

#### DIRECTIONS FOR USE AND INSTALLATION

**OPSINOX**®

N1 (neg.pressure): leakage rate  $< 2 l/(s.m^2)$  at 40 Pa

P1 (pos.pressure): leakage< 0,006 l/(s.m²) at 200 Pa

P2 (pos.pressure): leakage  $< 0.12 \text{ l/(s.m}^2)$  at 200 Pa

H1 (high press): leakage< 0,006 l/(s.m²) at 5.000 Pa H2 (high press): leakage < 0,12 l/(s.m²) at 5.000 Pa

VmL50 = st.st. AISI 316 L – X2CrNiMo 17-12-2

VmL40 = st.st. AISI 316 – X5CrNiMo 17-12-2

VmL30 = st.st. AISI 304 L - X2CrNi 18-9

VmL20 = st.st. AISI 304 – X5CrNi 18-10

G/O = YES / NOT soot fire resistant

D = Dry = not condensing gases

W = Wet = also for condensing gases

Explanation.

For double wall, insulated, types OPSINOX: DM II; DM IG; DM 6 II

#### 1. Applications.

Application codification according to European Standard EN 1856 - 1; the exact codification of the products, as well as the diameters, are indicated on the packing.

( I = stainless steel; G = galvanized steel).

OPSINOX DM II - EN 1856-1 - T 450 - N 1 - W - Vm L50 040 - G - (80)

Product name
Number European Standard
Continuous use up to T °C (here 450°C)
Pressure class N1 (neg. pressure)
Wet applications (also condensing flue-gases)
Corrosion class material AISI 316 L (X2CrNiMo17-12-2)
Flue liner 0,4 mm thickness
Soot fire resistant

Minimum distance towards combustible materials (here 80 mm)

## Technical characteristics of pipes Lu = 950 mm ( $R = 0.44 \text{ m}^2.\text{°K}/\text{W}$ )

Int. Diam.(mm)	125	131	139	150	153	180	200	230	250	300
Ext.Diam.(mm)	180	180	200	200	203	230	250	280	300	350
Weight (kg ) DM	5,5	5,4	6,4	6,1	6,2	7,1	7,8	8,8	9,5	11,2
Weight (kg ) DM 6	6,2	6,1	7,1	6,9	7,0	8,0	8,8	10,0	10,8	12,7

#### 2. General remarks.

- -- ATTENTION! The edges of stainless steel components are very sharp; it is an absolute must to use adequate personal protection means (gloves, etc.)
- -- The dimensions of the chimneys shall be determined and calculated using the applicable standards (  $a.o.\ EN\ 13384-1\ and\ 2$  ).
- -- Chimneys in stainless steel shall not be installed in halogens environments (dry cleaning, hairdressing, etc...).
- -- When a chimney is installed in a closed technical compartment (or when it is enclosed after installation), these compartments must be ventilated in a sufficient way to remove the heath of the chimney; also there will be sufficient inspection and maintenance accesses.
- -- If there exists a possibility of "accidental human contact", there is also a real danger of burns for people. In this case the chimney must be enclosed (by a wire netting or equivalent) to avoid such "accidental human contacts".
- -- Special attention will be payed to minimum distance to combustible materials (always to respect!) (here as example: 80 mm from the outer pipe).
- -- When installing the chimney, all applicable local laws and regulations must be followed (a.o. EN 12391-1).
- -- The chimney outlet on top of the roof shall not be situated in an area of overpressure or in a turbulent zone; respected (a.o. EN 12391 1).

# 3. Installation and assembling.

- -- The installation direction must be respected as indicated in Fig.1.

  In the direction of the flue gases "R", the higher element (A) must slide into the lower element (B) ( see also Fig. 1 ).
- -- On each connection between 2 elements, the metal locking band (C) that is delivered with each element must be applied and must be fixed by clicking the clamp; this clamp clicks over a metal strip with a little hole for an eventual locking pin (Fig. 1).
- -- When installing an adjustable pipe, all the higher situated elements must be supported independently; an adjustable pipe cannot and shall not take any loads or charges.

#### 4. Changing directions.

- -- With bends at 15°, 30° and 45° it is possible to realize horizontal parts and slopes. These parts must always have one support per meter ducting.
- -- By means of a T-piece (45° or 90°), the heating appliances can be connected to the chimney.
- -- All these non-vertical parts must be in accordance with eventual local prescriptions.

## 5. Supports.

- -- A floor base plate or a wall support is placed at the bottom of the chimney. In a vertical configuration it is allowed to install up to 10 pipes of 1 meter, only then a second supporting device is needed.
- -- Wall brackets they never take vertical charges are used to guide the chimney sideways.

  They are placed at each 2 meter on the vertical parts that are installed at the outside of a building and at each 3 meter when installed at the inside.

### 6. Roof top installation.

- -- Roof flashing plates, special type for chimneys, must be installed by a qualified workman ( rainwater tightness ). The installation instructions of the manufacturer must be respected.
- -- Around the chimney pipe, a storm collar is placed so that it fits over the flashing; between the collar and the pipe an elastic silicon paste is used to ensure the rainwater tightness between the two pieces.
- -- At the top of the chimney a finishing part is placed (truncated cone terminal or end piece with rain cap) so that no rainwater can penetrate into the insulation part of the chimney pipe.
- -- The freestanding height of the chimney ( above the highest wall bracket ) is limited to 1,8 meter max. Between 1,8 and 2,8 meter the chimney must be supported by tension cables ( fixation point at about 2 meters height ). With higher chimneys a special independent support structure must be installed.

# 7. Condensing applications.

-- When the flue gases are condensing, or when there is a possible rainwater inflow, a water drain point must be provided to evacuate the water to the central drain system. In case of horizontal ducting, they should be placed with a slope (ex: 3%).

## 8. Inspection and maintenance.

-- Chimney-sweeping and general maintenance have to be done according to the local prescriptions and legislation. Anyhow, the chimney will be inspected (outside and inside) at least once per year by a qualified technical workman.

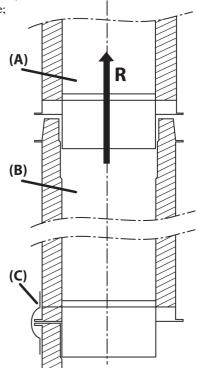


Fig. 1.