CSTfire

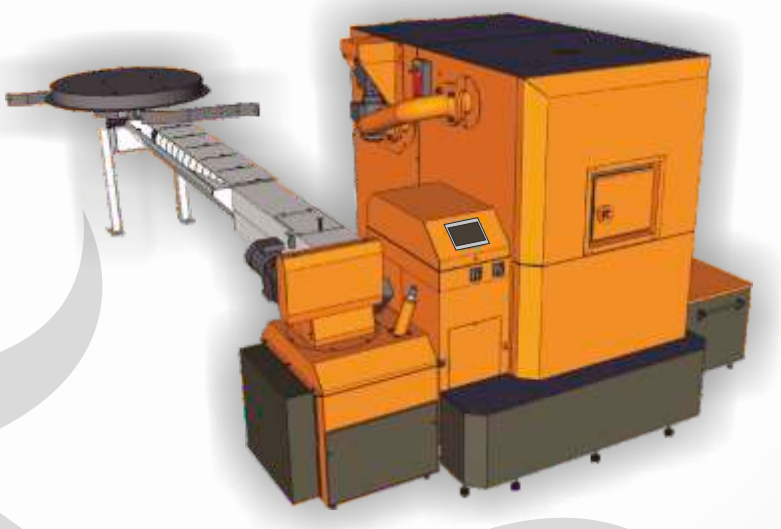
Universal automatic biomass combustion warm water boilers

HAMONT

40-101 kW

HAMONT

150-500 kW



From an environmental alternative to energy independence.

CSTfire for the environment

It is now universally acknowledged that the combustion of fossil fuels brings about a number of negative effects to environment and nowadays is the greenhouse effect really discussed topic.

The problem involves the fact that carbon (C), which millions of years ago was bound to deposits of fossil fuels in the depths of the earth due to the effects of geophysical processes, through combustion is released back into the earth's atmosphere in the form of CO_2, where its amount exponentially grows. Thus it has a negative effect on the development of the climate, even though there are greatly varying viewpoints in this respect.

Does it follow then, that no greenhouse gases (CO_2) result from the combustion of biomass?

It was through the decomposition of plants that coal, oil and natural gas emerged. The essential difference consists in the fact that plants are a renewable source of energy, for which CO_2 is the necessary prerequisite of their growth. It has been proved that the combustion of biomass generates approximately as much CO_2 as the plant consumes as it grows. A cycle develops where we speak about CO_2-neutral combustion. The amount of greenhouse gases in the atmosphere does not increase and moreover, almost no emissions of SO_2 are released into the air.

Combustion of biomass may lead us to more interesting results. It can help us in reducing our energy dependence upon the supply of fossil fuels, in particular natural gas.
Many years of experience however have shown that as a result of the installation of our facilities, a number of clients have become fully independent in the field of heat energy. That primarily applies to wood processing companies, block of flats, recreational buildings, municipal authorities, agricultural farms, etc.

Product Properties HAMONT

Biomass boilers Hamont continued in the best tradition of manufacturing automatic boilers with high degree of comfort in basic version. The boilers are produced with validate European standard ČSN EN 303-5: 2013 and they are certified by engineering test institute Brno (SZU), which is Notified body 1015, accredited for assessment of conformity.

They are mainly characterised by the following:

- Fully automated operation
- Ecological and Economic operation
- Regulated the range of 30-100%
- Protection against reverse burning
- Optimizes the combustion process by monitoring the oxygen surplus values with Lambda Probe.
- Container 1 -1,4 m^3 type USV
- Fuel transfer from warehouse (type USZI)
- High-temperature combustion chamber with continuous monitoring of under pressure
- Combustion crown – primary and secondary fans.
- The ash is automatically conveyed to the ash container
- Automatically cleaning of heat exchanger
- Automatically ignition
- Independent grating fuel
- Exhaust fan, ceramic deflector
- Control unit with a touch screen
- Operation visualization can be connected by the Internet, distance control, subtraction of date
- Universality of fuel
- Program can be adapted to customer requirements

Description of the HAMONT 40-101 kW boiler and functions

Power series : 40 kW - 49 kW - 60 kW - 80 kW - 99 kW - 100 kW - 101 kW

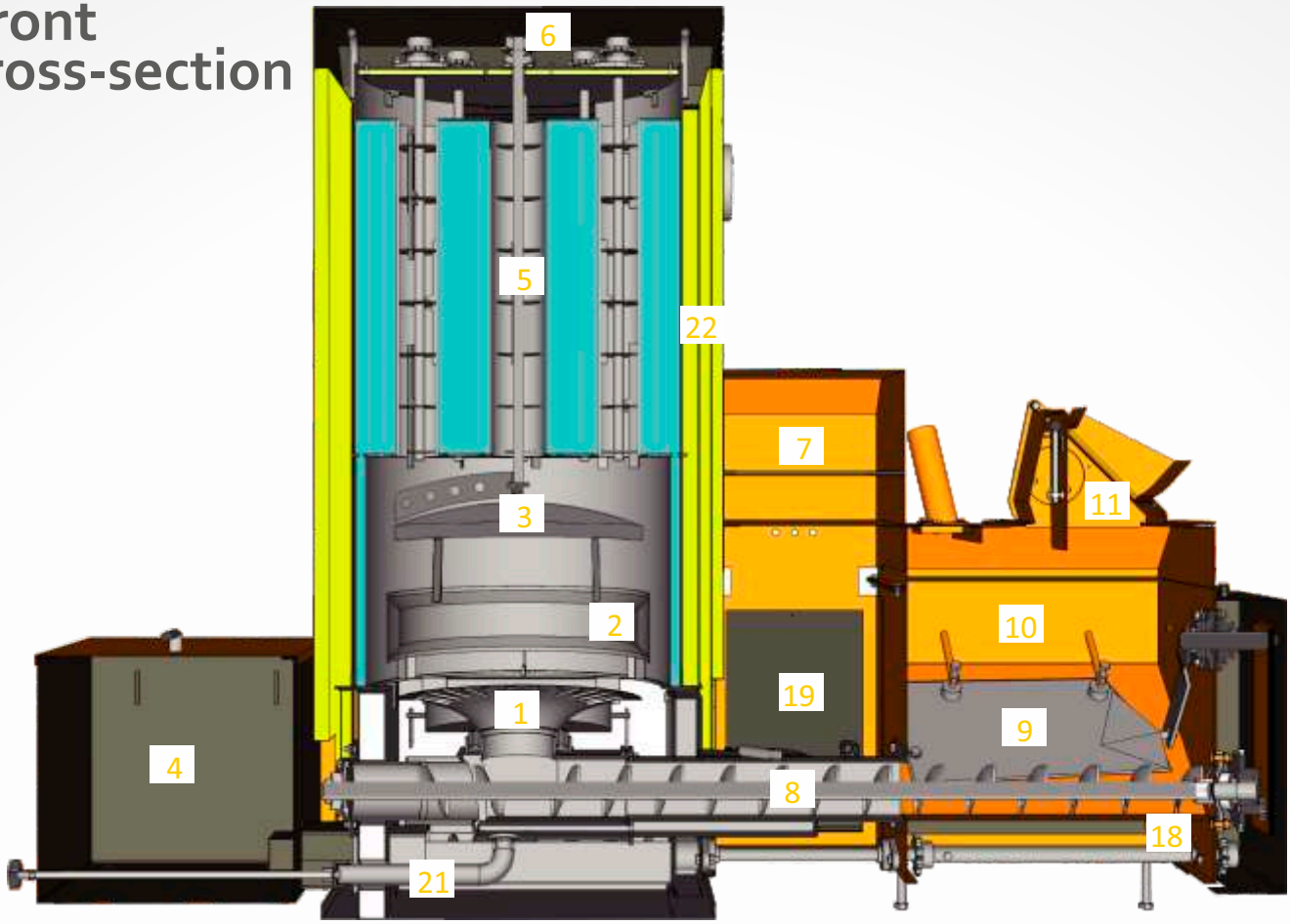
The boilers are supplied either with a 1-1.4 m^3 volume fuel container (USV) or with a central staging device, which automatically feeds the fuel in from the central warehouse to the intermediate boiler container (USZI). The fuel is transported via a screw conveyor into the boiler's combustion chamber where it is ignited automatically. The boiler is equipped with a high-temperature combustion chamber with a round burner and primary air inlet, with an additional combustion crown above with a secondary air inlet.

Both connections of combustion air are controlled by two independent fans. The flow of exhaust gases is corrected prior to entering the heat exchanger, using a so-called deflector that ensures optimum finish-combustion. For the present power series, the heat exchanger is located above the hearth and the cleaning of its heat transfer surfaces is provided automatically. In this way, the high efficiency of the equipment is ensured. The optimum flow of flue gases is provided for by an exhaust fan. Once the combustion process has been completed, the ashes are conveyed to the ash container by two screw conveyors. The function of the entire boiler is controlled by a control unit, which allows the setting of the required mode for various fuels, as well as two-way communication via a GSM modem, or visualised communication. The control unit optimises the combustion process across the entire range of the boiler's powers by continually reading the oxygen surplus in the flue gases by a lambda probe. That ensures the high efficiency of the facility across the entire range of controllability. Boiler power can be regulated within the range of 30 to 100%.

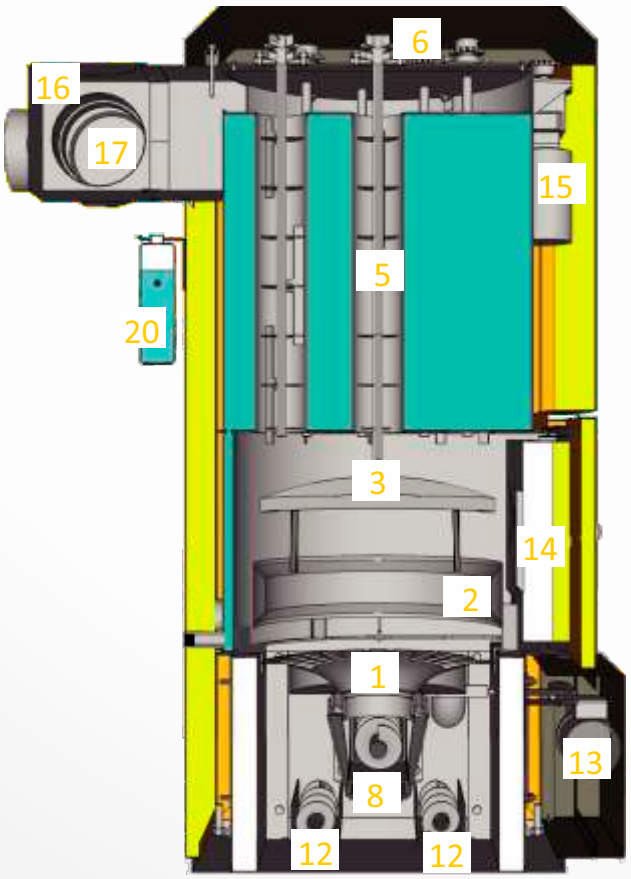
Model USV

Model USZI

Front cross-section

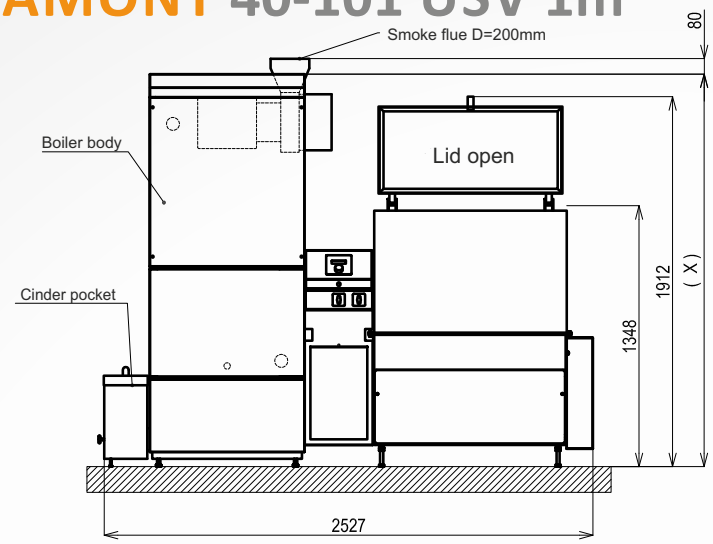


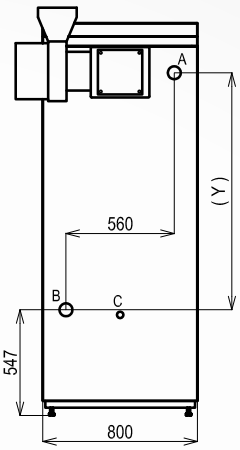
Side cross-section

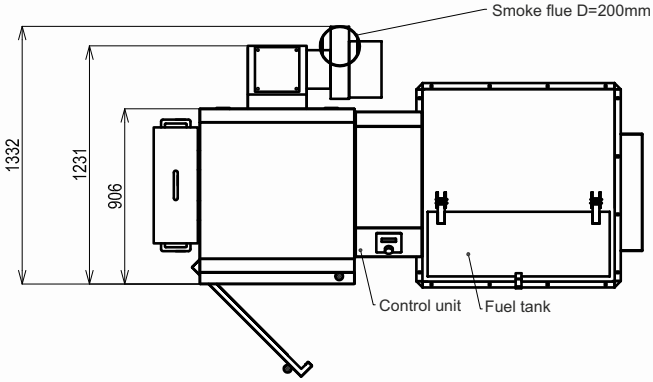


1. Primary burner with a moving grate
2. Secondary crown of additional combustion
3. Ceramic deflector
4. Ash container
5. Heat exchanger with turbulators
6. Turbulator drive
7. Control panel with control system
8. Feed screw
9. Disrupting mechanism
10. Intermediate fuel container
11. Separating flap of the intermediate container and fuel conveyor
12. Ash screws
13. Grating motor
14. Boiler service door
15. Turbulator drive motor
16. Chimney extension
17. Exhaust fan
18. Feed motor and ash screw motor
19. Accessories - Primary and secondary fan
    - Ignition fan
    - Emergency spark extinguishing device
21. Air duct cleaning
22. Double boiler insulation

HAMONT 40-101 USV 1m³

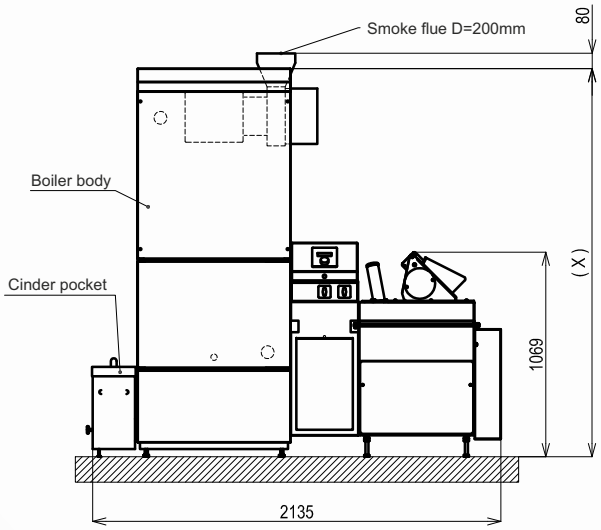


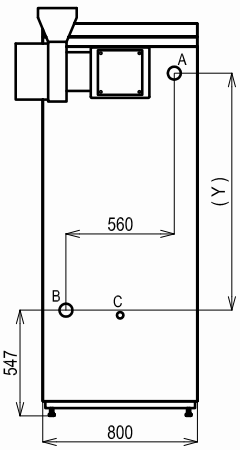


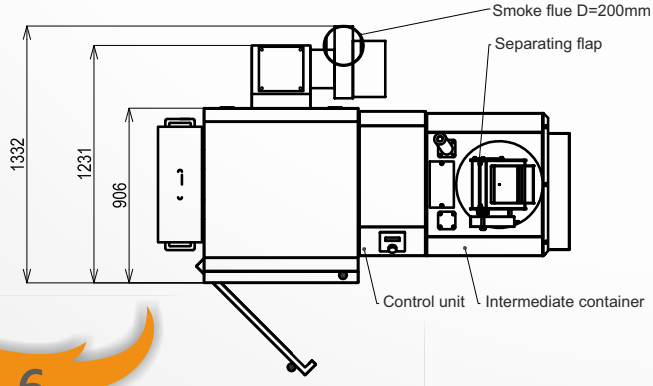


Type HAMONT	40kW	49kW	60kW	80kW	99kW	100kW	101kW
High (X):	1830	1830	1830	1830	2030	2030	2030
Pitch (Y):	1025	1025	1025	1025	1225	1225	1225

HAMONT 40-101 USZI







Type HAMONT	40kW	49kW	60kW	80kW	99kW	100kW	101kW
High (X):	1830	1830	1830	1830	2030	2030	2030
Pitch (Y):	1025	1025	1025	1025	1225	1225	1225

A = Water - outlet G2"
B = Water – inlet G2"
C = discharge G3/4"

HAMONT boiler technical data 40 – 101 US.. S1

Designation		40	49	60	80	99	100	101
Nominal power Pn	kW	40	49	60	80	99	100	101
Partial load P_{min}	kW	11	14	17	23	28	28	28
Boiler class / Fuel C1- wood pellets		4	4	4	4	5	5	5
Boiler class / Fuel B1- wood chips		4	4	4	4	4	4	4
Noise level	dB	< 65						
Weight	kg	732	783	997	997	1042	1042	1042
Water								
Volume of water	l	165	129	129	105	115	115	115
Water connection diameter	DN	50						
Hydraulic boiler loss at temperature gradient of 10°C	mbar	7,5	17	17	29,9	47	47	47
Hydraulic boiler loss at temperature gradient of 20°C	mbar	1,9	4,3	4,3	7,5	11,9	11,9	11,9
Boiler temperature	°C	60-90						
Min. temperature of return water	°C	55						
Max. temperature outlet water	°C	95						
Max. operating pressure	bar	3,5						
Test pressure	bar	5						
Hearth temperature	**°C**	**900-1100**						
Hearth pressure	mbar	-0,04						
Required chimney draught	mbar	0,15						
Need for artificial draught		Yes						
Flue gas temperature at Pn	°C	133	135	148	153	165	165	165
Flue gas temperature at P_{min}	°C	91	88	94	93	96	96	96
Volume of flue gas at Pn	kg/h	120	150	180	240	300	300	300
Volume of flue gas at P_{min}	kg/h	39	50	60	81	99	99	99
Chimney execution		**Resistant to moisture**						
Smoke pipe diameter	mm	200						
Chimney diameter	mm	200						
Fuel								
Wood pellets ČSN EN ISO 17225-2		A1 EN plus, A1, A2 EN plus						
Wood chips ČSN EN ISO 17225-4		Moisture content M35, class A1, A2, B1 a size P16S, P31S						
Electric equipment								
Connection		3PEN, 3X400/230V-50Hz, TNC-S/16A						
Total installed power	W	3048	3048	3131	3131	3131	3131	3131
Average operating power consumption	W	260	324	388	515	618	618	618

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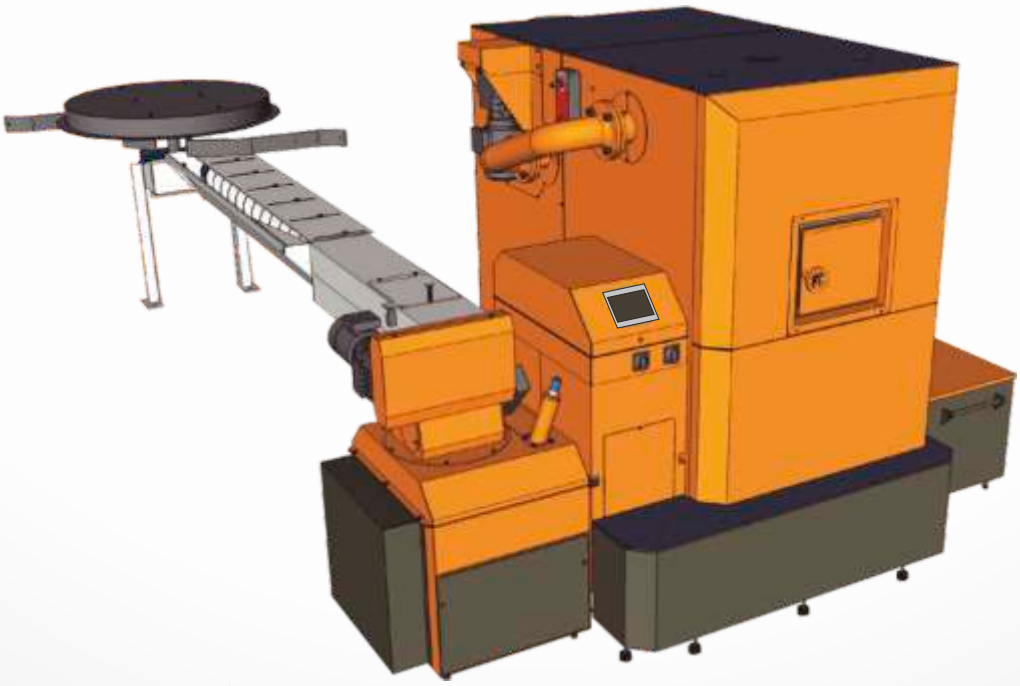
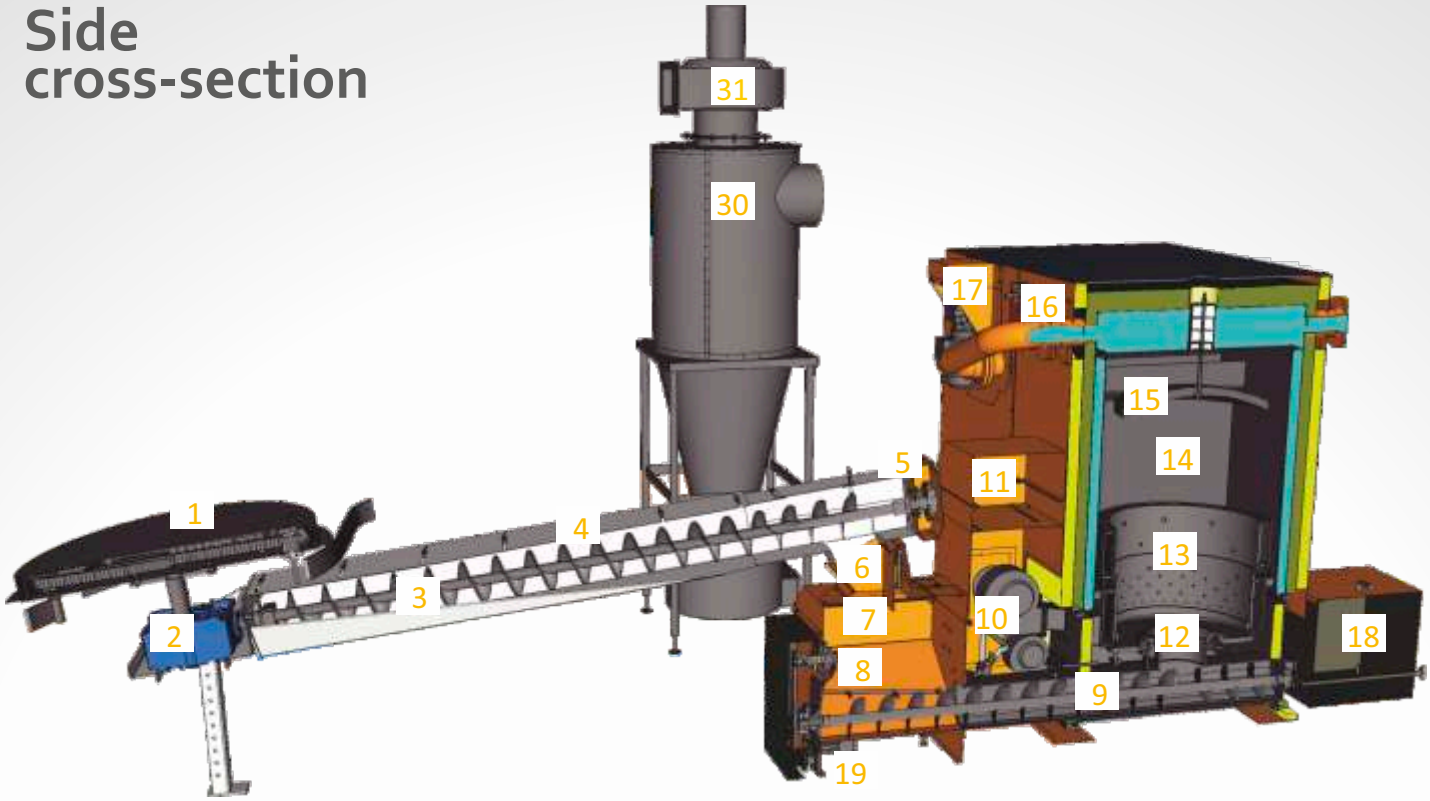
Description of the HAMONT 150-500 kW boiler and functions

Power series: 150 kW – 180 kW – 199 kW – 220 kW – 250 kW 300 kW – 350 kW – 400 kW – 450 kW – 499 kW – 500 kW

The boilers are predominantly supplied with moving equipment, which is moving from fuel warehouse to the boiler's intermediate container (USZI). Alternatively, the boiler may be installed with a 1-1.4 m^3 volume fuel container (USV). With account taken of the capacity of the boiler container, it is recommended for the present modification to further automate the supply of fuel (such as in combination with a silo). A screw conveyor is used to feed the fuel to the high-temperature combustion chamber, where it is ignited automatically. It burns out on a circular burner while primary air is fed in. The two-part secondary crown of additional combustion with secondary and tertiary air supply located above it provide for the full combustion of the emerging gases. Full combustion is supported by the deflector located above the combustion chamber, which at the same time adequately rectifies the direction of the flue gases prior to their entry into the heat exchanger. The same is located above the hearth, and its heat transfer surfaces are cleaned automatically. This guarantees the high efficiency of the system. Optimal flow of flue gases is ensured by an exhaust with continuous control as a function of the actual under pressure in the combustion chamber, which is continually readout. For boilers falling into this power series, the exhaust fan is a part of the separator of solid pollutants (cyclone). Once burnt out, the ash is carried into the ash pocket using two feed screws. The function of the entire boiler is controlled by a control unit, which allows the setting of the required mode for each fuel used, and simultaneous two-way communication via a GSM modem, which may be visualised. The control unit optimises the combustion process across the entire range of power of the boiler by continually monitoring the oxygen surplus values by a lambda probe in the flue gases. That guarantees the high efficiency of the facility across the entire range of controllability. Boiler power may be controlled within the range of 30 to 100%.

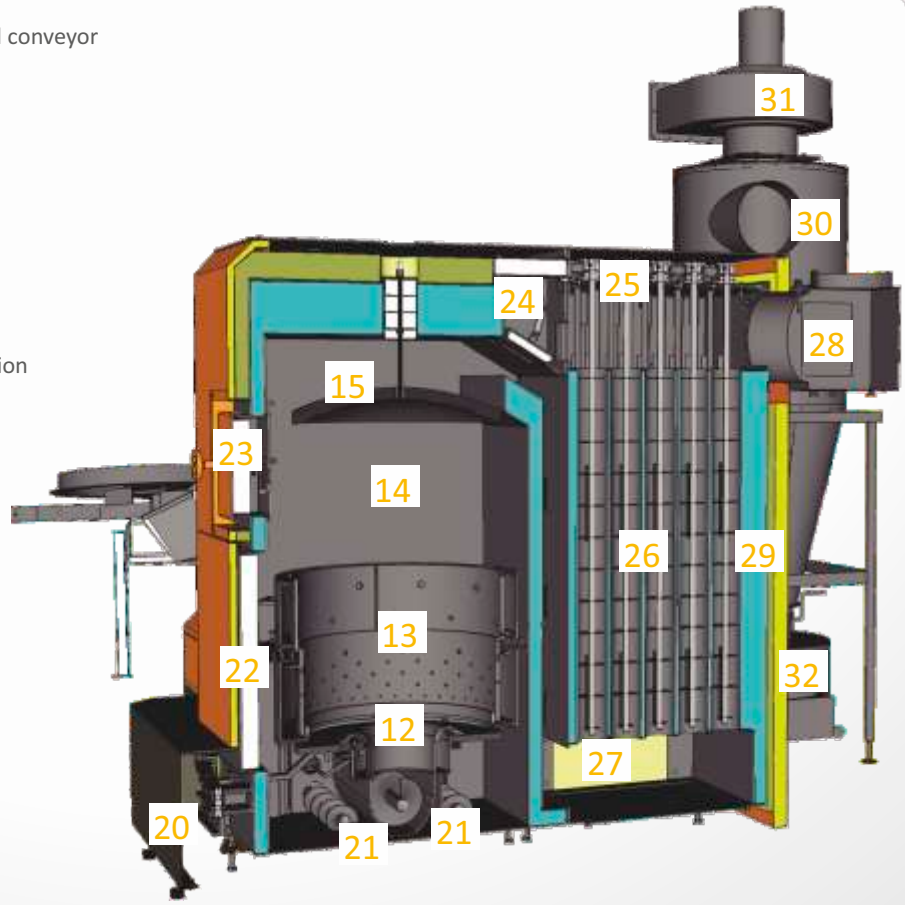


Side cross-section

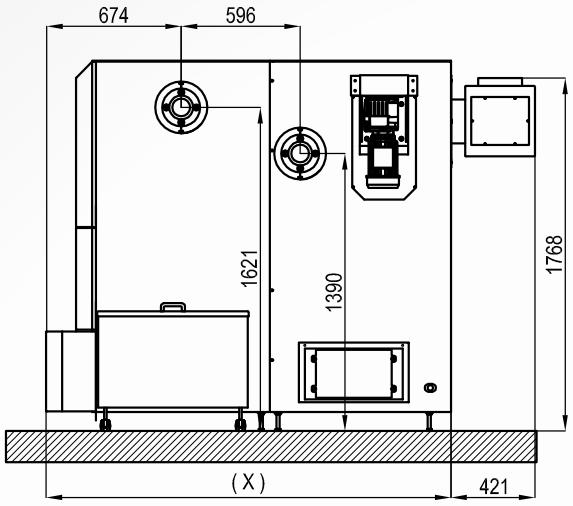


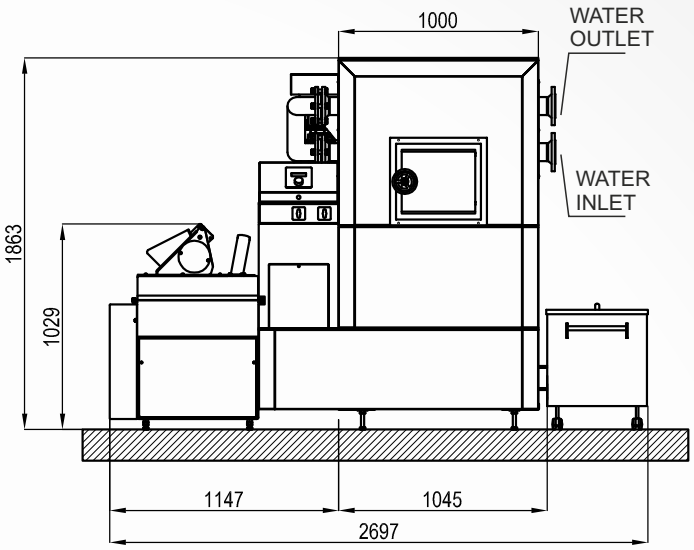
1. Spatial staging stirrer
2. Stirrer screw gear box
3. Conveyor screw
4. Fuel conveyor
5. Conveyor motor and gear box
6. Separating flap of the intermediate container and conveyor
7. Intermediate fuel container
8. Disrupting mechanism
9. Feed screw
10. Accessories - primary fan
    -secondary 1 fan
    -secondary 2 fan
    -igniting fan
    -emergency extinguishing facility
11. Control panel with a control system
12. Primary burner with a moving grate
13. Two-way secondary crown of additional combustion
14. Combustion chamber
15. Ceramic deflector
16. Servo-drive of the flap of heat exchanger
17. Turbulator drive motor
18. Ash container
19. Feed screw motor
20. Grating mechanism with a motor
21. Ash screws
22. Boiler service door
23. Boiler inspection door
24. Exchanger flap
25. Turbulator drive
26. Heat exchanger with turbulators
27. Heat exchanger ash exhaust
28. Chimney extension
29. Double boiler insulation
30. Separator of solid pollutants
31. Exhaust fan
32. Separator ash container

Front cross-section



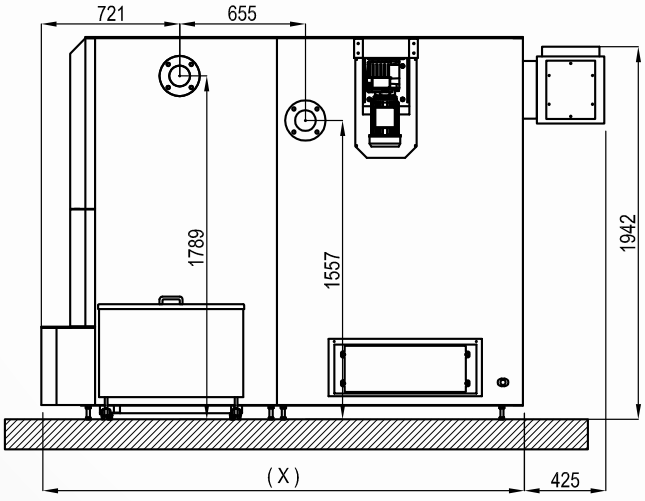
HAMONT 150 – 250 kW - USZI

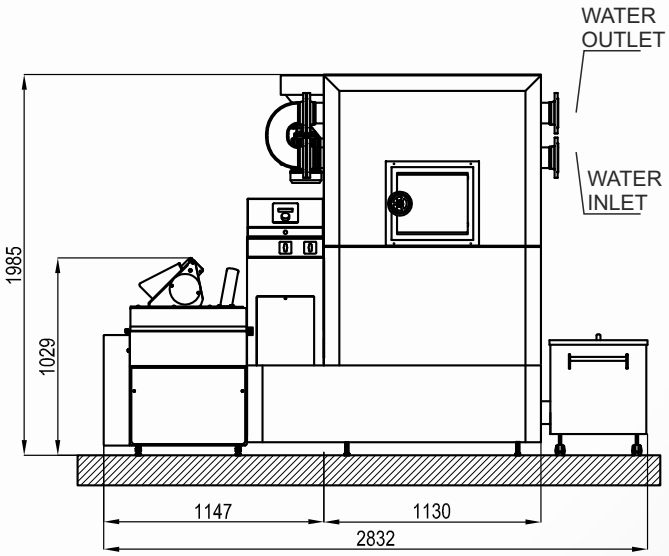




Type HAMONT	150kW	180kW	199kW	220kW	250kW
Length (X):	1668	1788	1908	1908	2028

HAMONT 300 – 500 kW - USZI





Type HAMONT	300kW	350kW	400kW	450kW	499kW	500kW
Length (X):	2028	2148	2268	2388	2508	2508

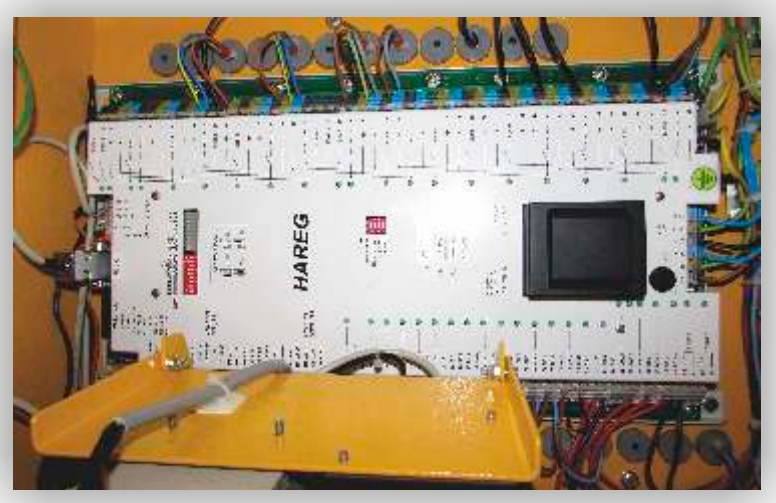
HAMONT boiler technical data 150 - 500 US.. S1

Designation		150	180	199	220	250	300	350	400	450	499	500
Nominal power Pn	kW	150	180	199	220	250	300	350	400	450	499	500
Partial Load P_{min}	kW	40	45	50	55	65	75	90	100	115	140	140
Boiler class / Fuel C1-wood pellets		5										
Ecodesign according to Commission Regulation (EU) No.2015/1189 for fuel C1		yes										
Boiler class / Fuel B1 - wood chips		5										
Ecodesign according to Commission Regulation (EU) No.2015/1189 for fuel B1		yes										
Noise level	dB	< 65										
Weight	kg	2290	2370	2450	2450	2530	2750	2850	2950	3150	3250	3250
Water												
Volume of water	l	380	420	460	460	500	690	740	790	850	900	900
Water connection diameter	DN	80/PN6					100/PN6					
Hydraulic boiler loss at temperature gradient of 10°C	mbar	65	73	80	80	87	95	102	110	122	130	130
Hydraulic boiler loss at temperature gradient of 20°C	mbar	16	18	20	19	21	23	24	26	29	31	31
Boiler temperature	°C	60-90										
Min. temperature of return water	°C	55										
Max. temperature outlet water	°C	95										
Max. operating pressure	bar	3,5										
Test pressure	bar	5										
Hearth temperature	**°C**	**900-1100**										
Hearth pressure	mbar	-0,04										
Required chimney draught	mbar	0,15										
Need for artificial draught		yes										
Flue gas temperature at P_n	°C	129	124	118	116	113	109	109	108	108	107	107
Draught after the boiler at P_n	Pa	20										
Flue gas temperature at P_{min}	°C	72	71	68	68	67	65	64	64	63	63	63
Draught after the boiler at P_{min}	Pa	20										
Volume of flue gas at P_n	kg/h	367	405	430	455	493	644	730	815	901	986	986
Volume of flue gas at P_{min}	kg/h	140	152	160	168	180	238	243	247	252	256	256
Boiler operation		without condensation in the heat exchanger										
Chimney execution		**resistant to moisture**										
Smoke pipe diameter	mm	220					300					
Chimney diameter	mm	220					300					
Fuel												
Wood pellets ČSN EN ISO 17225-2		A1 EN plus, A1, A2 EN plus										
Wood chips ČSN EN ISO 17225-4		Moisture content M35, class A1, A2, B1 a size P16S, P31S										
Electric equipment												
Connect		3PEN, 3X400/230V-50Hz, TNC-S/16A										
Total installed power	W	4307	4307	4307	4307	4307	5719	6269	6269	6269	6269	6269
Average operating power consumption	W	266	300	334	369	403	693	713	733	752	772	772

Control unit

The boiler's activities are managed by control unit HAREG by adjusted program.

- Communication protocol Modus RTU, Modus RTU/IP or just status signal.
- Sending failure signals and communication via GSM gate.
- Touch screen and remote internet management in the basic menu
- Ability to control accumulation tank, two equithermic heating branches and heating TUV in base.
- Select operating language (CZ, SK, EN, ES, FR, PL)



Control unit HAREG situated in boiler switchboard

Boilers operating elements

Main switch panel

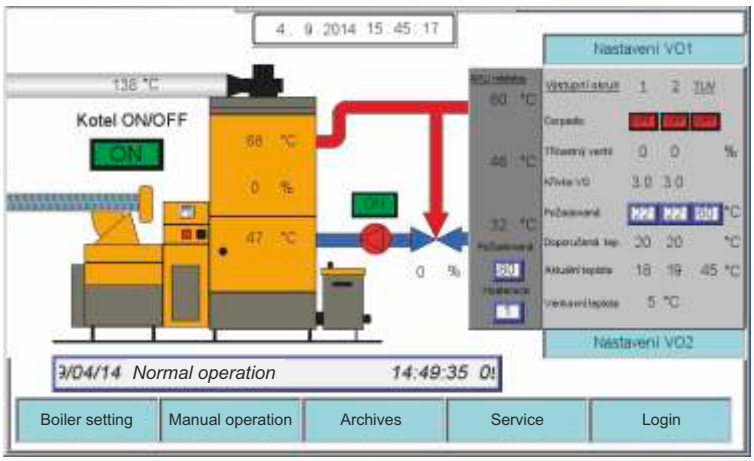
Main switch interrupts the flow of current into the switchboard, and therefore of the entire boiler. This switch also can turn on and off entire boiler.

Reverse switch of the boiler

Reverse switch changes the direction of rotation of three-phase drives.

There are three drives:
Position 0 - drives are switched off
Position 1 - the direction of rotation is in the position where ensure correct operation of the boiler.
Position 2 - the direction of rotation is in the reverse gear.

Industrial terminal with touch screen is used to configure and control boiler. Operation occurs via touch buttons. Control and setting the passwords are accessed by the user levels of a user ability. There are three level security settings to prevent incorrect operation of the boiler. The terminal allows you to set a weekly schedule of boiler operation on the weekdays or their summaries.

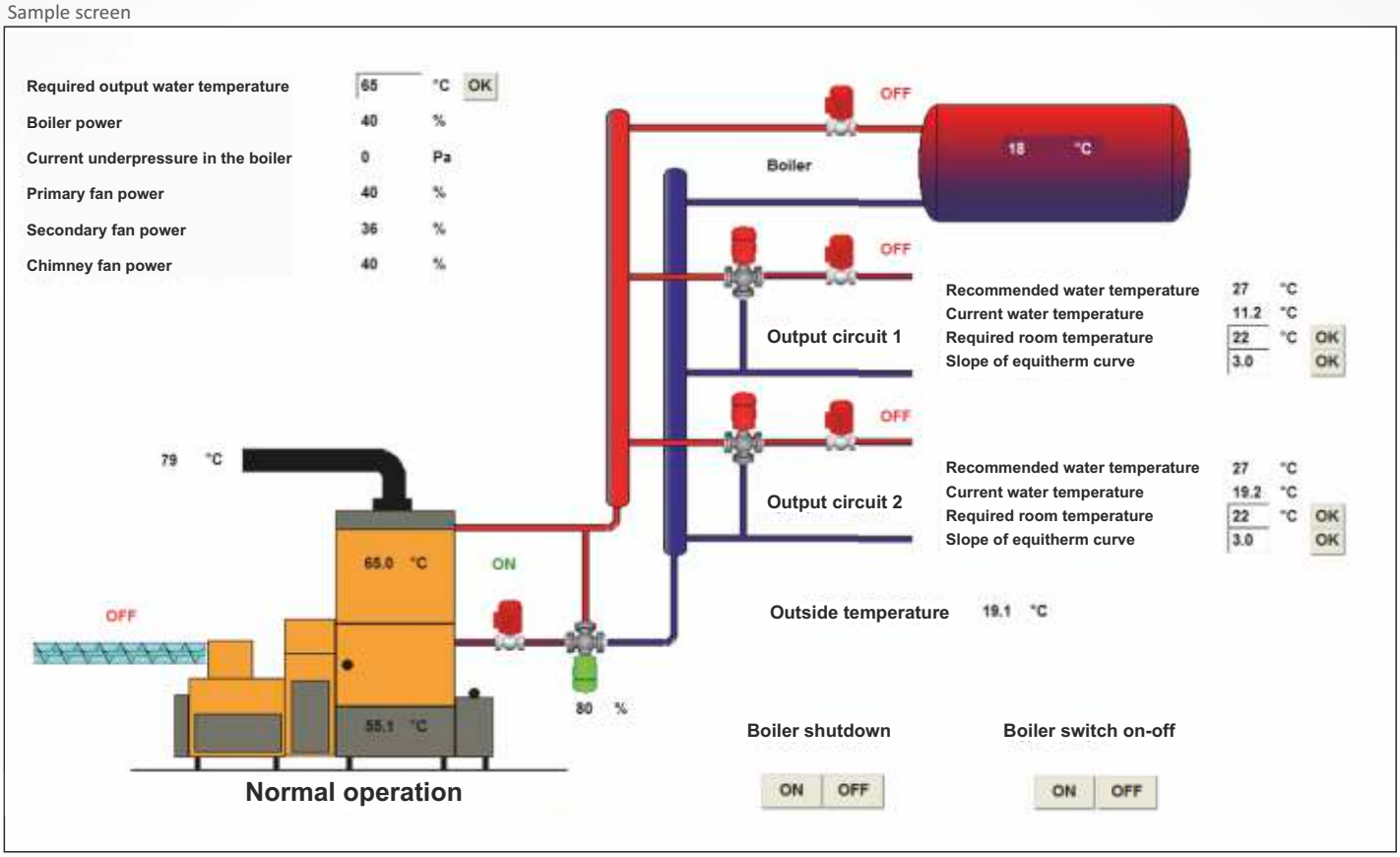


Graphic touchscreen

Visualization of boiler operation

It is up the possibility of remote supervision and changes in certain parameters of the device HAMONT.
This simple visualization allows control of input and output temperature, control of temperature heating circuits and the operating status of the boiler. It also allows you to remotely set the desired temperature of the boiler input parameters heating circuits or devices remotely turn on or off.

Sample screen



Safety and economy of operation

Two levels of protection against reverse combustion boiler overheating protection when - according to EN 303-5: 2013. By law is applicable to automatic biomass combustion equipment prescribed to prevent burn-back along the transport channel to the fuel depot. At our facilities are available following precautions:

1.Position motor opens and closes the flap transportation of fuel begins when fully open flap. When is a failure or power outage, the flap closes over the spring automatically. When we carry out maintenance, flap must be closed except work with directly related.

2. The emergency spark extinguishing device, which is part of the feed screw, it is consist of safety thermostatic valve. (The thermostatic valve has maximum temperature for opening 95°C). And barrel of water with sensor of water level. The capillary inside a thermostatic valve is welded on the both sides with the feed screw. In the barrel of water is drain valve, which must be in open position. In the case that the emergency spark is active. A fuel which is the feed screw is flushed by water. Sensor of water level turns off the boiler automatically.

3.The device is protected by safety and irreversible thermostat. When exceeding the boiler temperature above 110 °C, the device is shutting down.

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Types of fuels used

Crushed wood – e.g. as recycled
30x30 mm (40x40) fraction –moisture content up to 35%

Wood chips
30x30 mm (40x40) fraction –moisture content up to 35%

Wooden briquettes
80 mm dia – 50 mm length

Sawdust with a volume fraction of abrasion dust

Mix chipboard waste + wood chips
Sawdust, granulate, pressed briquettes (boilers over 300 kW)

Paper pellets or briquettes

Fine shavings

Poppy seeds and poppy seed briquettes

Wooden pellets
6 mm and 8 mm dia

Crushed bark
Chaff (linen and hemp) and briquettes
Sunflower pellets ...

Theoretical (calculated) consumption of fuel of HAMONT boilers

The practical consumption for the entire heating season 210 days, approximately 60% of the stated values

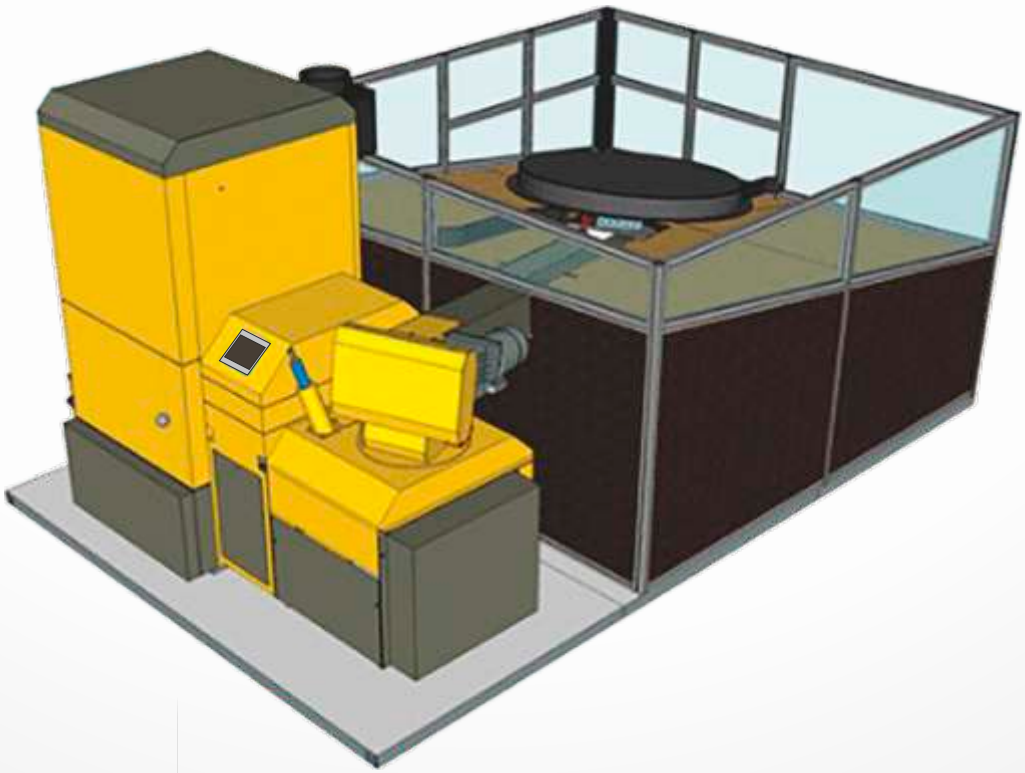
consumption for the time period t	Type of boiler	Type of fuel					
		pellets (18MJ/kg) (650 kg/prms)		Sawdust (12,5MJ/kg) (150 kg/prms)		Wood chips (12,5MJ/kg) (230 kg/prms)	
		kg	prms	kg	prms	kg	prms
Day	Hamont 40 kW	212,86	0,33	306,52	2,04	306,52	1,33
Year	Hamont 40 kW	44 701	69	64 369	429	64 369	280
Day	Hamont 49 kW	266,43	0,41	383,66	2,56	383,66	1,67
Year	Hamont 49 kW	55 951	86	80 569	537	80 569	351
Day	Hamont 60 kW	320,00	0,49	460,80	3,07	460,80	2,00
Year	Hamont 60 kW	67 200	103	96 768	645	96 768	421
Day	Hamont 80 kW	429,53	0,66	618,52	4,12	618,52	2,69
Year	Hamont 80 kW	90 201	139	129 890	866	129 890	565
Day	Hamont 99 kW	544,22	0,84	783,67	5,22	783,67	3,41
Year	Hamont 99 kW	114 286	176	164 571	1 097	164 571	716
Day	Hamont 100 kW	544,22	0,84	783,67	5,22	783,67	3,41
Year	Hamont 100 kW	114 286	176	164 571	1 097	164 571	716
Day	Hamont 101 kW	544,22	0,84	783,67	5,22	783,67	3,41
Year	Hamont 101 kW	114 286	176	164 571	1 097	164 571	716
Day	Hamont 150 kW	760,30	1,17	1 094,83	7,30	1 094,83	4,76
Year	Hamont 150 kW	159 662	246	229 913	1 533	229 913	1 000
Day	Hamont 180 kW	910,43	1,40	1 311,02	8,74	1 311,02	5,70
Year	Hamont 180 kW	191 191	294	275 315	1 835	275 315	1 197
Day	Hamont 199 kW	1 010,42	1,56	1 455,01	9,70	1 455,01	6,33
Year	Hamont 199 kW	21 503	327	305 552	2 037	305 552	1 329
Day	Hamont 220 kW	1 110,41	1,71	1 598,99	10,66	1 598,99	6,95
Year	Hamont 220 kW	233 186	359	335 788	2 239	335 788	1 460
Day	Hamont 250 kW	1 259,18	1,94	1 813,22	12,09	1 813,22	7,88
Year	Hamont 250 kW	264 428	407	380 776	2 539	380 776	1 656
Day	Hamont 300 kW	1 536,82	2,36	2 213,02	14,75	2 213,02	9,62
Year	Hamont 300 kW	322 732	497	464 734	3 098	464 734	2 021
Day	Hamont 350 kW	1 783,44	2,74	2 568,15	17,12	2 568,15	11,17
Year	Hamont 350 kW	374 522	576	539 312	3 595	539 312	2 345
Day	Hamont 400 kW	2 027,46	3,12	2 909,54	19,46	2 919,54	12,69
Year	Hamont 400 kW	425 766	655	613 102	4 087	613 102	2 666
Day	Hamont 450 kW	2 271,29	3,49	3 270,66	21,80	3 270,66	14,22
Year	Hamont 450 kW	476 972	734	686 839	4 579	686 839	2 986
Day	Hamont 499 kW	2 510,46	3,86	3 615,06	24,10	3 615,06	15,72
Year	Hamont 499 kW	527 197	811	759 163	5 061	759 163	3 301
Day	Hamont 500 kW	2 510,46	3,86	3 615,06	24,10	3 615,06	15,72
Year	Hamont 500 kW	527 197	811	759 163	5 061	759 163	3 301

Fuel consumption depends on the method of heating, heat losses, and the quality of the fuel moisture content and the state of the heating system.

Conveyor systems

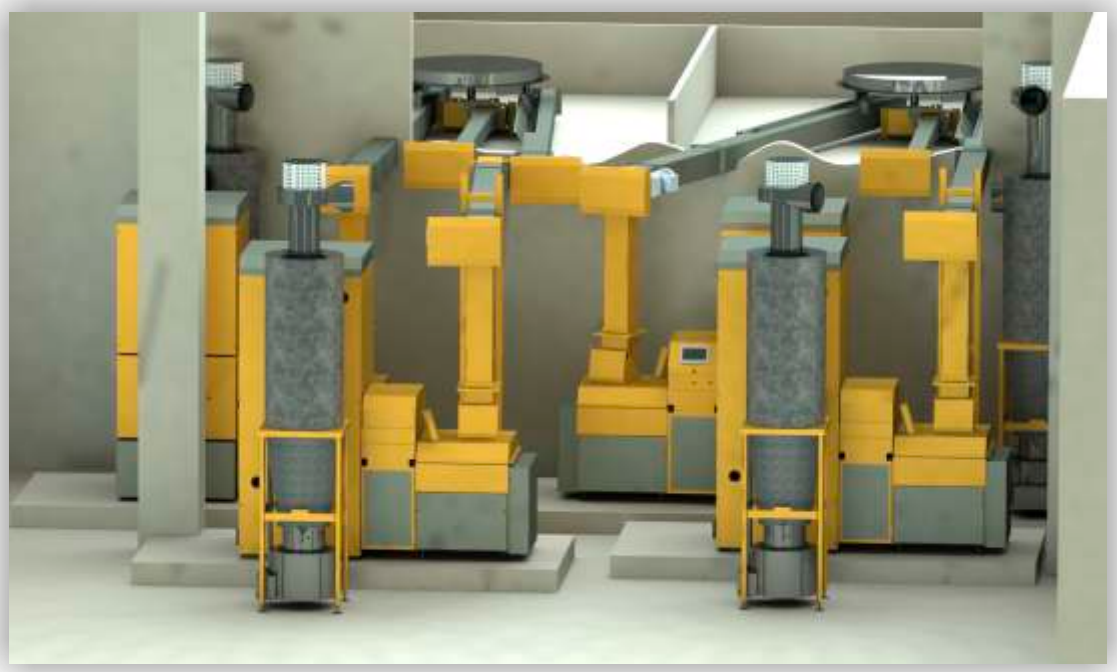
Screw conveyor with a spring rake mechanism HAMONT

If we want to achieve greater operator comfort (both lower power boilers and higher power boilers), we select the conveyor system at the fuel warehouse by type of fuel used. Transport of fuels from warehouses, regardless of whether they are specially designed silos or rooms in existing buildings specially modified for those purposes, is provided for by a spatial staging system. The premises of the warehouse may have a circular, square, or rectangular (4:3) ground plan, and the flow may be next to, over or below the level of the boiler room floor. The staging system therefore can also be adapted with regard to the various layouts of the warehouse thanks to the fact that the conveyor may be oriented vis-à-vis the intermediate container near the boiler within the range of 230° in the horizontal and 25° in the vertical plane. The length of the conveyor may then be up to 12 metres. Our spatial staging system is equipped with a screw conveyor with a dual screw shaft support, which displays a progressive rising gradient that prevents clogging. The transport of fuel from the warehouse begins the moment the ultrasonic sensor in the intermediate container assesses the amount of fuel as being insufficient. The time required for the top-up of the optimum quantity off fuel changes depending on the energy content and apparent density of fuel. The servo -driven separating flap in the mouth of the conveyor ensures protection against reverse burning , complemented by emergency extinguishers. The flap is open for such period of time only as required for the fuel to be topped up, and then it hermetically separates the intermediate container from the fuel warehouse. Optimum emptying of the fuel warehouse, even for large diameters of the spatial stirrer, is ensured by means of the uniform pressure of arms across its entire diameter range. The average leaf spring beam modification in connection with massive steel arms: 5,5 m. The high reliability, life and wear resistance are given by the structural solution, materials used, and components. This system is suitable for the case of heating different fuels (wood chips, pellets, crushed wood, soft briquettes, ...) according to the availability of fuel, this system is universal.



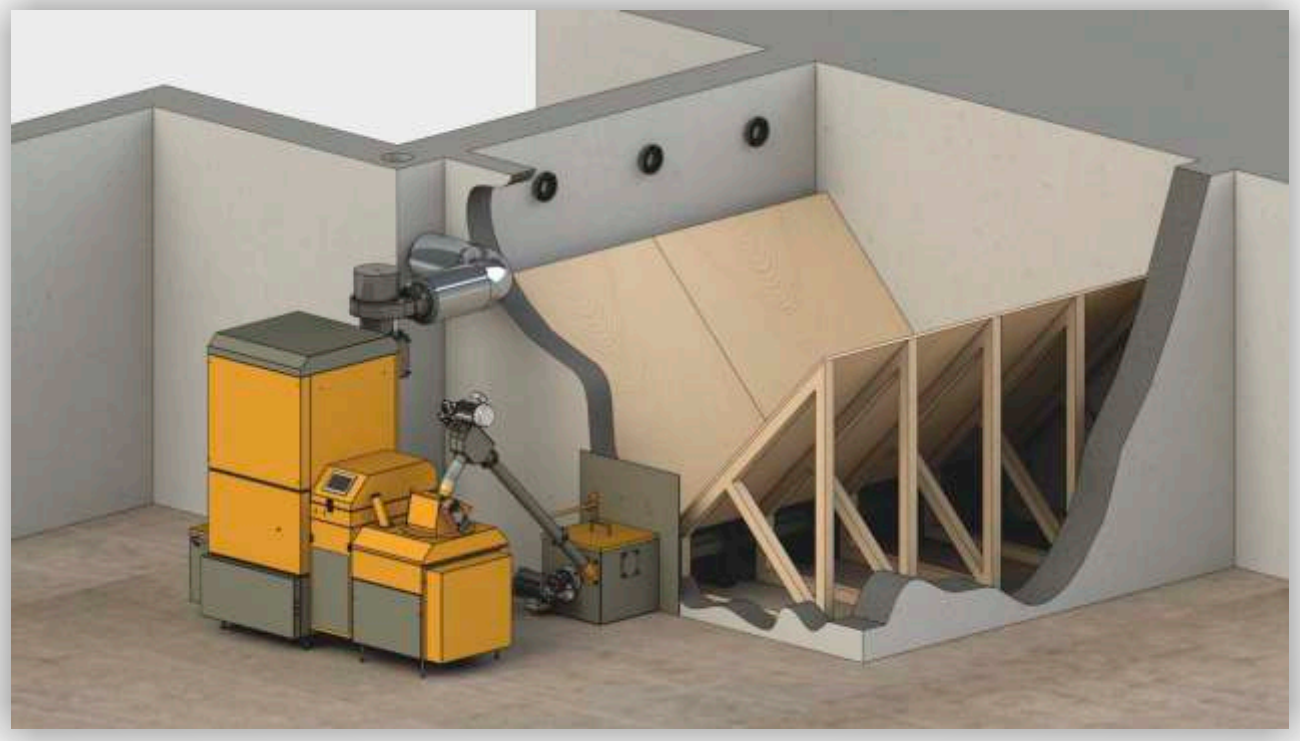
Associated conveyors

The best transportation of fuel for boilers connected in cascade is to choose a common conveyor system. This is common for both boilers stirrer and a separate screw conveyors to individual boilers.

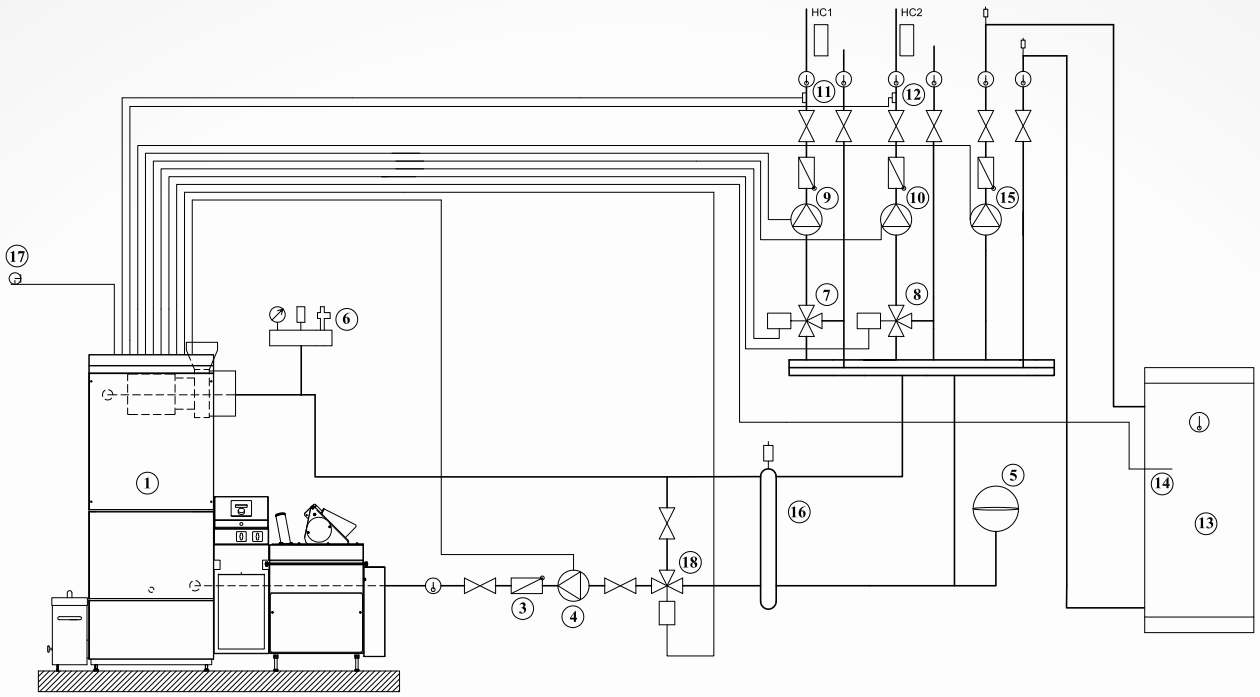


The screw pellet conveyor HAMONT

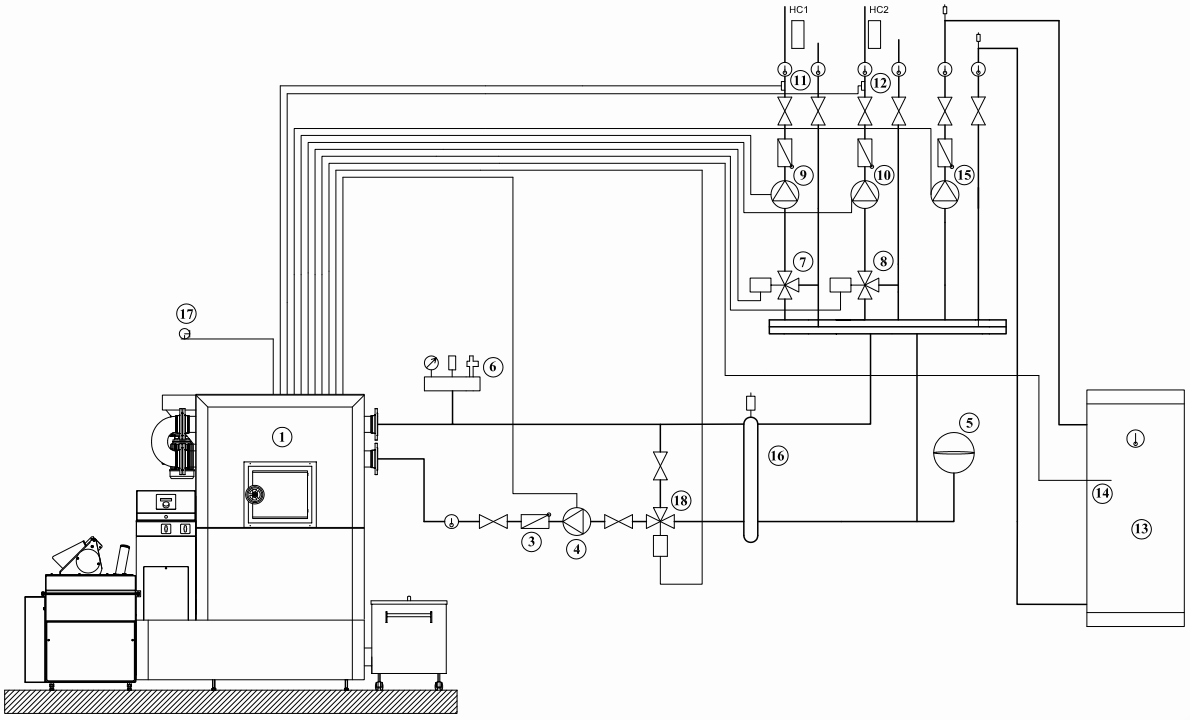
If the boiler will burn only wood pellets, we offer a variant of the warehouse in a V-shaped, at an angle about 45°. There is a possibility of complete emptying of warehouse and also the possibility of fulfilling blowing pellets from storage tank to storage. Maximum length of warehouse is 6,5 m. The disadvantage is unused warehouse space under descent boards.



Example of hydraulic connection of 40 – 101 kW boiler HAMONT



Example of hydraulic connection of 150 – 500 kW boiler HAMONT



1. Boiler
3. Reverse flap
4. Circulating pump
5. Pressure expansion vessel
6. Overpressure valve, manometer, bleed valve
7. 3-way valve HC1
8. 3-way valve HC2
9. Pump HC1
10. Pump HC2
11. Temperature sensor HC1
12. Temperature sensor HC2
13. Boiler
14. Boiler temperature sensor
15. Boiler pump
16. Hydraulic pressure equaliser
17. Outdoor sensor
18. 3-way shorting valve

Reference installations

Object: Jelínek- Furniture production, s.r.o.
City: Valašské Meziříčí (CZ)
Boiler type: 2 x HAMONT 500 kW USZI
Fuel: Waste from production
Year of realization: 2000/2010

Object: Block of flats + Brewery
City: Karpentná (CZ)
Boiler type: HAMONT 500 kW USZI
Fuel: Wood chips
Year of realization: 2006

Object: Container boiler house
City: Visby - Gotland (Sweden)
Boiler type: HAMONT 250 kW USZI
Fuel: Wood chips
Year of realization: 2010

Object: SOŠ Frýdek-Místek
City: Frýdek-Místek (CZ)
Boiler type: 4x HAMONT 100 kW USZI
Fuel: Pellets
Year of realization: 2011

Object: OÚ Margecany
City: Margecany (SK)
Boiler type: 2x HAMONT 250 kW USZI
Fuel: Pellets
Year of realization: 2011

Object: Ador CZ s.r.o.
City: Dolní Dobrouč (CZ)
Boiler type: HAMONT 400 kW USZI
Fuel: Soft briquettes
Year of realization: 2012

Object: housing estate Čerčany
City: Čerčany (CZ)
Boiler type: HAMONT 400 kW USZI
Fuel: Pellets
Year of realization: 2013

Object: ZŠ Oravská Lesná
City: Oravská Lesná (SK)
Boiler type: HAMONT 400 kW USZI
HAMONT 150 kW USZI
Fuel: Pellets
Year of realization: 2013

Object: Cestmajsterstvo Ilava
City: Ilava (SK)
Boiler type: HAMONT 60 kW USZI
Fuel: Wood chips
Year of realization: 2014

Object: ZŠ Kvasice
City: Kvasice, okr. Kroměříž (CZ)
Boiler type: 2 x HAMONT 199 kW USZI
Fuel: Pellets
Year of realization: 2015

Object: Jack Tighe Ltd.
City: Scunthorpe, Park Farm Rd (GB)
Boiler type: 8 x HAMONT 499 kW
Fuel: Pellets
Year of realization: 2016

Object: Družstvo Dřevotvar
City: Jamné nad Orlicí (CZ)
Boiler type: HAMONT 400 kW USZI
Fuel: štěpka
Year of realization: 2017

More information:
CSTfire s.r.o. will pleased to provide you personally with information on the advantages of heating with HAMONT devices.

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