

**BLAST CHILLERS AND COMBINED
ROLL-IN BLAST CHILLER / FREEZERS**
Range "Touch Screen"
MX 27S TS / MX 27SX TS / SXP 27cS TS
MX 29S TS / MX 29SX TS / SXP 29cS TS



Short description

- MX 27S TS, MX 27SX TS, MX 29S TS and MX 29SX TS for blast chilling. Combined operation in option.
- SXP 27S TS and SXP 29S TS for combined chilling and freezing operation.
- Controlled by touch controls located on the front of the equipment, 1.5 m above the floor.
- External and internal finish made of 304 stainless steel.
- Top in treated steel.
- Door closing device with inside antipanic release.
- Rising hinges. Right door hinge (left on request, refer to the "Options and accessories" paragraph).
- Scraper seal on the bottom of the door.
- Front frame has an anti-condensation system.
- Lateral inside trolley guides.
- 20 mm insulated floor covered with 304 stainless steel with ramp.
- The equipment is supplied dismantled, components pre-fitted. Evaporator, fans, electrical box and control fitted on the cold block panels. All the wiring has already been done. The rest of the panels are supplied dismantled.
- Panel insulation with injected polyurethane foam, 80 mm thick, without CFC, HCFC or HFC.

Main specifications

CAPACITIES

MODELS	BLAST CHILLING +63 to +10 °C core temp.		BLAST FREEZING +63 to -18 °C core temp. within 4 h 30 min. OR +20 to -18 °C core temp.
	Within 110 min.	Within 85 min.	
MX 27S TS MX 29S TS	160 kg	130 kg	80 kg**
MX 27SX TS MX 29SX TS	220 kg	160 kg	100 kg**
SXP 27cS TS SXP 29cS TS	/	/	60 (P)

** Option combined operation.
(P) ... kg/h of uncooked shaped 250 g French sticks from +20 °C to -18 °C.
Refer to the "Load capacity" paragraph below.

ELECTRONIC CONTROL

- Ergonomic touch screen.
- 5-functions home screen:
 - Manual use
Chilling cycle, freezing cycle*, "Hard" cycle, Timer mode, Frigiprobe mode, continuous cycle, save.
 - Auxiliary functions
i-Chilling (Friginox patented self-adapting chilling), fish sanitification cycle*, de-icing, heating food probe (option).
 - Programs
97 chilling or freezing program cycles* and 2 pre-set ice cream cycles can be stored*.
 - Favorites
Reminder of the last 9 programs used.
 - Pre-chilling
Pre-chilling cycle of blast chiller / freezer prior to use.
- Stopping of the cycle by counting down the time (Timer mode) or with the food probe (Frigiprobe mode).
- Core temperature setting of the cycle start in Frigiprobe mode.
- Setting of the cycle time (Timer mode).
- Core temperature setting of the cycle end in Frigiprobe mode, different from the temperature maintaining after the cycle.
- Fan stop when opening the door.
- Ventilation reduction after the cycle.
- Temperature maintaining after the cycle (adjustable temperature).
- Automatic control of the de-icing duration.
- Sound alarm at the start of the cycle.
- Sound and visual alarms at the end of the cycle, with possible remote report (depending on config.).
- Sound and visual alarms of the probe and temperature alarms, with possible remote report (depending on config.).
- Temperature display in °C or °F.
- Language of the interface can be changed.
- Recording of HACCP alarms.
- Protected access for maintenance.
- Recording of HACCP data (option).

* Option combined operation and SXP models.

MULTI-POINT FRIGIPROBE

- Made up of a food probe in 304 L stainless steel, fitted with 3 temperature sensors. The number of sensors enables the thermal centre of the product to be found easily.
- The Frigiprobe ensures:
 - the display of the product core temperature thanks to its "intelligent" 3 points measuring process,
 - the automatic stopping of the cycle as soon as the core temperature of the product is reached.
- Frigiprobe calibration thanks to the electronic control.

REFRIGERATING EQUIPMENT

- R452A refrigerant.
- One refrigerating evaporator with two anti-corrosion treated banks, each made up of a thermostatic expansion valve. Expansion valve fitted with a M.O.P. -20 °C on combined and SXP models.
- Four fans of diameter 300 mm mounted on a pivoting stainless steel panel to facilitate the maintenance. 304 stainless steel fan discharge casing and guard, protected steel for motor and impeller.
- Air flow: 13 640 m³/h.
- De-icing by means of 304 stainless steel electrical resistances and forced operation of the fans (de-icing carried out with door closed), with manual start and automatic stop. Safety thermostats.
- De-icing water collection tank for connection to the outside.
- Standard liquid solenoid valve operated by the control.
- Refrigerating circuit under nitrogen pressure.

The following needs to be provided for:

- complete remote condensing unit with "pump down" control,
- electrical box for the condensing unit, drier, line, etc.

HYGIENE

- Easy maintenance.
- Rounded internal corners (radius 12 mm).
- Internal fittings easy removable without any tools.
- 33 mm wide door magnetic gaskets with a special anti-dirt and anti-impact rounded profile, removable without any tools.
- Sealed control panel.
- Complies with the standards in force.

LOAD CAPACITY

Refer to the capacities table, page 1.

The capacities are stated according to the AFNOR ACD40-003 agreement "INSTITUTIONAL CATERING EQUIPMENT - REFRIGERATING EQUIPMENT ..." with 1.8 kg of mashed potatoes per GN 1/2 container with membrane seal, and two GN 1/2 containers per GN 1/1 format.

OTHER TEMPERATURES AND TIMES POSSIBLE, CONTACT US.

TROLLEY CAPACITY

Quantity of standard trolleys

GN 1/1	2	600 x 400	2 (1)	Rolling base 620 x 420	2
GN 2/1	1		1 (2)		
		600 x 400 Access 600	2 (1)		
			2 (2)		
		600 x 800	1 (1)		
			1 (2)		

(1) Without rubber stop in the trolley edges

(2) With rubber stop in the trolley edges

Quantity of oven trolleys

BRAND	DOOR WIDTH (mm)		FORMAT	MODEL
	MX 27 760	MX 29 900		
ROSINOX	2 (4)	2 (4)	GN 1/1	NKS 201
	1	1	GN 2/1	KKS 202
	1	1		
	-	1		
RATIONAL	1	1	GN 1/1	HGW 201 01/04
	1 (3)	1	GN 2/1	HGW 202 01/04

(3) With narrow drainer rack.

(4) 90° rotation outside of the blast chiller / freezer..

Because of possible unexpected changes on ovens, check the trolley dimensions.

CONSTRAINTS

Electrical

The electrical power supply must conform to the regulation in force. We recommend fitting an all-pole circuit-breaker coupled to a quick-trip circuit-breaker (30 mA maxi).

Provide for an all-pole switch close to the equipment.

- Equipment supplied with 3 m long cable.

Draining of the de-icing water

- Connection of the de-icing water collection tank by runoff tube, dia. 32, not supplied.
- Pre-drilling of the panels to pass through the runoff tube, see "Dimensions" drawing, item (B).

Provide for

- A free evacuation on floor trap nearby.
- A duct in front of the unit door.

Floor

- Like all floor-standing refrigerating equipment, in the event of daily operation for periods greater than:
 - 12 hours in blast chilling,
 - 8 hours in blast freezing
 or more than 5 days per week, an additional thermal insulation under the blast chiller / freezer will be required to prevent floor freezing. This must be done according to best working practices applied to negative temperature cold room floors.
- Equipment installed in upstairs floors: take into account the risk of condensation under the floor.

Installation

Provide for

- A place correctly ventilated.
- The ambient temperature should be between +15 °C and +43 °C taking into account the condensing unit's heat emission. Ventilate the premises if the temperature is greater than +43 °C.
- A flat, horizontal and smooth floor.
- A minimum space of 70 mm around the equipment.
- Keep away from sources of heat (cookers, etc.) and exposure to the sun.
- A space sufficient for a correct opening of the door.
- For pass through version with a cold room, the blast chiller / freezer should slope towards the kitchen and there must be a floor trap or a duct near the door, on the kitchen side.
- Equipment embedding in the floor possible, see drawings. State on order.

Supply

Dimensions of the largest non-packaged elements (mm):

- L-shaped cold block (L x H x D): 1160 x 2170 x 650,
- MX 27 - door 760 (L x H x D): 960 x 1940 x 200,
- MX 29 - door 900 (L x H x D): 1100 x 1940 x 200.

Remote condensing unit

To select the condensing unit, refer to the "Technical specifications" paragraph.

Recommended connections between the remote condensing unit and the equipment:

- for condensing unit fitted with an anti-short cycle delay on the compressor, connection of the liquid solenoid valve cut-in electric power supply during the anti-short cycle delay of the compressor. 2-wires cable (1.5 mm² - 230 V),
- for condensing unit fitted with a power reduction device or with several compressors, connection of the power reduction control on the electronic control "End of cycle" signal (depending on config.). 2-wires cable (1.5 mm² - 230 V).

OPTIONS AND ACCESSORIES



- Combined chilling and freezing operation.**

- Pass through.**

State the position of the control panel, for left or right hinged door, see drawings.

- Left door hinge.**

Warning: change of side for the cold block and the control panel, see drawings.

- 1 point heating food probe.**

One probe per equipment.

- 1 or 2 additional Frigiprobes** connected to the electronic control.

For controlling the core temperature and triggering the end of the cycle.

- 1, 2, 3 or 4 temperature indicators with food probe.**

For displaying the core temperature of different products.

Warning: doesn't operate the electronic control.

- USB recorder.**

Recording capacity: 2 weeks. Creating file .csv type, loadable on USB key supplied. USB port on the front with tight protective cap. Data reading on PC via USB key using a spreadsheet program such as Excel®. Assembled and wired in factory. Not compatible with the printer option.

- Printer.**

Fully automatic ticket printing in reduced format on which the essential information is given. Dated printing of alarms. Periodical printing of temperatures after the end of cycle.

Cable length 4 m supplied. Supplied with 1 roll of heat-sensitive paper. Powered by mains supply (assembled and wired in factory).

Not compatible with the USB recorder option.

- Printer with 304 stainless steel support for wall mounting.**

- Pack of 20 rolls of thermal paper.**

For printer.

- Key locking.**

- Equipment supplied assembled.**

- Trolleys 20 or 22 levels, GN 1/1.**

- Trolleys 20 or 22 levels, GN 2/1.**

- 304 stainless steel wire trays, GN 1/1 (530 x 325).**

- 304 stainless steel wire trays, GN 2/1 (650 x 530).**

- Other voltages and frequencies (contact us).**

- Other refrigerants, CO2 connection ... (contact us).**

Remarks related to the installation

TECHNICAL SPECIFICATIONS

MODELS		MX 27S TS MX 29S TS (ESG) standard	MX 27SX TS MX 29SX TS (ESG) 85 minutes	SXP 27cS TS SXP 29cS TS (ESG) standard
VOLTAGE (50 Hz)		3 P 400 V + N + E		
ELECTRICAL RATING POWER (Watt)		4.4	4.4	4.4
ELECTRICAL POWER DURING CYCLE (kW)		1.3	1.3	1.3
ELECTRICAL POWER DURING DE-ICING (kW)		4.4	4.4	4.4
BLAST CHILLING ONLY REFRIGERATING CAPACITY AT THE FOLLOWING EVAPORATION TEMPERATURES (kW)	0 °C	16.2 (1)	25.0 (1)	-
	-10 °C	11.3 (1)	17.1 (1)	-
	-20 °C	7.1 (1)	11.0 (1)	-
OPTION COMBINED OPERATION AND SXP MODELS REFRIGERATING CAPACITY AT THE FOLLOWING EVAPORATION TEMPERATURES (kW)	-10 °C	13.5 (2)	18.1 (2)	-
	-20 °C	9.8 (2)	12.2 (2)	10.1 (2)
	-40 °C	2.9 (2)	4.0 (2)	3.8 (2)
AVERAGE CONSUMPTION PER CYCLE (kWh) (excluding remote condensing unit)	Chilling	2.9	2.5	-
	Freezing	6.5 (2)	6.5 (2)	1.4
NET WEIGHT (kg)	MX 27S TS	320	320	320
	MX 29S TS	340	340	340

Rated refrigerating power required at the equipment to select an independent remote condensing unit (condensing unit selection system, no real operation). Suction overheat 10 °K and subcooling 3 °K.

(1) Blast chilling only.

Operating range of the independent remote condensing unit. Evaporation T°: +10 °C to -30 °C.

Possibility of freezing occasionally, with loading reduced quantities (maximum 1/4 of the loading capacity, to be verified by test) and if the specifications of the refrigeration installation permit it, refer to the instructions manual for limitations.

(2) Option combined operation and SXP models.

Operating range of the independent remote condensing unit. Evaporation T°: -10 °C to -45 °C.

Condensing unit ambient temperature to be determined according to location and installation.

The condensing unit's refrigerating power must be greater than the various values specified above.

Advise:

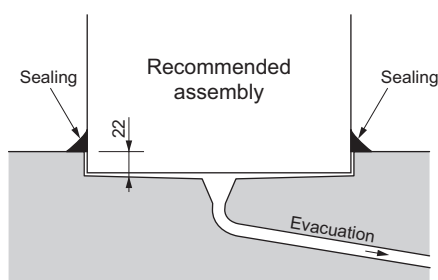
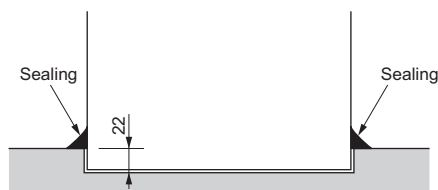
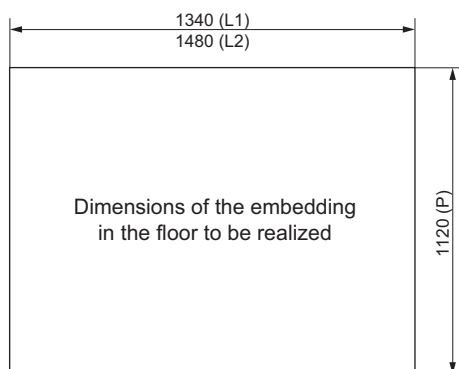
In case of important temperature difference summer / winter, relating to high power condensing units and particularly the low temperature units, provide for a power reduction device on the unit (several compressors and/or frequency variation, etc.).

In this case, also provide for on the suction line, a double standpipe device, to ensure the oil return.

The pressure drop in the refrigeration tubes must be taken into account for remote condensing unit selection.

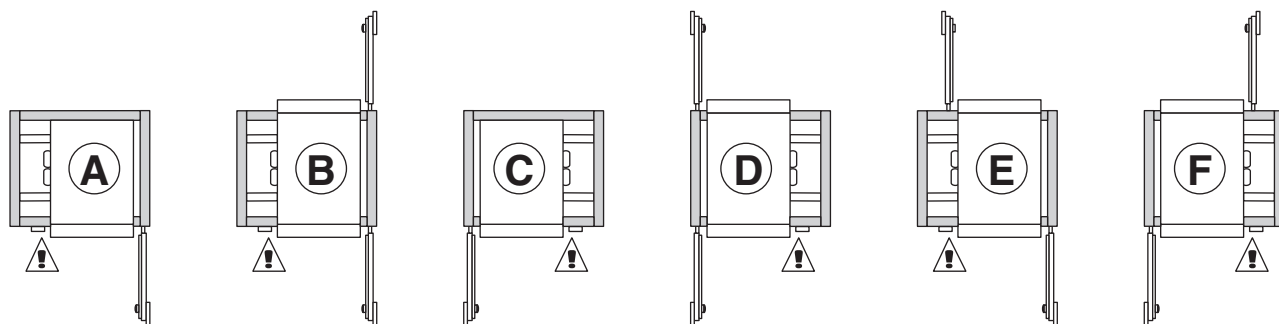
ESG: without condensing unit.

EMBEDDING IN THE FLOOR (state on order)



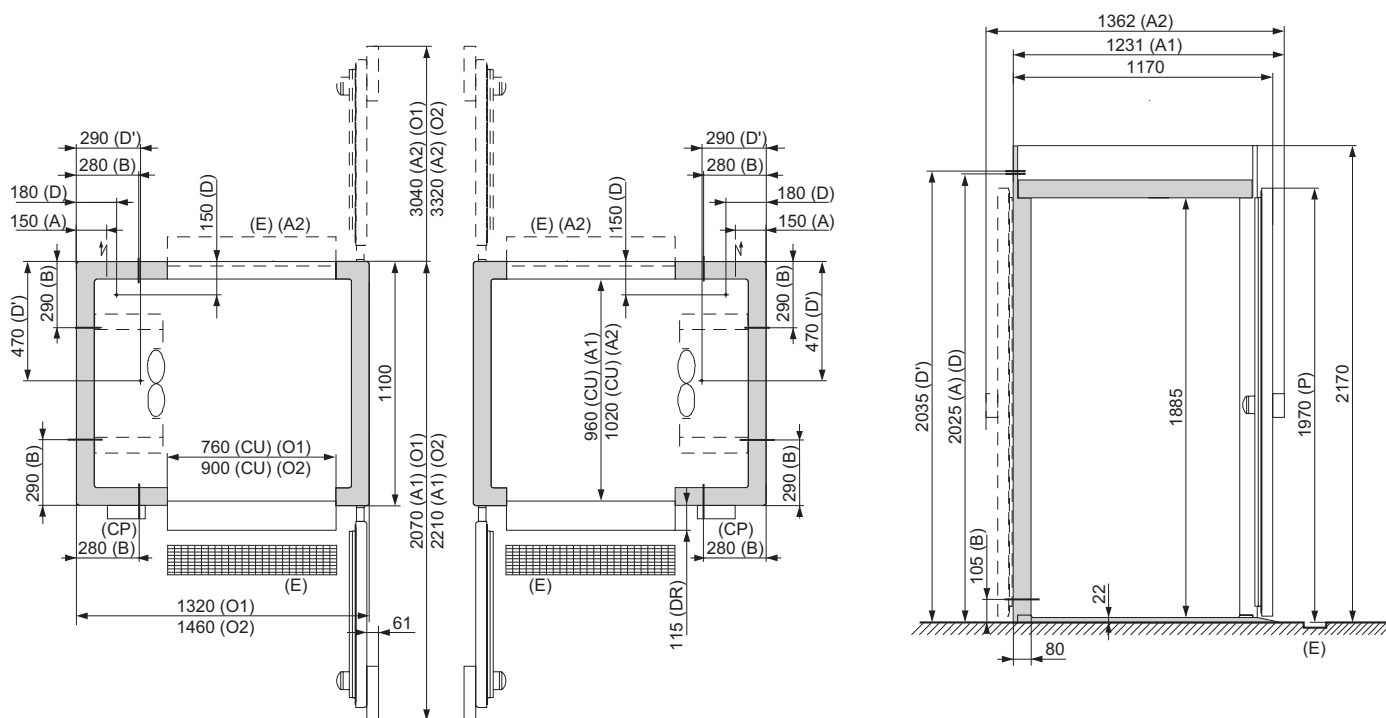
- (L1) Blast chiller / freezer with door width 760 mm (MX 27)
- (L2) Blast chiller / freezer with door width 900 mm (MX 29)
- (P) Depth

POSSIBLE DOOR OPENING (state on order)



⚠ Position of the control panel

DIMENSIONS



- | | |
|--|---|
| (A) Electrical power supply | (CU) Useful |
| (B) Pre-drilling for de-icing water runoff | (P) Door height compared with the floor |
| (D) Liquid line 1/2" | (O1) Door passage 760 mm (MX 27) |
| (D') Suction line 1" 1/8 | (O2) Door passage 900 mm (MX 29) |
| (CP) Control panel | (DR) Ramp proud |
| (E) Duct | (A1) Single access |
| (F) Distance from the wall | (A2) Pass through |

