

Regenerative breathing air

Air Pack 2000 - Protection from airborne contaminants

The availability of filtered air is essential for personnel safety in potentially hazardous environments such as spray painting and fuel tank cleaning.

The long life regenerative breathing air range from Parker domnick hunter incorporates proven filtration technology to give high quality air that is free from particulate dusts, vapours, odours, carbon dioxide (CO₂) and carbon monoxide (CO).

Parker domnick hunter has over 40 years experience in compressed air treatment and has provided Royal Air Force and Army units with breathing air solutions for many years.



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Benefits:

- Highest quality breathing air
- Meets international breathing air standards including BS4275:1997
- Compatible with personal protective equipment (masks, hoses, visors)
- Easily adjustable flowrate
- Operates from a compressed air line – no reliance on air bottles or liquid oxygen systems
- Pneumatic operation
- CO and CO₂ reduction
- Visual and audible warnings of system failure
- Hours run meter fitted as standard
- Proven and in-service

Technical Data

Delivered Air Quality

Particulate removal down to	0.01 micron
Maximum remaining oil content	0.003 mg/m ³ (0.003 ppm/wt)
Carbon dioxide	<500 ppm
Carbon monoxide	<5 ppm

Weights and Dimensions

Height		Width		Depth		Weight	
mm	ins	mm	ins	mm	ins	kg	lbs
610	24.0	450	17.7	270	10.6	37	81.4

Breathing Air Standards

Country	International Standard
Europe	EN12021
UK	BS4275 : 1997
USA	CGA G7.1-1997 OSHA-Grade D
Canada	Z180.1-00
Australia	AS ZS 1715 : 1994
New Zealand	AS/NZS 1715 : 1994

Normal Operation

Flowrate @ 7 bar g (100 psi g)	41 m ³ /hr (inlet) 32 m ³ /hr (outlet)
Connections	G ¹ / ₂ " (inlet) 3 x G ¹ / ₄ " (outlet)
Maximum operating pressure	10 bar g (145 psi g)
Minimum operating pressure	4 bar g (58 psi g)
Maximum inlet temperature	30°C (86°F)
Minimum inlet temperature	5°C (41°F)

Peak Inhalation Rates

Typical peak inhalation rates for fit young persons for various work rates are shown below. Higher inhalation rates may be generated by less fit or heavier users or for wearers of heavy personal protective equipment.

Work Rate	Peak Inhalation Rate		
	m ³ /hr	l/min	cfm
Low	6.1	100	3.6
Medium	9.0	150	5.3
High	12.1	200	7.1
Very High	15.1	250	8.9

Source BS4275 : 1997.

Operation – AIRPACK 2000

Stage 1

A high efficiency coalescing filter removes oil/water aerosols down to 0.01 mg/m³ at 21°C and dirt particulate down to 0.01 micron.

An automatic drain removes any condensate present.

Stage 2

Any remaining oil vapour (down to 0.003 mg/m³ at 21°C) is removed by an activated carbon filter.

Stage 3

A regenerative desiccant dryer removes water vapour and maintains a constant pressure dewpoint performance by utilising the pressure swing adsorption principle that is controlled by a pneumatically operated cam timer.

The dryer also reduces any carbon dioxide present to less than 500ppm.

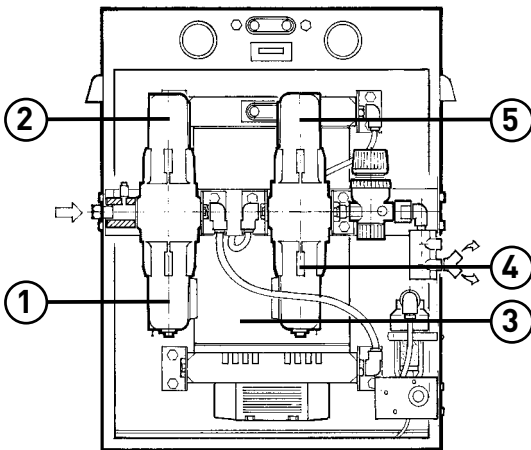
Stage 4

The fourth stage is a catalytic conversion unit which reduces any carbon monoxide present to less than 5 ppm.

Stage 5

A final filter removes any traces of particulate dust carried over from the fourth stage down to 0.01 micron.

A pressure regulating valve is fitted to the outlet to match the flowrate with the application requirements.



DESIGN CONFIGURATIONS OTHER THAN DESCRIBED ARE ALSO AVAILABLE. PLEASE ASK FOR DETAILS