

## 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 2-8) for the respective cabinet 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.

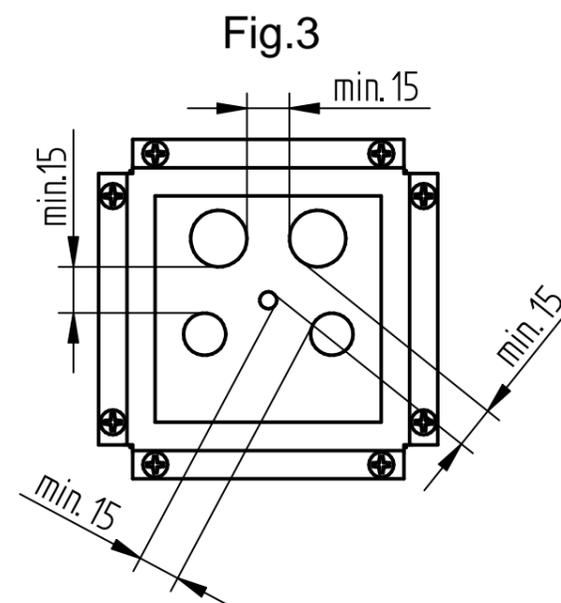
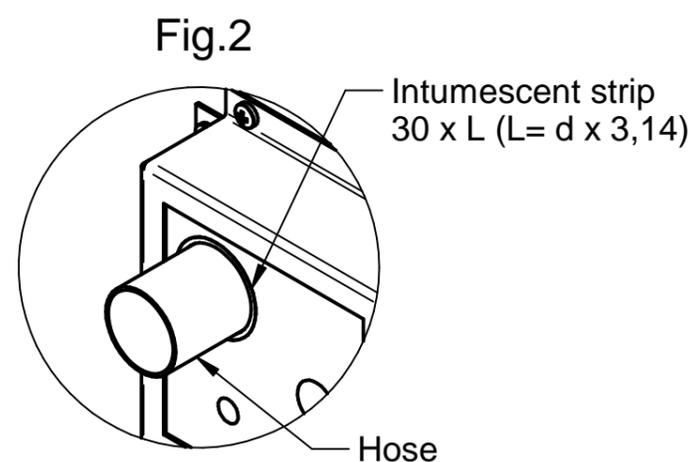
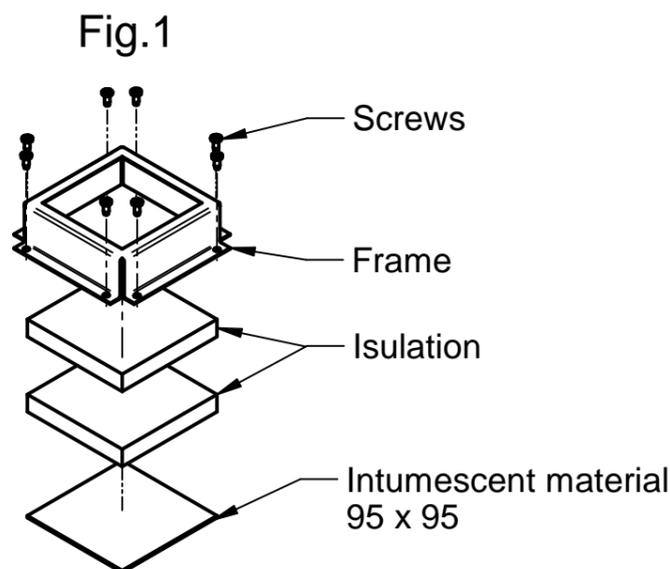
The pipes/ hoses/ cables to be fed in must not have any negative effects on the door locking mechanism, or on the cable guide on the top and rear panel.

The different positions of the storage shelves and/or pull-out 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 onto the sides or top and Ø4,5 x 50 screws for fixing onto the rear panel.



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:

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

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

Model type	
standard S standard M	page 2
standard SL standard ML	page 3
standard L standard LL	page 4
standard XS standard XL standard XL centre partition wall	page 5
pro L	page 6
pro XL	page 7
pro XL centre partition wall	page 8

This drawing is our property!  
Furnish this information to other  
persons and reproduce or copy is  
not permitted without our  
written permission.

Düperthal Sicherheitstechnik  
Frankenstrasse 3  
D-63791 Karlstein

title: Installation instruction pipe penetration  
CLASSIC

drawing no.: D00078856

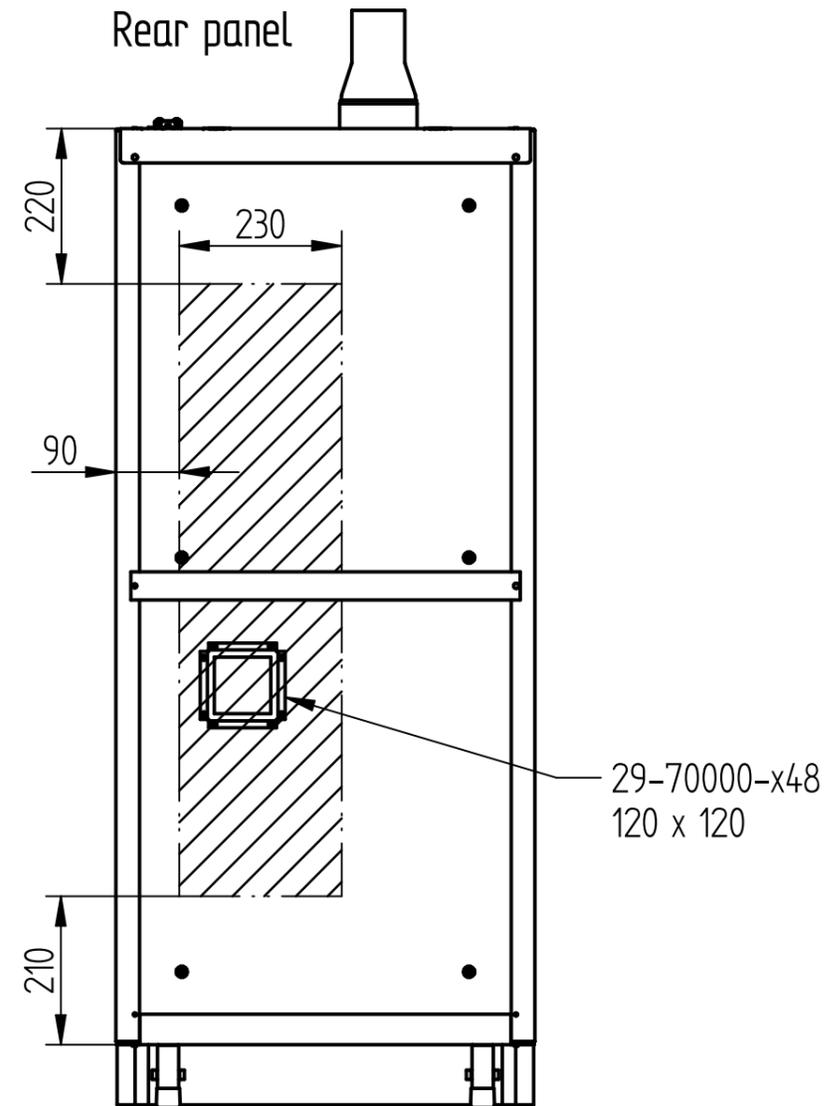
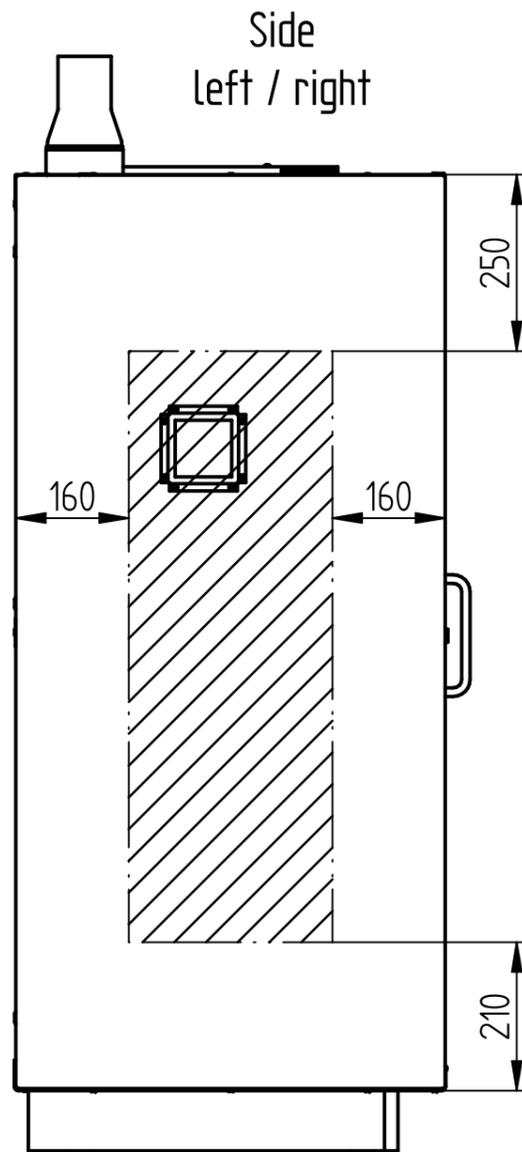
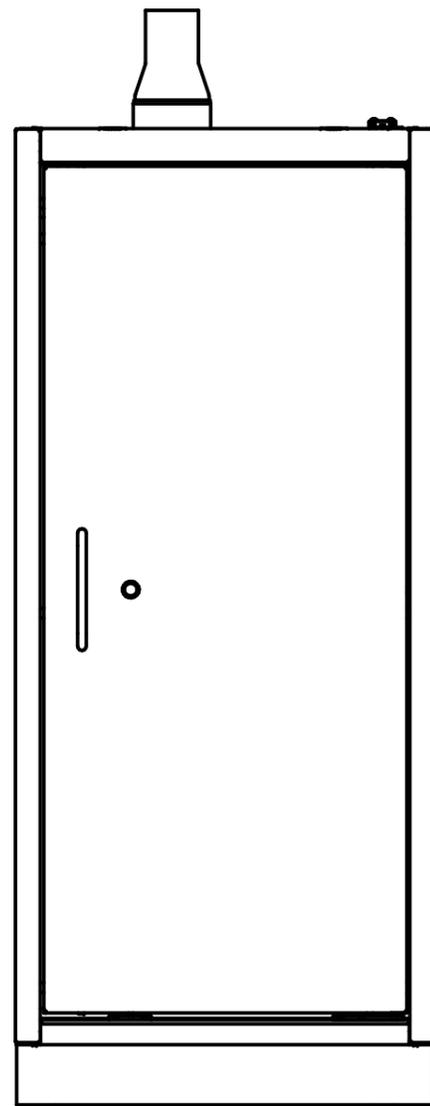
page: 1 of 8

revision: 02

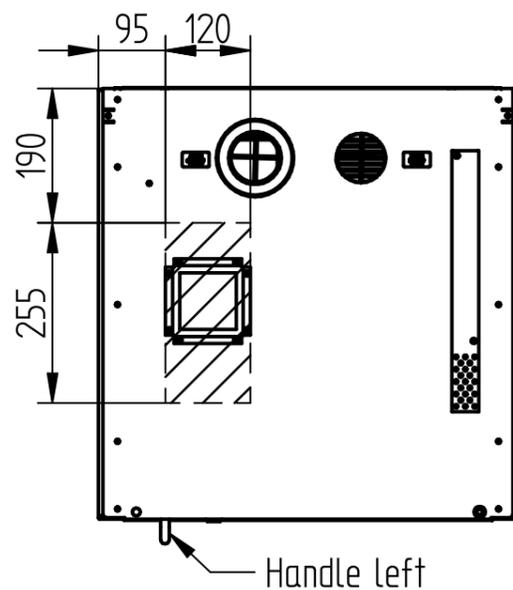
date: 2016-06-23



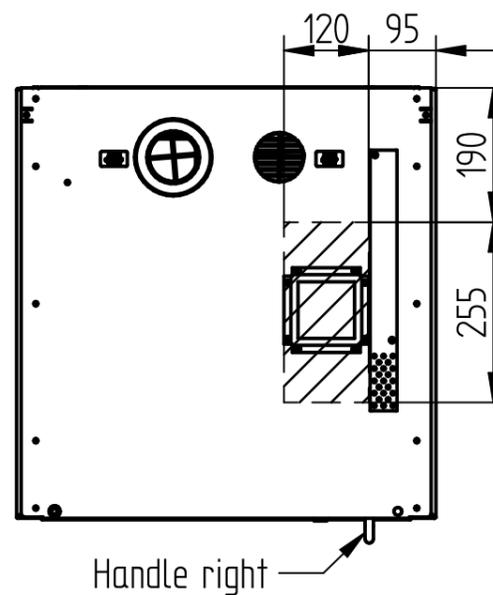
**DÜPERTHAL**



Top panel (right-hung)



Top panel (left-hung)



 Attachment areas  
Model type: standard S  
standard M

This drawing is our property!  
Furnish this information to other  
persons and reproduce or copy is  
not permitted without our  
written permission.

Düperthal Sicherheitstechnik  
Frankenstrasse 3  
D-63791 Karlstein

title: Installation instruction pipe penetration  
CLASSIC

drawing no: 000078856

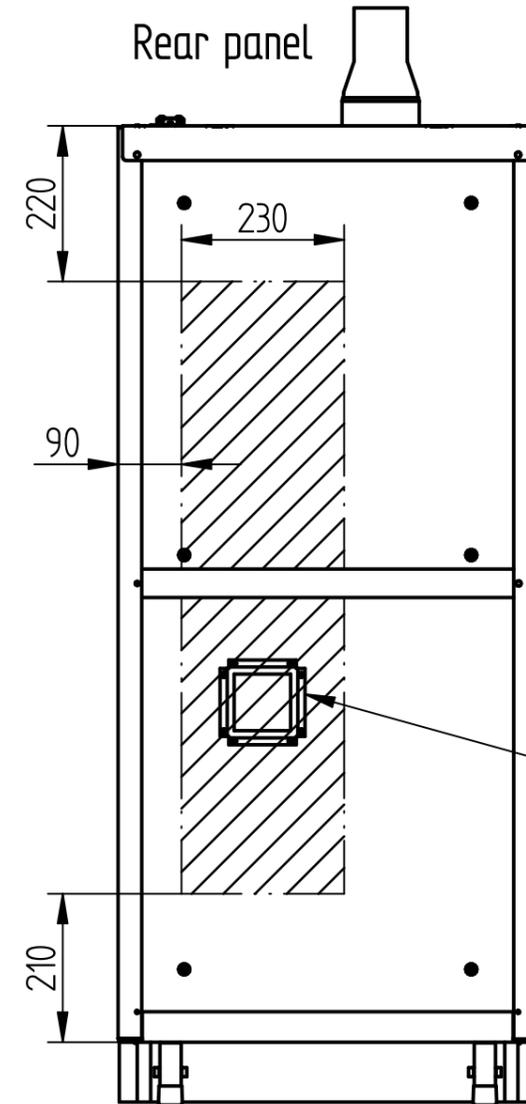
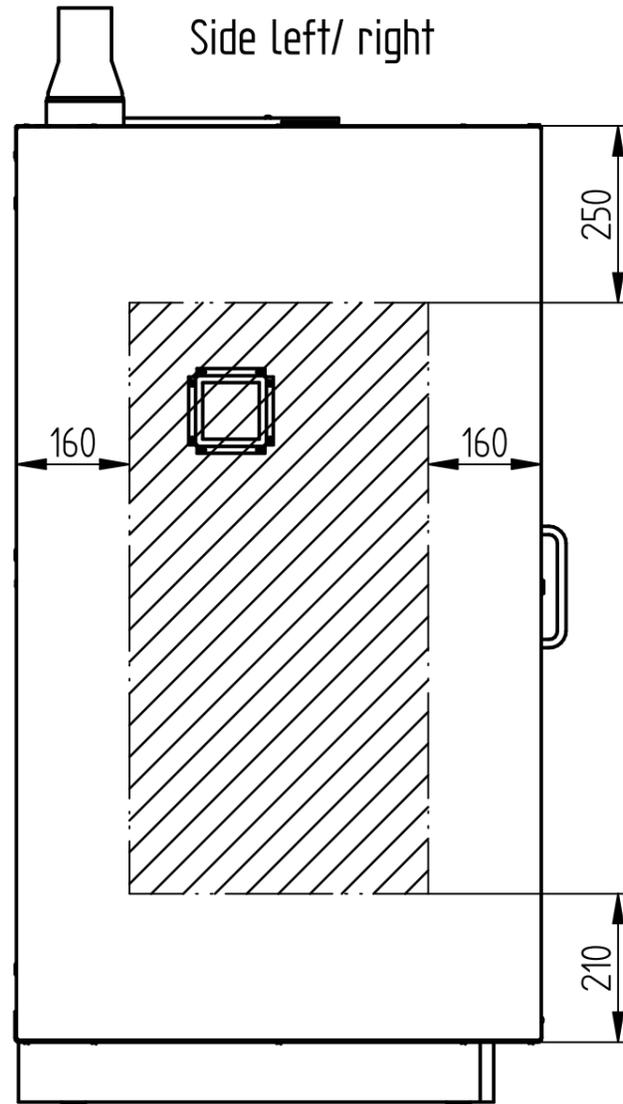
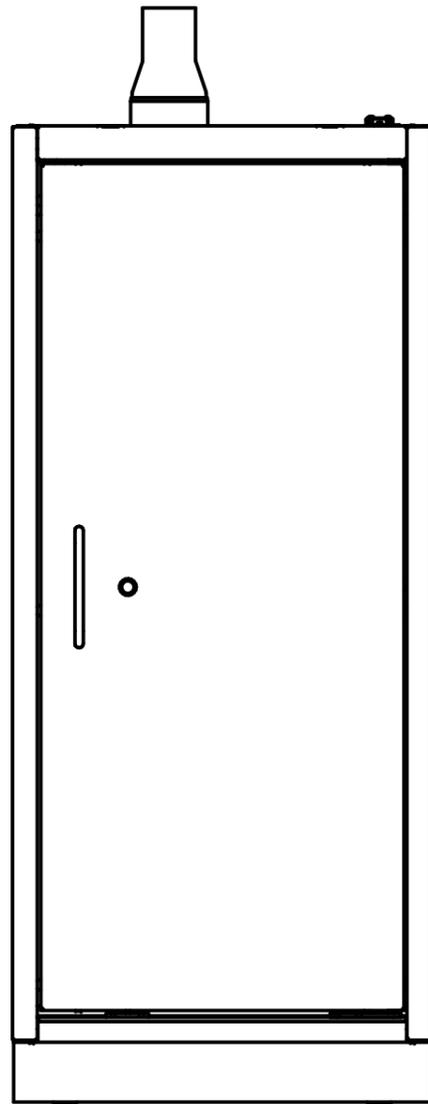
page: 2 of 8

revision: 02

date: 2016-06-23

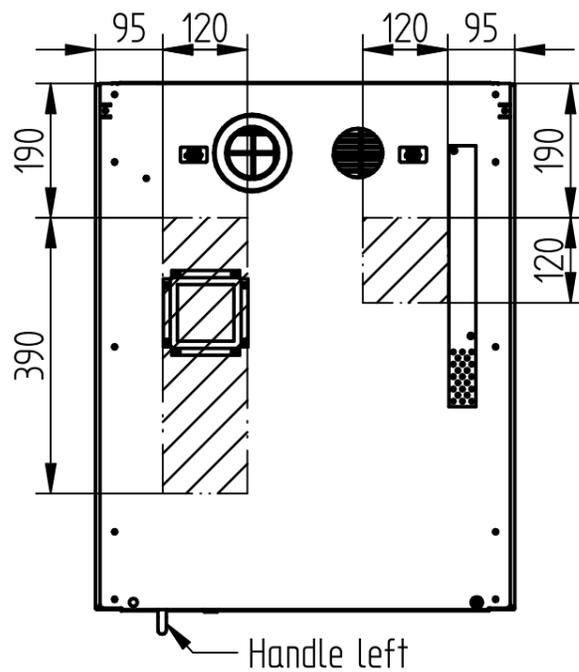


 **DÜPERTHAL**



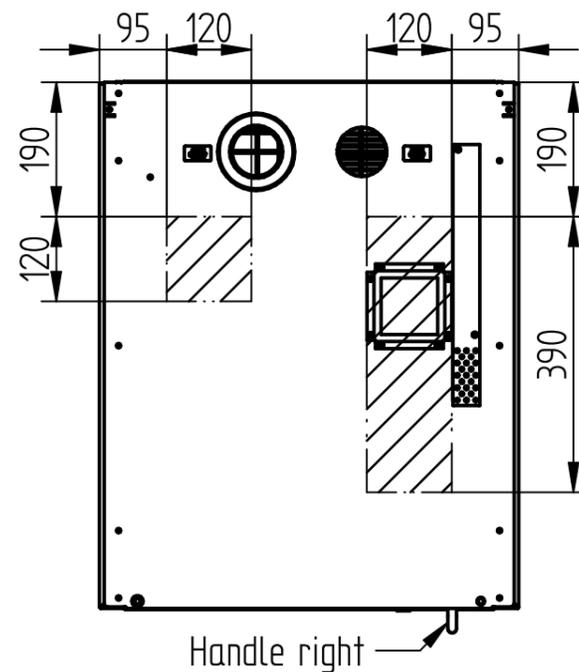
29-70000-x48  
120 x 120

Top panel (right-hung)



Handle left

Top panel (left-hung)



Handle right

 Attachment areas

Model type: standard SL  
standard ML

This drawing is our property!  
Furnish this information to other  
persons and reproduce or copy is  
not permitted without our  
written permission.

title: Installation instruction pipe penetration  
CLASSIC

drawing no.: D00078856

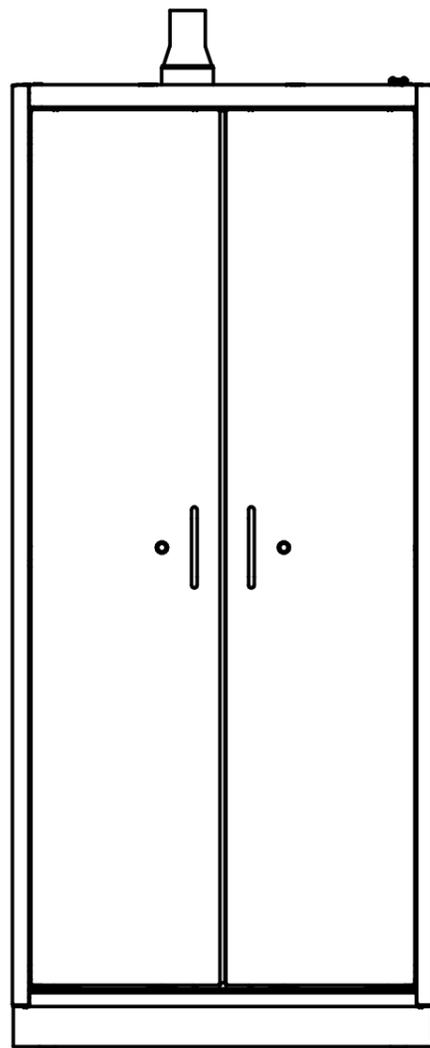
page: 3 of 8

revision: 02

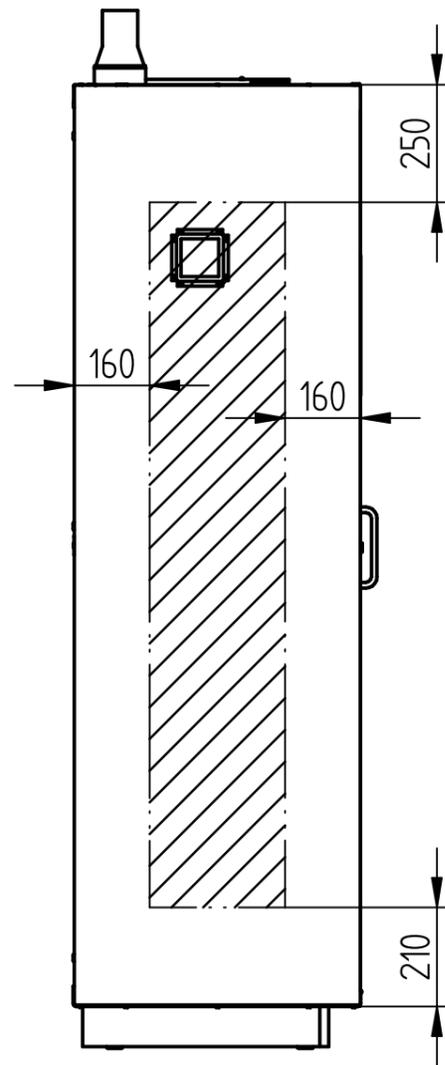
date: 2016-06-23

Düperthal Sicherheitstechnik  
Frankenstrasse 3  
D-63791 Karlstein

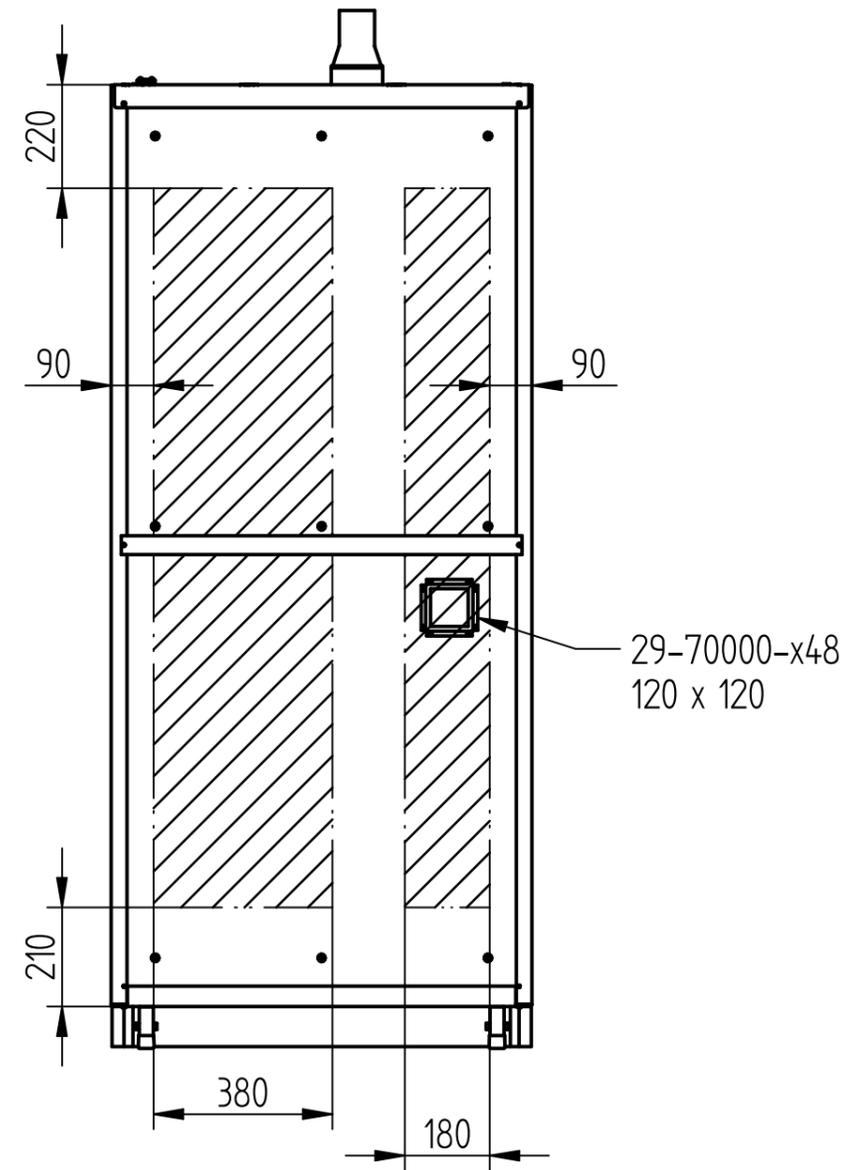
 **DÜPERTHAL**



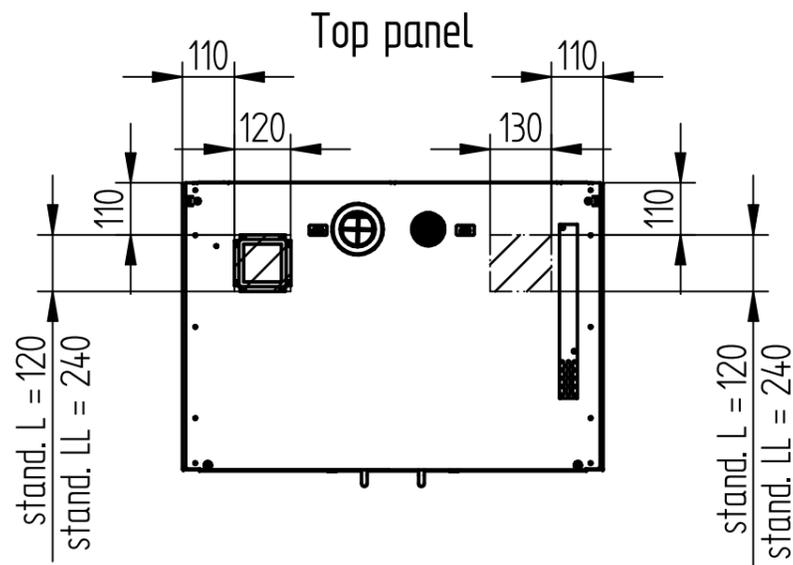
Side  
left / right



Rear panel



Top panel



 Attachment areas

Model type: standard L  
standard LL

This drawing is our property!  
Furnish this information to other  
persons and reproduce or copy is  
not permitted without our  
written permission.

title: Installation instruction pipe penetration  
CLASSIC

drawing no.: D00078856

page: 4 of 8

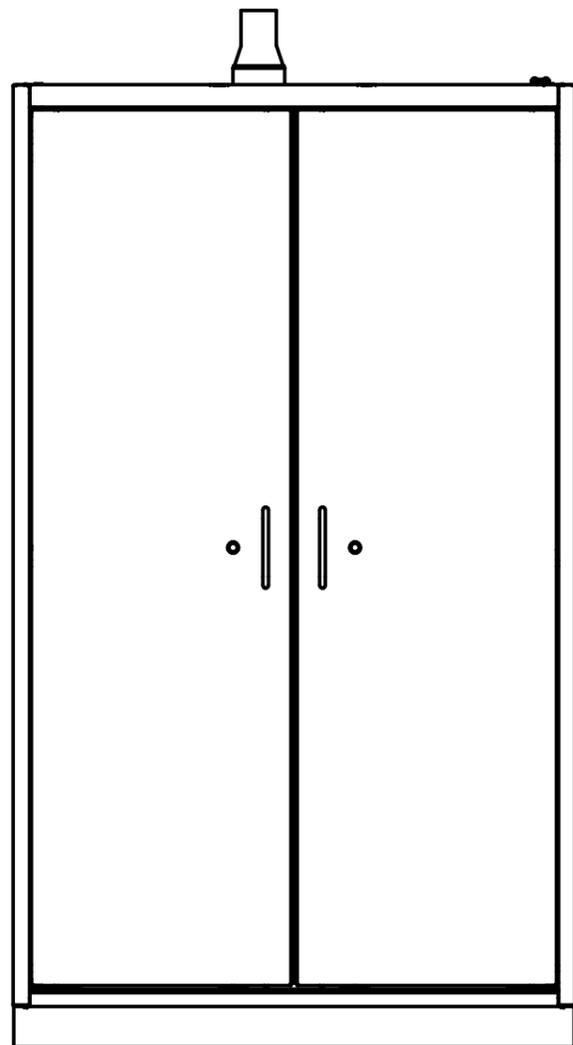
revision: 02

date: 2016-06-23

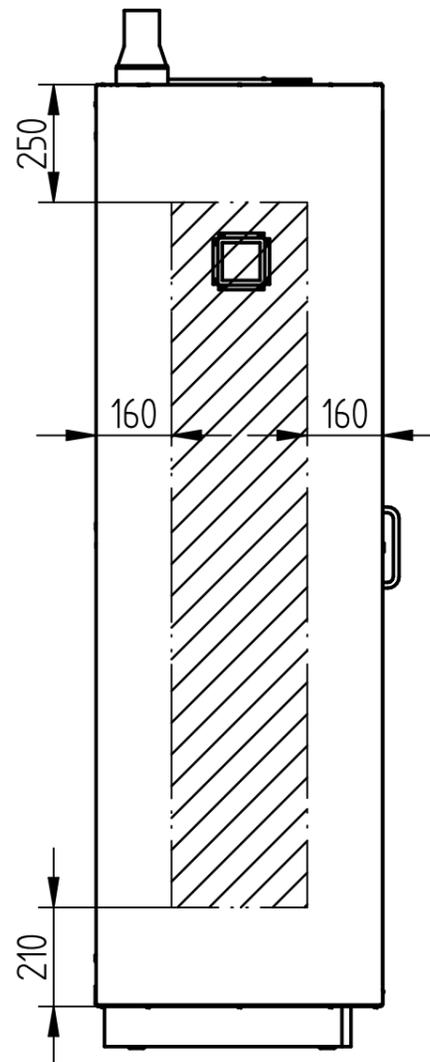
Düperthal Sicherheitstechnik  
Frankenstrasse 3  
D-63791 Karlstein

 **DÜPERTHAL**

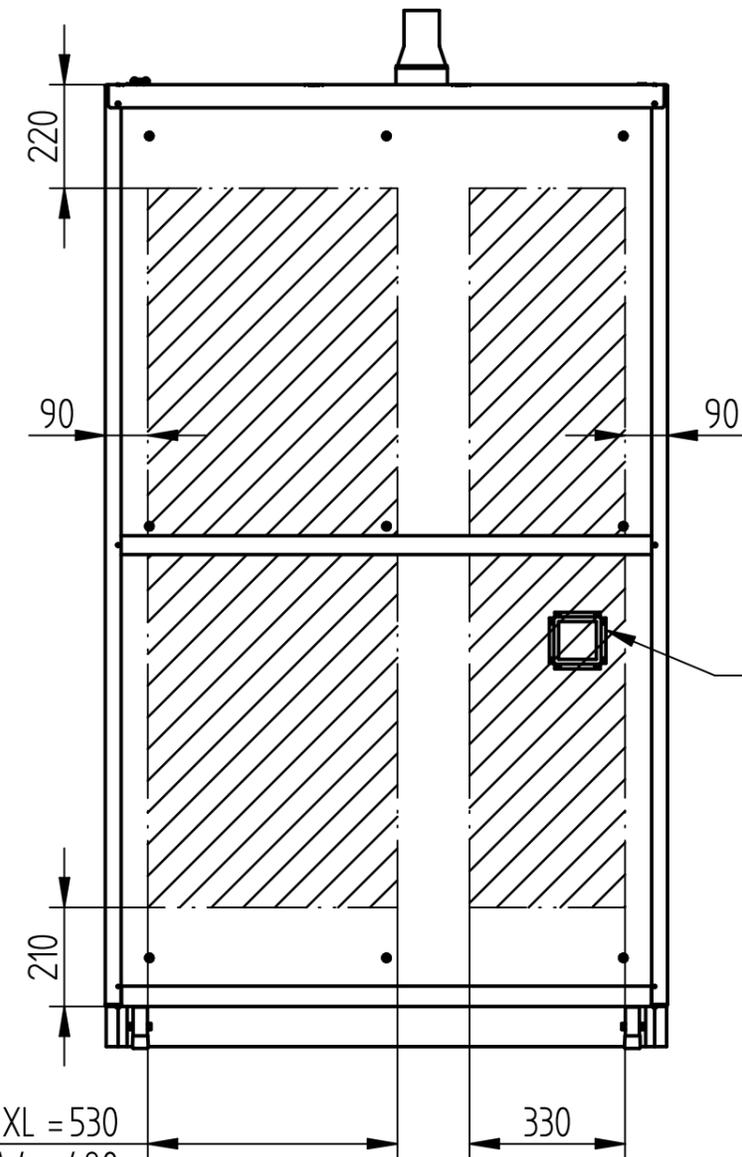




Side  
left / right

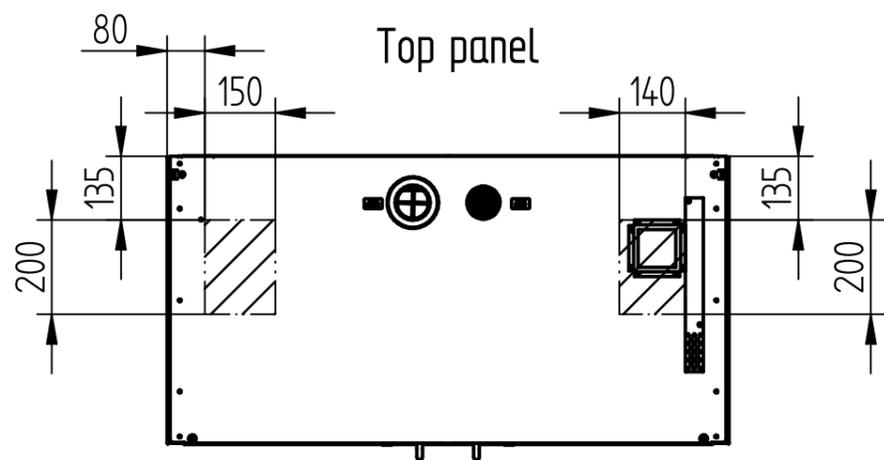


Rear panel



stand. XS, stand. XL = 530  
stand. XL CPW = 480

Top panel



 Attachment areas

Model type: standard XS  
standard XL  
standard XL centre partition wall (CPW)

This drawing is our property!  
Furnish this information to other  
persons and reproduce or copy is  
not permitted without our  
written permission.

title: Installation instruction pipe penetration  
CLASSIC

drawing no.: D00078856

page: 5 of 8

revision: 02

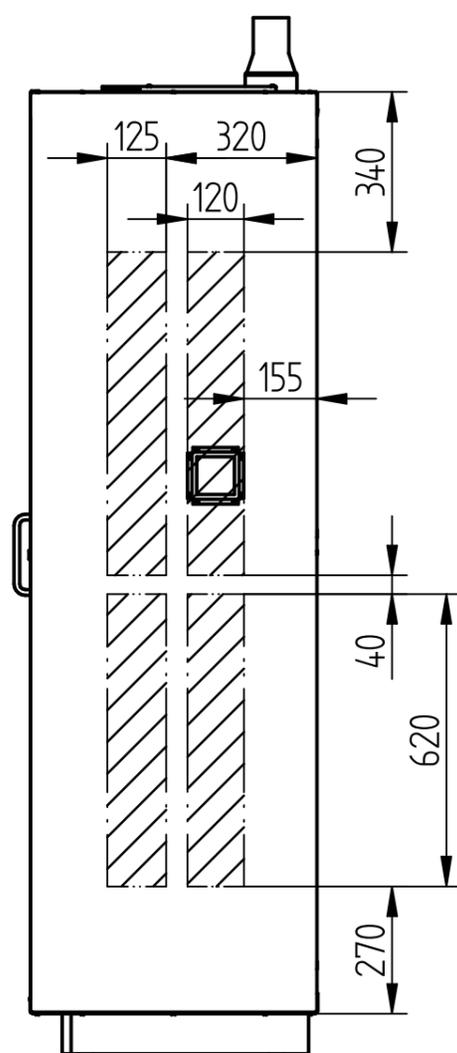
date: 2016-06-23

Düperthal Sicherheitstechnik  
Frankenstrasse 3  
D-63791 Karlstein

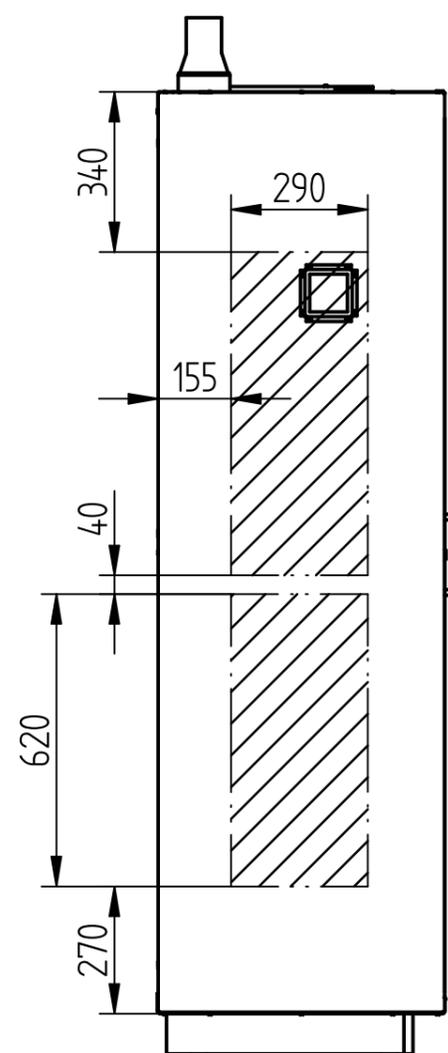
 **DÜPERTHAL**



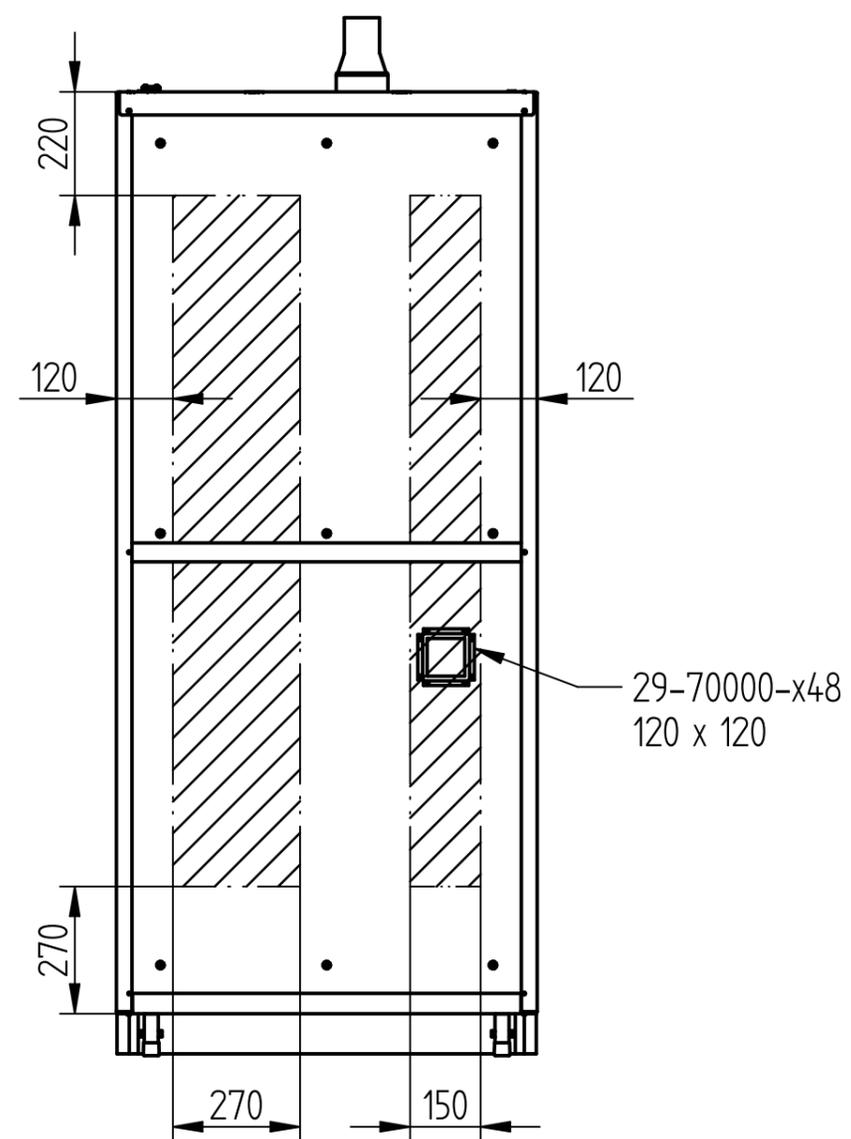
Side right



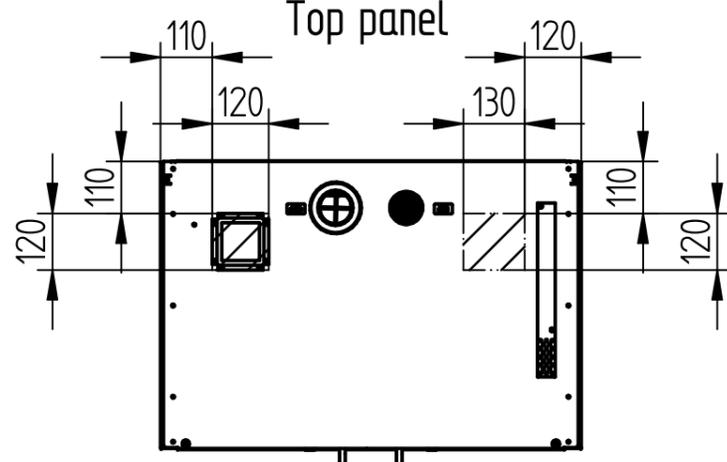
Side left



Rear panel



Top panel

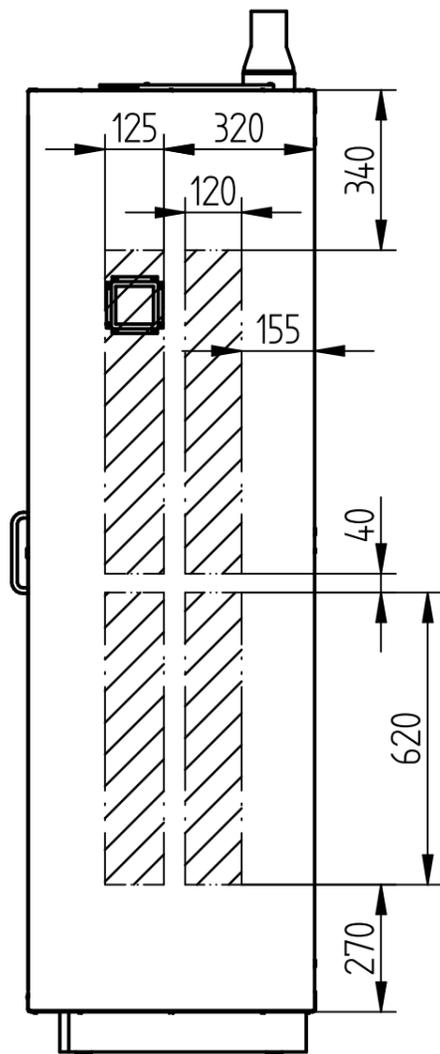


 Attachment areas

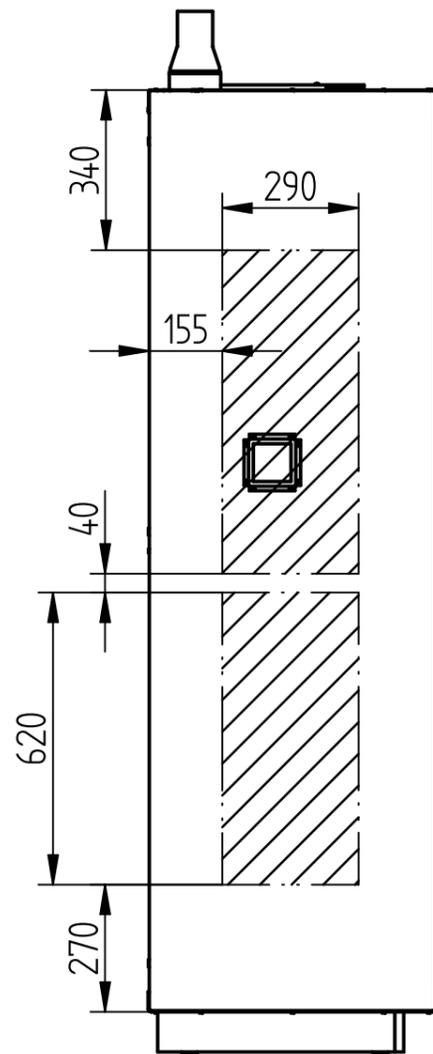
Model type: pro L

This drawing is our property! Furnish this information to other persons and reproduce or copy is not permitted without our written permission.	title: Installation instruction pipe penetration CLASSIC		
	drawing no.: D00078856	page: 6 of 8	
Düperthal Sicherheitstechnik Frankenstrasse 3 D-63791 Karlstein	revision: 02	date: 2016-06-23	
			

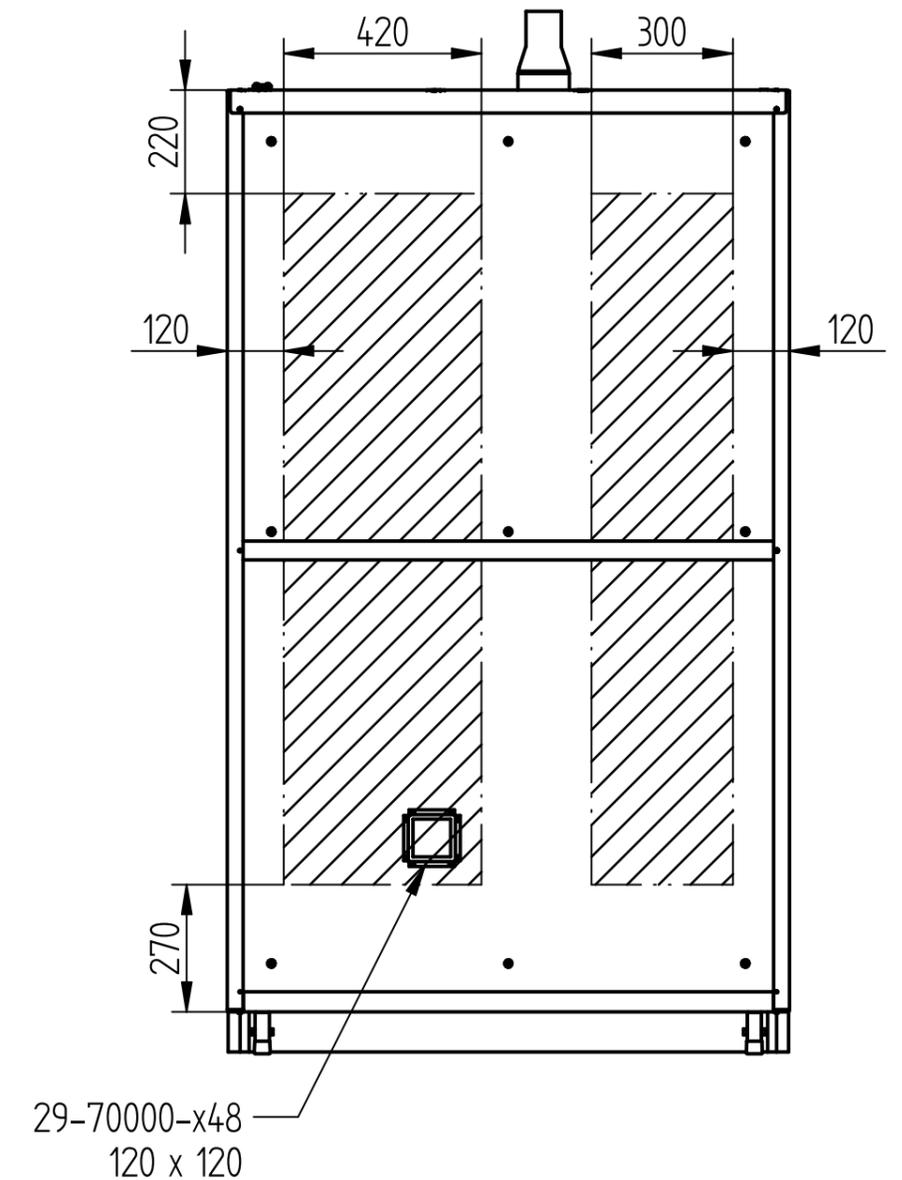
Side right



Side left



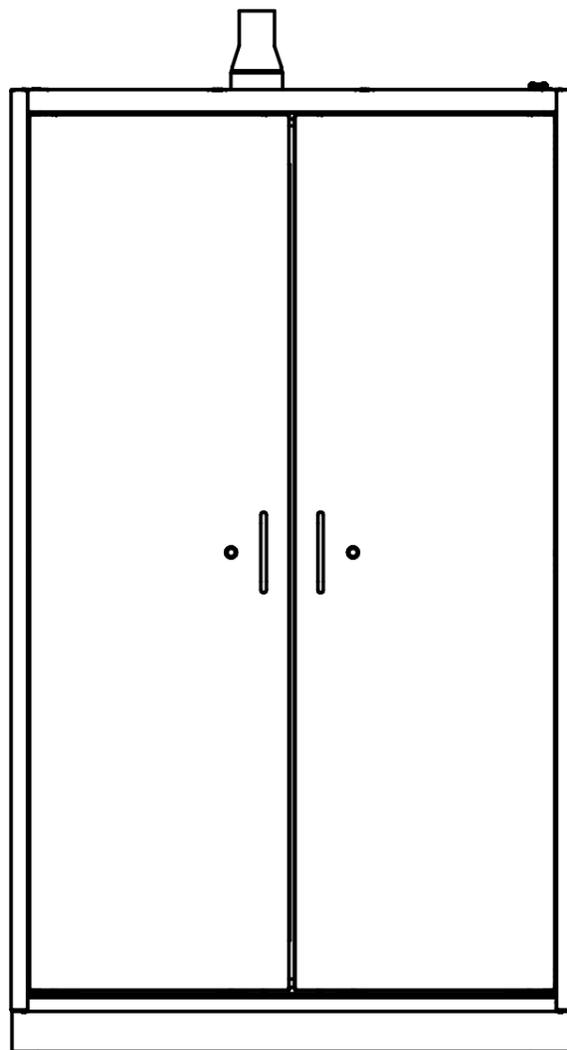
Rear panel



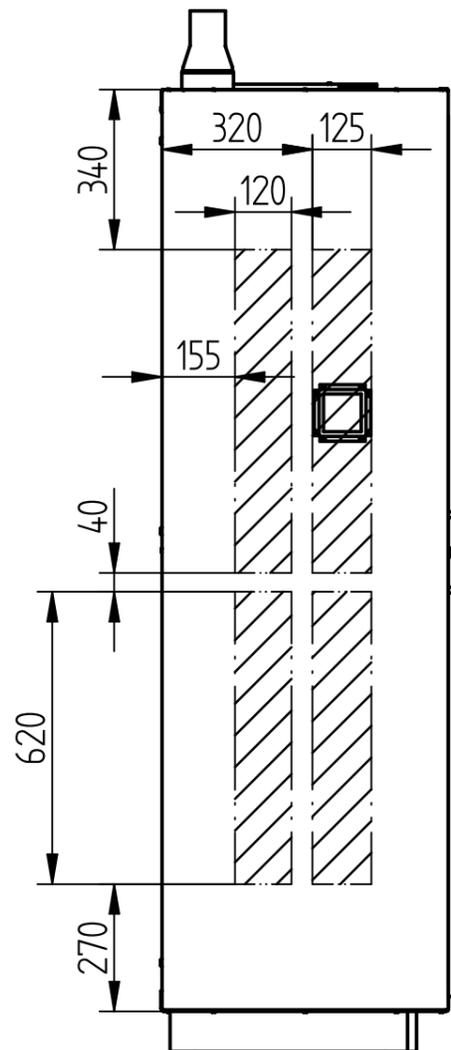
 Attachment areas

Model type: pro XL

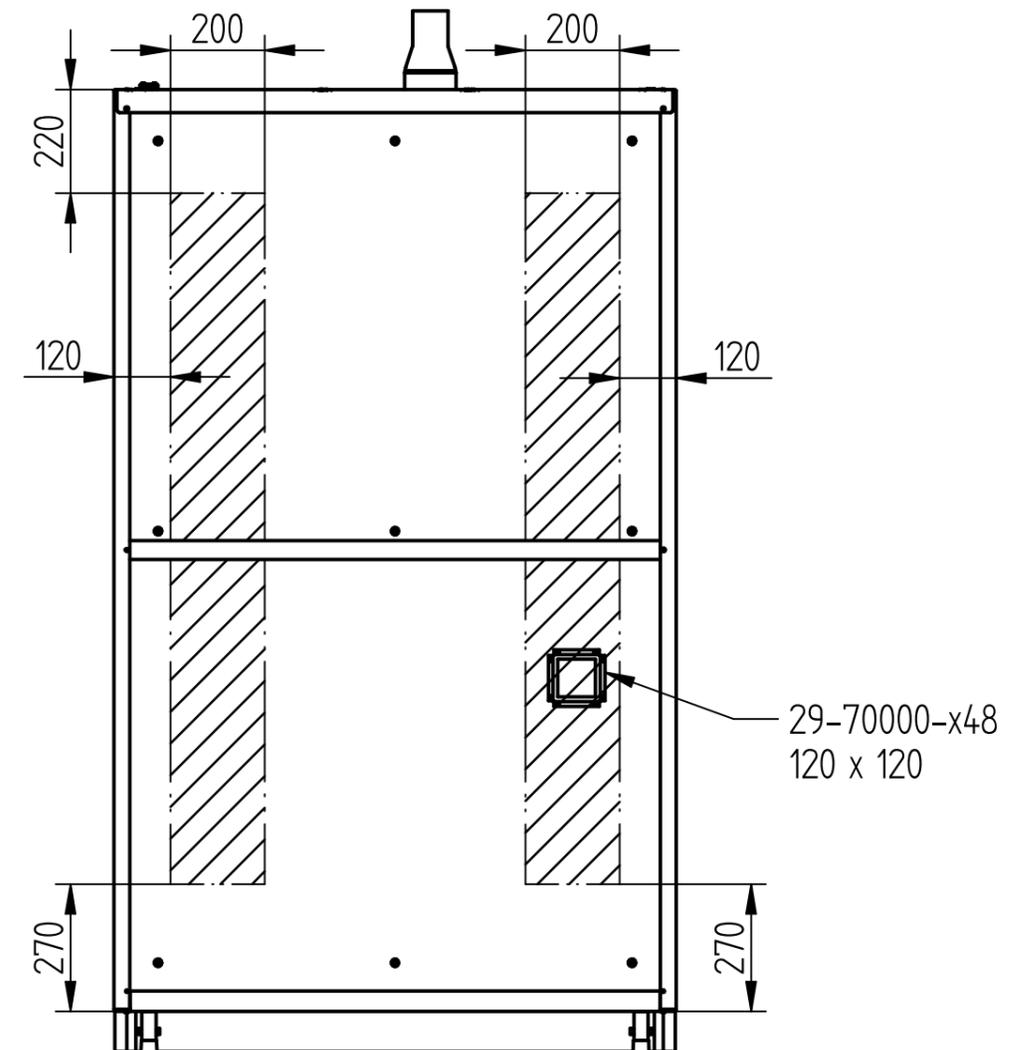
This drawing is our property! Furnish this information to other persons and reproduce or copy is not permitted without our written permission.	title: Installation instruction pipe penetration CLASSIC		
	drawing no: 000078856	page: 7 of 8	
Düperthal Sicherheitstechnik Frankenstrasse 3 D-63791 Karlstein	revision: 02	date: 2016-06-23	



Side  
left / right



Rear panel



 Attachment areas

Model type: pro XL centre partition wall

This drawing is our property! Furnish this information to other persons and reproduce or copy is not permitted without our written permission.	title: Installation instruction pipe penetration CLASSIC		
	drawing no.: D00078856	page: 8 of 8	
Düperthal Sicherheitstechnik Frankenstrasse 3 D-63791 Karlstein	revision: 02	date: 2016-06-23	
			