

Ducts tested according to NF / EN 1366-1 and NF / EN 1366-8 – Classification according to NF / EN 13501-4

Performance of rectangular horizontal smoke extraction ducts

FIBROGAINE® thickness	E	I	t	ve	ho	S	Service pressure	Multi
71 mm	E	I	120	-	ho	S	-500/+500 Pa	Multi

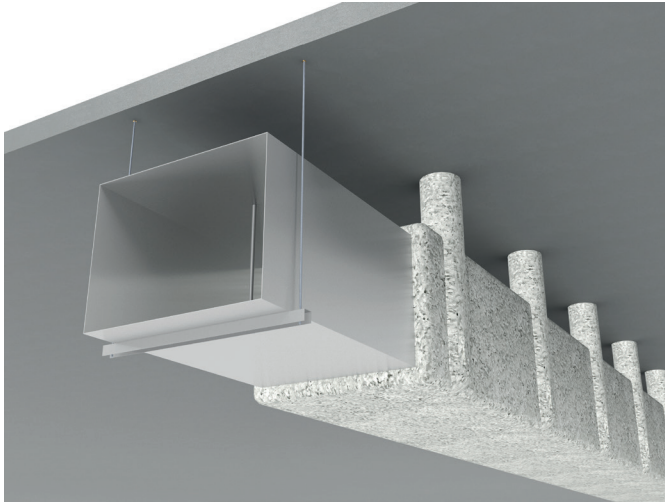


Diagram 1 – Duct assembly

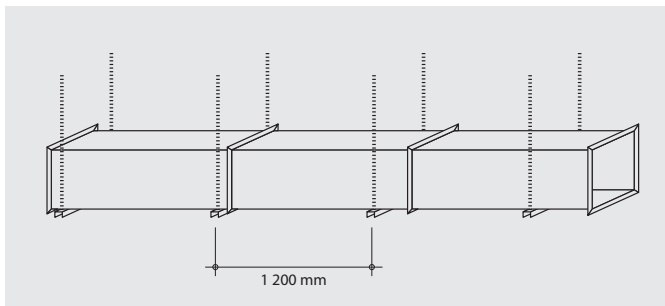


Diagram 2 – Supporting principle

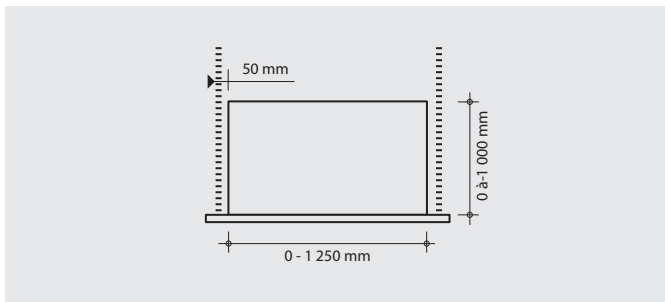
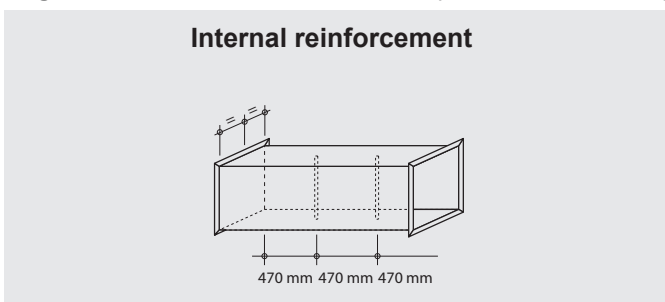


Diagram 3 – Duct reinforcement (width > 625 mm)

### Internal reinforcement



### Area of validity

- Rectangular horizontal ducts
- Cross section between 0 x 0 mm and 1250 x 1000 mm (l x h)
- Maximum section length: 1400 mm
- Duct sheet metal thickness

Duct diameter (mm)	0 - 400	401 - 900	901 - 1 250
Minimum sheet thickness (mm)	6/10	8/10	10/10

- Maximum centre-to-centre spacing of support systems: 1200 mm
- C ≤ 625 mm, without duct reinforcement
- FIBROGAINE® density: 223 kg/m<sup>3</sup> ± 15 %

### Duct assembly principle

The duct is composed of sections with a maximum length of 1400 mm. These elements are joined with flanges attached together with M8 nuts and bolts on the edges and anchor bolts spaced 350 mm apart around the duct. The section joints are sealed using an A1 acrylic sealant. The duct body is supported with 1200 mm spacing (see diagram 1). The support system is composed (see diagram 2) of a 41 x 41 perforated crossbar and two threaded rod hangers.

- For ≤ 625 mm, duct widths, reinforcement is not necessary.
- For duct widths > 625 mm, ducts must be equipped with bracings (internal or external) (see diagram 3):
  - Internal bracings composed of 13 x 17 mm (Ø int x Ø ext) steel spacers positioned lengthwise along the sections at mid-width and with 470 mm centre-to-centre spacing

### Protection installation principle

#### Duct body protection

- A first layer approximately 30 mm thick of FIBROGAINE® is applied to the duct (without primer).
- A 25 mm hexagonal grate (Ø = 0.8 mm) is then installed all around the duct.
- A second layer of FIBROGAINE® is applied to achieve the desired final thickness.

#### Protection of support systems

The crossbar is encased in the duct body protection. The threaded rods can be protected by a rock wool shell (30 mm, 65/70 kg/m<sup>3</sup>) as well as FIBROGAINE® or by installing a grate and applying FIBROGAINE®. In both cases, the total thickness of the protection (shell + FIBROGAINE® or FIBROGAINE® only) will have a thickness identical to that applied to the duct.