

Walltherm®

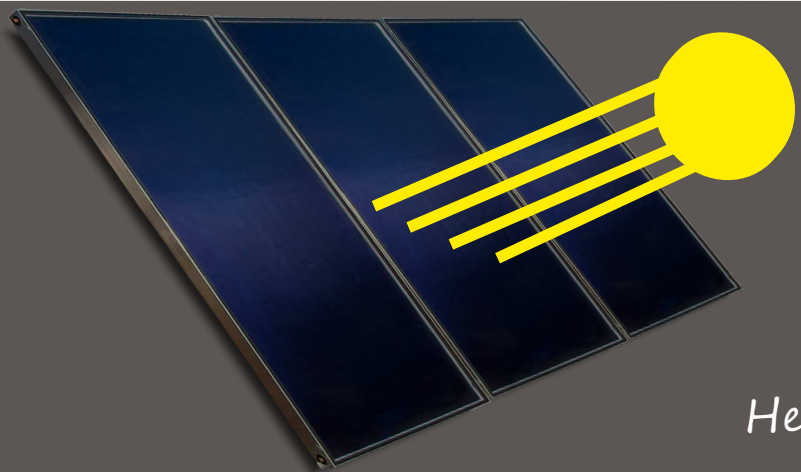
The Original

*The first water heating
wood gasification stove*



WALLNÖFER

SOLAR & WALLTHERM® ÖFEN



*Solar systems
& Walltherm®
wood stoves*

Heating with the sun and wood



Wallnöfer, the company:

>50 Years of experience

The South Tyrolean family business Wallnöfer is specialized in development and production of thermal solar collectors, solar storage tanks and the hydronic wood stove named Walltherm® with reverse flame technology.

This product range enables Wallnöfer to offer a complete ecological heating system for house holds with energy sources sun and wood.

yesterday



today



The Idea:

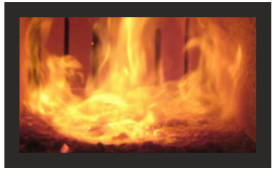
Wallnöfer's efficient solarsystem covers the complete heat demand for hot domestic water during the summer months and supports the central heating system in the winter months. The main energy needed in the winter to heat the whole house hold is provided by the hydronic wood stove Walltherm® with reverse flame technology.

The Wallnöfer heating system:

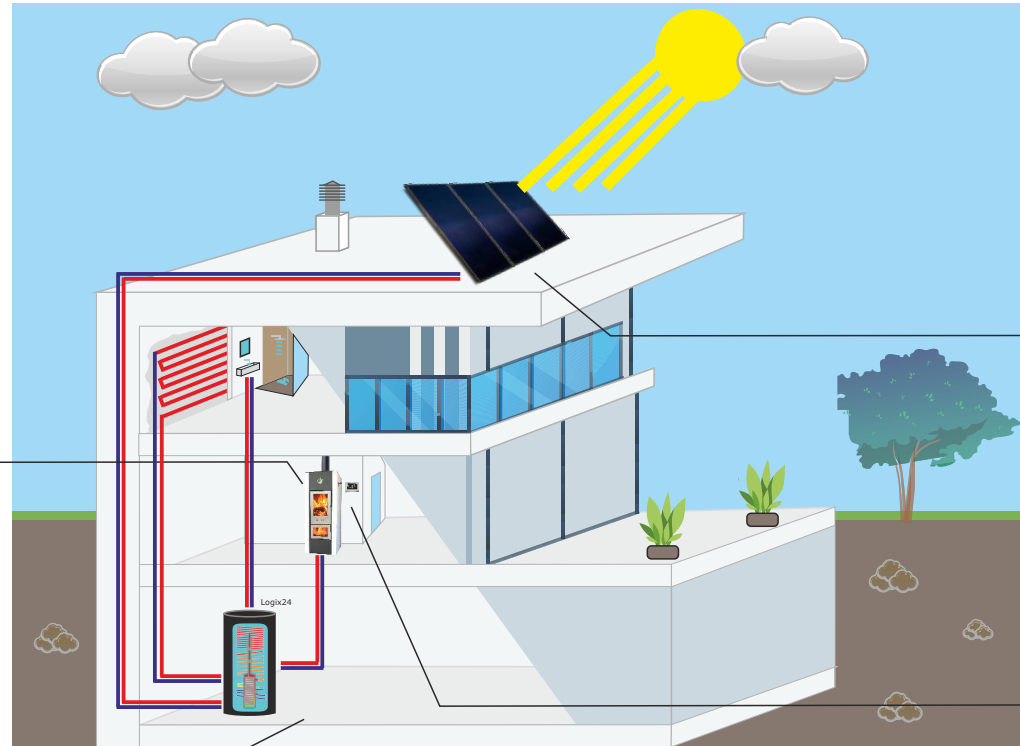
Sun & Wood,
natural heat sources

Walltherm®

First hydronic wood stove
with reverse flame
technology

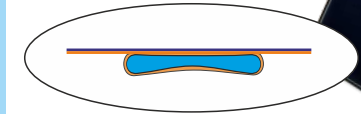


The highlights:



KA88/2020

The high performance
solar collector
uses the WARO
flat tube technology



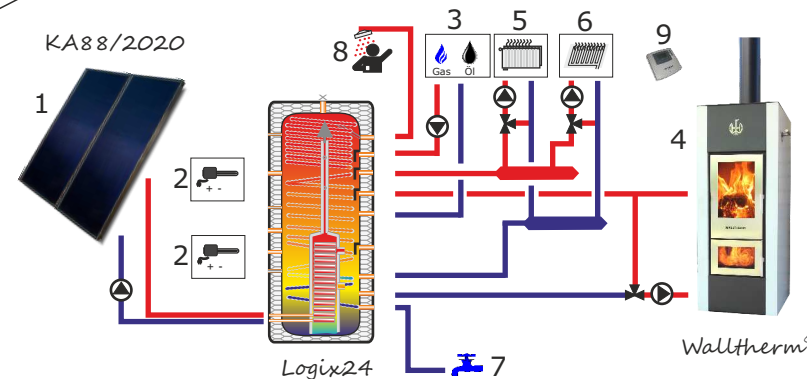
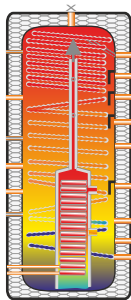
WAL03

This controller
is optimized for the
heating sources
solar system and
Walltherm® wood stove.



Logix24 Kombi

Solar- storage tank
with fresh water heat
exchanger in
stainless steel and
solar heat exchanger,
optimized for natural
stratification



- 1 Solar collectors
- 2 Electric heating elements
- 3 Gas / Oil boiler
- 4 Hydronic wood stove Walltherm®
- 5 Radiators
- 6 Floor/Wall heating system
- 7 Cold domestic water
- 8 Hot domestic water
- 9 Wal 03 controller
for wood stove & solar system)

Solar collector: KA88/2020

Efficient solar collectors cover the heat demand for hot domestic water in the sunny months and support the heating system also in the winter months.

Solar collectors have to work for several decades, therefore choice a quality product.

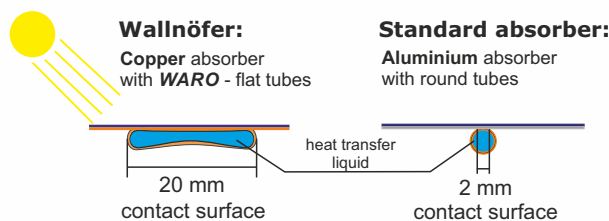
Wallnöfer offers solar collectors with case in stainless steel or aluminium.

The transparency of the solar glass is 92% and it resists against hail. The solar collectors are provided with lateral and backside insulation.

The KA88/2020 often get called *sprinter* because of its performance, due to the unique complete copper absorber combined with patented Waro flat tubes.

The patented WARO- flat tubes (20 mm of contact surface) are combined with a high selective copper sheet with an absorbance of 95%.

The use of copper tubes with copper sheets instead of aluminium sheets avoids problems of dilatation.



WARO- flat tubes have up to 10 times more contact to the absorbing surface.

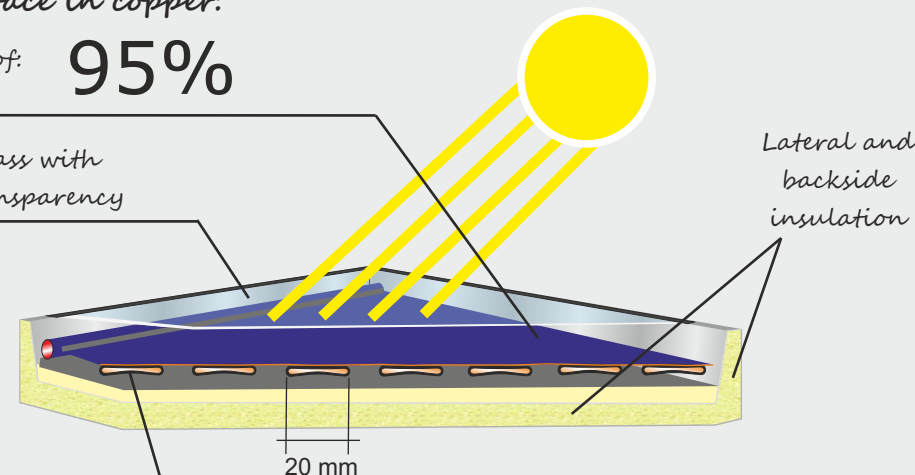
The heat transfer liquid get heated up much faster, this is recognizable specially on days with less sunshine or through the wintertime.

Developed and produced by Wallnöfer

Absorbing surface in copper:

with absorbance of: **95%**

Solar glass with 92% transparency



WARO- flat tubes

in copper with 20 mm contact surface to absorbing sheet (10 times more contact !!)

**max.
heat output
1905 Watt**

with WARO
flat tube technology

EFFICIENCY
 $\eta - 0 =$
84%

95 %

absorbance of
absorber surface

Technical data:

	Standard size 1,8 m ²	Big size 2,5 m ²
Efficiency: $\eta - 0$	84%	84%
Depth:	88 mm	88 mm
Width:	920 mm	1050 mm
Length:	1940 mm	2350 mm
Total surface:	1,80 m ²	2,50 m ²
Absorbing surface:	1,65 m ²	2,30 m ²
Material absorber: (sheet - tubes)	copper - copper	copper - copper
Absorbance & emission absorbing sheet: $\alpha = 95\%$ $\epsilon = 5\%$	$\alpha = 95\%$ $\epsilon = 5\%$	$\alpha = 95\%$ $\epsilon = 5\%$
Volume absorber:	0,6 l/m ²	0,6 l/m ²
Solar glass transparency:	92%	92%
Weight:	35 kg	48 kg
Operating pressure:	2-4 bar	2-4 bar
Testing pressure:	8 bar	8 bar
Insulation:	rock wool 50mm	rock wool 50mm
Collector case:	stainless steel	stainless steel or aluminium
	Solar Keymark certified	Solar Keymark certified

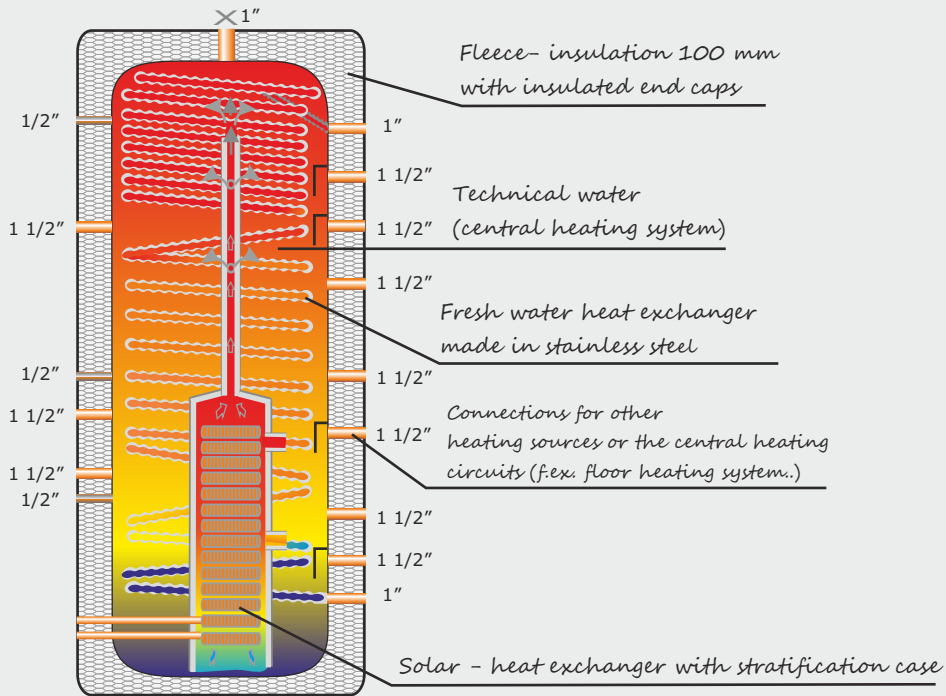
**Collector performance 2,5m²
when G=850 Watt/m²:**

max. 1905 Watt



Solar - storage tank:

Due to the optimized case of the solar heat exchanger, the storage tank get heated by natural stratification.



The domestic hot water get heated instantaneously flowing through the stainless steel coil (fresh water heat exchanger)
The big exchanging surface ensures a fast heating of the hot domestic water even if the content of the coil is relatively small.

NO LEGIONELLA PROBLEM DUE TO THIS SYSTEM

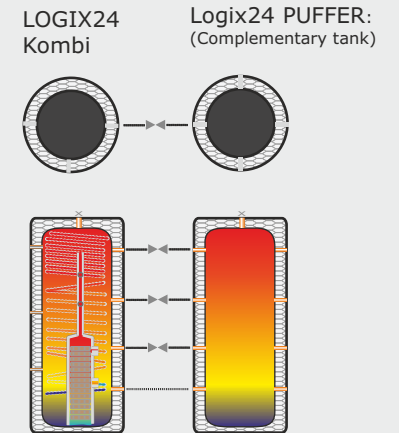
Storage tank:	S235JR
Fresh water heat exchanger:	Stainless steel V4A
Test pressure sanitary heat exch.:	10 bar
Operating pressure sanitary heat exch.:	max. 6 bar

Operating pressure heating system:	max. 3 bar
Solar heat exchanger:	Copper coil
Insulation:	100 mm fleece
Fire protection class:	B1
Guarantee:	5 years

the hottest water produced by the solar system loads from the top.

So even on days with less sun the hottest water produced by the solar system get loaded first on the top part of the storage tank where hot domestic water get heated. Afterwards get loaded the lower part for heating water.

This efficient stratification heat exchanger doesn't need electronic components like 3 way valves, pumps ecc.



Logix24 Kombi

Logix24 Kombi	600	1000	1300
Volume in liter:	600	950	1290
Width without insulation in mm:	700	790	950
Width with insulation in mm:	900	990	1150
Height without insulation in mm:	1619	2016	1992
Height with insulation in mm:	1700	2100	2072
Diagonal measure in mm:	1670	2090	2090
Weight without content in kg:	140	190	210
Hot water output in lt:	410	780	1050
with complete storage tank at 60°C (temp. hot dom. water min 40 °C):			
Fresh water heat exchanger in m²:	4,5	7,5	10
Solar heat exchanger (copper) in m²:	3,9	3,9	3,9
Content solar heat exchanger in lt:	3,2	3,2	3,2
Energy efficiency class:	C	C	C

Other dimensions on demand.

Walltherm®

The Original

The first water heating wood gasification stove

Thanks to the long experiences in developing wood stoves, the Pioneer Wallnöfer has set a milestone with the new and innovative water heating stove Walltherm®.

The Walltherm® is the first water heating wood stove using the gasification technique (reverse flame).

One of the many innovations is the burning process which needs only the natural draught of the chimney. (no exhaust fan necessary)

The newest Walltherm® Vajolet guarantees an efficiency of 91% !

The Walltherm® Vajolet is nearly jacketed completely with water. About 80% of the produced heat are used for the central heating system. The remaining 20% ensure a pleasant radiating warmth.

Choosing stainless steel for the combustions chambers shows once more the high quality of this product.

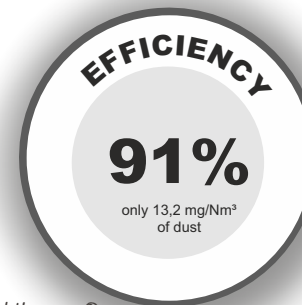
The required combustible:



Natural dry fire wood with 15% of humidity (max. 20%)
(Length: 35 cm, Ø10 cm)

**Burning time
up to 5 hours**

Vajolet



The Walltherm® is protected with international patents.

Temperature of the exhaust fumes adjustable: 130 - 160°C

**STAINLESS STEEL
combustion chamber**

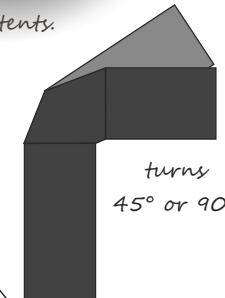
Combustion chamber with maximum durability !!



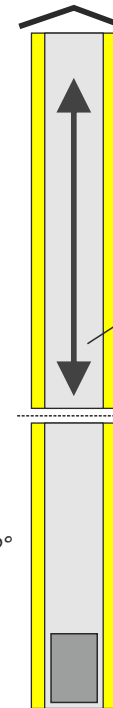
Air cooled door handles and double glazed doors are standard. (optionally provided with reduced radiant heat IR-glass)

Reverse flame (gasification flame) with temperatures up to 1000°C

Handle to regulate the combustion air



turns
45° or 90°



The recommended chimney:

Ø150 - 200 mm
5 - 6 m vertical pipe
20 mm insulation

Exhaust fume flap:

- open for pre heating the chimney and to create ember
- closed with reverse flame
- New: Intermediate position

Heating water on 4 sides of the combustion chamber (left, right, backside and above)

Primary air and secondary air

Adapter for external air channel on the bottom or on the backside

Optional: electrical combustion air flap controlled by the WAL 03 controller



Walltherm® Vajolet

The Walltherm® - The Original

The Walltherm® stove combines the characteristic of a traditional wood stove with the technical attributes and efficiency of a log gasification boiler with reverse combustion.

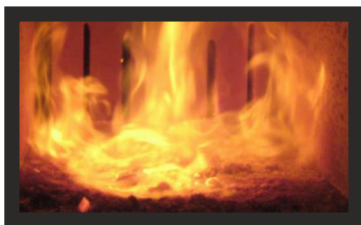
The model Walltherm® Vajolet guarantees an efficiency of **91% !**

By reason of the optimized heat exchanger, up to **80%** of the produced heat is used in central heating system.

The Walltherm® Vajolet is equipped with two stainless steel combustion chambers to guarantee highest quality and durability.

STAINLESS STEEL
combustion chamber

The unique reverse flame of the Walltherm® Vajolet is very spectacular.
(look picture below or the Walltherm® Video)



An impressive fact is that the reverse flame generates temperatures of 1.000 °C, but the exhaust gases leave the stove with low temperatures between 130 - 160°C.



Walltherm® Vajolet
black

Walltherm® Vajolet
white - black - white

Walltherm® Vajolet

Walltherm®
The Original



Walltherm® Vajolet
black - red - black with Black Edition doors



Walltherm® Vajolet
white - rusty effect - white



Walltherm® Vajolet
black with Black Edition doors

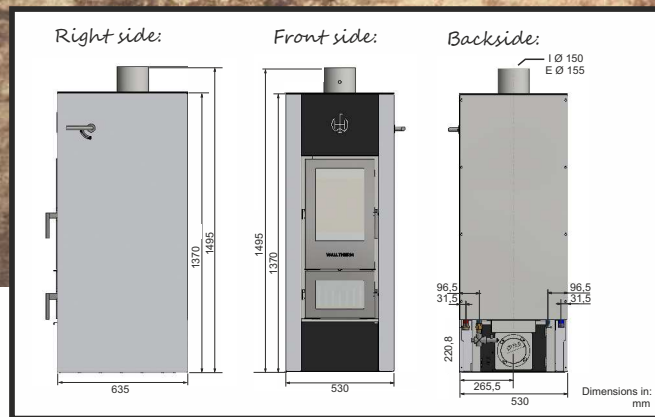
Walltherm® Vajolet & Vajolet Basic



Efficiency:	91%
heat output min/max.:	8 - 15 KW
nominal power output:	10 KW
energy efficiency class:	A+
heat division:	up to 80% in the water circuit & 20 % radiation (air)
dust:	13,2 mg/Nm³
height / width / depth:	1372 mm / 530 mm / 635 mm
combustion chamber:	~55 lt
chimney draught (without fan):	12 Pa (max. 20 Pa)
weight:	300 kg (without water)
water content:	80 lt
operating pressure:	max. 2,5 bar
combustion air connection bottom/backside:	Ø 125 mm
diameter of the chimney:	Ø 150 mm (internal)
flue mass:	8,8 g/s
exhaust gas temperature (reverse flame):	130 - 160 °C
exhaust gas temperature lighting phase:	250 - 400 °C
fuel:	natural dried wood max. length 35 cm - max. 20% humidity
norm:	EN13240 / Art. 15a (2015) BVG
minimum distance to burnable material lateral / back / front :	10 cm / 10 cm / 100 cm
guarantee*:	5 years for the stoves body (wear parts excluded) 2 years on all valves and electrical components

*the commissioning needs to be done by an authorised personal and the protocol needs to be sent to the producer (Wallnöfer)

Walltherm® Vajolet Basic



The insert model:

The hydronic Walltherm® Vajolet Basic is designed to be built into a wall. For the front of the stove are available different types of frames so that the windows are flush with the surrounding wall. Openings for the service has to be installed. Please ask for the planning documents.

Walltherm® Vajolet Basic



Walltherm® Vajolet Basic
with black coated frame



WAL 03



This controller
is optimized for the heating sources
solar system and Walltherm® wood boiler stove.

The controller should be installed near the stove
to inform the operator
about the heating system processes.

On the WAL 03 controller display are visible
all the temperatures of the heating system and the
storage tank. With this informations the operator
is able to decide if it is necessary to set fire
to the Walltherm® boiler stove or if the energy
in the tank still covers the requirements
for hot domestic water and heating water.

The flue gas temperature is visible on the display.

On demand an acoustical signal
advices the operator to close the fume flap
if the flue gas temperature reaches
a too high value.

The controller WAL 03 reduces the
heat losses of the stove, by closing an optional
electrical air flap after the burning period.
This avoids the circulation of cold air
through the stove.



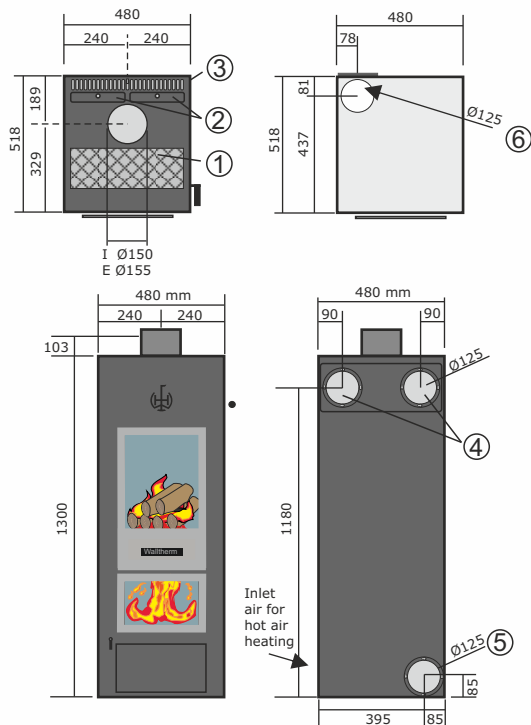
The electrical air flap
installed
in the air channel.

Furthermore the controller WAL 03
is able to control a thermal solar system.

Walltherm® AIR

The Walltherm® Air stove with reverse flame burning technology guarantees high efficiency and performance.

It heats by radiation and optionally an electrical fan boosts warm air to other rooms. On the stove's backside it is possible to connect up to two hot air channels. The Walltherm® Air heats up to 100 m².



- 1 Hot plate
- 2 Cover flue gas channels
- 3 Exit for hot air
- 4 Exits for hot air channels on the backside (2 x Ø125 mm, max. 6 m length)
- 5 Combustion air backside Ø125mm
- 6 Combustion air bottom Ø125mm

Technical data: Walltherm® AIR

Efficiency:	>87 %
Heat output min/max:	6 - 12 KW
Nominal heat output:	12 KW
Energy efficiency class:	A+
Dust:	12,4 mg/Nm³
Possibility to connect hot air distribution channels:	Yes
Fan for hot air:	2 x 125 mm
El. power input for the fan:	Optionally: 220 m³/h
Natural draught:	230 V, 50 Hz
Weight:	12 Pa (max. 20 Pa)
Combustion air channels: (backside or bottom):	ca. 290 kg
Chimney connection:	Ø 125 mm
Flue gas mass flow:	Ø 150 mm (internal)
Flue gas temperature with reverse flame:	10,1 g/s
Flue gas temperature pre- heating:	180 °C
Fuel:	300 - 400 °C
Norm:	natural dried wood
Distance to flammable material:	length max. 35 cm - humidity <20%
lateral / backside / front	EN13240, VKF, 15a (2015)
Guarantee*:	40 cm / 40 cm / 100 cm
	5 years stoves body (without wear parts)
	2 years for el. components



Walltherm® Air
with front panel



The Walltherm® Video
is available on:
walltherm.com & YouTube



©walltherm.com

05.2019 Pictures: pixabay.com / shutterstock

Walltherm®

The Original

a trademark of:



WALLNÖFER

SOLAR & WALLTHERM® ÖFEN

A company from
SÜDTIROL

Wallnöfer GmbH

Gewerbezone Kiefernainweg 110

39026 Prad am Stilfserjoch (BZ)

South Tyrol / Italy

Tel. +39 0473 61 63 61

wallnoefer.it walltherm.com