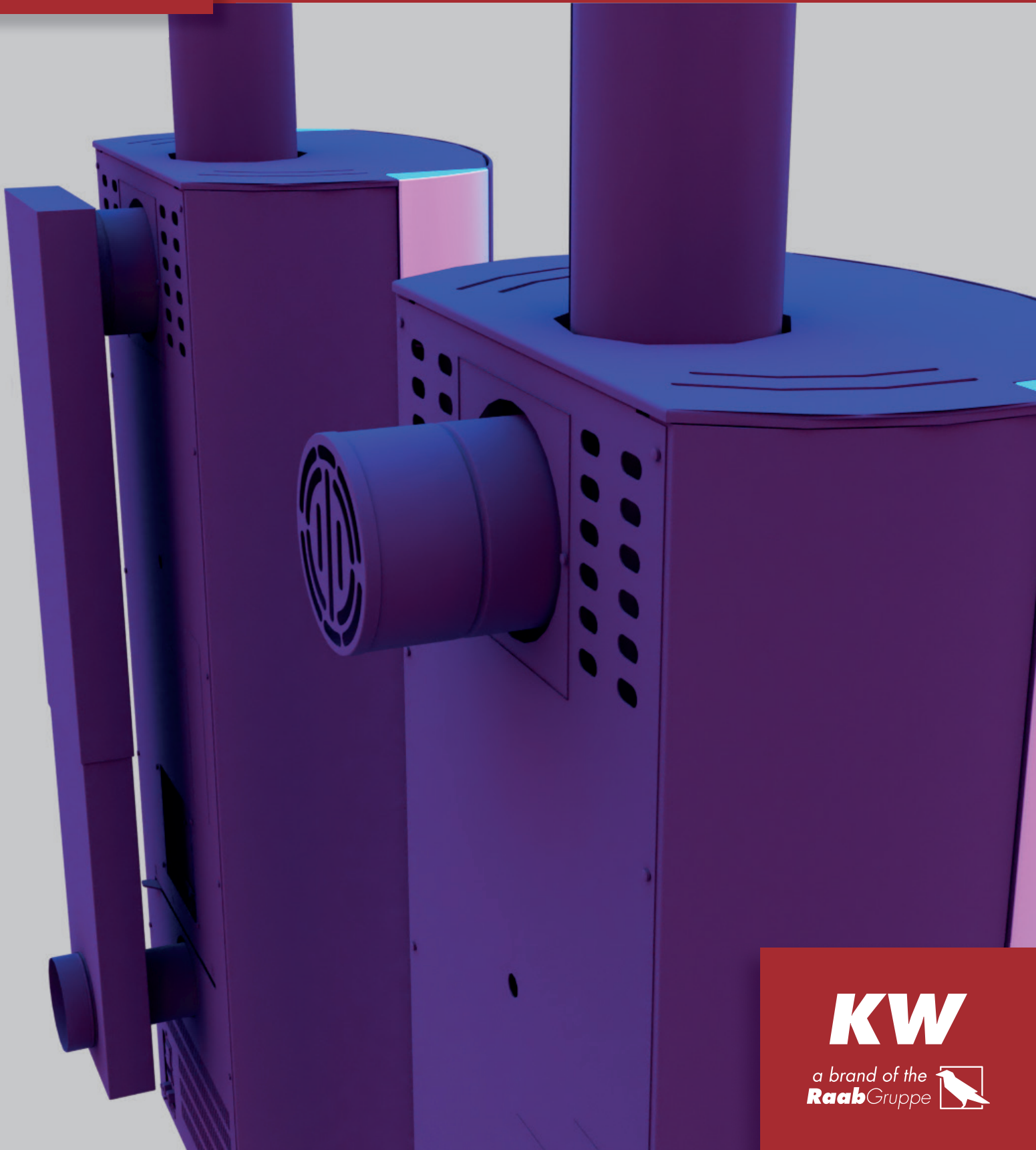


DRAFTBOX

Best draft conditions for stoves

PRODUCT SHEET



KW

a brand of the
Raab Gruppe 

DRAFTBOX

BEST DRAFT CONDITIONS FOR STOVES

Too high and fluctuating chimney draught has a negative influence on combustion in the stove. The consequences are blackened panes, increased fuel consumption, significantly higher emissions, energy losses and possible overstressing of the stove. Draught regulators react to pressure changes in the chimney and regulate the chimney draught to the optimum value for the fireplace. The amount of air supplied increases the volume flow and thus limits the negative pressure. This process ensures even combustion – you measurably save energy and consequently fuel, and in addition, part of the fine dust is burnt off even before it enters the chimney.

The DraftBox is a draught regulator, in technical terms a secondary air device, for room-air dependent stoves with a flue pipe connection NW 150. The stove must offer the possibility of making the flue pipe connection vertically and horizontally. The horizontal flue pipe connection must be used for the DraftBox. The second flue pipe nozzle that may be required for the stove is not included in the scope of delivery.

DRAFTBOX IN THREE VARIANTS

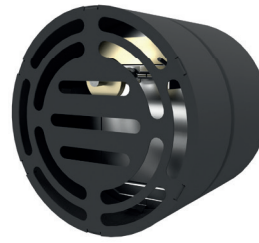
The DraftBox is available in the variants: DraftBox light, DraftBox short and DraftBox long. The variants short or long only differ in length, not in the way they work.

DraftBox light

The DraftBox light can be used with stoves with or without supply air nozzle. It can be retrofitted to the horizontal flue pipe nozzle with little effort.

DraftBox short/long

The DraftBox short/long is used for stoves with a supply air nozzle. These two models connect the supply air nozzle to



DraftBox light



DraftBox short
Length: 520–820 mm



DraftBox long
Length: 820–1.100 mm

the flue pipe nozzle and can be adjusted by the individually adjustable distance between the nozzles. The DraftBox short/long is used on approved standard single fireplaces that have been tested for room air dependency (RLA) (for example: wood-burning stoves in the living area). The supply air is fed directly from the room during room air dependent operation; during operation on an external supply air inlet, it is fed to the stove via a supply air pipe. This supply air pipe must be provided by the customer. The dimensioning of the supply air ducting for fireplaces must be calculated separately by a specialist company or by the chimney sweep.



room air dependent

DraftBox light

- ✓ Secondary air from the installation room



room air dependent

DraftBox long/short

- ✓ Air flow dependent on room air
- ✓ Pressure balancing with the supply air nozzle
- ✓ Air is taken from the installation room



external air supply

DraftBox long/short

- ✓ Combustion air via supply air pipe/air shaft, separate calculation necessary.
- ✓ Pressure adjustment with the supply air nozzle (order adapter if necessary, if not NW 100)

FEATURES

THE ADVANTAGES

- ✓ Quick and easy to retrofit on the additional horizontal (must be provided by the customer) NW 150 flue pipe nozzle
- ✓ Draught optimisation at the socket of the fireplace
 - Energy saving potential of approx. 20%
 - No overheating of the fireplace
 - Energy and thus fuel savings
 - over 50% emission reduction due to constant draught conditions
- ✓ Pressure stabilisation of the flame pattern
 - Optimisation of combustion
 - Clean pane, as no breakage of the pane flush
- ✓ Connection to room air dependent stoves
 - Room air dependent: Combustion air from the installation room
 - External air supply: combustion air from supply air pipe, ventilation shaft/chimney (must be available), thus optimised room climate, separate calculation by specialist company or chimney sweep required
- ✓ Space-saving, matt black design, thus visually inconspicuous



PROVEN EFFICIENCY

Independent study by the Fraunhofer Institute for Building Physics (IBP):

Emission evaluation by the Fraunhofer Institute

The study found that emissions in the areas of CnHm, NO_x, CO and dust were reduced by **more than 50 %**.

Results

up to **21 %** Increase in combustion efficiency

up to **83 %** Reduction of chimney draught

up to **45 %** Reduction of the fuel input

up to **45 %** Prolongation of the burning time with the same amount of fuel

Example

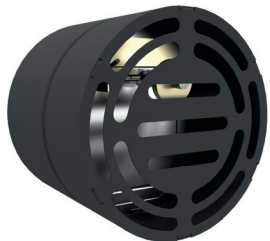
	without DraftBox	with DraftBox	
Heating days per year	200 days	200 days	
Daily running time	4 h/day	4 h/day	
Annual running time	800 h/year	800 h/year	
Annual fuel consumption	6,9 Ster	4,9 Ster	2.0 Ster fuel saving per year
Firewood price/Ster	74 €	74 €	
Firewood costs per year	511 €	363 €	148 € Cost saving

Test setup

tested on a modern single-room fireplace 3.0-6.1 kW

TECHNICAL DATA

The DraftBox (light) can only be mounted on an additional horizontal flue pipe connection piece.
The required flue pipe connection piece is not included in the scope of delivery of the DraftBox (light) and must be ordered from the manufacturer/supplier of the individual fireplace if necessary and installed according to the manufacturer's specifications.



DraftBox light

Secondary air device according to DIN 4795 for single fireplaces with room air dependent supply air ducting

Designation	Item No.	Flue pipe connection nozzle Ø mm
DraftBox light	2118110	150



DraftBox short/long

Secondary air device according to DIN 4795 for single fireplaces with room air dependent supply air ducting

Designation	Item No.	Flue pipe connection nozzle Ø mm	Supply air nozzle Ø mm	Distance between nozzle centres mm
DraftBox kurz	2117990	150	100	520–820
DraftBox long	2117991	150	100	820–1,100