

WAREWASHING
FLIGHT-TYPE DISHWASHERS



PREMAX FTP

EFFICIENT - RELIABLE - INNOVATIVE



made in germany

MADE IN GERMANY

“Made in Germany” has been synonymous with quality and reliability in the premium segment for a long time and still is today. A company can only maintain its hold on the market by keeping its promise to continually deliver high quality.

WORLDWIDE

Whether you need a completely new kitchen or a replacement item our competent subsidiaries and partners all over the world would be pleased to support you. It's nice to know we are always there.



1883 Mr. Charles Clarence Hobart builds his first engines and generators in Middletown, Ohio.

1886 J.C. Cochran receives the patent for the first dishwasher.

1897 The HOBART ELECTRICAL MANUFACTURING COMPANY was founded in Troy Ohio, through the acquisition of the engine and generator factory of the HOBART family.

1903 HOBART builds the first food processor (a self-contained powered coffee mill).

1926 HOBART purchases The Crescent Washing Machine Company, and enters the commercial warewashing market: the first warewashing machine carrying a HOBART label.

1930 Foundation of the HOBART MASCHINEN GESELLSCHAFT in Hamburg, Germany.

1953 HOBART receives the patent for the first flight-type dishwasher.

1960 Acquisition of the dishwashing department of the company K. Martin, Offenburg, Germany.

1980 Production plant in Elgersweier, Germany, was newly built.

1986 PREMARK INTERNATIONAL GROUP was formed in Deerfield, Illinois.

1997 HOBART CORPORATION'S 100th anniversary.

1999 Integration of PREMARK into ITW.

2007 HOBART presents its new dishwasher generation PREMAX.



HOBART PHILOSOPHY

UNDERSTAND – SIMPLIFY – FOCUS – INNOVATE

This philosophy provides the continuing motivation to develop innovations, which are the best driver of economic development and a guarantee for job security. It is a philosophy of the essential, of customer value, of simplicity. A philosophy built on the conviction that things created for a purpose and with logic, do not need to be completely renewed, but must instead be subject to continuous evolution.

HOBART VISION

“WASH WITHOUT WATER“

Before PREMAX, a flight-type dishwasher with a 50 % water saving would have been utopia. At HOBART, efficiency and responsible use of natural resources when developing new machines have always gone hand in hand. With PREMAX, the company has set a further milestone, and has further extended its leadership in innovation. But even so, HOBART is not satisfied with this. The company will not diminish the pace of its innovation, and will look for further opportunities to save even more. When the day arrives that a machine is able to wash without water, we already know, it will be a PREMAX.

HOBART FOCUS

INNOVATION

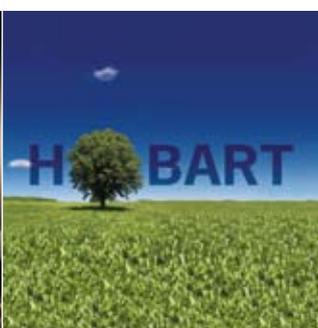
Without the readiness to invest in the future, without the natural reaction of always questioning ourselves, without interdisciplinary basic research and consistent customer focus, PREMAX would be inconceivable. Worldwide, over 300 research and development engineers and global marketing teams, who identify customer requirements, as well as the company's own Tech-Center, with over 1,000 patent applications annually, develop innovative technology and make PREMAX possible.

ECOLOGY

The HOBART environmental protection program CO₂NSEQUENT has been in existence for some time. The program includes a large number of measures that are all related to protecting the environment. These measures are implemented in production, purchasing, the development and sale of products and in additional projects.

ECONOMY

Already in the early 1980s our E-formula set standards in energy saving and recovery which are still unique today. This innovative spirit found its fulfillment in the PREMAX line. The PREMAX flight-type dishwasher saves up to 50 % water, 30 % energy, and 80 % chemicals in comparison with conventional technologies, making HOBART a model in terms of efficiency and economy.



1

2

1 "You were right – the new PREMAX combines best wash results and top economy. Now we are saving up to 50% water."

3

4

2 "In the last years our operating costs have increased by up to 30%. The higher investment will pay for itself in the third year at the latest."

3 "We have grown a lot in the last few years – except from our kitchen. The PREMAX is washing 500 plates per hour more than our old model."

4 "I want everything to be perfect. That's the demand I make on myself, my personnel and my surroundings. And the kitchen is a part of it. The PREMAX by HOBART meets all these demands in every respect."

Dr. Otto Wagner
Old People's home,
Zurich

Magnus Strasmundson
Restaurant,
Stockholm

Steve Balzer
Eventcatering,
London

Giuseppe Gatuso
Prime Hotel,
Rome



BRILLIANT – INNOVATIVE – PREMAX

Congratulation. Your decision in favour of a PREMAX means that you have decided on the most innovative product in the field of commercial dishwashers.

Years of increasing operating costs has made economy a decisive key factor. With the new PREMAX-series HOBART sets new standards. The fresh water rinsing 50PERCENT halves the fresh water consumption. Detergent and energy costs are reduced accordingly.

The energy management TOP-TEMP reduces heat emission, EFFICIENT reduces loss of steam. Together with the wide angle nozzle FAN and the washing HOT-TEMP both reduces loss of energy and with that operating costs are reduced considerably.

DIN being thought out: Besides its economic efficiency PREMAX also, sets new standards regarding hygiene. Independent studies have proven: PREMAX exceeds all requirements for hygienic wash results according to DIN 10510 - with considerably lower operating costs.

„From the hygienic point of view the results show that with a modified temperature profile safe disinfection is achieved according to the regulation of the former German Public Health Department for checking of thermal disinfection. This regulation was one of the fundamentals for the formulation of DIN 10510.“

*PD Dr. med M. Dettenkofer, Prof. Dr. med. F. Daschner
University hospital Freiburg*

„The microbiologic, physical and chemical tests we have carried out show, that with the new procedure (FTP) the tested MTGSM achieves at least equivalent washing and disinfection results compared with the MTGSM of conventional technologies (FTN). These test results show that washing and disinfection of contaminated specimens are guaranteed according to DIN 10510; moreover there is no spreading of test organism (Enterococcus faecium) on the specimens.“

*PD Dr. med Frank-Albert Pitten, Dr Friedrich Tilkes
Hygiene certificate of the Institute for hospital hygiene
and infection control Gießen*





1 | ECONOMY

**PATENT
PENDING**

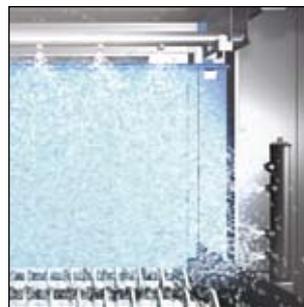
FRESH WATER RINSE 50PERCENT

The task of the fresh water rinse is to remove detergent from the wash items. The distribution of the fresh water is decisive for the water volume used.

The fresh water rinse 50PERCENT has special precision nozzles, which disperse the rinse water like a curtain to form a thin film of water on the wash items. As a result of the optimized water distribution this micro-thin film is sufficient to rinse off the soiled wash water from the wash ware. In addition to the conventional rinsing from above and below the fresh water rinse 50PERCENT rinses the wash ware also laterally. The optimized arrangement of the nozzles enables a precise spraying of the wash ware.

The fresh water rinse 50PERCENT reduces water consumption by up to 50%, resulting in less rinse aid use and greater energy savings.

ECONOMIC – CLEAN



A micro-thin water film from 4 sides optimizes distribution of water.



Only 180 l/h fresh water rinse.

PREMAX FTP

EFFICIENT – RELIABLE – INNOVATIVE

PATENT

DETERGENT SAVING SYSTEM LOW-CHEM

Detergent is injected directly into the wash tank, which is continuously regenerated by fresh water from the rinse. Therefore detergent is added to maintain the concentration according to the added regeneration volume. The enhanced LOW-CHEM detergent saving system directs only 75 liter of fresh rinse water into the wash tank for regeneration. Ahead of the final rinse, detergent is flushed off the washware by the RADIUS pre-rinse nozzle and diverted back into the wash tank. As a result detergent consumption is reduced by up to 80% compared to conventional systems.

PATENT PENDING

ENERGY-MANAGEMENT TOP-TEMP

A conventional flight-type dishwasher loses about 40% of the energy already available in the machine by sensible and latent heat emission. The hot fresh water rinsing has a considerable influence. The heat loss of the fresh water rinse takes place at the end of the machine. The heat energy escapes via drying to the outside.

The patent pending energy-management TOP-TEMP prevents losses before they occur. The high temperature wash zone HOT-TEMP is embedded between the low temp pre-wash and 50PERCENT fresh water rinse zone. Here the prewash zone and the rinsing have the effect of a temperature barrier. The temperature equalization takes place within the machine and so the heat energy can be saved. Energy loss – and costs are reduced by up to 30%.

PATENT PENDING

ENERGY-MANAGEMENT EFFICIENT

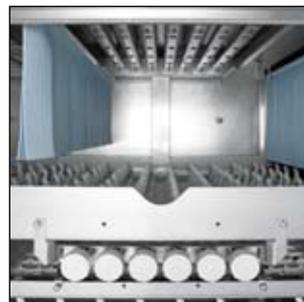
A conventional flight-type dishwasher loses 40% of the energy already available in the machine via the exhaust system. Here the distribution of water and the air stream have a considerable influence. The new energy-management EFFICIENT reduces the loss of evaporation. The improved arrangement of the wide angle nozzles FAN and the orientation of the wash arms reduce the air flow within the machine. The patent pending wide angle nozzle FAN spreads out a 65% wider and more even spray-pattern. Therefore the recirculation of water can be reduced for the same wash result. In order to keep the system in balance less air/water steam has to be exhausted. The new energy-management reduces the energy loss of the flight-type dishwasher by up to 25%.

EFFICIENT – ECONOMICAL



Up to 80% detergent saving.

EFFICIENT – OPTIMAL



Arrangement of nozzles and wash arms.



2 | WASH RESULT

**PATENT
PENDING**

WASH SYSTEM CONTACT-PLUS

The impact with detergent solution via the wash arms is, apart from the temperature, the main factor influencing the cleaning result.

The precision of the patent pending FAN wide angle nozzles makes it possible to reduce the distances between the wash arms. The wash arms are located very close to one another and thus achieving full cleaning performance.

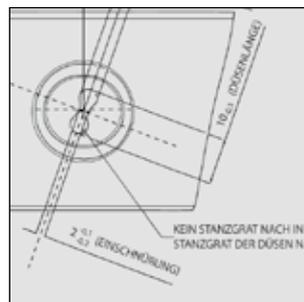
In connection with the 65% wider wash jets the new configuration of the FAN wide angle nozzles washes the items three times per wash arm.

The 13 wash arms of the new wash system CONTACT-PLUS increases the capacity up to 17% in a similar sized machine and with optimal wash results.

PERFORMANCE – POWERFUL



17% higher performance due to 7 wash arms above and 6 wash arms below



The nozzle geometry of the wide angle nozzle FAN was calculated in numerous simulations.

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PATENT
P E N D I N G

HOT-TEMP WASH

Washing is the result of the combined action of temperature, time, mechanicals and chemistry. Water temperature has the biggest influence on the wash result, much more than the wash pressure. In most dishwashers the wash temperature is set at approx. 60°C. HOT-TEMP washes with 67°C, at which temperature the detergent reaches its maximum efficiency - wash ware is clean faster. The HOT-TEMP washing increases the capacity per hour by 40%. As a reverse effect, a smaller unit can therefore be used, reducing the used floor space as well.

PATENT

RINSE TRI

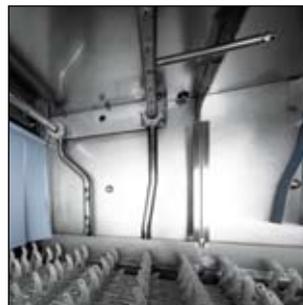
The HOBART triple rinse consists of the RADIUS pre-rinse nozzle, a recirculated rinse and a fresh water final rinse. The RADIUS pre-rinse nozzle rinses off most detergent from the wash ware before entering the rinse zone. The water is directed back into the wash tank, minimizing detergent addition into the recirculating rinse water.

EFFICIENT – FAST



HOT-TEMP wash allows increased performance – higher capacity.

GLEAMING – CLEAN



Best wash results due to triple rinse.

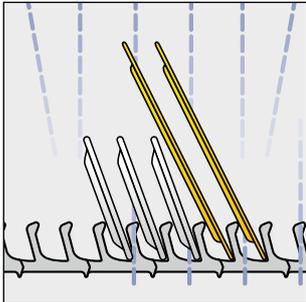


PATENT

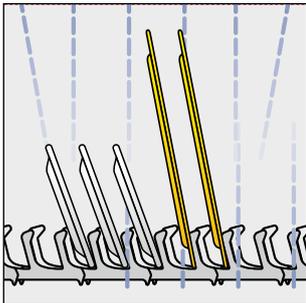
CONVEYOR BELT FREEFLOW

The position of items on the conveyor is important, especially for mixed loads, where large items like trays may shield smaller ones. The FREEFLOW conveyor is designed to avoid spray shadows, so that every item is exposed to the full wash power of the jets. The FREEFLOW ensures perfect results, without sorting the loads.

DIRECT – DYNAMIC



Spray shadow



Special fingers on the conveyor belt FREEFLOW enlarge the adjustment angle for the trays.

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3 | DRYING RESULT

**PATENT
PENDING**

PUMPED RINSE 80DEGREES

The temperature is an important factor for the drying of the wash ware. In conventional dishwashers the highest temperature is in the fresh water rinse. For heating up the wash ware, there is only the volume of the fresh water consumption available.

In the pumped rinse 80DEGREES the hot water is circulated several times (1.200 l/h) and increases the temperature input on the wash ware.

The better heating up of the wash items supports the self-drying effect. It optimizes drying results and reduces the energy required for drying.

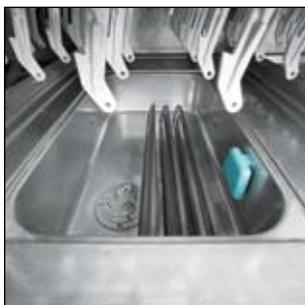
PATENT

DRYER GUIDEAIR

A conventional drying blows the warm air on the wash ware from above. The air reflects uncontrolled from below to above. The patented dryer GUIDEAIR funnels the air via channels and nozzles directly above and below the ware for faster drying.

The dryer GUIDEAIR guarantees perfect drying results for hollow items such as cups, bowls and glasses.

HOT – DRY



Pumped rinse 80DEGREES supports the self-drying.

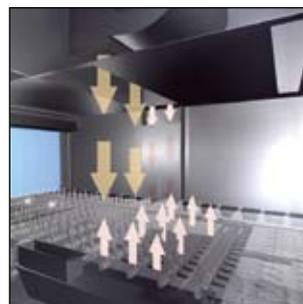


Even jets of water is the most efficient method to transmit high temperatures.

INSIDE – OUTSIDE



Optimal drying results due to wellaimed airflow ...



... also from below.

HOBART

4 | RELIABILITY



HANDLING ASSISTANT EASY

featuring

- PROTRONIC control
- Drop-In wash arms
- Coded wash and rinse arms
- Coded curtains

PROTRONIC CONTROL

Switch on/off – all other functions are automatically assumed by the control.

DROP-IN WASH SYSTEM

Easy to take out and insert.

CODED WASH AND RINSE ARMS

The wash and rinse arms are clearly designed to prevent risk of confusion when inserting.

CODED CURTAINS

Easy to take out and insert. The clear marking on the wash curtains prevents confusion when inserting.

OBVIOUS – SIMPLE



Easy to take out and insert.



5 | SUPPORT

CLEANING ASSISTANT SUPPORT

comprising

- Cleaning manager 360DEGREES
- Bayonet catch
- Alligator flap
- Completely moulded washing tanks
- 1-part strainer
- 150mm floor clearance
- Mono-block condenser
- Panorama door

CLEANING MANAGER 360DEGREES

The 360DEGREES nozzles inside on the rear wall of each wash module enhance the cleaning of the machine. With an unrestricted spray pattern – at an angle of 360° – the fresh water also reaches places with restricted accessibility from outside.

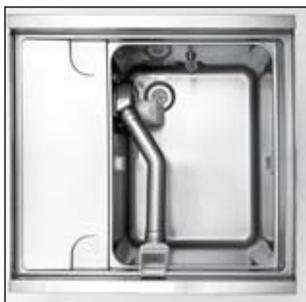
The optional 360DEGREES cleaning manager facilitates easier and faster cleaning of the machine.

BAYONET WASH ARM CATCH

The wash arms are easy to open and close.

FOLDABLE INTAKE

Most of the food waste occurs in the feeding section of the machine. The upward folding entry cover ensures convenient accessibility and easy cleaning. Operators do not have to fumble with removing coverings.



The deep drawn tank is made out of one piece without edges and corners.

MOULDED DRAIN ELEMENT

Dirt is directed via beading to a central point and into the drain. This prevents dirt accumulation in the tank.

WASH ARMS

The wash systems are easy to remove and to insert due to a drawer mechanism.

COMPLETELY MOULDED TANK

The tank sump and tank bottom are moulded from one single part. There are no corners and edges or weld seams where dirt could accumulate. This optimizes cleaning and hygiene.

DISTANCE BETWEEN BELT AND BODY

Easy accessibility, even in confined areas.

STRAINER DRAWER IN INTAKE

In case of very high dirt accumulation fast cleaning is possible by simply removing the drawer from the outside – without interrupting operation. Overflow is prevented by a high-sided drawer which holds a large capacity.

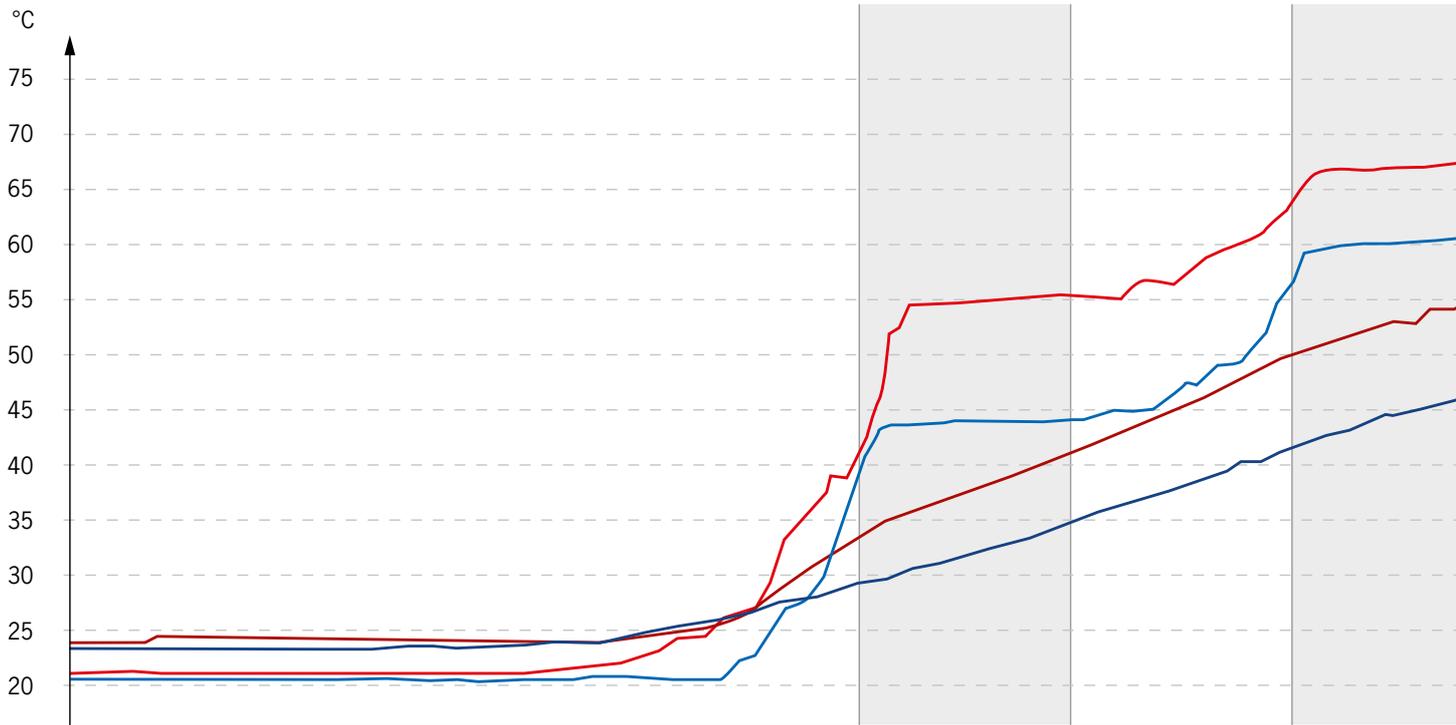
CONDENSER

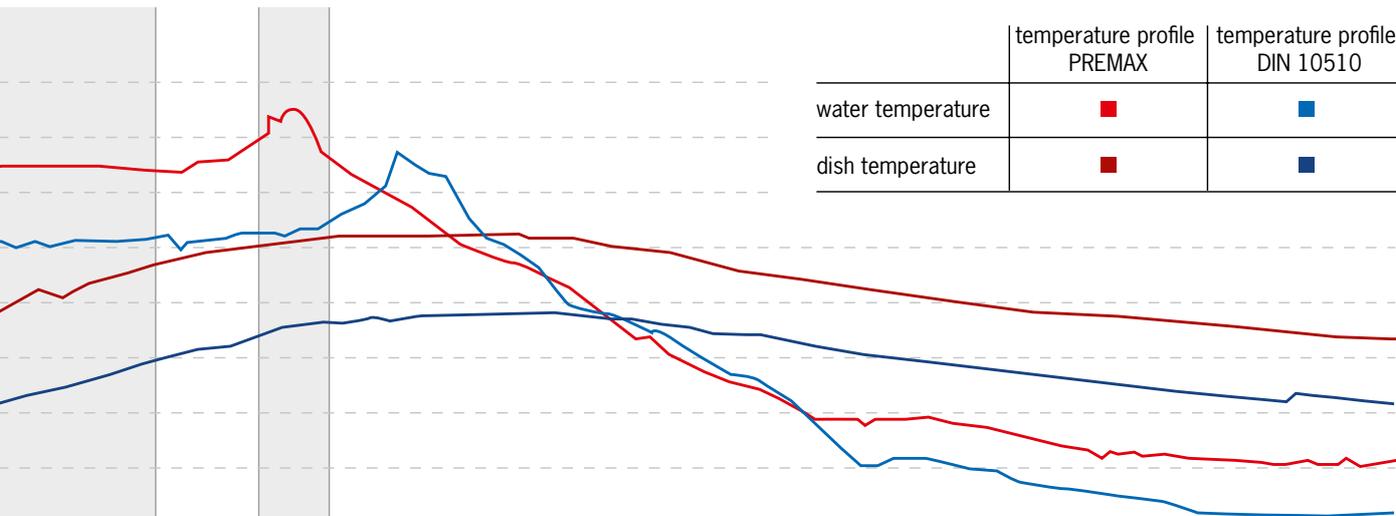
Optimal accessibility for water spraying – by simply removing the front covering.



Bayonet catch: easy cleaning of wash arms.

6 TEMPERATURE PROFILE





	temperature profile PREMAX	temperature profile DIN 10510
water temperature	■	■
dish temperature	■	■



*The DIN 10510 standard requires a temperature of 80°- 85°C for the fresh water rinse. For this purpose, the measuring point is in the boiler. The temperature progression presented indicates the temperature of the water as it comes into contact with the wash items in the zone.

7 TECHNICAL DATA

Plate capacity		Belt speed (m/min.)	Water consumption (l/h.)	Energy consumption kWh (connected load kW)		Recommended model selection	Total length L (in mm)	Entry section Z (in mm)	Exit section A (in mm)
Hygienic wash result based on DIN 10510	Maximum			with heat recovery	with heat pump				
2.620	3.280	1,20	180	37 (39,4)	23 (28,9)	FTP 0-L-A-DL3 FTP 0-L-A-DL4 FTP 1-L-A-DL3 FTP 1-L-A-DL4	4.700 5.000 5.000 5.300	440 440 740 740	800 1.100 800 1.100
2.620	3.280	1,20	180	37 (39,4)	23 (28,9)	FTP 0-L-A-DS4 FTP 0-L-A-DS5 FTP 1-L-A-DS4 FTP 1-L-A-DS5	5.000 5.300 5.300 5.600	440 440 740 740	800 1.100 800 1.100
3.160	3.820	1,45	180	35,5 (40,1)	21,5 (29,6)	FTP 1-S-A-DS4 FTP 1-S-A-DS5 FTP 2-S-A-DS5 FTP 2-S-A-DS6	5.300 5.600 5.900 6.200	440 440 740 740	800 1.100 1.100 1.400
3.490	5.230	1,60	180	35,5 (40,1)	21,5 (29,6)	FTP 1-E-S-A-DS5 FTP 2-E-S-A-DS5 FTP 2-E-S-A-DS6 FTP 2-E-S-A-DS7	6.100 6.400 6.700 7.000	440 740 740 740	1.100 1.100 1.400 1.700
4.100	5.590	1,88	210	44,4 (48,3)	33,4 (41,6)	FTP 1-S-DA-DS5 FTP 2-S-DA-DS5 FTP 2-S-DA-DS6 FTP 2-S-DA-DS7	6.100 6.400 6.700 7.000	440 740 740 740	1.100 1.100 1.400 1.700
5.020	7.200	2,30	240	47,1 (49,8)	31,6 (37,1)	FTP 2-S-AA-DS5 FTP 2-S-AA-DS6 FTP 2-S-AA-DS7	6.800 7.100 7.400	740 740 740	1.100 1.400 1.700

All data for machines with a loading width of 612 mm.

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WAREWASHING

COOKING

FOOD PREPARATION

WASTE TREATMENT

SERVICE

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