# Q452R

## Product information

QUANTOR is a series of air-cooled cooling-units, developed specifically for the beverages industry for applications in the production of wine, beer, CSD, Cider and other drinks which need to be cooled (or also heated), and require control the temperature of the medium during the manufacture process.

This range of QUANTOR units is equipped with a large range of features in the standard units: Reverse mode possible for heating (heat-pump), Low Temp Option for low water temperatures down to -10°C, frequency controlled fans, heavy-rubber anti-vibration mounts. An internal buffer tank made of stainless-steel with integrated pump complete the unit's equipment.

The units are designated to be placed outdoors for operation between environment temperatures from -10°C to +45°C. The rated cold-water temperature is between -10°C and +18°C, (warm water up to +50°C in reverse mode). Model-sizes are available with cooling capacities from von 18 kW* (Q181R) to 45 kW* (Q452R).

Full Process Utility ! The QUANTOR units cover the complete bandwidth of process steps and utility possibilities in Beer-Brewing, general drinks-industry and Winemaking: Cold maceration, cold-settling, fermentation control, wine-stabilization, crush-cooling of brew mash-cooling, cooling for Lager storage and conditioning, fast cooling of mixed-drinks and syrup in heat-exchangers, and cooling for carbonation. (Glycol-water temperature down to -10°C possible). Room temperating by cooling or heating the air is also possible with additional fan coils.

* At an ambient temperature of +28°C and water temperatures of +12 /+7°C



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### TECHNICAL DATA

- Heat pump with double expansion valve
- Hydraulic version with stainless steel water tank (100l) and high pressure pump
- 2 Fans with speed control
- Refrigerant: R410A
- Cooling circuits: 1
- Compressor type: Scroll
- 2 compressors
- Evaporator type: Stainless steel plate heat exchanger
- Water connection: 1 ¼“ (female thread)
- Power supply: 400 V/3N/50 Hz
- Phase control
- Anti-vibration mounts
- Max. ambient temperature (operation): 46 °C
- Min. cold water temperature: -10 °C (at 30 °C ambient temperature)
- Max. hot water temperature: +50 °C
- Dimensions (LxWxH): 1750x750x1450 mm
- Weight: 457 kg (empty)
- Casing color: anthracite grey

### Total Input

| | |
|---|---|
| L.R.A. [A] | 119,4 |
| F.L.A. [A] | 34,0 |

### Sound data

| | | |
|---|---|---|
| Sound power to EN ISO 9614-2 | dB(A) | 78,0 |
| Sound pressure at 10 meters to EN ISO 3744 | dB(A) | 46,0 |

*Sound pressure in unrestricted range on reflecting plane (directivity factor Q = 2).*

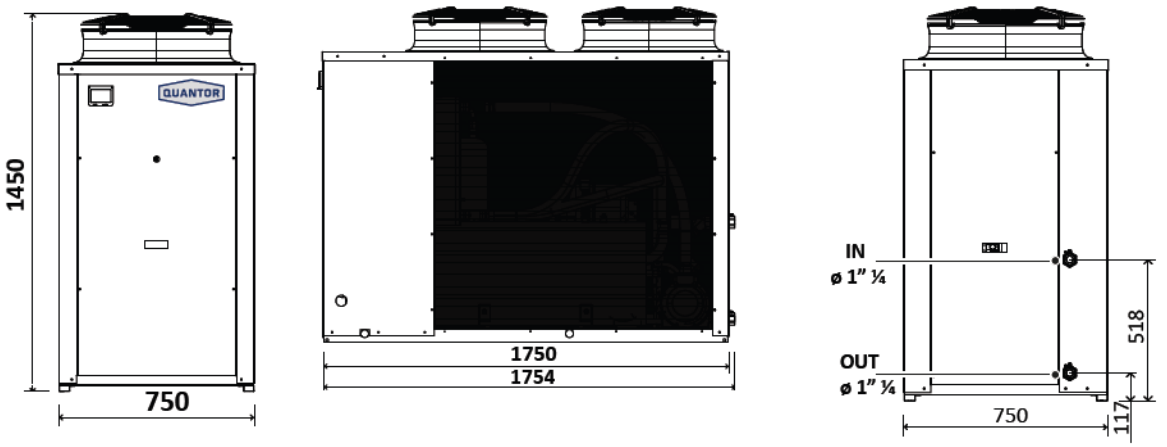
### Sound power band middle frequency

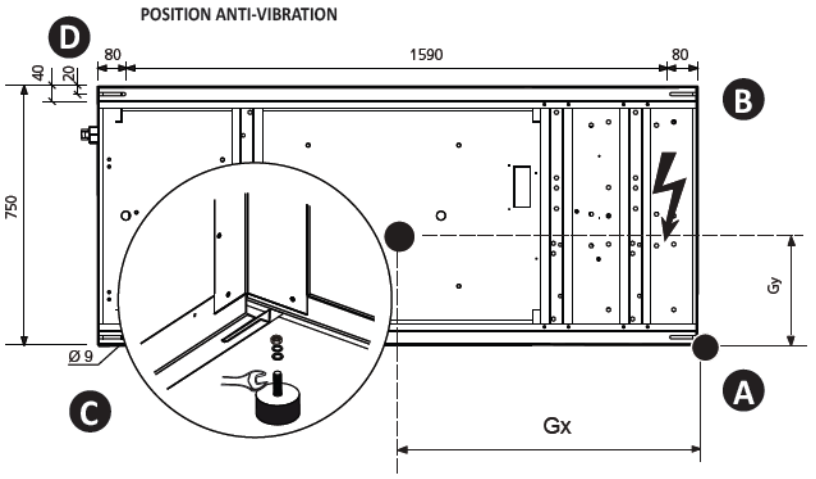
| Octave band | | | | | | |
|---|---|---|---|---|---|---|
| 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz |
| 63,6 | 68,4 | 73,4 | 73,5 | 70,5 | 62,5 | 50,6 |

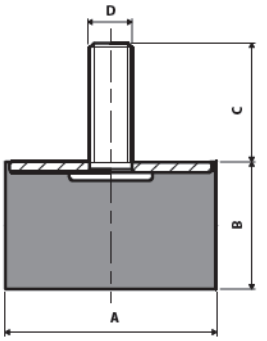
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### DIMENSIONS



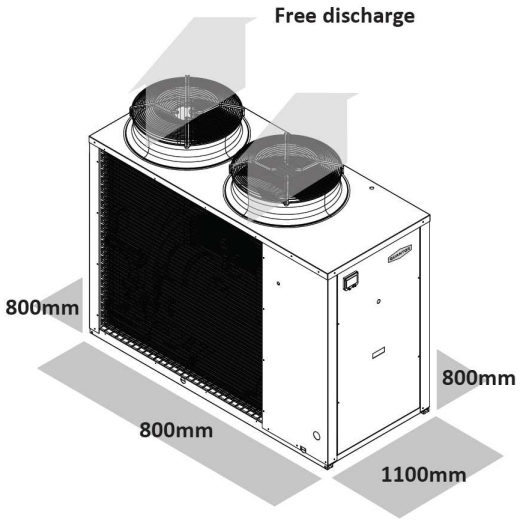




| Mod. | A | B | C | D |
|---|---|---|---|---|
| VT15 | 50 | 30 | 28,5 | M10 |

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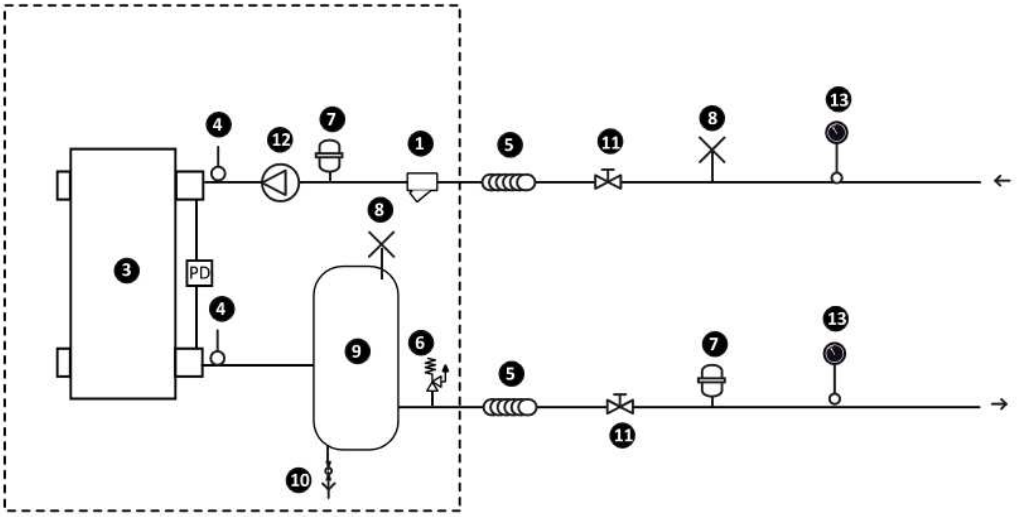
## Product information

### MINIMUM CLEARANCE SPACES




### HYDRAULIC SYSTEM

Components in the dotted box are provided with the unit




Hydronic-Modul

1 Water filter
3 Plate heat exchanger
4 Water temperature sensor (In/Out)
6 Safety valve
7 Expansion tank
8 Air vent
9 System buffer tank
10 Drain valve
12 High pressure pump

Recommended parts (excl. - to provide by the installer)
5 Compensator
7 Additional expansion tank (if necessary)
8 Air vent
11 Isolating valve
13 Manometer

**Options:**

- Remote control
- Protective grill for condenser
- Bypass valve 1”
- Isolating valve 1 ¼”