

Professional warewashing, cleaning and disinfection technology



The clean solution

# WHAT IS HYGIENE?

# WHAT IS HYGIENE?

## **HYGIENE is safety and security.**

MEIKO is there where hygiene is relevant, sometimes even indispensable to life. In the dishwashing areas of this world. In the utility rooms. In the respiratory protective equipment workshops. There, where people eat and drink. There, where they are nursed in a healthy way. There, where they save others. There we fulfil the elementary human need for cleanliness and hygiene.

And that since 1927 – almost 30 years after highly developed microscopes made germs visible for the first time and so paved the way for hygiene as we understand it today: as reliable elimination of pathogenic germs.

With our cleaning and disinfection appliances, we were among the first actors in hospital hygiene. This early participation in medical products and the knowledge gained from over 90 years of experience let us achieve a unique buildup and transfer of knowledge. Up to today.

They form the firm foundation for our hygiene expertise, which flow in to all MEIKO innovations, across products, whether cleaning and disinfection technology, dishwashing machine, rinsing equipment, or equipment for food waste treatment.

On the next pages, you will learn what 'Hygiene made by MEIKO' means. First and foremost: safety and security. Safety and security with regard to technology, planning, use, and service. Safety and security for guests, passengers, patients, residents and employees. And finally: safety and security for you and your business.



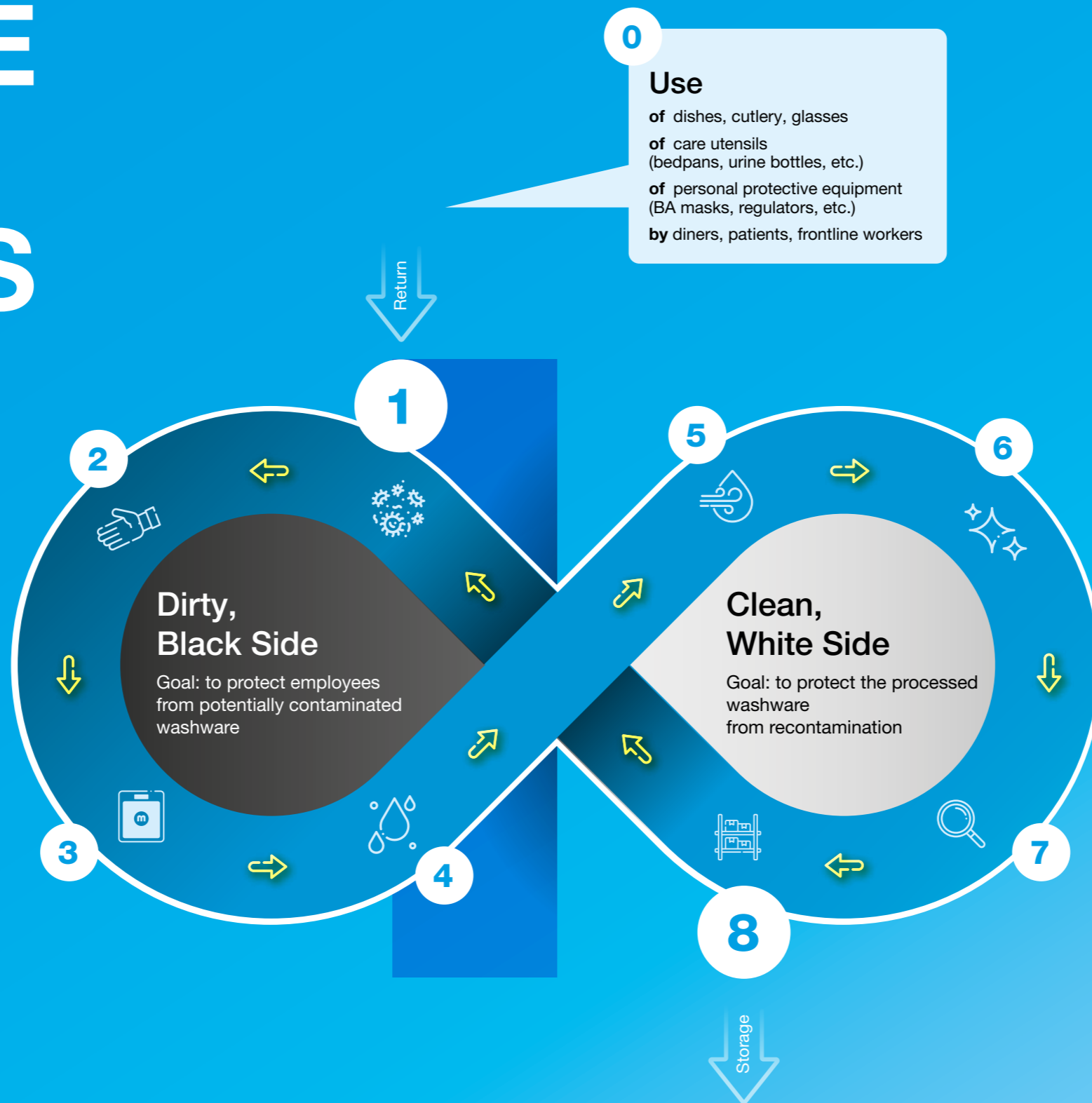
# HYGIENE IS ONLY COMPLETE WITH THE RIGHT PROCESS

The safety and security of the MEIKO technology is one thing, but everything else also has to be right in order for hygiene not to be impaired at any point.

The planning phase already sets the course for the best possible hygiene safety. With almost 100 years of experience in warewashing technology and medical devices, we know the critical points and how the processes should ideally work. So that hygiene can be guaranteed. All of the time and everywhere.

How do the basics of a process description for a cleaning process look? What fundamentals must simply be right – regardless of what is being cleaned? What conditions must be met from an architectural perspective? Where are there hygiene risks? And even more important: How can the user avoid them?

We answer these questions in our MEIKO Hygiene Loop.



**0 Use**  
 of dishes, cutlery, glasses  
 of care utensils (bedpans, urine bottles, etc.)  
 of personal protective equipment (BA masks, regulators, etc.)  
 by diners, patients, frontline workers

## Dirty, Black Side

- 1 Return**
  - Handle washware with gloves
- 2 Preparation, transport**
  - Work with gloves
  - Perform work quickly and safely
  - When moving from room to room: touch door handles with clean hands or clean gloves
- 3 Loading the machine**
  - Work with gloves
  - Load washware correctly (as per the operating instructions)
  - Open/close the machine door with a clean hand or clean glove
  - After closing: wash/disinfect hands or dispose of used gloves
  - Hand wash basin, glove dispenser, rubbish bin
- 4 Cleaning and disinfection, if needed**
  - Press start button with a clean hand or clean glove
  - Be alert for machine messages; refill chemical products if required

## Clean, White Side

- 5 Drying**
  - Do not dry off by hand (reusable towels are a hygiene risk); do not stack damp washware
  - Drip-dry shelves, drying cabinet
- 6 Removal**
  - Handle washware with clean hands or clean gloves
- 7 Check**
  - Visual cleanliness check
  - If poor: determine cause, contact service team
  - Depending on washware type, further checks may be required
- 8 Storage**
  - Store only clean and dry washware; ensure hygiene safety (wrap if required)
  - Sufficient storage shelves

**Legend:** ● Action recommendation  
 ● Hygiene risk  
 ● Planning recommendation

MEIKO

# HYGIENE Loop

## HYGIENE in an infinite loop. Thanks to correct planning and application.

The cleaning process shown there can be used for dinnerware, care utensils, and breathing apparatus (BA) masks and can be repeated as often as desired. The result is always the same: **hygienically safe washware** that can be reused without hesitation.

The goal is to prevent recontamination and break chains of infection, and it is based on the consistent separation of clean and dirty.

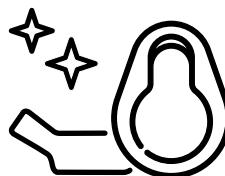
This should be implemented through construction – a physical separation of the areas before and after cleaning, ideally with a wall. The side where the dirty washware is collected is designated the **Dirty** or **Black Side**. The other side is the **Clean Side** or **White Area** for the processed washware. The transport paths must not cross.

Moreover, the separation should also be taken into account in the application. That means: The user may touch the cleaned washware and environment (for example, door handles) only with a clean hand. That is, with a hand that had no contact with the dirty washware or that was disinfected afterward. Gloves here are optional. In contrast, gloves are very important when handling dirty washware. Of course, neither the processed washware nor the surroundings may be touched with either an unclean hand or glove.

The MEIKO hygiene loop is a generalised process. The details of each process will, of course, vary depending on what is being washed. Would you like more detail? Then scan the QR code.



Warewashing process for dishes, cutlery and glasses  
[www.meiko.com.au/magazine/the-dishwashing-process](http://www.meiko.com.au/magazine/the-dishwashing-process)



Cleaning process for care utensils  
[www.meiko.com.au/magazine/bedpan-cleaning-instructions](http://www.meiko.com.au/magazine/bedpan-cleaning-instructions)



Washing process for personal protective equipment (PPE)  
[www.meiko.com.au/magazine/cleaning-of-respiratory-protective-equipment](http://www.meiko.com.au/magazine/cleaning-of-respiratory-protective-equipment)



**YOU  
TAKE CARE  
OF THE  
ENJOY-  
MENT,  
WE  
OF THE  
HYGIENE**



**Another shot of lime juice,  
then we can serve it.**

Almost as important as what the glass contains is the glass itself: it should be sparkling clean and hygienically spotless. Flaws would not only ruin the presentation to the guest, they are also risk factors for transmission of germs.

Once customers have finished eating and drinking, MEIKO warewashing technology will clean away everything they have left on the dishes. From the previous user's lipstick to herpes viruses, E. coli bacteria or SARS CoV-2.

For further information especially for small dishwashing areas, please turn the page. Hygiene contents for large dishwashing areas are two pages further.

# HYGIENE in the small dishwashing area

**Whether tumbler, champagne flute,  
red wine glass.  
Or maybe for latte macchiato?**

As varied as the food service industry is, the situation in bars, bistros and cafés is often similar in many points: Most of the action takes place in a very narrow space, right behind the counter. The employee is usually barkeeper, cook, wait staff and washer, all in one. But cleanliness and hygiene must not be compromised.

What do they need? A dishwashing machine that does the work. That washes up everything that comes in. From glasses with the remains of the last cocktail to cups with dried milk foam to encrusted plates and pots. One from MEIKO.



# HYGIENE Checklist

Just one push of a button, and you can get back to your customers. The MEIKO machine does the washing for you. And it does it in a closed system with a comfortable and hygienic indoor climate! This is ensured by these characteristics and features.



#### **AktivPlus Filter**

Hygiene-sure wash fluid and clean water in the wash chamber and tank through active dirt removal.



#### **GiO MODULE** (option)

Reverse osmosis system for demineralised and germ-free water. The result: spotless glasses without polishing (hygiene risk with multiple-use towels).



#### **ComfortAir heat recovery** (option)

Hot vapours become energy suppliers for the water cycle. Less steam = vapour reduction = hygienic indoor climate.



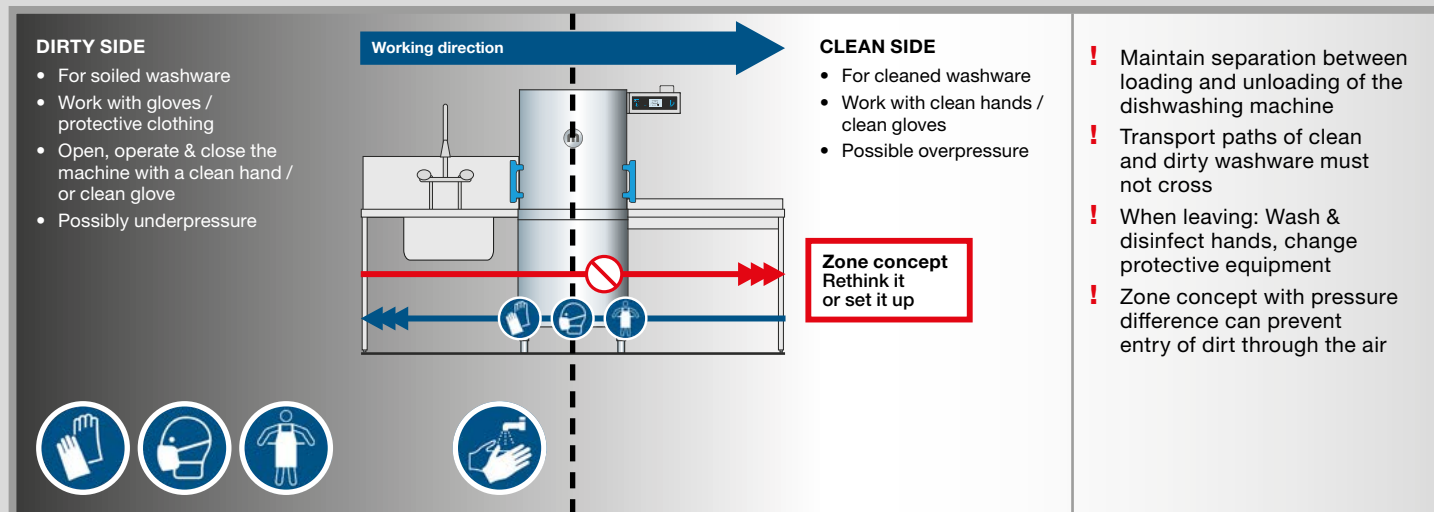
#### **Hygiene expert opinion**

Virologists and hygienists confirm the effectiveness of the MEIKO technology against numerous bacteria and viruses – for example, SARS CoV-2.



For further hygiene content, scan this QR code or go to [www.meiko.com.au/meiko-experience/magazine/#HoReCa](http://www.meiko.com.au/meiko-experience/magazine/#HoReCa)

# HYGIENE in the small dishwashing area



## TRUST IN THE MEIKO PLANNING EXPERTISE.

To create an environment in which processes run optimally and hygiene specifications can be adhered to in the best way possible.

In the dishwashing area, operators must ensure that no health risks for guests come from the surfaces of the washware. That also means the cleaned washware must not be recontaminated or made dirty until presented to the guest. What to pay attention to regarding planning and processes is shown in the diagram.

MEIKO undercounter and hood type dishwashing machines for cafés, ice-cream parlours, bistros and bars



UPster® U



M-iClean U



UPster® H



M-iClean H

## HYGIENE Checklist



### MEIKO WASHING DYNAMICS

- ✓ Largest possible wash chamber cover
- ✓ Hygiene in every nook and cranny
- ✓ Reliable washing away of germs
- ✓ Ideally adjusted for duration, chemicals, time (*specified by programmes*)



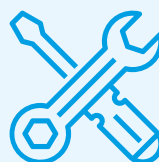
### BLUE OPERATING CONCEPT

- ✓ Parts to be cleaned marked **blue**
- ✓ Simplified machine cleaning
- ✓ Keys to be actuated marked **blue**
- ✓ Reduction of operating errors



### MEIKO CLEANING CHEMICALS

- ✓ Effective against dirt and numerous bacteria and viruses
- ✓ Tailored to the technology and the washware
- ✓ Built-in dosing systems
- ✓ Optimised chemical dosing



### MEIKO SERVICE

- ✓ Upholding of hygiene standards through regular machine maintenance
- ✓ Authorised service technicians
- ✓ Open from 7AM to midnight on weekdays and 9AM-6PM on weekends
- ✓ Individual maintenance contracts



### MEIKO ACADEMY

- ✓ Training of MEIKO employees
- ✓ Training/ orientation for operators and personnel
- ✓ Excellent user safety
- ✓ Reduction of operating errors

**YOU  
TAKE CARE  
OF THE  
ENJOY-  
MENT,  
WE  
OF THE  
HYGIENE**



**The next course can smell so good,**

the steak can be so juicy, the vegetables so crisp, and the plate arranged so beautifully, but an imperfectly cleaned plate or residue on the fork can ruin the guest's enjoyment. Even worse, these hygiene errors can have serious consequences – they can even make guests sick. This is equally true for restaurants, cafeterias, and highly rated hotels.

Especially in view of salmonella, E-coli bacteria or the current Corona pandemic, this simply must not happen. It does not have to! With MEIKO warewashing technology, the right planning and proper processes. What can this look like? You will read about it on the next few pages.



# HYGIENE in the large dishwashing area

# HYGIENE Checklist

MEIKO warewashing technology not only reliably removes dirt, but duration, wash mechanism, chemicals and temperature are adjusted to each other so that bacteria and viruses are eliminated with the press of a button. Thanks to these characteristics and features, you no longer have to worry about hygiene.

## Hygienically wash 200 trays? Done in minutes!

At peak times, the dishwashing areas of cafeterias or hospitals and care homes are very busy places. Used trays, almost empty plates, unclean dishes, and dirty glasses are arriving every second. Then it is time to scrape off leftovers, dispose of them properly, put the dirty dishes into the dishwashing machine as fast as possible. In a large kitchen, the minimum standard is 100% cleanliness and hygiene. And make it snappy!

With MEIKO, you can count on reliable technology, from the conveyor belt to the dishwashing system, with perfect timing and trouble-free processes. And with the highest hygiene standards.



### MEIKO Connect

Creates daily protocol for gap-free hygiene documentation. Errors due to manual data recording are avoided.



### Self-cleaning programme

Hygienic machine with constant washing performance; only blue-marked areas still have to be cleaned manually.



### Systems from MEIKO GREEN

Collect food waste in a closed system, store them odour-free, and return them to the energy cycle. [www.meiko-green.com](http://www.meiko-green.com)



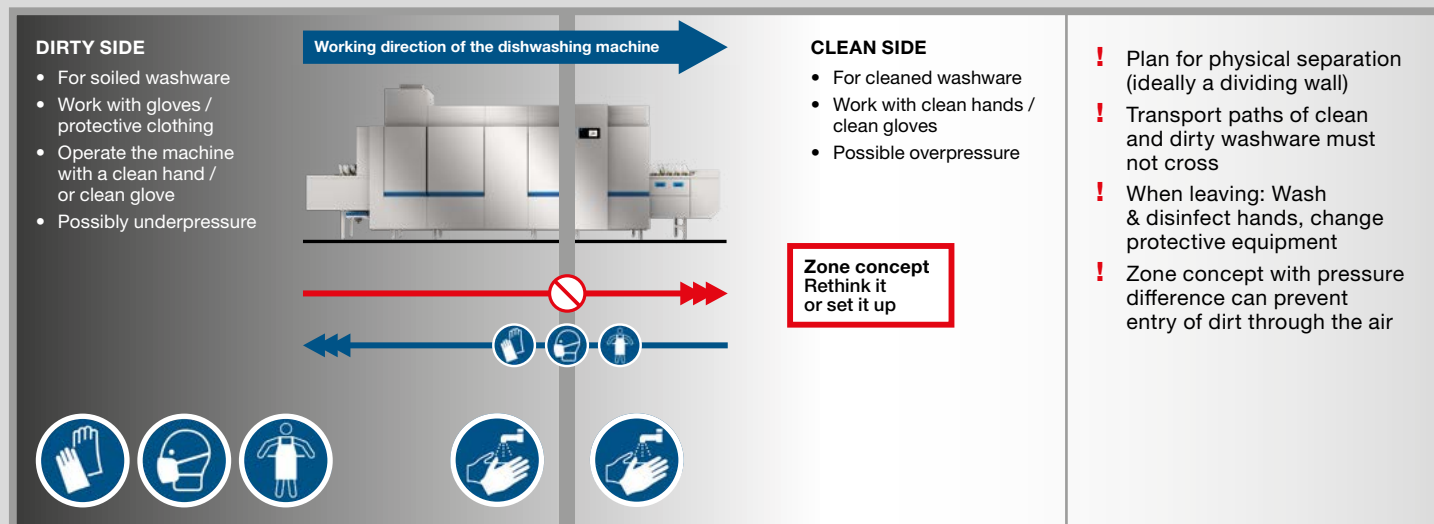
### Hygiene expert opinion

Virologists and hygienists confirm the effectiveness of the MEIKO technology against numerous bacteria and viruses – for example, SARS CoV-2.



For further hygiene content, scan this QR code or go to [www.meiko.com.au/meiko-experience/magazine/#HoReCa](http://www.meiko.com.au/meiko-experience/magazine/#HoReCa)

# HYGIENE in the large dishwashing area



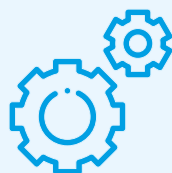
## CLEANLINESS AND HYGIENE ARE THE CALLING CARD OF EVERY FOOD-SERVICE COMPANY.

And so the topic of dishwashing areas presents every restaurateur, communal caterer, and hotel owner with a series of challenges: hidden hygiene traps, a catalogue of hygiene specifications, with high pressure, continuous operation, and busy periods added in. But hygiene errors must still not happen. How can this be accomplished? With MEIKO technology, the right planning and proper processes, the washware will reach the guest in perfect condition.

MEIKO dishwashing machines for dishes, cutlery, pots, trays and containers



## HYGIENE Checklist



### M-iQ AIRCONCEPT

- ✓ Integrated in M-iQ
- ✓ Guided air flow from clean to unclean: from the hot final rinse zone to the cool pre-wash zone
- ✓ No recontamination of dishes which have already been cleaned



### AUTOMATIC RACK DETECTION

- ✓ Option with M-iClean H
- ✓ Only in combination with automatic hood system
- ✓ Automatic: hood closing, programme start, hood opening
- ✓ Contact-free operation
- ✓ Prevention of infections



### MEIKO CLEANING CHEMICALS

- ✓ Effective against dirt and numerous bacteria and viruses
- ✓ Tailored to the technology and the washware
- ✓ Built-in dosing systems
- ✓ Optimised chemical dosing



### MEIKO SERVICE

- ✓ Upholding of hygiene standards through regular machine maintenance
- ✓ Authorised service technicians
- ✓ Open from 7AM to midnight on weekdays and 9AM-6PM on weekends
- ✓ Individual maintenance contracts



### MEIKO ACADEMY

- ✓ Training of MEIKO employees
- ✓ Training/ orientation for operators and personnel
- ✓ Excellent user safety
- ✓ Reduction of operating errors

**YOU  
TAKE CARE  
OF THE  
GOOD  
HEALTH,  
WE  
OF THE  
HYGIENE**

**Where there are people who are  
gravely ill and in need of care ...**

... hygiene is indispensable to life. There is one thing the utility rooms of hospitals and nursing homes of this world cannot do without: MEIKO cleaning and disinfection technology for care utensils.

With a press of a button, bedpans and urine bottles are cleaned and disinfected. Bacteria, viruses, and even clostridioides difficile spores are reliably washed away (confirmed by expert opinion). That means improved hygiene safety for patients and residents. Improved workplace safety and relief for nurses and caregivers. And finally, more time to spend on what really matters: people.



# HYGIENE in the utility room

# HYGIENE Checklist

MEIKO bedpan cleaning and disinfection appliances minimise the danger of contamination that arises from care utensils and their contents. For emptying, cleaning, disinfection, and drying run automatically. Behind closed machine doors. These features ensure even more hygiene:



#### Contactless door opening (option)

Device door opens and closes via automatic infrared control or foot switch to prevent contamination of hands.



#### Efficient wash nozzles

Targeted inside cleaning of different bedpan shapes, very good wash-away of germs even with clostridioides difficile spores.



#### Human-machine communication

Large buttons, clear icons and symbols, plain text displays, and colour-coding for chemical canisters and suction lances minimise user errors.



#### Expert opinion

The institute HYGCEN Germany confirms effectiveness against C. difficile; microbiologist Dr. Elizabeth Bryce attests that we have the best interface design (see American Journal of Infection Control).



For further hygiene content, scan this QR code or go to [www.meiko.com.au/meiko-experience/magazine/#Care](http://www.meiko.com.au/meiko-experience/magazine/#Care)

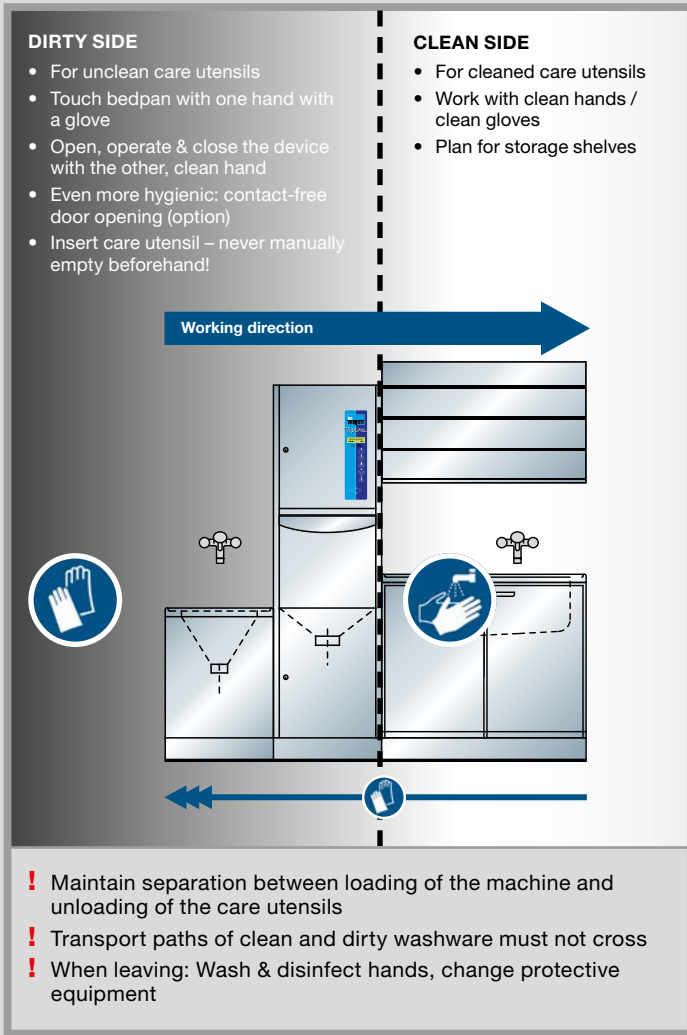
### Hygiene safety and work safety – they go together!

The danger of infection is especially high in hospitals and nursing homes – for patients and residents, but also for personnel. And so, regarding hygiene, nothing can be left to chance. A clear case for MEIKO cleaning and disinfection technology!

With safe processes that run in a closed and vapour-tight system. With  $A_0$  value adjustable from 60 to 3000. With short process times. With well-conceived work processes. So people and machines work together flawlessly. Without exceptions. Without hygiene risk.



# HYGIENE in the utility room



## CAREGIVERS HAVE ONLY MINIMUM CONTACT WITH CARE UTENSILS.

That would be an ideal cleaning process. With MEIKO cleaning and disinfection appliances, we are already far along: Emptying, cleaning, disinfection, and drying of the care utensils are performed through automation in the devices. Only the transport is still performed by hand.

And even here, MEIKO can keep the risk of contamination as low as possible – with installation possibilities in the rooms, directly above the toilets. We have a solution ready for every room and requirement.

MEIKO cleaning and disinfection technology for bedpans, urine bottles, commode buckets, etc.

# HYGIENE Checklist



## THERMOCONTROL

- ✓ Standard with *TopLine* & *TOPIC*
- ✓ Programme run according to the set  $A_0$  value
- ✓ Maintenance of temperature and time ensured
- ✓ through mutually checking sensors
- ✓ If temperature falls below limit: cycle time extension



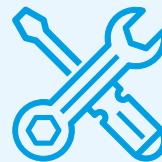
## STEAMSTOP

- ✓ Standard with *TopLine* & *TOPIC*
- ✓ Excess steam condenses in the drain
- ✓ No danger of germ escape
- ✓ Hygiene-secure indoor climate, high work safety



## MEIKO CLEANING CHEMICALS

- ✓ Removes dirt, effective against numerous bacteria and viruses (according to expert opinion)
- ✓ Tailored to the technology and the washware
- ✓ Compatibility certification (in accordance with German Medical Devices Act)
- ✓ Built-in dosing systems
- ✓ Optimised chemical dosing
- ✓ Coded suction lances



## MEIKO SERVICE

- ✓ Upholding of hygiene standards through regular machine maintenance
- ✓ Authorised service technicians
- ✓ Open from 7AM to midnight on weekdays and 9AM-6PM on weekends
- ✓ Individual maintenance contracts



## MEIKO ACADEMY

- ✓ Training of MEIKO employees
- ✓ Training/ orientation for operators and personnel
- ✓ Excellent user safety
- ✓ Reduction of operating errors



**YOU  
TAKE CARE  
OF THE  
SAFETY AND  
SECURITY,  
WE  
OF THE  
HYGIENE**



**Six minutes, 4 masks, 2 arguments:  
Time & especially hygiene.**

In an emergency, every minute counts, every move must be right. Time to worry about personal protective equipment (PPE)? Emergency workers do not have it! Not only do they have to rely completely on their colleagues, but also on their BA masks, regulators, etc.

The same holds true in the respiratory protective equipment workshop: Respiratory protective equipment should not have to worry about hygiene defects while performing maintenance. They also do not have to! Maintenance with *TopClean M* provides 'additional safety and security and hygiene', as Olaf Fernys of the Firefighter Technical Centre in Leipzig describes it.

# HYGIENE

## in the respiratory protective equipment workshop

### For people & hygiene on a mission.

People who risk their lives deserve only the best: zero risk in hygiene. We can help here! The *TopClean M* is the result of close collaboration with specialists in the fire service and leading manufacturers of respiratory protective equipment – perfectly supplemented with our knowledge in the area of machine cleaning and germ reduction from almost 100 years in the healthcare sector.

We run certified training courses at the MEIKO Academy, where we pass on our expertise and take your qualifications as a respiratory protective equipment technician to a new level.



# HYGIENE

## Checklist

Clean BA masks and regulators by hand? This can be done faster, more economically, and especially with more hygiene security in a *TopClean M* machine. The following characteristics and functions make the cleaning process hygienically especially safe.



#### Door locking after programme start

No malfunction possible (by employees or in a power failure), closed, valid, safe cleaning process.



#### Water change programme

Entire wash fluid is pumped away and replaced. That reduces the danger of recontamination in the next run.



#### Approvals of leading manufacturers

That applies also for the cleaning process in the *TopClean M* as well as for the chemicals used and their dosing. For an optimal process with high material compatibility.



#### Hygiene expert opinion

After intensive tests, Prof. Walter Popp confirms the effectiveness and potency of the cleaning process in *TopClean M*.



For further hygiene content, scan this QR code or go to [www.meiko.com.au/meiko-experience/magazine/#Safety](http://www.meiko.com.au/meiko-experience/magazine/#Safety)

# HYGIENE in the respiratory protective equipment workshop



**Assemble masks and tidy up**  
(+ approx. 5 min.)



**Drying cabinet**  
Dry masks  
(+ approx. 1.0 hour)



**Drip off / hand wash basin**  
Masks drip off, manual  
(+ 2 min.)

## Fast and reliable!

Conventional cleaning approx. 4½ hours  
Cleaning with *TopClean M* approx. 1¼ hours  
With the MEIKO *TopClean M*, you can cut the cleaning time of your breathing apparatus (BA) masks by more than 60%.



**Wash basin**  
Preclean masks quickly  
(in case of heavy contamination)  
(+ approx. 1 min.)



**Rack**  
Disassemble masks and place in *TopClean M* rack  
(+ approx. 2 min.)



**TopClean M**  
Cleaning and disinfection  
(+ 6 min.)

## FROM BLACK TO WHITE: AN OPTIMAL WORKFLOW.

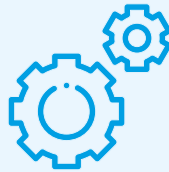
*TopClean M* brings more speed and hygiene to the respiratory protective equipment workshop: 4 masks can be processed simultaneously in about 6 minutes. And while the machine is running, the equipment maintenance staff can already disassemble further BA masks and make them ready for cleaning and disinfection. In addition, *TopClean M* helps with consistent separation into a black and white area, which our experts favour in the right space concept. So that protective equipment is not recontaminated after processing, but is ready for use in a hygienically perfect status. For the next mission.

MEIKO cleaning and disinfection technology for BA masks



TopClean M

# HYGIENE Checklist



## PROCESSING OF REGULATORS

- ✓ In a rack with permanent pressure application
- ✓ Patented technology
- ✓ No moisture can penetrate during the process
- ✓ Maximum process reliability with proper use



## MODULAR RACK SYSTEM

- ✓ One base rack – many inserts (even rack inserts)
- ✓ For BA masks, regulators, self-contained breathing apparatus
- ✓ Optimal positioning and ideal processing of all parts
- ✓ Multifunctionality



## MEIKO SERVICE

- ✓ Upholding of hygiene standards through regular machine maintenance
- ✓ Authorised service technicians
- ✓ Open from 7AM to midnight on weekdays and 9AM-6PM on weekends
- ✓ Individual maintenance contracts



## MEIKO ACADEMY

- ✓ Training of MEIKO employees
- ✓ Training/ orientation for operators and personnel
- ✓ Excellent user safety
- ✓ Reduction of operating errors



“

At MEIKO, we think our way into our customers' processes and create technologies from there. In this way, we ensure one of the most important requirements for health and safety: hygiene!

If you promise safety and security, you have to provide it. This is why we work with people the world knows it can trust.

Hygienists and virologists, for example. Like Prof. Friedrich von Rheinbaben, M.D., who helped us deliver safety to our customers right at the start of the coronavirus pandemic: coronaviruses are successfully inactivated with MEIKO technology.

Or doctors specialising in hygiene, such as Prof. Walter Popp, M.D., who wrote the expert opinion for our *TopClean M*. Since its publication, thousands of firefighters have had confidence that their BA masks will do what they say they will do: protect them.

Or the Canadian microbiologist Dr. Elizabeth Bryce, in whose large-scale investigation of cleaning and disinfection appliances the interface design of our bedpan cleaning

and disinfection appliances came out as the best – read more in the American Journal of Infection Control.

The superior ability of these appliances to remove bacteria and, in particular, clostridium difficile spores from care utensils has also been confirmed by the independent hygiene institute HYGCEN Germany GmbH.

For us, the most important question remains: What does the world need?

Right now, more health and safety than ever. We always strive to do more.

Because we know that we will ultimately be measured by the meaningfulness of our actions. And by the purpose we fulfil.

”



Dr.-Ing. Stefan Scheringer  
CEO MEIKO GROUP

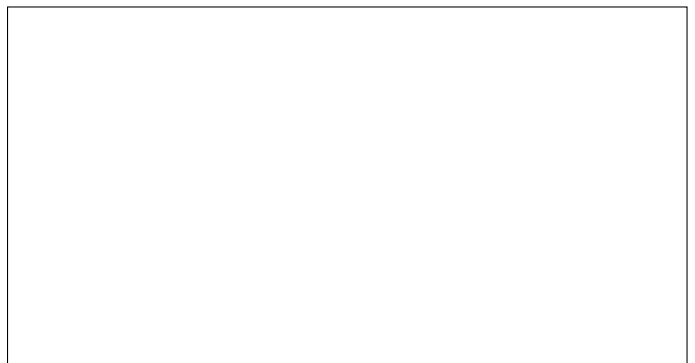
**HYGIENE  
IS  
MEIKO**



The clean solution

Member of the **MEIKO** GROUP

Complies with the hygiene requirements of DIN SPEC 10534.



**MEIKO AUSTRALIA PACIFIC Pty. Ltd.**  
Unit 4 · 72-74 Lower Gibbes Street · New South Wales, 2067, Australia  
Phone +61 1300 562 500 · Fax +61 1300 622 530  
info@meiko.com.au · www.meiko.com.au

Manufacturer:  
**MEIKO Maschinenbau GmbH & Co. KG** · Englerstr. 3 · 77652 Offenburg, Germany  
Phone +49 781 203-0 · Fax +49 781 203-1179  
www.meiko-global.com · info@meiko-global.com



040.050.01.01.21/EN-AU/

We reserve the right to amend specifications as part of our product improvement process