

Dishwashers

river

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The Benefit Makers

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RIVER Dishwashers

In the increasingly demanding world of community catering, the new RIVER range of dishwashers represents a perfect synthesis of user-friendly technologies: from the brand new LCD screen, designed for quick and intuitive operation, you can control a series of advanced technologies that enhance all the functions that a latest-generation dishwasher can offer.

River dishwashers respond perfectly to the expectations of the most demanding and sophisticated users: mindful of the importance of the quality of service, yet also concerned about keeping operating costs down and protecting the environment.

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Superlative performance

The latest market research has shown that the main aim of operators is to wash the greatest number of dishes in the shortest possible time: this aim is achieved with RIVER dishwashers which, thanks to a new concept of electrical power distribution, significantly reduces the time required to reset the dishwasher between one wash and the next, particularly in the case of repeated washing. This translates into an **effective productivity per hour** that is among the highest on the market sector (see table on page 18-19).



Sparkling dishes

The combination of dual-flow pump and rinsing system with atmospheric boiler with rinse pump results in sparkling, perfectly clean crockery.

Consistent detergent dosing, with no waste, is guaranteed by an electronically-controlled peristaltic dispenser, which can be adjusted directly from the control panel. The machine may be equipped with an optional level sensor that sends a message to the display whenever the detergent drum needs changing.

Profit and ecology

With their advanced technological content, River dishwashers are among the best on the market when it comes to conserving water and detergent. In particular, the water drainage system, which drains water from the bottom of the tank where it is most dirty after the wash cycle and before rinsing, ensures a total changeover of water in the tank. Cleaner water in the tank means less detergent, and therefore significant and consistent savings for operators, and less harm to the environment.

Easy cleaning

End-of-shift cleaning is made quicker and simpler thanks to self-clean cycles with high-pressure water jets and automatic tank drainage.

Cleaning is also facilitated by a wash chamber construction free of internal pipes, corners and blind spots where dirt can accumulate, by the integral surface filters and by the **triple filtration system** for wash tub water.

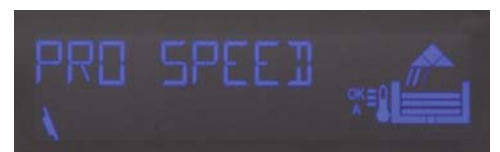
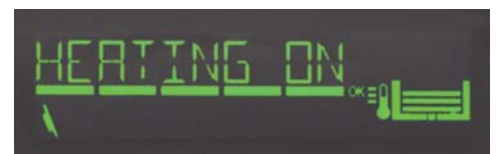


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Simplicity of use



The machines in the River range are equipped with large backlit polychrome LCD displays, with full-display colour variations that clearly indicate, even at a distance, machine status and wash cycle progress. All information is displayed in the form of icons and clear text (tank and boiler temperature, number of cycles performed, etc.), providing simple, complete and reliable information. The functions are controlled from 4 soft touch keys, from which the user can adjust the tank and boiler temperatures as well as the detergent and rinse aid dosing.



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Operational flexibility



Standard programmes and specialised programmes

Every River dishwasher is able to meet multiple operating requirements, as the standard programmes are supplemented by a number of specialised






programmes for different soiling types, as well as programmes for sanitising applications that fully comply with applicable European standards.






Standard Programmes (available on all models)

	<p>ProSpeed Short wash programme for lightly soiled dishes. <i>Consumption: min-max 1,6-2,1 litres/cycle</i></p>
	<p>ProFessional Medium wash programme for normally soiled dishes. <i>Consumption: min-max 1,6-2,1 litres/cycle</i></p>
	<p>ProTemp Long wash programme for heavily soiled dishes. <i>Consumption: min-max 1,9-2,6 litres/cycle</i></p>

	<p>ProDrain Drain cycle.</p>
	<p>ProClean (self-cleaning) Cleans the wash chamber, the water circuit and empties the tank and boiler (by 80% of the contents). <i>Consumption: min-max 12-15 litres/cycle</i></p>

Specialised Programmes

	<p>ProEco Programme with reduced energy consumption, washing at lower temperatures and with reduced water consumption than normal wash programmes, a good washing result achieved by a prolonged mechanical washing action. <i>Consumption: 2,6 litres/cycle</i></p>
	<p>ProNew Recommended when you wish to wash with a total change of water in the washing tub, so suitable for consecutive washes of particularly greasy and dirty dishes. The complete change of the water in the tank requires a longer wash cycle. <i>Consumption: min-max 8,6-20 litres/cycle</i></p>
	<p>ProLong (continuous) This is an extended cycle; the duration varies according to the model. The cycle duration may be varied as required by pressing START any time during the wash, to interrupt the washing phase and start the rinse phase. <i>Consumption: 2,6 litres/cycle</i></p>
	<p>ProGlass (glasses) Glass washing programme for dishwashers. Suited for washing glasses of any shape or type. Washes with a low rinse temperature (requires a long drying time). <i>Consumption: 2,1 litres/cycle</i></p>
	<p>ProCold Specific programme with cold water rinsing after the normal hot water rinse cycle. <i>Consumption: 1,9+1,9 litres/cycle</i></p>

	<p>ProWater Specific cycle for washing glasses with pure water obtained through osmosis. Designed to operate with the reverse osmosis filter WS140. All the operating parameters are modified to obtain the best possible result on the glassware. <i>Consumption: min-max 1,6-2,1 litres/cycle</i></p>
	<p>ProActive The Intensive programme is suited for washing very dirty, even encrusted dishes that have been left for some time. The programme includes 2 washes and 2 rinses. <i>Consumption: 4,2 litres/cycle</i></p>
	<p>ProSteel (cutlery) The cutlery wash programme is suited for washing forks, spoons, knives and all sorts of other cutlery. This wash programme is longer than the others. <i>Consumption: 2,6 litres/cycle</i></p>
	<p>ProSan (sanitising) Recommended when the dishes to be washed also have to be sanitised. This programme controls the wash temperature and washing time, calculating the constant A0. The programme ends when the A0 value equals 30. The length of the programme is variable, but is generally around 20 minutes and the wash temperature reaches approximately 70 C°. <i>Consumption: 2,6 litres/cycle</i></p>
	<p>ProPlates Cycle specifically for plates; rinsing is reduced by 17% and performed at the optimal temperature of 78°C. <i>Consumption: min-max 1,9-2,6 litres/cycle</i></p>

NOTE: Min-max consumption in relation to the model.

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Glasswashers



Constructional features

Double-skin dishwasher with moulded tank and pressed rack guides with rounded edges. Double-skin door, counterbalanced and thermally insulated.

Equipped with built-in surface filter made from stainless steel.

Performance and results

Major constructional and technological improvements raises the quality of the new River glasswashers to rival the best products available on the market. In keeping with the Elettrobar tradition, these new glasswashers offer superlative performance, proven reliability and excellent washing results.

Full Optional Concept

The dishwashers come fully equipped: peristaltic rinse aid and detergent dispensers with electronic control, partial draining with drain pump and triple filter, atmospheric boiler with rinse pump, energy economiser, rapid tank heating, user interface with LCD screen, soft-closing door.

A version is also available with a continuous built-in water softener that regenerates automatically during each wash cycle, thereby protecting the dishwasher from damage caused by limescale.

Both models can be used in combination with the **WS140** reverse osmosis system, except those versions with built-in water softener.

river

river 43

Glasswashers and plate washers with 40x40 cm rack and 32 cm door opening. At the new height of 69.5 cm, the glass washer is perfectly suited to the standard dimensions of bar counters.

Thanks to the wide door opening and the specialised wash programme (ProPlates), the machine can wash plates up to 32 cm in diameter, requiring just the addition of an optional plates insert that clips into the standard rack. For delicate glass goblets, special racks are available with row dividers and an inclined base that can accommodate goblets up to 11 cm in diameter. Possibility to use specialised cold rinse programme (ProCold) for bars that require a rapid changeover of glassware. At peak times for serving coffee, the washing of demitasse cups and saucers can be speeded up with the use of an optional grille that allows two racks to be washed simultaneously: demitasse cups in the lower rack, saucers in the top.





Fitting the grille in the wash chamber is a quick and simple operation: just rest it on the supports provided.

Standard equipment includes two glasses racks and a cutlery insert. Specialised programmes: **ProPlates, ProWater, ProCold, ProNew.** Self-clean cycles are provided as standard.

Available versions: see tables on pages 18-19.



		River 43
	H cm	30
	Ø cm	32

river 53

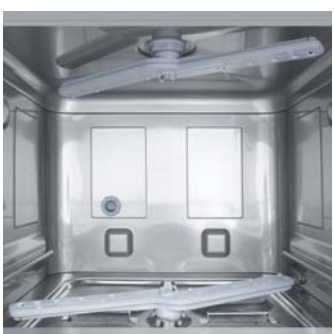
Glasswashers and plate washers, 72 cm high with 50x50 cm rack and 28.5 cm door opening. Optional stainless steel plinth with rack storage compartment.



Superb versatility with specialised wash cycles for plates (ProPlates) and cutlery (ProSteel).

For delicate glass goblets, special racks are available with row dividers and an inclined base that can accommodate glasses up to 11 cm in diameter. Standard equipment includes two glasses racks and a cutlery insert.

Specialised programmes: **ProPlates, ProWater, ProSteel, ProNew, ProLong.** Self-clean cycles are provided as standard.

Available versions: see tables on pages 18-19.



		River 53
	H cm	26
	Ø cm	27

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Undercounter dishwashers



Constructional features

Double-skin dishwasher with moulded tank and pressed rack guides with rounded edges. Double-skin door, counterbalanced and thermally insulated. Equipped with built-in surface filter made from stainless steel.

High effective productivity

The new concept of electrical power distribution enables the machine, for repeated wash cycles, to reach and maintain a tank temperature 10 °C higher than that of previous-generation dishwashers.

This means that the **effective productivity per hour** of the dishwashers is significantly increased by speeding up washing operations particularly at peak times (see data tables on pages 18 and 19).

Full Optional Concept

The dishwashers come fully equipped: peristaltic rinse aid and detergent dispensers with electronic control, partial draining with drain pump and triple filter, atmospheric boiler with rinse pump, energy economiser, rapid tank heating, user interface with LCD screen, soft-closing door. A version is also available with continuous built-in water softener that regenerates automatically during each wash cycle, thereby protecting the dishwasher from damage caused by limescale. River 63 can be used in combination with the **WS140** reverse osmosis system, except those versions with built-in water softener.

river

river 63

Undercounter dishwashers, 82 cm high with 50x50 cm rack and 38.5 cm door opening. Optional stainless steel plinth with rack storage compartment. Thanks to its wide door opening and the capacity of the wash chamber, the dishwasher can wash both Gastronorm and Euronorm trays (53x32 cm).

A choice of eight specialised programmes, including programmes for glasses (ProGlass), for cutlery programme (ProSteel), for heavily soiled items (ProLong, ProActive) plus a sanitising programme (ProSan), maximise the versatility of the dishwasher.




Standard equipment comprises a plate rack, a universal rack and a cutlery insert.

Specialised programmes: **ProGlass, ProWater, ProSteel, ProNew, ProLong, ProEco, ProActive, ProSan.**

Self-clean cycles are provided as standard.

Available versions: see tables on pages 18-19.



		River 63
	H cm	35,5
	Ø cm	39
	H cm	GN1/1 (53x32)

Hood dishwashers



Constructional features

Double-skin dishwashers with thermally-acoustically insulated hood. The hood lifts smoothly with no tight spots, thereby reducing operator fatigue. The moulded tank is equipped with an integral surface filter made from composite material. The rack support is hinged to the back panel to facilitate cleaning.

High effective productivity

The new concept of electrical power distribution enables the machine, for repeated wash cycles, to reach and maintain a tank temperature 10 °C higher than that of previous-generation dishwashers.

This means that the **effective productivity per hour** of the hood dishwashers is significantly increased by speeding up washing operations, particularly at peak times (see data tables on pages 18 and 19).

Full Optional Concept

The dishwashers come fully equipped: peristaltic rinse aid and detergent dispensers with electronic control, partial draining with drain pump and triple filter, atmospheric boiler with rinse pump, energy economiser, rapid tank heating, user interface with LCD screen, soft-closing hood. A version is also available with a continuous built-in water softener that regenerates automatically during each wash cycle, thereby protecting the dishwasher from damage caused by limescale. Both models can be used in combination with the **WS140** reverse osmosis system, except those versions with built-in water softener.

NRG heat recovery system

A version with the NRG heat recovery system is also available; this system prevents the emission of water vapour into the environment, thereby reducing the energy consumption of the dishwasher (see pages 14-15).

NRG technology, in the standard version, is not compatible with the use of water purified by reverse osmosis.

For applications of this type, a special version is available on request.

river 83




Hood dishwashers with 50x50 cm rack and door opening of 46.5 cm.

The hood can be installed in line or as a corner unit without the need for additional components. Our wide range of tables and accessories of different types and dimensions allows you to personalise the washing zone to suit your specific requirements.

Thanks to the large capacity of the wash tank, this machine can wash both Gastronorm and Euronorm trays (53x32 cm). A choice of eight specialised programmes, including programmes for glasses (ProGlass), for cutlery programme (ProSteel), for heavily soiled items (ProLong, ProActive) plus a sanitising programme (ProSan), maximise the versatility of the hood dishwasher. Standard equipment comprises a plate rack, a universal rack and a cutlery insert.

Specialised programmes: **ProGlass, ProWater, ProSteel, ProNew, ProLong, ProEco, ProActive, ProSan.** Self-clean cycles are provided as standard. Available versions: see tables on pages 18-19.



		River 83
	H cm	45
	Ø cm	45
	H cm	GN1/1 (53x32)

river 83 NRG

Version with NRG heat recovery system.



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High-capacity hood dishwashers



Constructional features

Double-skin dishwashers with thermally-acoustically insulated hood. The hood lifts smoothly with no tight spots, thereby reducing operator fatigue. The moulded tank is equipped with an integral surface filter made from composite material. The rack support is hinged to the back panel to facilitate cleaning.

The ultimate in versatility

Versatility is taken to the maximum with the Rivera 93 multifunction hood dishwasher, thanks to a rack size of 50x60 cm and the wide range of standard and specialised programmes, which enable it to function as a glass washer for delicate goblets or as a high-capacity dishwasher (up 900 plates per hour) or even as a utensil washer, thanks to the special grilled worktop which can accommodate baskets of up to 135 litres.

Full Optional Concept

The dishwashers come fully equipped: peristaltic rinse aid and detergent dispensers with electronic control, partial draining with drain pump and triple filter, atmospheric boiler with rinse pump, energy economiser, rapid tank heating, user interface with LCD screen, soft-closing hood. A version is also available with a continuous built-in water softener that regenerates automatically during each wash cycle, thereby protecting the dishwasher from damage caused by limescale. Both models can be used in combination with the **WS140** reverse osmosis system, except those versions with built-in water softener.

NRG heat recovery system

A version with the NRG heat recovery system is also available; this system prevents the emission of water vapour into the environment, thereby reducing the energy consumption of the dishwasher (see pages 14-15).

NRG technology, in the standard version, is not compatible with the use of water purified by reverse osmosis.

For applications of this type, a special version is available on request.

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river 93

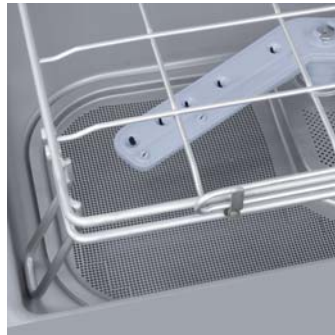
Hood dishwashers with 50x60 cm rack and opening of 46.5 cm.




The hood can be installed in line or as a corner unit without the need for additional components. Our wide range of tables and accessories of different types and dimensions allows you to personalise the washing zone to suit your specific requirements.

A choice of eight specialised programmes, including programmes for glasses (ProGlass), for cutlery programme (ProSteel), for heavily soiled items (ProLong, ProActive) plus a sanitising programme (ProSan), maximise the versatility of the hood dishwasher.

Standard equipment comprises a plate rack, a universal rack and a cutlery insert.

Specialised programmes: **ProGlass, ProWater, ProSteel, ProNew, ProLong, ProEco, ProActive, ProSan.** Self-clean cycles are provided as standard. Available versions: see tables on pages 18-19.



		River 83
	H cm	45
	Ø cm	45
	H cm	GN1/1 (53x32) - (60x40)

river 93 NRG

Version with NRG heat recovery system.



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NRG Technology



Benefits of the NRG heat recovery/steam condensation system

- **A healthier work environment**
- **A drastic reduction in the amount of steam emitted into the work environment**
- **30% saving in the energy used to heat cold intake water from the mains**



Both River hood dishwashers can be equipped with the NRG heat recovery/steam condensation system. At the end of rinsing, the steam in the wash chamber is extracted and routed to a heat exchanger where it condenses and gives up its heat to the intake water.

This avoids the problem of steam escaping when the hood is opened and increases intake water temperature by around 25°C, with a considerable energy saving.

The entire process adds only 30" to the normal cycle time.

NRG technology, in the standard version, is not compatible with the use of water purified by reverse osmosis. For applications of this type, a special version is available on request.

Benefits of the Integrated System



Sparkling clean crockery with cost savings

Use of the Integrated System leads, in addition to perfect washing results, to a series of benefits for the user in terms of workflow organisation that result in consistently reduced operating costs.



THE ACTION

Thanks to the combination of demineralised water and special detergents, water marks and white streaks on crockery are a thing of the past.



NO MORE manual buffing.



NO MORE broken glasses.

Moreover, lower labour costs, no stress on glassware from rubbing, improved hygiene.



Reverse osmosis device

Perfectly clean glasses, free from water marks and spots are impossible to achieve unless you use water with the right characteristics, and this means with a conductivity below 300 μs . The safest and cheapest way to obtain this level of purity is use a reverse osmosis filter. The Elettrobar **WS140** device is compact, and can be installed either vertically or horizontally, above or below the dishwasher.

It is equipped with electronic control, bypass system and a mechanical active carbon prefilter, which can easily be replaced by the user.

The prefilter serves to protect the semi-permeable membrane from larger particles and from the chlorine present in drinking water supplies.

Output is better than 50% (less than two litres of mains water required to obtain one litre of filtered water).



Elettrobar Detergents

Traditional detergents, even the best, do not work at the low conductivity values typical of water purified by reverse osmosis. For this reason, Elettrobar has developed Wash and Osmo Rinse, respectively a detergent and rinse aid optimised for use in water with conductivity below 300 μs . The detergents have been developed in collaboration with

expert sommeliers to ensure that not just the taste, but also the way the wine flows over the walls of the glass are totally unaffected.

The products described here are just a small part of the Elettrobar range of detergents, which also comprises products for washing and rinsing in hard and soft water.



TECHNICAL DATA		River 43	River 53
Effective productivity	racks/hour	30 (35 with hot water)	30 (35 with hot water)
Theoretical productivity	racks/hour	40	40
Dimensions (WxDxH)	cm	46,6x55,6x69,5	60x60x72
NRG version dimensions (WxDxH)	cm	-	-
Door opening	cm	32	28,5
Max. height of glasses	cm	30	26
Max. height of plates	cm	32	27
Maximum tray/pan dimensions	cm	-	-
Rack dimension	cm	40x40	50x50
Tank capacity	litres	8	15
Boiler capacity	litres	2,6	6
Tank heating element	kW	0,6	1,4
Boiler heating element	kW	2,6	4,9
Wash pump	kW	0,2	0,47
Rinse pump*	kW	0,2	0,2
Drain pump*	kW	0,04	0,04
Total power consumption	kW	3,5	6,77
Power supply		230 V - 50Hz - 1N	400 V - 50Hz - 3N
Max. current	amp	16	16
Min.-max water supply pressure	bar	1 → 4	1 → 4
Water supply temperature	°C	50 → 60	15 → 60
Peristaltic rinse aid and detergent dispensers		yes	yes

* where present

AVAILABLE VERSIONS		
CDE - Standard	yes	yes
TDE - built-in continuous water softener	yes	yes
CDE NRG - heat recovery	-	-
TDE NRG - built-in continuous water softener and heat recovery	-	-

Effective productivity

The maximum productivity that can actually be obtained in real-life operating conditions when several cycles are performed in succession, taking into account the time required between cycles for the water to reach the correct temperature and to unload and load the rack.

(Parameters used: water supply temperature 15 °C and loading/unloading time of 12 seconds).

Theoretical productivity

Value that **cannot be achieved in real-life conditions**, obtained through mathematical calculation considering the shortest wash cycle (usually 60 seconds).



River 63	River 83	River 93
44	51 (38 with NRG)	45
60	65	65
60x60x82	63,3x75,5x156,5	70x75,5x156,5
-	63,3x75,5x226,4	70x75,5x226,4
38,5	46,5	46,5
35,5	45	45
39	45	45
GN1/1 (53x32)	GN1/1 (53x32)	GN1/1 (53x32) - (60x40)
50x50	50x50	50x60
15	22	30
6	12	12
1,4	2,5	2,5
6	7	7
0,47	0,7	1,5
0,2	0,2	0,2
0,04	0,04	0,04
7,9	10,2	11
400 V - 50Hz - 3N	400 V - 50Hz - 3N	400 V - 50Hz - 3N
16	16	20
1 → 4	1 → 4	1 → 4
15 → 60	15 → 60	15 → 60
yes	yes	yes

yes	yes	yes
yes	yes	yes
-	yes	yes
-	yes	yes



Important: The consumption and performance data indicated refer to machines installed and operating in ideal conditions and may vary according to installation conditions.
The technical data furnished in this catalogue are for guidance purposes only and may be modified in accordance with the continuous technological development of our products.

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The Benefit Makers

During more than forty years of business, we have produced more than a million industrial dishwashers at our two Italian plants. These numbers reflect our unrivalled experience in the sector. Building on this experience, we have continued to develop competitively-priced innovative products for leading players in the catering industry, providing effective, consistent benefits for their various enterprises. This is why we at Elettrobar claim to be more than just a dishwasher manufacturer: we are benefit makers.

Our company is fully aware of the increasing importance of environmental protection issues and for many years has played its part, developing and patenting innovative technologies able to reduce water, energy and detergent consumption without impairing performance.

We adopt extremely stringent ISO 9001:2008 certified quality control procedures to build products that can withstand even the harshest operating conditions. Our dishwashers are manufactured at facilities that lead the way as regards workplace safety and environmental impact, as confirmed by ISO 14001:2004 certification.

Eurotec Service

Our commitment to quality does not end when the machine leaves the factory, but continues throughout the entire life-cycle of the product:

EurotecService is the specialised division that oversees both our replacement parts service and our after-sales service, with particular emphasis on training and qualification of our extensive network of dealerships and service centres that covers the whole of Italy.

This division is also responsible for pre-sales, logistics and customer care activities, thereby promoting an intrinsically synergistic approach to all activities that have a direct bearing on customer satisfaction.



ITW FOOD EQUIPMENT GROUP

Eurotec s.r.l. - ELETTOBAR division

37045 San Pietro di Legnago (VERONA) ITALIA - Tel. 0442 634311 - Fax 0442 629132
e-mail: info_elettrobar@itweurotec.it - www.elettrobar.eurotecgroup.com