# Flight type dishwasher

WD-B









All installations must result in a good reference!

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# In many countries and parts of the world and always with the same goal

At Wexiödisk we strive to remain on the leading edge of technical innovations that affect people and the environment. The goal is to create the world's best dishwasher, and we feel that we are well on our way. Our WD-B Green flight type dishwasher has been developed with new technology for minimum operating costs and maximum reliability. The new technology reduces energy consumption by a whole 20 % and requires very little water. WD-B Green is also equipped with double heat recovery, which means that it reuses the heat in both the exhaust ventilation and the final rinse water

We place a lot of emphasis on providing an ergonomically correct working environment for the user. Examples of this are easy to handle doors which provide good access, wash arms that are easily cleaned and strainers at the infeed and outfeed that can be removed for easy emptying. In addition, the efficient sound and heat insulation contributes to a good working environment in the dishwashing room.







When an aircraft lands, it is not only the passengers and luggage that must be taken care of. It is equally important that the crockery, trays and canteens are quickly unloaded, sorted and washed. The world's toughest dishwashing environment.

An environment in which we really can and have to show what we are worth.



DOUBLE HEAT RECOVERY – reuses the heat in both the exhaust ventilation and the final rinse water.

Extremely low WATER CONSUMPTION, from as little as 2.7 litres per minute.

A fully insulated construction reduces the heat emitted from the machine, making the dishwashing room a good WORKING ENVIRONMENT and contributing to lower operating costs.

The machine is easily connected to the network and computer using WEB Tool. Information on costs, and water and energy consumption are read off so that applicable hygiene requirements according to HACCP are met.

LONG SERVICE LIFE AND VERY SERVICE-FRIENDLY

– made entirely from stainless steel, easy access for servicing

Low DETERGENT CONSUMPTION due to the controlled water turnover in the washing tanks.

# Customised for optimal ergonomics and economy

The machine is made up of several washing zones. The choice of the number of washing zones is determined by the number of items for washing and the time available. To achieve the best wash results the WD-B Green is designed with extra long washing zones of a full metre, and has the longest final rinse zone on the market at 1125 mm. This reduces water movement between the zones, otherwise known as carry over. Carry over involves the risk of dirty water from previous washing zones being carried into the next tank where there is cleaner water. It is particularly important to avoid this between the chemical wash and the final rinse tank.









## A strong concept with a host of options

#### High pressure washing pumps

For example, extra high pump capacity can sometimes be required for washing heavily soiled items. We can supply 3 kW pumps for these occasions.

#### Steam heating

There are two different versions of WD-B Green available with steam heating.

- Normal pressure steam 150 250 kPa. Washing tanks, final rinsing and drying zones are steam heated
- Low pressure steam 50 140 kPa. Washing tanks and final rinsing are steam heated. Drying zones are mains powered.

#### Connection voltage

Standard connection for WD-B Green is 400 Volt, 3-phase 50 Hz with zero; other alternatives are 200 or 230 Volt, 3-phase 50 or 60 Hz without zero.

#### Loading

The loading sometimes needs to be suited to local conditions, and is available in the following lengths: 900, 1125, 1500, 2025, 2625 and 3000 mm.

#### Extended chemical wash zone

An extended zone is beneficial, for example, when washing long items such as canteens, in order to reduce splashing between the tanks. The extension also provides a longer contact time for the chemical wash, which helps increase the machine's capacity. The first chemical wash zone can be extended by 250 or 500 mm towards the pre-wash zone.

#### Intermediate rinse

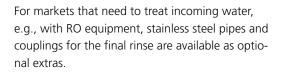
The intermediate rinse is placed after the pre-wash zone. Return water from the final rinse is recycled for an extra rinse to keep the chemical wash tank cleaner for a longer period, achieve the best wash results and allow for long intervals between water changes. With intermediate rinse the pre-wash zone is plus 250 mm, in total 1250 mm.

#### Unloading

The unloading is adapted to the local conditions, and is available in the following lengths: 900, 1125, 1500, 2025, 2625 and 3000 mm.

Demineralised water in the final rinse





#### Location of cleaning filters

Strainers are located at the loading and unloading on the front of the machine as standard. The cleaning filters can be placed on the back of the machine, if, due to local conditions (other machines, pillars, etc.) this is more practical.

#### Extra wide machine

With an accessory the machine conveyor can be widened, for extra high capacity. (750 mm belt)

Collision guard It is common for dishwashers to be damaged by trolleys etc being used in the dishwashing room. To prevent this, an optional collision guard in 50 mm stainless steel tube can be fitted to the entire front and corners.



The work surfaces are flush with the conveyor, which makes it very easy to move fully loaded washing baskets sideways. It is, then, not necessary to lean over the conveyor to lift the baskets. (standard)



#### Adjustable washing time

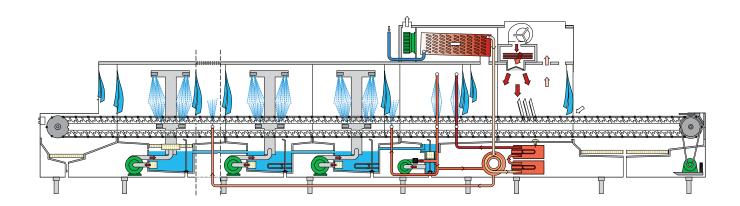
Different washing times are needed depending on how heavily soiled the items are. The washing time is set to one of six different levels using a knob on the panel, which makes it easier for the user and gives higher flexibility in the kitchen. The selected time appears on the display. Simple and easy to understand! (standard)



Adjustable rinse pressure The rinse pressure in the lower washing arms can be adjusted using a lever. Doing this increases the mechanical effect and is beneficial if wash ware is more heavily soiled. (option)



# Get ahead with innovative functionality



#### Sensor controlled automation

With automatic operation, the photocell registers infeed and starts the machine. The final rinse starts once the load reaches the final rinse zone. If no extra items are loaded, the machine stops automatically. The machine restarts once the photocell is reactivated.

#### Intermediate rinse (option)

An intermediate rinse can be included after the pre-wash zone. Here the items are rinsed as they leave the pre-wash zone. Rinsing prevents food residue and pre-wash water from entering the chemical wash zone. This improves results, lowers detergent consumption and allows for longer washing periods without the water needing to be changed. The intermediate rinse reuses water from the final rinse tank, once it has passed through the heat exchanger.

#### Clean Rinse

The new Clean Rinse function enhances the effectiveness of the final rinse. The items and the washing conveyor pass an additional rinse ramp before reaching the final rinse zone, which keeps the water in the final rinse tank cleaner. This results in a further reduction in fresh water consumption.

#### Double heat recovery

The warm, damp air inside the machine is drawn through the condenser, where it is cooled by the incoming cold water. The cold water is led through the condensing battery, where it is pre-heated to around 50 °C. The water is then fed to the heat exchanger. Here the water temperature is raised to around 53 °C. With normal operation, the machine only consumes cold water.

#### Double final rinse system

The final rinse uses water at 85 °C and recirculating (reused) water. A filter on the front of the machine prevents the rinsing nozzles from becoming blocked by the circulating rinsing water.

Water is drained from the recirculating system, half of this is cooled in the heat exchanger and then reused for the pre-wash, intermediate rinse or pre-rinse. The rest is initially used in the Clean Rinse function, and is then used to dilute the chemical wash tanks. As a result, the amount of detergent consumed is extremely low.

#### Drying zone

The drying zone has well sound-insulated fans that blow air onto the washed items from above and below. The fans work partly by recirculating the heated air in the drying zone, which significantly reduces the amount of power required.

#### Safety

If a door is opened during operation, the machine stops automatically. The machine must be restarted after the door is closed. A limit switch stops the conveyor if there are any items left on it. The machine starts automatically on removal of the item(s). An overload switch stops the conveyor drive motor if an item jams the conveyor, and the conveyor automatically reverses a short distance. The machine can be restarted after the item is freed.

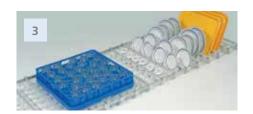


WD-B Green conveyors have strong fingers as well as shafts and conveyor links in stainless steel, which gives them a very long service life. The design of the conveyors keeps the items stable during their passage through the machine. Being able to place the items in the right position and at the correct angle in relation to the direction of the water sprays contributes to excellent wash results.

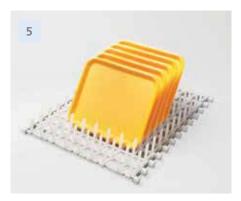
# Large range of conveyors enhances flexibility



- 1. High capacity conveyor with recessed fingers (HC conveyor)
- 2. Extra wide conveyor belt of 750 mm, for extra capacity.
- 3. Standard conveyor with recessed fingers intended for shallow or deep plates, "coffee-break" crockery and trays. Also suitable for baskets.
- 4. On a standard conveyor, both deep and shallow plates stand at the best angle for an optimal result.
- 5. Finger conveyor with vertical fingers designed for shallow or deep plates, "coffee-break" crockery, trays, etc.
- 6. Flat conveyor for canteens, pots and plastic storage trays.
- 7. Special conveyor for canteens
- 8. Special conveyor for insulated trays such as Temprite or equivalent makes.





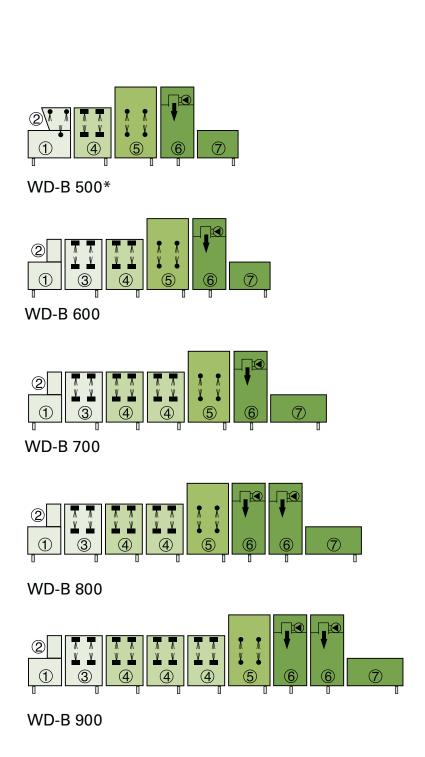








#### Dishwasher models



Zone	Zone length in mm		
WD-B 500			
1 Infeed incl. pre-rinse zone	1125		
2 Steam hood			
4 Chemical wash	1000		
5 Double final rinse	1125		
6 Drying zone	875		
7 Outfeed	1125		
Total length	5250		
WD-B 600			
1 Infeed incl. steam hood (L	.=300 mm) 900		
2 Steam hood			
3 Pre-wash	1000		
4 Chemical wash	1000		
5 Double final rinse	1125		
6 Drying zone	875		
7 Outfeed	1125		
Total length	6025		
WD-B 700			
<ul><li>1 Infeed incl. steam hood (L</li><li>2 Steam hood</li></ul>	=300 mm). 900		
3 Pre-wash	1000		
4 Chemical wash	2000		
5 Double final rinse	1125		
6 Drying zone	875		
7 Outfeed	1500		
Total length	7400		
NAME DOOG			
WD-B 800 1 Infeed incl. steam hood (L	.=300 mm). 900		
2 Steam hood	.=300 11111). 300		
3 Pre-wash	1000		
4 Chemical wash	2000		
5 Double final rinse	1125		
6 Drying zone	1500		
7 Outfeed	1500		
Total length	8025		
WD-B 900			
1 Infeed incl. steam hood (	L=300 mm) 900		
2 Steam hood	-		
3 Pre-wash	1000		
4 Chemical wash 5 Double final rinse	3000		
6 Drying zone	1125 1500		
7 Outfeed	1500		
, Juliocu	1500		
Total length	9025		

#### \* Pre-rinse zone without fresh water supply

WD-B 500 has a pre-rinse zone which recirculates water from a tank. The wash ware is rinsed from both above and below. The material rinsed off is effectively collected in a double filter system, which can be emptied from the front of the machine while it is running. The increased rinsing does not affect operating costs but reduces the need for removing residue from plates beforehand. And the water in the following washing zone is kept cleaner, which reduces consumption of chemicals, water and energy.

### Technical specifications

Technical data	WD-B 500	WD-B 600	WD-B 700	WD-B 800	WD-B 900
Pump motor, pre-wash (kW)	0.74	2.35	2.35	2.35	2.35
Pump motor, chemical wash 1 (kW)	2.35	2.35	2.35	2.35	2.35
Pump motor, chemical wash 2 (kW)	-	-	2.35	2.35	2.35
Pump motor, chemical wash 3 (kW)	-	-	-	-	2.35
Pump motor, recirculating rinse (kW)	0.74	0.74	0.74	0.74	0.74
Heat recovery fan (kW)	0.19	0.19	0.19	0.19	0.19
Fan, drying zone 1 (kW)	0.65	0.65	0.65	0.65	0.65
Fan, drying zone 2 (kW)	-	-	-	0.65	0.65
Drive motor, belt (kW)	0.15	0.15	0.15	0.15	0.15
Booster heater 1 final rinse(kW)	9	9	9	9	9
Booster heater 2 final rinse (kW)	6	6	6	6	6
Tank heater, chemical wash 1 (kW)	18	18	12	12	12
Tank heater, chemical wash 2 (kW)	-	-	12	12	12
Tank heater, chemical wash 3 (kW)	-	-	-	-	9
Heater, drying zone 1 (kW)	6	6	6	6	6
Heater, drying zone 2 (kW)	-	-	-	-	6
Heat recovery, cooling surface (m²)	52	52	52	52	52
Tank volume, pre-wash tank (litres)	20	104	104	104	104
Tank volume, chemical wash tank 1 (litres)	120	120	120	120	120
Tank volume, chemical wash tank 2 (litres)	-	-	120	120	120
Tank volume, chemical wash tank 3 (litres)	-	-	-	-	120
Tank volume, final rinse tank (litres)	21	21	21	21	21
Weight, machine in operation (kg)	1250	1480	1770	1930	2280
Enclosure class (IP)	55	55	55	55	55

Capacity and operating data	WD-B 500	WD-B 600	WD-B 700	WD-B 800	WD-B 900
Capacity, HC conveyor, normal wash (plates/hour)	3190	3750	5140	5140	6525
Capacity, HC conveyor, as per DIN 10510 (plates/hour)	2550	3000	4110	4110	5220
Capacity, standard conveyor, normal wash (plates/hour)	2304	2907	4000	4000	5102
Capacity, standard conveyor as per DIN 10510 (plates/hour)	2016	2535	3504	3504	4464
Contact length according to DIN 10510 (mm)	2300	2700	3700	3700	4700
Belt speed according to DIN 10510 (m/min)	1.15	1.35	1.85	1.85	2.35
Cold water consumption, normal final rinse (litres/hour) *	160-210	170-220	190-240	190-240	210-260
Regeneration of the chemical wash (I/h)	75	75	75	75	75
Steam consumption at 150-250 kPa (kg/hour) **	63	63	71	71	92
Steam consumption at 50-140 kPa (kg/hour) **	52	52	59	69	72
Surface temperature at a room temperature of 20°C (°C)	35	35	35	35	35
Noise level (dB(A)) ***	70	70	70	70	70

Connection, electrically heated machine	WD-B 500	WD-B 600	WD-B 700	WD-B 800	WD-B 900
Total connected power (kW)	44	46	54	54	72
Main fuse 400 V 3N~ (A) ****	80	80	100	100	125
Max. connection area 400 V 3N~(L1 - L3, N, PE) Cu (mm²)	70	70	70	70	70

 $<sup>\</sup>hbox{$^*$} \qquad \hbox{The water consumption depends on local conditions. An exact adjustment is made during installation.}$ 

<sup>\*\*</sup> When the machine is steam-heated

<sup>\*\*\*</sup> Measured 1 metre from the side of the machine

<sup>\*\*\*\*</sup> Other connection voltages on request

### Technical specifications

Connection, steam-heated machine 50-140 kPa*	WD-B 500	WD-B 600	WD-B 700	WD-B 800	WD-B 900
Total connected power (kW)	14.4	16	18	19	28
Main fuse 400 V 3N~ (A) **	35	35	50	50	63
Max. connection area 400 V 3N~ (L1-L3,N,PE) Cu (mm²)	35	35	35	35	63
Steam connection (external thread)	R 1"	R 1"	R 1 1/4"	R 1 1/4"	R 1 ½"
Condensing water connection (internal thread)	R¾"	R ¾"	R ¾"	R ¾"	R ¾"
Connection, steam-heated machine 150-250 kPa	WD-B 500	WD-B 600	WD-B 700	WD-B 800	WD-B 900
Total connected power (kW)	4.8	6.4	8.8	8.8	11.8
Main fuse 400 V 3N~ (A) **	20	20	25	25	25
Max. connection area 400 V 3N~ (L1-L3,N,PE) Cu (mm²)	35	35	35	35	35
Steam (external thread)	R ¾"	R ¾"	R1"	R1"	R 1 1/4"
Condensing water (internal thread)	R ¾"	R ¾"	R ¾"	R ¾"	R ¾"
Water, drain and ventilation connections	WD-B 500	WD-B 600	WD-B 700	WD-B 800	WD-B 900
Water quality, hardness (°dH)	2-7	2-7	2-7	2-7	2-7
Hot water connection 50-70°C (external thread)	R ¾"	R ¾"	R ¾"	R ¾"	R ¾"
Cold water connection, 5-12°C (external thread)	R ¾"	R ¾"	R ¾"	R ¾"	R ¾"
Drain connection, PP pipe (ø mm)	50	50	50	50	50
Water capacity, pressure (kPa)	300-600	300-600	300-600	300-600	300-600
Water capacity, flow (litres/min.)	18	18	18	18	18
Floor drain, capacity (litres/sec)	3	3	3	3	3
Heat load to the room (total, sensible, latent (kW))	10/6/4	10/6/4	11.5/7/4.5	11.5/7/4.5	15/9/6
Size and weight for transportation. Standard, divided machine***	WD-B 500	WD-B 600	WD-B 700	WD-B 800	WD-B 900
Size part 1**** (LxWxH (m))	3.4x1.1x2.0	3.2x1.1x1.5	4.2x1.1x1.5	4.2x1.1x1.5	5.2x1.1x1.5
Size part 2**** (LxWxH (m))	2.35x1.1x1.55	3.3x1.1x2.1	3.7x1.1x2.1	4.3x1.1x2.1	4.3x1.1x2.1
Weight part 1**** (kg)	780	550	750	770	1000
Weight part 2**** (kg)	440	700	700	820	820

<sup>\*</sup> Electrically heated drying zone

#### Dimensions table

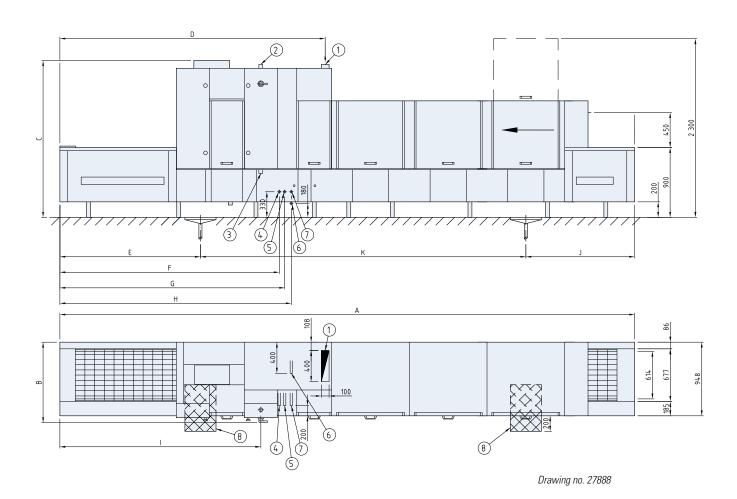
Type Dimensions	WD-B 500	WD-B 600	WD-B 700	WD-B 800	WD-B 900
A (length)	5250	6025	7400	8025	9025
B (width)	1038	1038	1038	1038	1038
C (height)	2020	2020	2020	2020	2020
D	3044	3044	3419	4044	4044
E			1810	1810	1810
F	2450	2450	2825	3450	3450
G	2520	2520	2895	3520	3520
Н	2605	2605	2980	3605	3605
1	2012	2212	2587	3212	3212
J	1625	1400	1400	1400	1400
K	***		4190	4815	5185

<sup>\*\*</sup> Other connection voltages on request

<sup>\*\*\*</sup> Normal delivery in two parts. Option of delivery in more parts.

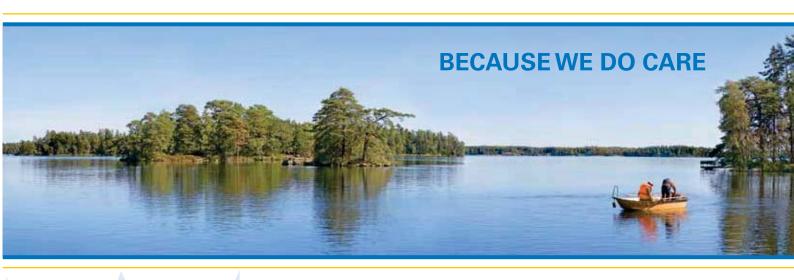
<sup>\*\*\*\*</sup> Including packaging

#### Dimension sketches WD-B Green



- 1. Extractor 400x100 mm without damper. Air quantity, see technical specs.
- 2. Electrical connection from ceiling
- 3. Alternative electrical connection from floor
- 4. Hot water connection \*
- 5. Cold water connection \*
- \* Connection from floor or ceiling

- 6. Condensation water connection (steam-heated machine)
- 7. Steam connection \* (steam-heated machine)
  Steam pressure 150-250 kPa (Fully steam-heated machine).
  Steam pressure 50-140 kPa (Electrically heated drying zone).
- 8. Floor drain 400x600 mm.





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