

OPERATION WHEN DIRECTLY CONNECTED TO CHIMNEY	HAKA 89/45 Wh	HAKA 89/45 Wh+
Tested according to	EN 13229	EN 13229
Nominal heat power / Power absorbed to water	14 / 10,2 kW	22 / 15,1 kW
Efficiency	> 80 %	> 80 %
Consumption of wood	3,7 kg/h	6 kg/h
Mass flow of flue gas	10,6 g/s	17 g/s
<b>Average flue gas temperature</b> on the output	214 °C	240 °C
<b>Heat distribution</b>		
fireplace insert	9 %	11 %
door glass (single / double)	- / 19 %	- / 21 %
water	72 %	68 %
Required chimney pressure	12 Pa	12 Pa
Required amount of combustion air	40 m <sup>3</sup> /h	60 m <sup>3</sup> /h
Minimum supply air grating cross-section	300 cm <sup>2</sup>	500 cm <sup>2</sup>
Minimum outgoing air grating cross-section	350 cm <sup>2</sup>	600 cm <sup>2</sup>

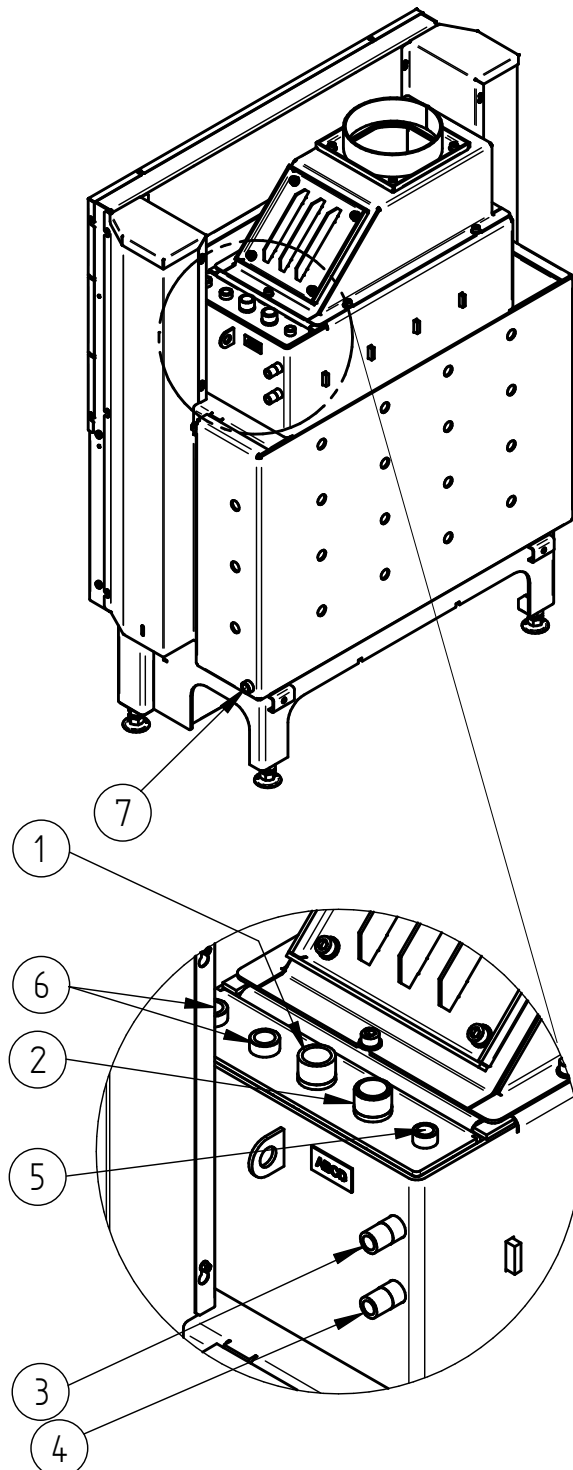
WATER EXCHANGER SPECIFICATIONS		
Maximum working pressure	2,5 bar	2,5 bar
Minimum return water temperature	55 °C	55 °C
Water capacity	56 liter	56 liter
Connection input / output	G 1 / G 1	G 1 / G 1

GENERAL TECHNICAL INFORMATION		
Combustion air connection	Ø 125 mm	Ø 150 mm
Total weight / lining weight	ca. 435 / 120 kg	ca. 435 / 120 kg
Use in non-ventilated accumulation builds according to craft rules	suitable	
Meets values	BlmSchV (Stufe2), 15a BVG	

# HAKA 89/45Wh, 89/45Wh+

Technical data  
Version 01/2018

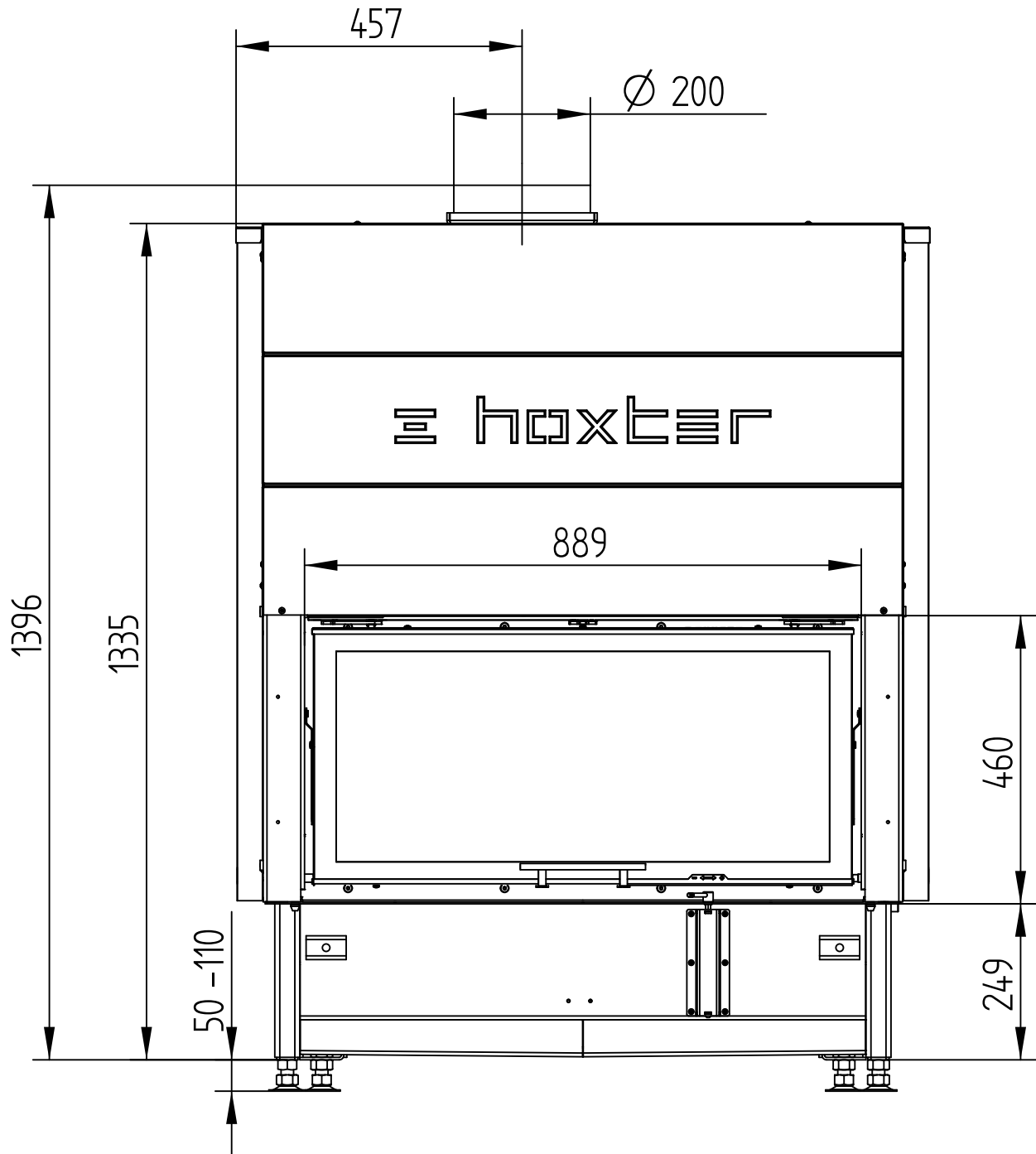
NR.	THREAD SIZE	DESCRIPTION
1	G 1" (AG)	Water supply from heating system - min. 55°C
2	G 1" (AG)	Hot water supply to heating system
3	G 1/2" (AG)	Water supply from the waterlines into the cooling loop
4	G 1/2" (AG)	Discharge of water from the cooling loop into the waste
5	G 3/8" (IG)	Pocket for air vent valve
6	G 1/2" (IG)	Pocket for thermal sensors
7	G 1/2" (IG)	Discharge valve



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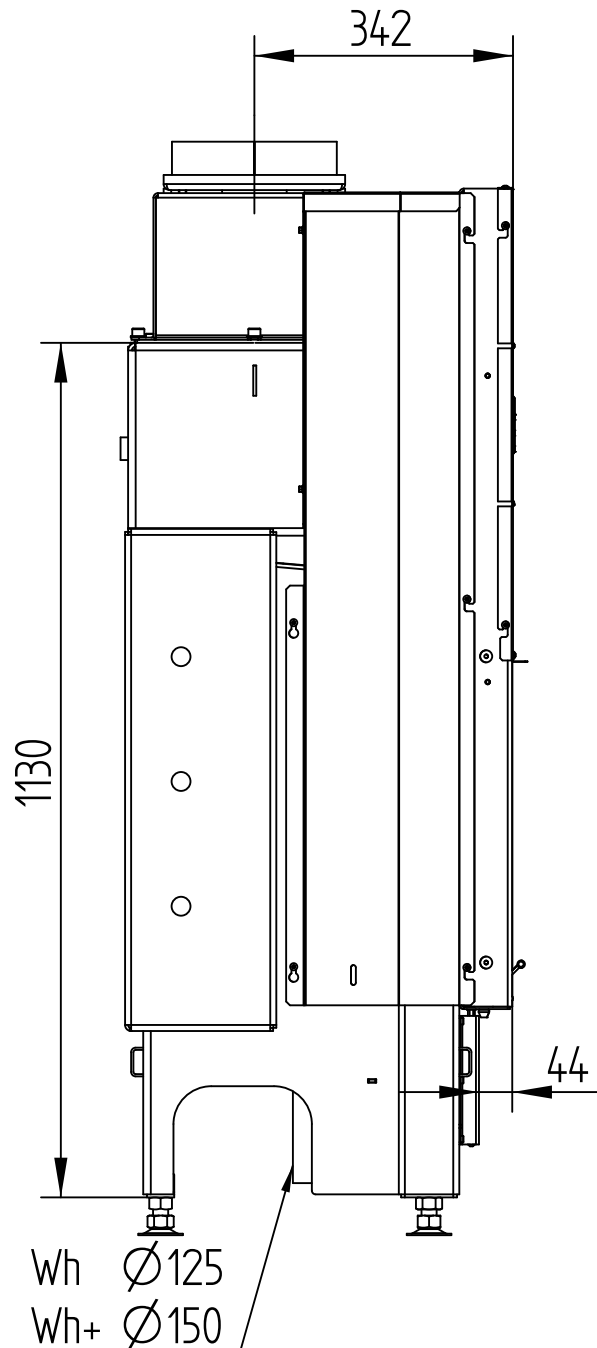
M 1 : 10



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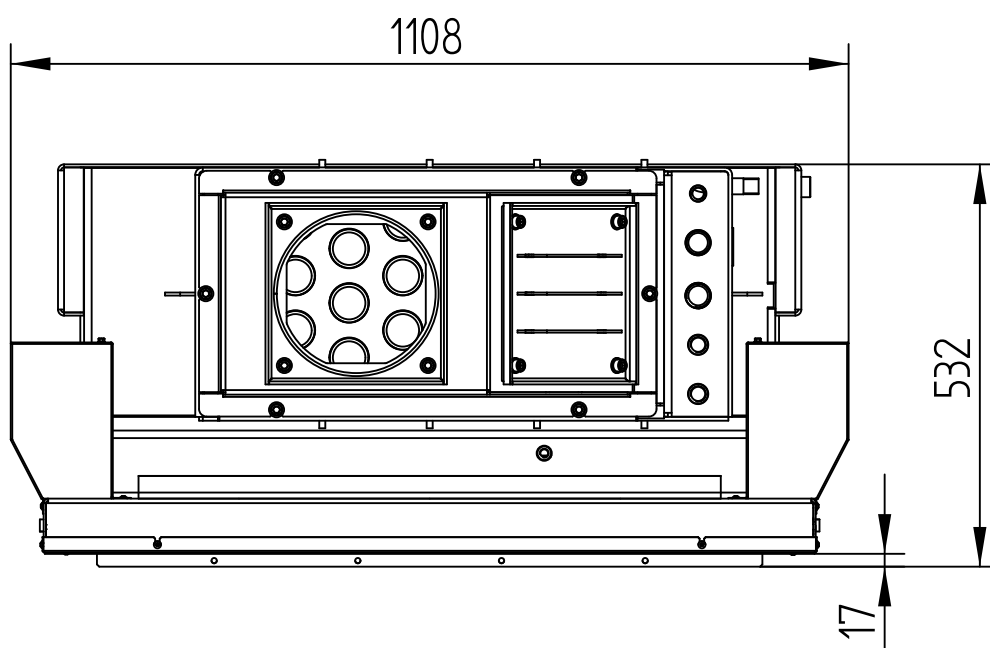
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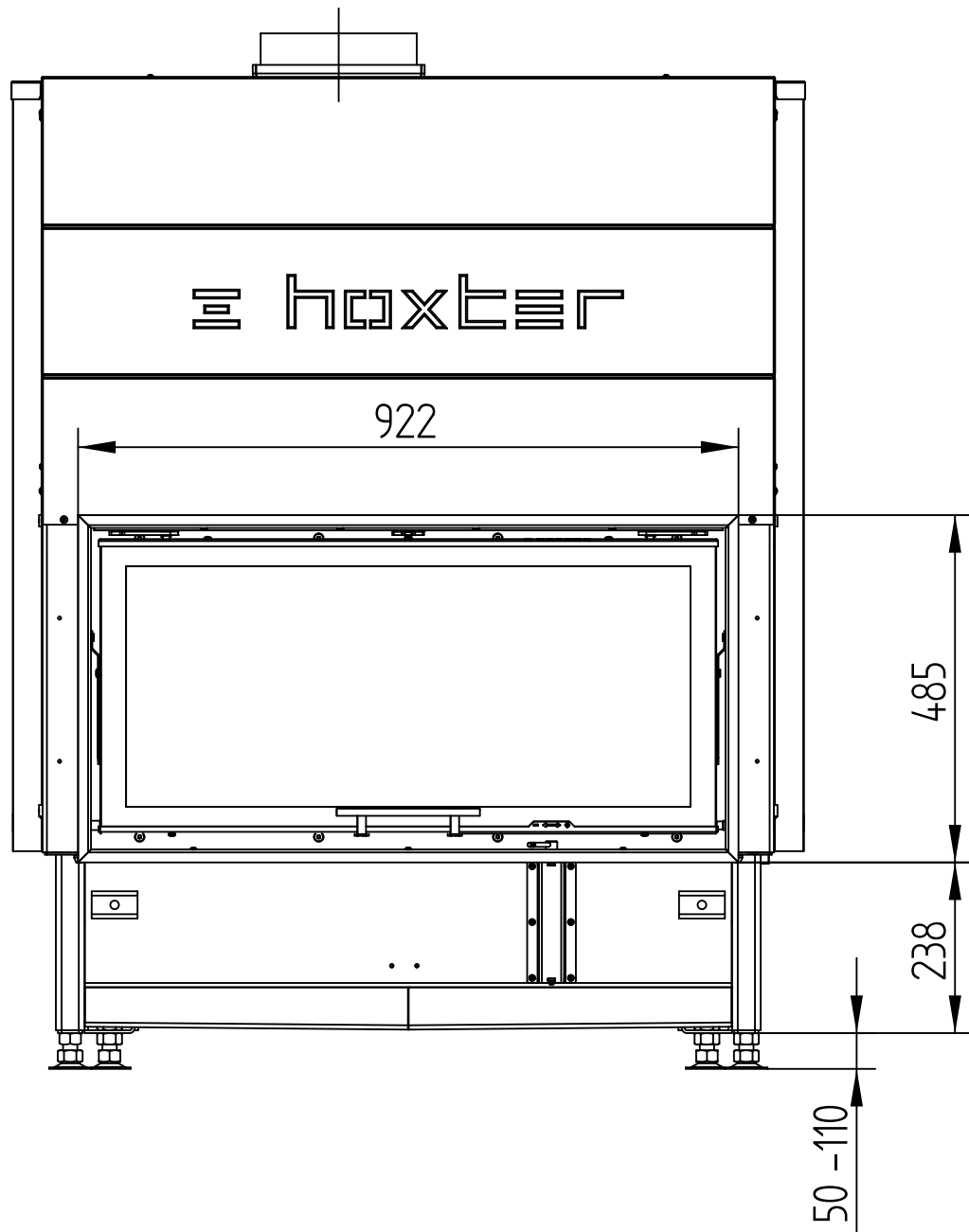


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COVER FRAME 4-SIDED 1 x 90°, 50 mm

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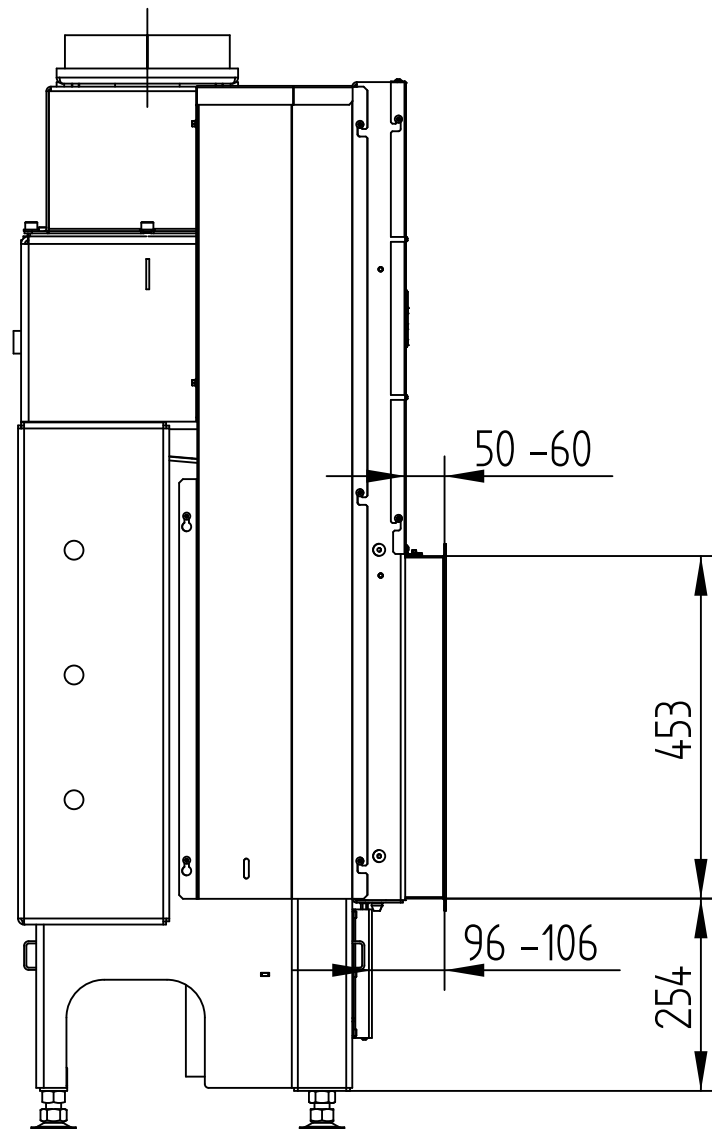


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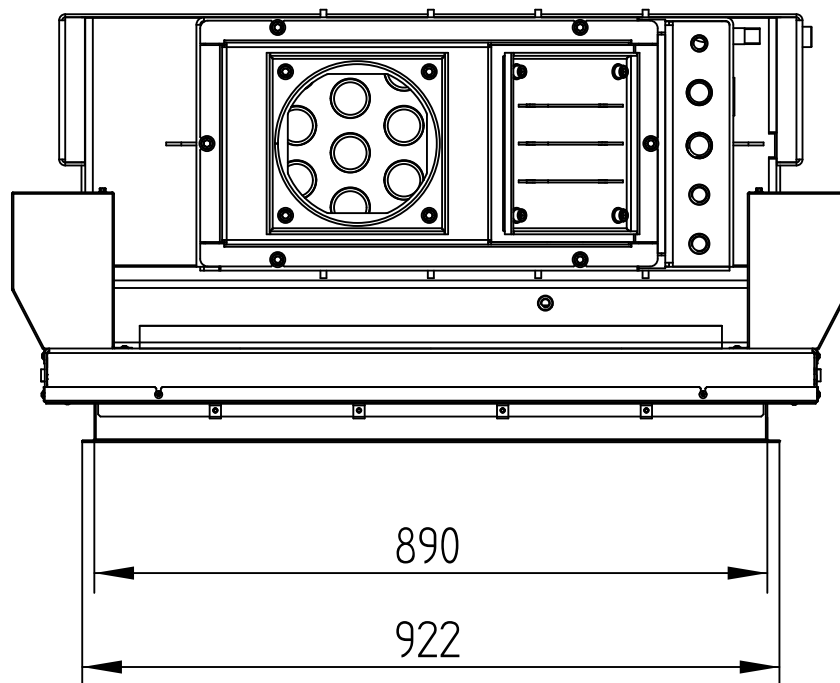


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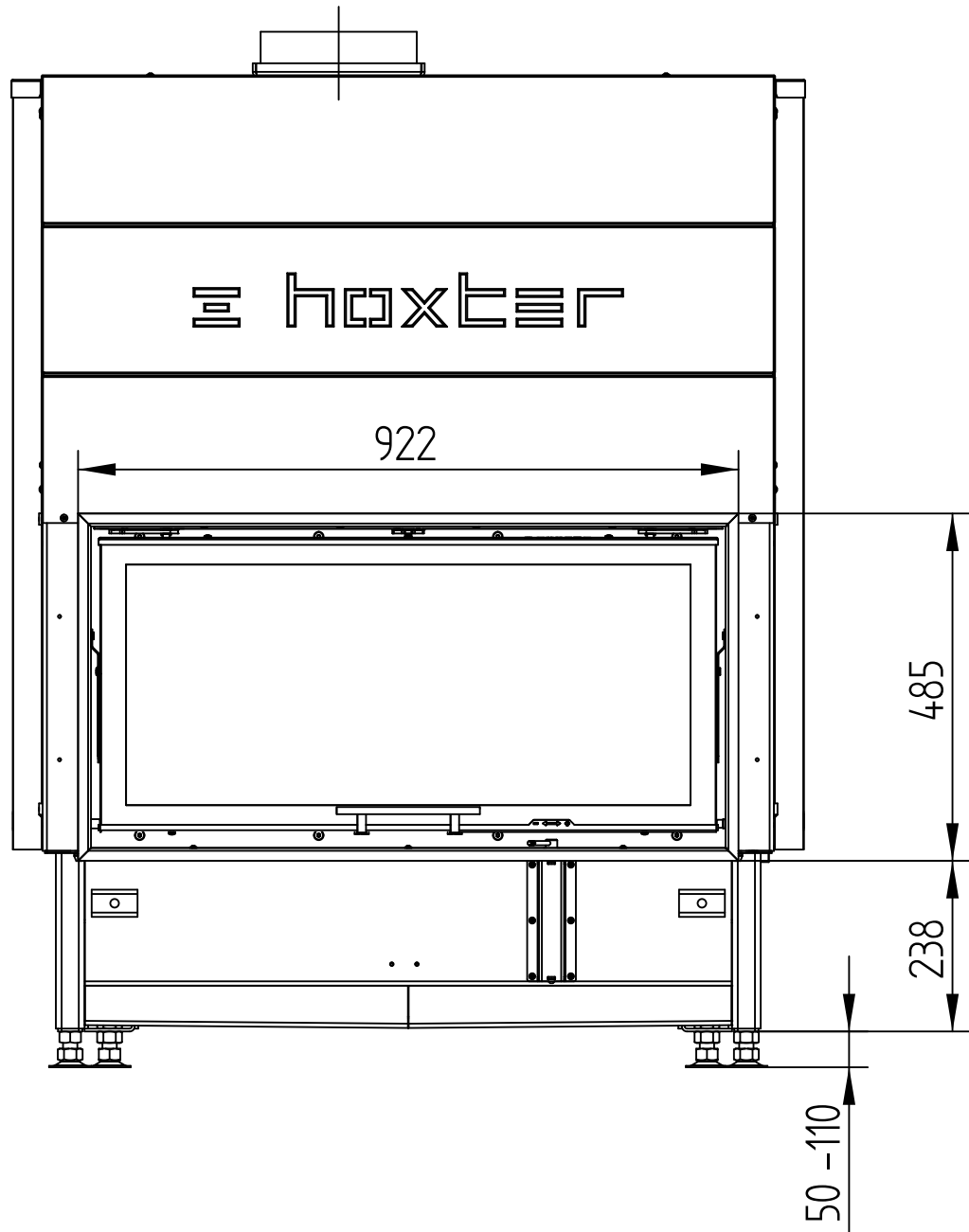


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COVER FRAME 4-SIDED 1 x 90°, 80 mm

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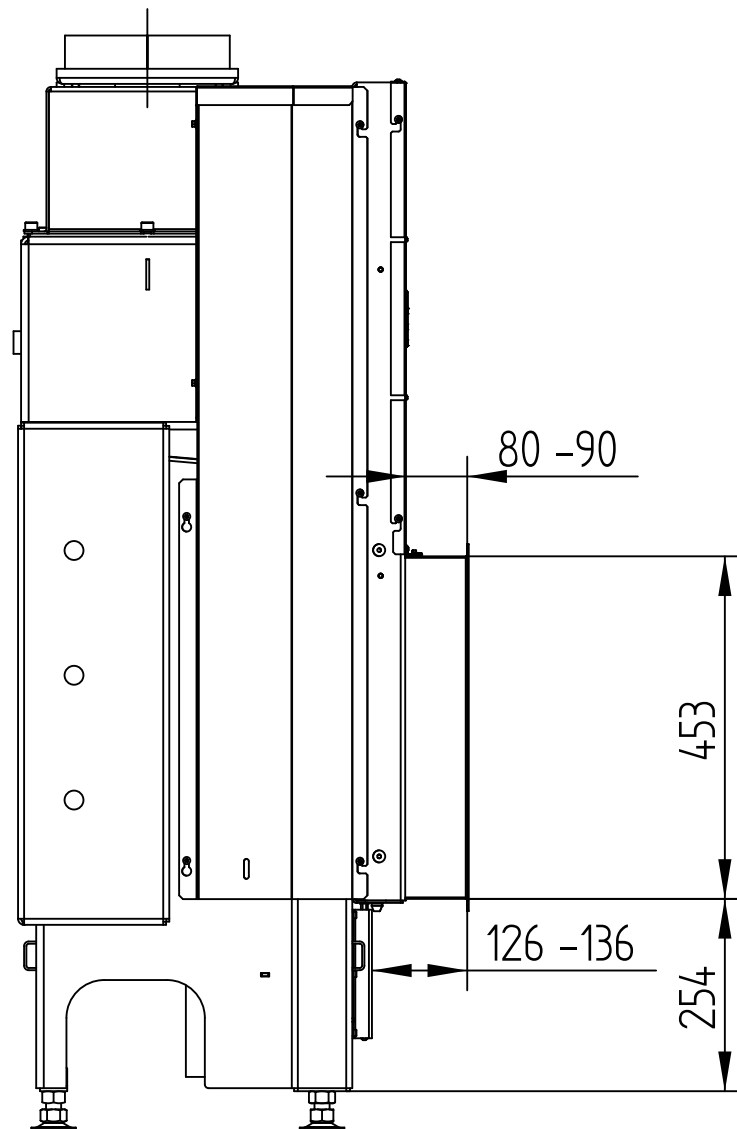


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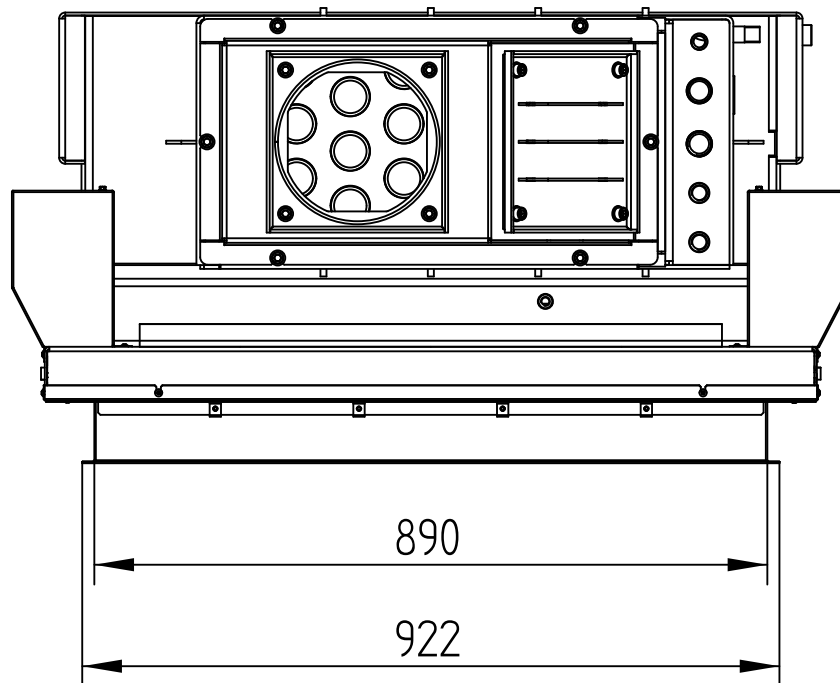


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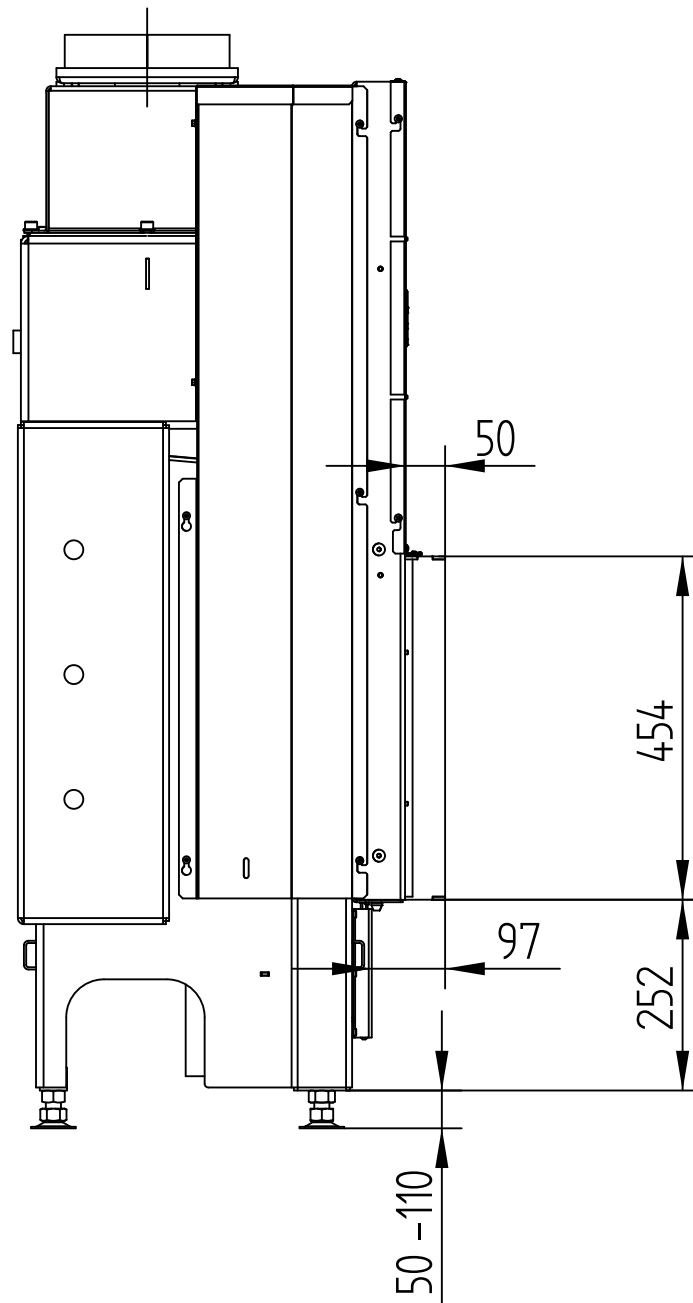


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BUILD-ON FRAME 4-SIDED, 50 mm

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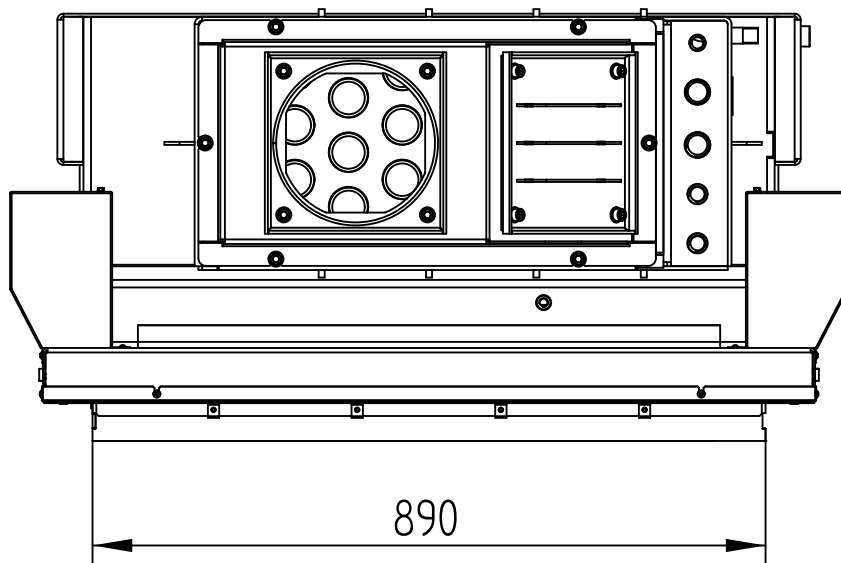


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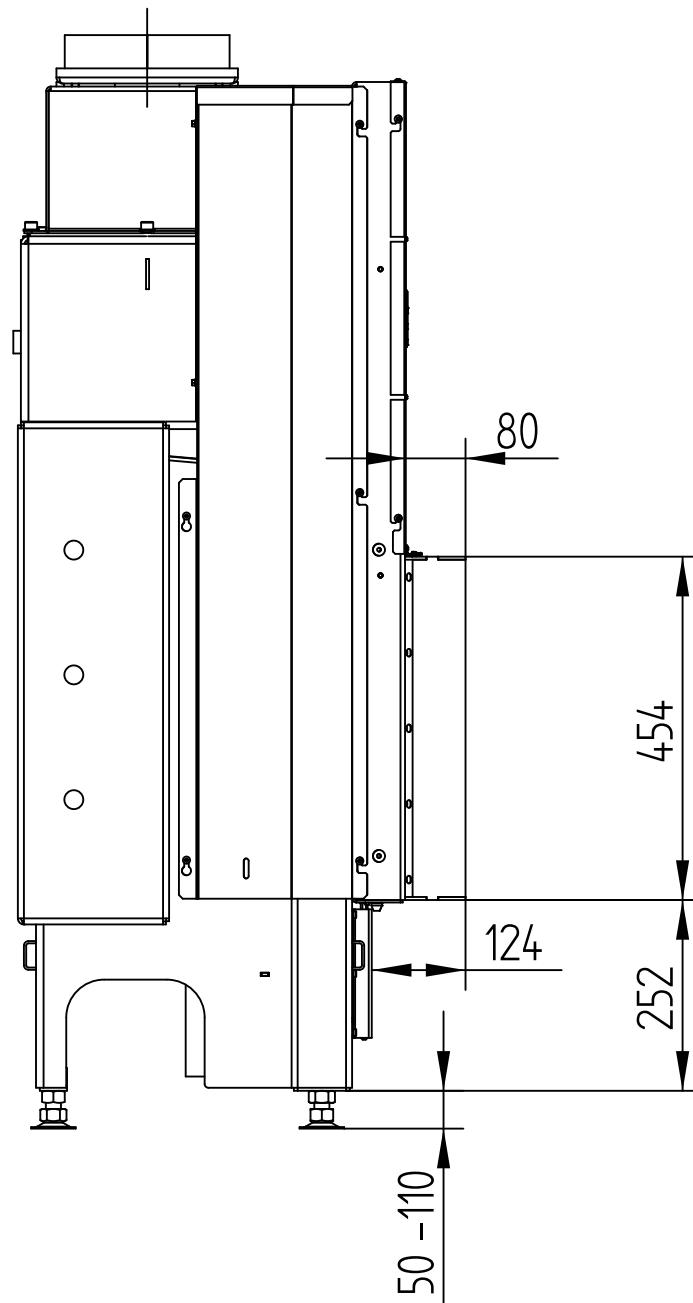


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BUILD-ON FRAME 4-SIDED, 80 mm

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M 1 : 10

