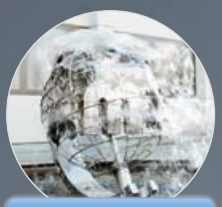
MEIKO

Time to get UPster

Professional warewashing technology from MEIKO:

Cleaner. Faster. More economical.

UPster B



UPster B

Time to get

UPSTER

The best choice for people, the environment and your bottom line.

UPster B –
Sophisticated warewashing technology

UPster B is the name of a new generation of warewashing technology. Perfectly tailored for people and the environment, *UPster B* machines are economical, resource-efficient and user-friendly.
On the outside: a modern, functional design. On the inside: impressive German-made technology. MEIKO *UPster B* offers state-of-the-art technology at an impressively low price. So it's good for your bottom line!

UPster B offers an outstanding array of advanced technologies. Take the *MIKE 3 CleanControl* system, for example. Designed to make hygiene management more efficient than ever, it guarantees maximum cleanliness all the way down the line. The built-in chemical saving system *CSS* optimises wash performance, reducing chemical use by up to 50 percent. The *CSS-Top* version goes even further, achieving reductions in chemical use of up to 80 percent. What's more, the intelligent *AWS* system significantly reduces the amount of water used by the warewasher, keeping the use of this valuable resource to a minimum while still maintaining sparkling clean results.
MEIKO *UPster B*. All the latest warewashing improvements in a single system.

MEIKO *UPster B* 230 VAP flight type warewasher with *CSS-Top*

The smart way to reduce chemical use

CSSBasic reduces chemical use by up to 50 - 60 percent

How to get sparkling clean results while cutting your use of detergent by 50 percent or more? MEIKO has the perfect solution – its very own patented chemical saving system (*CSS*). An additional rinsing system is installed and activated immediately after the pre-wash zone. This system efficiently rinses off the majority of the loose food waste which is typically still attached to the ware after the pre-wash stage.

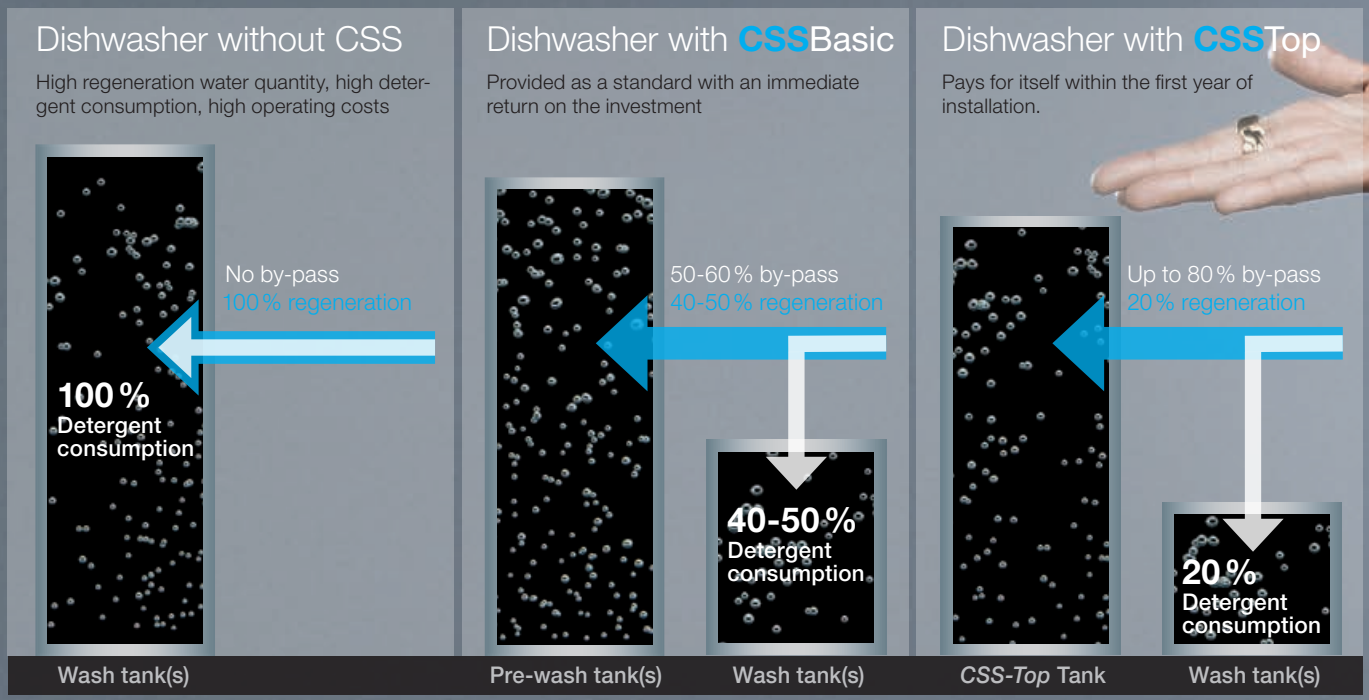
The MEIKO *CSS* effect:
- Reduced carry-over of food debris
- Less food waste in the subsequent wash and rinse zones
- Impressive reductions in detergent use

CSSTop – Major savings of up to 80 percent

But MEIKO can do even better than that! Its enhanced *CSS-Top* system reduces the use of detergent by up to 80 percent. The additional built-in pre-rinse system features its own separate tank and employs two cyclone separators to continuously filter the wash water. It also provides an intermediate rinse with water from the pumped rinse system.

The *CSS-Top* system offers a wide range of impressive features:
- Optimised washing dynamics
- Minimal emulsification of fats and oils
- A generously proportioned tandem filter screen
- Efficient rinsing of the feeding trough
- A heat exchanger which preheats fresh water for free

The *CSS-Top* effect:
- A perfectly clean dishwashing machine
- Less food waste entering the sewage system
- Outstanding reduction in detergent use
- Less contamination of waste water
- Less work for the grease trap
- Tangible energy savings

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UPster B
A clean winner
that’s worth the price!

Fresh water savings with the **AWS** system

The patented *AWS* (Active Water Saver) system makes MEIKO warewashing technology even more resource-efficient and eco-friendly, reducing the use of fresh water by up to 20 percent.

The savings are achieved thanks to a rigorous process of actively cleaning the water that circulates in the pumped rinse zone. A built-in cyclone separator removes even the finest suspended particles, cleaning the water as it circulates and improving the rinsing performance in this zone. This outstanding 'groundwork' results in tangible savings in fresh water later down the line.

AWS Active Water Saver

An excellent basis for cutting down on operating costs!

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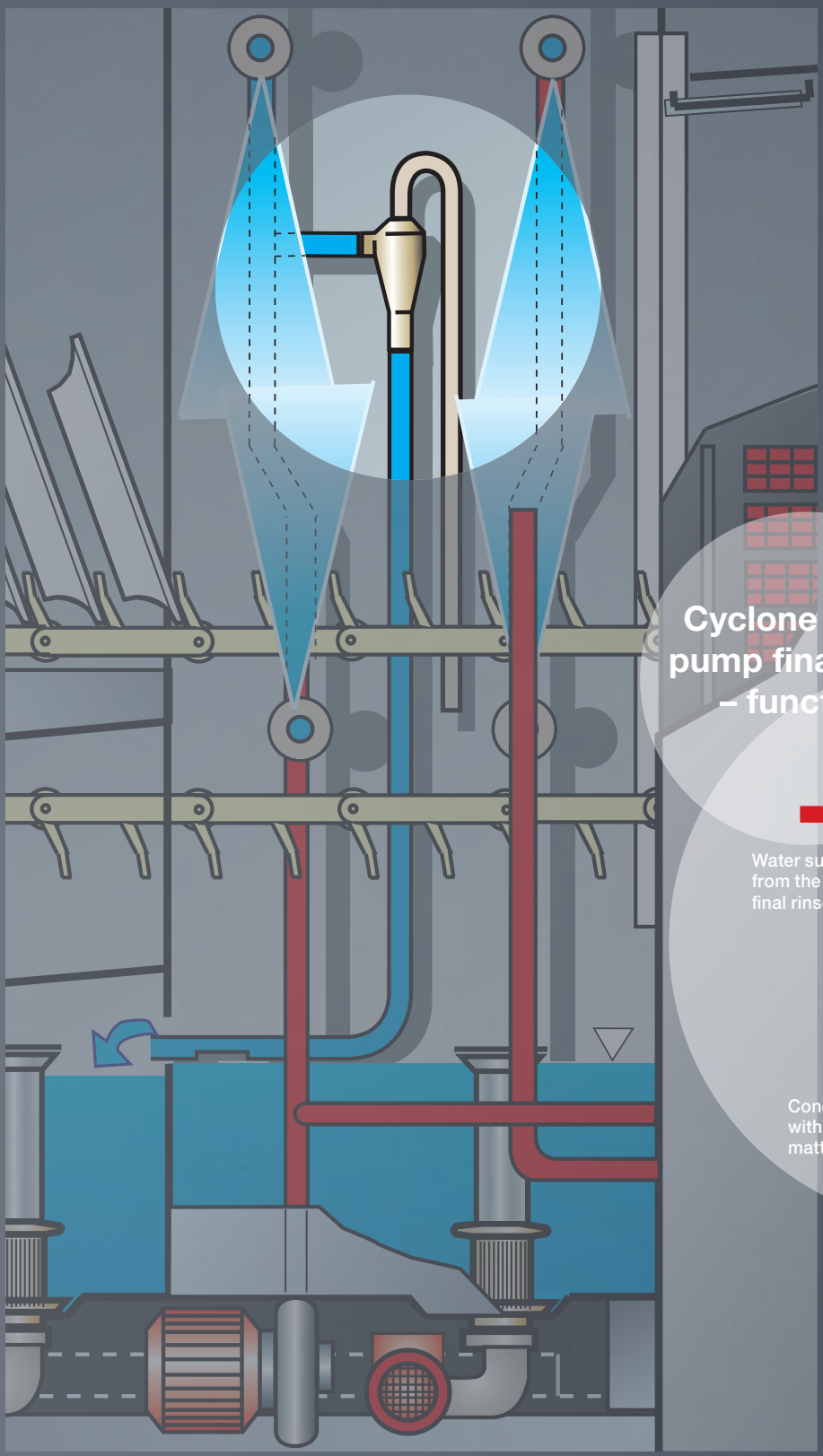
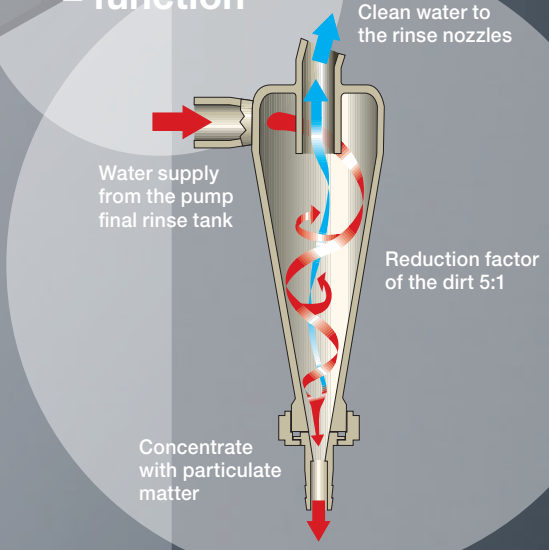


Cyclone in the pump final rinse – function



LEM – Low Energy Management from MEIKO: saving valuable energy

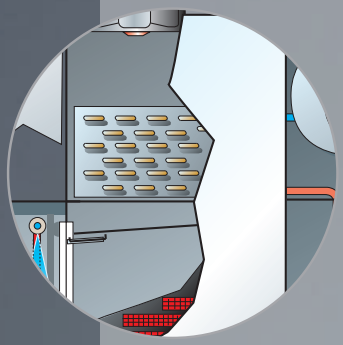
Today's top-quality warewashers are expected to consume significantly less energy than before. MEIKO *UPster B* machines set a whole new standard with their Low Energy Management system, a feature of the *UPster B* range which points the way towards a better future.

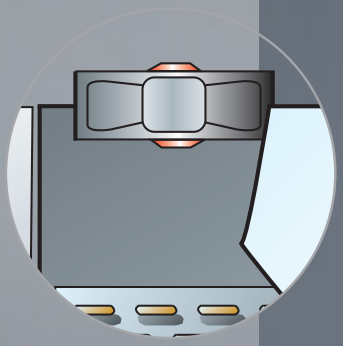
Five original MEIKO innovations reduce energy consumption and ensure more reliable hygiene – just one way in which we help to improve working conditions and protect the environment.

Wash and save with MEIKO's Low Energy Management

1

Painstaking optimisation of multiple different aspects increases the efficiency of exhaust air heat recovery by up to 20 percent.



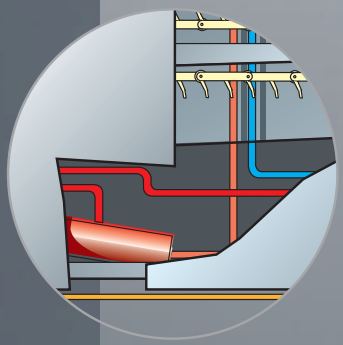


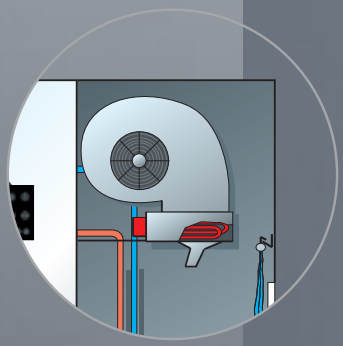
2

A significant reduction in exhaust air emissions minimises changes in temperature and humidity and ensures optimum air quality in the workplace.

3

Optimum pre-heating of the rinse water reduces the amount of energy used by the boiler for heating by up to 20 percent.





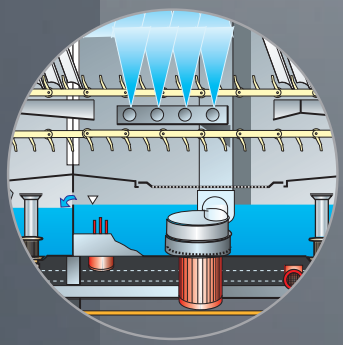
4

Significant improvements to the airflow in the drying zone reduce the energy used for the fan and for heating by 30 percent.

5

New technology uses process-oriented energy distribution to optimise how the machine adapts itself to the different stages of the dishwashing process (start of wash cycle, main wash, standby, etc.)

- **Tank temperatures are kept stable at all times to increase cleaning quality**



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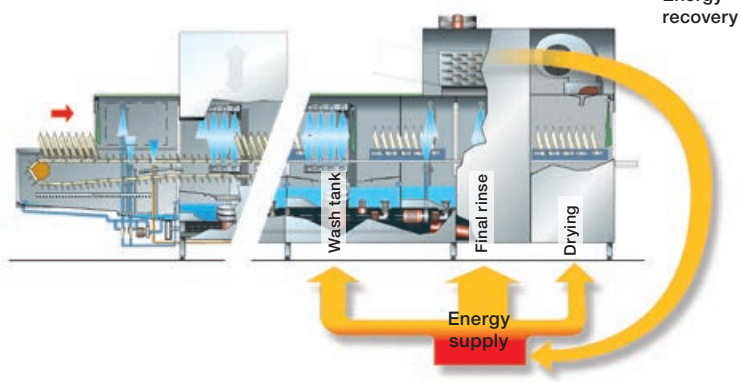
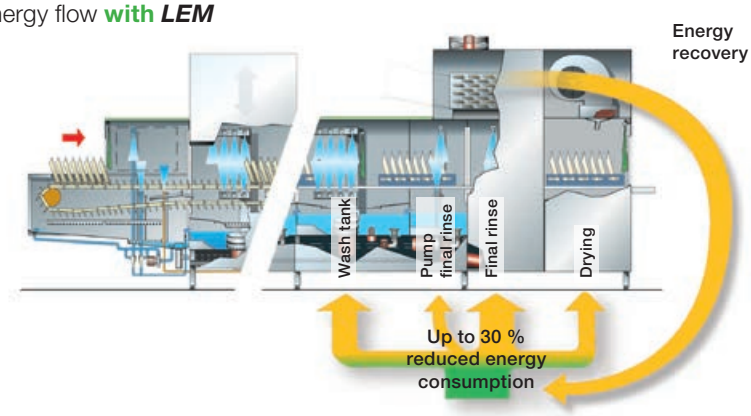
Energy flow **without** ***LEM***



Energy flow **with** ***LEM***



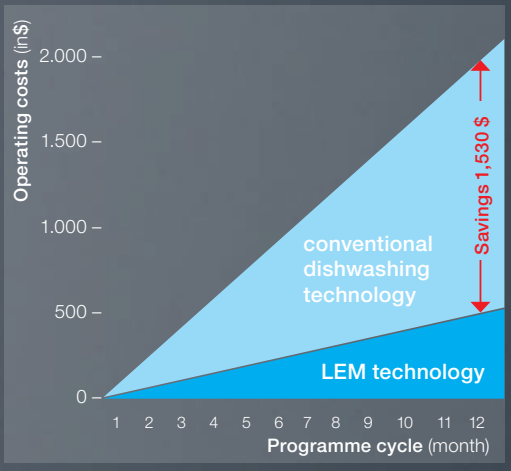
Your money and energy savings with *LEM**

UPster B 230 VAP *CSS-Top*		without ***LEM***	with MEIKO ***LEM***
Connected load (total)	kW	6.7	5.7
Tank heating	kW	13.0	10.0
Booster heater	kW	13.0	13.0
Drying	kW	9.0	6.0
Total	kW	**41.7**	**34.7**

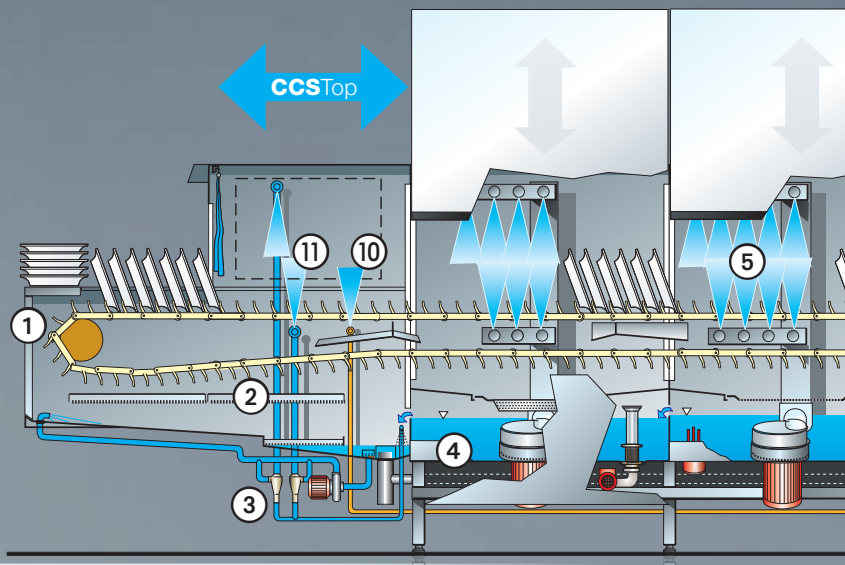
Savings per hour	kWh	7.0
Savings per day	kWh	42.0
Savings per year	kWh	15,330.0
Approximate annual savings	**$**	**1,530**

*Dishwashing time/day: 6 h, working time day/year: 365, electricity costs $/kWh: 0.10

Your money savings with *LEM*

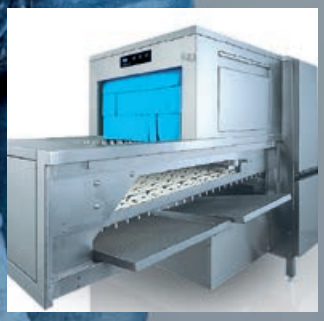


UPster B: the step-by-step approach to maximum cleanliness.



The gentle flow of clean technology.

① Machine feeding section: Easy-to-remove functional elements (panels) make it simple to clean and maintain the *UPster B*. Trough base with incline and built-in self-cleaning system.



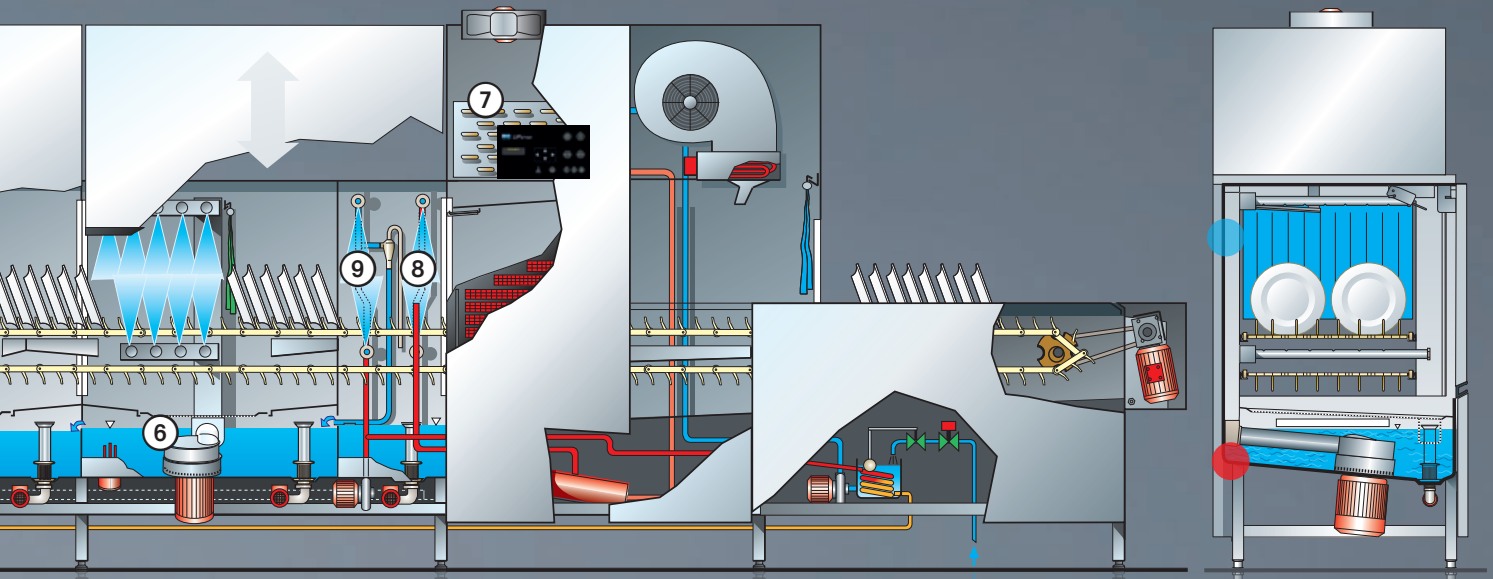
② Dirt removal: The entire feeding trough is covered by two coarse filter screens which collect food waste as it falls from the ware. An additional fine screen above the *CSS* tank keeps out even the smallest food particles. This hugely reduces the amount of dirt and debris entering the wash water.

③ *CSS-Top* system: In addition to the filter screen system, built-in wash water cyclone separators in the top and bottom wash arms constantly filter out even the smallest suspended solids from the water as it circulates through the machine. By carefully combining this with other *CSS-Top* components, it is possible to reduce the amount of detergent used by up to 80 percent.

④ MEIKO V tanks with rounded corners: Homogeneously welded tank housing which is rounded in all the right places. Provides excellent visibility and avoids dirt accumulating in the corners, ensuring reliable hygiene and cleanliness.

Time to get UPSTER

UPster B



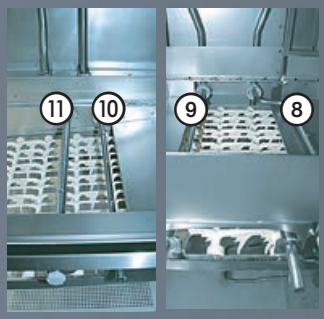
All around insulation of the whole surface. Completely smooth rear wall in one piece, without breakthroughs. Maximum noise and heat insulation.

Rounded edges with a 20 mm radius reducing waste deposits and improving cleanability.

⑤ Manifold wash system: Made from stainless steel with carefully designed pipe cross sections and concave nozzles designed to facilitate cleaning. No problematic holes in the rear wall – and that means years of leak-free operation. Easy to insert and remove.

⑥ MEIKO pump system: Pump impeller and housing all in heavy gauge stainless steel, without edges or corners, circumferal suction area on tank floor. Easily accessible pump housing. Replacement of sliding seal without removal of the pump motor.

⑦ Heat recovery: Exhaust air travels through a central suction duct directly into the cooling coil. The cooling coil can be pulled onto the top of the machine for cleaning. The front panel also serves as a trough.



Final Rinse *Top3*

⑧ Fresh water final rinse

⑨ Pump final rinse

⑩ *Top3* final rinse

- in the feeding tunnel of the machine
- covers the surface of all dishes
- flushing of food waste residues right before the regular wash and rinse zones
- flushing of food waste residues with an effective water quantity

⑪ *CSS-Top* Pre-wash zone


Technology on the one hand, planning
on the other: with MEIKO UPster B you
get everything from a single source.

Time to get UPSTER

UPster B

Keeping sight of the big picture doubles the benefits for you.

Every wash-up area is a unique space with its own individual requirements. And every project has to be tailored to the reality on the ground. MEIKO has the experience gained from thousands of applications worldwide. That means we have the planning expertise to not only offer you the right dishwashing machine to meet your needs, but also to help you make the very best use of MEIKO warewashing technology in every situation. So you get maximum cleanliness and efficiency all round. By investing in MEIKO technology you get double the benefits.

Practical and professional planning

How something works in practice is the true measure of success – and MEIKO *UPster B* never fails to impress! We tailor the planning process to your needs and specific application, making sure that everything is exactly right. Using cutting-edge planning tools and CAD drawings, we assess your needs and share every aspect of the planning considerations. We can offer a huge range of different solutions and alternatives with the MEIKO *UPster B* components. The following examples are just a selection of the clean solutions you can achieve with MEIKO *UPster B*.

Keen to find out more? We would be glad to discuss your needs and help come up with the right concept for you.

MEIKO *UPster B* – a recipe for success

- Reliable hygiene all round
- Optimised ergonomics
- High efficiency
- Great for your bottom line

Time to get UPSTER

UPster B

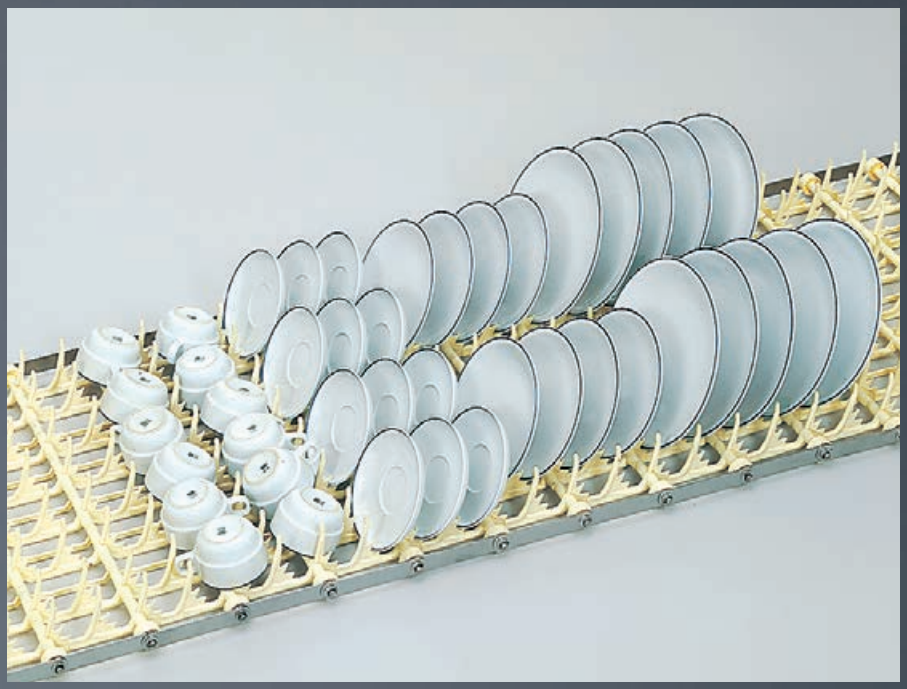
Conveying the best ideas

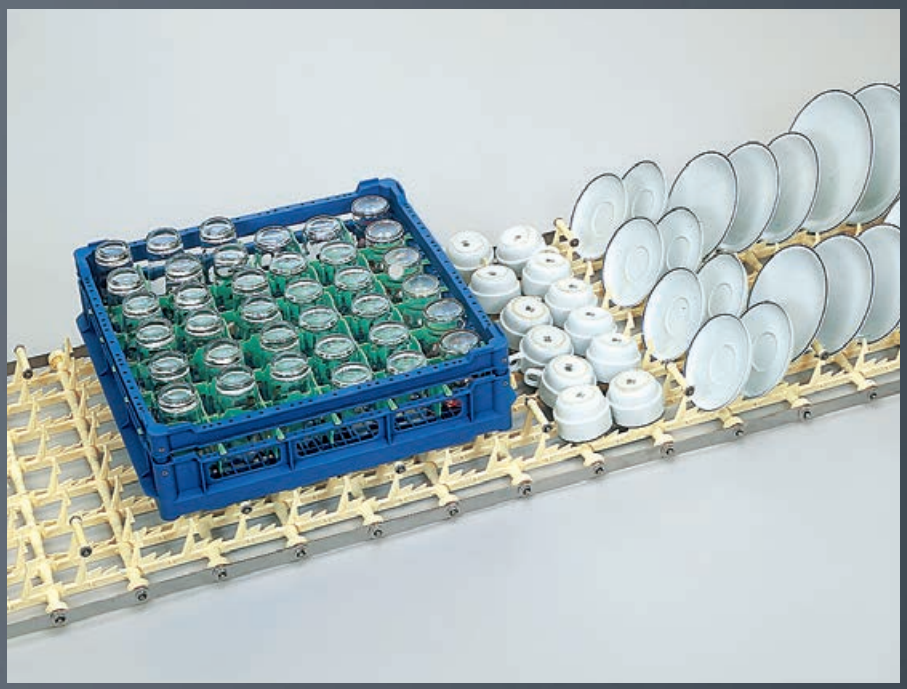
Crockery transport belts for the *Upster B* flight type dishwashing machines are made of solid, wear-resistant material and offer ease of handling. You can be sure that crockery items always pass through the machine in the most technically efficient way.

MEIKO multi-purpose conveyors
MEIKO multi-purpose conveyors are perfect for the most common kinds of dishware in restaurant, catering and canteen environments. With a conveyor finger spacing of 54 mm and three different possible settings, this is a modern classic in wash-up areas all over the world.

We also offer another multi-purpose conveyor (also with a 54 mm spacing) specially designed for inflight catering requirements.

The MEIKO special-purpose conveyor is the best choice for hotels and restaurants, offering handy and practical supports for glass and cutlery baskets. Finger spacing 72 mm or 54mm – depending on dishware.





Clean solutions in all sizes

Every day brings another set of challenges. Plates, bowls, cutlery, trays, and multiple other types and sizes of ware all have to be cleaned and returned to a perfectly hygienic state ready for use.

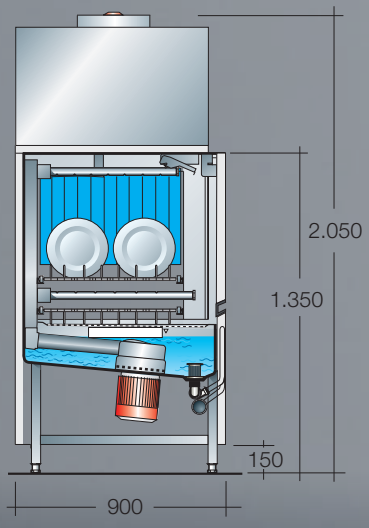
But at the same time you need to keep costs down, minimise your use of resources and offer your employees good working conditions.

MEIKO has the clean solution you need: our modular system gives you the opportunity to create the best solution for you from a multitude of standard components. That's how MEIKO tailors itself to your needs.

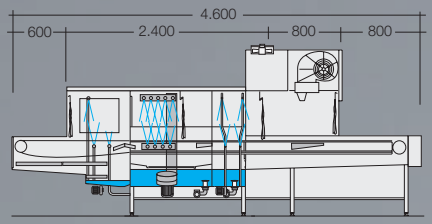
These drawings show just a selection of flight type dishwashing machines created from our standard components.

All machines are also available
- as steam heated machines
- in reinforced inflight catering execution
- in execution for thermo-label testing 71 °C

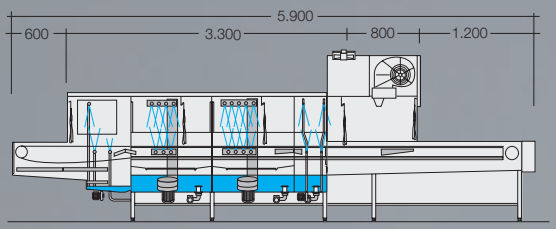
Passing width: 620 mm
Passing height: 400 mm
Working height: 900 mm



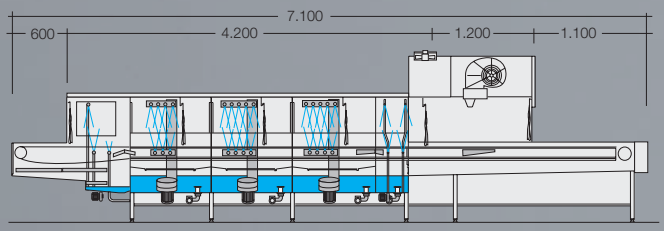
UPSTER B 190 P *CSS-Top*



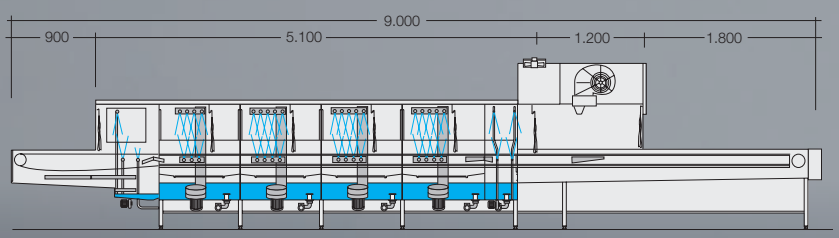
UPSTER B 230 VAP *CSS-Top*



UPSTER B 460 VAP *CSS-Top*



UPSTER B 690 VAP *CSS-Top*

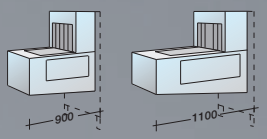


Time to get UPSTER

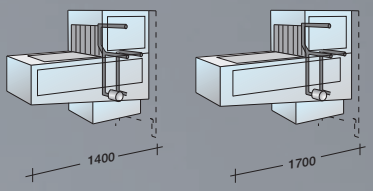
UPster B

The MEIKO UPster B range – models and dimensions

Feeding sections

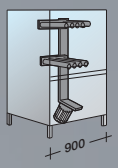


Feeding sections with *CSS-Top*



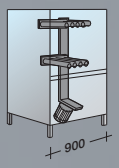
0,7 kW 0,7 kW

Pre-wash zones



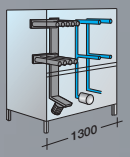
1,7 kW

Main wash zones



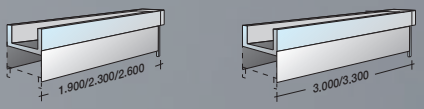
1,7 kW

Final rinse zone with pump final rinse and fresh water final rinse (*AWS*)

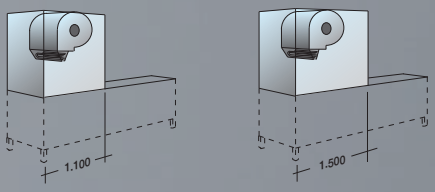


1,7 kW / 0,5 kW

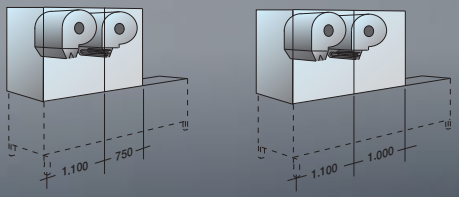
Discharge sections



Drying zones



Outblowing zones with prolonged drying zones



Select the configuration that best suits you from our standard range of modular components. We can supply a custom-made MEIKO flight type dishwashing machine that meets all your needs and aspirations.
Note that the model description, performance data, connected loads and dimensions will vary depending on the components you choose.

Concentrated technology – MEIKO UPster specifications

UPster B Flight type			**B 190 P** 2-tank machine	**B 190 P** *CSS-Top* 3-tank machine	**B 230 VAP** 3-tank machine
Number of optional belt speeds			3	3	3
m/min for 2 min. contact time acc. to DIN SPEC 10534			0.65	0.9	1.1
Contact distance		**mm**	1,300	1,800	2,200
Throughput plates/h for 2 min. contact time acc. to DIN 10510			1,500	2,000	2,500
Plates/h (max.) depends on the degree of soilage, drying time, type of dishes, etc.			2,200	2,900	3,500
Number of wash and rinse processes			3	5	5
Chemical saving system	***CSS-Basic***		•		•
Pump capacity (kW)	***CSS-Top***			0.7	
	VA				1.7
	HW I		1.7	1.7	1.7
	HW II				
	HW III				
	P		0.5	0.5	0.5
Circulation (l/min)	***CSS-Top***			300	
	VA				1,380
	HW I		1,380	1,380	1,380
	HW II				
	HW III				
	P		60	60	60
Connected load tank heating		**kW**	13	13	10
Filling water		**l**	180	190	300
Final rinse quantity (AWS)		**l/h**	240	240	260
Connected load for final rinse		**kW**	13	11	13
Drying circulation		**m³/h**	3,460	3,460	3,460
Drying: connected load heater/blower		**kW**	6/0.3	6/0.3	6/0.3
Extraction volume		**m³/h**	800	800	800
Extraction air fan and drive		**kW**	0.3	0.3	0.3
Connected load motors		**kW**	3.4	4.2	5.1
Connected load heating units		**kW**	33	31	29
included *LEM* – Savings			**8 %**	**9 %**	**16 %**
included *AWS* – Savings of the final rinse water quantity			**20 %**	**20 %**	**19 %**

CSS = Chemical saving system
VA = Pre-wash zone
HW = Main wash zone(s)
P = Pump final rinse

CSS-Plus system in all models: pump capacity: 0.5 kW
All kW values are given for 400 V, 50 Hz current and can vary ± 5 %

Time to get UPSTER

UPster B

B 230 VAP *CSS-Top* 4-tank machine	**B 460 VAP** 4-tank machine	**B 460 VAP** *CSS-Top* 5-tank machine	**B 690 VAP** 5-tank machine	**B 690 VAP** *CSS-Top* 6-tank machine
3	3	3	3	3
1.35	1.55	1.8	2.0	2.25
2,700	3,100	3,600	4,000	4,500
3,000	3,500	4,000	4,500	5,000
4,100	6,100	6,600	7,700	8,000
6	6	7	7	7
	•		•	
0.7 1.7 1.7 0.5	 1.7 1.7 1.7 0.5	0.7 1.7 1.7 1.7 0.5	 1.7 1.7 1.7 1.7 1.7 0.5	0.7 1.7 1.7 1.7 1.7 1.7 0.5
300 1,380 1,380 60	 1,380 1,380 1,380 60	300 1,380 1,380 1,380 60	 1,380 1,380 1,380 1,380 1,380 60	300 1,380 1,380 1,380 1,380 1,380 60
10	2x10	2x10	3x10	3x10
310	420	430	540	550
260	300	300	340	340
12	15	13	18	16
3,460	3,460	3,460	3,460	3,460
6/0.3	6/0.3	6/0.3	6/0.3	6/0.3
800	800	800	800	800
0.3	0.3	0.3	0.3	0.3
5.9	6.8	7.6	8.5	9.3
27	43	39	55	53
17 %	**12 %**	**13 %**	**11 %**	**11 %**
19 %	**17 %**	**17 %**	**15 %**	**15 %**

In execution for thermo-label testing 71 °C (higher connected load)
① The rating of the final rinse water heater foresees a heat recovery condenser
② Exhaust requirements and emissions are given on the installation plan according to precise definition of machine design

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