

C500 by Micronel AG



# Clean air!

*\_ In the nuclear and pharmaceutical industries some very special conditions are placed on blowers used for personnel protection. In tandem with protective clothing, they have to stave off even the slightest contamination. If they fail, the consequences can be fatal. The C500 from Micronel ensures that it never come to this.*

## Safety first



— Spending time in surroundings exposed to radioactivity, viruses or bacteria carries enormous risks. It is nevertheless part of everyday life in the nuclear and pharmaceutical industries. It goes without saying therefore that the efficiency of breathing apparatus and protective clothing must be beyond all doubt.

— The Swiss company Micronel has developed a personal protection blower for Bacou-Dalloz (Delta Protection), the internationally renowned manufacturer and global leader in protective work clothing, that integrates perfectly into their protective suits and can also be used separately extremely well.

— With four filters and an air capacity of 600 L/min at a pressure of 600 Pa, the C500 PAPR (powered air purifying respirator) creates an ideal climate and stable positive pressure in the protective suit, producing pure, clean air for the wearer to breathe. The blower unit lies close to the wearer's back and therefore does not get in the way of whatever work needs to be done. The four PF-10 filters can be attached and, if needs be, swapped externally, while the 4 standardised RD40 threads make it possible to use all sorts of different filters, depending on the type of contamination and where the unit is being used. It goes without saying that the air line connection is also standardised to RD-52 and that the whole device conforms to protection category IP67 (immersible).

— The casing for the filter unit is developed and manufactured in Switzerland from extremely tough polyphenol oxide, with finally assembly done at Micronel's head office site in Tagelswangen. A high-end Micronel U150 radial blower with a brushless and sensorless motor provides the required build up of pressure and the necessary air volume in the protective suit.

— To ensure users' safety, Micronel has fitted the C500 blower unit with an airflow regulator. If, for instance, one of the filters gets blocked up, this automatically compensates by increasing the blower speed. The air current is measured by a impeller anemometer developed by Micronel specially for this task. Turning on sapphire bearings, the impeller generates current speed signals that are then transmitted to the blower's control system, thus guaranteeing the highest levels of precision and reliability. If the rotary speed reaches a given limit, an acoustic alarm (buzzer) is automatically triggered. If the device is to be used in different working conditions, the operating point can be corrected to suit each specific situation.

— The blower unit is equipped with an attachable rechargeable battery that is sufficient for an operating time of approx. four hours. It is also possible to connect the C500 externally to the mains.

## Technical information:

Model C500 personal protection blower  
Dimensions: 250 x 220 x 80 mm  
Air capacity: max. 880 L/min (unobstructed)  
Pressure: max. 1800 Pa (static)

Battery output: 12 VDC 9Ah  
Min. operating time: 4 hours  
Weight: 1000g / 2800g (with battery and filters)

