

Commercial boiler **maximus L**

Technical Report

1 Technical specifications

maxi^{mus} L		150	200	250	300
Wood chips output	[kW]	149	201	240	-
Pellets output	[kW]	149	201	250	299
Boiler class (acc. to EN 305:5 2012)		5	5	5	5
Boiler efficiency - wood chips: Full load	[%]	93.40	94.50	93.60	-
Boiler efficiency - wood chips: Partial load	[%]	94.00	92.90	94.00	-
Boiler efficiency - pellets: Full load	[%]	93.70	94.20	94.40	93.50
Boiler efficiency - pellets: Partial load	[%]	94.00	92.90	92.60	94.00
Dimensions					
Width	[cm]	195	195	195	195
Height inc. adjustable feet ^[1]	[cm]	214	214	214	214
Depth with ID fan	[cm]	222	222	222	222
Burner transport dimension - width	[cm]	90	90	90	90
Heat exchanger transport dimension - width ^[2]	[cm]	100	100	100	100
Heat exchanger transport dimension - height	[cm]	210	210	210	210
Minimum room height ^[3]	[cm]	275	275	275	275
Weight					
Burner weight	[kg]	1321	1321	1321	1321
Heat exchanger weight	[kg]	1456	1456	1456	1456
Feeder unit weight (inc. single axis rotary valve)	[kg]	215	215	215	215
Total weight (inc. ash container and feeder unit; ready for operation, without fill-up water)	[kg]	3290	3290	3290	3290
Water side					
Water content (burner and heat exchanger)	[l]	565	565	565	565
Operating temperature	[°C]	70 - 90	70 - 90	70 - 90	70 - 90
Maximum permissible temperature	[°C]	90	90	90	90
Max. permissible operating pressure	[bar]	3	3	3	3
Min. return temperature	[°C]	60	60	60	60
Boiler flow/boiler return connection	["]	G 2" ET	G 2" ET	G 2" ET	G 2" ET
Drain connection	["]	G 1" ET	G 1" ET	G 1" ET	G 1" ET
Connection for thermal overload protection	["]	G 1/2" ET	G 1/2" ET	G 1/2" ET	G 1/2" ET
Electrical connection					
Connection, fuse	400 V AC, 50 Hz, 16 A, 3P+N+PE				
Fuel					
Fuel - wood chips	Wood chips in accordance with EN ISO 17225-4, classes A1, A2, B1; sizes P16S and P31S; water content max. 35% (M35)				
Fuel - wood pellets	Wood pellets according to EN ISO 17225-2				
Flue gas side					
Flue gas pipe diameter	[cm]	25	25	25	25
Height up to upper edge of flue gas pipe ^[1]	[cm]	214	214	214	214
Minimum draught requirement ^[4]	[Pa]	5	5	5	5
Maximum flue gas temperature ^[5] full load	[°C]	140	140	140	140

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Emissions according to test report: *Wood chips*

Flue gas values (in relation to 13% O ₂) from test report:testing institute/test report No.		18-IN-AT-UW-OÖ-EX-205/3 TÜV Austria	Interpolation according to EN 303-5	18-IN-AT-UW-OÖ-EX-205/4 TÜV Austria	-
CO full load	[mg/m ³]	19	30	38	-
CO partial load	[mg/m ³]	20	20	20	-
NO _X full load	[mg/m ³]	120	120	115	-
NO _X partial load	[mg/m ³]	93	93	93	-
Org. C full load	[mg/m ³]	2	2	2	-
Org. C partial load	[mg/m ³]	2	2	2	-
Dust content full load	[mg/m ³]	9.5	11.6	6	-
Dust content partial load	[mg/m ³]	6	6.5	6	-
Flue gas mass flow full load	[g/s]	97.9	130.5	156.7	-
Flue gas mass flow partial load	[g/s]	29.4	39.2	47.0	-

Emissions according to test report: *Pellets*

Flue gas values (in relation to 13% O ₂) from test report:testing institute/test report No.		18-IN-AT-UW-OÖ-EX-205/1 TÜV Austria	Interpolation according to EN 303-5	Interpolation according to EN 303-5	18-IN-AT-UW-OÖ-EX-205/2 TÜV Austria
CO full load	[mg/m ³]	<3	3	3.6	3.6
CO partial load	[mg/m ³]	29	29	29	29
NO _X full load	[mg/m ³]	112	112	113	113
NO _X partial load	[mg/m ³]	83	83	83	83
Org. C full load	[mg/m ³]	2	2	2	2
Org. C partial load	[mg/m ³]	2	2	2	5
Dust content full load	[mg/m ³]	1	8	2	10.2
Dust content partial load	[mg/m ³]	5	5	5	5
Flue gas mass flow full load	[g/s]	94.5	126.0	157.6	189.1
Flue gas mass flow partial load	[g/s]	28.4	37.8	47.3	56.7

- [1] Adjustable feet at maximum depth of thread
- [2] The boiler cladding parts are removed. The dimension including fitted cladding is 106 cm.
- [3] The minimum room height is required for maintenance work
- [4] A draught stabiliser must be fitted if the specified draught of 15 Pa is exceeded
- [5] Flue gas temperature can be adjusted electronically

The above information consists of values from test bench measurement (state-authorised testing institute TÜV Austria), deviation from locally measured values is possible.

Austria: The system (the heating boiler mentioned here) is, in regard to the placing on the market in Austria, currently subject to the ÖNORM EN 303-5 provisions and the agreement of the Austrian Federal Provinces according to Article 15a of the Federal Constitutional Law (Art. 15a B-VG) about protective measures relating to small combustion systems/energy saving.

Germany: The 1st BImSchV (Federal Immission Control Ordinance) - Stage 2 stipulates a tightening of the emission limits for boilers that were installed after 31.12.2014. SOLARFOCUS GmbH. confirms that all boilers supplied by them comply with these required limit values.

2 Dimensions

The following figures show the **maxi^{mus} L** with mounted intermediate pellet store.

Top view

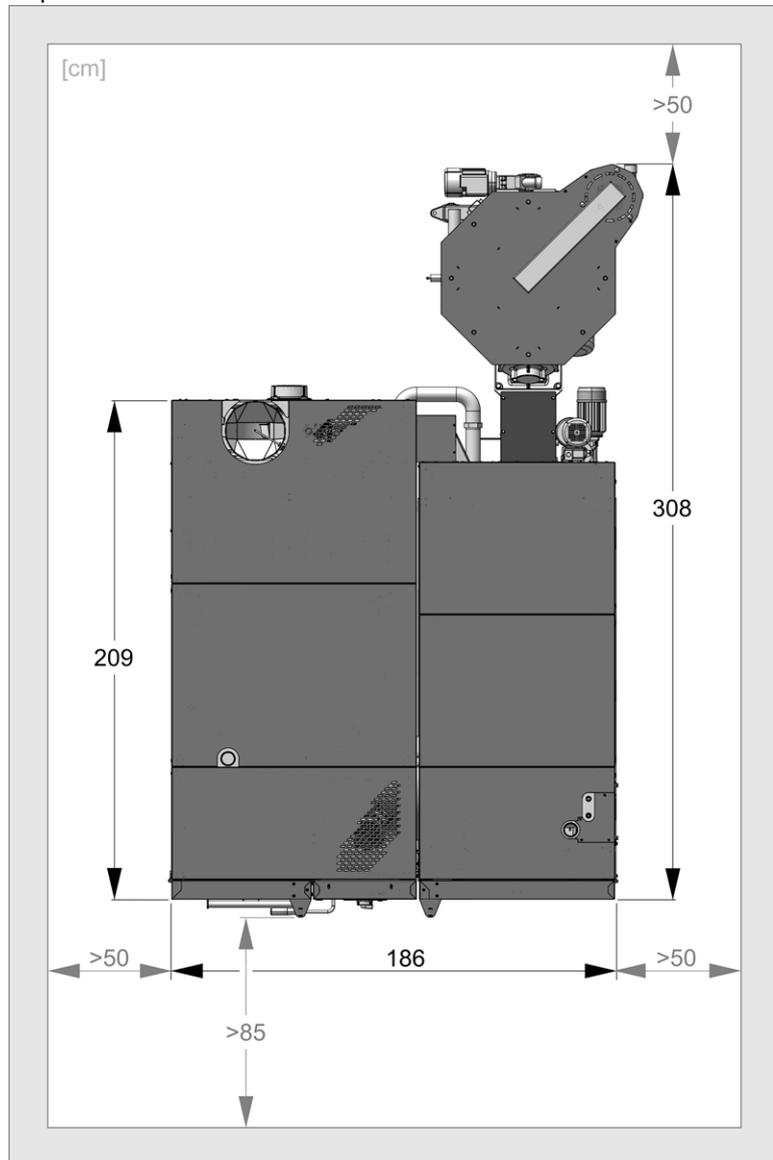


Abb. 2-1_016iEM

Front

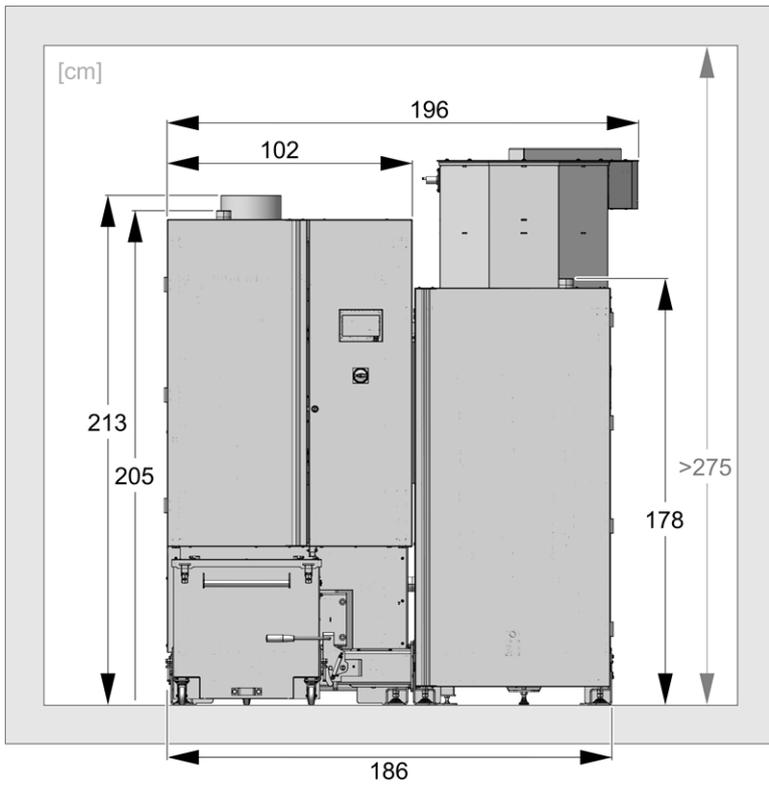


Abb. 2-2_015iEM

Side view

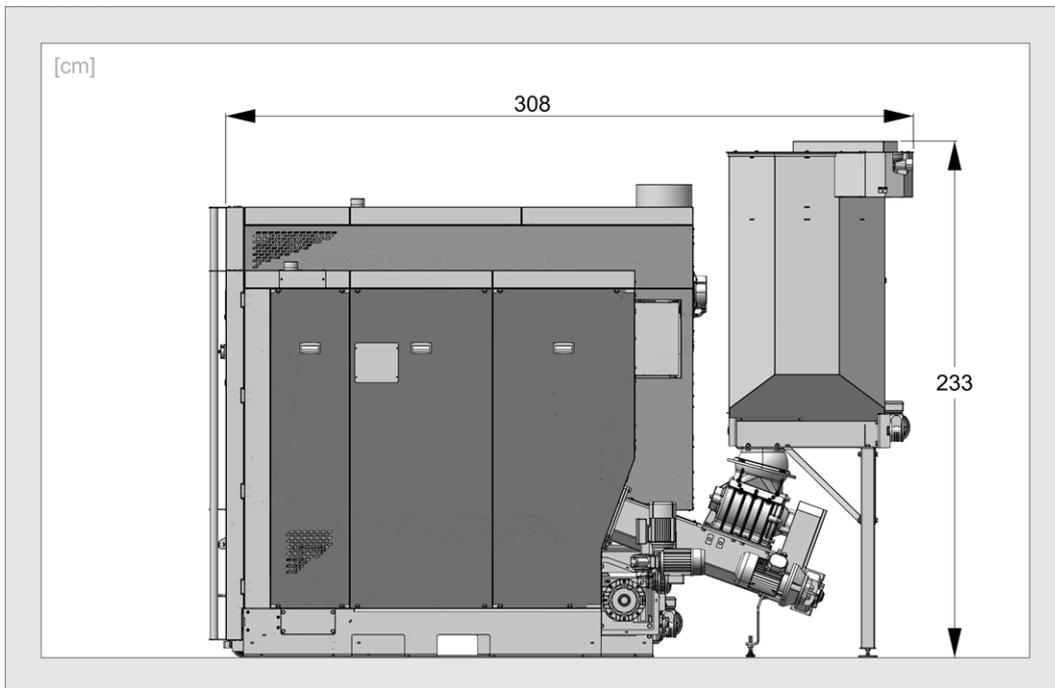


Abb. 2-3_017iEM

3 Dimensions with ash extraction system

For details about installation, electrical connection, see manual DR-9969

3.1 240 litre standard bin (product 63791)

Pipe connection position 90 degrees

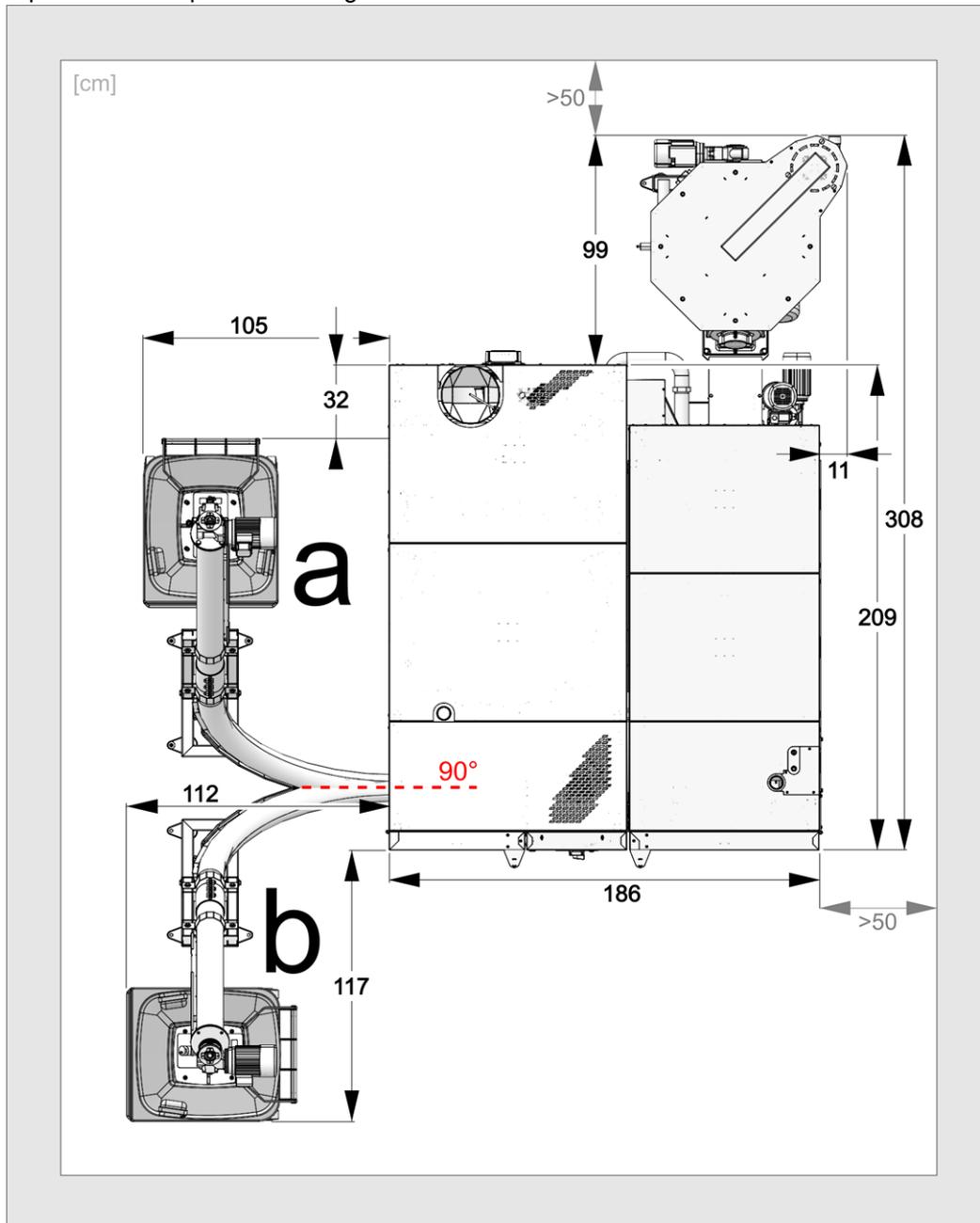


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Pipe connection position 25 degrees

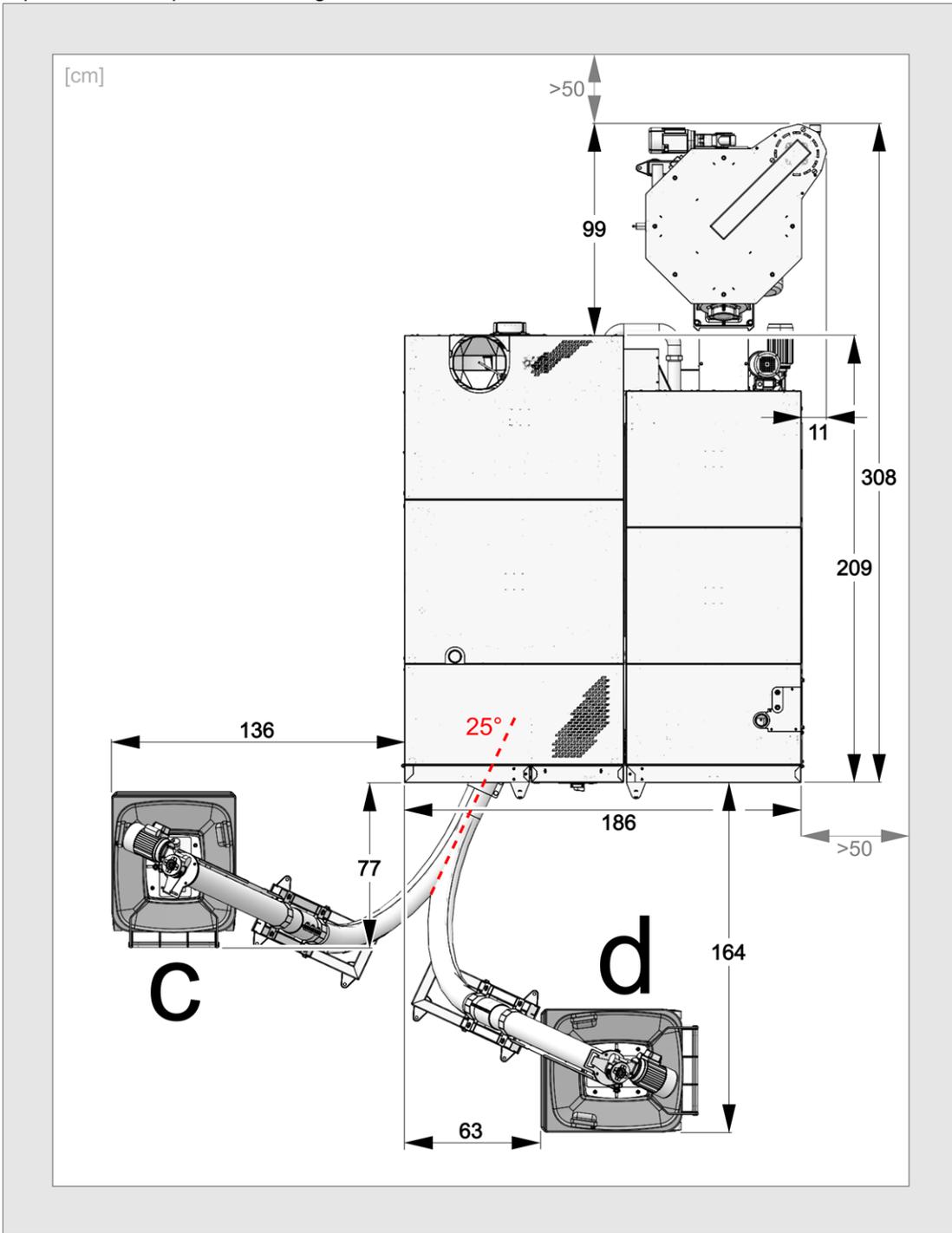


Abb. 2-5_014iEM

Pipe connection position 25 degrees

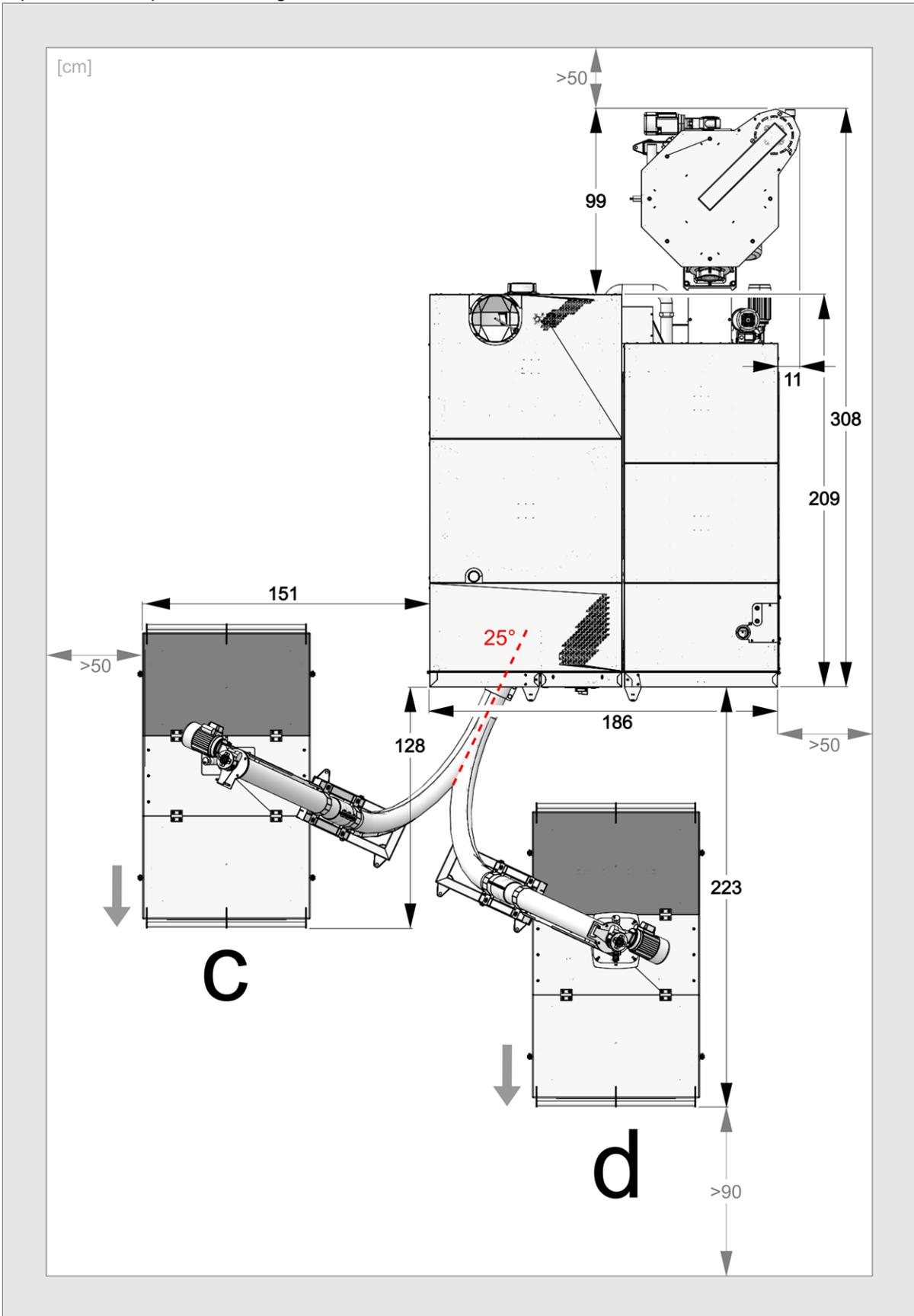


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Pellets



Log wood + pellets



Log wood



Wood chips



Solar energy



Fresh water



Heat pump

Österreich

SOLARFOCUS GmbH, Werkstraße 1, A-4451 St. Ulrich/Steyr

office@solarfocus.at
www.solarfocus.at

Tel.: 07252 50 002 - 0
Fax: 07252 50 002 - 10

Deutschland

SOLARFOCUS GmbH, Marie-Curie-Str. 14-16, D-64653 Lorsch

info@solarfocus.de
www.solarfocus.de

Tel.: 06251 13 665 - 00
Fax: 06251 13 665 - 50

Schweiz

SOLARFOCUS Schweiz GmbH, Gewerbe Mooshof 10

CH-6022 Grosswangen
www.solarfocus.ch

Tel.: 041 984 0880
info@solarfocus.ch