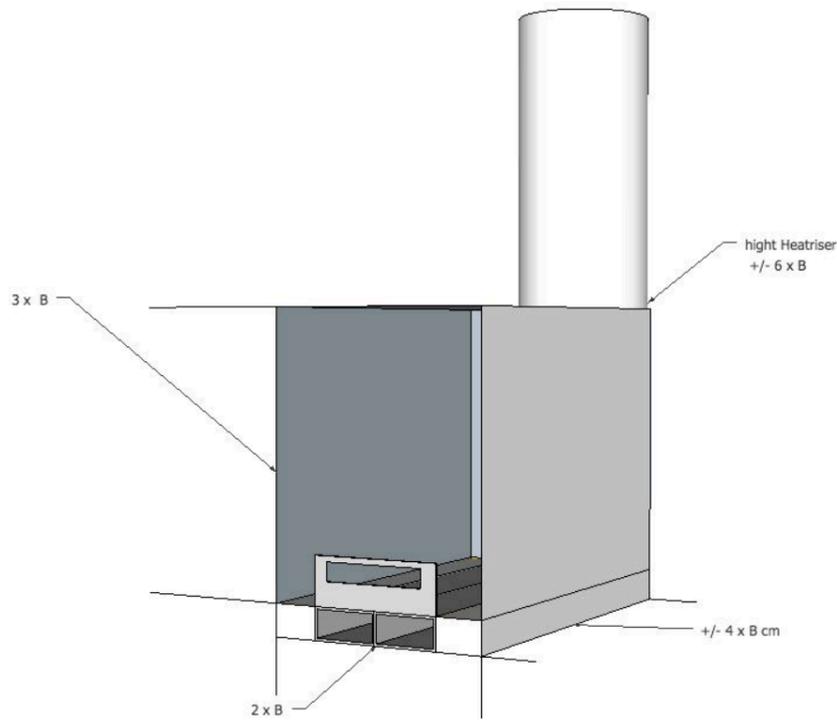
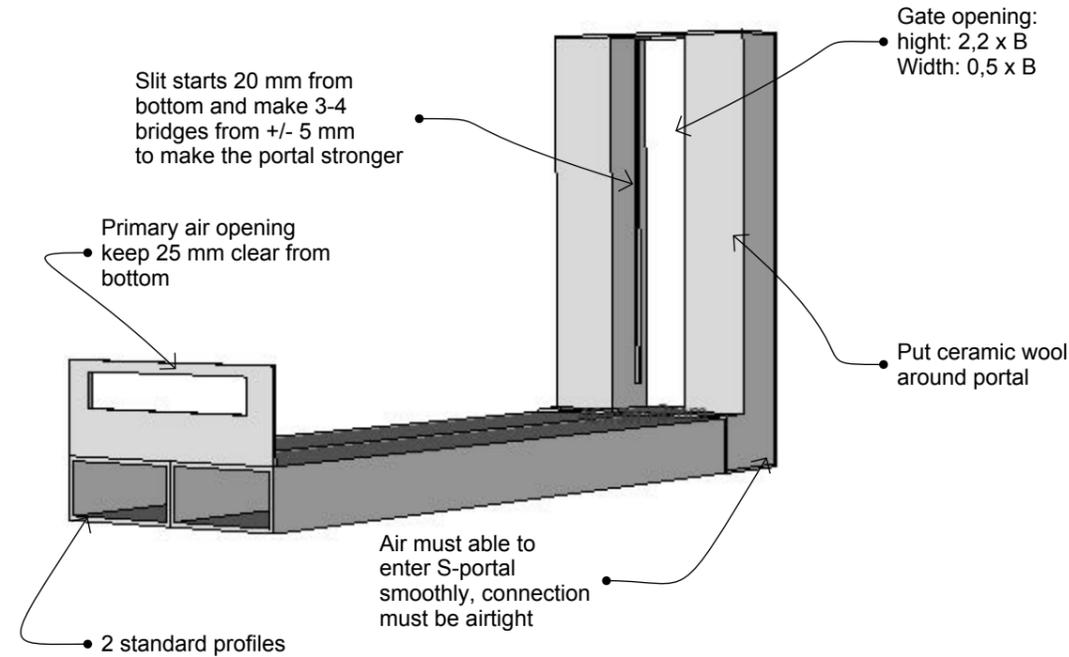


Rocket Leemkachel dimensies & design (Rocket mass heater dimensions)

Firebox and heatriser



S-portal



S-portal is freely available for self builders but not for commercial use

Rocket Leemkachel dimensioning

Rocket (φ in cm) (inch)	15 6"	18 7"	20 8"
B (0,72 x φ)	11	13	15,5
Area (heatriser) cm ²	177	254	314
Firebox (inner)			
Width	22	26	31
Hight	33	39	46,5
Depth	44	52	58
S-portal			
Gate (cm)	24 x 5,5 w/h	28,5 x 6,5 w/h	34 x 7 w/h
Area vertical tube cm ²	14	18	22
Area horiz. Profile cm ²	58	83	103
Width Slid in vertical. tube mm	4	5	5
Primary air cm ²	15	25	31

7 Design rules

How to make it good and save

1) All cross sections should be bigger then the Area of the heatriser. Allow 50 % more in turbulent places, like the start of the chimney

2) Exit temperature of gasses into the chimney should reach 90 degrees Celsius during burn cycle. Do not make the RMH to big. Maximum total inner area of RMH(bell and benches*):

Heatriser diameter	Max area
15 cm	4,5 m ²
18 cm	6,5 m ²
20 cm	9,0 m ²

* Leave insulated area's like top/bottom out of this calculation.

3) Use fireproof materials like fireproof bricks, ceramic wool, steel (limited lifecycle and temp) and fireproof concrete where temperatures are above 500 C. This will be in general the bell area above the heatriser. Below 500 C you can use bricks, cob, concrete

4) Use ceramic wool between materials in high temperature zones, e.a. where steel and stone meet. (to avoid cracking of your precious RMH)

5) Make the whole RMH accessible to sweep ashes with sweep holes. (Cleaning will happen with vacuum cleaner)

6) Make your RMH air tight. Every joint you make has to be completely closed. Fill out any hole you see and sponge everything carefully

7) Take care you ventilate the room you build your RMH ,minimum 100 cm², and install a separate CO- and smoke detector.

Disclaimer: This is not a complete guide to build your own RMH, contact an expert when in doubt

For more information and inspiration: www.rocketstove.nl and www.vuurenleem.nl

Vuur & Leem