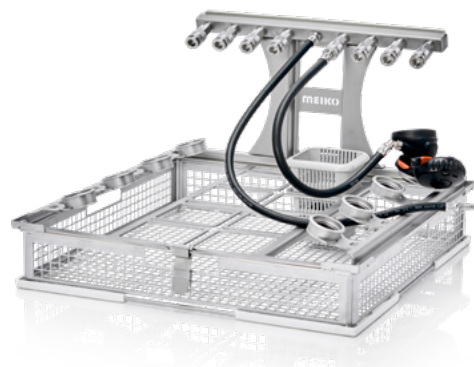


MEIKO TopClean M

Machine cleaning of respiratory protective equipment







The clean solution

MEIKO TopClean M – for reliable cleaning and disinfection

As a world leader in the manufacture of washer-disinfectors, we have been delivering hygiene safety in hospitals and care homes for decades. Since 2010, we have also been active in respiratory protective equipment and PPE, putting to further use the experience we have gathered in medical technology, machine cleaning and germ reduction. This allows us to improve your safety when you are cleaning and disinfecting BA masks, regulators and SCBA harnesses.

MEIKO TopClean M – overview of advantages

PATENTED PROCESS RELIABILITY

In order to prevent moisture ingress, regulators are permanently pressurised during cleaning in our patented process.

ACTIVE DOOR LOCKING

Once the program has started, the wash chamber cannot be opened. This ensures a closed, validated process with none of the risks that come from interrupting a program.

DOSING SYSTEM

The chemical products you need, detergent, disinfectant and rinse aid, will always be dosed in the correct volumes using our fully automatic system – for even better hygiene.

EFFICIENT WATER CONSUMPTION

Less than a third of a gallon per mask. The *TopClean M* can fully automatically clean and disinfect 40 masks per hour using this method.

OPTIONAL:

MEIKO GiO MODULE

– TECHNOLOGY FOR WATER PURITY

This integrated reverse osmosis system achieves water purity of approx. 98 % and thereby almost demineralised and sterile water.

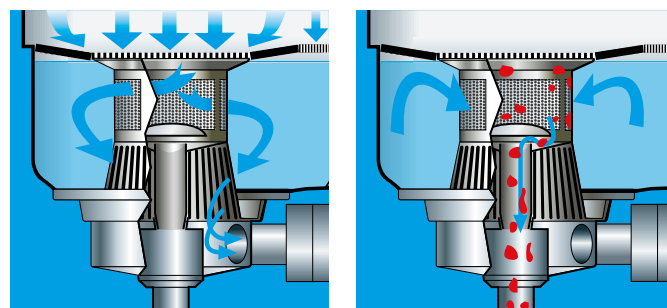
- Consistent processes since water quality remains stable
- Improved hygiene safety for mask users
- Clear view with no residues on the lenses
- No need to manually polish – saves time
- Time between necessary maintenance appointments is relatively long, reducing servicing costs
- Less rinse aid used means lower operating costs



As easy as can be:
TopClean M fitted
with the base rack
and the rack insert
for 4 BA masks

REDUCE OPERATING COSTS WITH THE *AktivPlus* FILTER SYSTEM

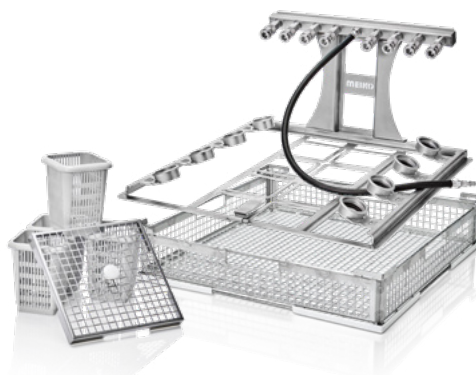
MEIKO's *AktivPlus* filter technology improves the purity of the cleaning and disinfection solution. Thanks to the ultra-efficient final rinse (on the short and standard program settings), only 1.1 gallons (4.2 litres) of water are required in each disinfection cycle to achieve superb cleaning results.



The wash water is filtered, actively removing coarse dirt particles in every wash cycle

MODULAR RACK SYSTEM

The one that does everything: the modular rack system consists of a base rack and a range of inserts. This means that everything can be perfectly placed for the best possible clean.



ERGONOMICS

Lifting, bending, twisting—these repetitive movements with full racks put real stress on the body. The TopClean M can be configured to your workspace to enhance ergonomics, helping protect staff from strain and reduce the risk of workplace injuries.



Machine loading at an ergonomically optimised height

IN A NUTSHELL

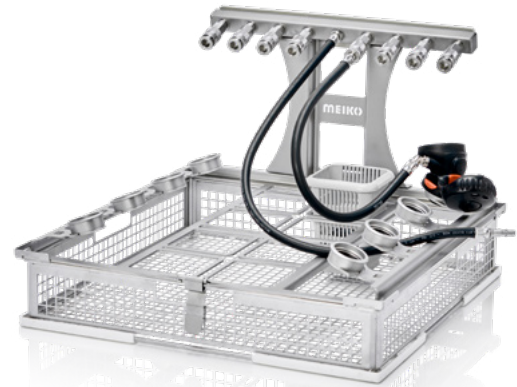
- **FAST** – up to 70 % quicker*
- **EFFICIENT** – optimises workflow while gently protecting the equipment
- **ECONOMICAL** – saves chemicals, water and energy*
- **REAL-WORLD CONSIDERATIONS** – developed and tested with specialists from the professional fire service
- **RELIABLE** – standardised processes produce reliable hygiene
- **SAFE** – no direct contact with the cleaning chemicals

*As compared to manual processes

MEIKO TopClean M – use and racks

A RACK SYSTEM FOR EVERYTHING

Inserts for BA masks, SCBAs, regulators, compressed air bottles, multi-purpose and helmets: the modular rack system provides the perfect solution for any item.



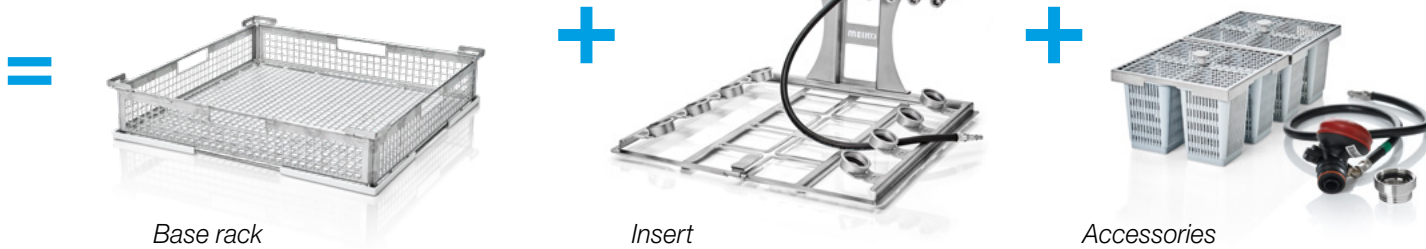
Rack for up to 8 regulators



Rack for up to 4 BA masks

Hygiene safety is the result of reliable processes and starts with correctly positioning the items of PPE for cleaning.

This is where the MEIKO modular system and clever accessories can help to clearly separate individual items.



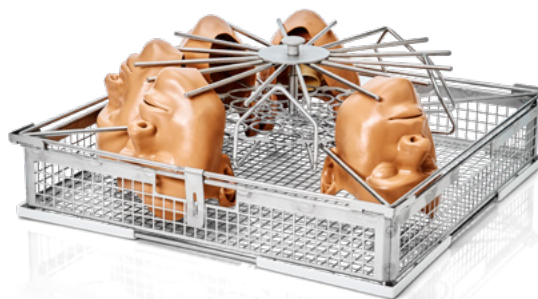
Rack for SCBA harness



Rack for up to 4 BA masks or
4 regulators



Rack for compressed air bottles



Rack for up to 8 faces from CPR manikins

MEIKO TopClean M – comprehensive safety, also for technicians for respiratory protective equipment

SMOOTH WORKFLOWS

Call-outs don't end at the door to the respiratory protective equipment workshop. In fact, quite the opposite! Even after this milestone, every movement must be perfect: and the safety of the equipment technicians is paramount.

That makes cleverly equipping respiratory protective workshops vital for hygiene safety, occupational health and safety, and smooth workflows. The proper apparatus lays a foundation for the safe and efficient cleaning of respiratory protective equipment and other PPE.

FASTER AND MORE RELIABLE!

Manual cleaning:	approx. 4½ hours
Cleaning in the <i>TopClean M</i> :	approx. 1¼ hours

The conventional, manual process takes 3.6x longer than the *TopClean M*.*

*Sample calculation based on 4 masks

Working direction: dirty to clean area

1. Pre-clean

Give PPE a quick pre-clean (if dirt is severe)

2. Dismantle and load

Dismantle masks and load into rack

3. Clean / disinfect

Place rack in *TopClean M* and start program

OPTIMISED WORKFLOWS, RELIABLE HYGIENE AND QUICK CLEANING

- Machine cleaning in a closed system: safety for mask wearers and for technicians for respiratory protective equipment
- No direct contact with cleaning chemicals
- Quick cleaning and disinfection of up to
 - 4 BA masks or
 - 8 regulators or
 - 4 BA masks and 4 regulators at the same time

Fast program cycles:

- Short program (approx. 6 min.) for washware with minimal dirt
- Standard program (approx. 9 min.) for washware with normal levels of dirt
- Intensive program (approx. 12 min.) for severe dirt, includes automatic water change
- Incredibly economical: only 1.1 gallons (4.2 litres) of water per program cycle (short and standard programs)



4. Dry

Dry BA masks in the drying cabinet

5. Reassemble and check

Assemble BA masks and check them

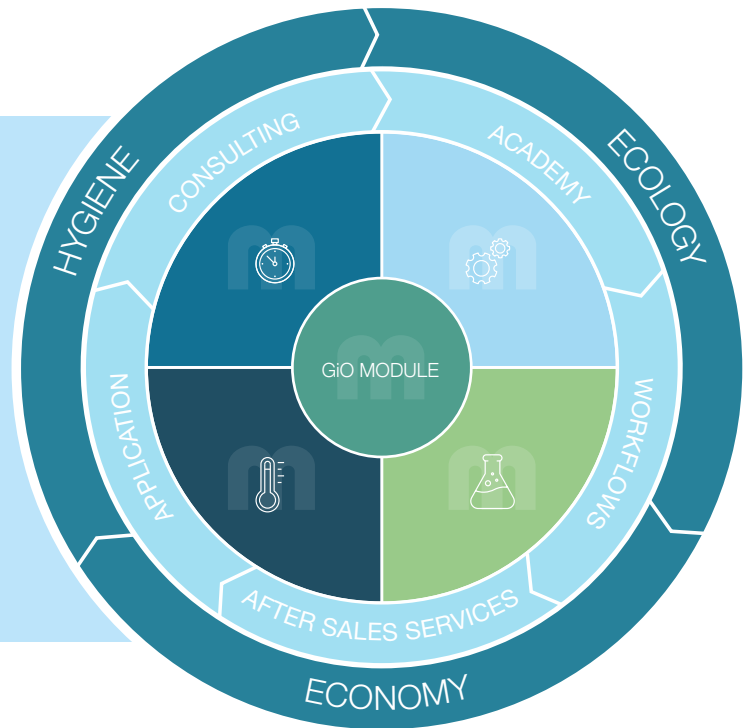
6. Document

Document process and put BA masks away

MEIKO TopClean M – all-round carefree package

MEIKO Clean Solution Circle

The *MEIKO Clean Solution Circle* brings in all relevant parameters for the cleaning process and their relationships and interactions with one another. In the centre is cleaning performance, symbolised by 'Sinner's circle' (time, temperature, mechanical elements, chemicals). Yet only with the right consulting and use, the right services and workflows, and training from the *MEIKO Academy* does the complete, holistic picture come into view. Then hygiene, environmental considerations and economy are assured.



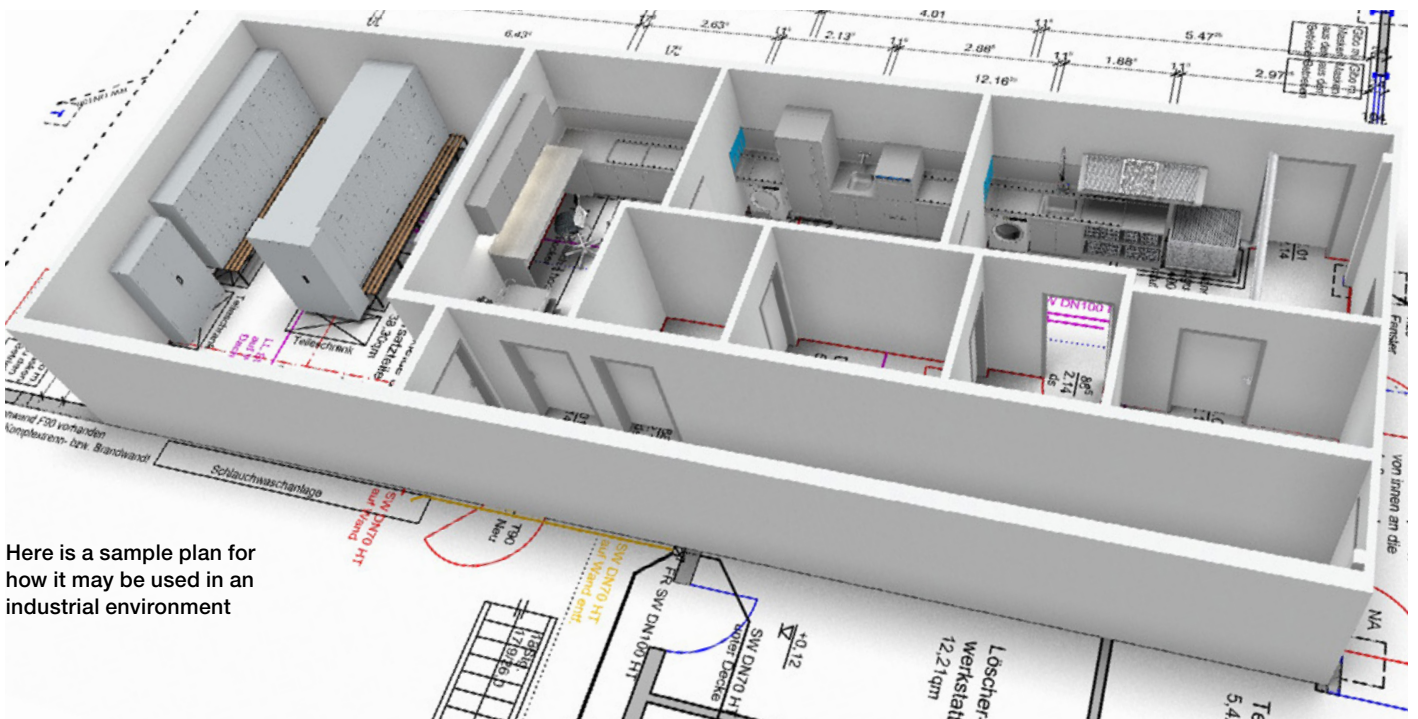
WE PROVIDE CONSULTATION AND PLANNING

Workflows must run seamlessly and efficiently in respiratory protective equipment workshops. All cogs must mesh, literal and metaphorical. And, for that to happen, the room must be properly, professionally planned.

We work with you to plan your respiratory protective equipment workshop – ensuring it is user oriented, ergonomic, efficient and compliant with all current hygiene standards.

MEIKO has been designing cleaning and disinfection technology for hospitals since 1934. And for over 15 years, we have been applying this expertise to respiratory protection, too, working in cooperation with fire services.

The result of this close collaboration is the *TopClean M*.



Here is a sample plan for how it may be used in an industrial environment

PLANNING IS CUSTOM WORK

No two respiratory protective equipments workshops are identical. Custom solutions take time and effort. MEIKO brings everything together. Our experts use cutting-edge planning tools like BIM and Revit to draw up 3D plans. You can review your respiratory protective equipment workshop and dirty/clean areas,

as planned by MEIKO, using VR glasses. Then, when you are happy with the plan, our design team will manufacture the technology and furnishings to measure. Your perfect respiratory protective equipment workshop! Benefit from our more than 90 years' experience in medical technology.



SAMPLE PLAN

Along with Offenburg city council and fire service, we have designed and built the respiratory protective equipment workshop of the future. This is a flagship project using the extended MEIKO product portfolio to complement the *TopClean M* and the *TopClean D* PPE decon machine. We have created the perfectly balanced work routine of tomorrow. It is an example of what modern respiratory protective equipment workshops can and should be like.

WHAT CUSTOMERS

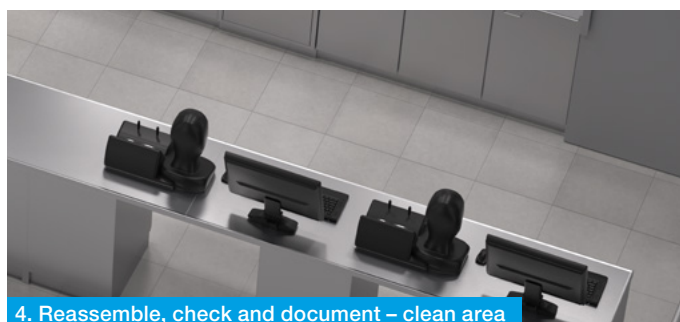
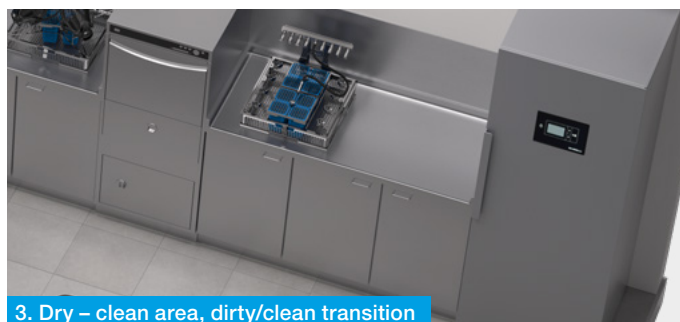
LIKE ABOUT MEIKO SOLUTIONS:

Fire services

- User oriented
- Adapted to individual needs
- Highest hygiene standards

Industrial customers

- High efficiency
- Ergonomic credentials make work easier
- Occupational health and safety considerations are fully built in



MEIKO TopClean M – all-round carefree package

THE RIGHT CHEMISTRY

To ensure effective chemo-thermal disinfection of your BA masks, we recommend using chemical disinfectants that have been properly tested and approved. PPE manufacturers release precise specifications for

the required cleaning processes and chemicals. We would be happy to advise if you have any questions and to provide the right detergent and disinfectant for your PPE.



CANISTER LEVEL MONITORING

We take something safe and make it even safer: constant monitoring of the canister fill level does not allow the appliance to be started if the chemical levels are insufficient to carry out a proper cleaning process. The appliance also cannot be opened during cleaning.



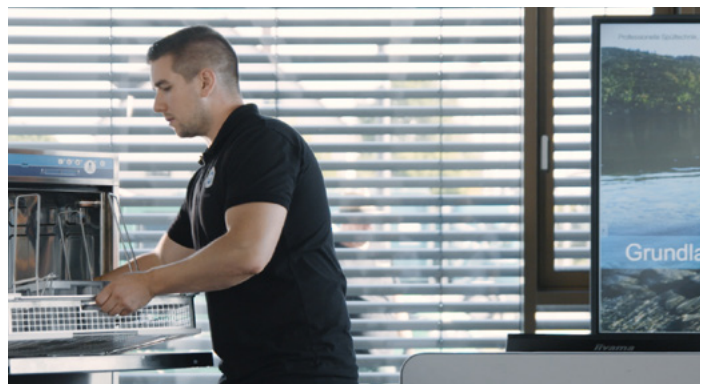
EXPERTISE: THE MEIKO ACADEMY

Hygiene requires reliable technology, validated processes and expertise that comes from experience. Did you know that we also offer training for technicians for respiratory protective equipment? The *MEIKO Academy* provides direct access to the knowledge base that we have built up over the decades.

We administer online and in-person courses to put you on the cutting edge of technology and teach best practice for processes in the respiratory protective equipment workshop. Learn everything you need to know about microbiology, infection control and hygiene. Courses also include legal considerations and handy information about detergents and disinfectants.



Find out more about our training courses at www.meiko-academy.com/training-courses



SERVICE

A good product alone is not enough. You need excellent service, too. The kind that gives you the security of knowing that every-thing is taken care of. To offer this, MEIKO uses an extensive network of service partners that even reaches remote regions.

This means that professional help is never far away. Meaning that you can keep your business running reliably, while our regular maintenance appointments ensure that your appliances will last.



Our service team is on the job 24/7 because every minute counts in the respiratory protective equipment workshop

MEIKO TopClean M – facts and figures



TopClean M

improved ergonomics with lower cupboard

Entry height

H 420 mm

Dimensions

H 860-1465 mm, W 600 mm, D 600 mm

Reverse osmosis module

H 120 mm

Cabinet height

H 400 mm

Plinth

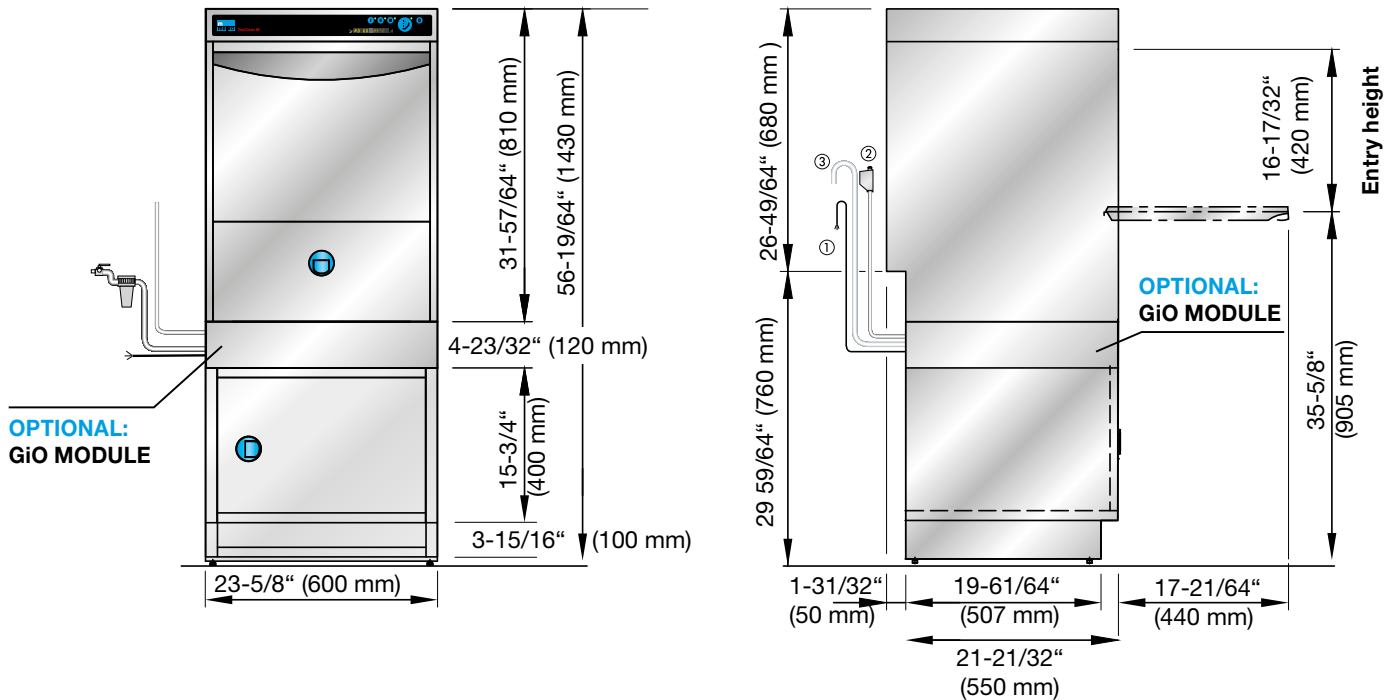
H 100 mm

MEIKO technology:



TopClean M		
Rack dimensions	in	19-11/16" x 19-11/16" (500 x 500 mm)
Pump motor	kW	0.55
Tank capacity	US.liq.gal	2.91 (11 l)
Final rinse	US.liq.gal	1.1 (4.2 l)

TopClean M		
Tank heating	kW	4
Built-in boiler	kW	7.5
Temperature of cold water supply 50 °F (10 °C)		
Total connected load	kW	12.4
Temperature of cold water supply 50 °F (10 °C)		



Water connection

- Cold water ball valve $\frac{3}{4}$ " AG, 1.3 gallons (5 litres)/minute, max. 25 °dH (when water is harder, water softening may be required upstream)

Waste water

- DN50 fitting

Electrical connection

- 400 V, 3/N/PE, 50 Hz, 5 x 4 mm², 20 A fuse protection (optionally 16 A)
- Appliance junction box or
- CEE plug/connection (to be installed on site)
- Upstream main switch
- Equipotential bonding (if this cannot be produced, please speak to local electrician about other fusing options)

Compressed air

- Compressed air for SCBA sets according to DIN EN 12021, medium pressure max. 5 bar, NW7.2 quick connect

Precise positioning of connections and installation methods depending on equipment versions – if an order is placed, a detailed dimensional drawing will be provided.

At least 11-13/16 (30cm) empty space or cupboard space must be provided to the side of the machine for the water supply/drainage and activated carbon pre-filter. For this, we recommend an installation cabinet from our range – this provides space for the installation detailed above and your stock of cleaning chemicals.

You are welcome to contact us at any time to discuss the right level of equipment and installation type for your situation. Our expert advisers would be happy to visit you.



The clean solution

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