME/M breathing air packages provide an integrated solution of filtration and adsorption stages to provide the quality of air stipulated by the European Pharmacopoeia.

## The European Pharmacopoeia

Contaminant	European Pharmacopoeia	domnick hunter BA DME/M range*
Water	60 ppm (= -47°C atmospheric dewpoint)	16 ppm (= -57°C atmospheric dewpoint)
Oil/lubricant	0.1 mg/m <sup>3</sup>	0.003 mg/m <sup>3</sup>
Carbon Dioxide (CO <sub>2</sub> )	< 500 ppm	< 300 ppm
Carbon Monoxide (CO)	< 5 ppm	< 5 ppm
Nitrogen Oxides (NO + NO <sub>2</sub> )	< 2 ppm	< 2 ppm
Sulphur Dioxide (SO <sub>2</sub> )	< 1 ppm	< 1 ppm



Typical BA-DME050  
Duplex Medical Air Installation

\*Independently tested for  
domnick hunter by:-

**PATTINSON**  
SCIENTIFIC SERVICES

## How the BA DME/M packages work

The BA DME/M packages consist of several stages of contaminant removal. At the pre-filtration stage, the WS water separator removes bulk water from the system which is followed by a high efficiency filter to reduce the oil and water content down to 0.01 mg/m<sup>3</sup>, or 0.01 ppm. Particles down to 0.01 micron will also be removed. The third stage consists of activated carbon that adsorbs all odours and oil vapour, removing these from the air. All of these stages are designed for maximum efficiency and minimum operating costs.

An adsorption dryer stage reduces the water vapour in the air down to a pressure dewpoint of -40°C. This stage will also maintain levels of CO<sub>2</sub> and NO + NO<sub>2</sub> below the legally allowed limits.

At the outlet of the adsorption dryer, a catalyst will remove CO to levels well below the safety limit, after which a final dust filter captures any particulates carried over from the adsorption materials.

domnick hunter can provide a total solution for medical compressed air applications



### Sterile Air Filtration

domnick hunter stainless steel sterile air filters remove bacteria to ensure biological security.

### Medical Vacuum Filters

domnick hunter medical vacuum filters remove bacteria and other contamination from the suction side of the vacuum pump, preventing infection of the pump and the atmosphere, as well as protecting the pump from particulate contamination and subsequent breakdown. The filter has been designed to meet the requirements of HTM2022.



# Technical Specifications

Model	*Flow Rate @ 7 bar g (102 psi g)			Dimensions in mm			Pipe Connections		Weight Kg
	cfm	L/s	m <sup>3</sup> /hr	height	Width	Depth	Inlet	Outlet	
BA-DME012	24	11	40	1045	476	302	1/2"	3/8"	38
BA-DME015	32	15	53	1211	490	302	1/2"	3/4"	43
BA-DME020	42	19	70	1376	490	302	1/2"	3/4"	48
BA-DME025	53	25	90	1541	490	302	1/2"	3/4"	53
BA-DME030	65	31	110	1707	521	302	1/2"	3/4"	58
BA-DME040	88	40	144	1960	513	447	3/4"	3/4"	74
BA-DME050	106	50	179	1750	400	1200	1"	1"	211
BA-DME060	130	61	220	1916	400	1200	1"	1"	224
BA-DME080	176	80	288	2076	745	1200	1"	1"	279
BAM102	160	76	272	1780	912	1352	1 1/2"	2	444
BAM103	240	113	408	1780	912	1352	1 1/2"	2	489
BAM104	320	151	544	1780	912	1462	2"	2	561
BAM105	400	189	680	1780	912	1562	2"	2	598
BAM106	480	227	816	1780	912	1800	2"	2 1/2"	689
BAM107	560	264	951	1780	912	1900	2"	2 1/2"	746
BAM108	640	302	1087	1780	912	2000	2"	2 1/2"	829
BAM110	800	378	1359	1780	912	2200	2 1/2"	2 1/2"	1009

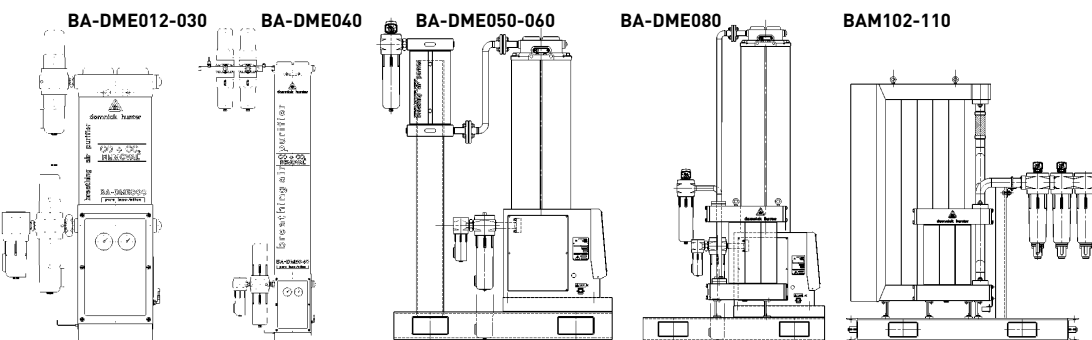
<b>Maximum Operating Pressure:</b>	BA-DME050-080 13 bar g (189 psi g) BA-DME012-040 16 bar g (232 psi g) BA M102-110 10.5 bar g (152 psi g)	<b>Maximum Recommended Inlet Temperature:</b> 30°C (86°F) <b>Maximum Inlet Temperature:</b> 50°C (122°F) <b>Minimum Inlet Temperature:</b> 5°C (41°F)
<b>Minimum Operating Pressure:</b>	4 bar g (58 psi g)	<b>Standard electrical supply options:</b> 110V, 230Vac/1ph/50-60Hz

\* Referenced to 20°C (68°F) and 1 bar a (14.5 psi a).

Air quality can only be certified if the unit is installed, operated and maintained in accordance with the instructions provided.

For flow rates at other pressures, apply the factor shown:

Line	bar g	4	5	6	7	8	9	10	11	12	13
<b>Pressure</b>	psi g	58	73	87	102	116	131	145	160	174	189
<b>Correction Factor (CFP)</b>		0.63	0.75	0.88	1.0	1.13	1.25	1.38	1.5	1.63	1.75



dh, and domnick hunter, are registered trademarks of domnick hunter limited.

domnick hunter limited has a continuous policy of product development and although the Company reserves the right to change specifications, it attempts to keep customers informed of any alterations. This publication is for general information only and customers are requested to contact our Industrial Division Sales Department for detailed information and advice on a products suitability for specific applications. All products are sold subject to the Company's standard conditions of sale.



[www.domnickhunter.com](http://www.domnickhunter.com)

a member of the domnick hunter group plc



**domnick hunter limited**  
 Dukeway, Team Valley Trading Estate,  
 Gateshead, Tyne and Wear,  
 England NE11 0PZ  
 Tel: +44 (0)191 402 9000  
 Telefax: +44 (0)191 482 6296  
<http://www.domnickhunter.com>

**domnick hunter Pty Ltd**  
 Tel: +61 (0)3 9762 9922  
 Telefax: +61 (0)3 9762 9911

**hb-domnick hunter equipamentos ltda**  
 Tel: +55 (0)11 3766 3977  
 Telefax: +55 (0)11 3768 1421

**domnick hunter Canada inc**  
 Tel: (905) 820-7146  
 Telefax: (905) 820-5463  
**Toll Free: 1-888-342-2623**

**domnick hunter China**  
 Tel: +86 10 646 33523  
 Telefax: +86 10 646 33521

**domnick hunter Skandinavien A/S**  
 Tel: +45 47 38 0644  
 Telefax: +45 47 38 0643

**domnick hunter France S.A.**  
 Tel: +33 4 74 62 34 51  
 Telefax: +33 4 74 62 35 44

**domnick hunter gmbh**  
 Tel: +49 (0) 2154 4810-0  
 Telefax: +49 (0) 2154 481010

**domnick hunter Group Benelux B.V**  
 Tel: +31 (0) 165 527 127  
 Telefax: +31 (0) 165 394 461

**domnick hunter India Pvt Ltd**  
 Tel: +91 11 616 6304  
 Telefax: +91 11 618 5279

**P.T. domnick hunter Indonesia**  
 Tel: +62 21 458 40488  
 Telefax: +62 21 452 4323

**domnick hunter Nihon**  
 Tel: +81 (0)78 304 5351  
 Telefax: +81 (0)78 304 5352

**domnick hunter Malaysia Compressed Air Treatment Sdn Bhd**  
 Tel: +60 3 8024 3163  
 Telefax: +60 3 8024 3162

**domnick hunter group Polska**  
 Tel: +48 22 7230367  
 Telefax: +48 22 7230368

**domnick hunter group Pte Ltd**  
 Tel: +65 744 4088  
 Telefax: +65 744 9959

**domnick hunter Iberica**  
 Tel: +34 93 572 0050  
 Telefax: +34 93 572 1585

**domnick hunter SweTec AB**  
 Tel: +46 (0)31 748 0610  
 Telefax: +46 (0)31 748 0621

**domnick hunter - RL (Thailand) Co. Ltd**  
 Tel: +66 2 255 5305  
 Telefax: +66 2 255 5340

**domnick hunter inc**  
 Tel: +1 (704) 921 9303  
 Telefax: +1 (704) 921 1960  
**Toll Free: 1-800-345-8462**

