



WAREWASHING  
RACK-TYPE DISHWASHER

# PREMAX CP

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.

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## 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.

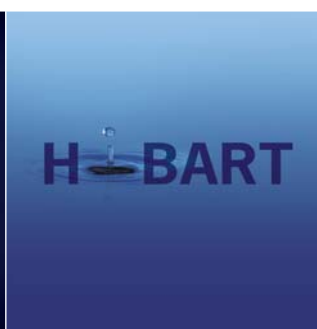
### ECOLOGY

The HOBART environmental protection program CO<sub>2</sub>NSEQUENT 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.

made in germany



1

2

3

4

1 "The constant rise in operating costs has been accompanied by savings in the catering area. With the PREMAX CP, we can save up to 50% in water and 80% in detergent consumption. This allows us to reinvest the money we save for our residents."

2 "Our customers have high expectations – and so do we. The PREMAX CP allows us to meet these expectations, leaving us free to dedicate ourselves to essential activities. Reliability is of primary importance."

3 "Our business is booming but our kitchen is quite small. With the PREMAX CP, HOBART offers a high-capacity dishwasher with low space requirements. This means that we are easily able to cope with busy periods and still have enough time to look after our guests."

4 "Our guests expect a quick and inexpensive catering service. Well, the CP is more expensive than a local machine. But it is an investment in the future, as the additional expense quickly amortizes. This means in the end we save money, which allows us to maintain stable prices."

Luca Marangoni  
Old people's home,  
Bologna, Italy

Olga Sergejewitsch  
Hotel,  
Moscow, Russia

Anike van Reenen  
Restaurant,  
Capetown, South Africa

José Rodriguez  
Motorway Restaurant,  
Madrid, Spain



## INGENIOUS – INNOVATIVE – PREMAX

PREMAX is the most innovative product line in the commercial dishwashing industry. Constantly rising operating costs mean that economy has become a prime concern for users and buyers of warewashing equipment. PREMAX marks the beginning of a new era.

With the optimised energy management, the forward-looking temperature profile and the environmentally friendly resource management of PREMAX, HOBART is positioning itself at the top of the market for high-quality warewashing technology.

DIN being thought out: Besides its economic efficiency PREMAX also sets new standards regarding hygiene. Independent studies have proven: PREMAX exceeds the 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 the inspection 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 Clinic Freiburg*





## 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 wash water from the 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 achieve 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.

## ECONOMICAL – CLEAN



The RADIUS pre-rinse nozzle pre-rinses detergent from the wash items.



Only 160 l/h for the fresh water rinse.

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## 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 litres of fresh rinse water into the wash tank for regeneration. Ahead of the final rinse, detergent is flushed off the wash ware by the RADIUS pre-rinse nozzle and diverted back into the wash tank. The dosing of detergent depends on the regeneration water volume. As a result detergent consumption is reduced by up to 80% compared to conventional systems.

## PATENT PENDING

### ENERGY-MANAGEMENT TOP-TEMP

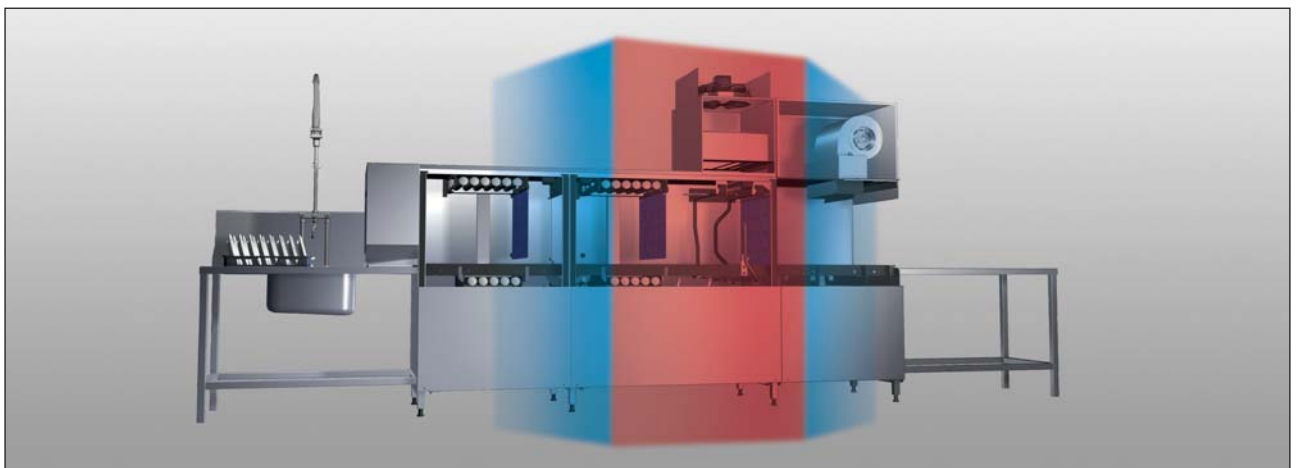
A conventional rack-type dishwasher loses about 40% of the energy available in the machine by sensible and latent heat emission. The hot fresh water rinsing has a considerable influence. The heat loss of the fresh water rinse takes place at the end of the machine. The heat energy escapes through the dryer to the outside. The 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 20%.

## PATENT PENDING

### ENERGY-MANAGEMENT EFFICIENT

A conventional rack-type dishwasher loses 40% of the energy available in the machine via the exhaust system. The distribution of water and the air stream have a considerable influence. The new energy-management EFFICIENT reduces the evaporation loss. The improved arrangement of the wide angle nozzles FAN and the orientation of the wash arms reduce the air flow within the machine. The 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 rack-type dishwasher by up to 15%.



## 1 | ECONOMY

### HOBART HEAT RECOVERY

HOBART's heat recovery system functions according to the countercurrent principle, using the energy from the extracted air to heat up the incoming water. The energy exchange takes place in the HOBART high-performance condenser. At the same time, the extracted air is cooled down and dehumidified. The HOBART heat recovery system reduces energy consumption by up to 8.5 kW and total connected load to 36.7 kW<sup>1)</sup>. The extracted air can be led directly into the building's ventilation ducting.<sup>2)</sup>

### HOBART HEAT PUMP

The HOBART heat pump uses the residual energy in the extracted air following heat recovery. A compressor and refrigerant are used to ensure efficient heat recovery. The amount of recovered energy is sufficient to heat the wash and rinse water. This innovative technology reduces energy consumption by up to 10 kWh and total connected load to 31.5 kW.<sup>1)</sup> The temperature of the extracted air is reduced to approx. 20°C.<sup>3)</sup> The extracted air can be blown directly into the room.<sup>2)</sup>

<sup>1)</sup> Calculation example for the CP S-A DS compared to models without heat recovery.

<sup>2)</sup> Conditional on compliance with VDI 2052

<sup>3)</sup> Depending on incoming air in the room and inlet temperature of the fresh water



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



## 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 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 new wash system CONTACT-PLUS with its 6 wash arms above and 5 wash arms below guarantees an optimal wash result.

**PATENT  
PENDING**

### HOT-TEMP WASH

Washing is the result of the combined action of temperature, time, mechanical action 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 water, at which temperature the detergent reaches its maximum efficiency – wash ware is clean faster. The HOT-TEMP washing increases the capacity per hour by 50 %. 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 TRI consists of the RADIUS pre-rinse nozzle, a pumped 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.

PRE-WASH ZONE

HOT-TEMP WASH

RINSE TRI





### 3 | DRYING RESULT

**PATENT  
PENDING**

#### **PUMPED RINSE 80DEGREES**

Accumulated heat in the wash ware is key for drying. In conventional dishwashers, the highest available temperature is in the final rinse water, but the volume of water is not sufficient to add much heat into the wash ware. The pumped rinse 80DEGREES sprays the ware repeatedly and heats it up substantially. The self drying effect is greatly improved, and less energy is needed for a dryer.

#### **HOT – DRY**



The hot pumped rinse enhances the self-drying of the wash items.



Easy to clean:  
the pumped rinse unit.

## 4 | HANDLING

### HANDLING ASSISTANT EASY

featuring

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

### PROTRONIC CONTROL

The innovative, multi-line text and symbol display is operated by touchscreen. This ensures easy operation and minimises errors.

### 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.

## CONVENIENT – SIMPLE



The wash systems are easy to remove.

## 5 | SUPPORT

### CLEANING ASSISTANT SUPPORT

comprising

- Wash system
- Completely moulded washing tanks
- Bayonet catch
- 1-part strainer
- 150 mm floor clearance
- Condenser
- Panorama door

### WASH SYSTEM

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

### BAYONET WASH ARM CATCH

The wash arms can easily be opened and closed to simplify cleaning.

### MOULDED DRAIN ELEMENT

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

### 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.

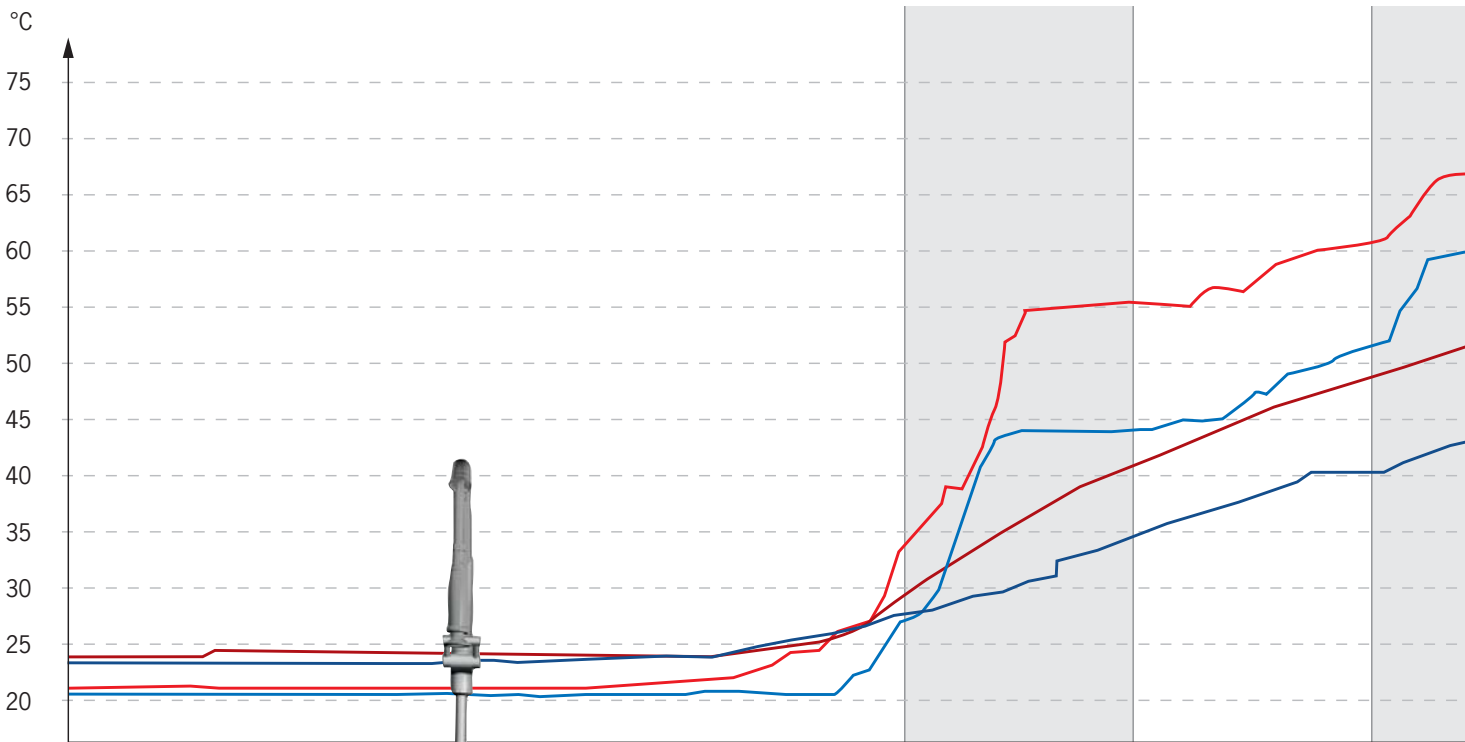
### CONDENSER

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



The tank sump and tank bottom are moulded from one single part. Easy cleaning and optimal hygiene.

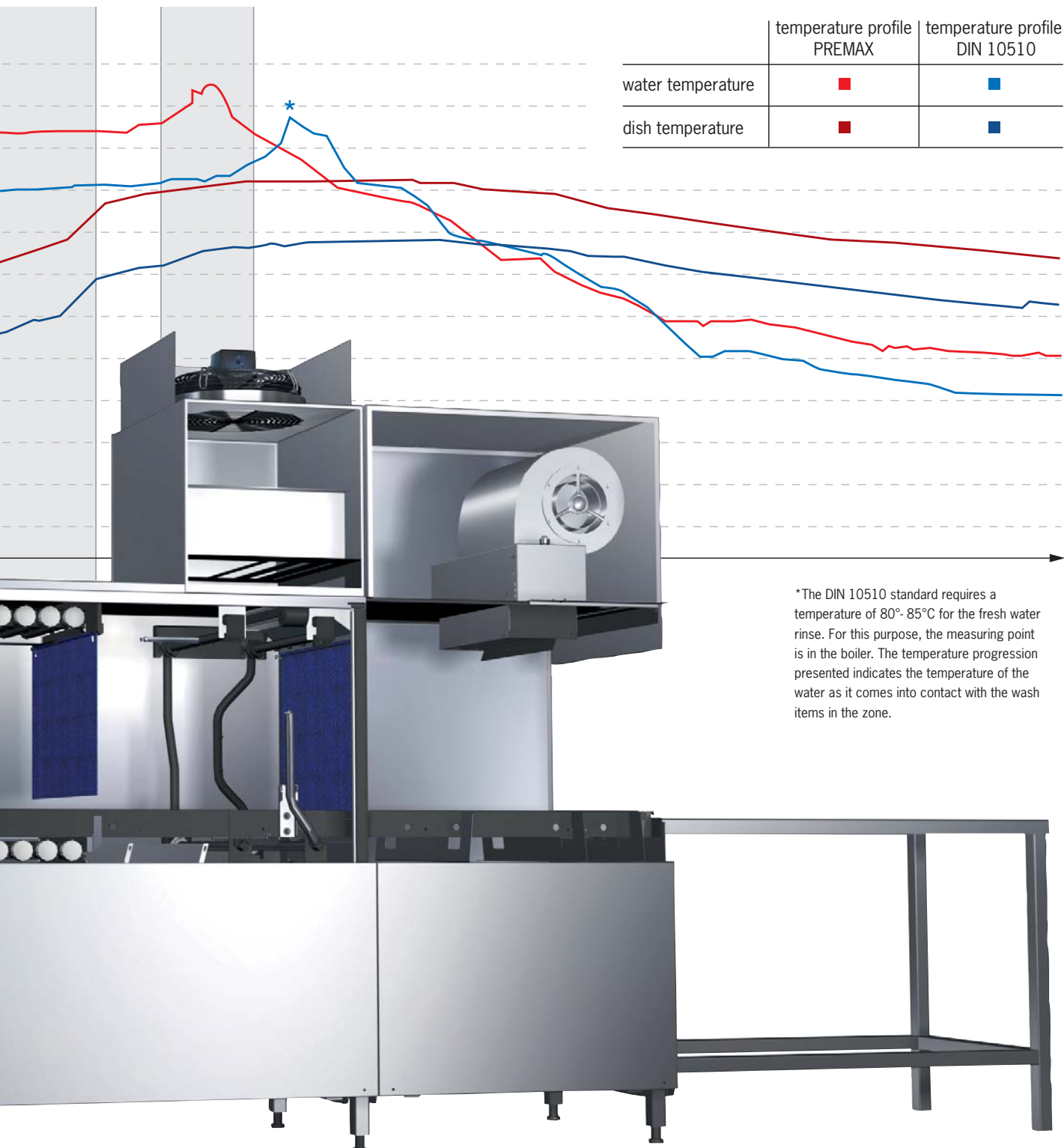
## 6 TEMPERATURE PROFILE



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RACK-TYPE DISHWASHER

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## ECONOMICAL – ECOLOGICAL – PREMAX

The PREMAX line represents the technological peak of modern warewashing technology. These high-performance machines feature numerous world innovations – exclusively from HOBART.

With its focus on economy and conservation of water, energy and chemicals, PREMAX is clearly the right choice. The fact that more than 100 patents have been applied for underlines the innovative power of this technology.

The 50PERCENT fresh water rinse function results in a reduction in water consumption by up to 50 % compared with machines that use standard technology. In combination with the LOW-CHEM detergent saving system, detergent savings of up to 80 % can be realised. The energy management system EFFICIENT reduces energy losses by up to 15 %.

Invest in the future, with PREMAX!

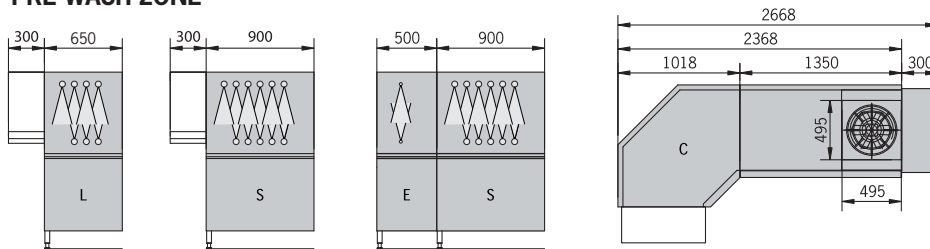


## 7 | TECHNICAL DATA

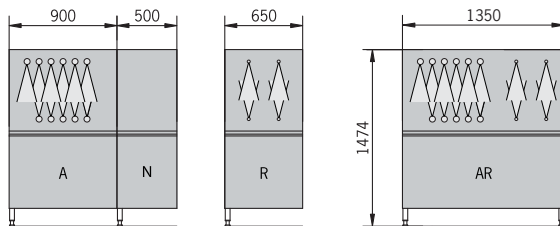
Racks (number/h) all speeds: hygienic wash result based on DIN 10510			Conveyor speed  (m/min)	Water consumption		Energy consumption (connected load) [kWh; (kW)]		Recommended model selection	Total length  (in mm without drying zone)
speed 1	speed 2	speed 3		(l/h)	(l/rack)	with heat recovery	with heat pump		
120	180	240	1,50	160	0,7	30,5 (36,0)	22,0 (30,8)	CP-L-A	2.000
120	190	300	1,58	190	0,6	31,5 (36,7)	22,0 (31,5)	CP-S-A	2.250
150	200	320	1,67	220	0,7	32,5 (38,5)	23,0 (33,3)	CPE-S-A	2.750

## 8 | MODUL SELECTION

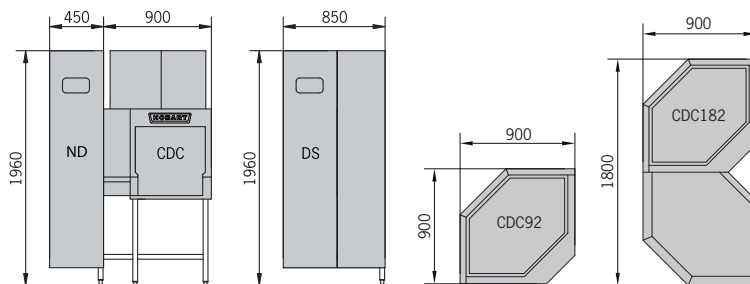
### PRE-WASH ZONE



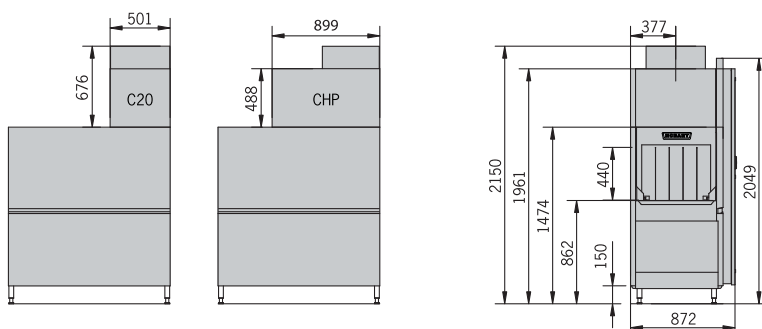
### MAIN WASH ZONE



### DRYING ZONE



### HEAT RECOVERY/HEAT PUMP



Loading width: 510 mm  
Loading height: 440 mm



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HOBART

## PREMAX – AWARD-WINNING INNOVATION



TOP 100 – 2007 und 2008



Dr.-Georg-Triebe  
Innovation Award



Mercury Award



Gastro  
Innovation Award



FCSI  
European Award



Catering Star

WAREWASHING

COOKING

FOOD PREPARATION

WASTE TREATMENT

SERVICE

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