

## 19 Model overview

### CA 1

Single station amalgam separator for set-up next to the treatment unit or behind a combination suction unit (e.g. VS 300 S)

– 24 V, 50/60 Hz

### CA 2

Multi-station amalgam separator for set-up behind a combination suction unit (e.g. VS 600 or Tyscor VS 2)

– 230 V, 1~, 50/60 Hz

### CA 4

Multi-station amalgam separator for set-up behind a combination suction unit (e.g. VS 900 S, VS 1200 S) or in combination with a central separation container.

– 230 V, 1~, 50 Hz

– 230 V, 1~, 60 Hz











When selecting the amalgam separator, not only the treatment chairs to be connected must be considered, but also the possible volume of liquid from the treatment units. In addition, local official regulations must be complied with.



There must be a direct line connecting the RJ-45 socket on the unit and the RJ-45 socket on the display panel. Do not toggle network units (e. g. switch or router). Pay attention to the resistance of the network cable between the RJ-45 sockets. The maximum length should not exceed 50 m.

## 20 Planning example

### 20.1 CA 1

-  Electrical connections
-  Waste water line from spittoon
-  Fluid-transporting suction pipe
-  Compressed air connection for spittoon valve (3-5 bar)
-  Fresh water connection for rinsing unit (2-4 bar)
-  Exhaust air line
-  Drain line to the amalgam separator
-  Drain line
  - At least 2% slope
  - For diverse treatment units, waste water drainage that does not enter the suction pipe must be provided

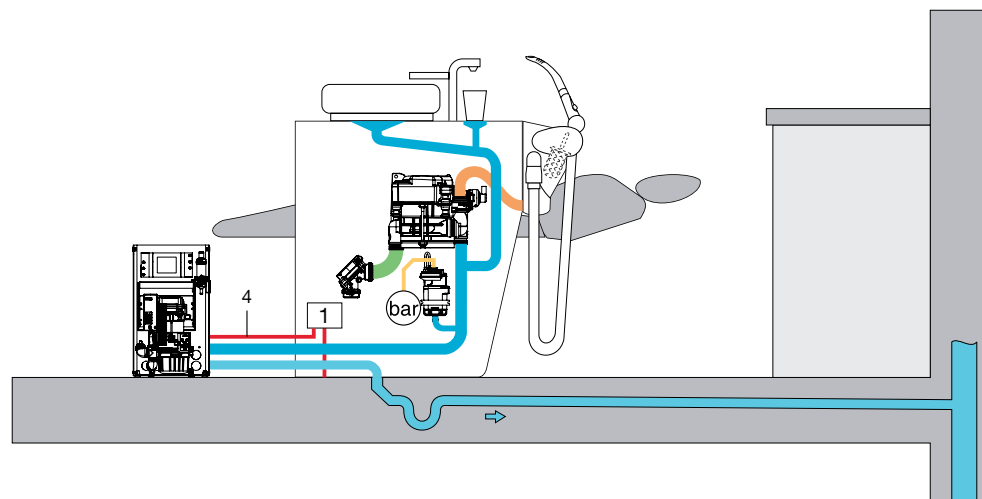


Figure 31: CA 1 in the housing next to the treatment unit

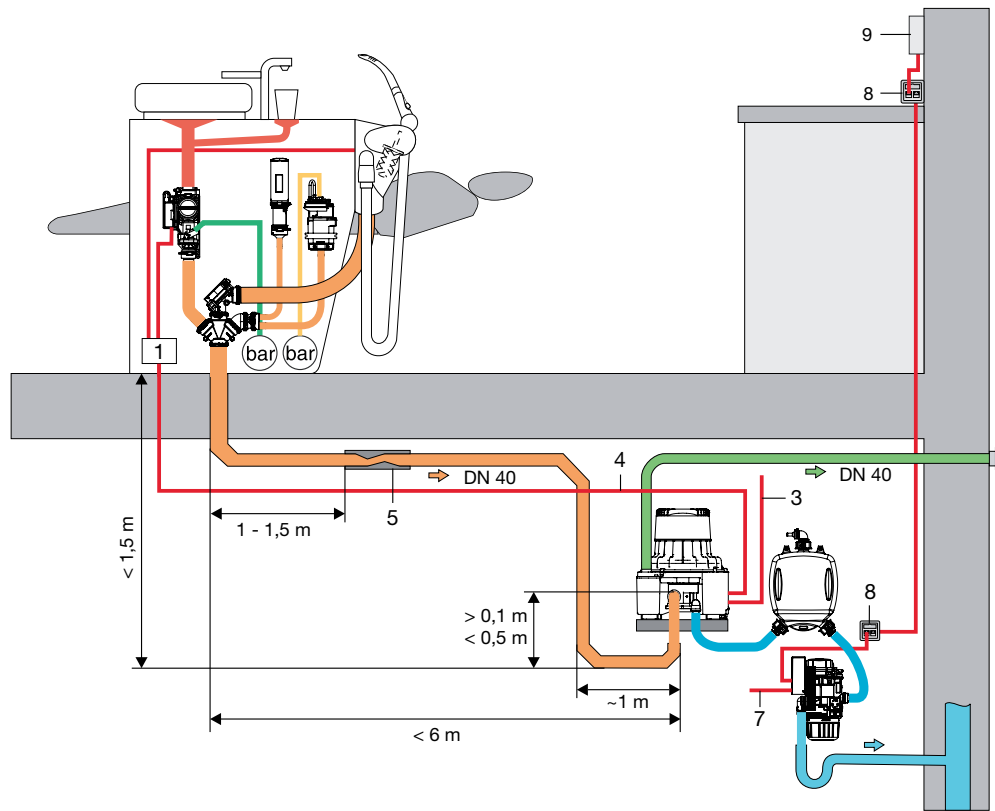


Figure 32: CA 1 with VS 300 S and pressure equalisation tank below the treatment unit (e.g. in the basement)

- 1 Electrical connection to the floor connection
- 3 Power supply via the dental practice's main switch
- 4 Control line
- 5 Flow accelerator
- 7 Power supply for amalgam separator
- 8 Network connection for display panel or Tyscor Pulse
- 9 Display panel

## 20.2 CA 2

- Electrical connections
- Waste water line from spittoon
- Fluid-transporting suction pipe
- Compressed air connection for spittoon valve (3-5 bar)
- Fresh water connection for rinsing unit (2-4 bar)
- Exhaust air line
- Drain line to the amalgam separator
- Drain line
  - At least 2% slope
  - For diverse treatment units, waste water drainage that does not enter the suction pipe must be provided

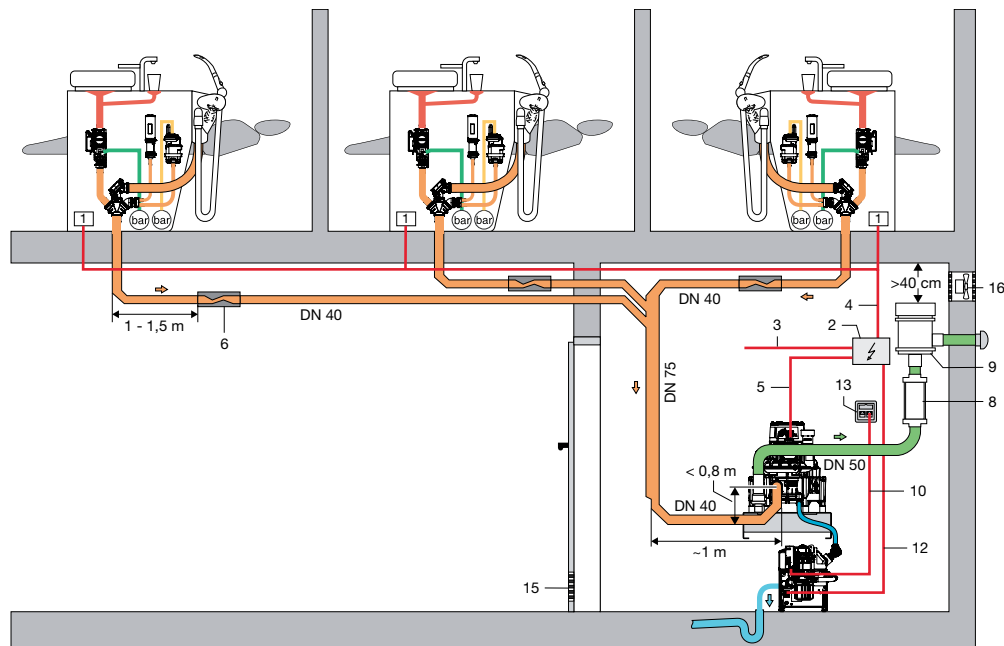


Figure 33: VS 600 with CA 2 below the treatment unit (e.g. in the basement)

- 1 Electrical connection to the floor connection
- 2 Control box
- 3 Power supply via the dental practice's main switch
- 4 Control line

- 5 Power supply from the control box
- 6 Flow accelerator
- 7 Installation frame for flow accelerator
- 8 Exhaust air damper
- 9 Bacteria filter
- 10 Network cable
- 12 Mains connection through the control box
- 13 Network connection for display panel or Tyscor Pulse
- 14 Display panel
- 15 Ventilation grating
- 16 Room ventilation

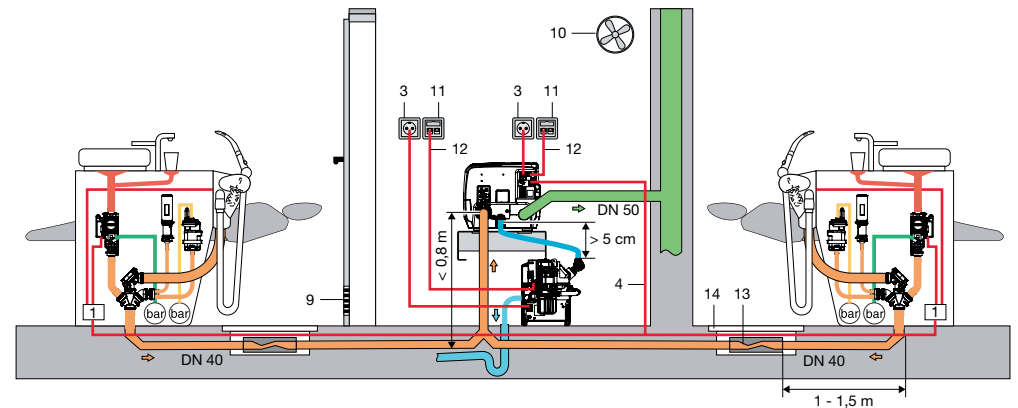


Figure 34: Tyscor VS 2 in an adjoining room on the dental practice floor

- 1 Electrical connection to the floor connection
- 3 Power supply via the dental practice's main switch
- 4 Control line
- 7 Bacteria filter
- 8 Exhaust air damper
- 9 Ventilation grating
- 10 Room ventilation
- 11 Network connection for Tyscor Pulse or display panel
- 12 Network cable
- 13 Flow accelerator
- 14 Installation frame for flow accelerator

### 20.3 CA 4

#### Central installation in the dry suction system

- Electrical connections
- Fluid-transporting suction pipe
- Fresh water connection for rinsing unit (2-4 bar)
- Exhaust air line
- Drain line to the amalgam separator
- Drain line
  - At least 2% slope
  - For diverse treatment units, waste water drainage that does not enter the suction pipe must be provided

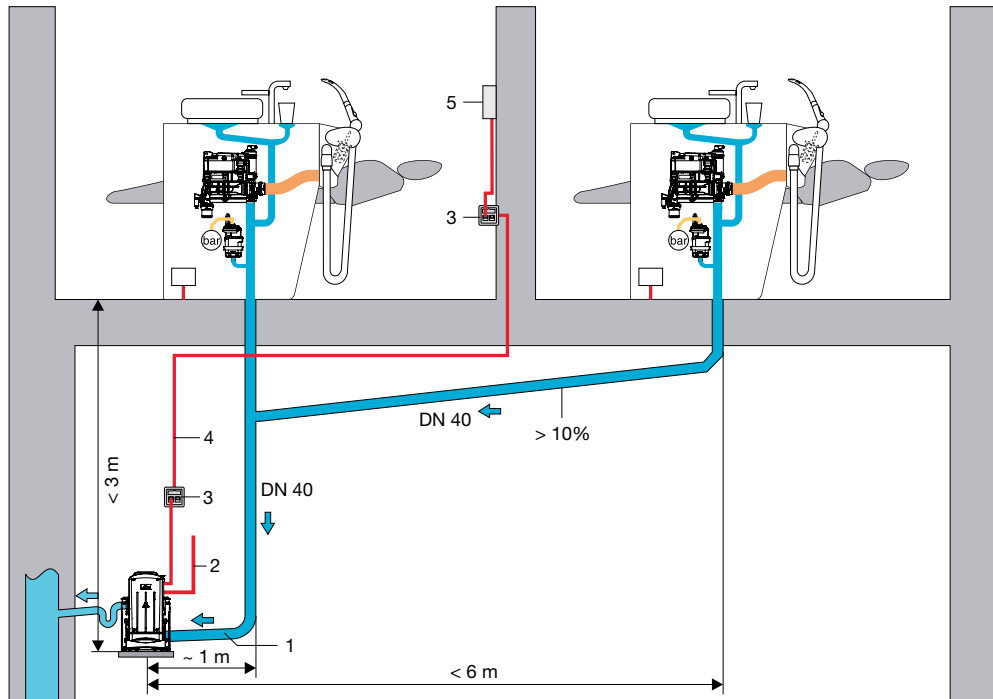


Figure 35: CA 4 below the treatment units (e.g. in the basement)

- 1 Calming stretch
- 2 Power supply through dental practice's main switch
- 3 Network connection for display panel or Tyscor Pulse
- 4 Network cable

### 5 Display panel

#### Central installation in the wet suction system

- Electrical connections
- Waste water line from spittoon
- Fluid-transporting suction pipe
- Compressed air connection for spittoon valve (3-5 bar)
- Fresh water connection for rinsing unit (2-4 bar)
- Exhaust air line
- Drain line to the amalgam separator
- Drain line
  - At least 2% slope
  - For diverse treatment units, waste water drainage that does not enter the suction pipe must be provided

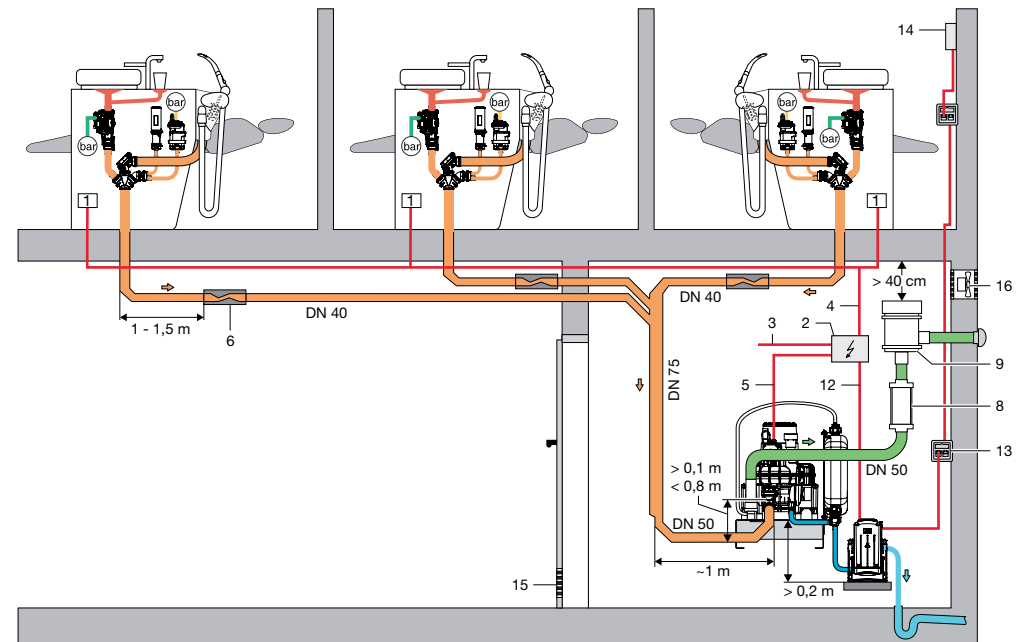


Figure 36: VS 900 S with CA 4 below the treatment unit (e.g. in the basement)

- 1 Electrical connection to the floor connection
- 2 Control box
- 3 Power supply via the dental practice's main switch



## Amalgam separation

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- 4 Control line
- 5 Power supply from the control box
- 6 Flow accelerator
- 8 Exhaust air damper
- 9 Bacteria filter
- 12 Mains connection through the control box
- 13 Network connection for display panel or Tyscor Pulse
- 14 Display panel
- 15 Ventilation grating
- 16 Room ventilation

## 21 Retrofitting for dry suction system

### 21.1 CA 1

#### CA 1 as a device placed next to a treatment unit with separation

The simplest possibility to retrofit an amalgam separator is to place it next to the treatment unit. Here, the drain from the separation is lengthened and guided to the amalgam separator. The drain from the amalgam separator is connected to the drain in the treatment unit. As the amalgam separator can work independently, only one power supply from the treatment unit is necessary.

Parts required:

- CA 1 in the housing
- Possibly additional DürrConnect parts

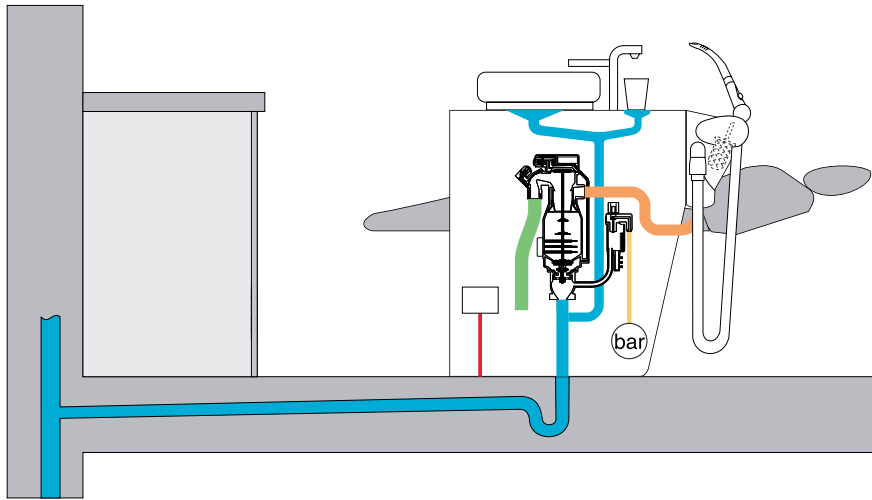


Figure 37: Treatment unit with separation

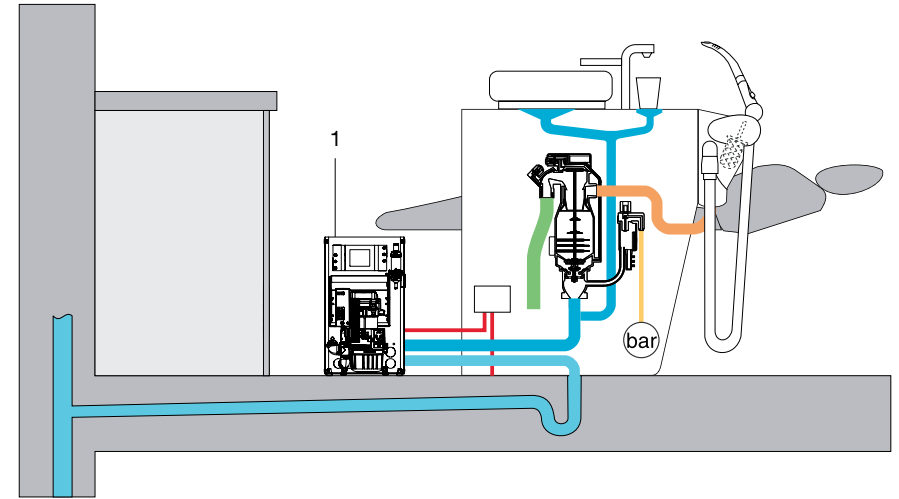


Figure 38: Treatment unit with separation and CA 1 in the housing

- 1 CA 1 in the housing with transformer

## 21.2 CAS 1

### Replacement of a separation unit with a CAS 1

If there is enough room in the treatment unit, a CAS1 can be installed in the treatment unit. The transformer in the treatment unit should still provide sufficient power for operation of the CAS1. Depending on the space available and set-up of the treatment unit, a CAS1 with integrated place selection valve or separate place selection valve can be used. The place selection valve must be controlled through the CAS1.

Parts required:

- CAS 1
- Place selection valve (if not integrated into the CAS 1)
- Rinsing unit (if none present in the treatment unit)
- Possibly installation kit
- Possibly additional DürrConnect parts

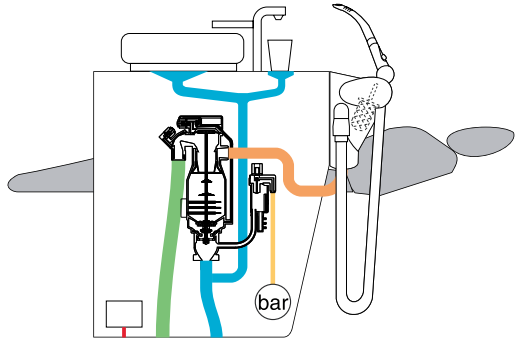


Figure 39: Treatment unit with separation

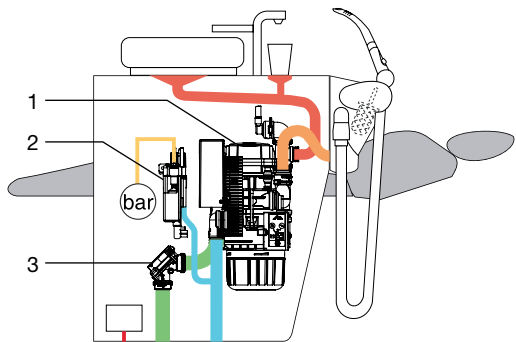


Figure 40: Treatment unit with CAS 1

- 1 CAS 1 (with integrated place selection valve)
- 2 Rinsing unit
- 3 Place selection valve (separate)

### 21.3 CA 2 + CA 4

#### Installation of a CA 2 or CA 4 below the treatment units

For a dry suction system with installation option below the treatment units, a CA2 or CA4 can be used as a central amalgam separator. Here, the drains of the treatment units must be brought together with a certain slope, so that no deposits remain in the pipelines. The drains of the treatment units must always be separated from the other drains (e.g.wash basin) of the dental practice.

Parts required:

- CA 2 or CA 4
- Wall console (optional)
- Network sockets and cables for a display panel or Tyscor Pulse

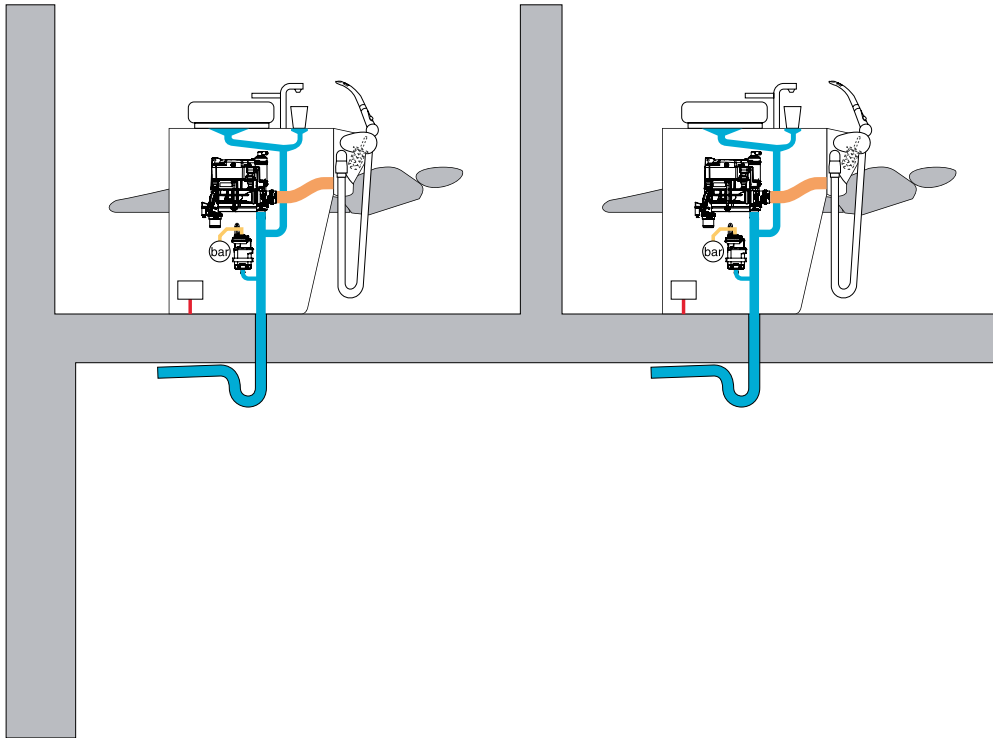


Figure 41: Separations in the treatment units (drains in the basement)

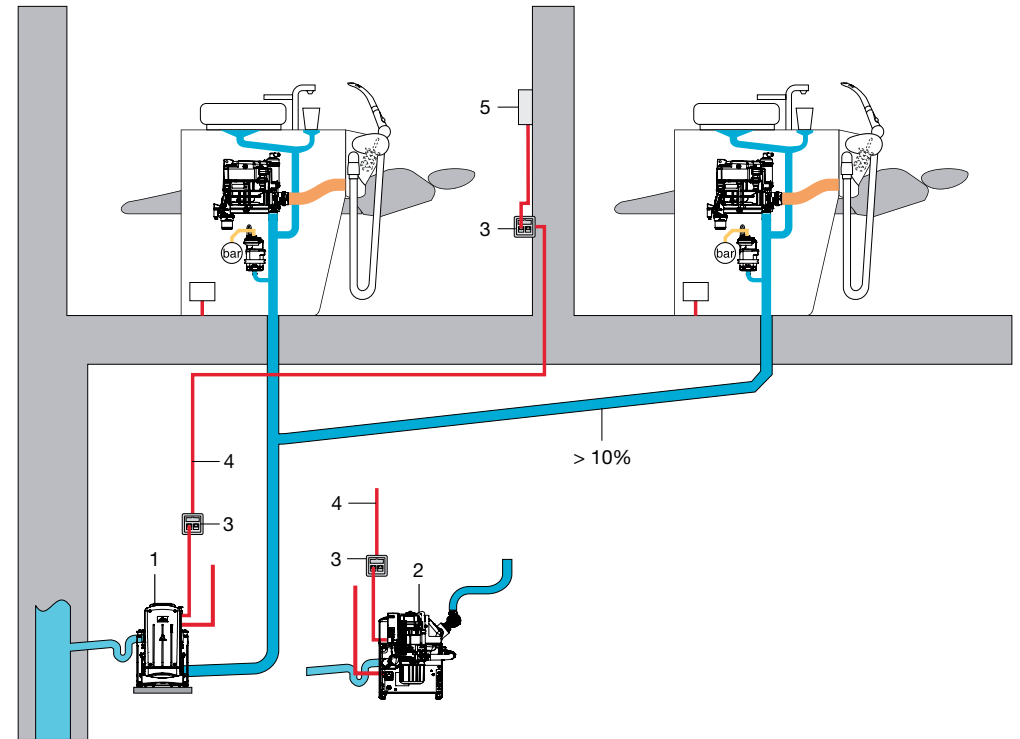


Figure 42: Treatment units with CA 2 or CA 4 in the basement

- 1 CA 4
- 2 CA 2
- 3 Network connection for display panel or Tyscor Pulse
- 4 Network cable
- 5 Display panel

**i** Additional information about pipe lengths, cross sections, slopes and required distances can be found earlier in the document.



## 22 Retrofit of wet suction system

### 22.1 CA 1

#### CA 1 as a device placed behind a VS 300 S

A simple possibility to retrofit an amalgam separator in a wet suction system is to install it after the suction unit in the drain line. With this installation, the drain line is separated and a pressure equalisation tank and the amalgam separator are mounted. The pressure equalisation tank is necessary so that the liquid can flow without pressure to the amalgam separator.

Parts required:

- CA 1
- Possible transformer for the power supply of the CA 1
- Pressure equalisation tank
- Network sockets and cables for a display panel or Tyscor Pulse
- Possibly mounting plate
- Possibly additional DürrConnect parts

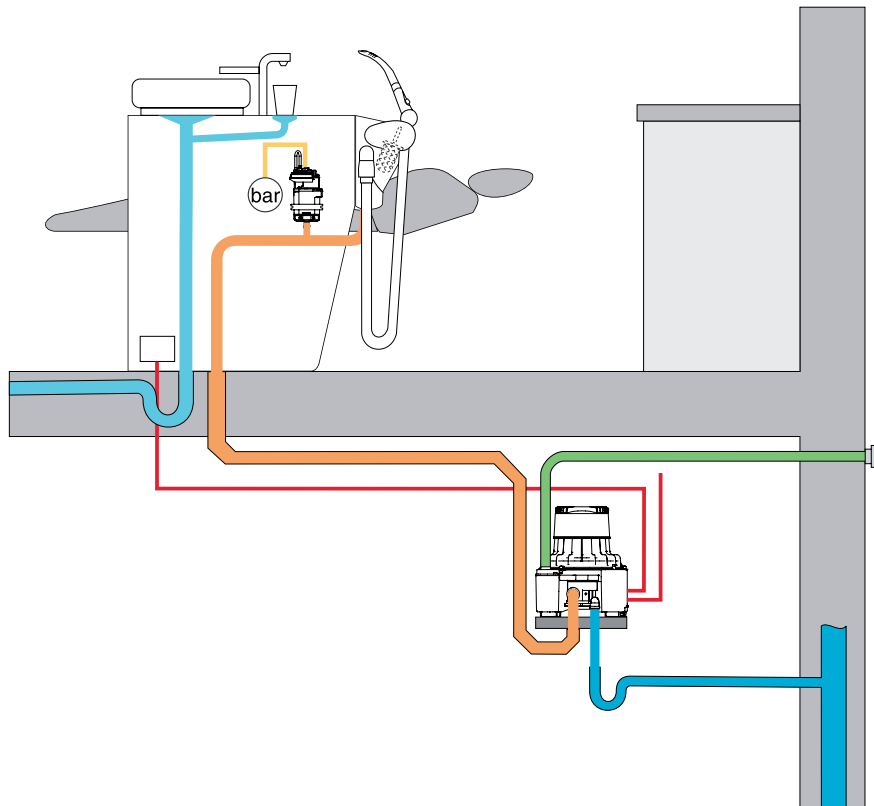


Figure 43: VS 300 S below the treatment unit (e.g. in the basement)

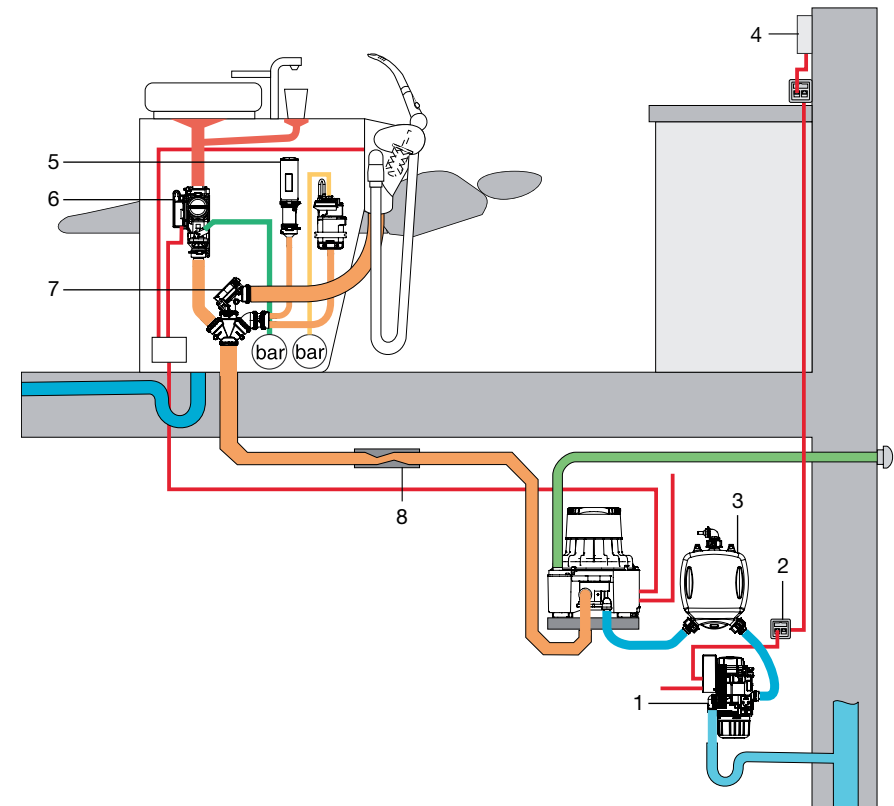



Figure 44: VS 300 S with CA 1 below the treatment unit (e.g. in the basement)

- 1 CA 1
- 2 Network connection for display panel or Tyscor Pulse
- 3 Pressure equalisation tank
- 4 Display panel
- 5 Auxiliary air nozzle
- 6 Spittoon valve
- 7 Place selection valve
- 8 Flow accelerator

 Additional information about pipe lengths, cross sections, slopes and required distances can be found earlier in the document.

## 22.2 CA 2

### CA 2 as a device placed behind a VS 600

A simple possibility to retrofit an amalgam separator in a wet suction system is to install it after the suction unit in the drain line. With this installation, the drain line is separated and a pressure equalisation tank and the amalgam separator are mounted. The pressure equalisation tank is necessary so that the liquid can flow without pressure to the amalgam separator.

Parts required:

- CA 2 (with integrated pressure equalisation tank)
- Network sockets and cables for a display panel or Tyscor Pulse
- Possibly additional DürrConnect parts

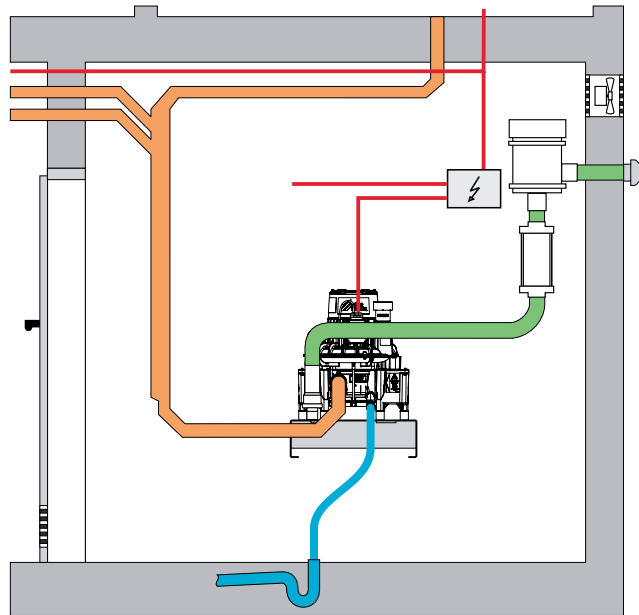


Figure 45: VS 600 below the treatment unit (e.g. in the basement)

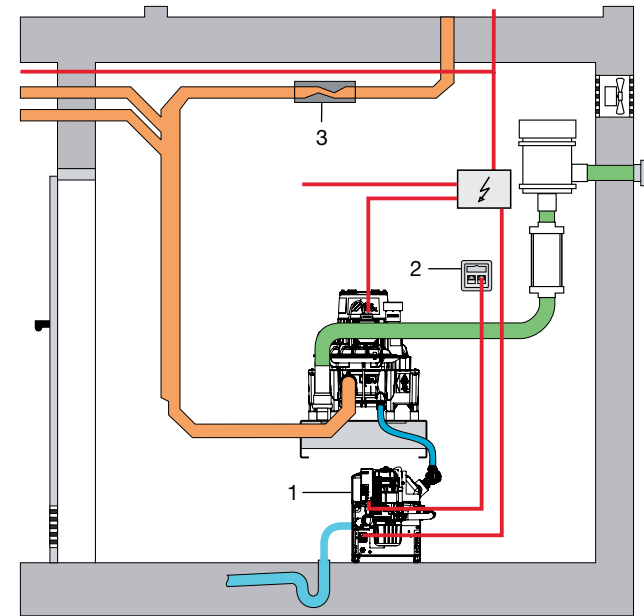



Figure 46: VS 600 with CA 2 below the treatment unit (e.g. in the basement)

- 1 CA 2 (with integrated pressure equalisation tank)
- 2 Network connection for display panel or Tyscor Pulse
- 3 Flow accelerator

 Additional information about pipe lengths, cross sections, slopes and required distances can be found earlier in the document.

## 22.3 CA 4

### CA 4 as a device placed behind a VS 900 S

A simple possibility to retrofit an amalgam separator in a wet suction system is to install it after the suction unit in the drain line. With this installation, the drain line is separated and a pressure equalisation tank and the amalgam separator are mounted. The pressure equalisation tank is necessary so that the liquid can flow without pressure to the amalgam separator.

Parts required:

- CA 4
- Pressure equalisation tank
- Wall console (optional)
- Network sockets and cables for a display panel or Tyscor Pulse
- Possibly additional DürrConnect parts

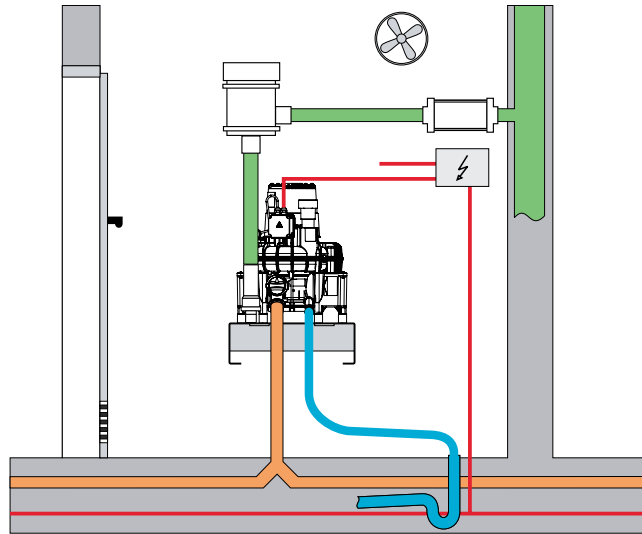


Figure 47: VS 900 S in an adjacent room on the same floor

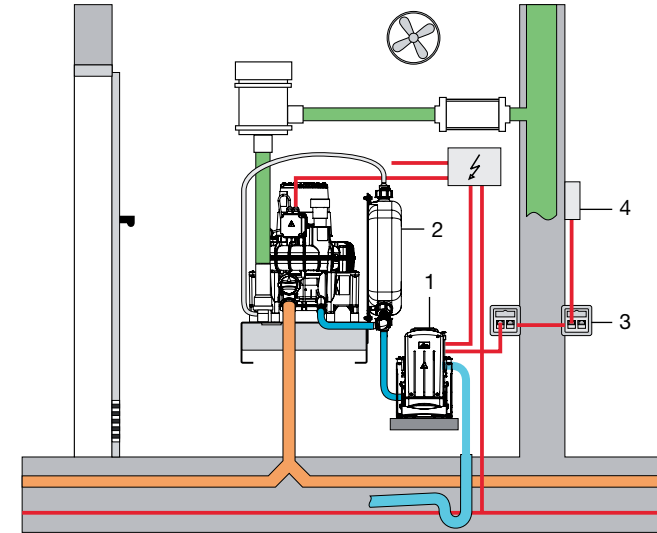



Figure 48: VS 900 S in an adjacent room with CA 4 on the same floor

- 1 CA 4
- 2 Pressure equalisation tank
- 3 Network connection for display panel or Tyscor Pulse
- 4 Display panel

 Additional information about pipe lengths, cross sections, slopes and required distances can be found earlier in the document.