



C420 Powered Air Purifying Respirator (PAPR)

For more than 35 years Micronel AG has been a leading Swiss manufacturer of high efficiency fans and blowers used for both, equipment cooling and personal protection applications in Industry, Civil Defence, Homeland Security, Army and Special Task Forces.

One of the top-products is the C420 Powered Air Purifying Respirator (2 filter unit), a powerful, efficient, lightweight, comfortable and solid compact unit.

It consists of a high performance radial blower, an integrated battery compartment for Lithium (LiSO₂) or rechargeable NiMH battery and two filter openings for RD40 NBC filter cartridges.

A wide range of available NBC Filter Canisters can be used. With a connection tube the unit can be applied in combination with virtually all existing gas masks currently in use.

Benefits

Improvement of safety factor (protection grade)

The Micronel C420 PAPR provides a constant, filtered airflow of between 115 and 140 l/min to the users mask thus providing users with a higher safety factor due to positive pressure in the mask.

Breathing is made considerably easier

The airflow helps prevent the users face piece from fogging and also reduces breathing effort as the powered air flow greatly reduces the additional pulmonary stress associated with negative-pressure respirators. This reduction in stress facilitates heavy work performance even under extreme climatic conditions and provides a high degree of comfort.

Easy and safe decontamination

Unlike many unsealed commercial PAPRs, the C420 can be effectively decontaminated of NBC agents and other toxic industrial chemicals. The C420 Blower is air-tight and waterproof (with the three protective port caps properly installed) and may be fully submerged for decontamination. In addition the batteries may be «hot-swapped» during use in a warm zone environment as the battery compartment is also air-tight, waterproof and decontaminable.

Characteristics

- Low weight
- Compact design
- High-quality blower unit
- Easy handling and decontamination (IP68)
- NATO approved
- Effective against all types of chemical and biological warfare agents
- Possibility for different wearing positions
- Compatible with Military or Commercial masks (NATO filter connections RD40 x 1/7")

Field of Applications

- Police forces
- Civil defence
- Chemical laboratories
- Homeland security
- Army special task forces
- Air force crew members
- Agriculture
- Escape hoods
- Casualty bags
- etc.

Technical Data

Nominal voltage: 5.2 VDC
 Expected working life of blower (MTTF): 1000 h
 Outlet (connection for hose male): RD40 x 1/7"
 Filter fixation (two female): RD 40 x 1/7"
 Filters: NBC Screwmount filters
 Fixation: 2 brackets
 Storage period: 10 years
 Airflow: 70-320 l/min [2.5-11.30 CFM]
 Pressure: 200-700 Pa
 Flow rates at typical system resistance incl. C2 filter, hose, mask, (MBL1020)

Switch pos.	1	2	3
Air Flow lt/min	70 - 90	80 - 100	90 - 110
Air Flow CFM	2.5 - 3.2	2.8 - 3.5	3.2 - 3.9

Dimensions/Weight

Width: 220 mm / 8.66 inches
 Height: 226 mm / 8.90 inches
 Thickness: 86mm / 3.39 inches
 Weight (w/o filter and battery): 675gr / 23.78oz
 Weight (incl. 2 filters and battery): ~1450gr / 51.51oz

Batteries

Standard (Lithium)

- LiSO₂ BA 5800/U
- operation time 10 hrs approx.
- Energy 38Wh
- Shelf Life 10 years
- NSN 6665-99-760-9742

Rechargeable

- NiMH
- operation time 4.5 hrs
- Energy 20Wh

Water and dust protection: IP 68
 Ambient temp.: -32 ...+49°C (-26 ...+120°F)
 EMI: MIL-STD-461C, Part 4, RE02
 Decontaminable: Completely submersible (with in and outlets closed)

Models

- Single speed version (no/off rotary switch)
- 3-Speed version (3-position rotary switch)
 NSN 4240-01-442-8415

Options

- Audio visual indication of battery condition
- External power connector 9-28 VDC
- Remote cable assembly
- 3 Additional handles for belt fixation
- 6 Threaded inserts (M5) for alternative fixation

Accessories

- Connection hose 635 mm or 850 mm
- PVC (decontaminable) or fabric waist belt
- Lithium battery BA5800U
- NiMH battery, rechargeable
- Battery charger for NiMH Batteries
- Shower cap for standard filter canister
- Remote flow indication kit

