

# INDUSTRIAL WASHING MACHINES



## 1. Crate washing machines

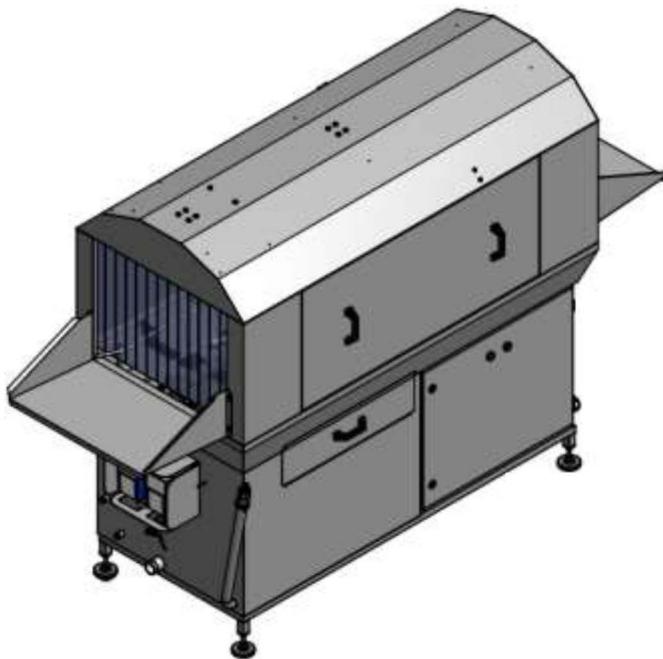
### HLC

Compact conveying crate washing machine with integrated main wash and rinsing zone, for fast and effective cleaning of slight to moderately contaminated Euro norm crates (E1 / E2 crates, the machine is laid out for washing the boxes specified by you )

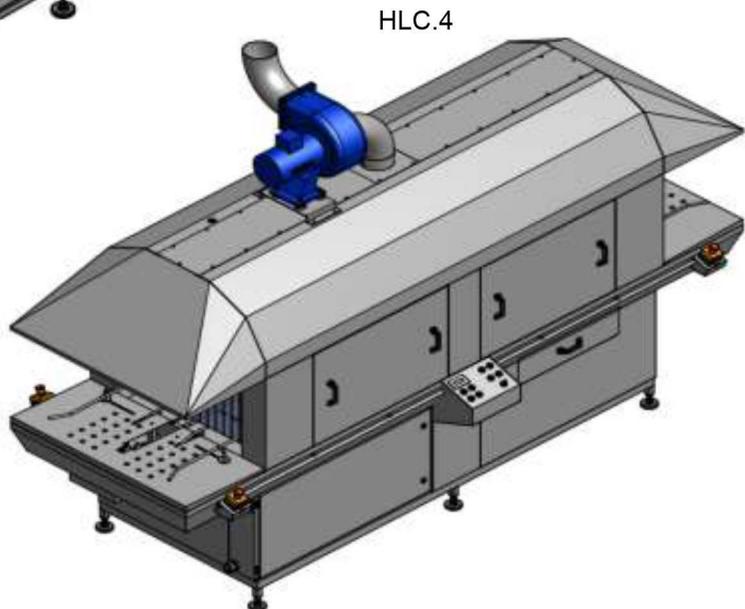
The unit is divided into a main wash and a rinsing zone. In the main wash zone the crates are cleaned with circulating water which is invariably kept at the desired temperature by the installed tank heater. The water of the main wash zone is constantly filtered by an elaborate filtration system. In the rinsing zone the crates are rinsed with clean fresh water and subsequently conducted into the tank of the main wash zone to be re-used. This procedure achieves minimal water, energy and chemical consumption as well as superb wash results.

In order to ensure an optimal cleaning of all faces, the crates are transported by a conveyor chain at even distances through the unit; the installed rotatable. Clip-eyelet flat nozzles ensure an efficient cleaning of the crates.

Crate washing machine Type:	HLC	HLC.2	HLC.3	HLC.4
Capacity per hour	100	200	300	400



HLC und HLC.2



HLC.4

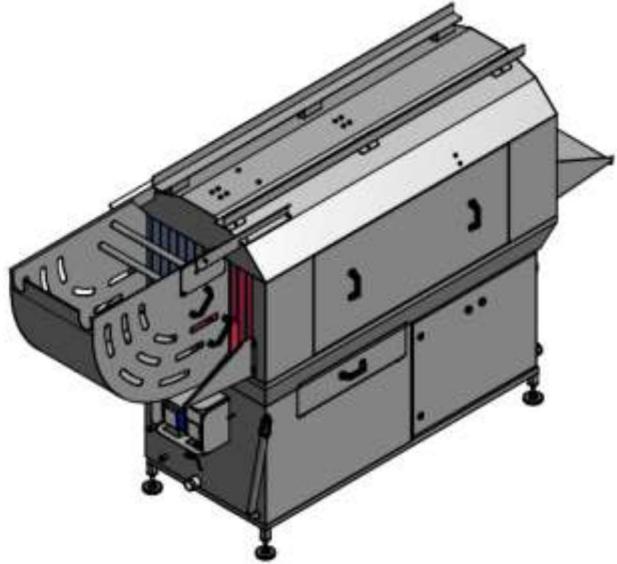
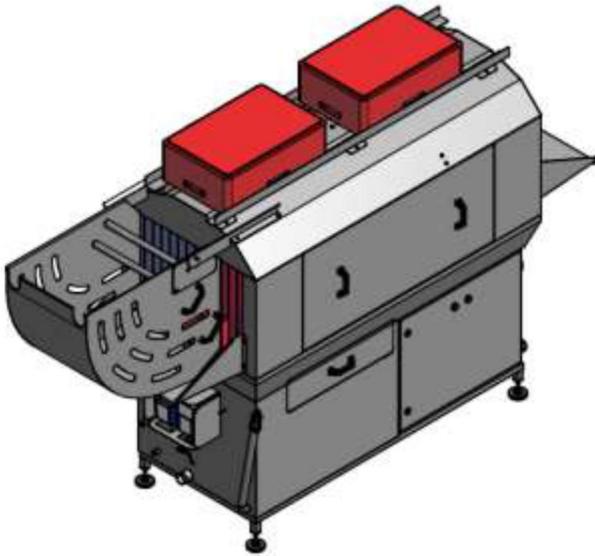
Crate washing machine type	HLC	HLC.2	HLC.3	HLC.4
Capacity per hour	100	200	300	400
Dimension of machine				
Total length	2500 mm	2500 mm	3200 mm	3700 mm
Length (without guiding plates)	1700 mm	1700 mm	2200 mm	2700 mm
Height	1600 mm	1600 mm	1900 mm	1900 mm
Width	800 mm	800 mm	1100 / 1300 mm	1100 / 1300 mm
Total length washing tunnel	1600 mm	1600 mm	2200 mm	2700 mm
Height of guiding plates	970 mm	970 mm	970 mm	970 mm
Length of guiding plates	2 x 400 mm	2 x 400 mm	2 x 500 mm	2 x 500 mm
Feature of guiding plates	Removeable	Removeable	integrated - driven	Integrated – driven
Height adjustable feet	4 pcs.	4 pcs	6 pcs	6 pcs
Material	Stainless steel 1.4301			
Main wash zone				
Length	1000 mm	1000 mm	1125 mm	1625 mm
Pump	3,2 kW	4,0 kW	1 x 5,5 kW	1 x 7,5 kW
Pump capacity	450 l/min	700 l/min	900 l/min	1100 l/min
Tank capacity	150 Litre	150 Litre	250 Litre	300 Litre
Water consumption (hour) approx	80 Litre	160 Litre	240 Litre	320 Litre
Tank heating	1 x 6 kW	1 x 9 kW	2 x 6 kW	2 x 9 kW
System	Electrical screw-in heater			
Washing temperature	30- 60°C adjustable			
Steam heating	Optional	Optional	Optional	Optional
Nozzles	Clip-eyelet (rotatable flat nozzles)			
Filter system	Stainless steel 1.4301 filter tray			
Rinsing zone				
Length	600 mm	600 mm	500 mm	500 mm
Rinsing temperature	recommended 82 - 85°C to be provided by the customer			
Nozzles	Flat nozzles			
Miscellaneous				
Crate donwholter (adjustable)	Yes	Yes	Yes	Yes
Directional control (adjustable)	Yes	Yes	Yes	Yes
Conveying system	Transport chain with carrier			
Crate transport	Longitudinal	Longitudinal	Sideways	Sideways
Electrical data				
Electrical connection	400V / 50 Hz 380V / 60 Hz	400V / 50 Hz 380V / 60 Hz	400V / 50 Hz 380V / 60 Hz	400V / 50 Hz 380V / 60 Hz
Control voltage	24V	24V	24V	24V
Total voltage	10 kW	15 kW	18 kW	28 kW
Water				
Water inlet cold/hot water	½" 1- 10 bar	½" 1- 10 bar	¾" 1- 10 bar	¾" 1- 10 bar
Water outlet (vall valve)	1 1/2"	1 1/2"	3"	3"

Possible option (against additional charge)

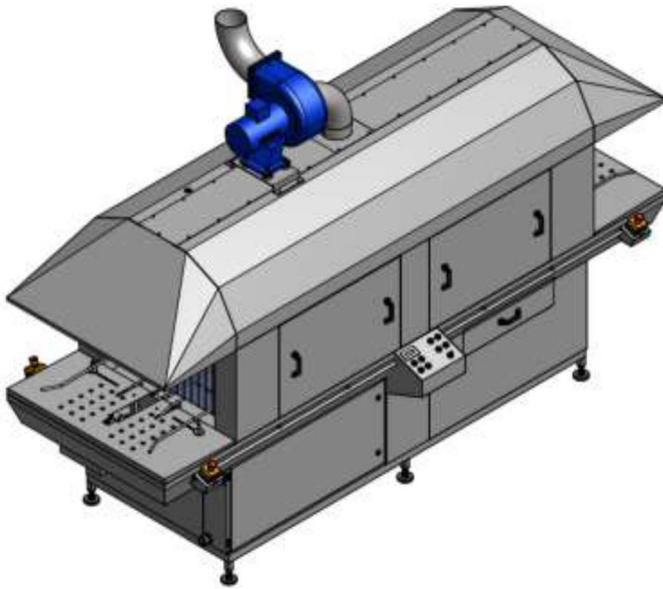
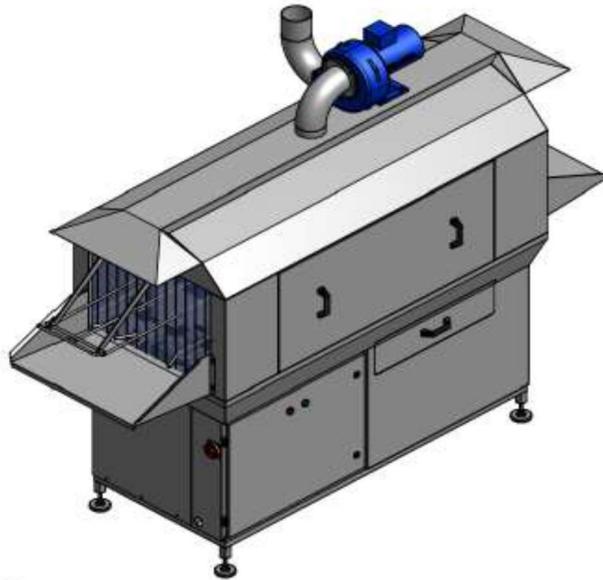
Crate washing machine type:	HLC	HLC.2	HLC.3	HLC.4
One-Man-Operation with return chute	●	●	-	-
Electrical flow heater, 400 VAC, for rinsing water 85°C	1 x 12 kW	1 x 15 kW	2 x 15 kW	2 x 15 kW
	●	●	●	●
Frequency converter, adjustable +/- 30%	●	●	●	●
Conductivity controlled metering pup for detergent, consisting of hose pump, control unit. 1 LF sensor and temperature gauge	●	●	●	●
Metering pump 230VAC for rinsing aid, adjustable 0,10 – 3,0 l/h	●	●	●	●
Tank heater 9 kW	●	-	-	-
Tank heater 12 kW	●	●	-	-
Tank heater 15 kW	-	●	-	-
Tank heater 18 kW	-	-	●	-
Tank heater 27 kW	-	-	●	●
Wash pump 7,5 kW with pump flow rate 770 l/min at 3,5 bar pressure	-	-	●	-
Wash pump 11 kW with pump flow rate 900 l/min at approx. 4 bar pressure	-	-	●	●
Wash pump 15 kW with pump flow rate 1200 l/min at 4 - 5 bar pressure	-	-	-	●
Direct steam heating of washing water, inlet G3/4", 0,5 to max. 2 bar. At an inlet water temperature of 10°C the steam consumption for the initial heating is approx.	40 kg/h	40 kg/h	80 kg/h	100 kg/h
	●	●	●	●
Steam/water mixing valve (rinsing water)	●	●	●	●
Vapor extractor with integrated stainless steel piping	●	●	●	●
Mobile execution (Crate washing machine)	●	●	●	●
Cold air blaster: is integrated into the unit following a neutral zone. The crates are air blasted with cold air from all sides with suitable blowers (1 x 5 kW) Total voltage 7 kW	Maße: LxBxH 1700 x 900 x 1600 mm	Maße: LxBxH 1700 x 900 x 1600 mm	Maße: LxBxH 1700 x 1100/1300 x 1600 mm	Maße: LxBxH 1700 x 1100/1300 x 1600 mm
	●	●	●	●
Cold air blaster: is integrated into the unit following a neutral zone. The crates are air blasted with cold air from all sides with suitable blowers (2 x 5 kW) Total voltage 12 kW			Maße: LxBxH 2500 x 1100/1300 x 1600 mm	Maße: LxBxH 2500 x 1100/1300 x 1600 mm
	-	-	●	●
Blower 1 x 7,5 kW for cold air blaster	-	-	-	●
One-Man-Operation for cold air blaster	●	●	-	-
Mobile execution (for cold air blaster)	●	●	●	●

## Examples:

for 100 crates with One-Man-Operation with return chute

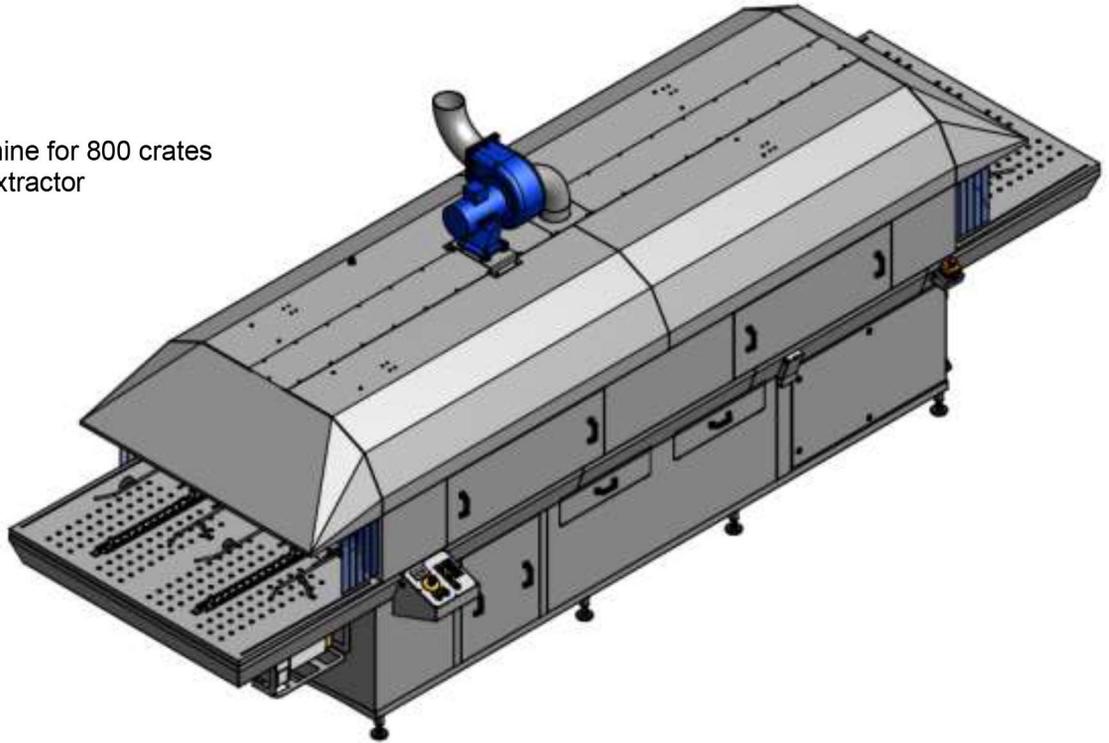


HLC.2 for 200 crates  
With vapor extractor and crate downholder

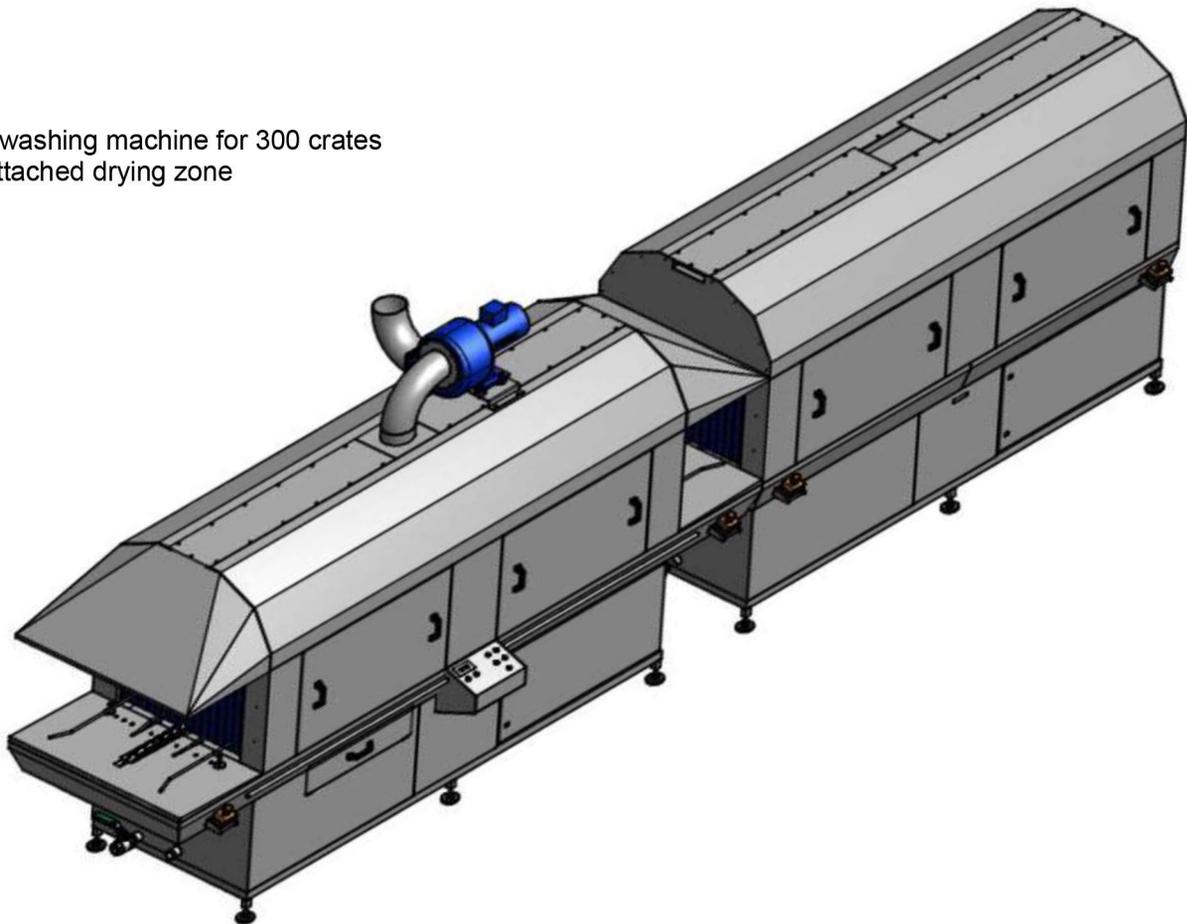


Crate washing machine for 400 crates with  
Vapor extractor

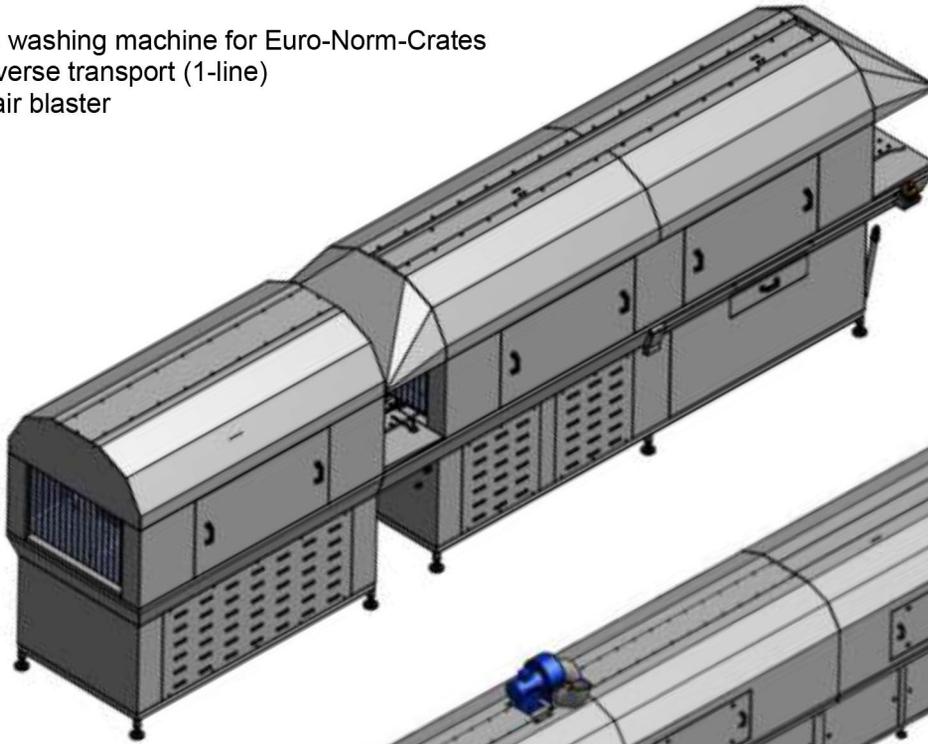
Crate washing machine for 800 crates  
(2-line) with vapor extractor



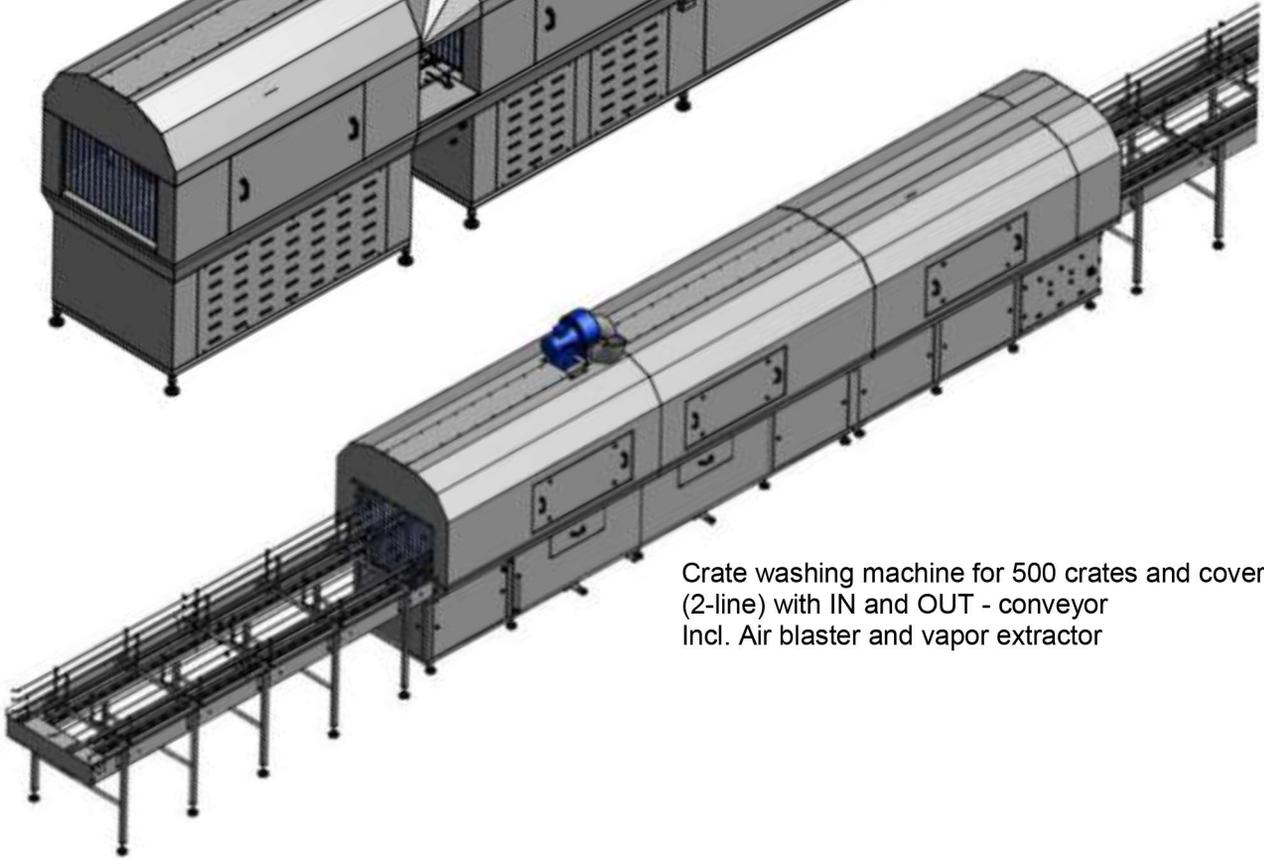
Crate washing machine for 300 crates  
with attached drying zone



Crate washing machine for Euro-Norm-Crates  
transverse transport (1-line)  
Incl. air blaster



Crate washing machine for 500 crates and cover  
(2-line) with IN and OUT - conveyor  
Incl. Air blaster and vapor extractor



HLC for 200 crates  
with drying zone

