

Vilpra Sauna chimney set

Installation and operation manual



v.2022-11

DW50-M

Inner pipe material

Material thickness: 0,8 mm

Stainless steel grade EN 1.4301 (AISI 304)



Chimneys shall be designed, installed, and operated in accordance with the national legislation and the requirements set out in this manual. If requirements in national legislation and this manual vary, it is necessary to follow the more stringent requirements.

1. Contents of the package

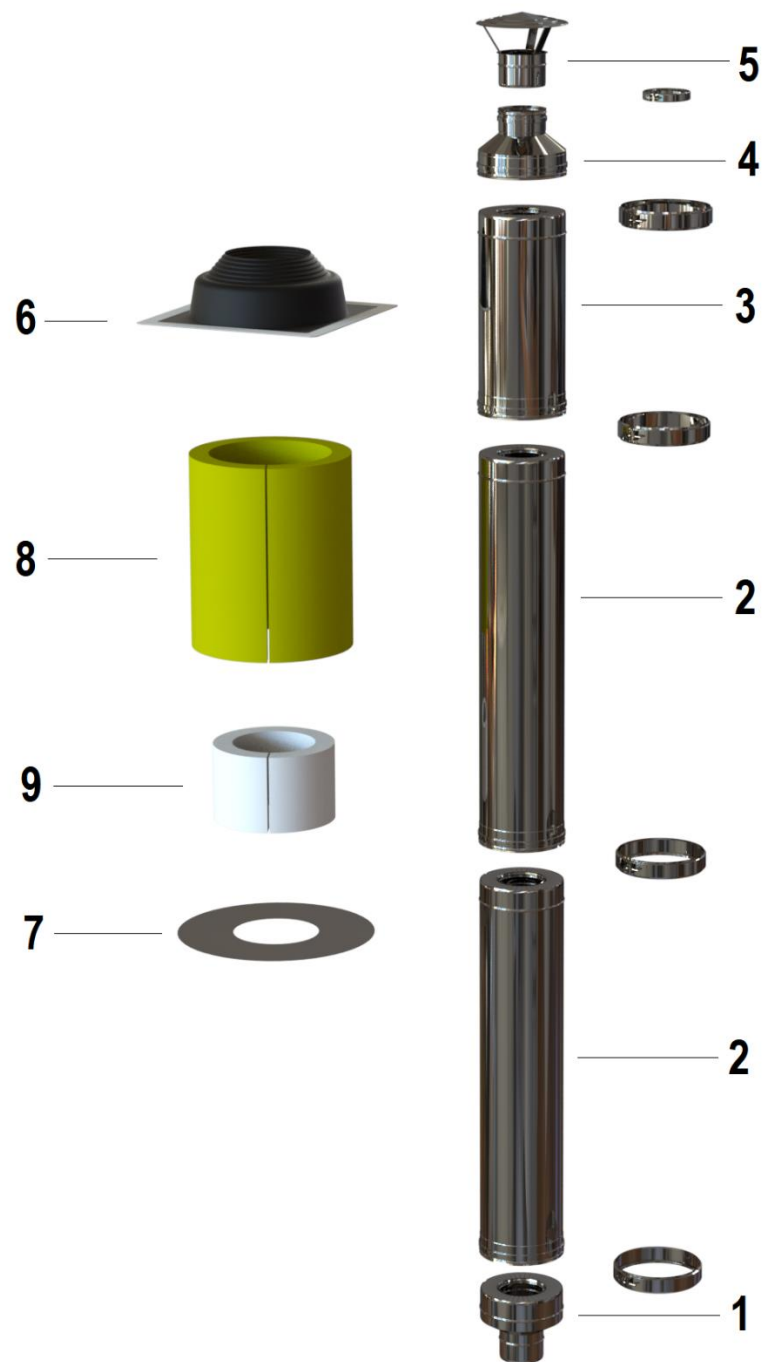




Figure 1. Contents of package

1. Bottom cover
2. Double wall chimney, L-1 m (installed length 0,95 m) - 2 pcs.
3. Double wall chimney, L-0.5 m (installed length 0,45 m)
4. Top cover
5. Rain cap
6. Roof flashing kit d.170-355, 0°-45°, 496x496mm
7. Decorative ring
8. Insulation for penetration Prorox s-50mm, h-500mm
9. Insulation for penetration Superwool s-50mm, h-200mm, up to d.280mm

2. Technical information

2.1. Designation of Double wall Sauna system chimney DW50-M

Follow Designation 4 while installing and operating double wall Sauna system chimney DW50-M. This double wall Sauna chimney is designated to exhaust combustion products by natural draught (N1) from the sauna stove burning dry natural wood logs (moisture content $\leq 20\%$). The chimney is sootfire resistant (G), it is designated for dry operating conditions (D), and its maximal working temperature (T600) is 600 °C. Chimney is mounted leaving not less than 100 mm between the outer surface of a chimney and combustible materials, if national legal acts do not indicate a bigger distance. The system is tested non-enclosed and with insulated floor penetration, therefore, when the chimney passes through the building constructions, follow the information provided in a section 3.1.1 of this manual. The inner pipe is made of 0.8 mm thick stainless steel 1.4301 (L20), the thickness of mineral wool layer is 50 mm.

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EN 1856-1:2009
Double wall metal chimney system DW50-M elements intended to convey products of combustion from the heating appliance to the outside atmosphere
Designation 4: EN 1856-1 T600-N1-D-Vm-L20080-G100 (Ø 80-200) (Tested non-enclosed and with insulated floor penetration)
Compressive strength: up to 15 m
Flow resistance: According to EN 13384-1
Thermal resistance: NPD - no performance determined
Thermal shock resistance: Yes
Tensile strength: NPD - no performance determined
Non vertical installation: NPD - no performance determined
Components subject to wind load: Maximum spacing between lateral supports: 3,0 m Maximum freestanding height above last support: 2,5 m
Freeze thaw resistance: Yes

Double wall Sauna chimney DW50-M							
Designation 4	EN 1856-1	T600	N1	D	Vm	L20080	G100

Double wall system chimney / designation	
Standard number	
Temperature class: T600 – maximal operating temperature up to 600°C	
Pressure class: N1 – negative pressure	
Condensate resistance: D – designated for dry operating conditions	
Corrosion resistance: Vm - declared on the basis of material type and thickness	
Flue liner material specification: L20 - Flue liner material - stainless steel 1.4301 (AISI 304) Ø80 – material thickness in multiples of the unit 0,01 mm. Made of steel with the thickness of Ø80 (0,8 mm).	
Sootfire resistance: G - yes, 100 – minimal distance to combustible material (in mm) applied for diameters of inner pipe from 80 mm up to Ø200 mm	

3. Installation instructions

The chimney installation must be done only by a competent person. The installer should check that all components required to complete the installation are available. The diameter of the chimney shall not be smaller than flue socket diameter of the stove, it is optimal when diameters are equal. Typical installation of the chimney is given in Figure 2.

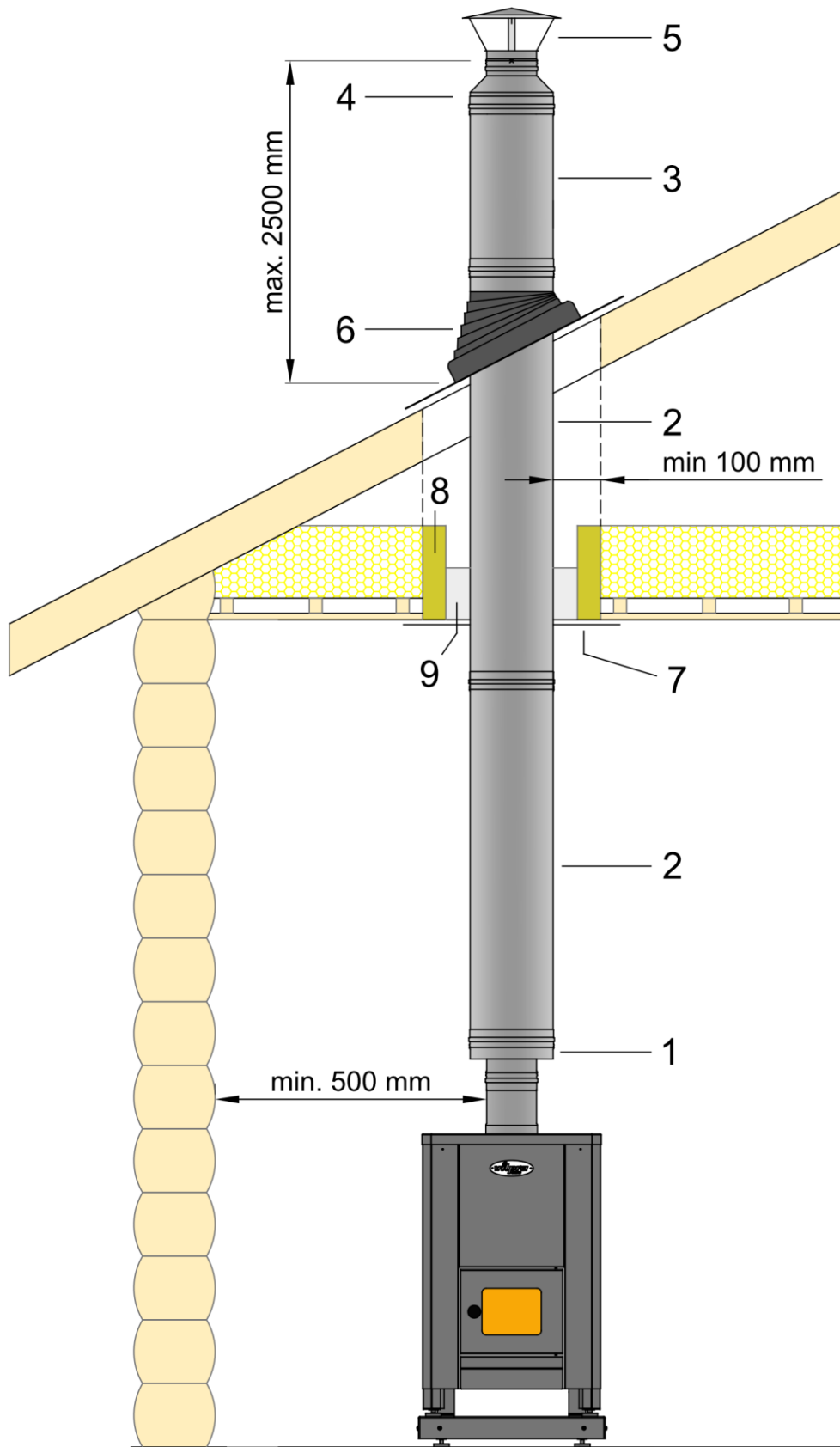


Figure 2. Typical installation of the chimney

Note. Indication numbers of chimney components shown in this Figure are given in Figure 1.

3.1. Distance to combustible material

3.1.1. Double wall Sauna system chimney DW50-M

This double wall chimney is tested non-enclosed and with insulated floor penetration. Chimney is installed leaving not less than 100 mm between the outer surface of a chimney and combustible materials, if national legal acts do not indicate a bigger distance. When installing the chimney next to combustible constructions (e.g. walls), ≥ 100 mm distance to combustible materials must always be maintained. A gap between the combustible construction (e.g. wall) and chimney must be ventilated. In a case the chimney passes through combustible building constructions (e.g. floor, roof), they must be equipped with holes of adequate size, which would allow to maintain a safe distance from a surface of the chimney to combustible materials. When a thickness of building construction is not larger than 200 mm, a gap from the outer wall of the chimney to combustible materials is fully filled with insulation materials indicated in Picture 3. If the thickness of combustible construction is from 200 mm to 500 mm, a gap of 200 mm height in the lower part of construction between the chimney and combustible materials is fully filled with insulation materials indicated in the Picture 3, the rest part is filled with an insulation material indicated in Picture 3, but air gap of 50 mm must be left around the chimney.

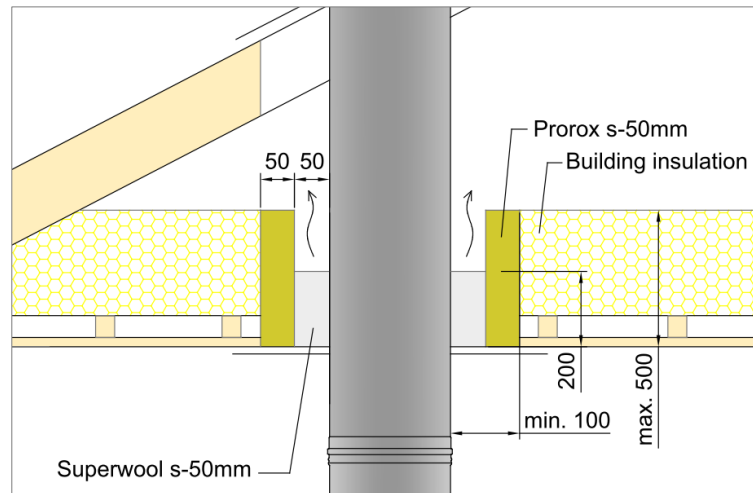


Figure 3. Installation of the chimney passing through the floor

3.2. Joints

The joints of chimney elements in locations where it passes through the floor, roof or wall are not allowed.

Double wall chimney and connecting flue pipe elements shall be installed considering the flow direction of combustion products indicated on the product marking stickers.

3.2.1. Double wall Sauna system chimney DW50-M

Double wall chimney elements are connected to each other by means of spigot and socket joints which gives a depth of the insert joint of 50 mm. Double wall chimney joints are secured by locking bands, which cover the joint. Please note that the locking band must be fitted properly on the joint of the chimney sections (see Figure 4). Do not fit the locking band upside-down. Having fitted the locking band properly, tighten it using a hex key (size no. 5).

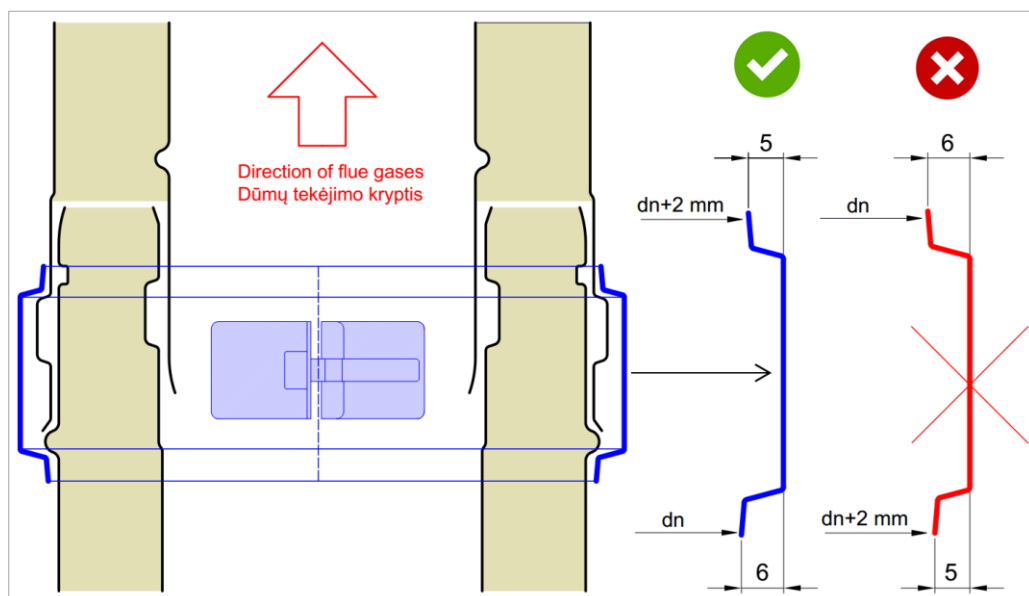


Figure 4. Installation of locking band

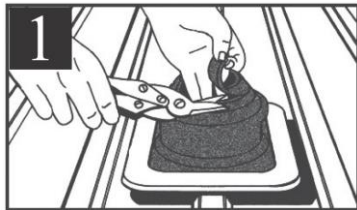
3.3. Location of chimney outlet

The location of the chimney outlet shall be in accordance with national regulations and nationally accepted rules.

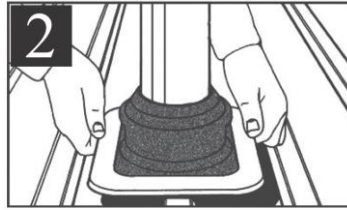
3.4. Accidental human contact

Where the chimney there is a risk of accidental human contact causing burning, the chimney shall be covered with a shield or a net.

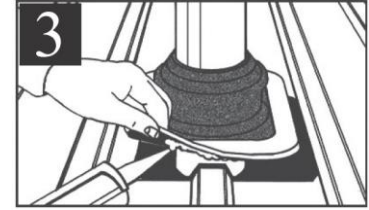
3.5. Installation of Roof flashing kit



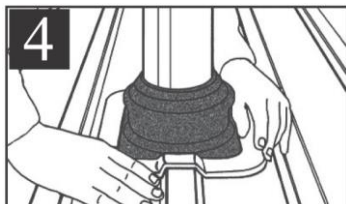
Cut cone where indicated for the relevant pipe size



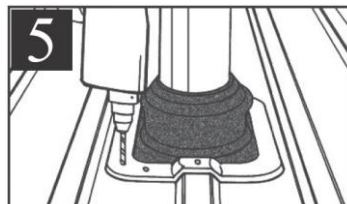
Slide flashing down over pipe. Water can be used as a lubricant



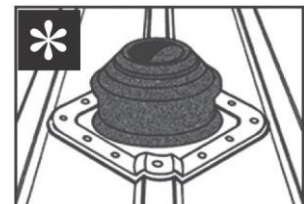
Apply neutral cure silicone sealant on underside of flange



Press pipe flashing into contours of roof panel



Fasten flashing to surface with self-tapping or self drilling screws; or selected pop rivets



Use a flashing on the 'diamond' or bias for enlarged holes and penetrations on steep pitched roofs or deep contours

4. Usage of a chimney

Chimneys shall be designed, installed and operated in accordance with the national legislation and the requirements set out in this installation manual. If requirements in national legislation and this installation manual vary, it is necessary to follow the more stringent requirements.

During installation and operation of a chimney, strictly follow the requirements of occupational safety, use a personal protective equipment.

The chimney elements shall be used according to their designation. It is not allowed to burn waste of wood industry, which contains cohesive materials; the cohesive materials emit aggressive materials when burning. It is strictly prohibited to fire materials unsuitable for burning (garbage, plaster, rubber, etc.).

Chimneys should be swept not less than once every three months during a heating season, and before a heating season. Special tools made of stainless steel or polymeric materials should be used for sweeping the chimneys.

To evaluate the state of the chimney and supporting elements during the operation it is required to perform inspections at least every six months.

We draw your attention to the fact that uncleaned chimneys are dangerous to the exploitation of a building, as it may cause fire.