



High capacity dishwashers

mistral

elettrobar
The Benefit Makers



High capacity dishwashers

The new Mistral range offers high capacity dishwashers with dimensions and technologies suitable for washing high quantities of dishes in a short time. The range includes under-counters, front-loading and hood-type dishwashers with 50x60 cm racks making the range very adaptable to the different needs. The range is also equipped with the newest technology applied to the 3 upper and lower spokes arms.

There is a choice of two interfaces for the user: a version with a backlit LCD display and a version 4-character LED display; both versions include a set of standard and specialised programs.



High capacity

Perfect and fast washing results is the mission of Mistral. This new range includes different machines with common features and benefits. Two interfaces are available: LED for the versions Mistral 64, Mistral 74X and Mistral 94X. LCD for the versions Mistral 74LX, Mistral 94LX and Mistral 94LX NRG.



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 18-19).

Dimensions

The whole Mistral Range supports 50x60 cm racks with a door opening height of 40,5 cm (in the undercounter and front-load) and 46,5 cm (in the hood types). These dimensions allow to wash dishes with diameter of up to 41 cm, 53x32 cm trays and 60x40 cm pans.



Technologies

The use of dual-flow wash pumps connected directly to the new technology 3 spokes arms assure high performances level and brilliant washing results. Electronically-controlled peristaltic rinse aid and detergent dispensers are standard equipment on all versions, with dosing adjustable from the operator interface.



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Simplicity of use



Mistral 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.



mistral 64



mistral 74X



mistral 94X

mistral

Operational flexibility

Standard programmes and specialised programmes

Mistral 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	ProSpeed Short wash programme for lightly soiled dishes. <i>Consumption: min-max 2,0-2,3 litres/cycle</i>
Pr 2	ProFessional Medium wash programme for normally soiled dishes. <i>Consumption: min-max 2,3-2,4 litres/cycle</i>
Pr 3	ProTemp Long wash programme for heavily soiled dishes. <i>Consumption: min-max 2,6-3,0 litres/cycle</i>
dr	ProDrain Drain cycle.
CLE	ProClean Wash chamber draining and self-cleaning cycle. <i>Consumption: min-max 12-15 litres/cycle</i>

Specialised Programmes

Eco	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: min-max 2,4-2,6 litres/cycle</i>
GLAS	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: 2,1-3,0 litres/cycle</i>
Long	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: 2,4-2,6 litres/cycle</i>
OSMO	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: 2,1 litres/cycle</i>
Act	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.

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

High capacity dishwashers



Constructional features

High capacity dishwashers constructed with stratified double-skin side panels (Mistral 64) and with widespaced double-skin side panels (Mistral 74X); the tank has deep-drawn base and is equipped with an integral stainless steel filter, pressed rack guides with rounded edges and double-skin door.

The wash chamber is free of internal pipes and sharp corners.

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 18 and 19).

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 (three for Mistral 64). 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. For Mistral 64 is available the atmospheric boiler version for use in combination with the **WS140** reverse osmosis system.

mistral 64

Undercounter high capacity dishwashers, 85 cm high with 50x60 cm rack and 40.5 cm door opening.

Thanks to its wide door opening, the capacity of the wash chamber and the use of dual-flow wash pumps with an upper and lower 3 spokes arms the undercounter can wash perfectly 41 cm high plates, Gastronorm and Euronorm trays (53x32 cm) and 60x40 baking pans.

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

Standard equipment includes a 50x60 cm plates rack and a 50x50 cm universal rack. Specialised programmes: **ProGlass, ProLong, ProEco.**

Available versions: see tables on page 18-19.



Mistral 64		
	H cm	37,5
	Ø cm	41
	H cm	GN1/1 (53x32)
	H cm	60x40

mistral 74X

Front-load high capacity dishwashers, 129 cm high with 50x60 cm rack and 40.5 cm door opening.

The worktop height of 81 cm from the floor means that the operator can load and unload the machine without having to bend down.

Thanks to its wide door opening, the capacity of the wash chamber and the use of dual-flow wash pumps with an upper and lower 3 spokes arms the undercounter can wash perfectly 41 cm high plates, Gastronorm and Euronorm trays (53x32 cm) and 60x40 baking pans.

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 includes a 50x60 cm plates rack and a 50x50 cm universal rack.

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

Available versions: see tables on page 18-19.



Mistral 74X		
	H cm	37,5
	Ø cm	41
	H cm	GN1/1 (53x32)
	H cm	60x40

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 extremes with the Mistral 94X 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.

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.

mistral 94X

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.

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 18-19.



Mistral 94X		
	H cm	45
	Ø cm	45
	H cm	GN1/1 (53x32)
	H cm	60x40



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Simplicity of use



The machines in the Mistral LX 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.



mistral 74LX



mistral 94LX



mistral 94LX NRG

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Operational flexibility

Standard programmes and specialised programmes

Every Mistral 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: 2,0 litres/cycle</i></p>
	<p>ProFessional Medium wash programme for normally soiled dishes. <i>Consumption: min-max 2,2-2,4 litres/cycle</i></p>
	<p>ProTemp Long wash programme for heavily soiled dishes. <i>Consumption: min-max 2,6-3,0 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: 2,4-2,6 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 15-23 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: min-max 2,4-2,6 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>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 2,1-3,0 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: min-max 4,2-5,0 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: min-max 2,6-5,0 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: min-max 2,6-3,0 litres/cycle</i></p>

High capacity dishwashers



Constructional features

High capacity dishwashers constructed with widespaced double-skin side panels; the tank has deep-drawn base and is equipped with an integral stainless steel filter, pressed rack guides with rounded edges and double-skin door. The wash chamber is free of internal pipes and sharp corners.

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 18 and 19).

User interface

Electronic interface comprised of four soft-touch keys and a large backlit polychrome LCD displays, with full-display colour variations that clearly indicate, even at a distance, machine status and wash cycle progress. 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 eight specialised programmes. Self-clean cycles are also provided as standard.

Equipment

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, user interface with LCD screen. Atmospheric boiler version available for use in combination with the **WS140** reverse osmosis system.

mistral 74LX

Front-load high capacity dishwashers, 129 cm high with 50x60 cm rack and 40.5 cm door opening.

The worktop height of 81 cm from the floor means that the operator can load and unload the machine without having to bend down.

Thanks to its wide door opening, the capacity of the wash chamber and the use of dual-flow wash pumps with an upper and lower 3 spokes arms the undercounter can wash perfectly 41 cm high plates, Gastronorm and Euronorm trays (53x32 cm) and 60x40 baking pans.

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 includes a 50x60 cm plates rack and a 50x50 cm universal rack.

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

Available versions: see tables on page 18-19.



Mistral 74LX		
	H cm	37,5
	Ø cm	41
	H cm	GN1/1 (53x32)
	H cm	60x40



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 Mistral 94LX 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 16-17).

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.

mistral 94LX

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.



Mistral 94LX		
	H cm	45
	Ø cm	45
	H cm	GN1/1 (53x32)
	H cm	60x40

mistral 94LX 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 Mistral 94LX 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		Mistral 64
Effective productivity	racks/hour	33
Theoretical productivity	racks/hour	60
Dimensions (WxDxH)	cm	57,5x70x85
NRG version dimensions (WxDxH)	cm	
Door opening	cm	40,5
Max. height of glasses	cm	37,5
Max. height of plates	cm	41
Max. trays dimensions	cm	GN1/1 (53X32)
Max. pans dimensions	cm	60x40
Plates rack dimensions	cm	50x60
Glasses rack dimensions	cm	50x50
Tank capacity	litres	23
Boiler capacity	litres	7
Tank heating element	kW	2,1
Boiler heating element	kW	6
Wash pump	kW	0,7
Rinse pump *	kW	0,2
Drain pump *	kW	
Total power consumption	kW	8,8
Power supply	V	400V - 50Hz - 3N
Max. current	amp	16
Min.-max water supply pressure	bar	2 → 4 (1 → 4 64CD)
Water supply temperature	°C	15 → 60
Peristaltic rinse aid and detergent dispensers		yes

* where present

AVAILABLE VERSIONS	
D - Standard	yes
CD - With atmospheric boiler with rinse pump	yes
DE - With partial drain with pump and triple filter (excluded Mistral 74X)	-
CDE - With atmospheric boiler with rinse pump, partial drain with pump and triple filter	-
TDE - With continuous water softener, atmospheric boiler with rinse pump, partial drain with pump and triple filter	-
CDE NRG - With atmospheric boiler with rinse pump, partial drain with pump, triple filter 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).



Mistral 74X	Mistral 74LX	Mistral 94X	Mistral 94LX
38	46	42	45
60	60	65	65
60x70x129	60x70x129	70x75,5x156,5	70x75,5x156,5 70x75,5x226,4
40,5	40,5	46,5	46,5
37,5	37,5	45	45
41	41	45	45
GN1/1 (53X32)	GN1/1 (53X32)	GN1/1 (53X32)	GN1/1 (53X32)
60x40	60x40	60x40	60x40
50x60	50x60	50x60	50x60
50x50	50x50	50x60	50x60
23	23	30	30
7	7	12	12
2,1	2,1	2,5	2,5
7	7	7	7
0,7	0,7	1,5	1,5
	0,2	0,2	0,2
0,04	0,04	0,04	0,04
9,8	9,8	11	11
400V - 50Hz - 3N			
16	16	20	20
2 → 4	1 → 4	2 → 4	1 → 4
15 → 60	15 → 60	15 → 60	15 → 60
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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