BACCO 20 SP

TECHNICAL DATA SHEET

BACCO 20 SP

MADE IN ITALY

BACCO 20 SP

INDEX

A.

DESCRIPTION OF THE COMPONENTS

DESIGN
modern and functional

OPERATION
automatic

AMBIENT VOLUMES
air conditioning volume 20m3
(volume referring to a correctly insulated premises and with good energy efficiency)

DIGITAL CONTROLLER:
parameters programmable by the user:
- *temperature*

RELIABLITY
tested for 24/7 operation

CONSTRUCTION
galvanised sheet metal / stainless steel

The BACCO 20 SP wine cellar cooling unit was designed and manufactured focusing on the quality of the materials, the care for detail and finishes.

"BACCO" is an Italian product, on the market for approximately 15 years and each part was subjected, over the years, to continuous improvement to obtain a functional aesthetic, quality, reliability of the mechanics and performance.

The BACCO air conditioning units, beside the name have a number that approximately refers to the volume of an ideal premises with low heat dispersion. This "number" must not be considered an absolute value, but purely approximate and refers to premises with good "energy performance"; we prefer to write that BACCO 0.6 Kw which for your cellar, even if of equal surface area, may or may not suffice according to the degree of thermal insulation of the premises and the temperature programmed. For example, masonry walls or glass windows alongside heated premises and/or external walls exposed to solar radiation can absorb and radiate such thermal power (heat) inwards to reduce/annul the cooling power of the air conditioning unit.

The BACCO 20 SP is composed of 2 individual pieces of equipment to connect to one another using copper tubing for refrigeration circuits and electrical cabling according to the instructions and assembly drawings in the "Installation, use and maintenance instruction manual" which is delivered in the packaging of the material purchased.

The yield of the air conditioning unit is strictly related to the energy efficiency of the premises, in particular the degree of insulation in the floor, the walls, the ceiling, any windows, glass walls and entrance door.

INDOOR UNIT

made using internal components in STAINLESS STEEL externally in “BLACK” galvanised sheet metal powder painted in DARK ANTRACITE which doesn’t show fingerprints.
Suitable for wall mounting using the specific support bracket included in the supply. The indoor unit should be mounted inside the premises, up high 15/20 cm from the ceiling and possibly on a short wall.

OUTDOOR UNIT

tropicalized for 43°C operation, with perforated casing, in brushed STAINLESS STEEL, for heat dispersion. It can be mounted outside on the wall or floor. Externally, there are already an adequate quantity of delivery and return couplings for gas R452 for a line of 6-metre tubing.

The outdoor unit should be positioned on the specific wall support brackets supplied.

DIGITAL CONTROLLER

Measurement of the temperature is taken by the DIXELL microprocessor “digital controller” specifically for application on cooling units incorporated in the indoor unit.
The digital controller is used to program operation of cold production only.
It is not possible to manage a heat function using the electrical resistor or much less a humidification/dehumidification function.

TEMPERATURE MEASUREMENT PROBE

The temperature measurement probe is encased in the indoor unit and positioned to the rear of the machine, where you can see the end part in black and which interacts with the DIXELL digital controller.

B.

DATI TECNICI BACCO 20 SP (*)

Suitable for a cellar premises	with a volume of approx. 20 m3 (**)
Cooling unit cooling power	601 w (cold only) at 25 °C external temperature and 5° evaporation temperature.
Power supply voltage	220-240 V / 1 Ph / 50 Hz
Cellar internal temperature	minimum 12°C (**) adjustable in increase
Electrical absorption of utilities	See specific tables on page 6

CONTROLLORE DIGITALE

Cellar internal air temperature	Programmable as you wish - digital reading

UNITÀ INTERNA

Construction	AISI 304 internally externally painted galvanised sheet metal
External dimensions	mm: L: 464x230xh252
Weight	11 kg
Evaporator type	finned battery copper/aluminium cataphoretic paint
Fan	D200 mm
Air flow rate	approx. 300 m3/hour
Wall-mounting bracket	Included in supply
Sound level	54 dB(A) at 1 m
Type of installation	On wall
Condensate drain	tube diam. 12mm

(*) The technical data outlined may be subject to changes in light of continuous improvement of the performance, therefore Montec srl reserves the right to change them without any obligation of prior notification.

UNITÀ ESTERNA

Construction	External protection in AISI 304 brushed external finish
External dimensions	mm: L= 472x345xh 235
Compressor	EMBRACO EMT 6144 GK
Weight	19 kg
Capacitor type	Finned battery copper/aluminium
Fan	D200 mm
Air flow rate	300 m3/hour
Wall-mounting brackets	Included in supply
Sound pressure	52 dB(A) at 1 m - 38 dB(A) at 5 m
Condensate drain	Not planned
Maximum electrical absorption	Variable, see table par. S
Min/max external temperature of outdoor unit operation	from -5 to 43 °C

REFRIGERANTE

Gas type	R452a
Charge	420 g (also sufficient for 6m cooling tube)
liquid/gas tubing diameter	Intake 1/4” – drainage 3/8”

DISTANCE PERMITTED BETWEEN INDOOR UNIT AND OUTDOOR UNIT	Approx. 20 metres of cooling tube, maximum
INSTRUCTION MANUAL	translation of original language

(**) Value referred to an adequately insulated premises, with particular reference to: walls, ceiling, floor, entrance door and windows; any glass doors and walls must be built using low emission glass.

The unit does not have a “dehumidification” function as standard and therefore it does not remove humidity beyond that normally extracted during operation of the compressor.

C.

PROGRAMMING and OPERATION

Programming:

- pressing the key ⏻ starts the operating cycle of the BACCO 20. In this phase, the temperature value is read inside the cellar and you can program the desired temperature (default programming 14°C);
- temperature adjustment: with the key SET (kept pressed for 3 seconds) and the up and down arrows you raise or lower the desired temperature of the cellar, then press the set key again to save.

Operation:

- desired temperature set at 14°C;
- when the internal temperature of the cellar reaches 16°C, Bacco 20 will start its work cycle by simultaneously switching on the outdoor unit and the fan of the indoor unit (the digital controller will constantly display the symbol );
- when the indoor temperature of the cellar returns to 14°C, Bacco 20 will cease running;

On first start-up, the symbol  will flash for 7 minutes and then the Bacco system will start to work.

If the flashing symbol should appear again between one restart and the next of the air conditioning unit, this means the premises has poor energy performance and cannot maintain the thermal hysteresis unchanged of 2° not even for 7 minutes. You must intervene on the structure of the cellar by improving its level of insulation.

D.

CONFIGURATION

This model does not offer the possibility of installing an electrical resistor, a humidifier or a dehumidifier since a simplified control unit is mounted.

E.

ELECTRICAL ENERGY CONSUMPTION

The overall electrical consumption varies based on the efficiency of the premises allocated to store the wine, the temperature programmed in the cellar , the external temperature and the evaporation temperature of the outdoor unit.

UNITÀ INTERNA	UNITÀ ESTERNA
ventilatore: 8 W a 1300 rpm	ventilatore: 10 W

Consumption refers to the external environmental situation read **in the column marked in yellow.**

Performances:

external ambient temperature 25°C

Evaporating Temperature °C	Cooling Capacity w	Power Consumation w	Corrent A	Efficienty w/w
10	682	289	1.63	2.36
7	636	277	1.59	2.3
5	601	268	1.56	2.24
0	525	248	1.48	2.11
-5	453	230	1.42	1.97
-15	324	197	1.29	1.65
-20	267	182	1.24	1.47

external ambient temperature 32°C

Evaporating Temperature °C	Cooling Capacity w	Power Consumation w	Corrent A	Efficienty w/w
10	620	297	1.69	2.09
7	579	285	1.64	2.03
5	546	276	1.6	1.98
0	477	256	1.53	1.86
-5	411	237	1.46	1.74
-15	295	203	1.33	1.45
-20	243	188	1.28	1.3

external ambient temperature 43°C

Evaporating Temperature °C	Cooling Capacity w	Power Consumation w	Corrent A	Efficienty w/w
10	516	328	1.81	1.57
7	480	314	1.75	1.53
5	453	303	1.71	1.49
0	394	280	1.61	1.41
-5	340	258	1.52	1.32
-15	242	217	1.36	1.11
-20	199	198	1.3	1

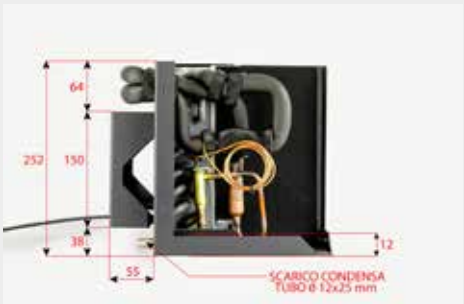
F.

DIMENSIONS OF COMPONENTS

Indoor unit: front view

Indoor unit: rear view

Indoor unit: side view



Outdoor unit: side view

Outdoor unit: inner view

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