

Heat from Renewable Energy.

ALA • TALKKARI



Our history

The history of our company dates back to the mid-1950s, the period characterised by intensive agricultural mechanisation and the replacement of room-specific heating with water circulation-based central heating systems in single-family houses. The need for accessories to go with the new agricultural machinery was dire, and central heating boilers were in demand in the post-war scenery.

Veljekset Ala-Talkkari Oy was founded in 1955 at Ylihärmä, at a farm acquired by the founders' father through money earned in the American silver mines. Since then, Veljekset Ala-Talkkari Oy has grown into a medium-sized enterprise employing around 100 people and operating in its own premises in Lapua Hellanmaa (total area: approx. 1.5 hectares). The company designs and manufactures heating boilers, solid fuel combustion units, heating stations, and tractor-operated snow blowers and sand spreaders. The company also owns a machine shop involved in subcontracting

The company's products are available in Finland, across the rest of Europe, and in other parts of the world.

Commitment to quality and the environment

The quality and functionality of our products are primary objectives of our operation. In order to control and support our activities, we have created a 'quality and environment management system', which was inspected by Det Norske Veritas (DNV), an authorised provider of quality control services. They granted us the ISO 9001:2008 quality certificate and the ISO 14001:2004 environmental certificate.

Our quality and environmental policies focus on continual improvement, compliance with law, and environmental protection. To this end, we constantly monitor waste recycling, the energy-efficiency of our production, employee training, and potential environmental impacts.

Needs analysis and design

We offer our customers solutions tailored to their exact needs and requirements. Needs analysis, equipment dimensioning, placement planning, and consultation are based on customer-centred thinking, which serves as the basis for pleasant and long-term business relations. Our extensive experience in the field, skilled personnel, and modern design systems ensure the universal acceptance of our products. The company's on-going co-operation with research and development facilities and various official institutions ensure the continuous compliance of our heating systems and their components. Our products have been tested at different European testing laboratories pursuant to state-specific requirements and the EN 303-5 standard, and have passed stringent Central European efficiency and emissions tests based on various fuel alternatives. Our ample choice of reference sites also facilitates research into different approaches and opens up new development ideas.

Ready-for-use heating stations

Veto Cont S



Veto Cont S is available in 60-300 kW models. Owing to its advanced control system, Veto Cont S operates reliably under all weather conditions throughout the year. Its high level of functionality is further ensured by its semi-circular feed pipe which allows the trouble-free passage of larger pieces of fuel. The spacious fuel silo (11-17 m³) requires only infrequent filling, and the unit's versatile fuel options result in hassle-free heat generation.



Veto Cont M

Veto Cont M is the right choice for agricultural, industrial, and larger-scale domestic heat production. Veto Cont M units are available in the range from 60 to 400 kW. Fuel options include wood chips, briquettes, and pellets. The units are available with 23-29 m³ silos, which allow for infrequent filling. The W and EW models are equipped with rear hatches and a drive ramp to allow for convenient filling directly from a tipping trailer.



Veto Cont L and Veto Cont D

The Veto Cont L heating station is a heat production solution designed specifically for heating companies and commercial applications. Veto Cont L is most suitable for use as a district heating centre or as a source of heating for large facilities. Veto Cont L units are available in 300-2,000 kW models, with silo volumes ranging from 39m³ to over 100m³.



Prefabricated and fully equipped heating stations can be commissioned at short notice. As soon as the heating channels and power supply are connected, the unit will be ready to produce heat. Ample optional equipment is available for the heating stations so they fully meet the customer's needs, including: additional pipe outlets; ash removal; pneumatic cleaning; GSM supervision; a remote control system; and timber cladding. In the case of larger boilers, we would recommend using a flue gas fan.

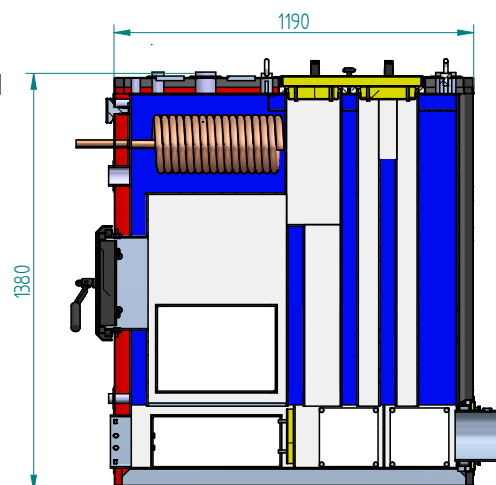
Veto stoker boilers 30-990 kW for solid fuel

The structure of Veto central heating boilers is the result of decades of experience and a lengthy and continuous development process. The boilers are designed specifically for stoker use, i.e., for solid fuel burners. The boiler configuration can be chosen by the customer, which results in increased convenience of use and ease of maintenance.

Because of the large water volume of Veto stoker boilers, a water tank is not required. An efficient domestic water coil is also available for Veto 30-100 boilers, which takes care of the building's domestic hot water supply. If certain optional equipment is present, other fuel sources such as logs can also be used in the boilers (Veto 30-80). Optional equipment such as pneumatic cleaning and automatic ash removal can increase boiler efficiency and convenience. In the case of larger boilers, we would recommend using a flue gas fan.



Veto 100 kW with pneumatic cleaning



Veto 60

Model	Dimensions			Connection for chimney		Equipment		Power	Weight	Water capacity
	Length	Width	Height	Width	Height	Hot water spiral	Connection for electric resistance	kW	kg	l
Veto 30	1020	620	1350	ø 168,3 *		1)	1), 3)	30	460	270
Veto 60	1190	720	1380	ø 168,3		1), 2)	1), 3)	60	650	340
Veto 75	1190	720	1380	ø 168,3		-	-	75	640	290
Veto 80	1190	720	1580	ø 168,3		1), 2)	1), 3)	80	740	410
Veto 100	1340	820	1580	ø 193,7		1), 2)	1), 3)	100	900	475
Veto 120	1340	820	1580	ø 193,7		-	-	120	880	385
Veto 150	1620	820	1750	ø 240		-	-	150	1070	460
Veto 220	1880	1070	1750	ø 300		-	-	220	1700	850
Veto 300	2380	1100	2200	400	190	-	-	300	2800	1300
Veto 400	2490	1320	2200	600	200	-	-	400	3600	1400
Veto 500	2900	1530	2200	800	200	-	-	500	4100	1700
Veto 700	3430	1740	2200	1000	200	-	-	700	6000	3000
Veto 990	3430	1740	2700	1000	200	-	-	990	7500	4200

1) 1 pc as standard equipment

2) other pc as extra

3) electrical resistor as extra

* distance of port centre from floor: 1190 mm

Heating equipment options

You can choose your heating system from the wide Ala-Talkkari range depending on the size of your property and your preferred fuel silo filling interval.



Mixer plate and feed screw of strong wear steel ensure trouble-free fuel supply.

Veto Mat

- 40 kW
- fuel options:
 - wood chips P 30, M 30
 - grain
 - pellets
 - 500 l fuel tank
- logic control



Veto Chipmatic

- 40-120 kW
- fuel options:
 - wood chips P 45, M 30
 - grain
 - pellets
 - briquettes
- 1 m³ fuel tank
- extension silo options:
 - 1 m³ straight
 - 1.7 m³ conical extension
 - 3 m³ side filling
- logic control



Veto Chipmatic



Veto 6

- 40-120 kW
- fuel options:
 - wood chips P 45, M 30
 - grain
 - pellets
 - briquettes
- 2 m³ fuel tank
- extension silo options:
 - 0.5 m³ with lid (2.5 m³)
 - 2 m³ with lid (4 m³)
 - 4 m³ with lid (6 m³)
- logic control



Veto 6 (shown with 4 m³ extension silo)

System flexibility

The fuel silo size and fuel supply method, feed aperture and flue outlet direction in the boiler can be tailored to the user's needs. Veto equipment can be flexibly adjusted to existing premises.

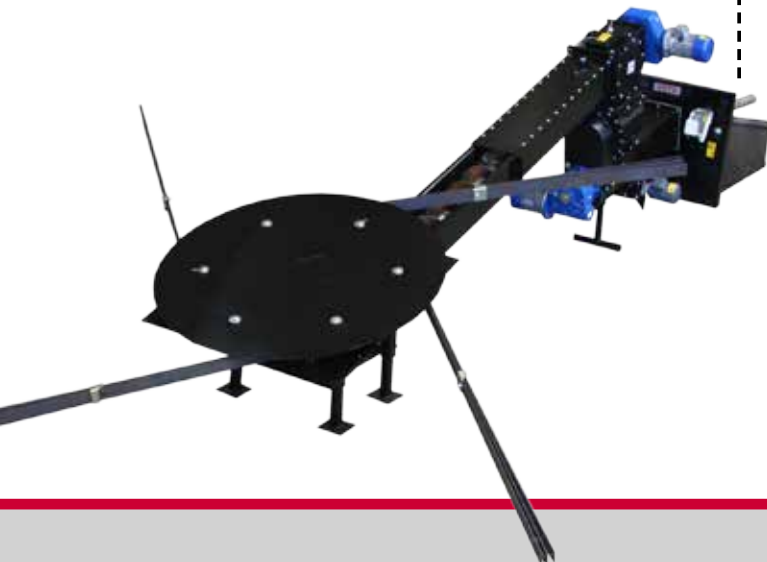
Veto 8

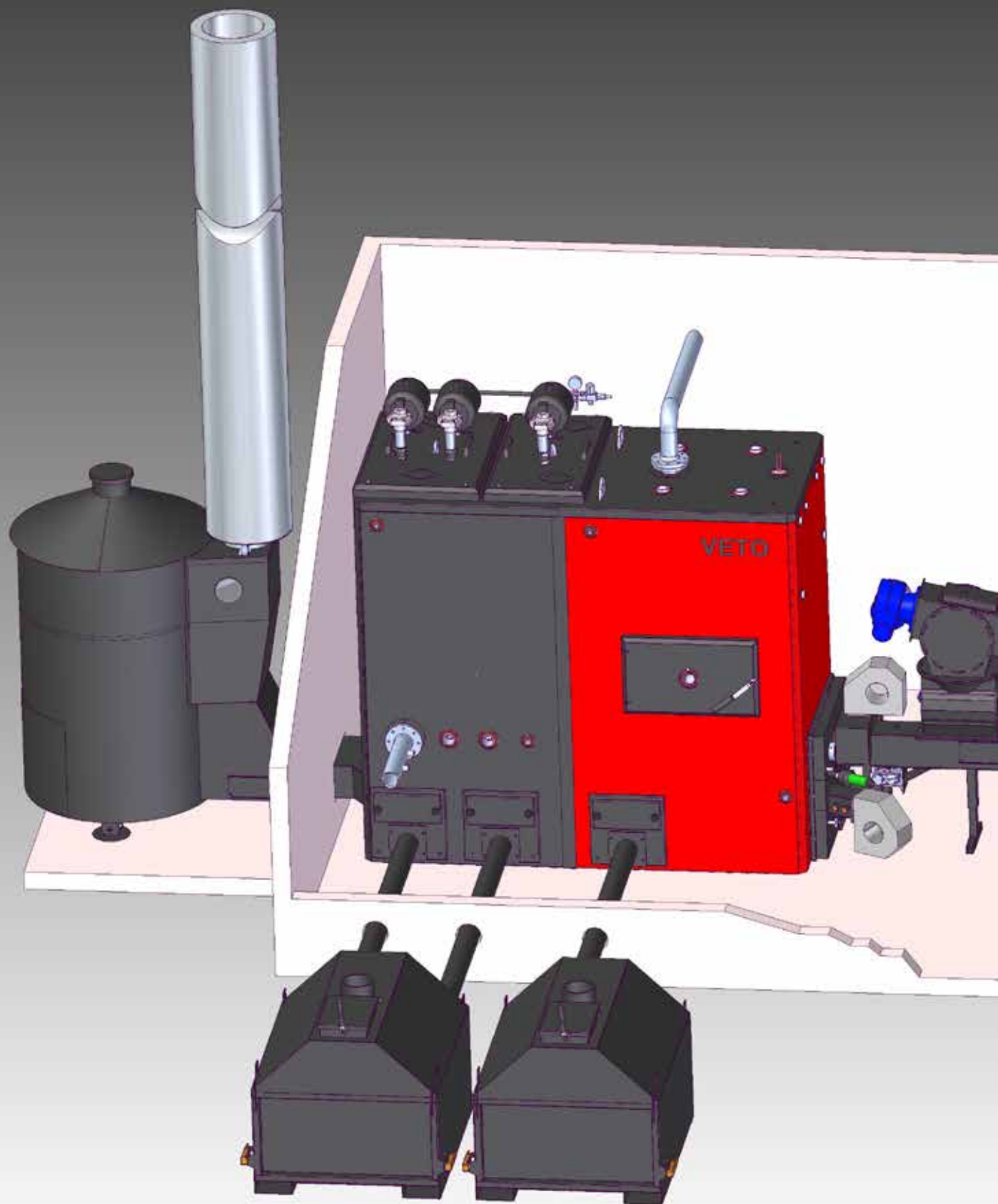
- 40-120 kW
- fuel options:
 - wood chips P 45, M 30
 - grain
 - pellets
- 8 m³ fuel tank
- 3 m³ extension silo (4 m³)
- feed by spring agitator
- logic control

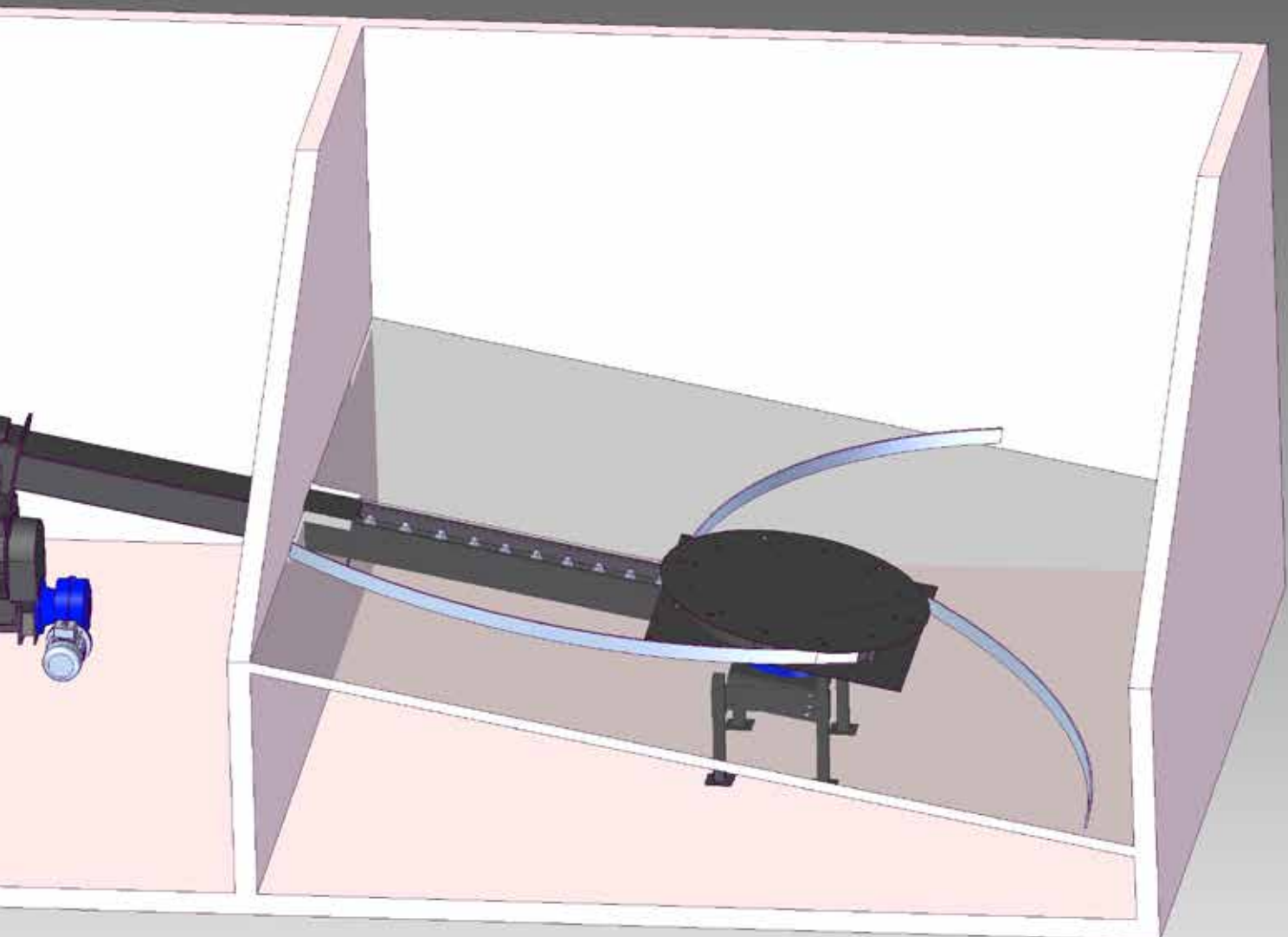


Veto Spring Agitator

- 40-990 kW
- fuel options:
 - wood chips P 45, M 30
 - grain
 - pellets
 - briquettes
- available with 16 m³ tank or as simple equipment delivery, in which case silo capacity can even exceed 100 m³
- plate diameter 1 m
- logic control
- Rotary feeder is included (except units with tank)







Optional equipment for Veto heating systems



Rotary feeder

A rotary feeder allows use of an open fuel silo and provides more installation options for the fuel silo. The rotary feeder is available in two sizes: a smaller feeder for the Ø 125mm feed screw and a larger one for the Ø 160 mm and Ø 200 mm feed screws.

The structure and automatic control system of the rotary feeder ensure a safe and uninterrupted fuel feed.



Veto pneumatic cleaning

Pneumatic cleaning discharges short, compressed air blasts down the boiler's heat exchange surfaces, thereby preventing the build-up of deposits on the boiler's fire surfaces. The three main features of pneumatic cleaning are:

1) improved efficiency, 2) increased boiler service life, and 3) decreased maintenance requirements.

Pneumatic cleaning is available for all Veto boiler models.



Automatic ash removal

There are several variations for boiler ash removal. Ash screws are available in three different types: pushing, pulling, or two-part. They considerably reduce the need for boiler maintenance, and improve reliability, boiler service life, and increase safety. In the case of 300-990 kW boilers, ash screws are also available for the convection section (rear part of the boiler).



Veto burners

The solid fuel combustion unit by Ala-Talkkari is equipped with a special burner installed into the boiler. Veto burners are suitable for various solid biofuels, including different types of wood (chips / pellets / briquettes) and plant materials of suitable size.

The control and combustion technology of Veto burners allow for highly efficient energy accumulation, even with variable fuel type and quality. The burners are air-cooled or water-cooled, and are equipped with either a fixed or moving grate. Burners with a moving grate significantly reduce slag formation and deposits on the grate, maintaining consistently high output. Since both the grate and moving parts can be replaced, Veto burners are known for their long service life and reliability.



Oxygen-controlled lambda and XL control centres

Veto control centres use programmable logic controls. The boiler's power is adjusted by monitoring the water temperature, whilst the fuel and air volume control is based on flue gas residual oxygen measurements.

Veto control centres keep the burner at maximum efficiency regardless of power and fuel quality variations. Auxiliary equipment such as ash screws, flue gas blower, pneumatic cleaning, and ignition can be automated by logic control.



Veto remote control

Veto remote control allows monitoring of the boiler's most important functions over the internet by computer, mobile phone or other portable devices. Fault alarms are sent to the mobile phone as text messages or can be accessed via the internet by a computer, allowing for a quick response to any faults. A text messaging-based GSM alarm is an option available with all Veto control centres, whilst remote monitoring is limited to certain control centres.



Electric ignition

Electric ignition allows the boiler to go out when there is no heat demand and re-ignite when demand increases, rather than slumbering indefinitely. This increases efficiency and saves fuel. Automatic ignition can be installed with all Veto control centres as optional equipment.



Ash container

The ash container (capacity: approx. 800 litres) is available as an option to go alongside boiler ash screws. Veto ash containers can be moved by forklift for ease of transportation.

Use of an ash container is always recommended with an ash screw, especially with larger boilers. Due to the ash container's large capacity only occasional emptying is required.

Flue gas cleaner



The flue gas cleaner clears any remaining solid particulates from the flue gas, removing them into a dedicated container. The cleaner fan is controlled by an automated system which maintains the required operational pressure in the boiler's firebox.

The flue system connected to a flue gas cleaner can be significantly shorter than would be required in the case of a natural draught flue.

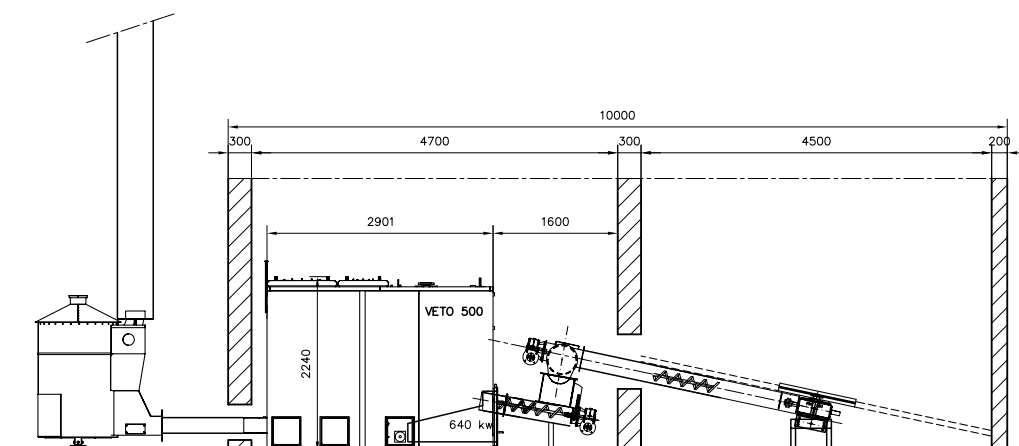
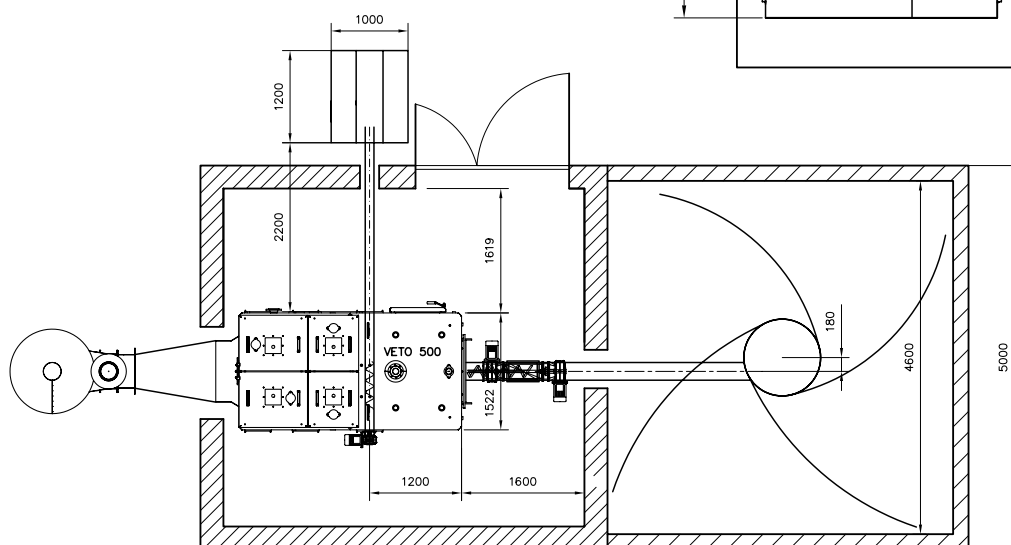
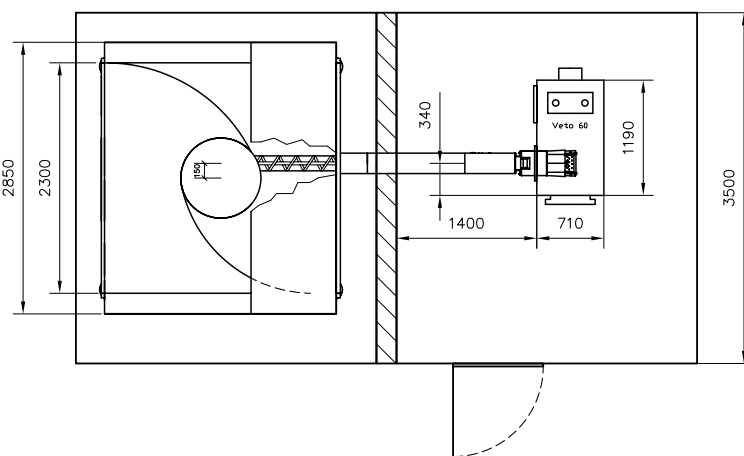
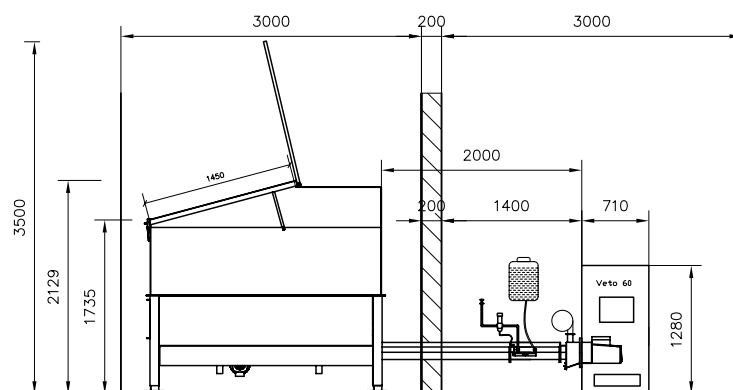
Veto heating systems

Veto boilers, combustion units, control centres, and the various optional extras available allow for heating solutions tailored to the customer's exact needs.

For technical information on Veto silos and feeding equipment, please see the following table:

	Veto Mat	Veto ChipMatic	Veto 6	Veto 8	Veto Spring agitator
Container volume	0,5 m ³	1 - 4 m ³	2 - 6 m ³	8 m ³	max 100 m ³
Container type	closed	closed	closed	closed	closed/open
Feeding method	mixing plate	2 x mixing plate	2 x mixing plate with leaf springs	spring agitator	spring agitator
Feeding screw (diameter x blade thickness)	100 x 6 mm	125 x 10 mm	125 x 10 mm	125 x 10 mm	125 - 200 x 10 mm
Feeding screw length	340 mm	1000 - 5000 mm	1000 - 5000 mm	1000 - 4000 mm	feeding screw 800 mm silo screw 3000 mm
Base containers dimensions (depth x width x height)	940 mm (d) 760 mm (w) 1600 mm (h)	760 mm (d) 1500 mm (w) 1400 mm (h)	1370 mm (d) 2600 mm (w) 1200 mm (h)	2300 mm (d) 2700 mm (w) 1475 mm (h)	2000 - 5000 mm (d) 2000 - 5000 mm (w)
Rotary feeder	no	optional	optional	optional	yes
Voltage: 400 V/3-phase	yes	yes	yes	yes	yes
Logic based control centre	yes	yes	yes	yes	yes
Backfire prevention	double	double	triple	triple	quadruple
Blower	yes	yes	yes	yes	yes
Flame monitoring	yes	yes	yes	yes	yes
Burner power	40 kW	40 - 120 kW	40 - 120 kW	40 - 120 kW	40 - 990 kW
Feeding screw movement	forward/ backward	forward/ backward	forward	forward	forward
Electric motors pc (power)	1 (0,75 kW)	1 (1,1/1,5 kW)	1 (1,1/1,5 kW)	1 (1,1/1,5 kW)	2 (1,1+1,5 kW)
Feeding screws pc	1	1	1	1	2
Capacitive sensor in the rotary feeder	no	no	no	no	yes
Lambda control centre	optional	optional	optional	optional	optional
Automatic ash removal	optional	optional	optional	optional	optional

Design and installation alternatives.



ALA • TALKKARI

Veljekset Ala-Talkkari Oy

Manufacturer:

Sales:

Veljekset Ala-Talkkari Oy

Hellanmaantie 619

62130 LAPUA

FINLAND

tel: +358 (0)6 433 6333

fax: +358 (0)6 437 6363

email: asiakaspalvelu@ala-talkkari.fi

www.ala-talkkari.fi



The high quality and environmentally-friendly nature of VETO heating equipment have been tested and acknowledged by the following Finnish and International research institutes:

VTT



ILK Dresden

