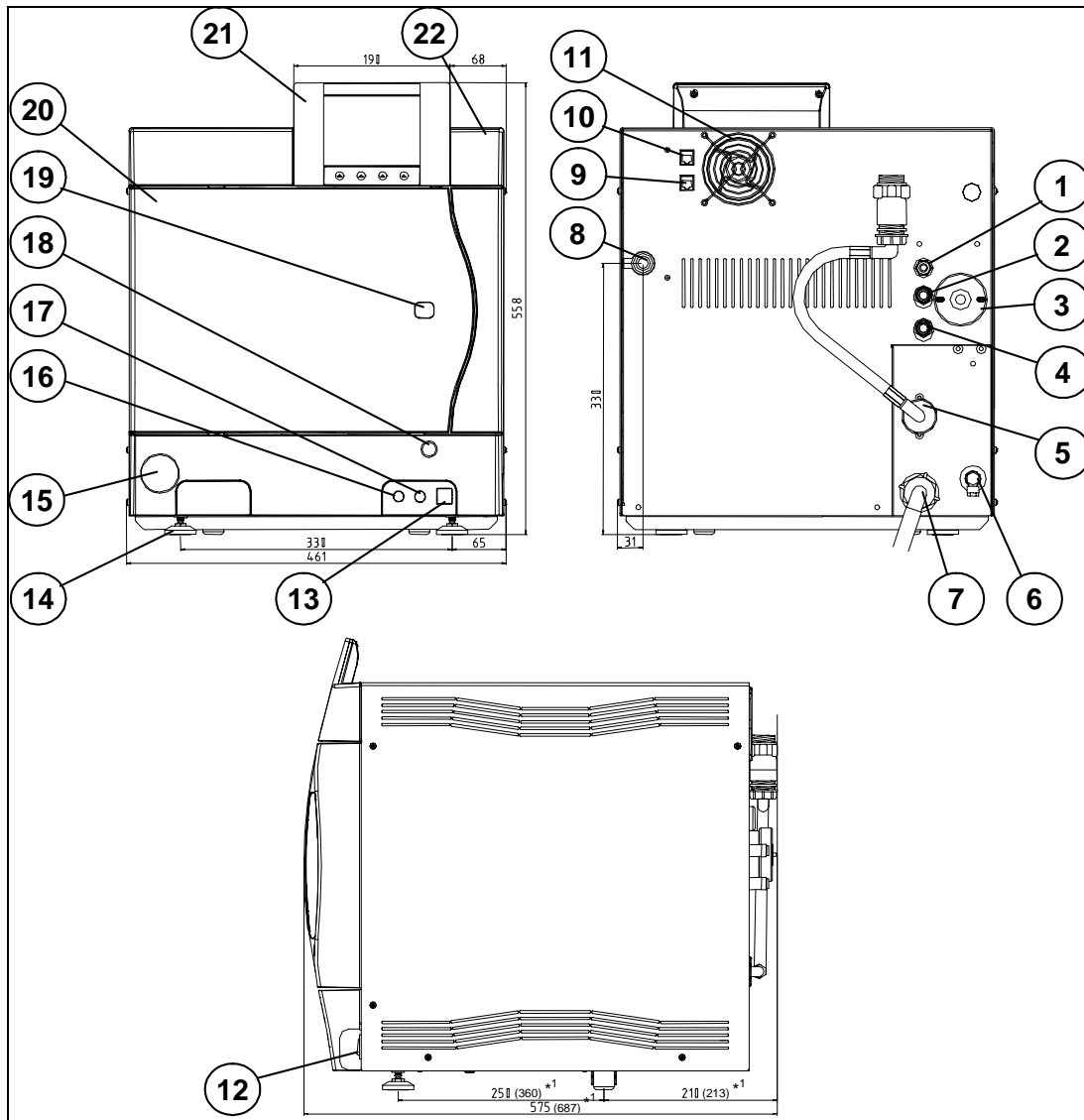


Please read the operating manuals of the autoclave and of the water purification unit first!

The Vacuklav[®] 40-B / 44-B are autoclaves with fractionating pulsed vacuum procedure. A water ring pump has been installed to generate the especially deep vacuum, combining the advantages of high effectiveness and extreme sturdiness in permanent operation. Please read the following important instructions to be followed prior to and during installation in order to connect the required water pipe and for general installation.

1 Views of the unit, dimensions, control and connecting elements



*1) The values in brackets apply to the Vacuklav[®] 44-B

Figure 1: Views of the Vacuklav[®] 40-B / 44-B

- | | | | |
|----|---|----|---|
| 1 | Anti cavitation nozzle | 12 | Power switch |
| 2 | Safety valve chamber | 13 | Ethernet 1 (data connection) ^{*1)} |
| 3 | Sterile filter | 14 | Front adjustable feet |
| 4 | Safety valve casing | 15 | Pressure gauge for pressure display of the double casing steam generator ^{*2)} |
| 5 | Cooling water inlet (3/4" external thread) | 16 | Reset button overheating protection ^{*1)} |
| 6 | Purified water inlet (Swivel connection for 6x1 pipe, alternatively straight) | 17 | Reset button motor circuit breaker ^{*1)} |
| 7 | Cooling water outlet (3/4" external thread) | 18 | Cover for emergency start of vacuum pump |
| 8 | Mains power cable | 19 | Cover for opening door in emergency cases |
| 9 | Ethernet 3 (data connection) | 20 | Door (left-side hinge) |
| 10 | Ethernet 2 (data connection) | 21 | Control and display panel |
| 11 | Ventilator | 22 | Movable cover for CF-Card |

^{*1)} accessible behind cover to the right

^{*2)} accessible behind round cover

2 Preconditions for and instructions on installation

Prior to setting up and installing the autoclave, please ensure that the following preconditions are met and follow the below instructions:

2.1 Transport ribbons

Take the autoclave out of the packaging by means of the transport ribbons. The ribbons themselves are each removed by undoing the four retaining screws on each side, which must then be screwed firmly back in place without washers.

Please keep the transport ribbons and the washers for future transports.

After starting the appliance, open the door immediately and remove the trays and accessories.

2.2 Required space

Based on the dimensions of the appliance (see *Figure 1*), allow for a minimum additional space of 10 cm on both sides and above the appliance to ensure appropriate air circulation.

Space for the MELAG storage container for purified water (D=230 mm W=210 mm, H=380 mm), alternatively for a water purification unit MELAdem[®] 47, MELAdem[®] 40 or other storage containers such as the original container of the supplier.

2.3 Horizontal working surface / carrying capacity

The appliance should be installed on an even, horizontal working surface. The weight of the appliance (without load) amounts to 53 kg (for the Vacuklav[®] 40-B) and to 59 kg (for the Vacuklav[®] 44-B).

2.4 Power connection

Mains power connection 230 V, 50 Hz, rating 3400 VA, separate power source with 16 A fuses, additional circuit breaker 30 mA. The power connection cable of the autoclave has a length of 1.35 m.

If the separate printer MELAprint[®] 42 is connected to the autoclave, please ensure the availability of an additional mains power supply for the power unit of the printer.

2.5 Water connection of the Vacuklav[®] 40-B / 44-B to a non-return valve

The connection of the Vacuklav[®] 40-B / 44-B to the water pipe can be compared to connecting a washing machine at home.

According to EN 1717, consumers must be connected to the potable water system so that the potable water cannot be soiled.

In compliance with EN 1717 Section 4, the autoclave should be equipped with a safety combination consisting of a non-return valve and an anti-vacuum device at the water inlet of the autoclave backside, in order to protect the potable water system. Frequently, this is already the case in many buildings. Consult your plumber!

In practice, it is a good idea to use water taps that are equipped with such a safety combination (non-return valve and anti-vacuum device).

In order to ensure a standard connection of the Vacuklav[®] 40-B / 44-B independent on existing installations in the building, we recommend the installation examples in *Figure 2*.

- Type I: separate water pipe (nominal width DN15 with 1/2" faucet) exists or is installed.
 Installation of a water tap with integrated safety combination (MELAG Art.-No. 37310).
- Type II: Cold water pipe (e.g. of a sink) with stop cock and 10 mm pipe exists or is installed.
 Installation of an additional water tap with integrated safety combination (MELAG Art.-No.: 58130) directly mounted to an existing stop cock.

Required running pressure at a flow rate of 3 litre / min > 0.5 bar.

Length of the cooling water inlet pipe to the Vacuklav[®] 40-B / 44-B: 2 m (4.5 m can be delivered as an option).

We recommend installing a leak detector with stop valve („water stop“, *Figure 3, Figure 4, Figure 5*, MELAG Art.-No.: 01056).

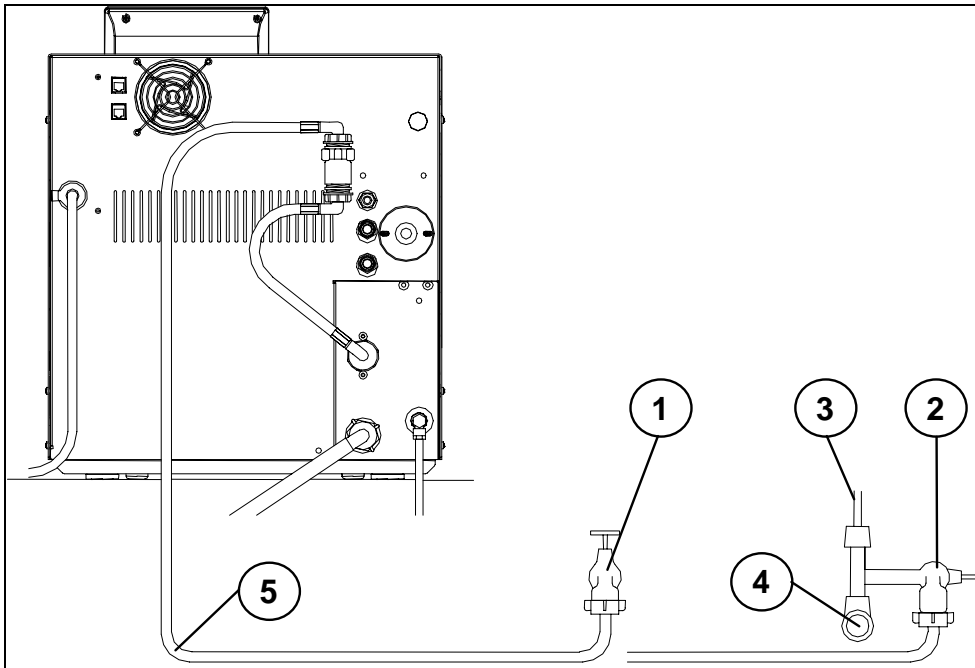


Figure 2: Water connection

- | | |
|---|---|
| <p>1 Type I
Water tap with non-return valve and anti-vacuum device MELAG Art-No.: 37310</p> <p>2 Type II
Additional water tap with non-return valve and anti-vacuum device (to be mounted to an existing stop cock) MELAG Art-No.: 58130</p> <p>3 10 mm cold water pipe (to the mixing battery)</p> | <p>4 Existing stop cock</p> <p>5 Cooling water inlet pipe (DN 16)</p> |
|---|---|

2.6 Cooling water outlet

The cooling water outlet requires a wall-mounted trap, nominal width DN 40 or a sink trap. Examples for the waste water outlet are shown on pages 4 and 5.

For silent connection of the cooling water outlet to an existing sink trap, MELAG offers a special double-chamber trap to be used instead of the existing trap.

For connection of the autoclave to the waste water, MELAG supplies a waste water pipe with a length of 2 metres; as an option you can also order a pipe of 5 metres.

The outlet should be located at least 30 cm below the autoclave and the waste water pipe between these two should have a steady downward gradient, without twists and kinks.

3 Feed water supply (purified water)

Since soiled feed water in autoclaves with a water circulation system regularly results in premature damage of the autoclave and the instruments, the Vacuklav[®] 40-B / 44-B works with the gentle one-way system. The autoclave is automatically supplied with feed water, either from the internal storage container (which the practice team keeps filled with, for instance, distilled water from the MELAdest[®] 65), or even more comfortable, fully automatically from the water purification unit MELAdem[®] 47 or MELAdem[®] 40. The feed water (for steam generation) should meet at least the values of demineralised water according to VDE 0510.

3.1 Indirect supply (example 1 – page 4, Figure 3)

The Vacuklav[®] 40-B / 44-B supplies itself with purified water from the storage container by means of the supplied suction pipe of 2 metres. The maximum suction height is 1.5 m. Naturally, the storage container can be located at the side of the appliance.

3.2 Direct supply (example 2 – page 5, Figure 4)

Connection of the ion exchanger MELAdem[®] 40 with MELAJet[®]

Most simply, the MELAdem[®] 40 can be connected directly to the feed water inlet of the Vacuklav[®] 40-B / 44-B; it then generates demineralised water from normal tap water.

The spray-pistol MELAJet[®] serves for final rinsing of the instruments with demineralised water prior to sterilization.

3.3 Direct supply (example 3 – page 5, Figure 5)

Connection of the reversed osmosis unit MELAdem[®] 47

The MELAdem[®] 47 can be connected directly to the feed water inlet of the Vacuklav[®] 40-B / 44-B.

Please consult MELAG prior to connecting other pressure water purifiers with the appropriate water quality.

4 Installing the appliance

Please ensure that sufficient space is available when installing the appliance, see point 2.2.

5 Installation materials

MELAG supplies the following installation materials:

1 cooling water inlet pipe (2 m), Art.-No. 37221

1 cooling water outlet pipe (2 m), Art.-No. 36585

1 double-chamber trap, Art.-No. 26635

1 storage container with 1.5 m inlet pipe and suction filter (in case of installation as in *Figure 3*)

1 inlet pipe 1.5 m and inlet nozzle (in case of installation as in *Figure 4* or *Figure 5*)

You can order additional installation materials by means of the following article nos.:

Wall-mounted trap with Y-junction

MELAG Art.-No.: 37410

Y-junction with non-return valve for connection to existing sink trap

MELAG Art.-No.: 37400

Water tap 3/4" (with safety combination)

MELAG Art.-No.: 37310

Additional water tap with non-return valve and

anti-vacuum device (for connection to an existing stop cock)

MELAG Art.-No.: 58130

Leak detector with stop valve and sensor

MELAG Art.-No.: 01056

6 Installation examples

6.1 Example 1: The feed water is suctioned from the storage container and let out via the double-chamber sink trap

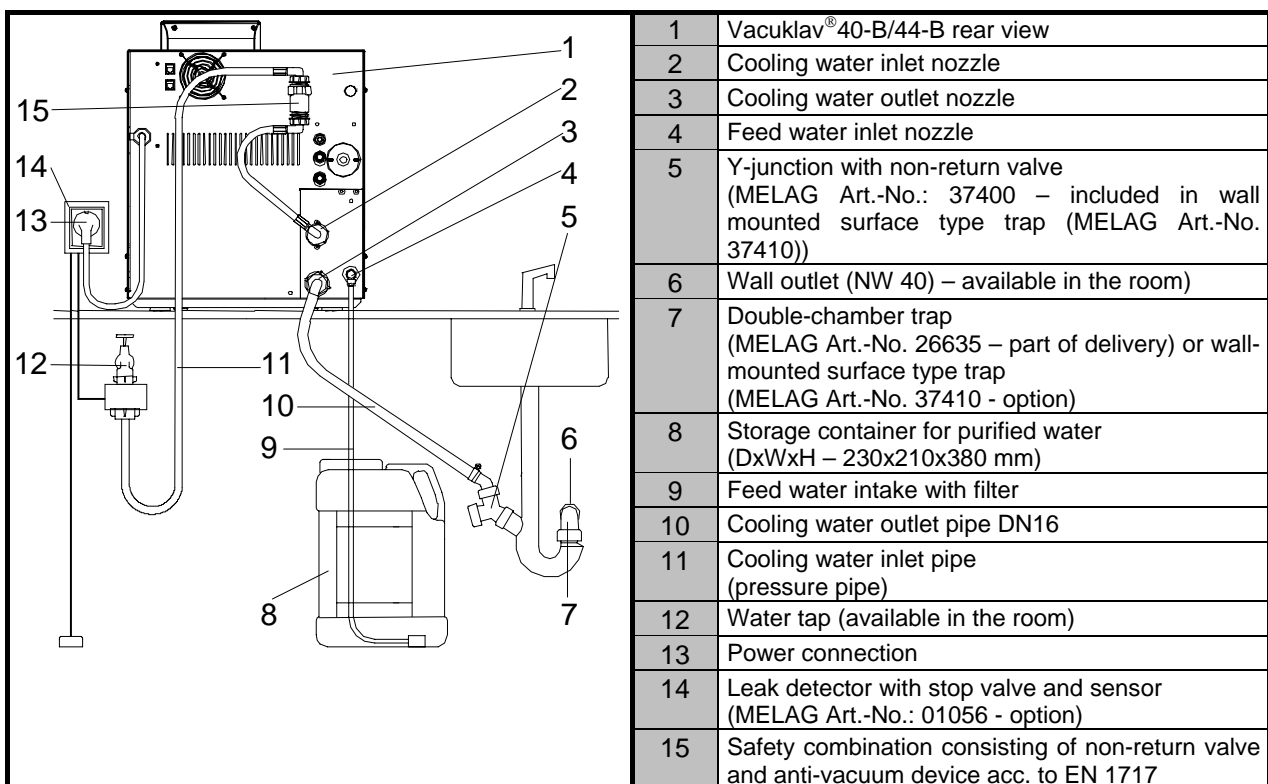


Figure 3

6.2 Example 2: The feed water is supplied from MELAdem[®] 40 and let out via the double-chamber trap

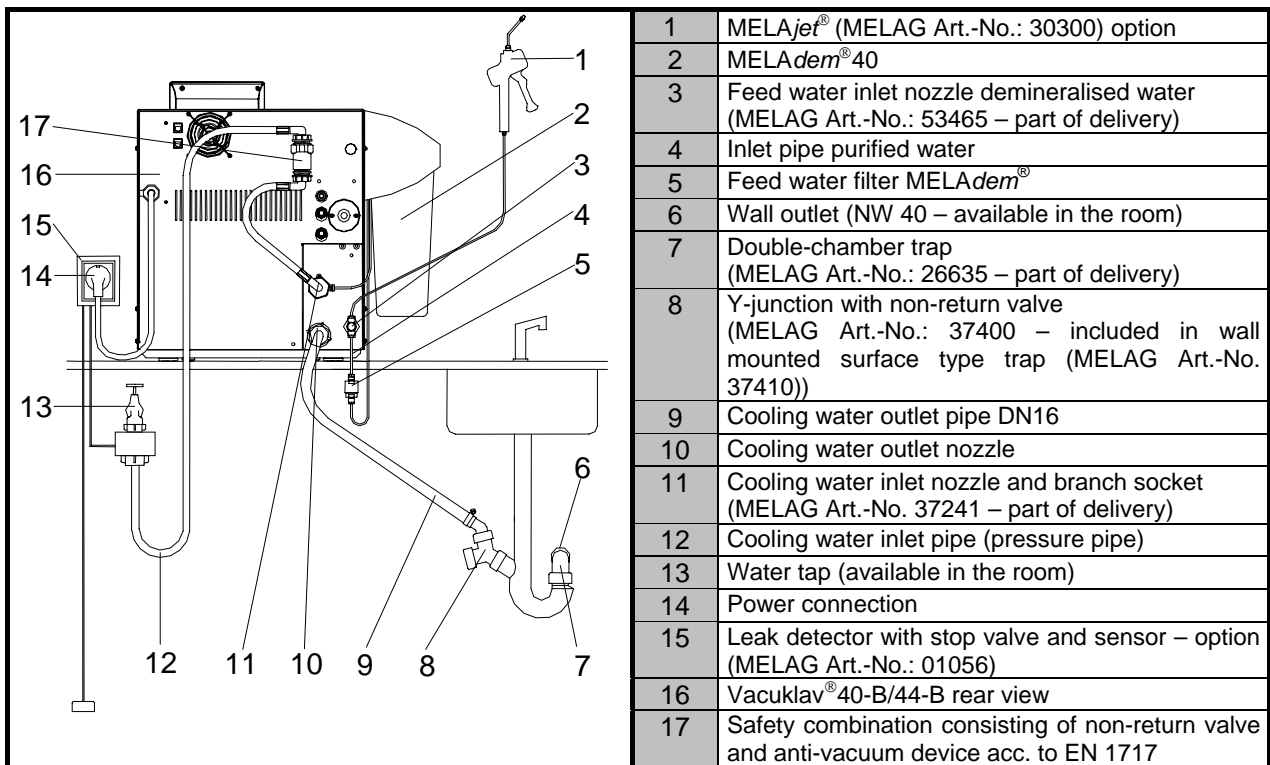


Figure 4

6.3 Example 3: The feed water is supplied from MELAdem[®] 47 and let out via the double-chamber trap

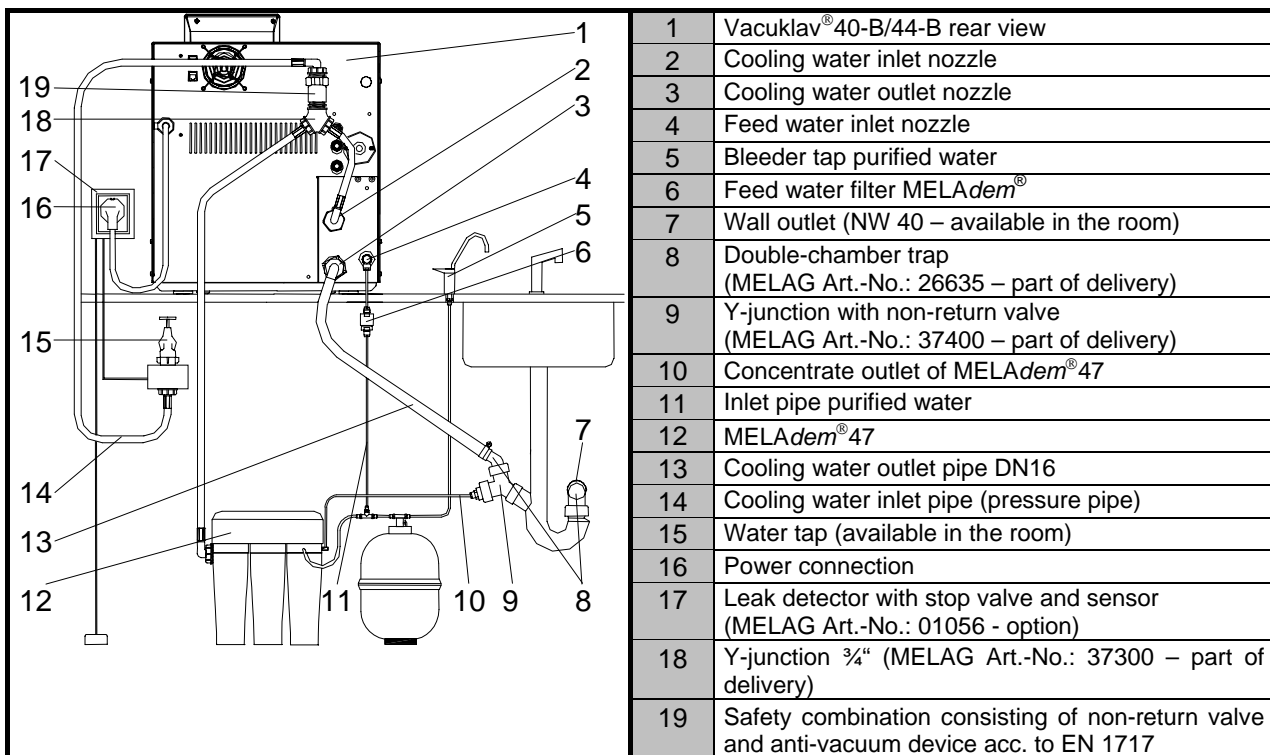


Figure 5