

	operation when directly connected to chimney		operation when connected accumulation mass	
	cupola	hot air exchanger	cupola	adaptor
Energy label				
Operating data				
Nominal heat power	9 kW	12 kW	----	----
Efficiency	> 80 %	> 80 %	----	----
Consumption of wood	2,5 kg/h	3,6 kg/h	5,5 kg	5,5 kg
Total heat output of the burning chamber	----	----	22 kW	22 kW
Mass flow of flue gas	8 g/s	10 g/s	20 g/s	20 g/s
Required chimney pressure	12 Pa	12 Pa	12 Pa	15 Pa
Required amount of combustion air	20 m³/h	40 m³/h	60 m³/h	60 m³/h
Average flue gas temperature				
on the output	270 °C	334 °C	396 °C	410 °C
past 3,6 m of ceramic accumulation system KMS 300 ¹	----	----	190 °C	----
past accumulation rings (5x acc. ring Ø440mm)	----	----	----	240 °C
Heat distribution				
fireplace insert	62–81 %	62–81 %	45 %	40 %
door glass (single / double)	38 / 19 %	38 / 19 %	38 / 19 %	38 / 19 %
adjoining accumulation mass	----	----	17–36 %	22–41 %
Information for ventilated builds				
Minimal grill area supply / outgoing	900 / 1050 cm²	1200 / 1400 cm²	1200 / 1400 cm²	1200 / 1400 cm²
Minimum distance from insulated areas / floor	80 / 0 mm		80 / 0 mm	
Reference insulation ² ceiling / back wall / side wall / floor	120 / 80 / 80 / 0 mm		120 / 80 / 80 / 0 mm	
Calciumsilicate insulation ³ ceiling / back wall / side wall / floor	90 / 60 / 60 / 0 mm		90 / 60 / 60 / 0 mm	
Information for non-ventilated builds (closed grills)				
Minimum radiant area ⁴	3,5 m²		5 m²	
Minimum distance from insulated areas / floor	80 / 20 mm		80 / 20 mm	
Reference insulation ² ceiling / back wall / side wall / floor	160 / 100 / 100 / 20 mm		160 / 100 / 100 / 20 mm	
Calciumsilicate insulation ³ ceiling / back wall / side wall / floor	120 / 75 / 75 / 20 mm		120 / 75 / 75 / 20 mm	
General technical information				
Total weight / lining weight	ca. 355 / 110 kg		ca. 355 / 110 kg	
Burning chamber dimensions (width x depth)	810 x 315 mm			
Combustion air connection	Ø 125 mm			
Use in non-ventilated accumulation builds according to craft rules	suitable			
Tested according to	EN 13229			
Meets values	1. BImSchV (Stufe2), 15a BVG			

¹ Listed value from testing. For accurate results is evaluation of each system in the Ortnr / KOV program necessary.

² Mineral wool according to AGI-Q 132

³ Example SkamoEnclosure Board 225 kg/m³

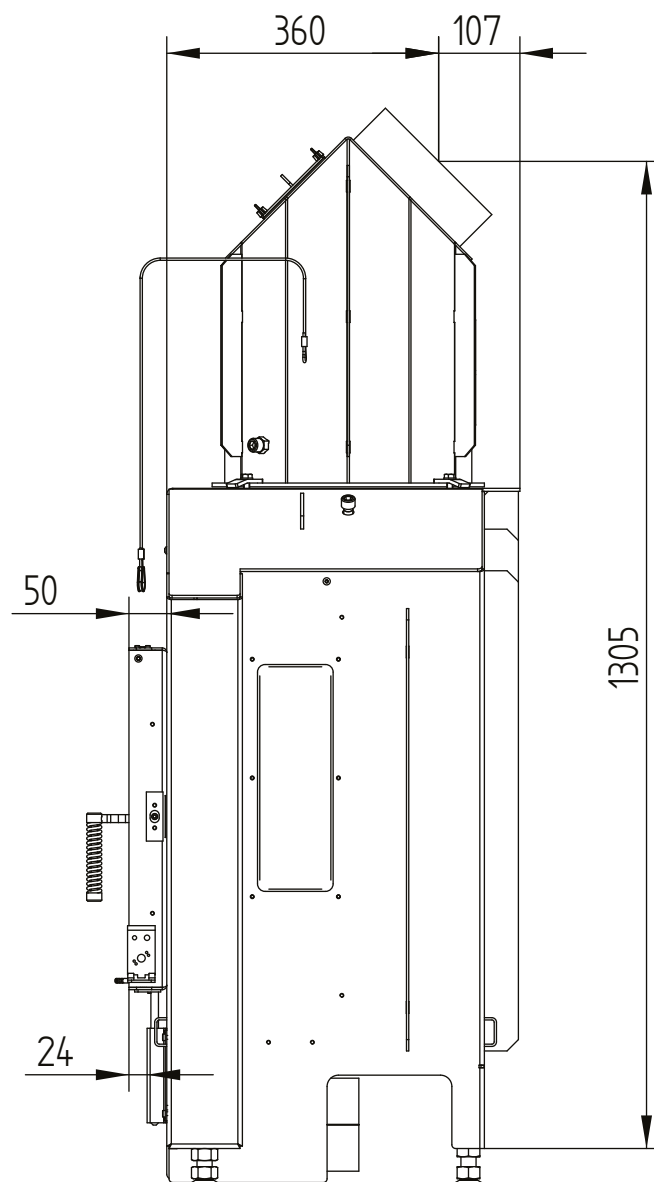
⁴ Depends on accumulation period and material characteristics. Listed values calculated with chamotte stone thickness 30 mm with radiant area 500 W/m²

HAKA 89/45

hot air exchanger 45°

Technical data
Version 2019/08

M 1:10

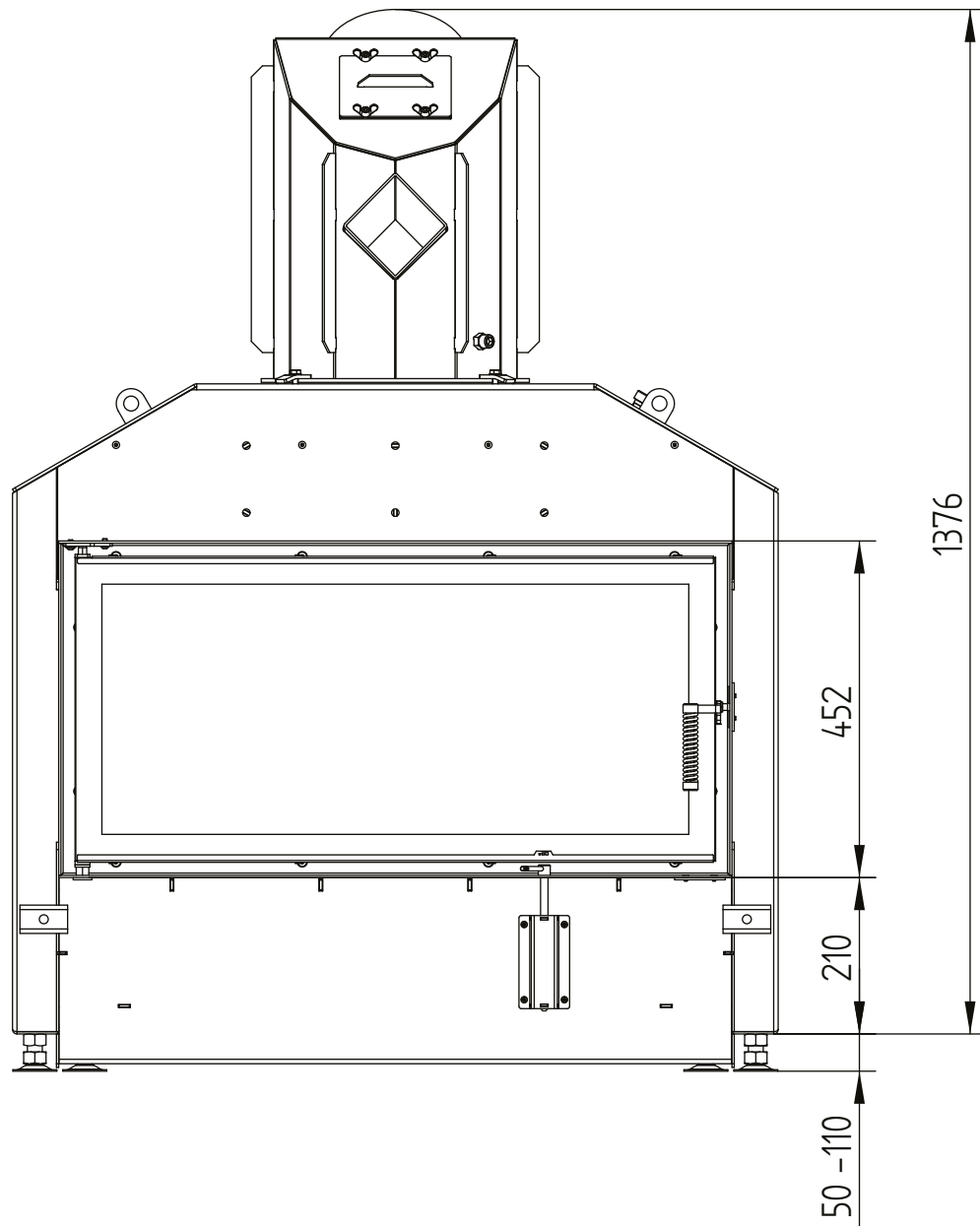


HAKA 89/45

Technical data
Version 2019/08

hot air exchanger 45°

M 1:10

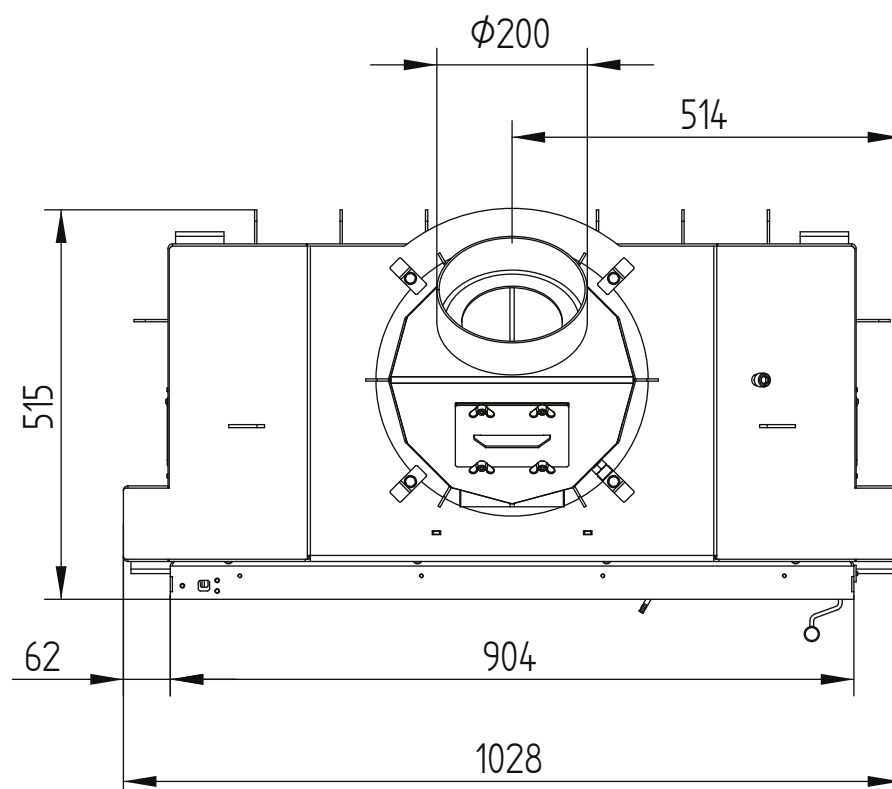


HAKA 89/45

Technical data
Version 2019/08

hot air exchanger 45°

M 1:10

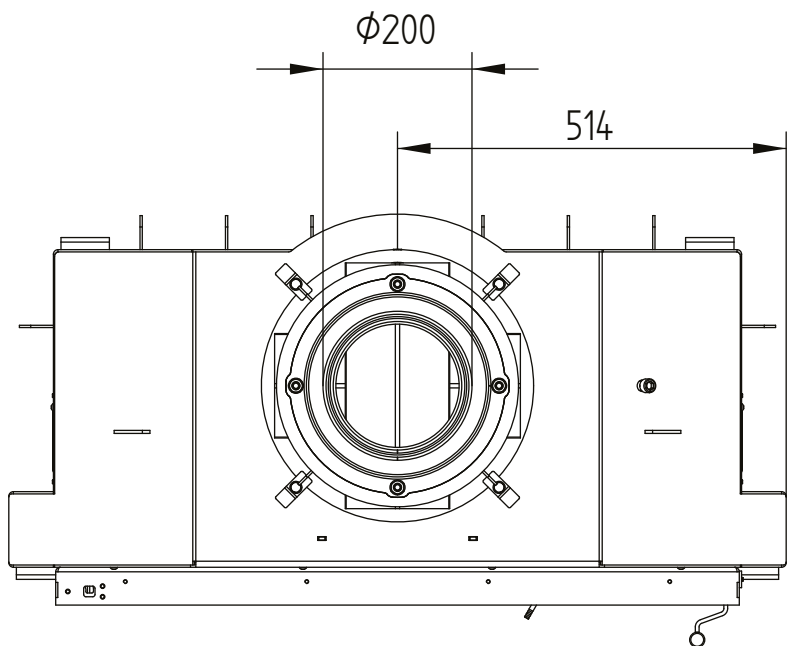
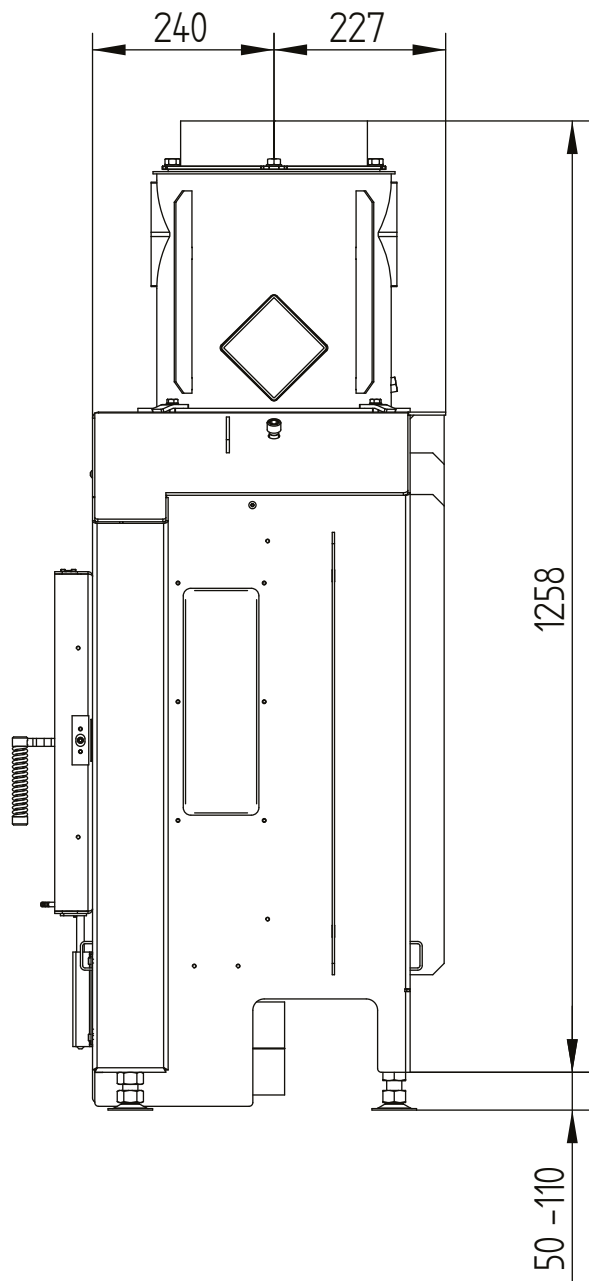


HAKA 89/45

hot air exchanger vertical

Technical data
Version 2019/08

M 1:10

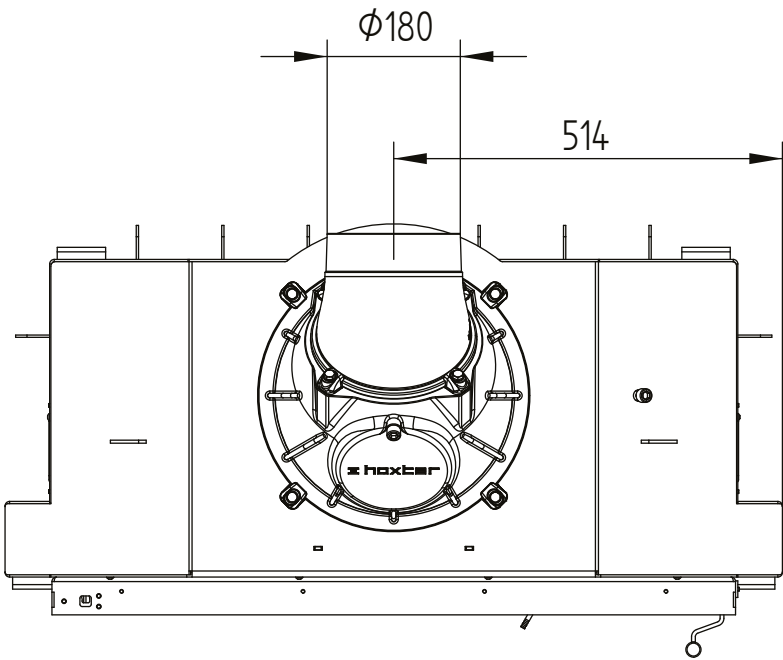
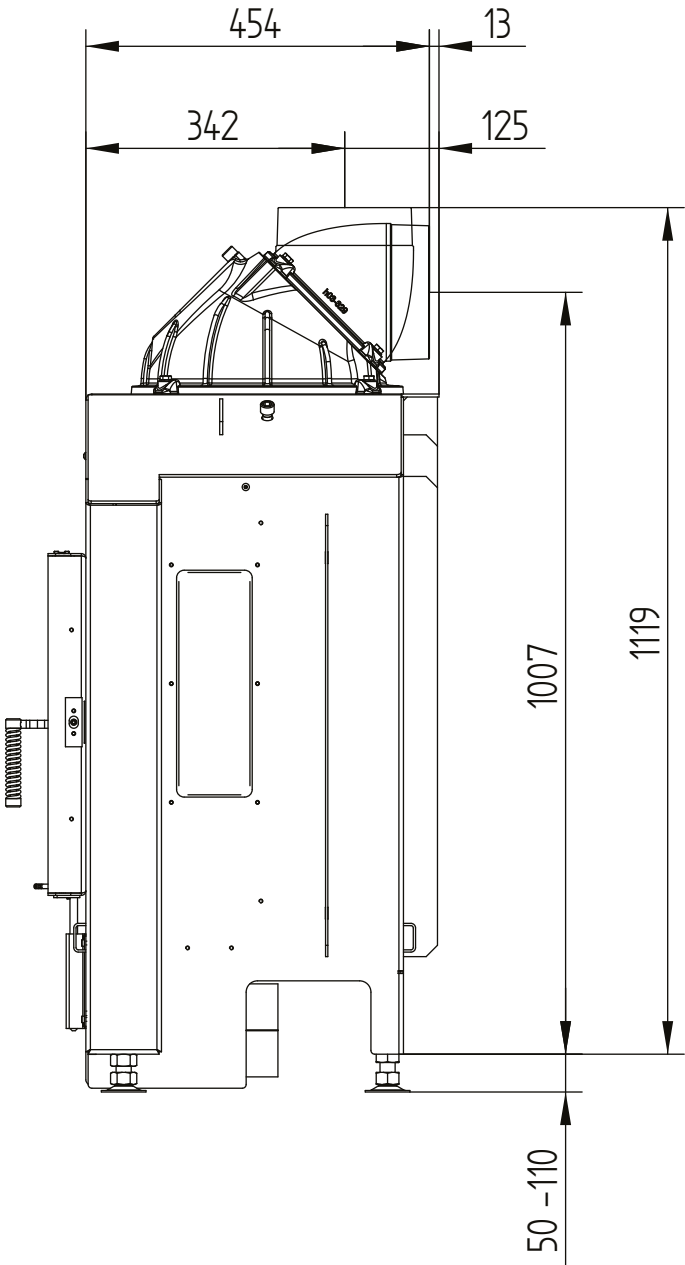


HAKA 89/45

Technical data
Version 2019/08

cupola

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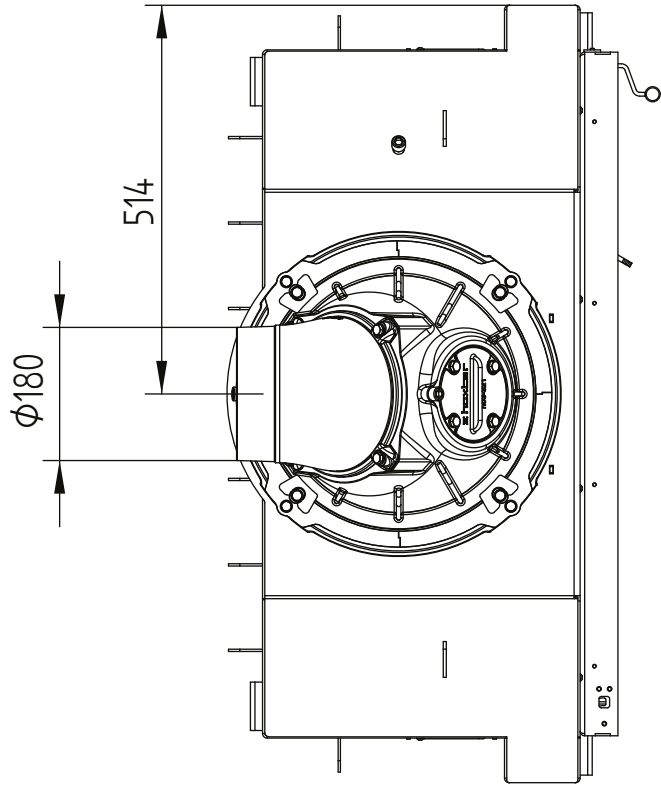
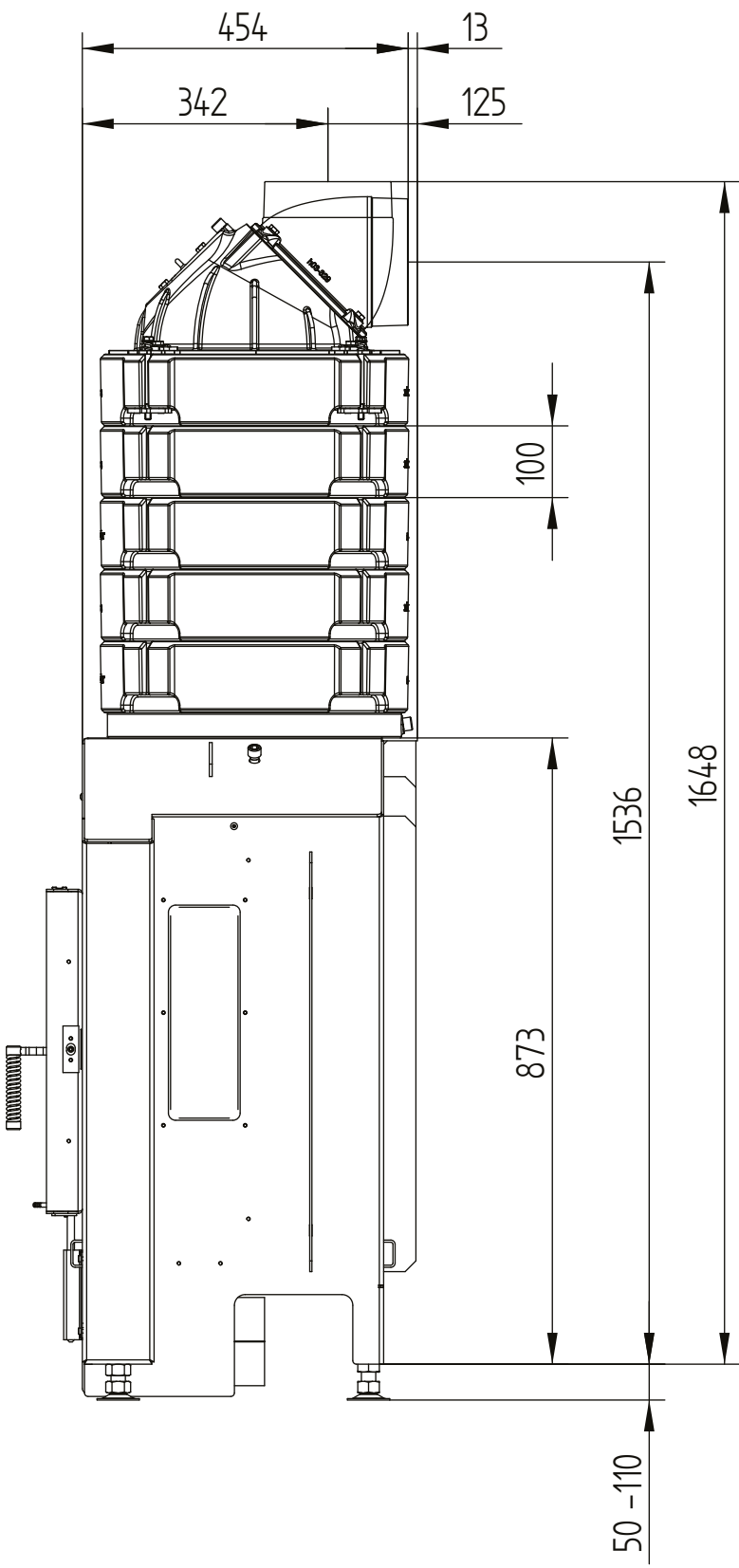


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Technical data
Version 2019/08

accumulation rings

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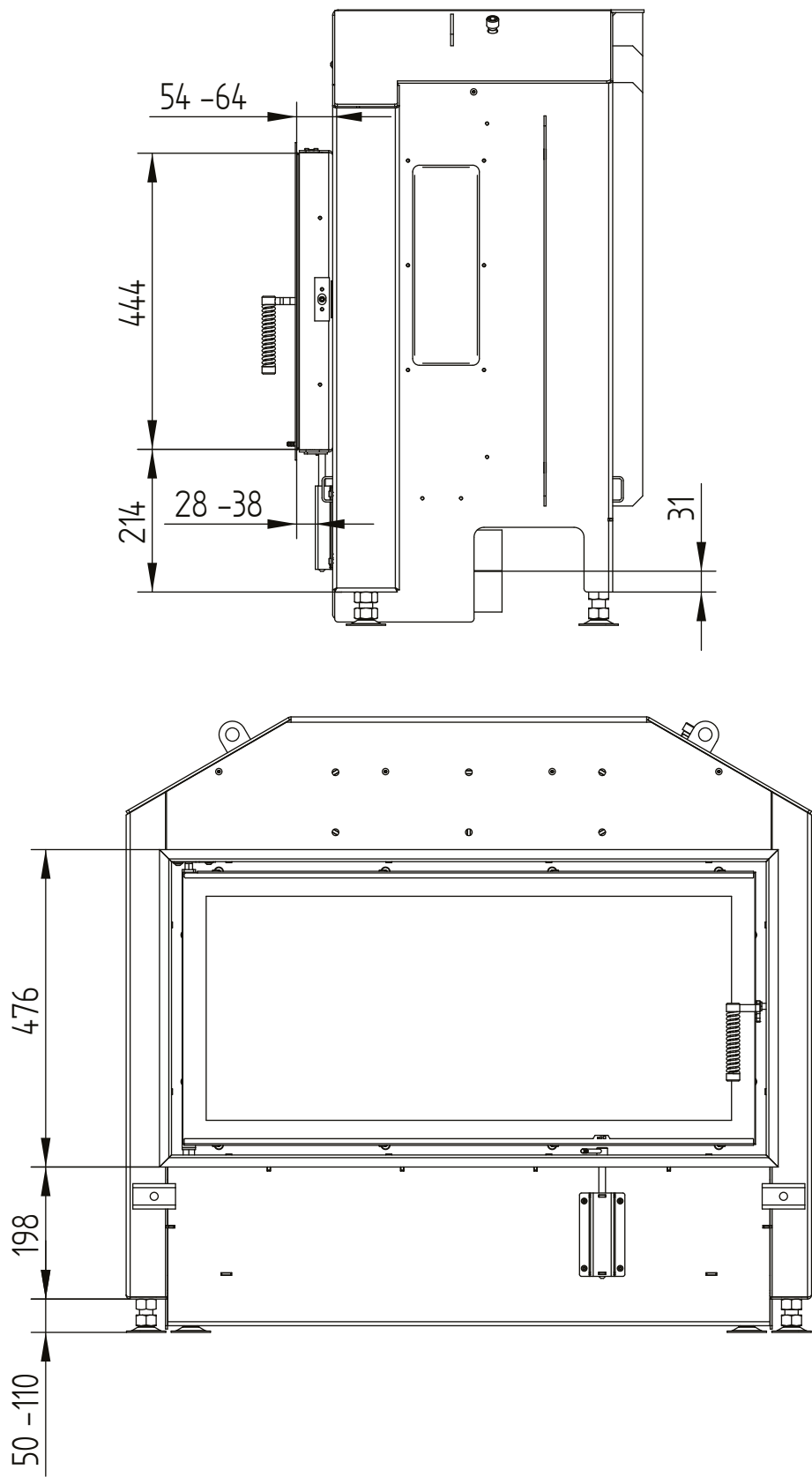


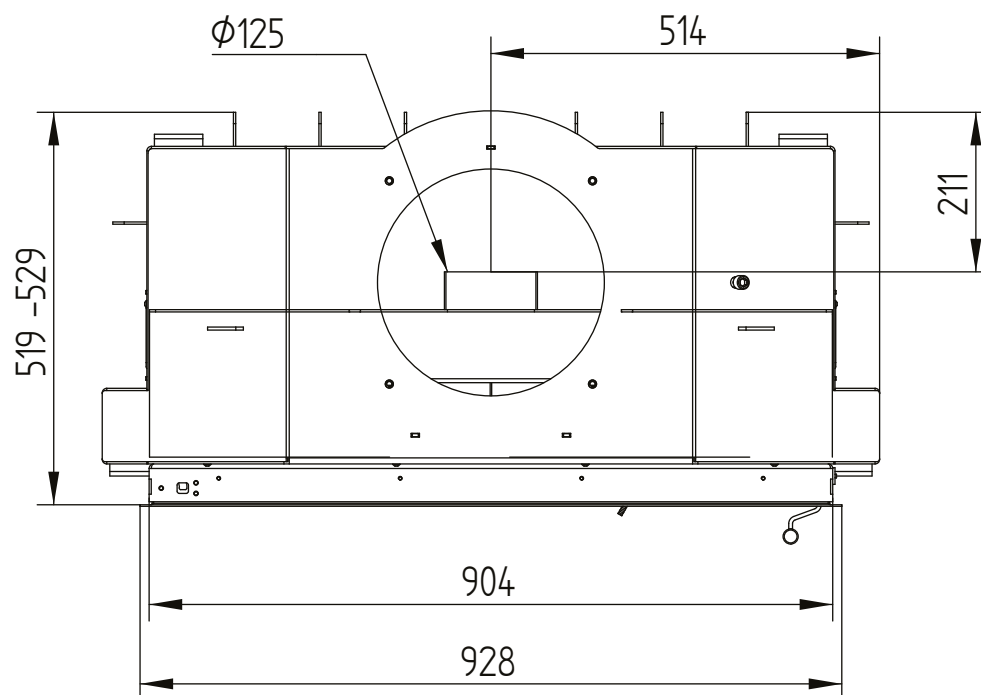
HAKA 89/45

Technical data
Version 2019/08

cover frame 89/45 4sides 1 x 90° 50 mm / air intake

M 1:10



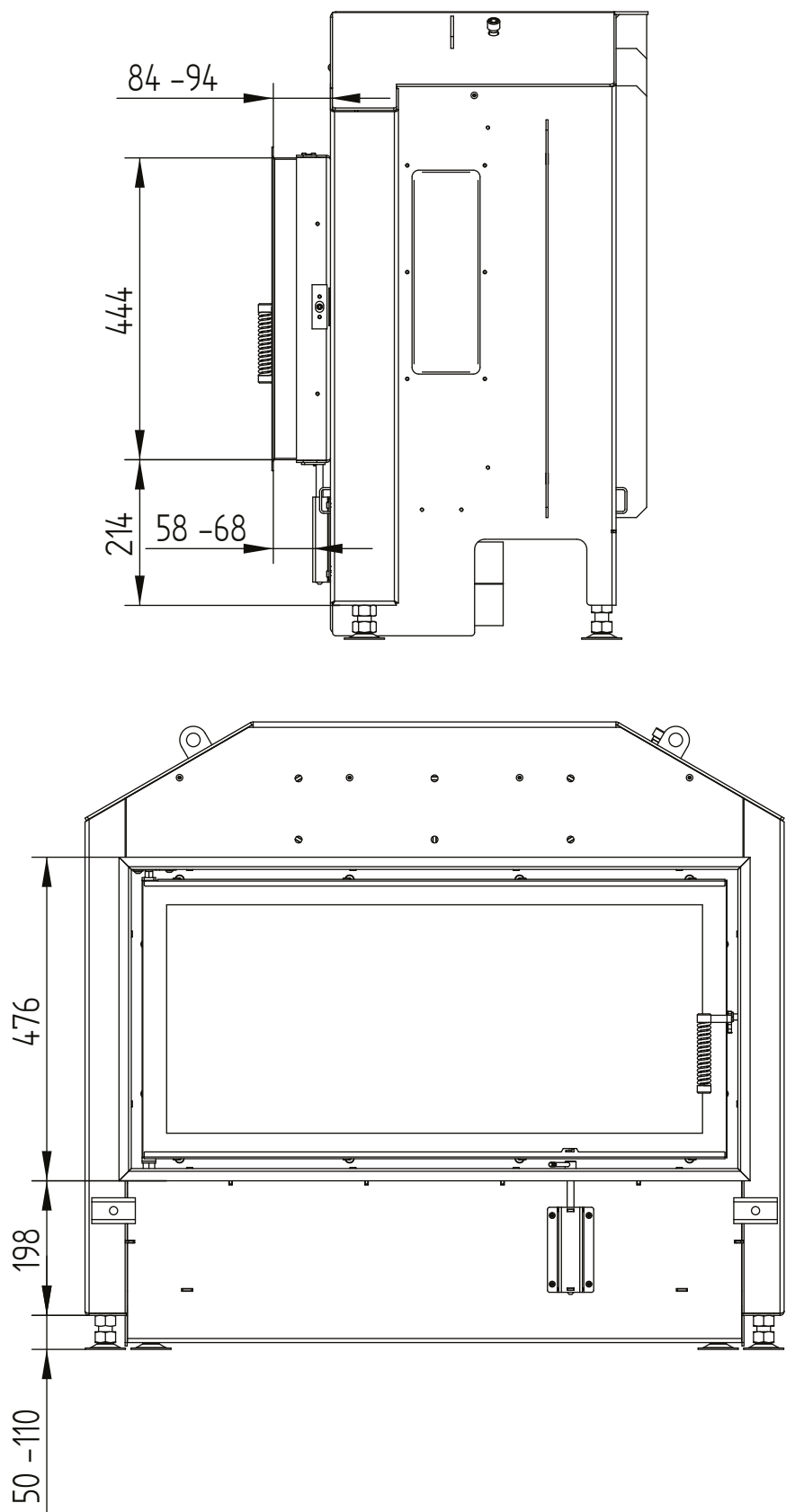


HAKA 89/45

Technical data
Version 2019/08

cover frame 89/45 side opening 4sides 80 mm 1 x 90°

M 1:10

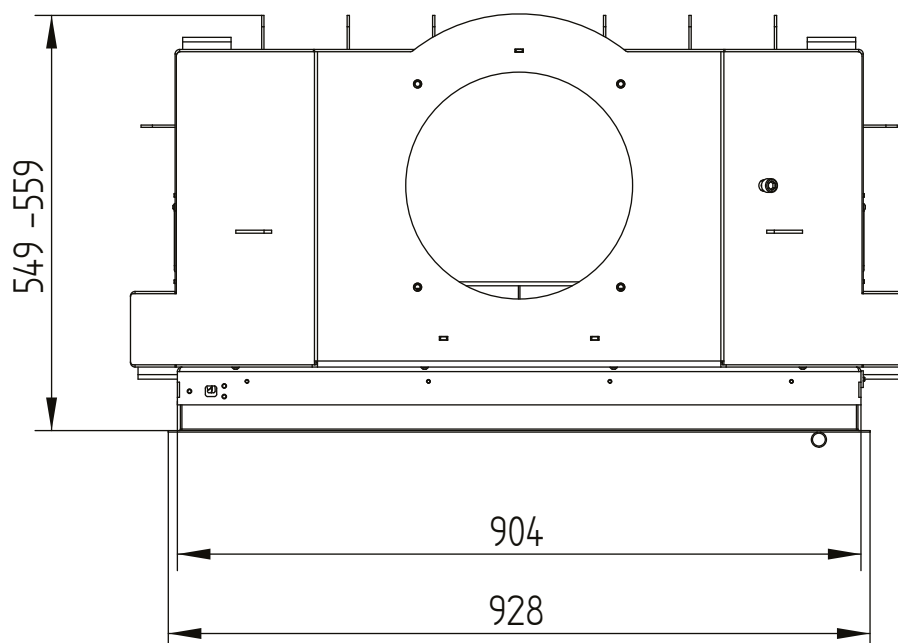


HAKA 89/45

Technical data
Version 2019/08

cover frame 89/45 side opening 4sides 80 mm 1 x 90°

M 1:10



build-on frame 89/45 side opening 4sides 80 mm / feet

M 1:10

