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# Log wood heating systems 15–38 kW

Technology & Planning 2024



# KWB Classicfire type CF1

## Log wood heating system 15/20 kW

- Log wood boiler with lower burnout and high-temperature refractory brick combustion chamber
- Large fill room for logs up to 55 cm (L50, D15, according to ISO 17225-5) and a moisture content of between 15% and 25% (stored in a dry place)
- Easy filling thanks to large front fill door
- Special automated heat-up with regulated heat-up air supply
- Carbonization gas removal for smoke-free stoking
- Ash-removal and cleaning towards the front
- Speed-regulated and speed-monitored induced draft fan for performance control
- Safety battery for boiler cooling in case of a power failure
- Stoking and cleaning tool set

### KWB Comfort 4 control comprising:

- Exclusive control unit incl. buffer storage tank and domestic hot water management, expandable with external heating circuit control

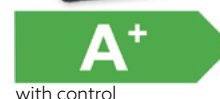
**Optional:** 4th and 5th buffer temperature sensor

**Optional:** KWB Basic control unit or KWB Exclusive control unit

**IMPORTANT!** A sufficiently large buffer storage tank is absolutely required. Usable minimum buffer volume 1.000 l.



Online-Ready



# KWB Classicfire type CF2

## Log wood heating system 18–38 kW

- Modular, 3x divided boiler body, including insulation
- Stable powder-coated system casing incl. insulation for minimal radiation and standby loss
- 185 l fill room – the largest of its class (upon request also available with 150 l fill room)
- Integrated flange for a possible upgrade to a log wood-pellet combination boiler
- Broadband lambda probe for accurate residual oxygen measuring
- Speed-regulated induced draught fan for modulating power adjustment
- Upright tubular heat exchanger
- Suitable for the burning of log wood with a max. length of 55 cm (L50, D15 according to ISO 17225-5) and moisture content of between 15% and 25% (stored in a dry place), filling transversely is possible with 1/3 m wood logs (with 185 l fill room)

**Optional:** fully automatic heat exchanger cleaning

**Optional:** fully automatic ignition (1.000 W)

**Optional:** quick-charge valve for intelligent buffer charging for a quicker heat provision

### KWB Comfort 4 control comprising:

- Exclusive control unit
- Modular control board incl. terminal board
- Including all boiler sensors and 1 outside temperature sensor
- Incl. activation of a buffer storage tank with 3 buffer temperature sensors

**Optional:** 4th and 5th buffer temperature sensor **Optional:** KWB Basic control unit or KWB Exclusive control unit

**IMPORTANT!** A sufficiently large buffer storage tank is absolutely required.  
Recommended tank volume: Optimal: 16-litre buffer storage tank per litre fill room  
Minimum: 10-litre buffer tank per litre fill room



Online-Ready





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# Technology & Planning

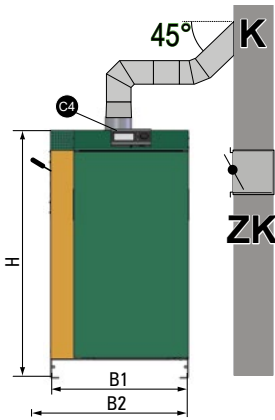
Log wood heating systems 15-38 kW



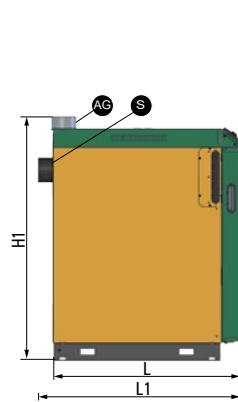
# KWB Classicfire CF1

## Installation and connecting dimensions

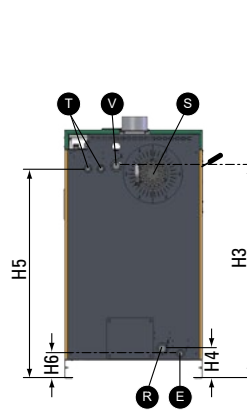
Front view



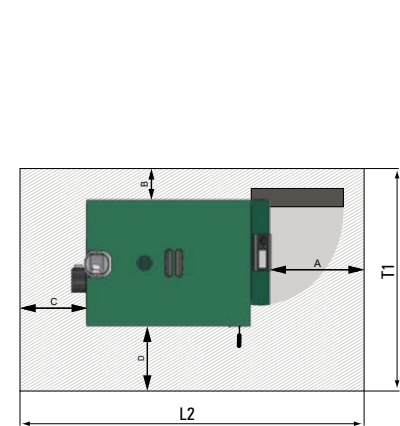
Side view



Rear view



Plan view



### Legend

V	Boiler & storage tank forward flow	Sleeve 1"
R	Boiler & storage tank return flow	Sleeve 1"
E	Emptying	Sleeve 1/2"
T	Connection, safety battery	Sleeve 1/2"
AG	Exhaust gas connection (outside diameter)	129
S	Induced draught fan	-
C4	Operating panel KWB Comfort 4 control	-
L	Heating system length	1.000
L1	Total length incl. induced draught fan	1.080
L2	Total length incl. minimum distances	> 2.220
B	Width, boiler	685
B1	Width, boiler incl. cleaning lever	790

H	Height of the heating system	1.235
H1	Total height incl. exhaust gas nozzle	1.300
H3	Connection height, forward flow	1.055
H4	Connection height, return flow	150
H5	Connection height, safety battery	1.040
H6	Height, emptying	125
T1	Total width incl. minimum distances	> 1.385
A	Insulation door to the wall	800
B	Boiler side to the wall	200 (500*)
C	Rear side to the wall	400
D	Boiler side to the wall	200 (500*)

\* The heating should be placed on one side (B or D) at a distance of at least 500 mm to the wall to ensure easy access to the heating system connection and for maintenance work.

### Dimensions for boiler transport and placement

KWB Classicfire 1	
Delivery condition	1.000x685x1.230

All dimensions in mm | Length x Width x Height | Distances stated are minimum!



# KWB Classicfire CF1

## Technical data

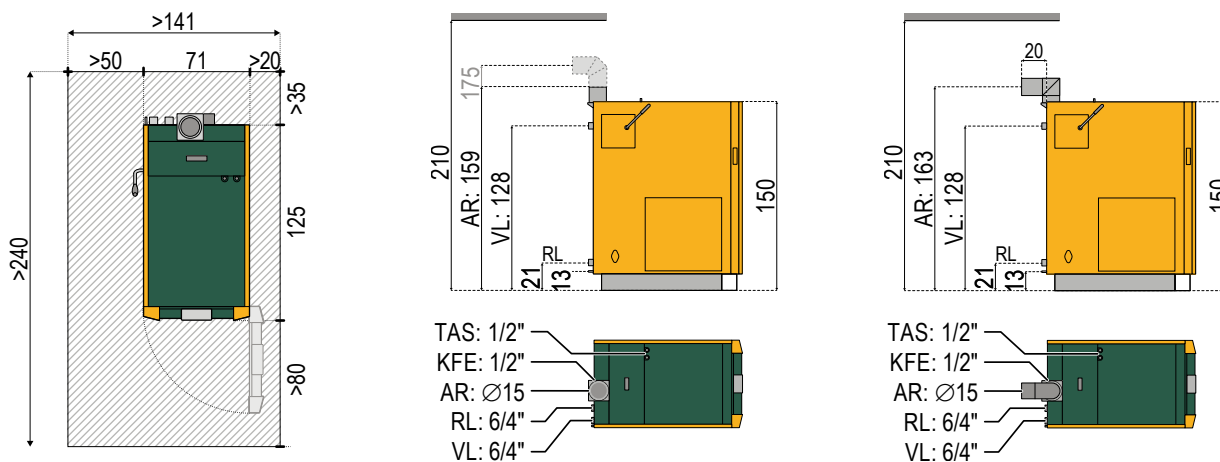
CF1	Unit	15	20
Rated power	kW	15,0	20,0
Boiler efficiency at rated power	%	92,6	92,3
Fuel thermal output at rated power	kW	16,2	21,7
Full load burning period: Beech	h	4,9 - 7,0	3,5 - 5,0
Spruce			
Boiler class according to EN 303-5:2012	-	5	5
EU Energylabel <sup>2</sup>	-		A+
<b>Water side</b>			
Water content	l		90
Water connection, forward/return flow (internal thread)	inch		1
Water connection for filling and/or emptying (internal thread)	inch		1/2
Water-side resistance at 20 K	mbar	0,5	1,5
Boiler-entry temperature	°C		60
Working temperature/operating temperature	°C		90
Maximum operating pressure	bar		3
Buffer tank required	-		✓
Minimum usable buffer tank volume <sup>3</sup>	l	825	1100
Recommended usable buffer tank volume (for Switzerland)	l	1000 (1200)	1500
<b>Exhaust-gas side (data for chimney design)</b>			
Required draft at rated power/partial load	mbar		0,08
Induced draught required	-		✓
Exhaust-gas temperature at rated power	°C	150	170
Exhaust-gas mass flow at rated power	kg/h	36,0	46,8
Exhaust-gas mass flow at rated power	kg/s	0,010	0,013
Chimney connection height	mm		1395
Exhaust-gas connection diameter	mm	130	130
Chimney diameter (minimum)	mm		150
Chimney design: moisture-resistant	-		✓
<b>Electrical system</b>			
Connection	-	230V, 1~ 50Hz, C13 A	230V, 1~ 50Hz, C13 A
Unit switch and main switch: present	-		✓
Elektrisk effekt ved nominel last	W	41	42
Energy requirement standby	W		9
<b>Weights</b>			
Total weight	kg	455	465
<b>Noise emissions (EN 15036-1)</b>			
Normal operating noise at rated power	dB(A)		< 70
<b>Fuel</b>			
Permitted fuels: log wood A2 / D15 L50 acc. to EN ISO 17225-5	-		✓
Maximum length log-wood	cm		55,0
Maximum water content (fresh weight)	kg/kg		≤ 25
<b>Fill area</b>			
Fill area volume	l		80
Width of fill doors	mm		350
Height of fill doors	mm		360

<sup>2)</sup> energy efficiency index of the integrated unit comprising solid fuel boiler and temperature control

<sup>3)</sup> according to BAFA (55 litres/kW)

# KWB Classicfire CF2

## Installation and connecting dimensions



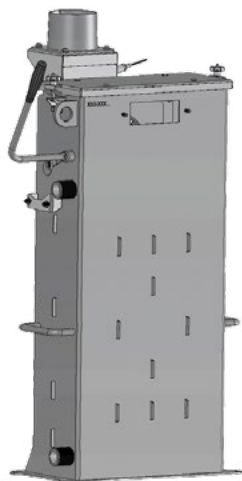
### Legend

- AR** Exhaust pipe Ø 150 mm (bend 90° optionally available)
- KFE** Filling and emptying 1/2"
- P** Space requirements for the pellet burner including clearance for maintenance

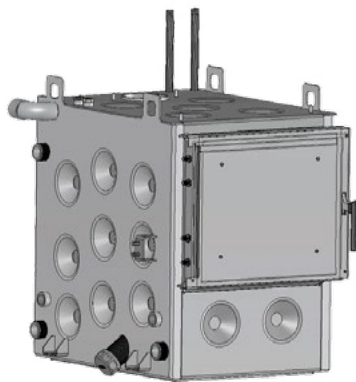
- RL** Connection return flow 6/4"
- TAS** Thermal discharge safety valve feed and discharge 1/2"
- VL** Connection forward flow 6/4"

Scale 1:50 | All dimensions in cm | Width x Height | Distances stated are minimum distances!

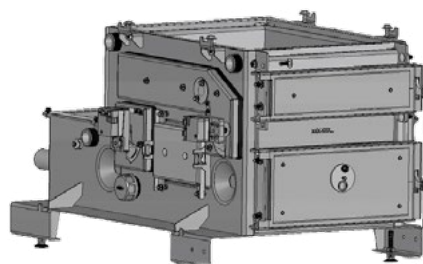
### Divided boiler with individual weights



108 kg



221 kg



170 kg + 90 kg combustion chamber stones

### Dimensions for boiler transport and placement

KWB Classicfire	Delivery condition	Without casing, dismantled	With casing and cleaning lever
<b>Unobstructed entry opening</b>	75/160	75/100	80/160

**Note:** You will find detailed technical data on our website's product pages.



# KWB Classicfire CF2

## Technical data

CF1.5   CF2	Unit	CF1.5/CF2 18	CF1.5/CF2 28	CF1.5/CF2 32	CF1.5/CF2 38
		Log wood	Log wood	Log wood	Log wood
Rated power	kW	18,0	28,0	32,0	38,0
Partial load	kW	-	14,0	14,0	14,0
Boiler efficiency at rated power	%	93,9	92,5	91,9	91,3
Boiler efficiency at partial load	%	-	92,0	92,0	92,0
Fuel thermal output at rated power	kW	19,2	30,3	34,8	41,6
Fuel thermal output at partial load	kW	-	15,2	15,2	15,2
Full load burn-off period CF1.5	h	10,0	6,2	5,9	5,8
Full load burn-off period CF2	h	12,2	7,6	7,3	6,6
Boiler class according to EN 303-5:2012	-			5	
EU Energylabel	-			A+	
<b>Water side</b>					
Water content	l			141	
Water connection, forward/return flow (internal thread)	inch			6/4	
Water connection for filling and/or emptying (internal thread)	inch			1/2	
Thermal safety valve: pressure	bar			2–4	
Water connection for thermal safety valve (internal thread)	inch			1/2	
Water-side resistance at 20 K	mbar			13,5	
Boiler-entry temperature	°C			55	
Working temperature/operating temperature	°C			80	
Maximum permitted temperature	°C			110	
Maximum operating pressure	bar			3,5	
Minimum usable buffer tank volume CF1.5	l			1500	
Minimum usable buffer tank volume CF2	l			1800	
Recommended usable buffer tank volume CF1.5	l			1800	
Recommended usable buffer tank volume CF2	l			2500	
<b>Exhaust-gas side (data for chimney design)</b>					
Combustion chamber temperature	°C			900–1100	
Required draft at rated power/partial load	mbar			0,08	
Induced draught required	-			✓	
Exhaust-gas temperature at rated power	°C			160	
Exhaust-gas temperature at partial load	°C			-	
Exhaust-gas mass flow at rated power	kg/s			0,023	
Exhaust-gas mass flow at partial load	kg/s	-	0,011	0,011	0,011
Exhaust-gas volume at rated power	Nm <sup>3</sup> /h			54	
Exhaust-gas volume at partial load	Nm <sup>3</sup> /h	-	27	27	27
Chimney connection height	mm			1590	
Exhaust-gas connection diameter	mm			150	
Incline of the Exhaust-gas pipe	°			≥ 3	
Chimney diameter (minimum)	mm			150	
Chimney design: moisture-resistant	-			✓	
<b>Electrical system</b>					
Connection	-			230V, 1~ 50Hz, C13 A	
Unit switch and main switch: present	-			✓	
Connected power boiler (minimum)	W			151	
Connected power boiler (maximum)	W			1288	
<b>Weights</b>					
Heat exchanger	kg			108	
Burning chamber module	kg			273	
Fill chamber module	kg			224	
Total weight (without/with pellet module)	kg			722	
<b>Noise emissions (EN 15036-1)</b>					
Normal operating noise at rated power	dB(A)			< 70	
<b>Fill chamber</b>					
Fill chamber volume CF1.5	l			160,8	
Fill chamber volume CF2	l			183,8	
Width of fill doors	mm			440	
Height of fill doors	mm			364	

mg/Nm<sup>3</sup> ... Milligram per standard cubic meter (1 Nm<sup>3</sup> under 1.013 hectopascal at 0 °C)

# Notes

A large grid of small dots for taking notes, covering the majority of the page.

