BARRIER WASHERS





BECAUSE HYGIENE MUST ALWAYS BE AN ABSOLUTE PRIORITY

Solutions to avoid cross contamination in hospitals, clean rooms, nursing homes or healthcare facilities do exist with barrier washers extractors. Since their first development by Danube International in 1984, they have been continually improved by our engineering dept.

DANUBE range of barrier washers strictly complies with RABC standards offering safety, ergonomics and efficiency in the best possible working conditions. Specially designed to be located on either side a of partition wall thanks to their 180° opposite doors, they provide a highly valued solution to prevent contamination between soiled and clean linen.

Our barrier models come in different ranges and various capacities:

- MED-ET2 with 16-22 kg capacities
- DBW-ET2 with capacities from 27 to 70 kg and a new available option: pullman drum for models from 27 to 50 kg
- AS-100 ET2 with Pullman drum as standard

All the ranges offer Danube Online communication as standard with ET2 control.





RANGE OF MODELS

Passthrough models with 180° opposed doors.

| MEDICAL BARRIER WASHER 180° | | | | | |
|--------------------------------|---------------------------------|------------|------------|--|--|
| CONTROL TYPE | HEATING | CAPACITY | | | |
| | | 16 kg | 22 kg | | |
| EASY TOUCH 2 Microprocessor | Electric, steam or dual heating | MED-16 ET2 | MED-22 ET2 | | |

| BARRIER WASHER 180° | | | | | | | |
|--------------------------------|---------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|------------|--|--|
| CONTROL TYPE | HEATING | CAPACITY | | | | | |
| | | 27 kg | 35 kg | 50 kg | 70 kg | | |
| EASY TOUCH 2 Microprocessor | Electric, steam or dual heating | DBW-27 ET2 | DBW-35 ET2 | DBW-50 ET2 | DBW-70 ET2 | | |
| EASY TOUCH 2 Microprocessor | Electric, steam or dual heating | DBW-27 ET2 PULLMAN DRUM OPTION | DBW-35 ET2 PULLMAN DRUM OPTION | DBW-50 ET2 PULLMAN DRUM OPTION | N/A | | |

| BARRIER WASHER - PULLMAN 180° | | | | |
|--------------------------------|-------------------|------------|--|--|
| CONTROL TYPE | HEATING | CAPACITY | | |
| | | 100 kg | | |
| EASY TOUCH 2 Microprocessor | Electric or steam | AS-100 ET2 | | |

HEATING CODES: E = ELECTRIC, S = STEAM, ES = DUAL HEATING ELECTRIC/STEAM, HW = HOT WATER



MED HIGH SPIN

G FACTOR 350 SOFT MOUNTED

- Pass through barrier washer extractors, soft mounted, G factor 350, extraction speed 1000 RPM.
- Easy installation, no need of anchoring.
- Horizontally suspended drum by two axles.
- Outer casing in grey skinplate, top panel in stainless steel.
- Vat and drum in AISI 304 stainless steel.
- Danube Online IoT connectivity standard.
- Steetric or steam heating. Dual heating model available.
- 2 water inlets.
- 8 signals for dosing pumps, ready to be connected to dosing pumps.
- Automatic positioning of drum.

DBW HIGH SPIN

G FACTOR 375 SOFT MOUNTED

- Pass through barrier washer extractors, soft mounted, G factor 375, extraction speed 920 RPM.
- Easy installation, no need of anchoring.
- Horizontally suspended drum by two axles.
- Outer casing in grey skinplate, top panel in stainless steel.
- Vat and drum in AISI 304 stainless steel.
- ET2 touch screen 7", double display.
- **⊘** Danube Online IoT connectivity standard.
- Steetric or steam heating. Dual heating model available.
- 3 water inlets.
- 8 signals for dosing pumps, ready to be connected to dosing pumps.
- Automatic positioning of drum with electric brake.
- End of cycle light alarm as option.
- Pullman drum partition as option for models from 27 to 50 kg.

RANGE PULLMAN



PULLMAN HIGH SPIN

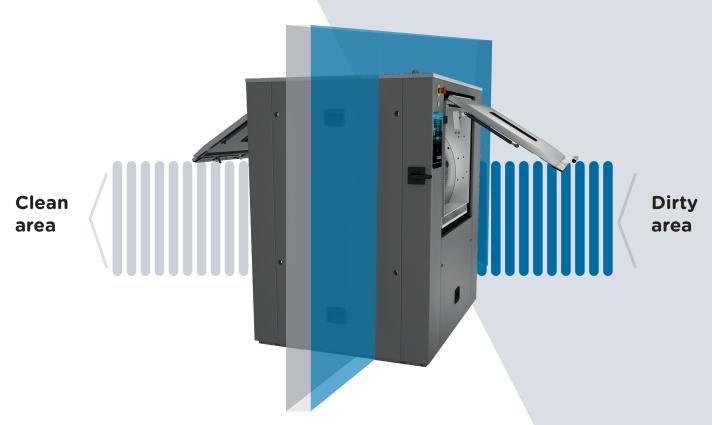
G FACTOR 325

- Pass through barrier washer extractors, soft mounted, G factor 325, extraction speed 750 RPM.
- Easy installation, no need of anchoring.
- Horizontally suspended drum by two axles, Pullman partition.
- Vat and drum in AISI 304 stainless steel.
- Online IoT connectivity standard.
- \bigcirc Electric or steam heating. Dual heating as option.
- O Double drain.
- 8 signals for dosing pumps, ready to be connected to dosing pumps.
- Central drain.
- Automatic positioning of drum with electric brake.
- Needs compressed air for door opening (air pressure 4-7 bar, ø 8 mm, air consumption 10 Nl/min).
- \bigcirc End of cycle light alarm as option.

A PERFECT COMPLIANCE

WITH THE MOST DEMANDING STANDARDS







- · User friendly and fully programmable 7" EASY TOUCH 2.
- USB Connection. Free software online for programming, telemetry, data analysis...
- Danube Online communication standard Free and easy connection to IoT.
- · Wet Cleaning, telemetry as standard
- · Customization of programs according to each need.
- Screen on both sides of the machine: touch operated on dirty side, only displaying on clean side (standard on DBW and PULLMAN models, optional on MED).
- 8 dosing signals as standard + optional 6 extra dosing signals.
- 37 available languages.



- Huge doors opening making easier loading and unloading operations, biggest opening on the market (DBW35: drum 640x515 mm -Vat 700 x 650 mm).
- · User friendly drum opening by push button.
- Height of loading (door bottom):
 800 mm.
- Plinths for loading height at 850 mm as option.
- **Pullman drum option** (DBW models from 27 to 50 kg).



- Water saving: Possibility of configuring three levels of savings.
- Intelligent loading (standard): automatic adjustment of water and detergent consumption.
- · Optimal loading. Manual indication of the load weight.
- Water Recovery tanks ready. Ready to be connected to water recovery tanks: AQUABAC & New AQUABAC XL.
- · Low water consumption.
- High G-FACTOR: Reduced residual moisture, reduced drying time.
- · Automatic weighing system on feet as option.



- Danube Online IoT connectivity standard:
 machine monitoring, error warning, remote desk
 and data recovery for technicians and maintenance,
 software updates...
- Management of laundry: Danube IoT solution allows you to manage your laundry, get statistics, telemetry, laundry monitoring...
- LEMS by Onnera pulse concentrator: collects accurate data on water, gas and electric consumption to provide an overview of your laundry.



- Electric part on the left side, mechanics on the right side, connections on the top: Easy access to all components, easier to connect, all connections protected from water and detergents.
- · Central drain as standard: Easy installation.
- **Technical menu**: Statistics, alarms, autotest, data recovery for technicians and maintenance.
- · Many available options:

Low steam pressure to enable installation of steam heated machines with very low pressure of steam on site.



- Double display (DBW and Pullman models, optional on MED).
- Automatic positioning of drum with motor brake to make easier the loading and unloading operations (DBW and Pullman, optional brake on MED).
- · 3 water inlets (DBW and PULLMAN, optional on MED).
- · Grey skinplate outer casing and top panel in stainless steel, easy to clean.
- WET CLEANING: equipped with all features to use Wet Cleaning programs (useful in nursing homes).
- Detergent box kit instead of standard dosing pumps ready.
- Many available options:

Dual heating electric - steam: energy savings. 2nd drain valve for water recovery. Titration valve.

UPS kit to release drum brake in case of power failure. AISI 304 stainless steel outer casing.



37 languages

Available and easy to configurate, thanks to DANUBE aim to be accessible to everyone.



IoT - Danube Online

Offers feedback from the machines to the device through the cloud, about telemetry and statistics to be analyzed and to ensure maximum hygiene.

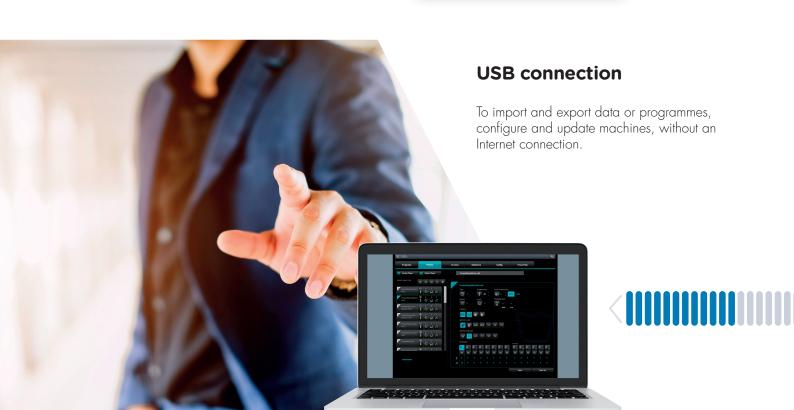
Touch Screen 7"

Coloured touch screen:
7" screen (on all models)
Fully programmable: 8 preset programs, customization of programs according to each need.
Screen on both side of the machine (optional on MED range)

Wet Cleaning, telemetry as standard

Equipped with all features to use wet cleaning programs (useful in nursing homes)
Adjustable washing speeds and temperatures
Fully regulation of water levels
8 dosing signals as standard + 6 extra as option







Outer casing in skinplate

and top panel in stainless steel, easy to clean. As option, AISI 304 stainless steel outer casing

Drum and vat in stainless steel AISI-304

3 water inlets

DBW and Pullman models optional on MED

8 dosing signals as standard

+ 6 extra as option

Automatic positioning of drum with motor brake

to make easier loading and unloading operations.





Automatic weighing system on feet (option)

Allows greater savings on water, detergents and energy by automatically adjusting levels according to the load.

Other options

Detergent box kit (instead of pumps)
Dual heating electric - steam: energy savings
2nd drain valve for water recovery
Titration valve





For laundries where process quality and energy and water savings are a priority, DANUBE barrier washers offer state-of-the-art performance to meet the needs of the most demanding customers.

Their advanced design, with ET2 control, has a significant effect on energy efficiency and water and chemicals savings, reducing operating costs and increasing productivity.

High G-Factor reduces residual moisture and drying time watch

In a laundry, machinery is the tip of an iceberg. Danube pays a specific attention to the invisible part, to optimize resources throughout the life cycle of machines.













Water

Our machines incorporate water recovery technology and management to guarantee low consumption and optimum use of water in each wash cycle.

Energy

Optimizing energy is a key point in the management of a laundry to ensure greater savings and greater efficiency.

Chemicals

Adapting the quantity of detergents to suit the load and the laundry means extra savings, better care for your clothes and greater respect for the environment.

Time

By adjusting process times appropriately, the efficiency and profitability of the laundry is increased.

Prepared to be connected to water recovery tanks

Danube barrier washers, with ET2 and double drain, can be connected to the AQUABAC system, which allows the water recovery, achieving important water and energy savings.

80 and 150 litres tanks for MED-16/22 barrier models







AQUABAC XI

New centralized tank for one or more machines, from 1 to 3 tanks of 1.000 liters

For DBW 27 to 70 and AS-100 models

AQUABAC XL



Water Saving

3 possible levels of savings to reduce water, energy and detergents consumption based on the load.





Energy Saving Time Saving





Our equipment is designed to meet the health and safety considerations of operators at work.



Huge door opening

Making easier the loading and unloading operations, the biggest opening in the market.

Huge doors

DBW 27 542 × 650 mm

DBW 35/50 700 x 650 mm

DBW 70 1402 × 650 mm

AS-100 960×700 mm

Pullman drum for DBW-27-35-50 models

Makes easier the loading and unloading of linen of same type and optimizes handling to save time.

Ergonomic height of loading

(DBW: 800 mm, AS-100: 960 mm door base)



Plinth for loading height at 850 mm door base

(DBW and MED models)

User friendly drum opening by push button







The DANUBE ONLINE solution brings added value to machines, with a host of advantages and a high level of comfort for a wide variety of users:



DANUBE ONLINE Standard

on all ranges equipped with ET2 control: free and easy connection to IoT



Owners

- your processes via a user-friendly interface and obtain detailed reports.
- Control machines, wash times and detergent usage to ensure a hygienic process that meets RABC standards.



Chemical partners

- guarantee cycle efficiency and quality.
- Optimize detergent use in real time and connect dosing system via RS-485.



Dealers

- Manage your fleet of machines: new customers, leasing, maintenance contracts, laundromats, etc.
- Access a detailed database of installed machines, geographical distribution, models, etc.



Technical service

- ∅ Improve service with faster support.
- ODiagnose incidents remotely.
- Access accurate data and keep machines up to date without having to travel.





One of DANUBE's priorities is to make life easier for its customers. Our equipment is manufactured using quality parts from reputable brands that require little maintenance and offer easy access to the various technical parts.

Easy access to components

Electric components on the left side, mechanic components on the right side, connections on the top. Easy access to all the components.

Easier to connect, all connections protected from water and detergents.

Central drain

Easy installation.

Technical menu

Statistics, alarms, autotest, data recovery for technicians and maintenance.

Other options

Side drain.

Low steam pressure: to enable installation of steam heated washer with very low steam pressure on site.



BARRIER WASHERS TECHNICAL DATA

| | UNIT. | MED-16 | MED-22 | DBW-27 | DBW-35 | DBW-50 | DBW-70 | AS-100 |
|---|-------------------------------------|--|---|--|---|--|---|--|
| DRUM | | | | | | | | |
| Capacity 1:9 | kg | 18 | 25 | 30 | 39 | 54 | 78 | 100 |
| Capacity 1:10 | kg | 16 | 22 | 27 | 35 | 49 | 70 | 90 |
| Volume | ı | 158 | 220 | 266 | 347 | 489 | 694 | 900 |
| Diameter | mm | 633 | 633 | 800 | 800 | 800 | 800 | 1.050 |
| Depth | mm | 500 | 700 | 530 | 690 | 974 | 1.380 | 1.032 |
| Number of compartments | | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| Pullman drum | | NO | NO | OPT | OPT | OPT | N/A | STD |
| GENERAL DETAILS | | | | | | | | |
| Washing speed | r.p.m. | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| Spining speed | r.p.m. | 1000 | 1000 | 920 | 920 | 920 | 920 | 750 |
| G Factor | - | 350 | 350 | 375 | 375 | 375 | 375 | 325 |
| Double drain | - | OPT | OPT | OPT | OPT | OPT | OPT | STD |
| ET2 screen | - | 7" | 7" | 7" | 7" | 7" | 7" | 7" |
| Double display | | OPT | OPT | STD | STD | STD | STD | STD |
| Electric brake | | OPT | OPT | STD | STD | STD | STD | STD |
| Plinth of height | | OPT | OPT | OPT | OPT | OPT | OPT | N/A |
| 3 water inlets | | OPT | OPT | STD | STD | STD | STD | STD |
| DOORS | | | | | | | | |
| Drum doors dimensions | mm | 400x315 | 400x315 | 480x515 | 640x515 | 640x515 | 2x(640x515) | 900x500 |
| Vat doors dimensions | mm | 455x415 | 455x415 | 542x650 | 700x650 | 700x650 | 1402x650 | 960x700 |
| Height base door | mm | 670 | 670 | 800 | 800 | 800 | 800 | 960 |
| POWER | | | | | | | | |
| Motor | kW | 2,2 | 2,2 | 4 | 4 | 5,5 | 7,5 | 15 |
| Electric heating | kW | 12 | 18 | 18 | 27 | 36 | 45 | 60 |
| | | | | | | | 40 | |
| Max. power (electric heating) | kW | 14,2 | 20,2 | 22 | 31 | 41,5 | 52,5 | 75 |
| Max. power (electric heating) Max. power (steam model) | | | 20,2 | 22 | 31 | 41,5 5,5 | | |
| · · · | kW | 14,2 | | | | | 52,5 | 75 |
| Max. power (steam model) | kW | 14,2 | | | | | 52,5 | 75 |
| Max. power (steam model) CONNECTIONS | kW kW | 14,2 | 2,2 | 4 | 4 | 5,5 | 52,5 7,5 | 75 15 |
| Max. power (steam model) CONNECTIONS Water inlet | kW kW | 14,2 2,2 3/4" | 2,2 | 3/4" | 3/4" | 5,5 | 52,5 7,5 | 75 15 |
| Max. power (steam model) CONNECTIONS Water inlet Steam inlet | kW kW inch | 14,2 2,2 3/4" 3/4" | 2,2 3/4" 3/4" | 3/4" 3/4" | 3/4" 3/4" | 5,5 1" 3/4" | 52,5 7,5 1" 3/4" | 75 15 1" 3/4" |
| Max. power (steam model) CONNECTIONS Water inlet Steam inlet Drain Compressed air inlet MACHINE DIMENSIONS | kW kW inch inch | 14,2 2,2 3/4" 3/4" 3" N/A | 3/4" 3/4" 3" N/A | 3/4" 3/4" 3" N/A | 3/4" 3/4" 3" N/A | 5,5 1" 3/4" 3" N/A | 52,5 7,5 1" 3/4" 3" N/A | 75 15 1" 3/4" 2 x 3" 8 |
| Max. power (steam model) CONNECTIONS Water inlet Steam inlet Drain Compressed air inlet | kW kW inch inch | 14,2 2,2 3/4" 3/4" 3" | 2,2 3/4" 3/4" 3" N/A | 3/4" 3/4" 3" | 3/4" 3/4" 3" | 5,5 1" 3/4" 3" | 52,5 7,5 1" 3/4" 3" | 75 15 1" 3/4" 2 x 3" 8 |
| Max. power (steam model) CONNECTIONS Water inlet Steam inlet Drain Compressed air inlet MACHINE DIMENSIONS | kW kW inch inch mm | 14,2 2,2 3/4" 3/4" 3" N/A | 3/4" 3/4" 3" N/A | 3/4" 3/4" 3" N/A | 3/4" 3/4" 3" N/A | 5,5 1" 3/4" 3" N/A | 52,5 7,5 1" 3/4" 3" N/A | 75 15 1" 3/4" 2 x 3" 8 |
| Max. power (steam model) CONNECTIONS Water inlet Steam inlet Drain Compressed air inlet MACHINE DIMENSIONS Length (with opt. detergent box) | kW kW inch inch inch mm mm | 14,2 2,2 3/4" 3/4" 3" N/A | 2,2 3/4" 3/4" 3" N/A | 3/4" 3/4" 3" N/A | 3/4" 3/4" 3" N/A | 5,5 1" 3/4" 3" N/A 1.717 (1.869) 1.195 1.615 | 52,5 7,5 1" 3/4" 3" N/A 2.124 (2.276) | 75 15 1" 3/4" 2 × 3" 8 1.742 (1.894) 1.468 1.982 |
| Max. power (steam model) CONNECTIONS Water inlet Steam inlet Drain Compressed air inlet MACHINE DIMENSIONS Length (with opt. detergent box) Width Height (with opt. detergent box) Net weight | kW kW inch inch inch mm mm | 14,2 2,2 3/4" 3/4" 3" N/A 1.056 | 2,2 3/4" 3/4" 3" N/A 1.256 1.082 | 3/4" 3/4" 3" N/A 1.264 (1.416) 1.195 | 3/4" 3/4" 3" N/A 1.422 (1.574) | 5,5 1" 3/4" 3" N/A 1.717 (1.869) 1.195 | 52,5 7,5 1" 3/4" 3" N/A 2.124 (2.276) 1.195 | 75 15 1" 3/4" 2 × 3" 8 1.742 (1.894) |
| Max. power (steam model) CONNECTIONS Water inlet Steam inlet Drain Compressed air inlet MACHINE DIMENSIONS Length (with opt. detergent box) Width Height (with opt. detergent box) Net weight PACKING DIMENSIONS | kW kW inch inch inch mm mm | 14,2 2,2 3/4" 3/4" 3" N/A 1.056 1.082 1.382 (1.426) 438 | 2,2 3/4" 3/4" 3" N/A 1.256 1.082 1.382 (1.426) 471 | 3/4" 3/4" 3" N/A 1.264 (1.416) 1.195 1.615 | 3/4" 3/4" 3" N/A 1.422 (1.574) 1.195 1.615 926 | 5,5 1" 3/4" 3" N/A 1.717 (1.869) 1.195 1.615 1.063 | 52,5 7,5 1" 3/4" 3" N/A 2.124 (2.276) 1.195 1.615 1.190 | 75 15 1" 3/4" 2 × 3" 8 1.742 (1.894) 1.468 1.982 1.900 |
| Max. power (steam model) CONNECTIONS Water inlet Steam inlet Drain Compressed air inlet MACHINE DIMENSIONS Length (with opt. detergent box) Width Height (with opt. detergent box) Net weight PACKING DIMENSIONS Width | kW kW inch inch inch mm mm | 14,2 2,2 3/4" 3/4" 3" N/A 1.056 1.082 1.382 (1.426) 438 | 2,2 3/4" 3/4" 3" N/A 1.256 1.082 1.382 (1.426) 471 1.262 | 3/4" 3/4" 3" N/A 1.264 (1.416) 1.195 1.615 886 | 3/4" 3/4" 3" N/A 1.422 (1.574) 1.195 1.615 926 | 5,5 1" 3/4" 3" N/A 1.717 (1.869) 1.195 1.615 1.063 | 52,5 7,5 1" 3/4" 3" N/A 2.124 (2.276) 1.195 1.615 1.190 2.310 | 75 15 1" 3/4" 2 x 3" 8 1.742 (1.894) 1.468 1.982 1.900 |
| Max. power (steam model) CONNECTIONS Water inlet Steam inlet Drain Compressed air inlet MACHINE DIMENSIONS Length (with opt. detergent box) Width Height (with opt. detergent box) Net weight PACKING DIMENSIONS Width Depth | kW kW inch inch inch mm mm kg | 14,2 2,2 3/4" 3/4" 3" N/A 1.056 1.082 1.382 (1.426) 438 | 2,2 3/4" 3/4" 3" N/A 1.256 1.082 1.382 (1.426) 471 1.262 1.102 | 3/4" 3/4" 3" N/A 1.264 (1.416) 1.195 1.615 | 3/4" 3/4" 3" N/A 1.422 (1.574) 1.195 1.615 926 1.608 1.300 | 5,5 1" 3/4" 3" N/A 1.717 (1.869) 1.195 1.615 1.063 1.903 1.300 | 52,5 7,5 1" 3/4" 3" N/A 2.124 (2.276) 1.195 1.615 1.190 2.310 1.300 | 75 15 1" 3/4" 2 × 3" 8 1.742 (1.894) 1.468 1.982 1.900 1.890 1.540 |
| Max. power (steam model) CONNECTIONS Water inlet Steam inlet Drain Compressed air inlet MACHINE DIMENSIONS Length (with opt. detergent box) Width Height (with opt. detergent box) Net weight PACKING DIMENSIONS Width Depth Height | kW kW inch inch inch mm mm kg | 14,2 2,2 3/4" 3/4" 3" N/A 1.056 1.082 1.382 (1.426) 438 1.072 1.102 1.530 | 2,2 3/4" 3/4" 3" N/A 1.256 1.082 1.382 (1.426) 471 1.262 1.102 1.530 | 3/4" 3/4" 3/4" N/A 1.264 (1.416) 1.195 1.615 886 1.464 1.300 1.720 | 3/4" 3/4" 3" N/A 1.422 (1.574) 1.195 1.615 926 1.608 1.300 1.720 | 5,5 1" 3/4" 3" N/A 1.717 (1.869) 1.195 1.615 1.063 1.903 1.300 1.720 | 52,5 7,5 1" 3/4" 3" N/A 2.124 (2.276) 1.195 1.615 1.190 2.310 1.300 1.720 | 75 15 1" 3/4" 2 × 3" 8 1.742 (1.894) 1.468 1.982 1.900 1.890 1.540 2.150 |
| Max. power (steam model) CONNECTIONS Water inlet Steam inlet Drain Compressed air inlet MACHINE DIMENSIONS Length (with opt. detergent box) Width Height (with opt. detergent box) Net weight PACKING DIMENSIONS Width Depth | kW kW inch inch inch mm mm kg mm mm | 14,2 2,2 3/4" 3/4" 3" N/A 1.056 1.082 1.382 (1.426) 438 | 2,2 3/4" 3/4" 3" N/A 1.256 1.082 1.382 (1.426) 471 1.262 1.102 | 3/4" 3/4" 3" N/A 1.264 (1.416) 1.195 1.615 886 1.464 1.300 | 3/4" 3/4" 3" N/A 1.422 (1.574) 1.195 1.615 926 1.608 1.300 | 5,5 1" 3/4" 3" N/A 1.717 (1.869) 1.195 1.615 1.063 1.903 1.300 | 52,5 7,5 1" 3/4" 3" N/A 2.124 (2.276) 1.195 1.615 1.190 2.310 1.300 | 75 15 1" 3/4" 2 × 3" 8 1.742 (1.894) 1.468 1.982 1.900 1.890 1.540 |

 $[\]ensuremath{^{*}\text{DANUBE}}$ reserves the right to modify the technical data without notice.

BARRIER WASHERS



MORE INFO:











