FAGOR

ECO TECHNOLOGY FOR A SUSTAINABLE FUTURE

FAGOR

FAGOR INDUSTRIAL

INDEX

NEW CONCEPT LINE.

In the world of the restaurant trade, high-production machines are often necessary. When the available surface area is limited, the best solution is to be found in compact rack conveyor dishwashers. When the requirements involve obtaining much greater productivity, and more space is available, modular dishwashers are the ideal machines for every need, thanks to their type of build.

At Fagor Industrial we are aware of all of this. With our compact and modular rack conveyor dishwashers from the Concept line, and with our entry/exit accessory parts, the customer is sure to find the solution that best meets their needs.

ROBUST & RELIABLE MACHINES, WITH MORE PRODUCTION CAPACITY AND AN OUTSTANDING DATA IN TERMS OF ENERGY EFFICIENCY.

—

The result of a process of total re-engineering, we offer a **robust and reliable** machine, with **greater production capacity** and unbeatable **energy efficiency data** (in terms of water and electricity use).

This new line offers the best value for money on the market. Aligned with the energy-saving philosophy of Fagor Industrial, we offer a unique solution among European manufacturers: gas dishwashers. By using a Gas Water Boster, the ECO models **enable savings of up to 60% on your energy bill** and a recovery of the extra charge compared to the electric version in around 3 years.

01.

ROBUSTNESS AND RELIABILITY

02.

HIGHER PRODUCTION CAPACITY

03.

ENERGY EFFICIENCY

04.

FLEXIBILITY

05.

GUARANTEED WASHING RESULTS

ROBUSTNESS AND RELIABILITY

01.

MAIN COMPONENTS IN ASI-304 STAINLESS STEEL

In the new Concept range a deep engineering redesign project has been developed to offer a really robust & reliable machine. All the main parts are manufactured in AISI-304 anti-corrosion stainless steel, to withstand the most intense use of the market.

02.

ANTI-BLOCKAGE SYSTEM

The stop switch and the alarm system avoid any damage in the machine by stopping the conveyor when a rack weight overload or a blockage occurs.

03.

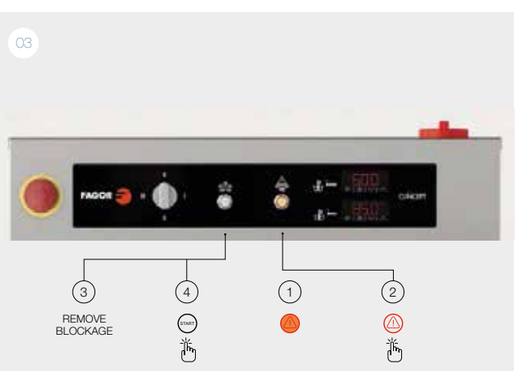
ANTI-BLOCKAGE ALARM

1. **Warning**: the machine stops and gives warning (audible noise and flashing orange pushbutton).
2. **Backward motion**: you have to press the backward motion button (the same that give the warning).
3. **Remove blockage**: open the door and removeblockage.
4. **Restart**: close the door and press the start.

01

02

03



HIGHER PRODUCTION CAPACITY

3 SPEED SETTINGS

Thanks to the frequency inverter , integrated in all models, it is possible to adjust 3 different speeds.

In this way, it allows to adapt the most appropriate program (one for each possible speed), to the workload or dirt.

INTENSIVE MEDIUM HIGH CAPACITY

	COMPACT		MODULAR			
MODEL	**CCO-120**	**CCO-160**	**CCO-180**	**CCO-225**	**CCO-270**	**CCO-320**
						
	Racks/h	Racks/h	Racks/h	Racks/h	Racks/h	Racks/h
HIGH CAPACITY	120	160	180	225	270	320
MEDIUM	100	130	135	175	205	245
INTENSIVE	80	100	90	125	140	170

COMPACT MODELS:
HIGHER PRODUCTIVITY IN LESS SPACE.

The washing and rinsing system are in a single block.
Compact dishwasher system in minimum surface.

01.
COMPACT DISHWASHER
(without anti splash) 1,180 mm

02.
AUTOMATED TABLE
180º AT EXIT
780 x 1450 mm

03.
PRE-WASHTABLE
1200 mm

04.
ROLLING TABLE
IN EXIT
1150 mm

TOTAL SURFACE
4,90 m^2

TOTAL LENGTH
3.160 mm

TOTAL WIDTH
1.550 mm

	MODEL	ENTRANCE (*)	WATER SUPPLY	PROGRAMS (Baskets/h) Deep	Medium	High-capacity	INTERNAL ZONES (**)	WATER CONSUMPTION (l/h)	ELECTRICAL POWER (kW)	DIMENSIONS (mm)
	CCO-120-I-HW	I	>50º	80	100	120		210	19,45	1.180 x 790 x 1.550
	CCO-120-D-HW	D								
	CCO-120-I-CW	I	<50º	80	100	120		210	28,45	1.180 x 790 x 1.550
	CCO-120-D-CW	D								
	CCO-160-I-HW	I	>50º	100	130	160		240	22,45	1.180 x 790 x 1.550
	CCO-160-D-HW	D								
	CCO-160-I-CW	I	<50º	100	130	160	LP + A	240	31,45	1.180 x 790 x 1.550
	CCO-160-D-CW	D								

(*) Entry of baskets:
I: Entrance from the Left of the machine.
D: Entrance from the Right of the machine.

(**) Internal zones
LP: Main wash.
A:Double effect rinse.

MODULAR MODELS:
WE OFFER THE MOST APPROPRIATE SOLUTION.

Each function (washing, rinsing, drying ...) is in a specific module.
Modules are added to give the machine greater production.

Modular dishwasher, thelongestpossiblecomposition:
CCO-320 + CDT-800 + CRS-700.

TOTAL LENGTH
4.060 mm

MODEL	ENTRANCE (*)	WATER SUPPLY	PROGRAMS (Baskets/h) Intensif	Medium	High-capacity	MODULES CONSUMPTION (**)	WATER CONSUMPTION (l/h)	ELECTRICAL POWER (kW)	DIMENSIONS (mm)
CCO-180-I-HW	I	>50º	90	135	180	 AS-260 + LP + DA	210	25,7	1.750 x 790 x 1.550
CCO-180-D-HW	D								
CCO-180-I-CW	I	<50º	90	135	180	 AS-260 + LP + DA	210	34,7	1.750 x 790 x 1.550
CCO-180-D-CW	D								
CCO-225-I-HW	I	>50º	125	175	225	 AS-260 + PL3+LP+DA	210	35,9	2.360 x 790 x 1.550
CCO-225-D-HW	D								
CCO-225-I-CW	I	<50º	125	175	225	 AS-260 + PL3+LP+DA	210	44,9	2.360 x 790 x 1.550
CCO-225-D-CW	D								
CCO-270-I-HW	I	>50º	140	205	270	 AS-260 + PL5+LP +DA	240	39,9	2.660 x 790 x 1.550
CCO-270-D-HW	D								
CCO-270-I-CW	I	<50º	140	205	270	 AS-260 + PL5+LP +DA	240	48,9	2.660 x 790 x 1.550
CCO-270-D-CW	D								
CCO-320-I-HW	I	>50º	170	245	320	 AS-260 + PL3+L5+LP+TA	240	47,1	3.260 x 790 x 1.550
CCO-320-D-HW	D								
CCO-320-I-CW	I	<50º	170	245	320	 AS-260 + PL3+L5+LP+TA	240	56,1	3.260 x 790 x 1.550
CCO-320-D-CW	D								

(*) Entry of racks:
I: Entrance from the Left of the machine.
D: Entrance from the Right of the machine.
(**) COMPOSITION OF MODULES
The diagrams and composition indicated always refer to the left-entry version.

AS. Anti-splash guard supplement
PL3: Cold water prewash
PL5: First Wash with cold water
L5: First wash with hot water
LP: Main wash
DA: Double-effect rinse and pre-rinse
TA: Double-effect rinse and triple-effect pre-rinse

REDUCTION IN OPERATING COSTS

The new Concept line offers one of the lowest water consumption in its market.

WATER CONSUMPTION

MODEL	CCO-120	CCO-160	CCO-180	CCO-225	CCO-270	CCO-320
(l/rack)	1,75	1,5	1,17	0,93	0,89	0,75
(l/h)	210	240	210	210	240	240

Reduction of the electric consumption due to the improvement in water consumption. CW, HW and ECO models that allow adapting to different realities of contracted power.

POWERS

MODEL		CCO-120	CCO-160	CCO-180	CCO-225	CCO-270	CCO-320
CW	kW	28,5	31,5	34,7	44,9	48,9	56,1
CW with recovery system	kW	26,2	29,2	32,3	42,5	46,5	53,7
HW	kW	19,5	22,5	25,7	35,9	39,9	47,1
ECO	kW	10,7	10,7	19,7	20,9	21,9	29,1
ECO gas booster (gas kW)	kW	38	38	38	38	38	38

GAS POWER

MODEL		CCO-120	CCO-160	CCO-180	CCO-225	CCO-270	CCO-320
ECO gas booster (gas kW)	kW	38	38	38	38	38	38

ENERGY SAVING FEATURES

STAND-BY MODE

01.

Energy saving system: reduces consumption by halting operation of the pumps, and by passing the heating of the rinse to stand-by mode (70 ºC).Finishes the stand-by mode once the basket is again detected.

AUTO TIMER

02.

Auto-timer which deactivates the conveyor motor after a pre-set period of inactivity (10 minutes). The system restarts by pressing the start button.

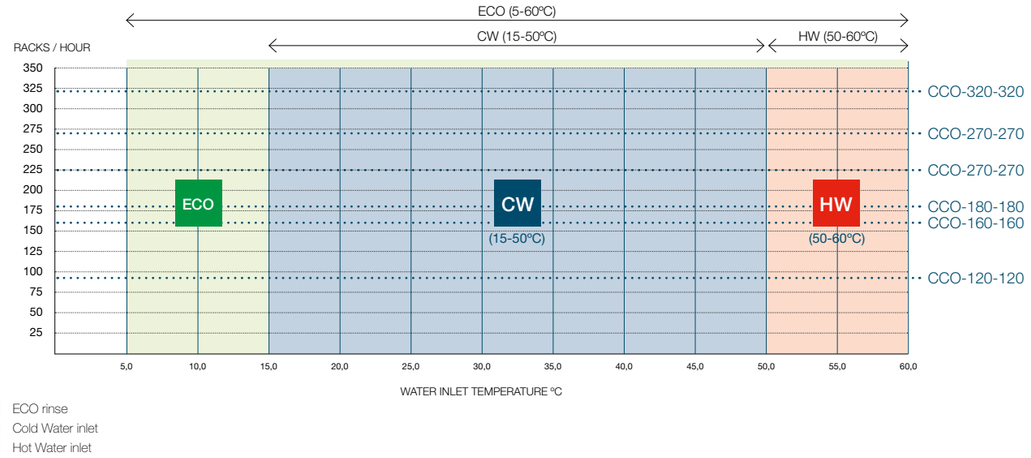
i-RINSE

03.

Rinse saving system. The rinse stops when the basket has fully passed, saving water and energy.

FLEXIBILITY

This new range adapts to the different realities of installation with our COLD, HOT and ECO versions. It also offers the possibility of alternate or simultaneous connection in each version.



01.

ELECTROVALVE

Easy access for installation. Electrovalve is the located in one lateral outside part of the machine, making it easier to connect and to repair (no panels must be removed to connect the machine).

02.

DOSING SYSTEMS CONNECTORS

Electrical panel ready to easily connect different devices such as dosing systems and additional safety elements (emergency stop button and limit switch).

GUARANTEED WASHING RESULTS

01

01.

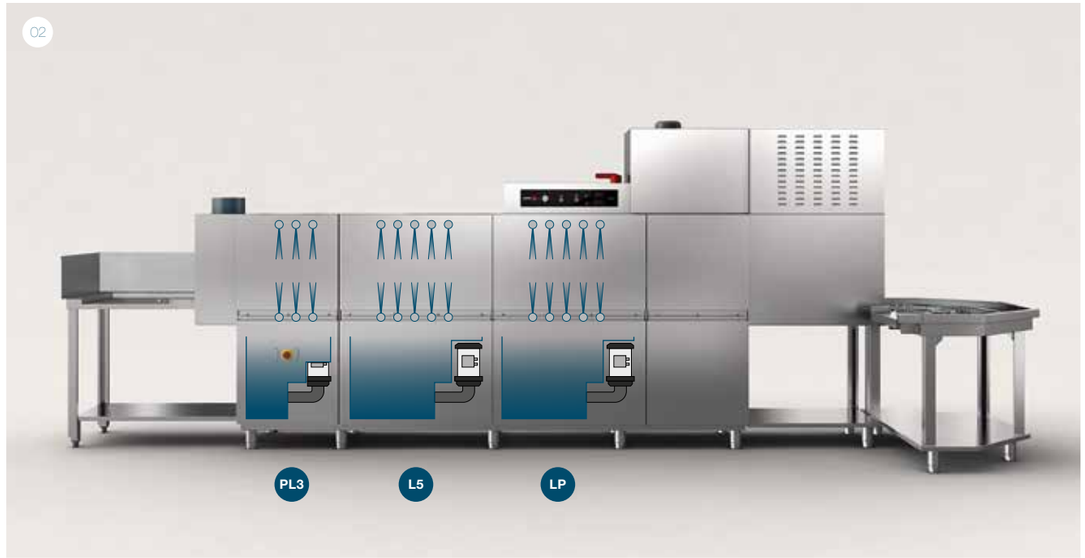
High power washing system with 4 upper and 4 lower washing arms (in compact models). They ensure optimal results even when large quantities need to be washed in a short period of time.

02.

Intensive program (in modular models), isin accordance with DIN10534.This norm ensures the hygienic operation of dishwasher equipment used in commercial food preparation settings. For each phase of the dishwashing process, a minimum contact time of 120 seconds is set in order to obtain a hygienically safe result.

INTENSIVE

02



ECO SAVING

A unique proposal in the market that will allow the user to save up to 60% on their energy bill and a recovery of the extra charge compared to the electric version in around 3 years.

	ECO MODELS					
	COMPACT		MODULAR			
MODELS	CCO-120 ECO	CCO-160 ECO	CCO-180 ECO	CCO-225 ECO	CCO-270 ECO	CCO-320 ECO
						
MODULES	LP + A-ECO	LP + A-ECO	AS + LP + DA-ECO	AS + PL3 + LP + DA-ECO	AS + PL5 + LP + DA-ECO	AS + PL3 + L5 + LP + TA-ECO

AS: ANTI-SPLASH GUARD SUPPLEMENT

PL3: PREWASH

PL5: FIRST WASH WITH COLD WATER

LP5: FIRST WASH WITH HOT WATER

LP: MAIN WASH

A-ECO: DOUBLE EFFECT ECO RINSE

DA-ECO: DOUBLE EFFECT PRE-RINSE + DOUBLE EFFECT ECO RINSE

TA-ECO: TRIPLE EFFECT PRE-RINSE + DOUBLE EFFECT ECO RINSE

ECO TECHNOLOGY FOR A SUSTAINABLE FUTURE.

OPERATION ECO

01.

Given the heating power of the generator, the dishwasher can be installed in facilities with a very cold water supply (>5 ºC).

02.

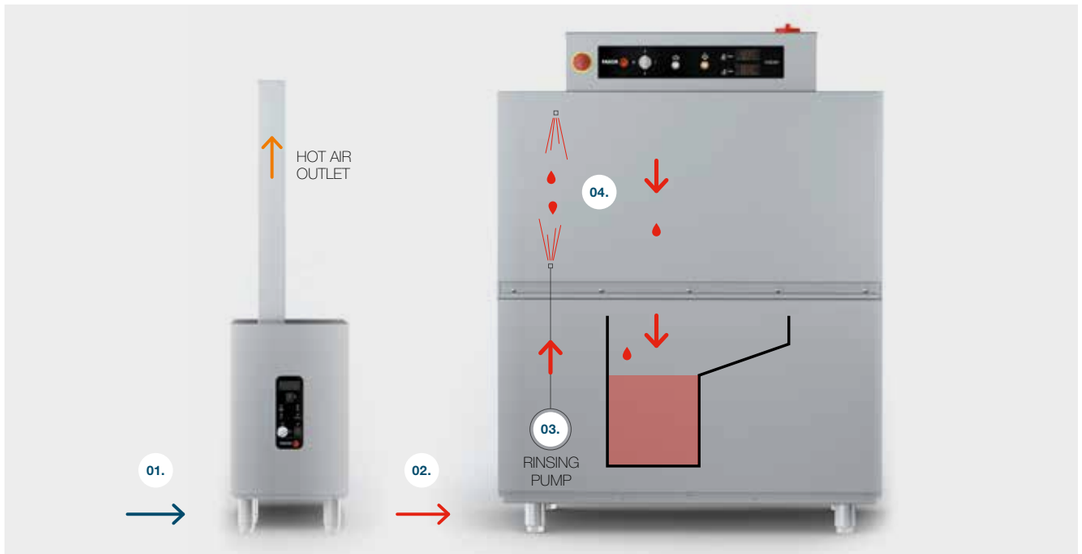
The gas hot water boiler (GWB-40) replaces the electric boiler for the rinse, which leads to considerable energy saving.

03.

The dishwasher has a motor pump to send water from the generator to the rinsing jets. Furthermore, it features a flow controller to ensure a constant consumption of water.

04.

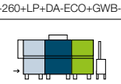
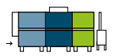
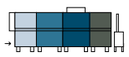
The first filling of the dishwasher tank is carried out using water from the generator, rapidly reaching the operating temperature. Both the first fill of the tank and the rinsing process are carried out with water heated by the generator.



COMPACT MODELS | ECO VERSION

	MODEL	ENTRANCE (*)	WATER SUPPLY	PROGRAMS (Baskets/h) Deep	Medium	High-capacity	INTERNAL ZONES (**)	WATER CONSUMPTION (l/h)	ELECTRICAL POWER (kW)	GAS POWER (kW)	DIMENSIONS (mm)
	CCO-120-I-ECO	I	<50º	80	100	120		210	10,7	48	1.180 x 790 x 1.550
	CCO-120-D-ECO	D									
	CCO-160-I-ECO	I	<50º	100	130	160	LP + A+ECO	240	10,7	48	1.180 x 790 x 1.550
	CCO-160-D-ECO	D									

MODULAR MODELS | ECO VERSION

MODEL	ENTRANCE	WATER SUPPLY	PROGRAMS (Baskets/h) Intensif	Medium	High-capacity	MODULES CONSUMPTION (**)	WATER CONSUMPTION (l/h)	ELECTRICAL POWER (kW)	GAS POWER (kW)	DIMENSIONS (mm)
CCO-180-I-ECO	I	<50º	90	135	180	 AS-260+LP+DA-ECO+GWB-40	210	19,7	48	1.750 x 790 x 1.550
CCO-180-D-ECO	D									
CCO-225-I-ECO	I	<50º	125	175	225	 AS-260+PL3+LP+DA-ECO+GWB-40	210	20,9	48	2.360 x 790 x 1.550
CCO-225-D-ECO	D									
CCO-270-I-ECO	I	<50º	140	205	270	 AS-260+PL5+LP+DA-ECO+ GWB-40	240	21,9	48	2.660 x 790 x 1.550
CCO-270-D-ECO	D									
CCO-320-I-ECO	I	<50º	170	245	320	 AS-260 + PL3+L5+LP+TA-ECO + GWB-40	240	29,1	48	3.260 x 790 x 1.550
CCO-320-D-ECO	D									

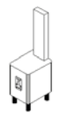
(*) Entry of racks:

I: Entrance from the Left of the machine.
D: Entrance from the Right of the machine.

(**) COMPOSITION OF MODULES
The diagrams and composition indicated always refer to the left-entry version.

- AS-260 Anti-splash guard supplement
- PL3 Cold water prewash
- PL5 First Wash with cold water
- L5 First wash with hot water
- LP Main wash
- DA Double-effect rinse and pre-rinse
- TA Double-effect rinse and triple-effect pre-rinse

WATER BOOSTER

	MODEL	DESCRIPTION	POWER (kW)	DIMENSIONS (mm)
	GWB-40	GAS WATER BOOSTER Burner with forced draft and double safety valve. Electronic control of temperature and water levels. Automatic descaling. Automatic tank emptying.	40,00	432 x 548 x 770

COMPLEMENTARY MODULES AND ACCESSORIES

COMPLEMENTARY MODULES

ANTI-SPLASH GUARD

- Its installation avoids splashing water to the exterior of the entrance area.
- With separator curtains.
- Includes extra anti-entrapment protection element.
- With upperfittingfor steam exhaust piping conection.
- Can be fitted at the entrance or the end of the tunnel.
- Fitted as optional in compact dishwashers and as standard at the entrance of modular dishwashers.
- Fagor recommends its installation.

AS-260

CONVEYOR DRYING TUNNEL

- CDT-600 for compact models and modular 180 and 225 models.
- CDT-800 for modular 270 and 320 models (optional 180 and 225).
- Supplementary element with 9 kW / 13.5 kW heating element box and upper fan for drying of the dishes with 0.55 kW / 1.1 kW motor.
- Module with conveyor system included, for placement at the end of the machine.
- Equipped with separating curtains and bottom shelf.

CDT-800

CDT-600

CONVEYOR RECOVERY SYSTEM

- Aspires the steam generated inside the tunnel and sends the condensed water to the tank of the machine, increasing the water temperature.
- Allows savings of up to 3 kW-h.
- Recommended for models with cold water input (CW) with temperatures no higher than 25 °C. It is not appropriate for installation in machines with hot water input, nor in ECO models with rinse water heating in the GWB-40 generator.

CRS 600 | **COMPACT**

- Module with conveyance system included.
- With separator curtains and bottom shelf.
- To be placed in the entrance.

CRS-600

CRS 700 | **MODULAR**

- Fitted into the top of the dishwasher.
- The CRS-700 energy recovery system is located on top of the rinsing module.
- Recommended to use with drying tunnel.
- Does not increase length.

CRS-700

SUMMARY OF CHARACTERISTICS OF THE DIFFERENT MODULES

Table of modules which can form part of the composition of the modular conveyance trains.

Module		CCO-120	CCO-160	CCO-180	CCO-225	CCO-270	CCO-320
Supplementary Anti-splash + anti-entrapment protection at the entrance	**AS-260**	○	○	●	●	●	●
Prewash	**PL3**	-	-	-	●	-	●
Intense prewash	**PL5**	-	-	-	-	●	-
First wash	**L5**	-	-	-	-	-	●
Main wash	**LP**	●	●	●	●	●	●
Double effect rinse	**A**	●	●	-	-	-	-
Double effect ECO rinse	**A-ECO**	○	○				
Double effect pre-rinse + Double effect rinse	**DA**	-	-	●	●	●	-
Double effect pre-rinse + Double effect ECO rinse	**DA-ECO**	-	-	○	○	○	-
Triple effect pre-rinse + Double effect rinse	**TA**	-	-	-	-	-	●
Triple effect pre-rinse + Double effect ECO rinse	**DA / TA-ECO**	-	-	-	-	-	○
Conveyor Drying tunel 600	**CDT-600**	○	○	○	○	-	-
Conveyor Drying tunel 800	**CDT-800**	-	-	-	-	○	○
Conveyor Recovery sistem for compact models	**CRS-600**	○	○	-	-	-	-
Conveyor Recovery sistem for modular dishwashers	**CRS-700**	-	-	○	○	○	○
Supplementary anti-splash guard at the exit	**AS-260**	○	○	○	○	○	○

OPERATION

CONVEYOR RECOVERY SYSTEM

01.

The energy recovery system draws out the steam generated in the tunnel. It condenses this steam, preventing it from leaving by expelling dry air instead.

02.

The cold water comes from the mains supply and passes first through the energy recovery system. Thanks to the heat exchanger, the heat generated by the steam is used to increase the water temperature. After the temperature is increased from 15/18 ºC to 35/40 ºC, the water is sent to the cylinder.

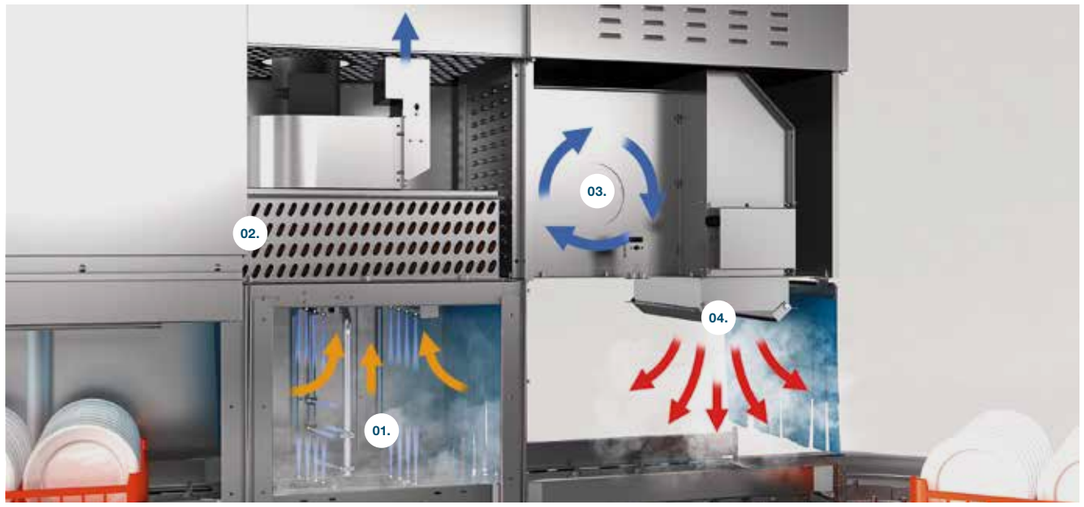
CONVEYOR DRYING TUNNEL

03.

The air outside is drawn in, to subsequently be sent to turbines which increase its temperature to 50/60 ºC.

04.

Once the air is heated, thanks to the drying tunnel, it is used to dry the dishes.



TABLES FOR RACK CONVEYOR DISHWASHERS

FLAT ENTRANCE-EXIT TABLES
- Flat table with panels and lower rails to accommodate baskets.
- Can be placed at the entrance or the exit.
- Length: 1200 mm.
- Versions for entrance to the left and to the right.

TABLES WITH A SINK AND TAPS FOR PREWASHING
- Table with a sink and tap.
- With panels and lower rails to accommodate baskets.
- Length: 1200 mm / 1500 mm.
- Versions for entrance to the left and to the right.

PLATE CLEARING TABLES
- Table with a hole to clear plates, sink and tap.
- With panels and lower rails to accommodate rack.
- Length: 1200 mm / 1500 mm / 1800 mm.
- Versions for entrance to the left and to the right.

ENTRY/EXIT ELEMENTS

AUTOMATIZED CURVES
- Enables the baskets to move from the dishwasher.
- Versions with exits at 90 º and 180 º.

ROLLING TABLES
- Enables baskets to move forward using the conveyor system of the dishwasher itself, moving the baskets over the rollers.
- Versions with superior capacity for 2, 3 and 4 baskets.

ANGLED BASKET LOADER
- Device to attach at an angle to the entrance of the rack conveyor dishwasher and automatically introduce the baskets.
- The conveyor pins are activated by the conveyor system of the dishwasher.
- Contains a lower panel.

SUMMARY TABLE OF CHARACTERISTICS

MODEL		CCO-120	CCO-160	CCO-180	CCO-225	CCO-270	CCO-320
SPEEDS		3	3	-3	3	3	3
PRODUCTION	(racks/h)						
Deep wash program		80	100	-	-	-	-
Intensive program (DIN-10534)		-	-	90	125	140	170
Medium program		100	130	135	175	225	245
High-capacity program		120	160	180	225	270	320
PREWASH PL3,PL5							
Tank capacity	(l)	-	-	-	60	100	60
Pump power	(kW)	-	-	-	1,2	2,2	1,2
WASH L5, LP							
Tank capacity	(l)	50	50	100	100	100	200
Temperature	(ºC)	55-65	55-65	55-65	55-65	55-65	55-65
Heating power	(kW)	9	9	12	12	12	18
Pump power	(kW)	1,2	1,2	2,2	2,2	2,2	4,4
PRE-RINSE DA, TA							
Tank capacity	(l)	-	-	15	15	15	15
Temperature	(ºC)	-	-	70	70	70	70
Heating power	(kW)			5	5	5	5
Pump power	(kW)	-	-	0,26	0,26	0,26	0,26
RINSE							
Boiler volume	(l)	21	21	21	21	21	21
Temperature	(ºC)	80-85	80-85	80-85	80-85	80-85	80-85

MODEL		CCO-120	CCO-160	CCO-180	CCO-225	CCO-270	CCO-320
Heating power	(kW)						
CW		27	30	27	24	27	27
CW with recovery system		24	27	24	21	24	24
HW		18	21	18	15	18	18
ECO		-	-	-	-	-	-
ECO rinse pump power (kW)	(kW)	0,26	0,26	0,26	0,26	0,26	0,26
Water consumption **(*)**							
	(l/h)	210	240	210	210	240	240
	(l/rack)	1,75	1,5	1,17	0,93	0,89	0,75
STANDARD CONNECTION							
Type of connection (default)		ALT.	ALT.	ALT.	SIM.	SIM.	SIM.
Voltage **(**)**				400 V /3N ~ / 50 -60Hz			
TOTAL POWER (KW)							
CW		28,5	31,5	34,7	44,9	48,9	56,1
CW with recycler		26,2	29,2	32,3	42,5	46,5	53,7
HW		19,5	22,5	25,7	35,9	39,9	47,1
ECO		10,7	10,7	19,7	20,9	21,9	29,1
ECO gas booster	(gas kW)	38	38	38	38	38	38

MODEL	CCO-120	CCO-160	CCO-180	CCO-225	CCO-270	CCO-320
WIDTH (mm)	1180	1180	1750	2360	2660	3260
Standard	1180	1180	1500	2100	2400	3000
With entrance module	1440	1440	1760	2360	2660	3260
With drying module	1780	1780	2100	2700	3200	3800
DEPTH (mm)	790	790	790	790	790	790
HEIGHT (mm)	1550	1550	1550	1550	1550	1550
Standard	1550-1610	1550-1610	1550-1610	1550-1610	1550-1610	1550-1610
With drying	1860-1920	1860-1920	1860-1920	1860-1920	1860-1920	1860-1920
With recovery system	1960-2020	1960-2020	1960-2020	1960-2020	1960-2020	1960-2020
With open door blocking system	1870-1930	1870-1930	1870-1930	1870-1930	1870-1930	1870-1930
OPERATING HEIGHT (mm)	850-900	850-900	850-900	850-900	850-900	850-900
USEFUL ENTRANCE HEIGHT (mm)	390	390	390	390	390	390
PASSAGE WIDTH (mm)	510	510	510	510	510	510
WEIGHT (kg)						
Net	211	211	259	381	434	556
Gross	305	305	382	556	628	792
WATER CONNECTION						
Operating pressure	2 -4 bares					
Type of connection	3/4" GAS					
Tª of hot water	50 °C -60 °C					
Tª of cold water	15 °C -50 °C					

(*) Non-binding information. Consumption can vary according to the characteristics of the installation.

(**) Order with a voltage of 230 V 3~ or other options.

(***) The adjustable feet allow for height adjustment, raising the machine by up to 60 mm

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