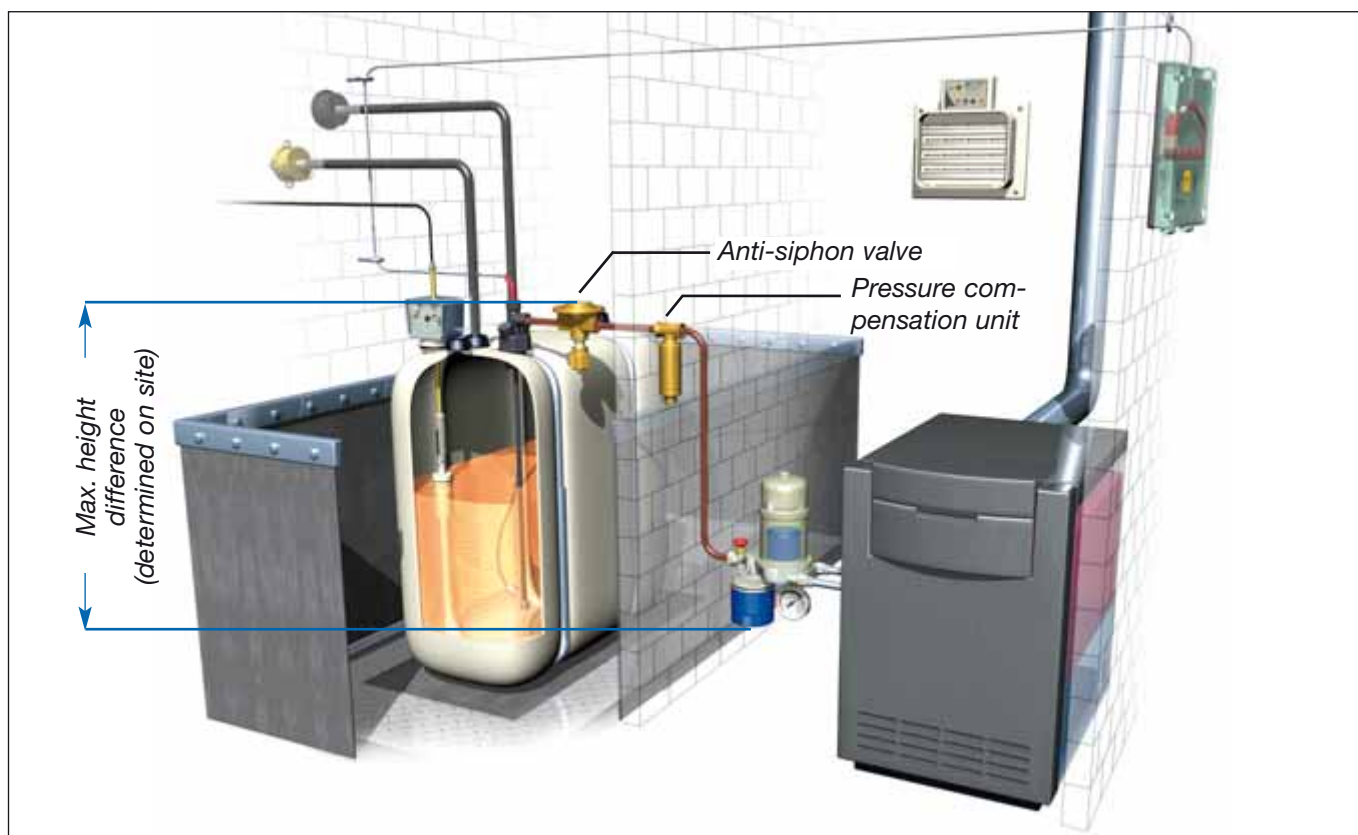


# Anti-siphon valves



Depending on national and local legislation or directives, tank installations for heating oil and their associated pipes are subject to certain approvals. The objective is to prevent ground water pollution.

If the maximum oil level in the storage tank is higher than the bottom of the suction pipe (see installation example), oil could be siphoned out from the tank if a leak exists or occurs in the oil line. Therefore, suitable protection devices such as solenoid valves and diaphragm anti-siphon valves must be installed. In Germany and many other countries, both types of valves require approval by the relevant authorities in charge. It must be ensured that the vacuum at the suction side of the burner pump does not exceed 0.4 bar.

Factors to be considered include:

- The maximum suction height at minimum oil level
- The suction pipe length
- The viscosity of the oil in the storage tank at extreme winter temperatures
- Additional pressure losses caused by fittings (such as oil filters, valves, etc.) and pipes

# Diaphragm type anti-siphon valve MAV

## Solenoid valve vakumat



### MAV-Universal

MAV-Universal for oil carrying pipes and height differences of max. 4 m between the MAV and the lowest point of the suction line. MAV-Universal is fully adjustable for a security height of 1–4 m. This ensures that MAV-Universal is perfectly adapted to typical site conditions. The vacuum at the suction side of the oil burner pump is not unnecessarily increased. Prevents heating oil from being drained and running out of the tank in the event of a leak in the suction line. MAV-Universal closes under spring pressure and opens under the vacuum suction of the oil burner pump.

For screw connectors see page 114.

Technical Approval of the German Institute for Building Technology:  
Z-65.50-415



### Technical specifications

#### Anti-siphon security height

1–4 m, fully adjustable

#### Threaded connections

Both sides G<sup>3/8</sup> female

#### Mounting position

As required

#### Flow throughput

Max. 220 litres/h

#### Operating temperature range

0/+40 °C

#### Vacuum proof

Up to -1 bar

#### Test pressure

Max. 6 bar

#### Housing material

Brass

#### Weight

0.35 kg

### Solenoid valve Vakumat

Vakumat is installed in the suction pipe between the oil tank and oil burner, if the burner is located below the upper edge of the tank. The solenoid valve prevents oil from being siphoned out of the tank if there is a leak in the suction pipe. The solenoid valve only opens when the burner is in operation. When the burner is off, the valve is closed. Vakumat safeguards suction pipes without pressure loss at full throughput regardless of any height difference between highest and lowest suction point levels. Vakumat is TÜV-tested. We recommend installing a pressure compensation unit (refer to page 111) between the solenoid valve and the burner to compensate for temperature related pressure increases in the oil line.

### Technical specifications

#### Operation

Closed when de-energised

**Pressure:** -0.9 to 4 bar

**Medium:** Fuel oil EL

#### Operating temperature range

Ambient: Max. 55 °C

Medium: 0 °C / 90° C

**Valve housing:** Brass

**Supply voltage:** AC 230 V

**Power consumption:** 14 VA/8W

**Protection:** IP 65 (EN 60529)

#### Mounting position

Solenoid upright

**Connection:** G<sup>3/8</sup> or G<sup>1/2</sup>

#### Kvs value

G<sup>3/8</sup>: 3.5 m<sup>3</sup>/h

G<sup>1/2</sup>: 1.8 m<sup>3</sup>/h

DG: G	PU	Part no.	Price €
<b>Diaphragm type anti-siphon valve MAV-Universal</b>	10	<b>20139</b>	
<b>Solenoid valve vakumat G<sup>3/8</sup></b>	10	<b>20143</b>	
<b>Solenoid valve vakumat G<sup>1/2</sup></b>	10	<b>20144</b>	