



Dishwashers

**niagara**

**elettrobar**  
*The Benefit Makers*



## NIAGARA Dishwashers

The all-new Niagara dishwasher range represents the ideal solution for operators who need a reliable, high-performance machine that can offer a number of tangible benefits. The range offers a wide choice of products and versions to meet all operating requirements and incorporates a number of tried and tested technologies developed by Elettrobar in recent years.

The new electronically controlled user interface simplifies dishwasher operation with soft-touch buttons, a 4-character LED display and lateral indicator bars. The standard wash programme menu is supplemented by specialised programmes and self-clean cycles, to ensure maximum operational flexibility.



## Performance

Thanks to a new concept of electrical power distribution, the time required to reset the machine between one wash and the next is significantly reduced, particularly in the case of repeated washes.

This translates into a higher **effective productivity per hour** than the other products in this market sector (see table on page 14-15).



### Washing results

Fantastic dishwashing results, thanks to the dual flow pump that guarantees a constant force from the water jets without power loss. On versions with atmospheric boiler and rinse pump, washing results are excellent, thanks also to optimum detergent dosing ensured by the electronically-controlled peristaltic dispensers that can be adjusted directly from the control panel.

### Savings

Elettrobar's commitment to the development of technologies that can reduce operating costs has resulted in a new generation of products that stand out from other dishwashers on the market for their low consumption of water, energy and detergent: this translates into significant and consistent cost savings for operators.



### Easy cleaning

End-of-shift cleaning is made quick and simple by a wash chamber design that is free of internal pipes, corners and blind spots where dirt can accumulate. Cleaning is also facilitated by the use of integral surface filters, self-clean cycles and, on certain versions, the triple filtration system for wash chamber water.





## Simplicity of use and operational flexibility

Niagara dishwashers are extremely easy to use thanks to the interface with four soft-touch keys, 4-character LED display plus two lateral indicator bars. Carefully chosen combinations of colours and graphic symbols provide a clear indication of the dishwasher status and wash cycle progress. The display also shows the tank and boiler temperatures, the number of cycles performed and self-diagnostic codes. From the interface the user can adjust the tank and boiler temperatures and detergent dosing.

### Standard programmes and specialised programmes

Niagara dishwashers are capable of meeting multiple operating requirements by offering, in addition to the standard dishwasher programmes, a number of specialised programmes for different types of soiling and which are also suitable for sanitary applications in accordance with current European standards.



### Standard Programmes (available on all models)

Pr 1	<b>ProSpeed</b> Short wash programme for lightly soiled dishes. <i>Consumption: min-max 1,6-2,1 litres/cycle</i>
Pr 2	<b>ProFessional</b> Medium wash programme for normally soiled dishes. <i>Consumption: min-max 1,6-2,1 litres/cycle</i>
Pr 3	<b>ProTemp</b> Long wash programme for heavily soiled dishes. <i>Consumption: min-max 1,9-2,6 litres/cycle</i>
dr	<b>ProDrain</b> Drain cycle.
CLE	<b>ProClean</b> Wash chamber draining and self-cleaning cycle. <i>Consumption: min-max 12-15 litres/cycle</i>

### Specialised Programmes

Eco	<b>ProEco</b> 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>
PLAT	<b>ProPlates</b> Cycle specifically for plates; rinsing is reduced by 17% and performed at the optimal temperature of 78°C. <i>Consumption: 1,9 litres/cycle</i>
GLAS	<b>ProGlass (glasses)</b> 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>
Long	<b>ProLong (continuous)</b> 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>
OSMO	<b>ProWater</b> Specific cycle for washing glasses with pure water obtained through osmosis. Designed to operate with the reverse osmosis filter <b>WS140</b> . All the operating parameters are modified to obtain the best possible result on the glassware. <i>Consumption: 1,6 litres/cycle</i>

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

# Technologies



## Dual-flow pump

The use of dual-flow wash pumps connected directly to the spray arms eliminates the problem of power loss from the water jets during the cycle, thereby ensuring excellent washing results. This technology also significantly reduces the amount of noise generated by the dishwasher.

## Tank water changeover system

Depending on the version, two different systems are used for draining and changing the water: The **EDT** system uses a pump to drain excess water from the bottom of the tank (where it is most dirty) prior to the start of rinsing and uses a triple progressive filtration of the wash water (**ETF**); the **EDS** system exploits the Archimedes principle, using clean water like a piston to force the dirty water through the overflow.

With EDT, 100% of the rinse water is changed, while with EDS, 83% is changed.

## Rinsing system with atmospheric boiler

Rinsing system with atmospheric boiler, tank and rinse pump (available for models 42 – 52 – 62 – 82), that guarantees optimal results independently of the water supply pressure: with this system, the rinse function is always performed at the right pressure, temperature and with the right quantity of water. Dishwashers equipped with this system can also be used with the **WS140** reverse osmosis system for washing dishes with purified water that, along with the dedicated detergents ALL WASH and OSMO RINSE, comprise the integrated Elettrobar system.

## Other Technologies

Energy economizer, rapid tank heating and rinse control with Thermostop technologies are standard on all models and versions.



# 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 integral surface filter made from composite material.

## User interface

Electronic interface comprised of four soft-touch keys, a 4-character LED display and two lateral indicator bars that enable the operator to check machine status at a glance. From the interface, the user can adjust the tank and boiler temperatures and detergent dosing.

## Wash programmes

All versions offer a choice of three standard wash programmes to suit different levels of soiling, plus four specialised programmes. Self-clean cycles are also provided as standard.

## Equipment

Electronically-controlled peristaltic rinse aid and detergent dispensers are standard equipment on all versions, with dosing adjustable from the operator interface. Atmospheric boiler version available for use in combination with the **WS140** reverse osmosis system.



# niagara 42

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. 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.**

Available versions: see tables on pages 14-15.



		Niagara 42
	H cm	30
	Ø cm	32

# niagara 52

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.



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.**

Available versions: see tables on pages 14-15.



		Niagara 52
	H cm	26
	Ø cm	27

## 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 integral surface filter made from composite material.

### 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 dishwasher is significantly increased by speeding up washing operations, particularly at peak times (see data tables for the various versions on pages 14 and 15).

### User interface

Electronic interface comprised of four soft-touch keys, a 4-character LED display and two lateral indicator bars that enable the operator to check machine status at a glance. From the interface, the user can adjust the tank and boiler temperatures and detergent dosing.

### Wash programmes

All versions offer a choice of three standard wash programmes to suit different levels of soiling, plus four specialised programmes. Self-clean cycles are also provided as standard.

### Equipment

Electronically-controlled peristaltic rinse aid and detergent dispensers are standard equipment on all versions, with dosing adjustable from the operator interface. Atmospheric boiler version available for use in combination with the **WS140** reverse osmosis system.



# niagara 62

Undercounter dishwashers, 82 cm high with 50x50 cm rack and 38.5 cm door opening.

Optional stainless steel plinth with basket storage compartment.

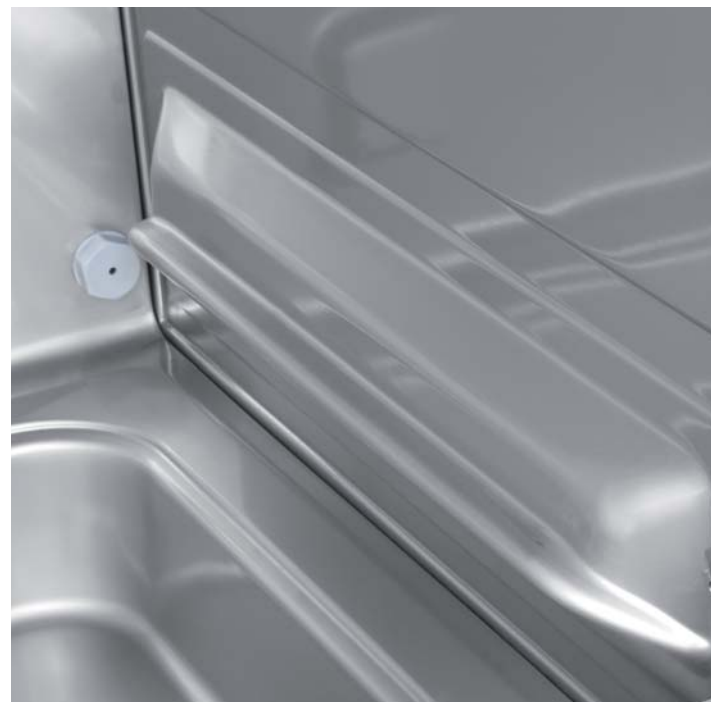
Thanks to its wide door opening and the capacity of the wash chamber, the dishwasher can wash both Gastronorm and Euronorm trays (53x32 cm).




The versatility of the machine is enhanced by four specialised programmes, which range from a specific glass washing cycle (ProGlass) to a programme for heavily soiled items (ProLong).

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

Specialised programmes: **ProGlass, ProWater, ProLong, ProEco.**

Available versions: see tables on pages 14-15.



		Niagara 62
	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 more rapid washing operations particularly at peak times (see data tables for the various versions on pages 14 and 15).

### User interface

Electronic interface comprised of four soft-touch keys, a 4-character LED display and two lateral indicator bars that enable the operator to check machine status at a glance. From the interface, the user can adjust the tank and boiler temperatures and detergent dosing.

### Wash programmes

All versions offer a choice of three standard wash programmes to suit different levels of soiling, plus four specialised programmes. Self-clean cycles are also provided as standard.

### Equipment

Electronically-controlled peristaltic rinse aid and detergent dispensers are standard equipment on all versions, with dosing adjustable from the operator interface. Atmospheric boiler version available for use in combination with the **WS140** reverse osmosis system.

### 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. 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.

# niagara 82

Hood dishwashers with 50x50 cm rack and door opening of 46.5 cm. Thanks to the large capacity of the wash tank, this machine can wash both Gastronorm and Euronorm trays (53x32 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.

The versatility of the machine is enhanced by four specialised programmes, which range from a specific glass washing cycle (ProGlass) to a programme for heavily soiled items (ProLong). Standard equipment comprises a plate rack, a universal rack and a cutlery insert.

Specialised programmes: **ProGlass, ProWater, ProLong, ProEco.**

Available versions: see tables on pages 14-15.



		Niagara 82
	H cm	45
	Ø cm	45
	H cm	GN1/1 (53x32)

# niagara 82 NRG

Version with NRG heat recovery system.





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# NRG Technology



**niagara**



## 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



Niagara 82 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.



TECHNICAL DATA		Niagara 42
Effective productivity	racks/hour	30 (35 with hot water)
Theoretical productivity	racks/hour	40
Dimensions ( WxDxH )	cm	46,6x55,6x69,5
NRG version dimensions ( WxDxH )	cm	-
Door opening	cm	32
Max. height of glasses	cm	30
Max. height of plates	cm	32
Maximum tray/pan dimensions	cm	-
Rack dimension	cm	40x40
Tank capacity	litres	8
Boiler capacity	litres	2,6
Tank heating element	kW	0,6
Boiler heating element	kW	2,6
Wash pump	kW	0,2
Rinse pump*	kW	0,2
Drain pump*	kW	0,04
Total power consumption	kW	3,5
Power supply		230 V - 50Hz - 1N
Max. current	amp	16
Min.-max water supply pressure	bar	2 → 4
Water supply temperature	°C	50 → 60
Peristaltic rinse aid and detergent dispensers		yes

\* where present

AVAILABLE VERSIONS	
<b>D</b> - standard	yes
<b>SD</b> - built-in water softener and peristaltic detergent dispenser	yes
<b>DE</b> - peristaltic detergent dispenser, partial drain with pump and triple filter (EDT+ETF)	yes
<b>CD</b> - atmospheric boiler with rinse pump and peristaltic detergent dispenser	yes
<b>CDE</b> - atmospheric boiler with rinse pump, peristaltic detergent dispenser, partial drain with pump and triple filter (EDT+ETF)	-
<b>TDE</b> - continuous water softener, atmospheric boiler with rinse pump, peristaltic detergent dispenser, partial drain with pump and triple filter (EDT+ETF)	-
<b>CDE NRG</b> - atmospheric boiler with rinse pump, peristaltic detergent dispenser, partial drain with pump, triple filter (EDT+ETF) and heat recovery system NRG	-

## 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).





Niagara 52	Niagara 62	Niagara 82
30 (35 with hot water)	39	45 (38 NRG version)
40	60	65
60x60x72	60x60x82	63,3x75,5x156,5
-	-	63,3x75,5x226,4
28,5	38,5	46,5
26	35,5	45
27	39	45
-	GN1/1 (53x32)	GN1/1 (53x32)
50x50	50x50	50x50
15	15	22
6	6	6 - 12
1,4	1,4	2,5
4,9	6	7
0,47	0,47	0,7
0,2	0,2	0,2
0,04	0,04	0,04
6,77	7,9	10,2
400 V - 50Hz - 3N	400 V - 50Hz - 3N	400 V - 50Hz - 3N
16	16	16
2 → 4	2 → 4	2 → 4
15 → 60	15 → 60	15 → 60
yes	yes	yes

yes	yes	yes
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.

# elettrobar

*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**

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