

## General requirements:

Number of pipe penetrations per cabinet	2
max. cut-out cross-section per cabinet	1412mm <sup>2</sup>
max. pipe diameter (d)	28mm
max. hose diameter (d)	28mm
max. cable diameter (3x 1,5 <sup>2</sup> ) (d)	8mm
Pipe material	steel /stainless steel
max. pipe wall thickness	1mm
max. hose wall thickness	3mm

### Note!

A: Pipes and cables are installed in holes with their nominal diameters (d).

B: Hoses < Ø20mm are installed in holes with their nominal diameters (d).

C: Hoses ≥ Ø20mm are wound continuously completely with a layer of intumescent strip (see Fig. 2). Drillhole diameter= nominal diameter (d) + 3,6mm.

D: Drillholes can be designed to the upper tolerance of the nominal diameter (d) or at most be rounded up to the next full millimetre. Gaps between the pipe/ hose/ cable and the insulation must be avoided.

E: Unused drillholes must be closed properly!

F: The minimum distance between the holes must be 15mm (see Fig.3).

The pipe penetration may only be attached in the marked attachment areas (see page 2-3) for the respective model type! The edge of the frame defines the outer limit of the attachment area.

The drillhole must always be perpendicular to the attachment area.

This applies up to the wooden intermediate top in the area of the cabinet top panel.

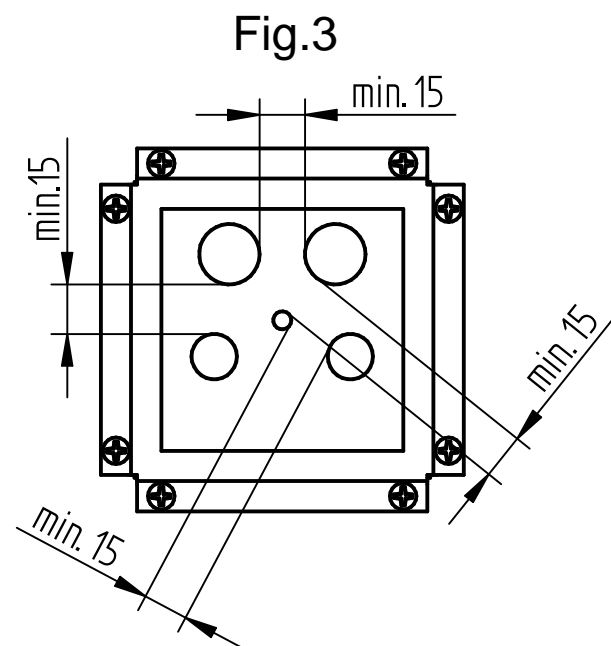
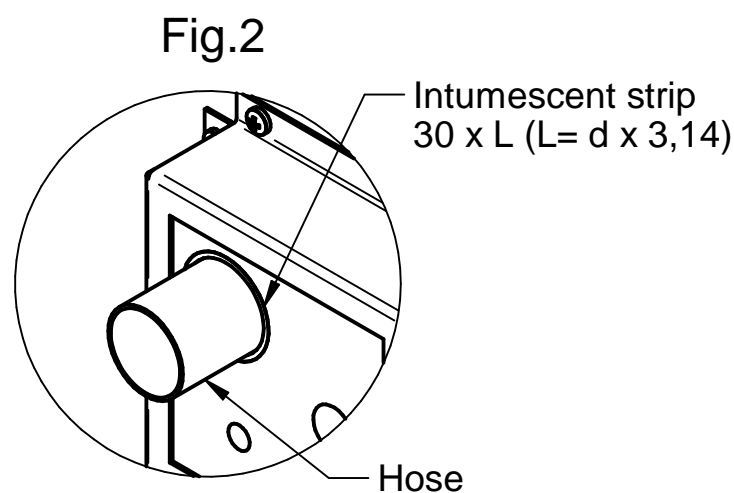
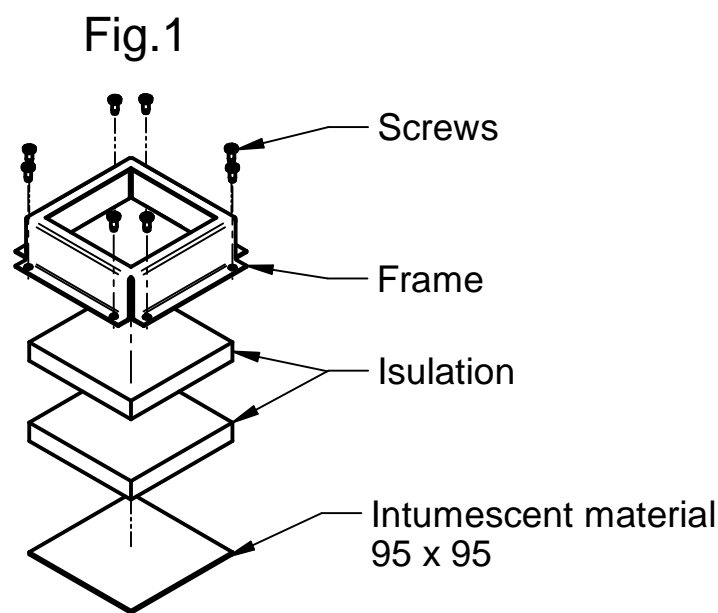
The pipes/ hoses/ cables to be fed in must not have any negative effects on the door locking mechanism, or on the cable guide on the top and rear panel.

The different positions of the bottom trays and storage shelves must be noted when attaching to the sides and rear panel.

The cabinet owner/ operator is responsible for avoiding installation conflicts or collisions between different elements.

The pipe penetration is assembled in the following order in preparation for the attachment: 1. Intumescent material, 2. Insulation, 3. Frame (see Fig. 1).

Use Ø3,5 x 9,5 screws for fixing.



Model type	
LL	page 2
XXL	page 3

Cross-section calculation:

$$A = \text{Cross-section area} = 3,14/4 \times d^2 \approx 0,785 \times d^2$$

Example for assignment:

1x Ø20mm + 2x Ø15mm:

$$A = 1 \times 0,785 \times 20\text{mm}^2 + 2 \times 0,785 \times 15\text{mm}^2$$

$$A = 667,25\text{mm}^2$$

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title: Installation instruction pipe penetration  
SUPPLY

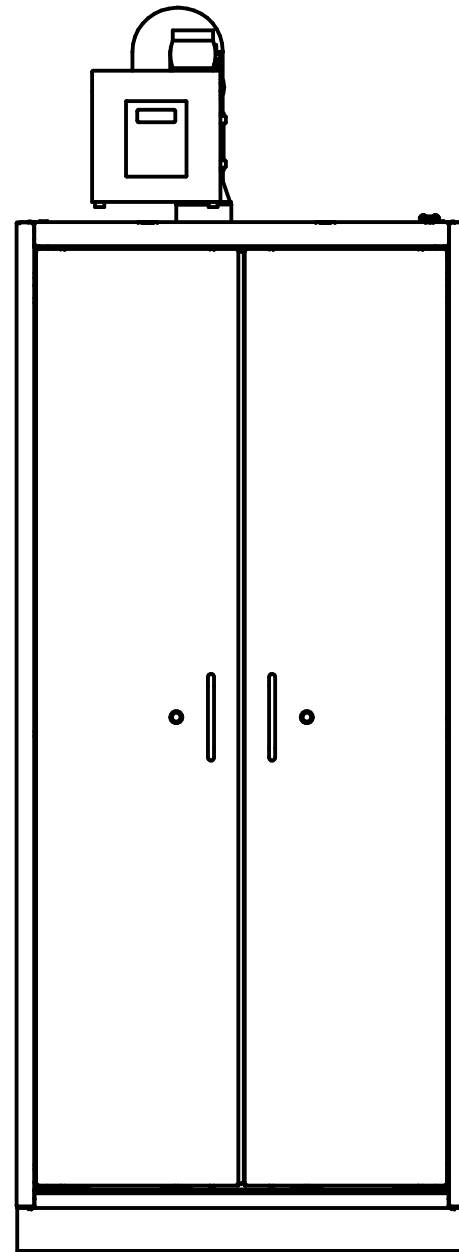
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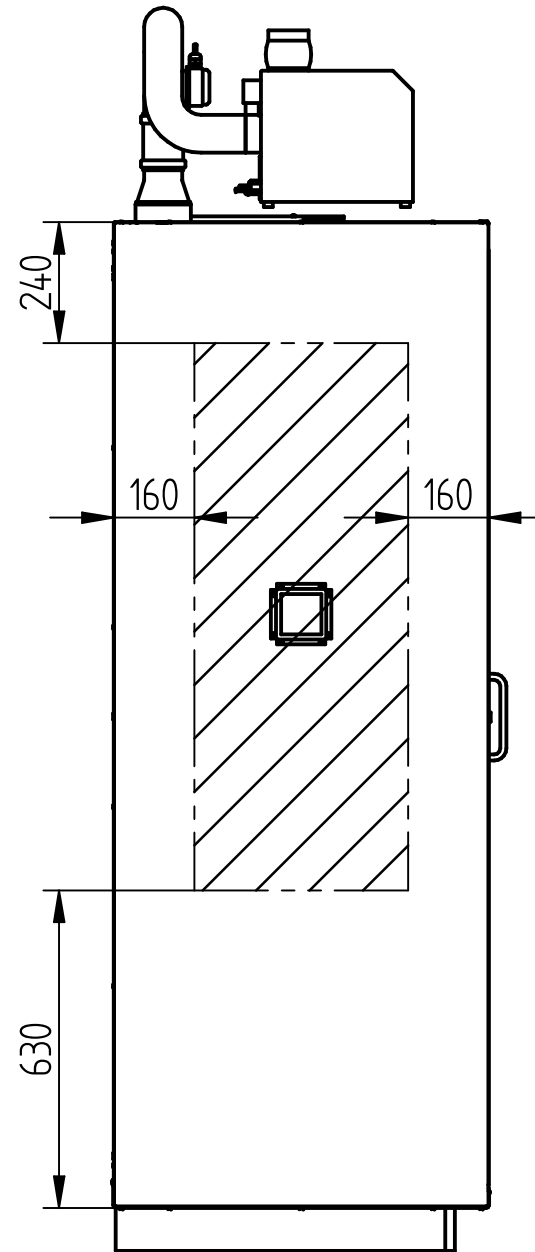
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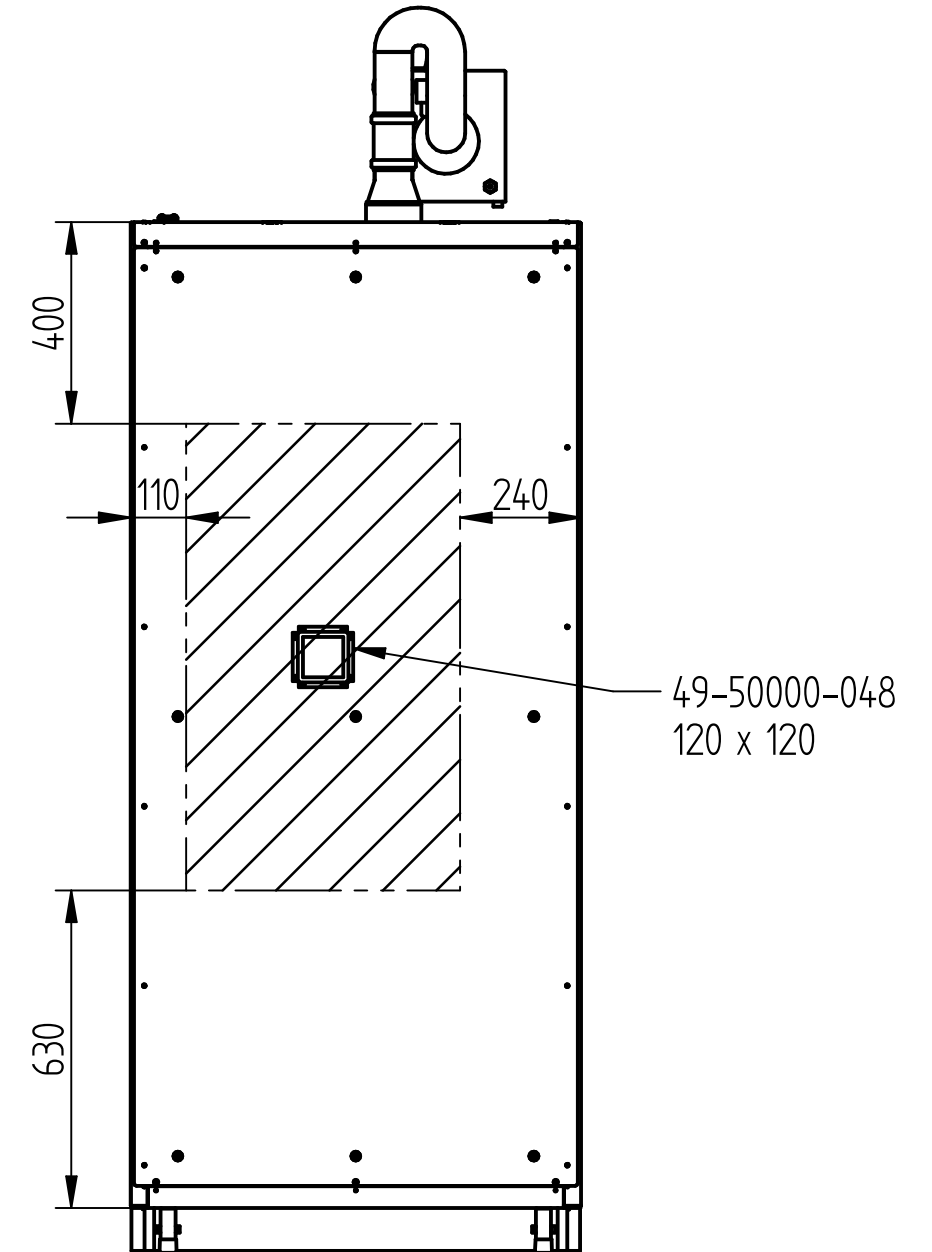
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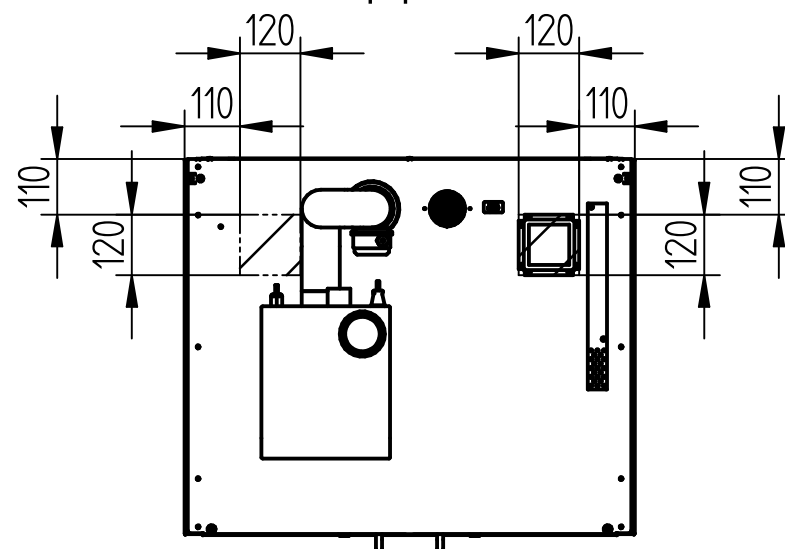
Side left / right

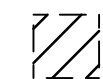


Rear panel



Top panel



 Attachment areas

Model type: LL

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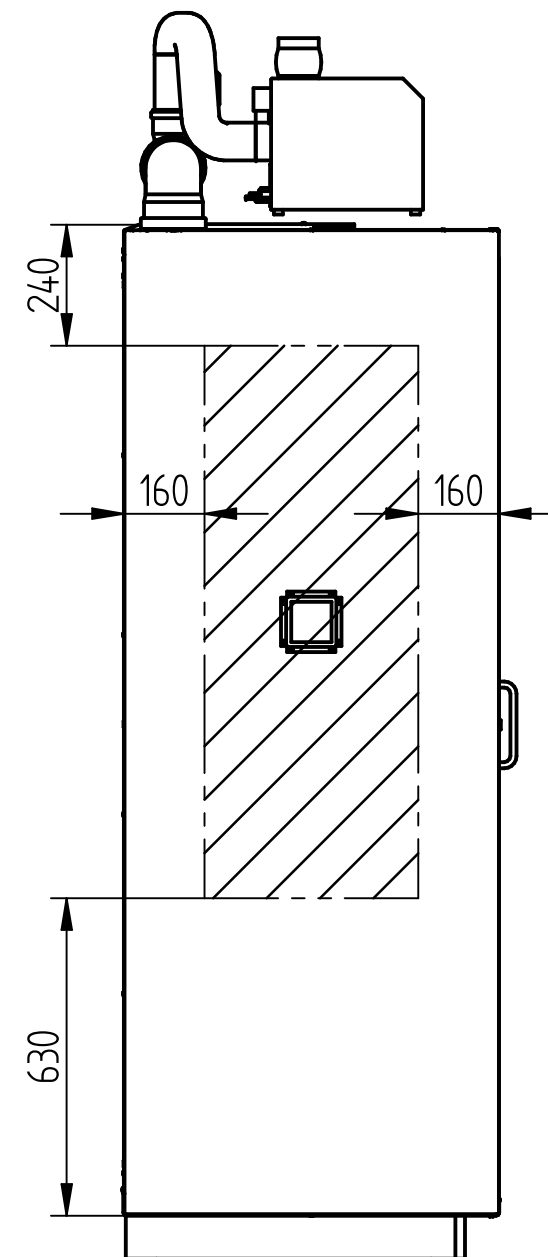
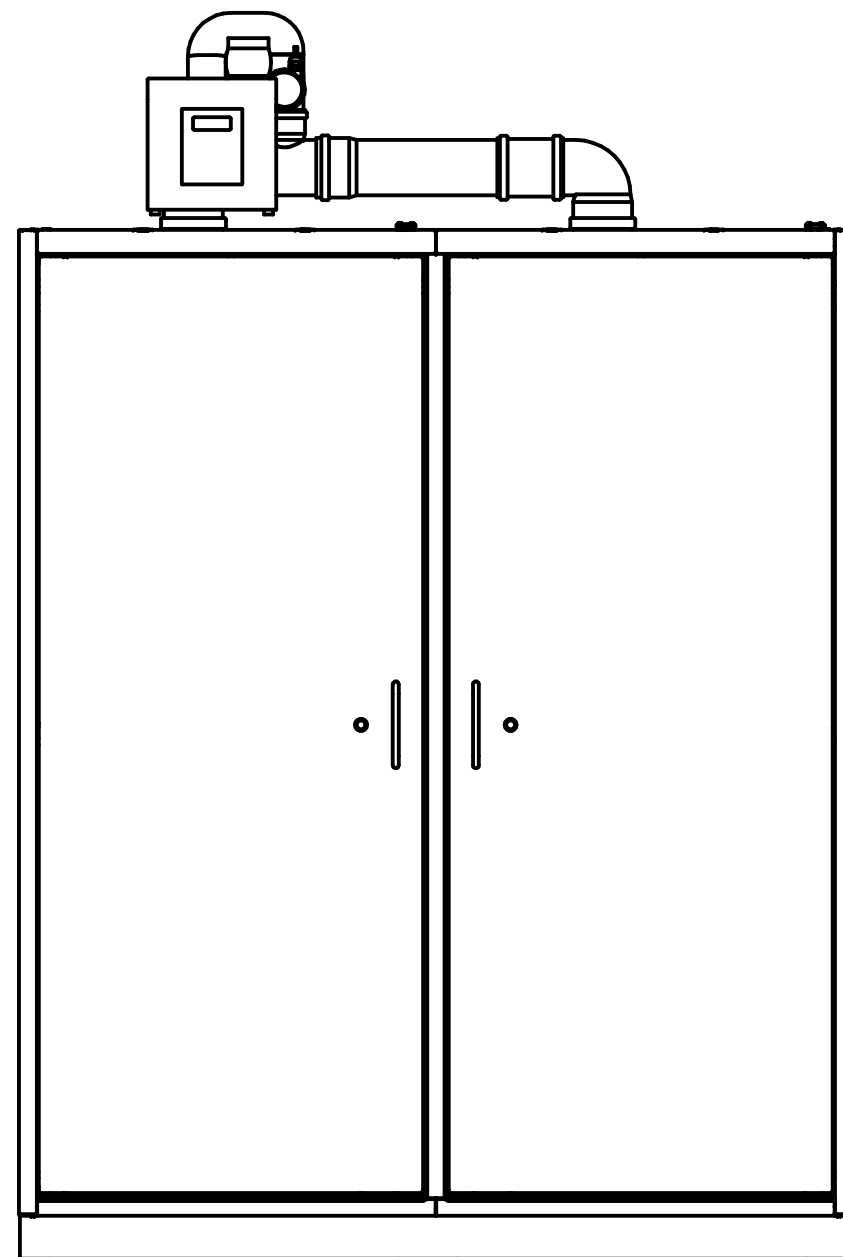
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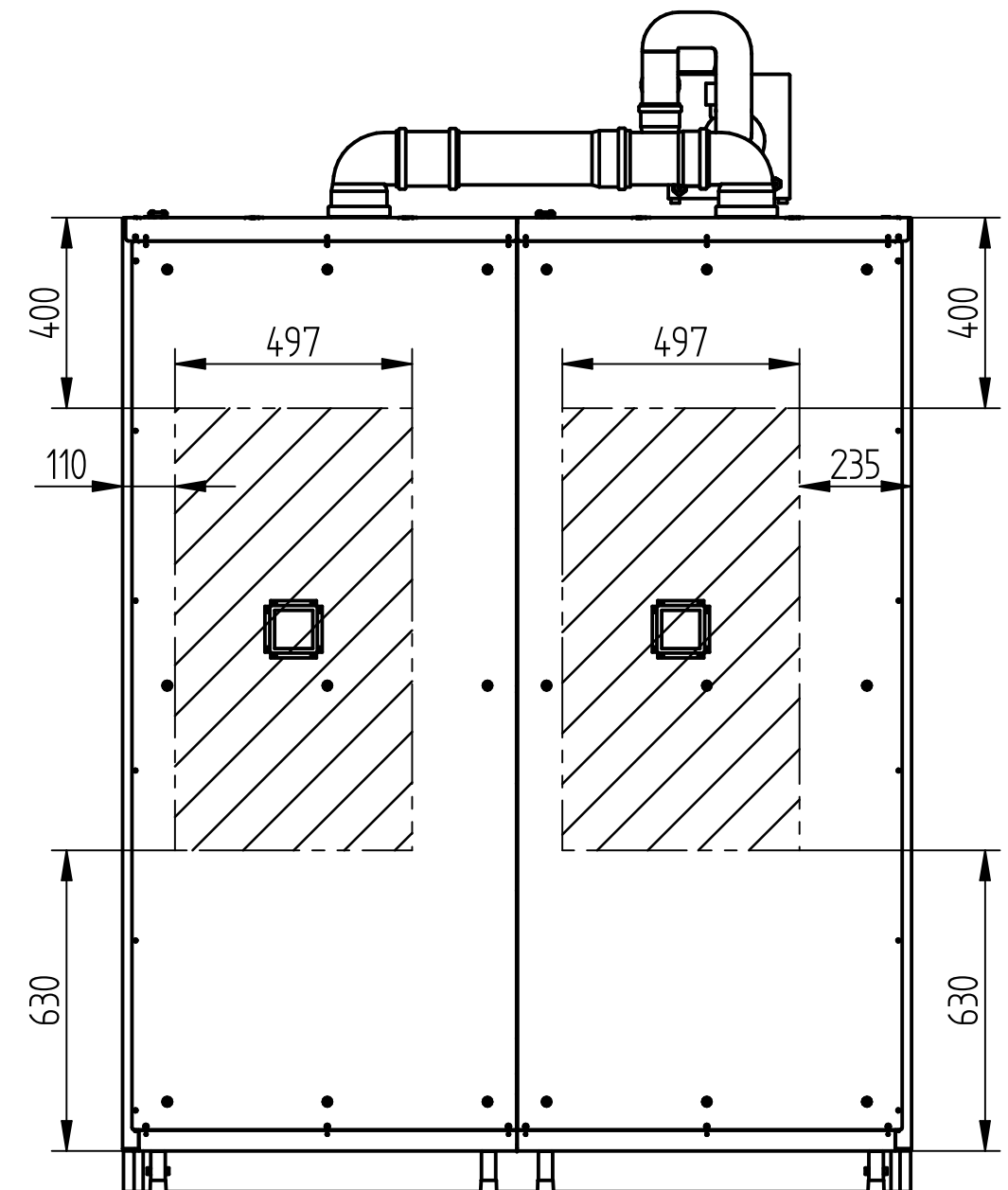
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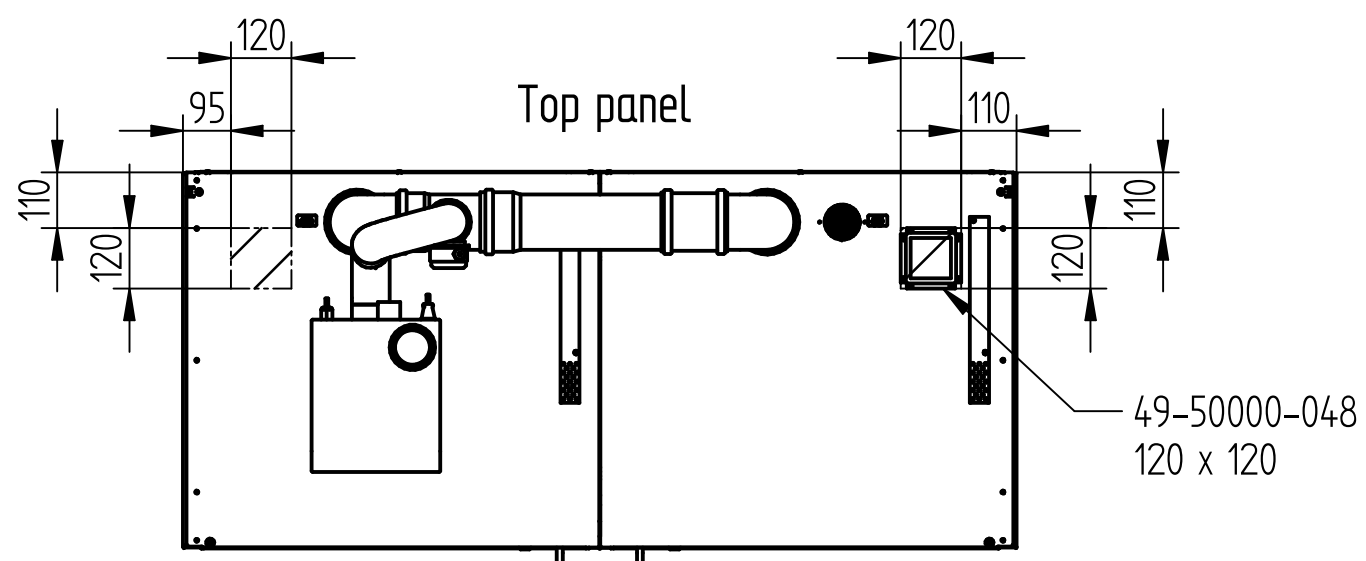
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Rear panel



Top panel



 Attachment areas

Model type: XXL

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