



Cleaned for take-off: MEIKO trolley washing solutions

Professional wash-up systems for inflight catering



MEIKO Clean

Fly on the wings of perfection
in terms of cleanliness, hygiene and safety



Security and safety are the most important values an airline can offer today. A great number of checks are required before the captain and cabin crew of an aircraft are finally able to welcome the first passenger on board. This includes, making certain that travellers will receive a clean and hygienic service. In this regard, airlines fully depend on the reliability of their caterers.

With our trolley washing systems for inflight catering, we at MEIKO stand for a clean and perfect start. Our tailor-made systems make your trolleys available for another flight at the correct time and in perfectly hygienic condition.

This is the reason why you can find our technology everywhere around the globe where reliability, safety and efficiency count – from small business airports to large international traffic hubs. Discover the versatility of our tailor-made trolley washing systems. Find out what we at MEIKO call the clean solution.



Single-tank tunnel washer **BA 251-C** for above-floor or pit installation and up to 110 trolleys/h

Fast, dependable and secure trolley cleaning and drying for limited spaces

MEIKO's washing solution *BA 251-C* is a single-tank tunnel washing machine and can process from 90 to 110 full-size airline-meal trolleys/h. The system is both versatile and flexible. Its versatility allows it to be tailored to the exact needs of each individual catering operation. And the flexibility of the ramp execution makes it easy to install the washer above ground. It also guarantees an effortless integration into any new or existing ware washing facility. Next to the ramp version, designed for situations in which room features and dimensions are set, *BA 251-C* is also available for installation in a pit to improve the ergonomics of loading and unloading.



Easy loading – With a ramp height of only 400 mm, little effort is necessary to roll a full-size meal trolley onto the heavy-duty stainless steel belt, which transports the trolley through the washer, with little effort.



Wash and pack – *BA 251-C* was designed with short changeover times in mind. Thanks to MEIKO's unique drying process, trolleys arriving in the clean zone are immediately ready-to-use.

Technical Data **BA 251-C**

Usable passing...		Machine length		Pit length	Belt speed	Capacity
...width (mm)	...height (mm)	(mm)	with ramps up to (mm)	(mm)	(m/Min)	Full-Size Trolleys/h
1,000	1,100	10,500	14,100		0.5 - 0.8	90 - 110
				11,300		

Multi-tank tunnel washer **BA 252-C** for above-floor or pit installation and up to 250 trolleys/h

Perfect results, fast and reliably, day after day

MEIKO's multi-tank tunnel washing machine *BA 252-C* is designed for the hygienic cleaning and drying of large quantities of meal trolleys in a short amount of time. With a capacity of up to 250 full-size airline meal trolleys an hour, the *BA 252-C* is the ideal solution for large-scale catering facilities with short turnaround times. The MEIKO *BA 252-C* trolley washers can be tailored to the exact needs of each individual catering operation. It can be perfectly integrated into any new or existing ware washing facility – both in a pit and above ground to make the best use of the conditions on-site. In addition to this, all above-ground executions can easily be remodelled for use in a pit (or vice-versa) if future developments require it.



Safety and simplicity – The clever design of the tunnel washer guarantees easy access for daily cleaning and servicing, adding extra protection of both trolleys and machine against damages caused by improper trolley handling.



Clever drying technology – Once loaded into the washer, the transport tilts the trolley to facilitate residual water flowing off the trolley's internal and external surfaces for the best drying results.

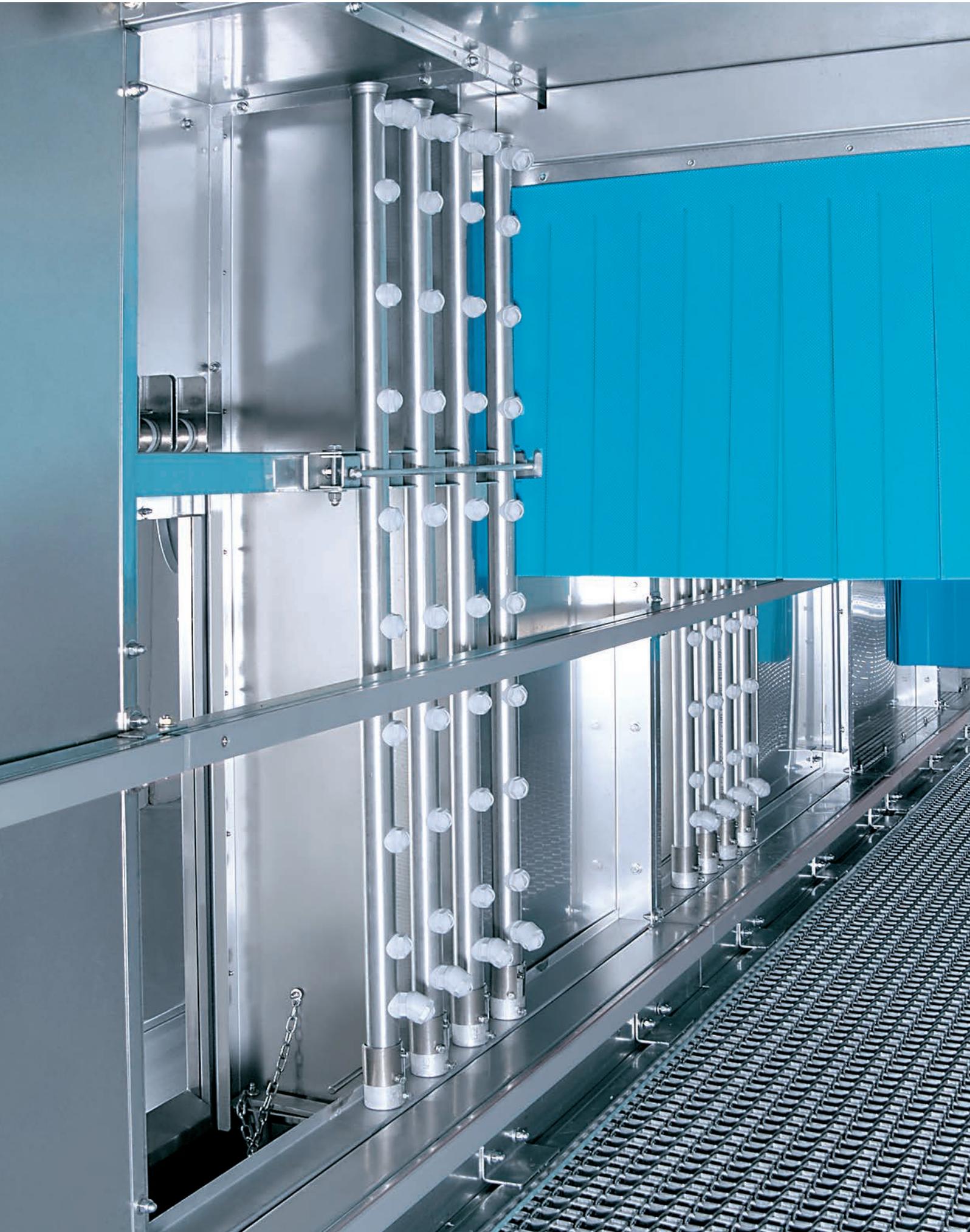


Optional clean zone – For optimal hygiene and process reliability the workspace can be separated into a soiled and a clean area.

Technical Data **BA 252-C**

Usable passing...		Machine length		Pit length	Belt speed	Capacity
...width (mm)	...height (mm)	(mm)	with ramps up to (mm)	(mm)	(m/Min)	Full-Size Trolleys/h
1,000	1,100	13,500	17,100		1.1 - 1.3	220 - 250
				14,300		

Details that turn trolley washing
from a bumpy ride into a smooth glide



Perfect results, fast and reliably, day after day

Engineered with German practicality

The wash arms and nozzles can be individually adjusted for optimal cleaning results in awkward corners on containers or trolleys. All detachable components, such as lids, filter inserts and screws, are fixed with strings or chains to allow handling while securing them against getting lost.

Excellent drying results

Optimally located air knives on the ceiling and inner walls ensure the ideal distribution of large quantities of heated dry air onto all surfaces of the trolleys. Robust stainless steel lateral wash-arms with strategically directed nozzles guarantee first class washing results with absolutely no spray shadow.



Separate cabinets for installations and electronics

All water, steam, and pumped hot water connections, as well as distributors, valves, meters and hot water aggregates are centrally fitted within the standard MEIKO installation cabinet, offering great operating comfort and ensuring easy access for service and maintenance.

Unique MEIKO features

Additional powerful wash systems located underneath the open belt ensure the cleaning of the underside of the trolleys, bulky boxes and containers and other bulky equipment. Where trolleys with unsealed bearings are still in use, the lower washing systems can be switched off independently. The heavy-duty stainless steel belt ensures unrivalled durability and an excellent stability of the trolleys.



Stay in touch with every aspect of your washing operations



meiko

OPERATION

PH	30°C	WT1	30°C	WT2	30°C
PH	30°C	WT1	30°C	WT2	30°C

MEIKO Control Systems – Your blind flying days are over!

MEIKO's trolley washers come equipped with modern display control systems, making daily operating data statistics and system monitoring available at your fingertips.

Comprehensive

All cleaning operations can be controlled from the touch display.

User-friendly

Only the menu items that are required for a given operation are displayed, blocking out distracting information.

Powerful

Authorised persons can easily take control and systematically optimise functions.

Supportive

When needed, a library of supplementary information can be accessed via the high-res touch display (operating instructions, spare parts lists, contact data etc.).

Accessible

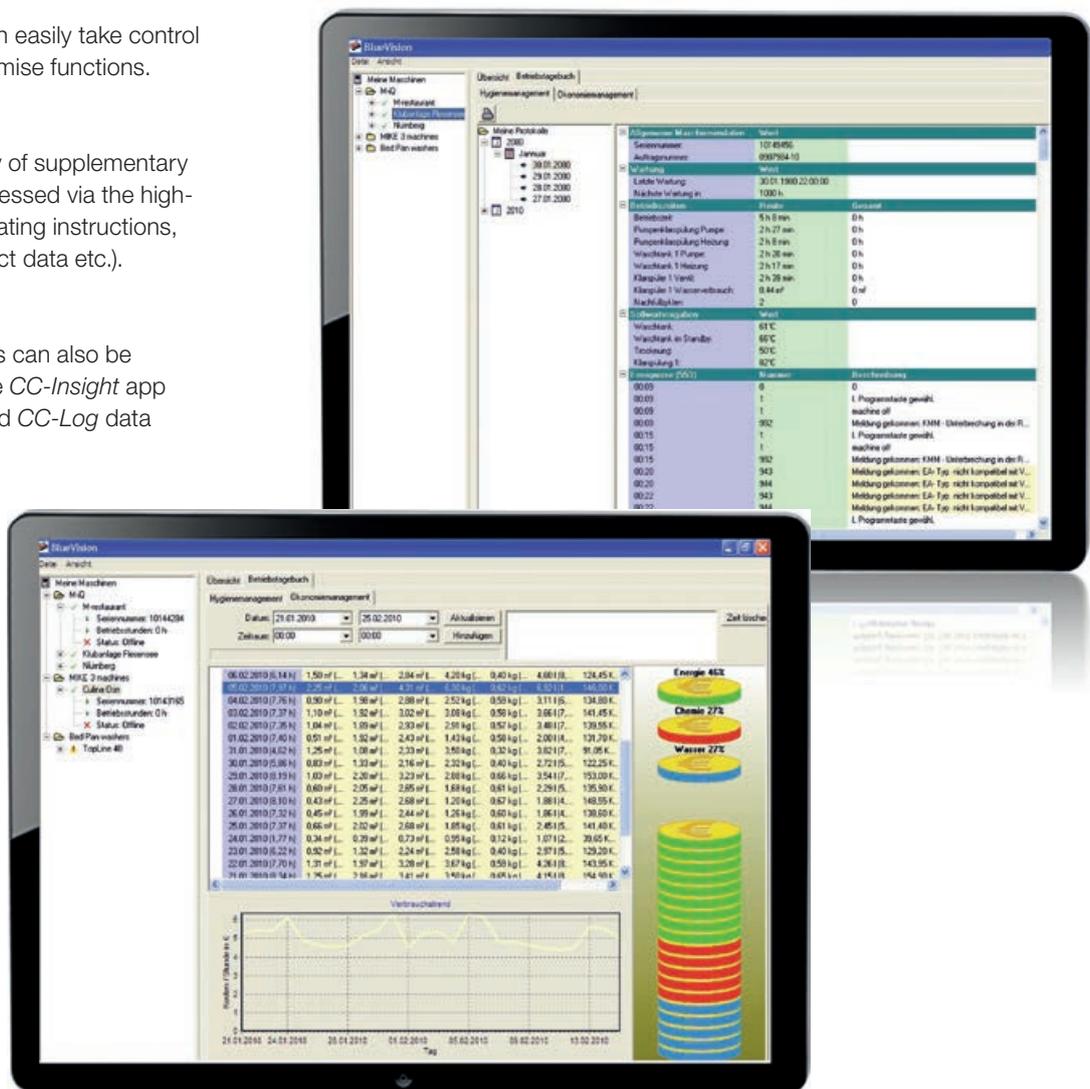
If required, all machines can also be accessed online via the *CC-Insight* app or through the handheld *CC-Log* data module.



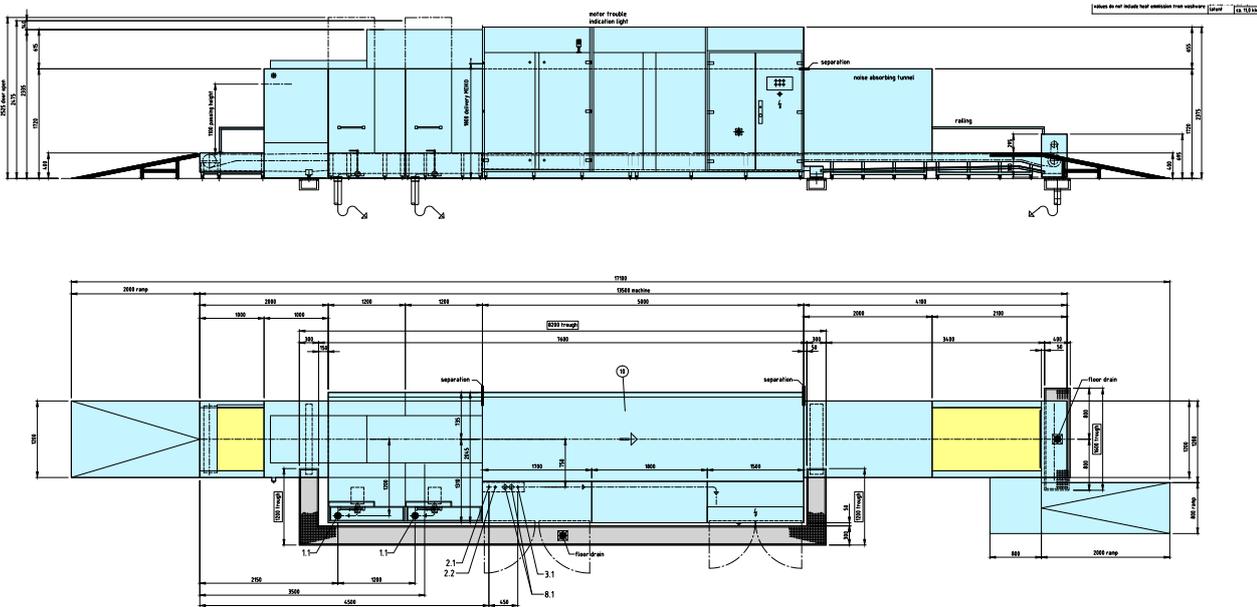
A wireless login into the machine control unit provides for the transfer to and storage of all system-relevant data on an external handheld device within seconds. This ensures that changes to operating processes, analyses and diagnoses are possible at any time.



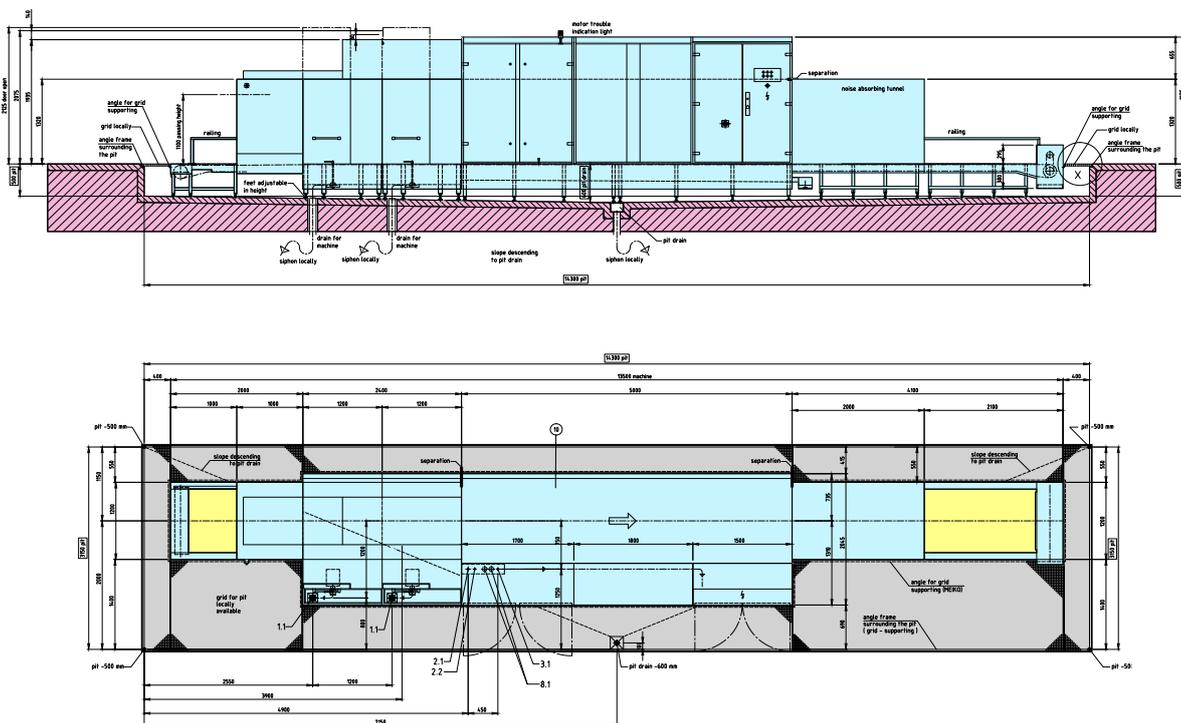
All system-relevant data, functions and operating processes are stored and displayed by the integrated KMM communication module. Operating conditions are analysed and diagnosed, and can be easily changed on your computer as necessary.



BA 252-C Ramp version



BA 252-C Pit version



MEIKO TF-L / TP-L – Single-chamber trolley washer for inflight catering companies

Cleaned and cleared for takeoff

While passengers sit back and relax on their flight and enjoy delicious food, on the ground it's all hustle and bustle. For every meal enjoyed, there is washing up to be done.

Trolleys loaded with a range of washware have to be prepared for reuse quickly. That is where MEIKO comes in: dishes, cutlery, and glasses get a hygienic wash in our *M-iQ* flight type dishwashing machine. And the trolley itself also needs a thorough clean, removing all food and drink residues, as well as germs.

What size of company? It doesn't matter!

The MEIKO *TF-L* (front door) and *TP-L* (pass-through) single-chamber trolley washers are efficient cleaning solutions for inflight catering companies, offering the capacity to clean up to two trolleys at a time – an ideal system for any size of business, whether you deliver 5,000 or 10,000 meals per day. Invest in cleanliness and efficiency for smooth flight operations.

- Excellent hygienic cleaning results
- Great drying results
- Constant temperatures even at high throughput: up to 40 trolleys/h including drying
- Improved efficiency with reduced resource consumption*
- High quality means a long machine life

Your challenge – our solution.

- Less than 4 m² in size
- Flexible – available as a front loader or through loader, installed in a pit or with ramps
- For full-size, half-size, light or standard trolleys
- The best possible value for money
- Easy, ergonomic operation

*just 5 l water per trolley



Tailored to your business

Whatever the situation on the ground in your company, we will realise the best possible solution for you. That is why we offer our single-chamber trolley washer in two versions:

- **MEIKO TF-L** (front door model)
- **MEIKO TP-L** (pass-through model)

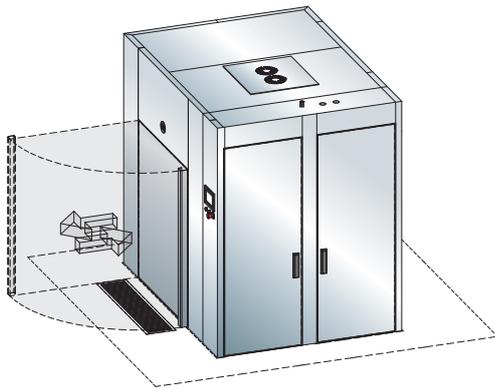
The compact dimensions of under 4 m² are ideal for small spaces. Both models are suitable for installation in a pit or using ramps.

Several choices for installation

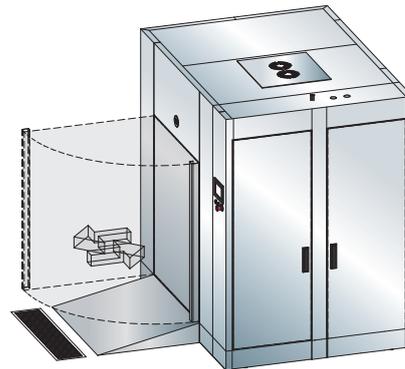
- *TF-L* – installation with 1x ramp
- *TP-L* – installation with 2x ramp, with indicator light on the output end
- *TF-L* and *TP-L* for installation in a pit

Safety for staff and trolleys

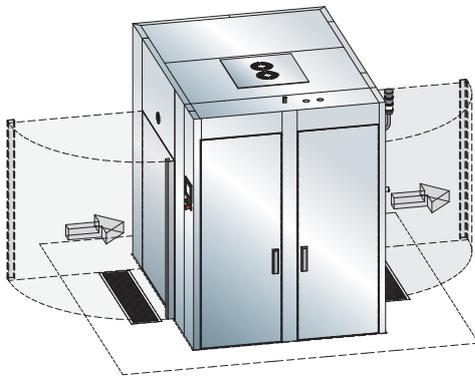
The trolleys are secured in a tilted position using a recess on the rotary plate.



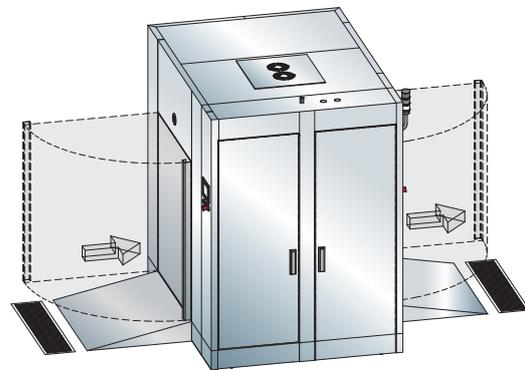
MEIKO TF-L (front door, pit installation)



MEIKO TF-L (front door, installed with ramp)



MEIKO TP-L (pass-through, pit installation)



MEIKO TP-L (pass-through, installed with two ramps)

Technical data

		TF-L	TP-L
Trolley capacity / hour (Thermolabel)	trolleys/h	40 (38)	36 (36)
Dimensions:	height installed with ramps	mm 2,300	
	Height installed in a pit	mm 2,120	
	Width	mm 1,640	
	Depth	mm 2,190	
Fresh water final rinse	l/wash cycle	10	
Tank filling	l	200	
Total connected load	kW	58.9	
Energy consumption at full load (Thermolabel)	kWh/h	26.6 (43.5)	

The machines are installed ready for electrical connection and operation. Electricity supply to the machine 3/N/PE 400 V, 50 Hz.

The machines can be connected directly to the fresh water connection with no need to install safety valves.

Soft hot or cold water, DN 20; 0–3 °dH. Flow pressure 250 kPa (2.5 bar); maximum pressure 600 kPa (6.0 bar).

Follow DIN EN 1717 installation guidelines. Drain DN 70.

MEIKO TF-L / TP-L – Features

Hygienic cleaning

We deliver maximum hygiene. This is down to four powerful wash systems and the high rinse temperature of 81 °C at the end of cleaning. Plus, you can select a Thermolabel programme in addition for the safety of your passengers and employees.

More features for more cleaning power:

- The tank is fully covered to prevent dirt ingress
- Specialist straining and filter technology actively removes dirt. To support this process, an innovative new drain pump with large openings has been integrated
- All-round cleaning of the interior and exterior surfaces using the rotary plate

Robust, high quality

We believe in using stainless steel in our trolley washers. The wash system nozzles, heat exchanger, and even the pump have sturdy stainless steel casing with an impeller. This reduces downtime and service call-outs.

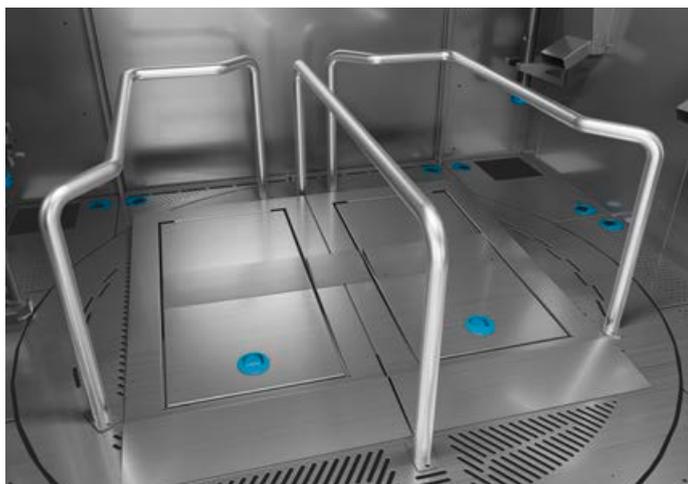
The double-walled design – which extends to the doors – is a further mark of quality.

The doors are also sealed all the way around, making them heat insulating and waterproof. The push-to-open function makes them pleasant to open and close.



Built-in heat recovery system

Heat recovery comes after the final rinse has ended. The heat recovery system includes a self-cleaning feature and feeds energy back into the washing process. This significantly reduces energy consumption and improves the indoor climate.



Blue operating concept

Easy-to-follow colour coding shows the user which parts of the machine can be operated, touched, cleaned or removed, i.e. everything blue. This system is easy to use and not language dependent.



Self-explanatory operator guidance on the generous 7-inch, colour touchscreen

The standard MEIKO on-screen operator guidance is easy to follow and understand.

**High capacity**

This single-chamber trolley washer can clean up to 2 trolleys per wash cycle, adding up to 40 trolleys/h, including drying. With that, the next flight can depart quickly!

Resource efficient

Water is valuable. Thanks to this clever wash system, we only need 5 l water per trolley.

Integrated 360° drying

The trolleys are dried inside and out using airflow drying. In other words, a cooling fan blows air onto the trolley through several channels.

Set-up for efficient servicing

The installation cabinet is easy for service technicians to access externally. An interface is available for chemical products.

Well connected

The daily protocol is controlled from the touchscreen display. It is also connected to the *MEIKO Connect* app. This means that you can use the app to view, call up and document hygiene and service-relevant data. It is also easy to add manual entries to the protocol (e.g. detergent changed, service carried out).

Interior lighting and emergency unlocking

The interior lighting improves workplace atmosphere and safety during cleaning, servicing, and maintenance.

Safety is even further improved with the emergency unlock feature inside the machine.

Your benefits

- Specially designed for inflight caterers providing 5,000 - 10,000 meals/day
- Cleans two trolleys at the same time
- Trolleys quickly ready for reuse thanks to incredible drying results
- Hygienic washing with a footprint of just 1.64 x 2.19 m
- Complies with Thermolabel requirements
- Great value for money
- The blue operating concept makes it easy to use

Chamber type walk-in trolley washer **WS 125.2**
for above-floor and pit installation and up to 45 gastronorm tray trolleys/h



Compact, reliable and intelligent cleaning technology

With today's ever increasing hygiene standards, even smaller in-flight catering operations are expected by their clients to ensure the perfect cleanliness of all the equipment they handle, including the trolleys.

MEIKO's frontloading trolley washing solution *WS 125.2* is a compact walk-in chamber washing machine, for above floor installation or for installation in a pit. With a capacity of 45 gastronorm tray trolleys per hour it combines a high level of effectiveness with a small footprint.

The MEIKO *WS 125.2* washers can be tailored to the exact needs of each individual catering operation or perfectly integrated into any new or existing ware washing facility. *WS 125.2* is available in two versions: the ramp version for best use of the available space and a pit version for easier and faster loading and unloading.



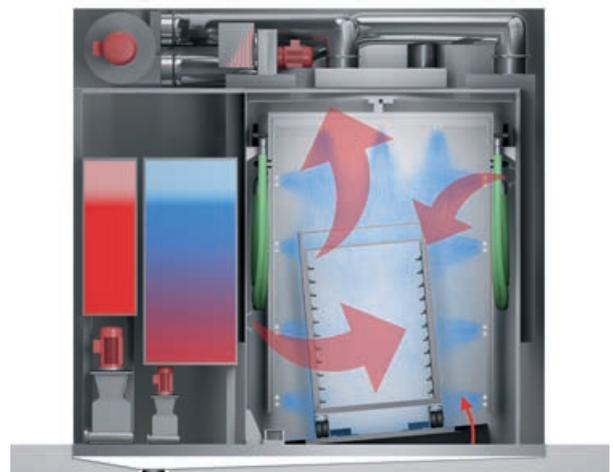
Room-saving doors – The roll-up door of the *WS 125.2* ensures easy loading in confined spaces. All installations are accessible via a separate maintenance door.

Only with MEIKO – The stainless steel trolley platform tilts during the wash program, to increase the amount of residual water that runs off from the trolley or container. This guarantees perfect drying results.



Technical Data

WS 125.2		
Capacity	Wash cycles per hour	aprox. 15
Useable volume	H x W x D in mm	1,950 x 1,000 x 2,400
Clean water per wash cycle	l	18
Tank capacity	l	300
Total connected load (motors)	kW	19.5
Roller door drive (option)	kW	0.3
Tank heating	kW	30
Boiler heating	kW	26
Dryer heating	kW	18



Extremely shallow pit – The pit version of *WS 125.2* requires a depth of just 125 mm for installation.

MEIKO Service

For clear skies above and optimal conditions below

MEIKO's customer service experts keep all your bases covered

Whether you are catering for city hoppers or long haul flights, MEIKO's professional trolley washing systems are guaranteed to reach the recommended level in purity, hygiene and cleanliness without compromise. By the same token, you can expect our expert support at every airport. No matter where you run your business, our 480 handpicked, authorized and specially trained service technicians worldwide are ready to answer your call on 365 days a year – and they are already familiar with your individual MEIKO warewashing solution. Why? Because MEIKO wants to offer you more than just the best technology: we also give you the highly qualified support you need to keep your operation aloft – always.

Ready for a clean take-off: we are there for you from the start

Our comprehensive range of services includes planning and project support for the construction or remodelling of your facilities, initial equipment installation, refurbishment, introductions and technical briefings. We also provide long-term onsite training for scullery and maintenance staff as well as crews and operators, maintenance and repair works as well as spare parts supply.

Clean from every angle: the service values that guide us

Professional warewashing, cleaning and disinfecting – that is our element. We like to keep the bigger picture in mind: people, natural resources and the environment. In our opinion, a truly clean solution needs to offer decisive added value. The MEIKO wheel of service values illustrates our approach: you can turn things whichever way you like, but if you want to run true, you need to strike a balance between efficiency, quality and trust.

On-site project support

Initial installation

Replacement

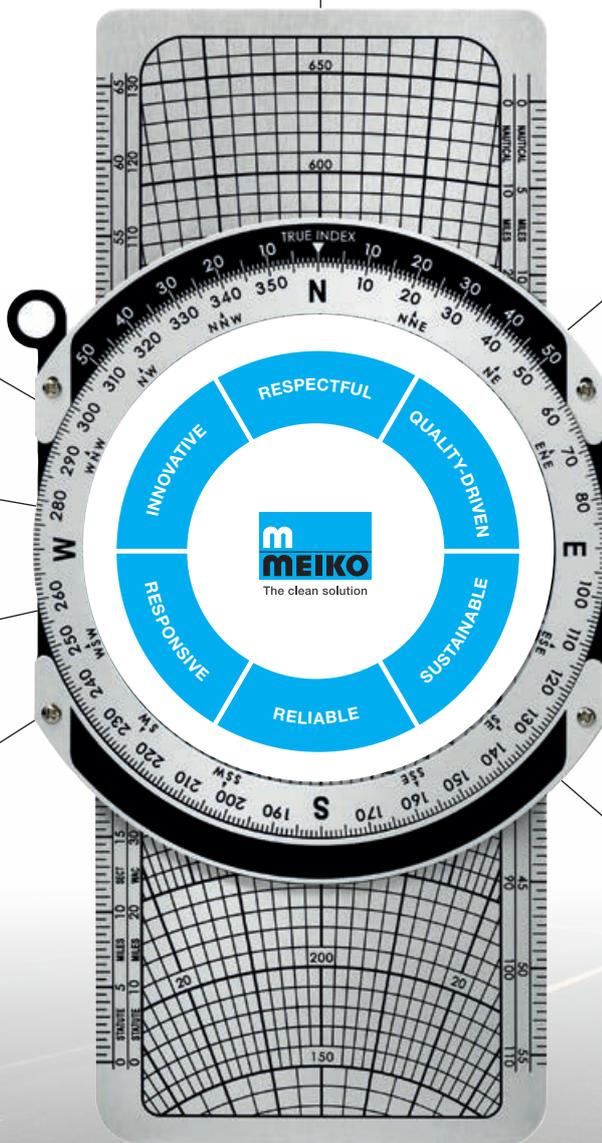
Technical staff trainings

Repairs

Maintenance

Technical briefings

Spare parts supply





The clean solution

MEIKO[®]
ACTIVE



For sustainable hygiene and impressive washing results, MEIKO recommends cleaning and hygiene products made by **MEIKO ACTIVE**.

