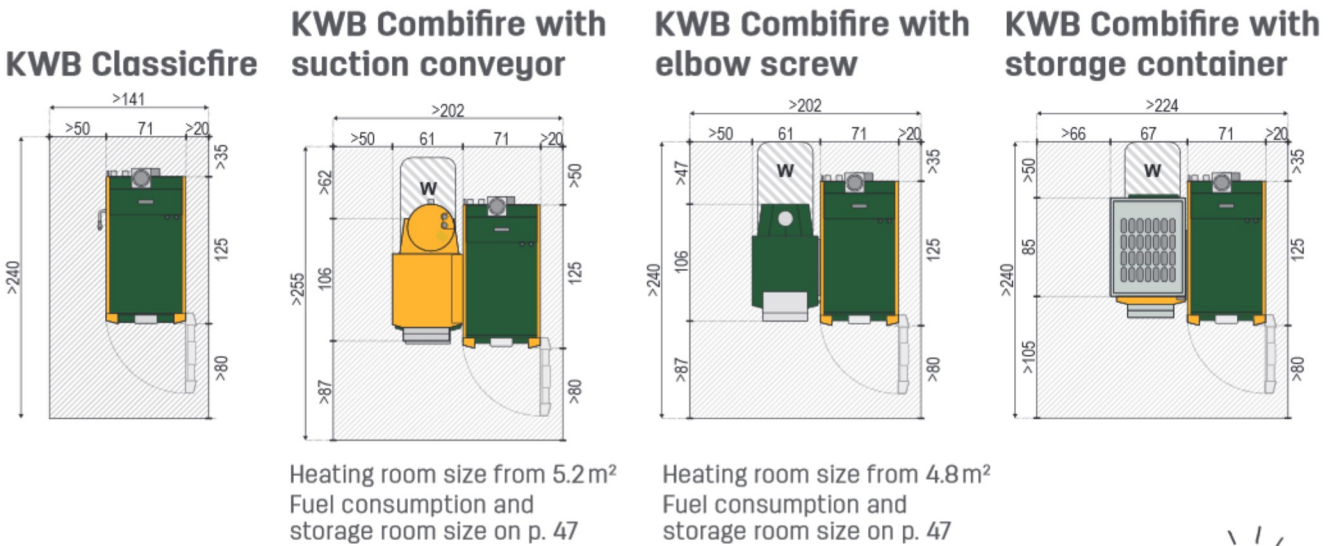


# Installation and connecting dimensions

## KWB Classicfire and KWB Combifire

**Conveyor and storage systems for pellets** P. 48–81



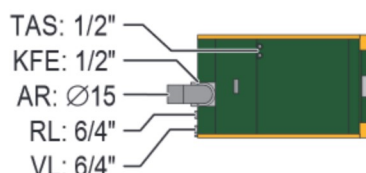
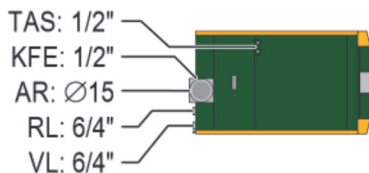
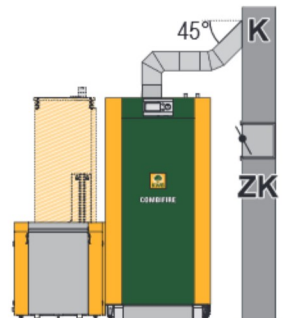
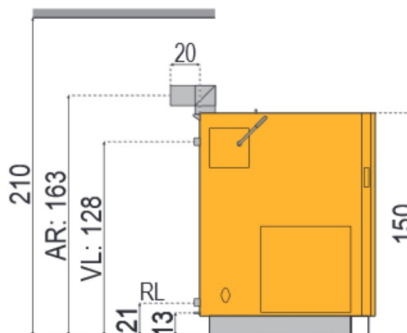
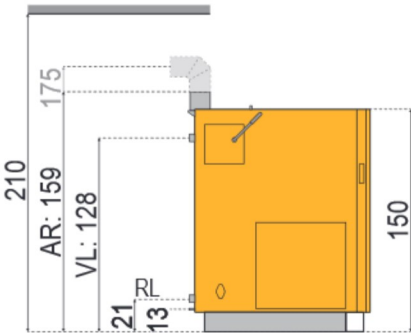
### Dimensions for moving the boiler into the respective space



KWB Classicfire	Conditioned as delivered	Without casing, dismantled	With casing and cleaning lever
Unobstructed entry opening	75/160	75/100	80/160

### KWB Classicfire / KWB Combifire standard models

### KWB Classicfire / KWB Combifire with exhaust pipe connection 90° to the rear



### Legend

<b>AR</b>	Exhaust pipe Ø 150 mm (bend 90° optionally available)	<b>RL</b>	Connection return flow 6/4"
<b>KFE</b>	Filling and emptying 1/2"	<b>TDV</b>	Thermal discharge safety valve feed and discharge 1/2"
<b>P</b>	Space requirements for the pellet burner including clearance for maintenance	<b>VL</b>	Connection forward flow 6/4"

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

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

# Technical specifications

## KWB Classicfire and KWB Combifire

CF1.5 S/GS   CF2 S/GS   07.06.2017	Unit	CF1.5 18	CF1.5 28	CF1.5 32	CF1.5 38	CF2 18	CF2 28	CF2 32	CF2 38
		Log wood/Pellet	Log wood/Pellet	Log wood/Pellet	Log wood/Pellet	Log wood/Pellet	Log wood/Pellet	Log wood/Pellet	Log wood/Pellet
Rated power	kW	18,3/21,4	28,6/30,0	31,9/31,9	37,6/34,9	18,3/21,4	28,6/30,0	31,9/31,9	37,6/34,9
Partial load	kW	14,3/6,4	14,3/9,0	14,2/9,6	14,13/10,5	14,3/6,4	14,3/9,0	14,2/9,6	14,2/10,5
Boiler efficiency at rated power	%	93,4/93,0	92,4/92,0	>91/>91	91,8/91,4	93,4/93,0	92,4/92,0	>91/>91	91,8/91,4
Boiler efficiency at partial load	%	93,0/90,9	93,0/91,0	>91/>91	93,0/91,0	93,0/90,9	93,0/91,0	>91/>91	93,0/91,0
Fuel thermal output at rated power	kW	19,6/24,0	30,2/33,0	34,2/35,0	41/38,0	19,6/24,0	30,2/33,0	34,2/35,0	41,0/38,0
Fuel thermal output at partial load	kW	15,2/7,0	15,2/10,0	15,2/11,0	15,2/12,0	15,2/7,0	15,2/10,0	15,2/11,0	15,2/12,0
Full load burn-off period	h	10/-	6,2/-	5,9/-	7,6/-	12,2/-	7,6/-	7,3/-	6,6/-
Boiler class according to EN 303-5:2012	-	5	5	5	5	5	5	5	5
EU Energylabel 813/2013	-	A+	A+	A+	A+	A+	A+	A+	A+
<b>Water side</b>									
Water content	l	141/168	141/168	141/168	141/168	141/168	141/168	141/168	141/168
Water connection, forward/return flow (internal thread)	inch mm	6/4 38,1	6/4 38,1	6/4 38,1	6/4 38,1	6/4 38,1	6/4 38,1	6/4 38,1	6/4 38,1
Water connection for filling and/or emptying (internal thread)	inch mm	1/2 12,7	1/2 12,7	1/2 12,7	1/2 12,7	1/2 12,7	1/2 12,7	1/2 12,7	1/2 12,7
Thermal safety valve: pressure	bar	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6
Water connection for thermal safety valve (internal thread)	inch mm	1/2 12,7	1/2 12,7	1/2 12,7	1/2 12,7	1/2 12,7	1/2 12,7	1/2 12,7	1/2 12,7
Water-side resistance at 20 K **	mbar Pa	13,5 1350	13,5 1350	13,5 1350	13,5 1350	13,5 1350	13,5 1350	13,5 1350	13,5 1350
Boiler-entry temperature	°C	55/-	55/-	55/-	55/-	55/-	55/-	55/-	55/-
Working temperature/operating temperature	°C	80	80	80	80	80	80	80	80
Maximum permitted temperature	°C	95	95	95	95	95	95	95	95
Maximum operating pressure	bar	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5
Buffer tank required	-	✓	✓	✓	✓	✓	✓	✓	✓
Minimum usable buffer tank volume	l	1500	1500	1500	1500	1800	1800	1800	1800
Recommended usable buffer tank volume	l	1800	1800	1800	1800	2500	2500	2500	2500
<b>Exhaust-gas side (data for chimney design)</b>									
Combustion chamber temperature	°C	900-1100	900-1100	900-1100	900-1100	900-1100	900-1100	900-1100	900-1100
Combustion chamber pressure (unregulated)	mbar	< 0	< 0	< 0	< 0	< 0	< 0	< 0	< 0
Required draft at rated power/partial load	mbar	0,08 0,05	0,08 0,05	0,08 0,05	0,08 0,05	0,08 0,05	0,08 0,05	0,08 0,05	0,08 0,05
Induced draught required	-	✓	✓	✓	✓	✓	✓	✓	✓
Exhaust-gas temperature at rated power	°C	160/140	160/140	160/140	160/140	160/140	160/140	160/140	160/140
Exhaust-gas temperature at partial load	°C	100/80	100/80	100/80	100/80	100/80	100/80	100/80	100/80
Exhaust-gas mass flow at rated power	kg/s	0,019	0,019	0,019	0,019	0,019	0,019	0,019	0,019
Exhaust-gas mass flow at partial load	kg/s	0,010	0,010	0,010	0,010	0,010	0,010	0,010	0,010
Exhaust-gas volume at rated power	Nm³/h	54	54	54	54	54	54	54	54
Exhaust-gas volume at partial load	Nm³/h	27	27	27	27	27	27	27	27
Chimney connection height	mm	1590	1590	1590	1590	1590	1590	1590	1590
Exhaust-gas connection diameter	mm	150	150	150	150	150	150	150	150
Incline of the Exhaust-gas pipe	°	≥ 3	≥ 3	≥ 3	≥ 3	≥ 3	≥ 3	≥ 3	≥ 3
Chimney diameter (minimum)	mm	150	150	150	150	150	150	150	150
Chimney design: moisture-resistant	-	✓	✓	✓	✓	✓	✓	✓	✓
<b>Fuel</b>									
Permissible fuels: log-wood (L50, M25 acc. to EN 17225-5)	-	✓	✓	✓	✓	✓	✓	✓	✓
Maximum length log-wood	cm	55	55	55	55	55	55	55	55
Maximum water content (fresh weight)	kg/kg	≤ 25	≤ 25	≤ 25	≤ 25	≤ 25	≤ 25	≤ 25	≤ 25
Pellets of pure wood in accordance with ISO 17225-2	-	✓	✓	✓	✓	✓	✓	✓	✓
<b>Fill area</b>									
Fill area volume	l	150	150	150	150	185	185	185	185
Width of fill doors	mm	440	440	440	440	440	440	440	440
Height of fill doors	mm	364	364	364	364	364	364	364	364
<b>Electrical system</b>									
Connection: CEE 3 pole 230 V <sub>AC</sub>	-	50 Hz, 13 A	50 Hz, 13 A	50 Hz, 13 A	50 Hz, 13 A	50 Hz, 13 A	50 Hz, 13 A	50 Hz, 13 A	50 Hz, 13 A
Unit switch and main switch: present	-	✓	✓	✓	✓	✓	✓	✓	✓
Connected power boiler (minimum)	W	151/502	151/502	151/502	151/502	151/502	151/502	151/502	151/502
Connected power boiler (maximum)	W	1288/1639	1288/1639	1288/1639	1288/1639	1288/1639	1288/1639	1288/1639	1288/1639
<b>Weights</b>									
Water jacket	kg	108	108	108	108	108	108	108	108
Combustion room module	kg	273	273	273	273	273	273	273	273
Fill room module	kg	224	224	224	224	221	221	221	221
KWB pellet module	kg	130	130	130	130	130	130	130	130
Total weight	kg	722/855	722/855	722/855	722/855	719/852	719/852	719/852	719/852

Classicfire  
Combifire

Easyfire 1  
Easyfire 1 Plus

Easyfire

Pelletfire<sup>Plus</sup>

Multifire

Powerfire

Control  
C3 & C4

Conveyor and  
storage  
systems

Storage and  
hydraulic  
systems

# Technical specifications

## KWB Classicfire and KWB Combifire

Classicfire  
Combifire

Easyfire 1  
Easyfire 1 Plus

Easyfire

Pelletfire  
Plus

Multifire

Powerfire

Control  
C3 & C4

Conveyor and  
storage  
systems

Storage and  
hydraulic  
systems

CF1.5 S/GS   CF2 S/GS   07.06.2017	Unit	CF1.5 18	CF1.5 28	CF1.5 32	CF1.5 38	CF2 18	CF2 28	CF2 32	CF2 38
Emissions according to test report		TÜV Austria	TÜV Austria	TÜV Austria	TÜV Austria	TÜV Austria	TÜV Austria	TÜV Austria	TÜV Austria
Test report no.	-	15-UJW/WeB-EX-1323, 15-UJW/WeB-EX-1324	15-UJW/WeB-EX-1322 16-U-234/SD	...	15-UJW/WeB-EX-1326, 15-UJW/WeB-EX-1325	15-UJW/WeB-EX-1323, 15-UJW/WeB-EX-1324	15-UJW/WeB-EX-1322, 16-U-234/SD	...	15-UJW/WeB-EX-1326, 15-UJW/WeB-EX-1325
O <sub>2</sub> content rated power	Vol.-%	6,2/6,1	6,3/5,8	6,0/5,7	5,6/5,6	6,2/6,1	6,3/5,8	6,0/5,7	5,6/5,6
O <sub>2</sub> content partial load	Vol.-%	6,2/8,5	6,2/7,3	6,2/7,1	6,2/6,8	6,2/8,5	6,2/7,3	6,2/7,1	6,2/6,8
CO <sub>2</sub> content rated power	Vol.-%	13,8/14,5	13,9/14,8	9,0/14,9	14,8/14,9	13,8/14,5	13,9/14,8	9,0/14,9	14,8/14,9
CO <sub>2</sub> content partial load	Vol.-%	14,0/12,0	14,0/13,2	14,0/13,4	14,0/13,7	14,0/12,0	14,0/13,2	14,0/13,4	14,0/13,7
<b>Noise emissions (EN 15036-1)</b>									
Normal operating noise at rated power	dB(A)	< 70	< 70	< 70	< 70	< 70	< 70	< 70	< 70
<b>Ref. 10 % O<sub>2</sub> dry (EN303-5)</b>									
CO at rated power	mg/Nm <sup>3</sup>	57,0/24,0	64,0/24,0	52,3/24,0	32,0/24,0	57,0/24,0	64,0/24,0	52,3/24,0	32,0/24,0
CO at partial load	mg/Nm <sup>3</sup>	81,0/69,0	81,0/36,0	81,0/29,4	81,0/19,0	81,0/69,0	81,0/36,0	81,0/29,4	81,0/19,0
NO <sub>x</sub> at rated power	mg/Nm <sup>3</sup>	153,0/151,0	169,0/166	169,0/169,9	169,0/176,0	153,0/151,0	169,0/166	169,0/169,9	169,0/176,0
NO <sub>x</sub> at partial load	mg/Nm <sup>3</sup>	115,0/131,0	115,0/139,0	115,0/140,9	115,0/144,0	115,0/131,0	115,0/139,0	115,0/140,9	115,0/144,0
OGC at rated power	mg/Nm <sup>3</sup>	7,0/<3,0	7,0/<2,0	6,3/<2,0	5,0/<2,0	7,0/<3,0	7,0/<2,0	6,3/<2,0	5,0/<2,0
OGC at partial load	mg/Nm <sup>3</sup>	12,0/2,9	12,0/<3,0	12,0/2,6	12,0/<2,0	12,0/2,9	12,0/<3,0	12,0/2,6	12,0/<2,0
Dust at rated power	mg/Nm <sup>3</sup>	13,0/19,0	21,0/18,0	21,0/18,0	21,0/18,0	13,0/19,0	21,0/18,0	21,0/18,0	21,0/18,0
Dust at partial load	mg/Nm <sup>3</sup>	10,0/18,0	10,0/19,0	10,0/19,0	10,0/19,0	10,0/18,0	10,0/19,0	10,0/19,0	10,0/19,0
<b>Ref. 11 % O<sub>2</sub> dry</b>									
CO at rated power	mg/Nm <sup>3</sup>	52,0/22,0	58,0/22,0	47,4/22,0	29,0/22,0	52,0/22,0	58,0/22,0	47,4/22,0	29,0/22,0
CO at partial load	mg/Nm <sup>3</sup>	74,0/63,0	74,0/32,2	74,0/26,7	74,0/18,0	74,0/63,0	74,0/32,2	74,0/26,7	74,0/18,0
NO <sub>x</sub> at rated power	mg/Nm <sup>3</sup>	139,0/137,0	154,0/152,9	153,6/155,7	153,0/160,0	139,0/137,0	154,0/152,9	153,6/155,7	153,0/160,0
NO <sub>x</sub> at partial load	mg/Nm <sup>3</sup>	104,0/120,0	104,0/127,5	104,0/128,9	104,0/131,0	104,0/120,0	104,0/127,5	104,0/128,9	104,0/131,0
OGC at rated power	mg/Nm <sup>3</sup>	7,0/<2,0	7,0/<2,0	6,3/<2,0	5,0/<2,0	7,0/<2,0	7,0/<2,0	6,3/<2,0	5,0/<2,0
OGC at partial load	mg/Nm <sup>3</sup>	11,0/2,6	11,0/2,6	11,0/2,4	11,0/<2,0	11,0/2,6	11,0/2,6	11,0/2,4	11,0/<2,0
Dust at rated power	mg/Nm <sup>3</sup>	12,0/17,0	19,0/<18,0	19,0/17,2	19,0/16,0	12,0/17,0	19,0/<18,0	19,0/17,2	19,0/16,0
Dust at partial load	mg/Nm <sup>3</sup>	10,0/17,0	10,0/<18,0	10,0/17,6	10,0/<17,0	10,0/17,0	10,0/<18,0	10,0/17,6	10,0/<17,0
<b>Ref. 13 % O<sub>2</sub> dry (FJ-BLT)</b>									
CO at rated power	mg/Nm <sup>3</sup>	42,0/17,0	47,0/18,0	38,2/18,0	23,0/18,0	42,0/17,0	47,0/18,0	38,2/18,0	23,0/18,0
CO at partial load	mg/Nm <sup>3</sup>	59,0/50,0	59,0/26,0	59,0/21,3	59,0/14,0	59,0/50,0	59,0/26,0	59,0/21,3	59,0/14,0
NO <sub>x</sub> at rated power	mg/Nm <sup>3</sup>	111,0/110,0	123,0/121,0	123,0/123,7	123,0/128,0	111,0/110,0	123,0/121,0	123,0/123,7	123,0/128,0
NO <sub>x</sub> at partial load	mg/Nm <sup>3</sup>	84,0/96,0	84,0/101,0	84,0/102,6	84,0/105,0	84,0/96,0	84,0/101,0	84,0/102,6	84,0/105,0
OGC at rated power	mg/Nm <sup>3</sup>	5,0/<2,0	5,0/<2,0	4,6/<2,0	4,0/<2,0	5,0/<2,0	5,0/<2,0	4,6/<2,0	4,0/<2,0
OGC at partial load	mg/Nm <sup>3</sup>	8,0/2,1	8,0/<2,0	8,0/<2,0	8,0/<2,0	8,0/2,1	8,0/<2,0	8,0/<2,0	8,0/<2,0
Dust at rated power	mg/Nm <sup>3</sup>	10,0/14,0	15,0/13,0	15,0/13,0	15,0/13,0	10,0/14,0	15,0/13,0	15,0/13,0	15,0/13,0
Dust at partial load	mg/Nm <sup>3</sup>	8,0/13,0	8,0/14,0	8,0/14,0	8,0/14,0	8,0/13,0	8,0/14,0	8,0/14,0	8,0/14,0
<b>In accordance with § 15a-BVG Austria</b>									
CO at rated power	mg/MJ	28,0/12,0	32,0/12,0	26,1/12,0	16,0/12,0	28,0/12,0	32,0/12,0	26,1/12,0	16,0/12,0
CO at partial load	mg/MJ	40,0/34,0	40,0/19,0	40,0/15,5	40,0/10,0	40,0/34,0	40,0/19,0	40,0/15,5	40,0/10,0
NO <sub>x</sub> at rated power	mg/MJ	76,0/75,0	84,0/82,0	84,0/83,9	84,0/87,0	76,0/75,0	84,0/82,0	84,0/83,9	84,0/87,0
NO <sub>x</sub> at partial load	mg/MJ	57,0/65,0	57,0/69,0	57,0/69,8	57,0/71,0	57,0/65,0	57,0/69,0	57,0/69,8	57,0/71,0
OGC at rated power	mg/MJ	4,0/<1,0	4,0/<1,0	4,0/<1,0	4,0/<1,0	4,0/<1,0	4,0/<1,0	4,0/<1,0	4,0/<1,0
OGC at partial load	mg/MJ	6,0/1,4	6,0/<2,0	6,0/1,6	6,0/<1,0	6,0/1,4	6,0/<2,0	6,0/1,6	6,0/<1,0
Dust at rated power	mg/MJ	7,0/9,0	10,0/9,0	10,0/9,0	10,0/9,0	7,0/9,0	10,0/9,0	10,0/9,0	10,0/9,0
Dust at partial load	mg/MJ	5,0/9,0	5,0/9,0	5,0/9,0	5,0/9,0	5,0/9,0	5,0/9,0	5,0/9,0	5,0/9,0

\*\* ... The water-side resistance is specified and determined in each case on the boiler interface (flange RF/FF)

\*\*\* ... Drawing inspection

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

Information regarding the hydraulics requirements can be found at [www.kwb.en](http://www.kwb.en).