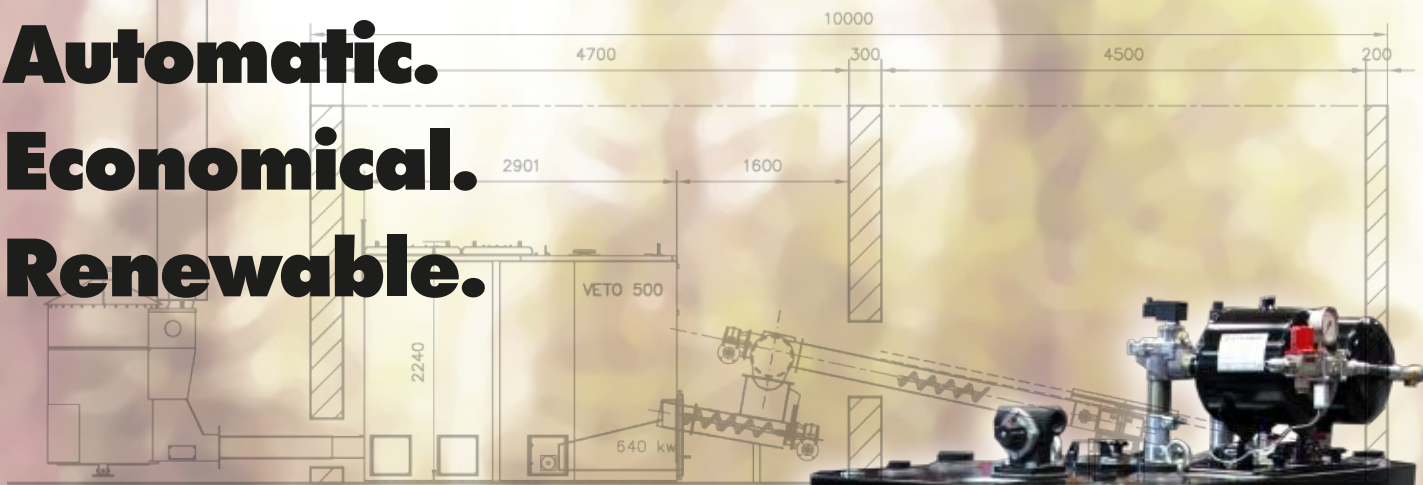


ALA • TALKKARI



www.ala-talkkari.fi

Automatic.
Economical.
Renewable.



DEKRA



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.



**"Ala-Talkkari is the
ultimate heating
solution!"**

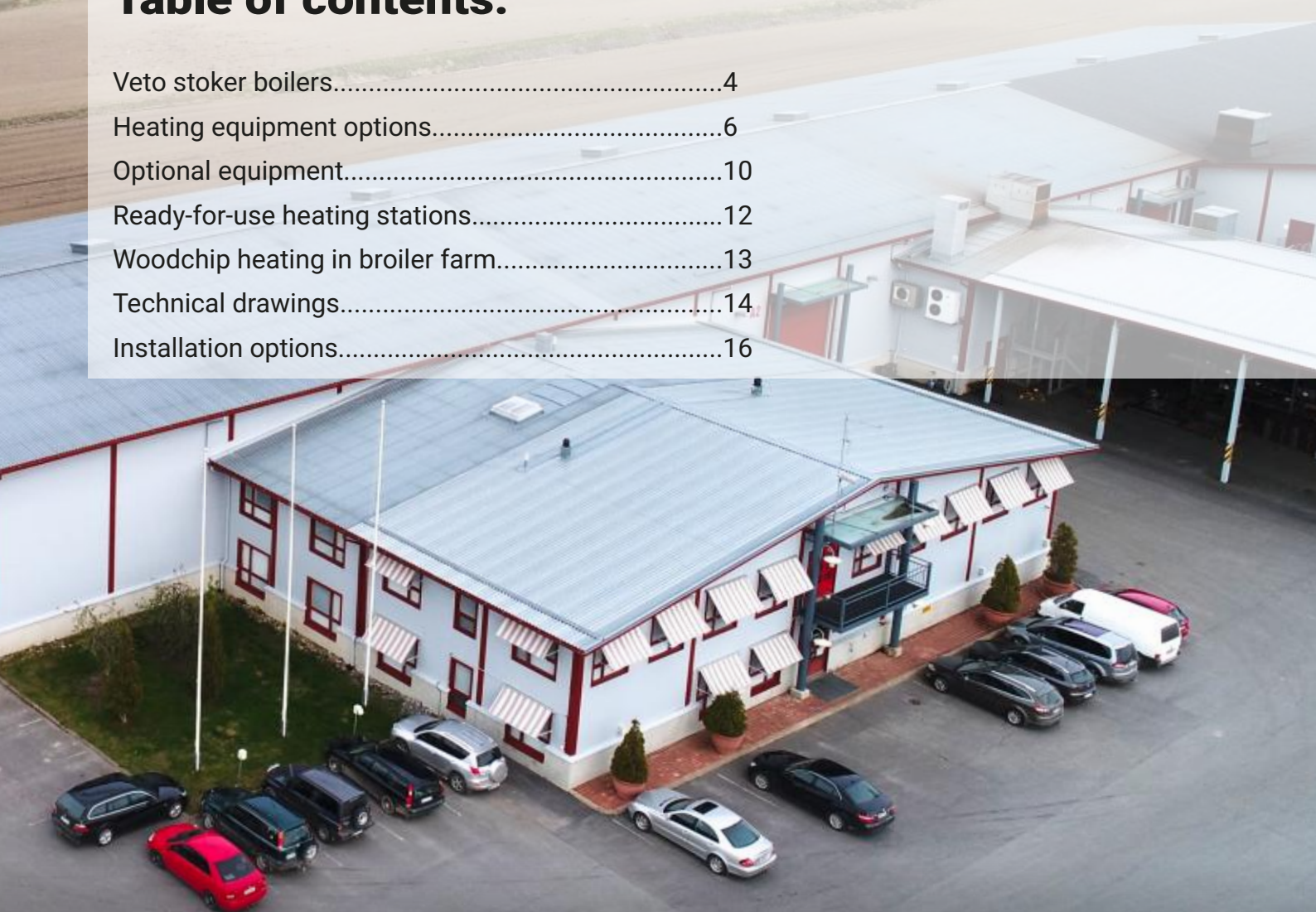
Antti Ala-Talkkari

Antti Ala-Talkkari
Managing director, Entrepreneur counselor



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Veto stoker boilers

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

VETO 60

A++

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.



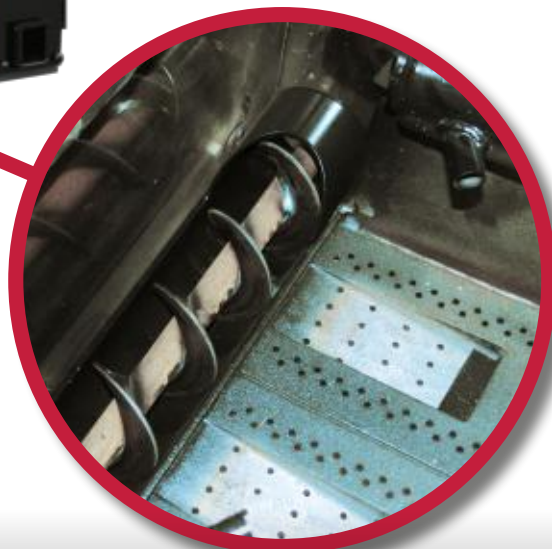
Model	Length x width x height (mm)	Connection for chimney (mm)	size of the fire head opening (cm)	Hot water spiral	Power (kW)	Pressure (bar) / Temperature (°C) (5)	Weight (kg)	Water capacity (l)
VETO 30	1020 x 620 x 1350	Ø 168,3 (4)	290 x 236	(1),(3)	30	1,5 / 110	460	270
VETO 60	1190 x 720 x 1380	Ø 168,3	390 x 280	(1), (2), (3)	60	1,5 / 110	650	340
VETO 75	1190 x 720 x 1380	Ø 168,3	390 x 280	-	75	1,5 / 110	640	290
VETO 80	1190 x 720 x 1580	Ø 168,3	390 x 280	(1),(2), (3)	80	1,5 / 110	740	410
VETO 100	1340 x 820 x 1580	Ø 193,7	390 x 280	(1), (2), (3)	100	1,5 / 110	900	475
VETO 120	1340 x 820 x 1580	Ø 193,7	390 x 280	-	120	1,5 / 110	880	385
VETO 150	1620 x 820 x 1750	Ø 240	535 x 510	-	150	1,5 / 110	1070	460
VETO 220	1880 x 1070 x 1750	400 x 200	662 x 510	-	220	1,5 / 110	1700	850
VETO 300	2380 x 1100 x 2200	400 x 200	653 x 610	-	300	4 / 110	2300	1300
VETO 400	2490 x 1320 x 2200	600 x 200	803 x 693	-	400	4 / 110	3600	1400
VETO 500	2900 x 1530 x 2200	800 x 200	803 x 693	-	500	4 / 110	4100	1700
VETO 700	3430 x 1740 x 2200	1000 x 200	960 x 713	-	700	4 / 110	6000	3000
VETO 990	3430 x 1740 x 2700	1000 x 200	960 x 713	-	990	4 / 110	7500	4200

- 1) 1 pc as standard equipment
- 2) other pc as extra
- 3) includes electrical resistor
- 4) distance of port centre from floor: 1190 mm
- 5) separate order for higher capacity

VETO 500

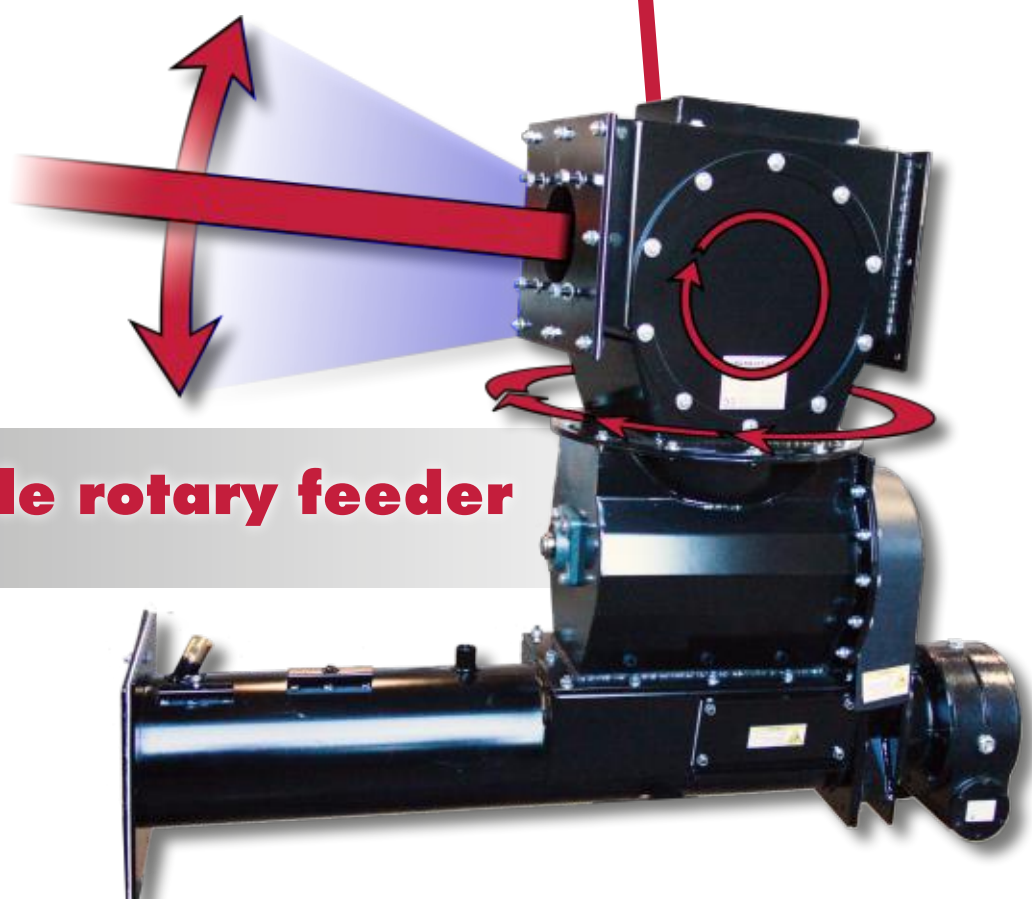
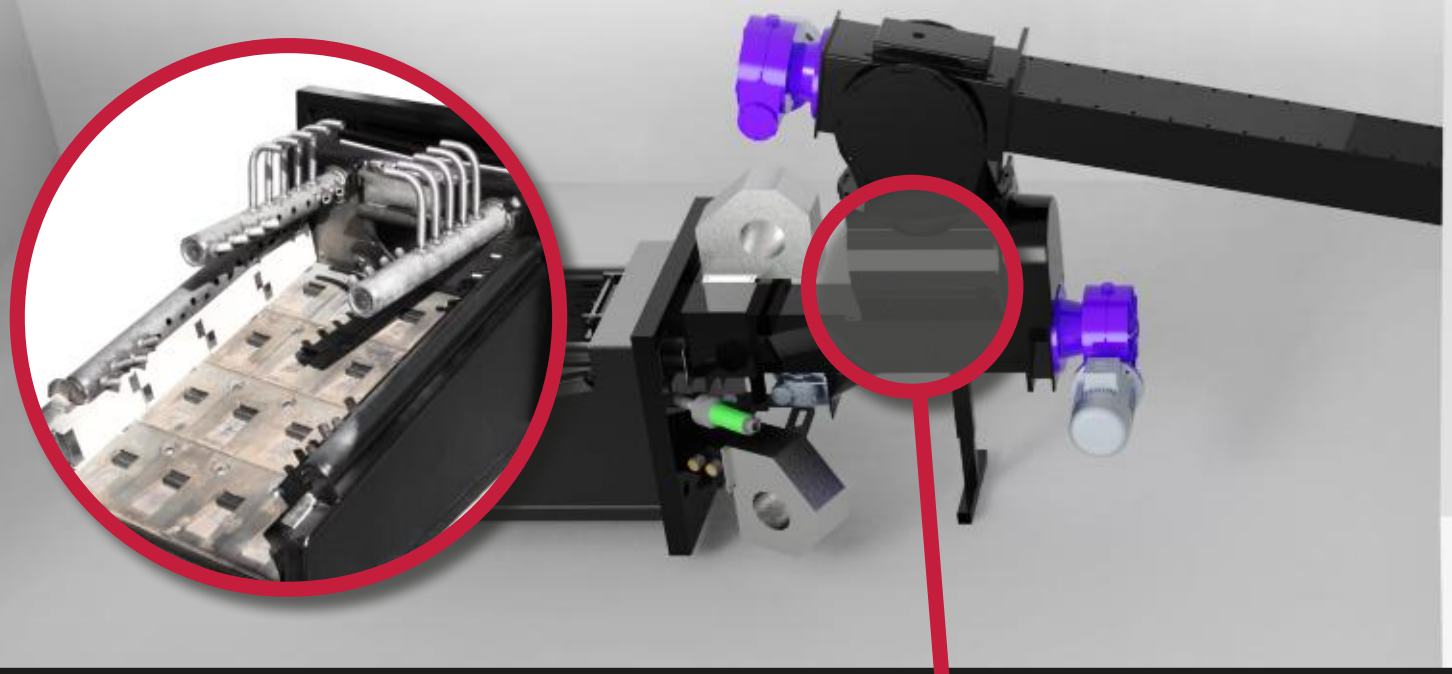


Over 90% efficiency

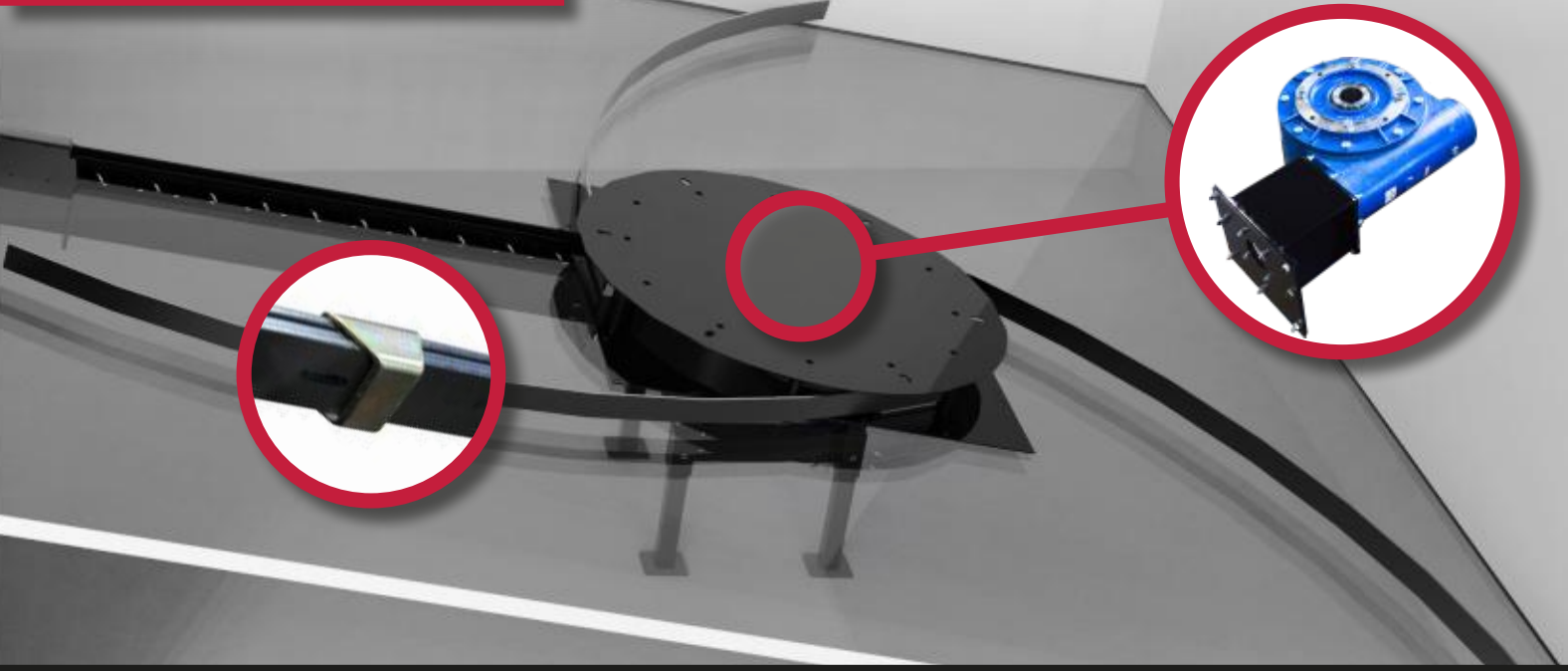


Heating equipment options

VETO Spring agitator



Adjustable rotary feeder



Large silo agitators – spring- and rail agitator – are equipped with a rotary feeder. Airtight rotary feeder allows open fuel silos. The volume of the fuel silo with the spring agitator can reach up to 100m³. Similarly, a rail agitator equipped silo can reach 100-400m³. Strong feed screws – 125-200 mm in diameter – together with a water-cooled fire head guarantees a durable, long-lasting and trouble-free heating solution.



VETO Rail agitator

For households



VETO MAT



House + workshop



VETO chipmatic

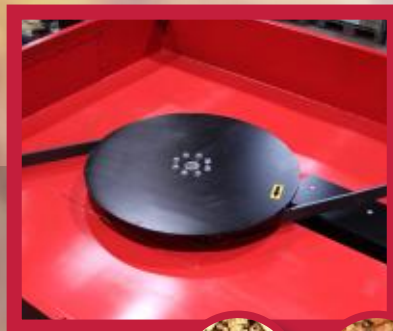


*For industrial buildings
Farms*

VETO 6



*For industrial buildings
Farms
Grain drying*



VETO 8



For industrial buildings
Farms
Grain drying

VETO

Spring agitator with a container



For industrial buildings
Large farms
Grain drying

VETO Duo

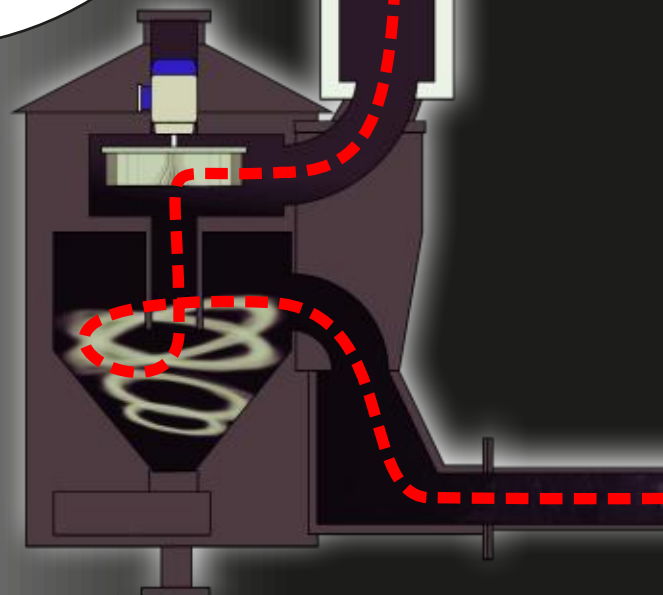


	VETO Mat	VETO Chipmatic	VETO 6	VETO 8	VETO Spring agitator with a container 1.6 m ³	VETO Spring agitator	VETO Duo
Container volume	0,5 m ³	1 - 4 m ³	2 - 6 m ³	8 - 11 m ³	16 - 22 m ³	max 100 m ³	max 400 m ³
Container type	closed	closed	closed	closed	closed	closed	open
Feeding method	mixing plate	2 x mixing plate	2 x mixing plate with leaf springs	spring agitator	spring agitator	spring agitator	2 x spring agitator
Feeding screw (diameter x blade thickness)	100 x 10 mm	125 x 10 mm	125 x 10 mm	125 x 10 mm	125 - 200 x 10 mm	125 - 200 x 10 mm	200 x 10 mm
Feeding screw length	340 mm	1000 - 5000 mm	1000 - 5000 mm	1000 - 4000 mm	1000 - 4000 mm	feeding screw 800 mm Silo screw 3000 mm	feeding screw 1600 mm Silo screw 4000 mm
Base containers dimensions (depth x width x height)	940 mm (s) 760 mm (l) 1600 mm (k)	760 mm (s) 1500 mm (l) 1400 mm (k)	1370 mm (s) 2600 mm (l) 1200 mm (k)	2300 mm (s) 2700 mm (l) 2200 mm (k)	2900 mm (s) 2900 mm (l) 2600 mm (k)	2000 - 5000 mm (s) 2000 - 5000 mm (l)	5000 mm (s) 8000 mm (l) 1200 mm (k)
Rotary feeder	no	optional	optional	optional	optional	yes	yes
Voltage: 400V/3-phase	yes	yes	yes	yes	yes	yes	yes
Logic based control centre	yes	yes	yes	yes	yes	yes	yes
Backfire prevention	double	double	triple	triple	triple	quadruple	quadruple
Blower	yes	yes	yes	yes	yes	yes	yes
Flame monitoring	yes	yes	yes	yes	yes	yes	yes
Burner power	40 kW	40-120 kW	40-120 kW	40-120 kW	40-640 kW	40-990 kW	160-990 kW
Feeding screw movement	forward/backward	forward/backward	forward	forward	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)	1 (1,1 kW)	2 (1,1+1,5 kW)	4-5 (1,5 kW)
Feeding screws pc	1	1	1	1	1	2	4-5
Capacitive sensor in the rotary feeder	no	no	no	no	no	yes	yes
Lambda control centre	optional	optional	optional	optional	optional	optional	optional
Automatic ash removal	optional	optional	optional	optional	optional	optional	optional

Optional equipment

Oxygen-controlled Veto 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.

Fluegas cleaner

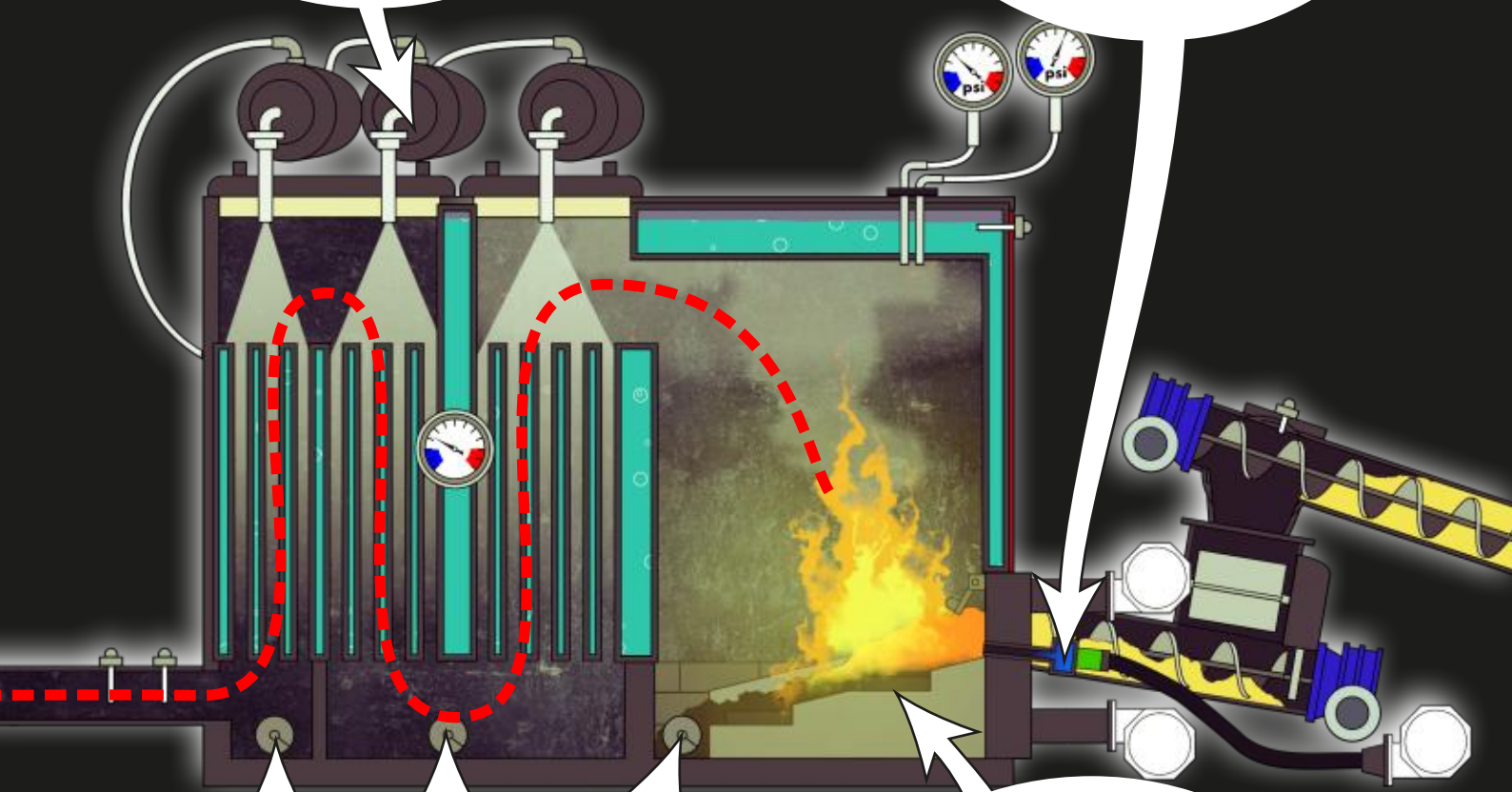
The flue gas cleaner clears any remaining solid particulates from the flue gas, removing them into a dedicated container. The cleaner fan is controlled by an automated system which maintains the required operational pressure in the boiler's firebox. The flue system connected to a flue gas cleaner can be significantly shorter than would be required in the case of a natural draught flue.

Veto 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.

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.



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.

Ready-for-use heating stations

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. 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.



Woodchip heating in broiler farm



Koskilahti Farm in Lapua has been operating for almost 500 years. The farm started to grow chicken in 1986. In the 3300 sq. Ft. hall, heat is produced to chicken with a 400 kW chips heating plant. Day and night. Supplied by Ala-Talkkari Oy.

The key factor in chicken breeding is the stable temperature, since the critical chick phase requires sufficient temperature that is directly related to the bird's growth potential. The young birds strut in the room at 34 degrees Celsius.

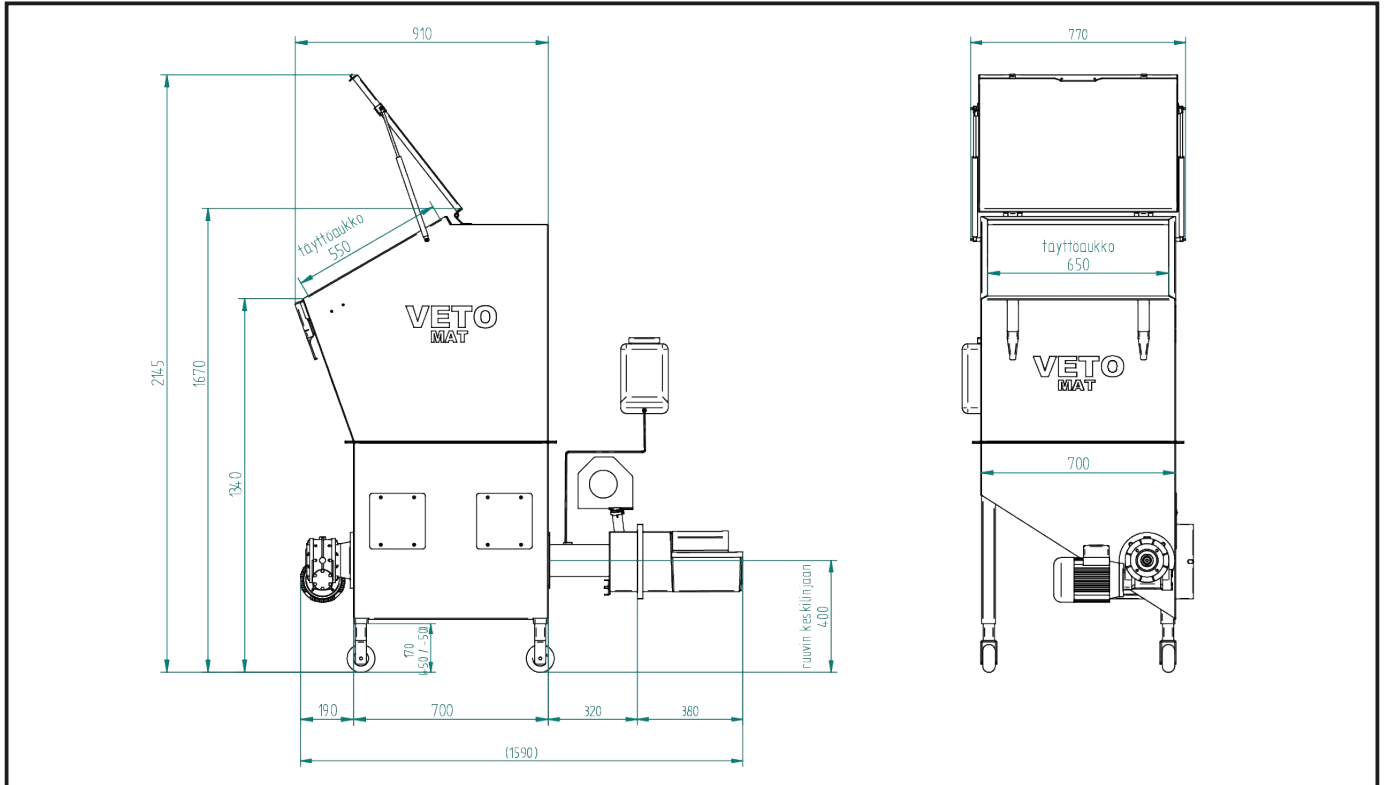
"We didn't even consider other options," says one of the shareholders, farmer Olli Koskilahti. He represents the 17th generation of the farm.

Maintenance issues has not produced sleepless nights, Olli recalls. However, one case comes to mind: One Saturday night the engine of a flue gas fan had stopped working. It was nothing more than a call to Ala-Talkkari, and before half a day, the flue gas was once again fluttering out of the pipe.

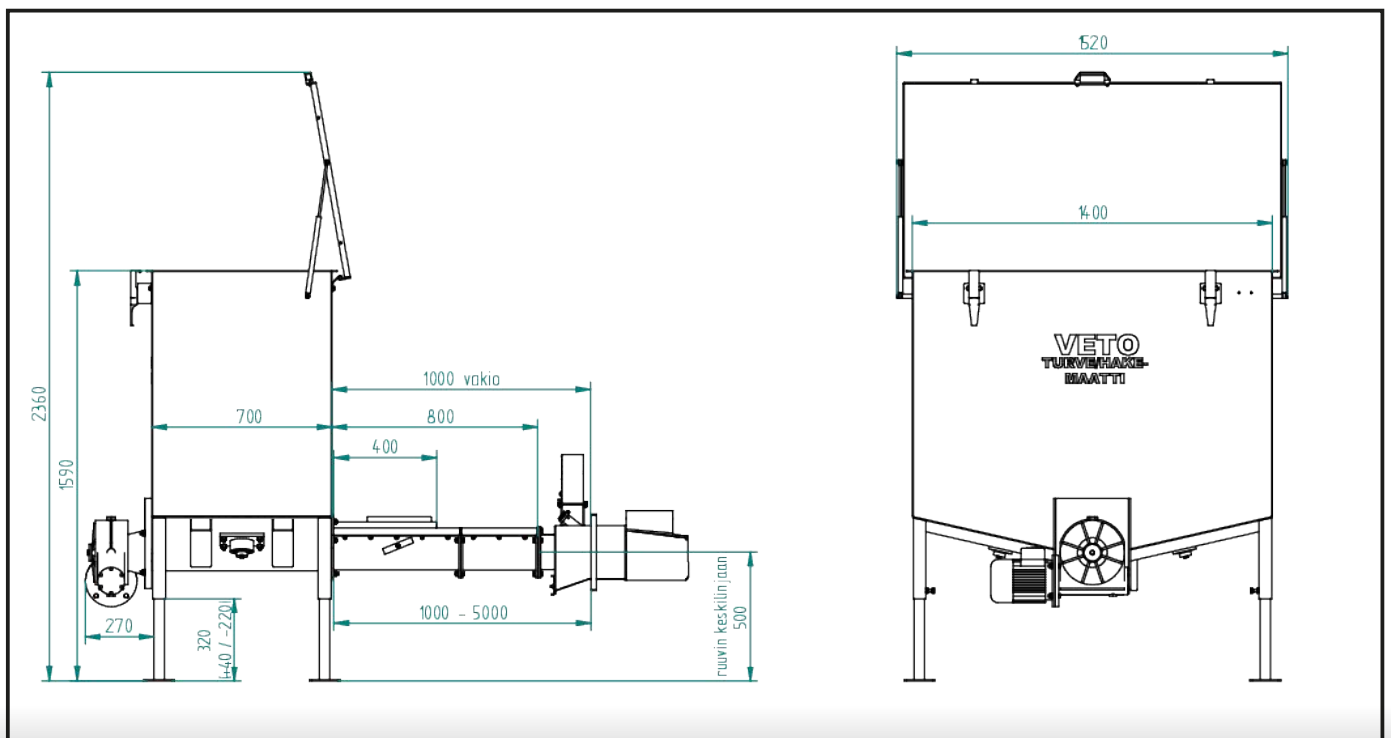


Technical drawings

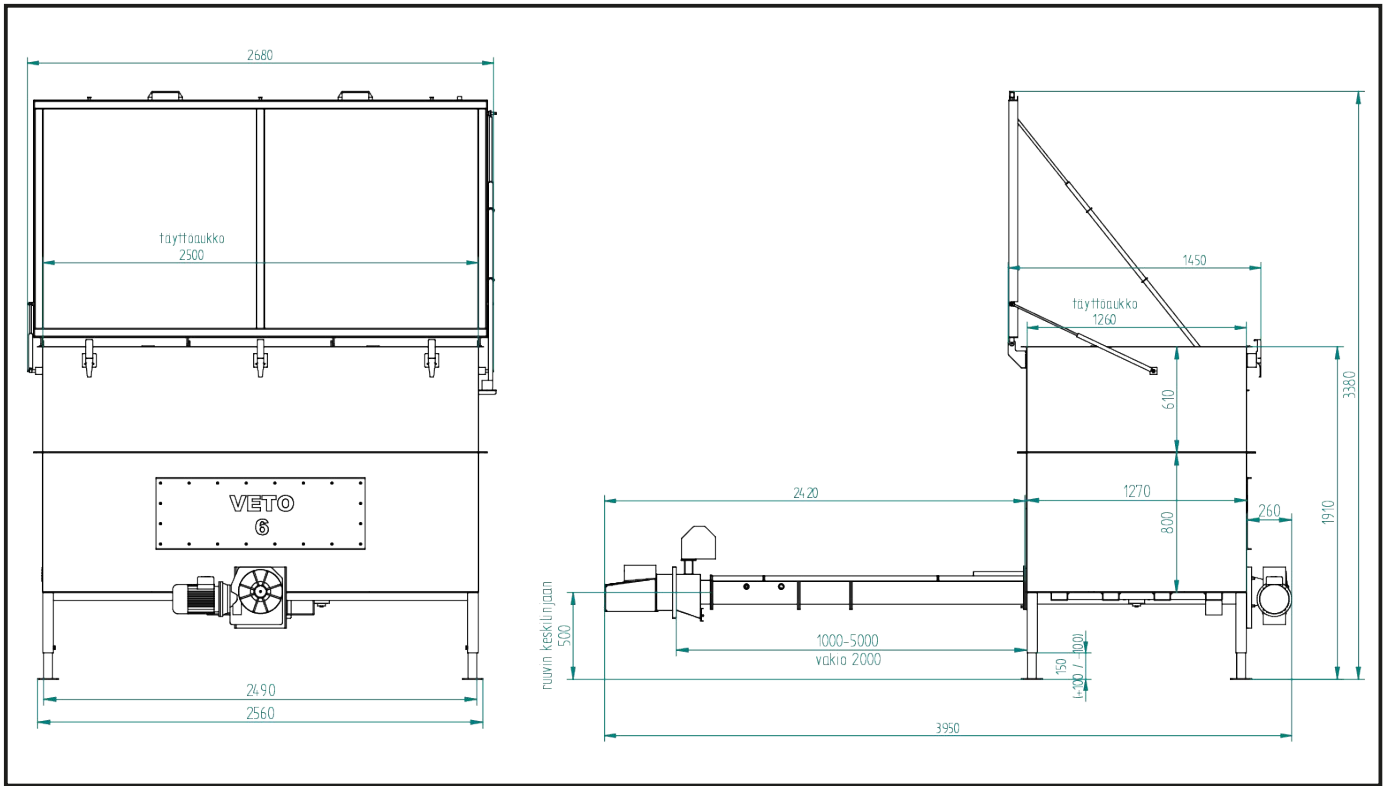
VETO MAT



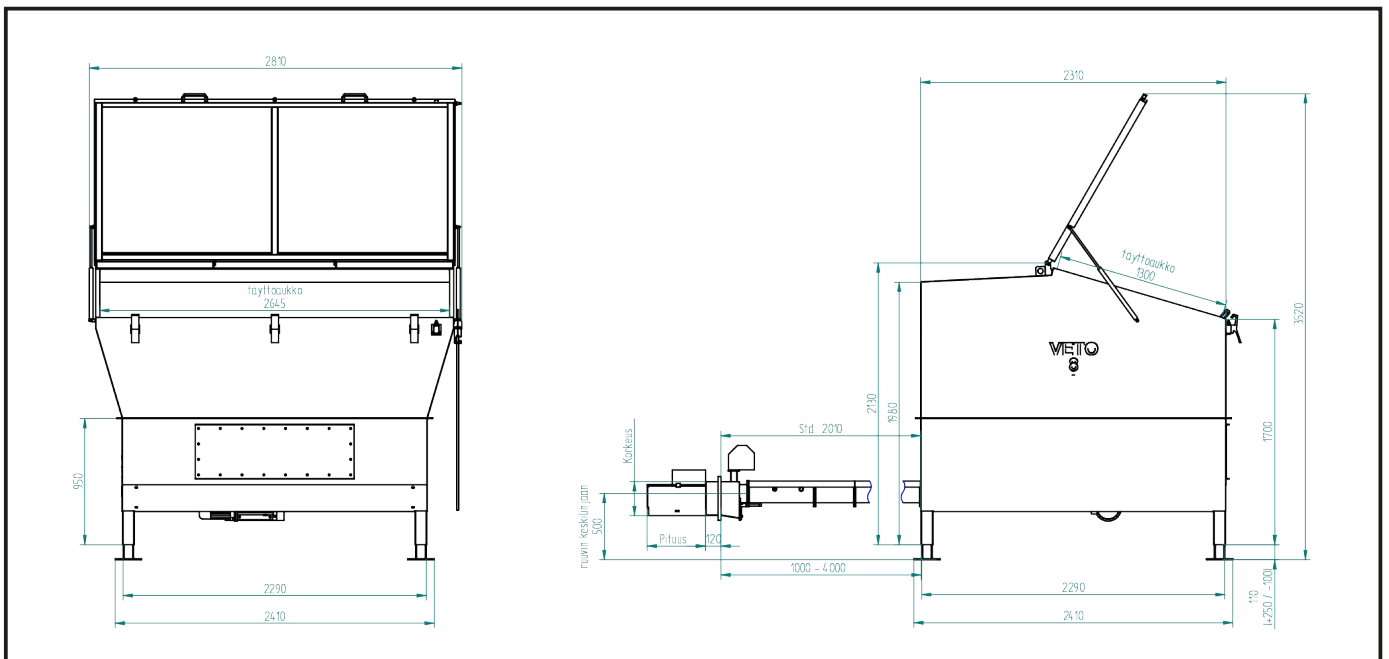
VETO chipmatic



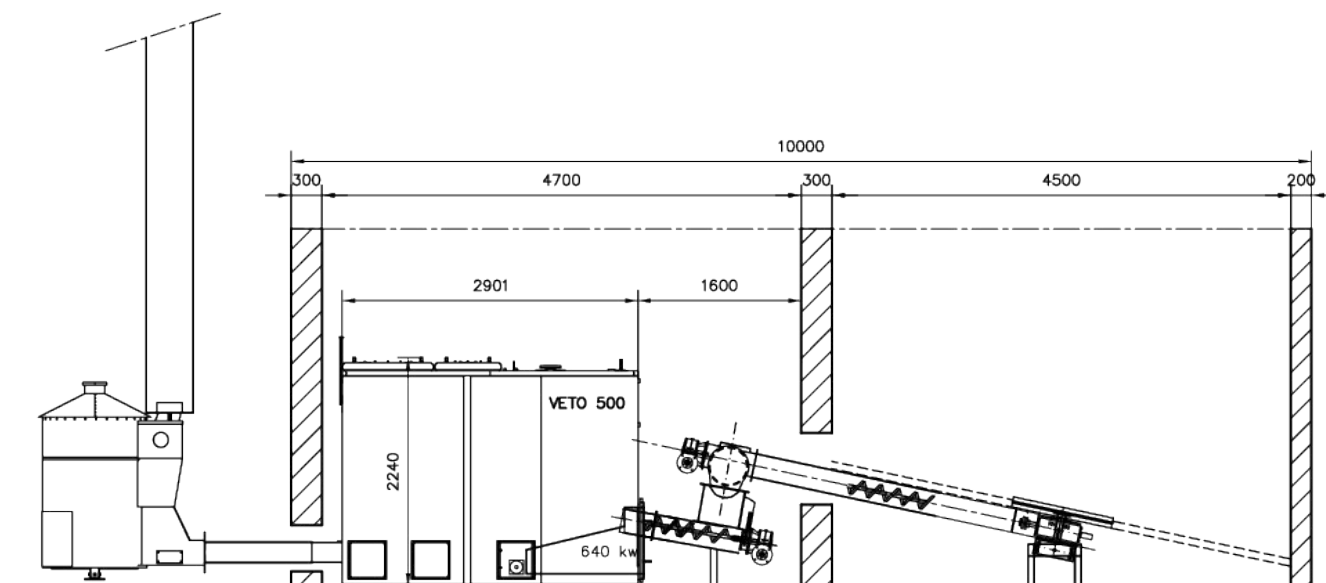
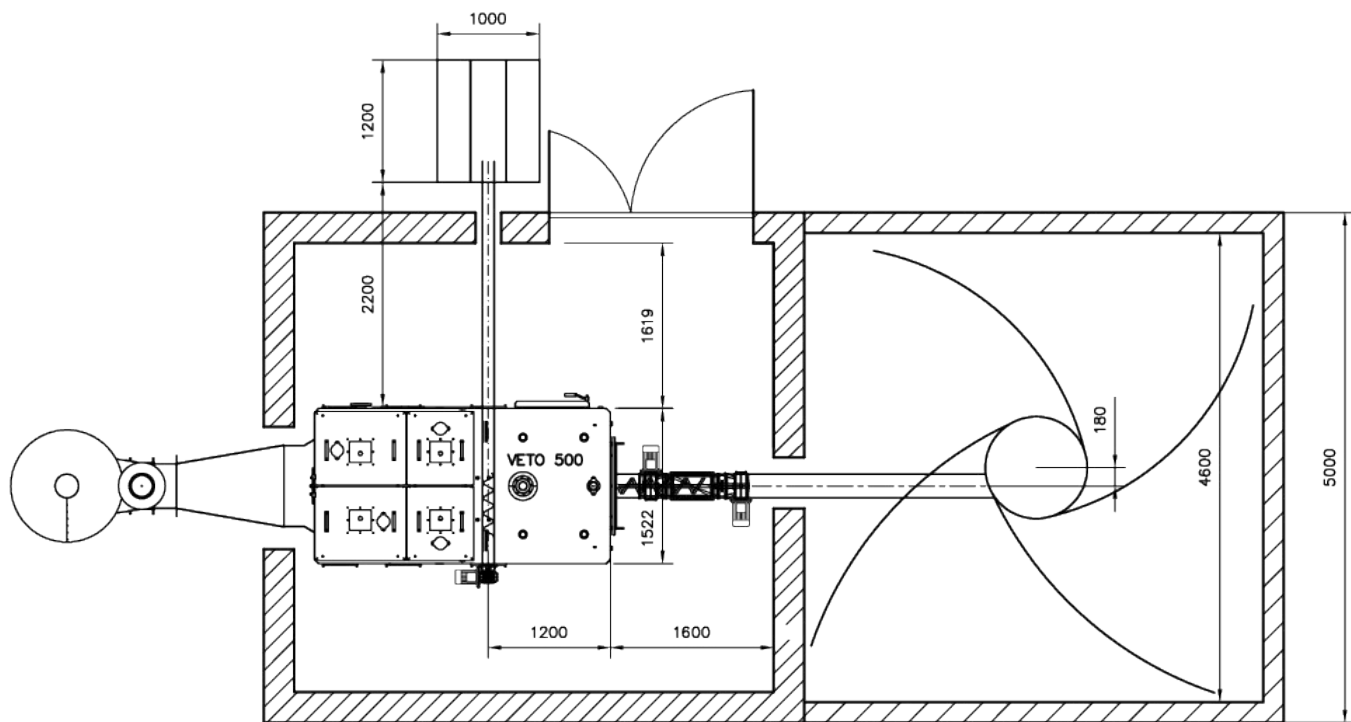
VETO 6

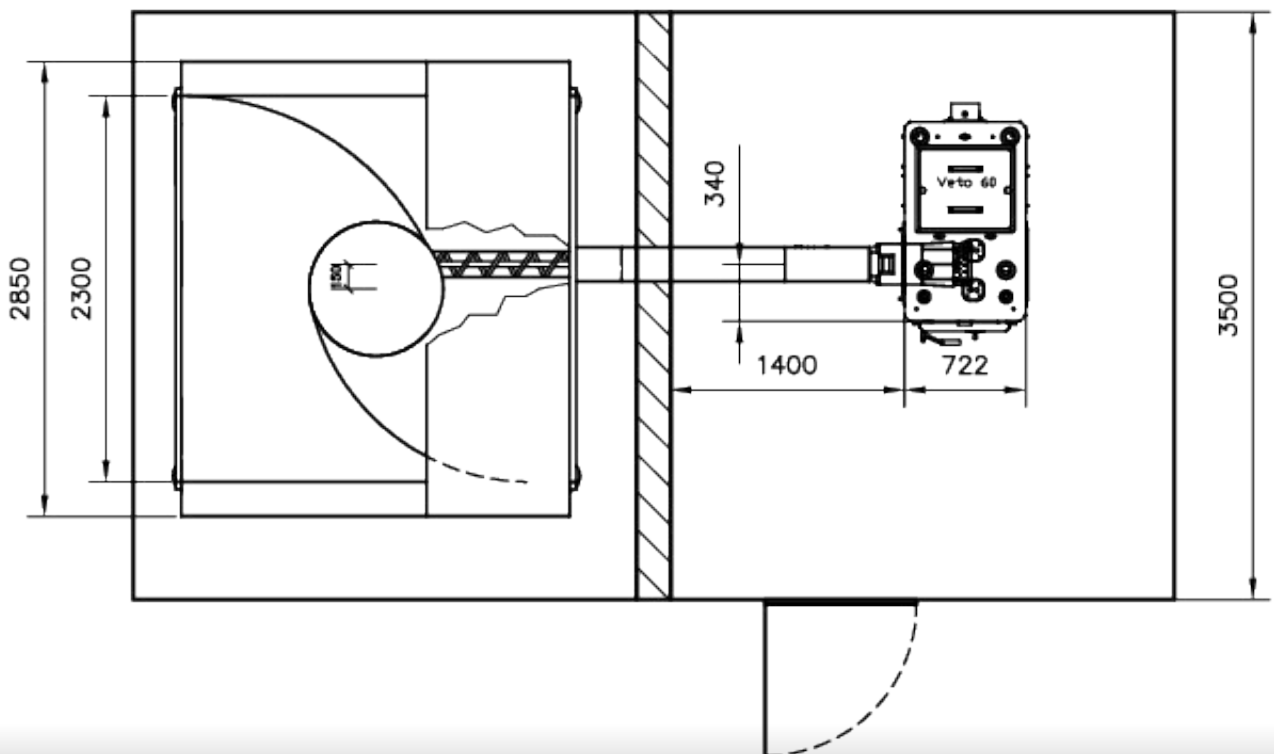
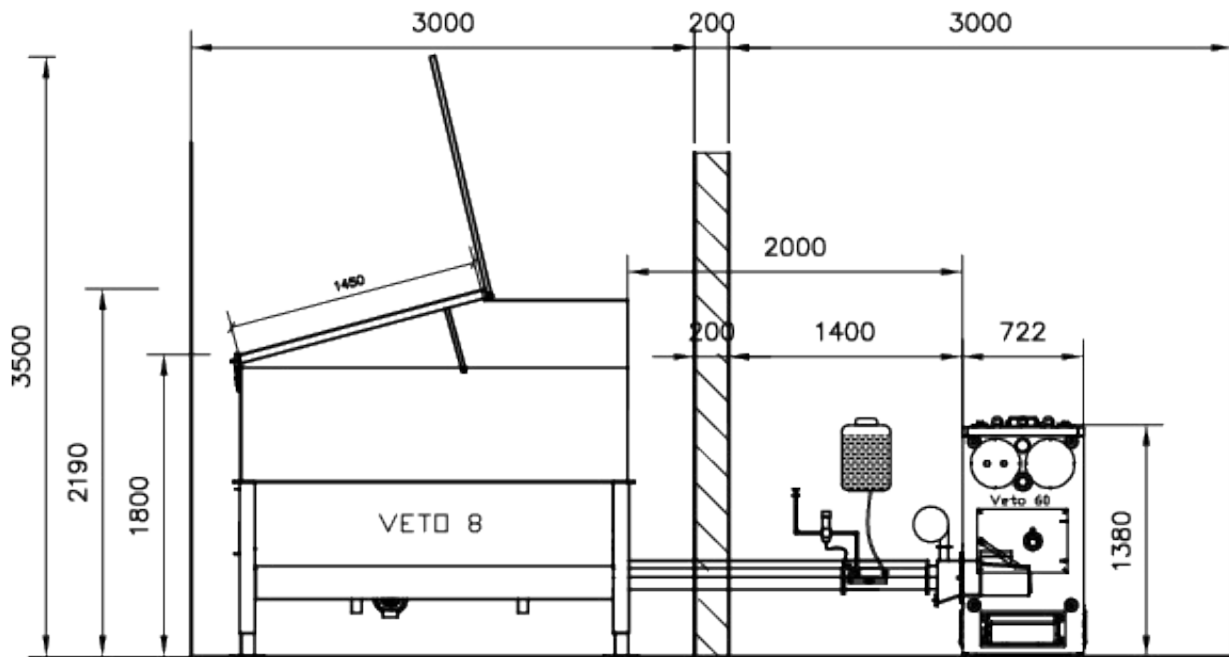


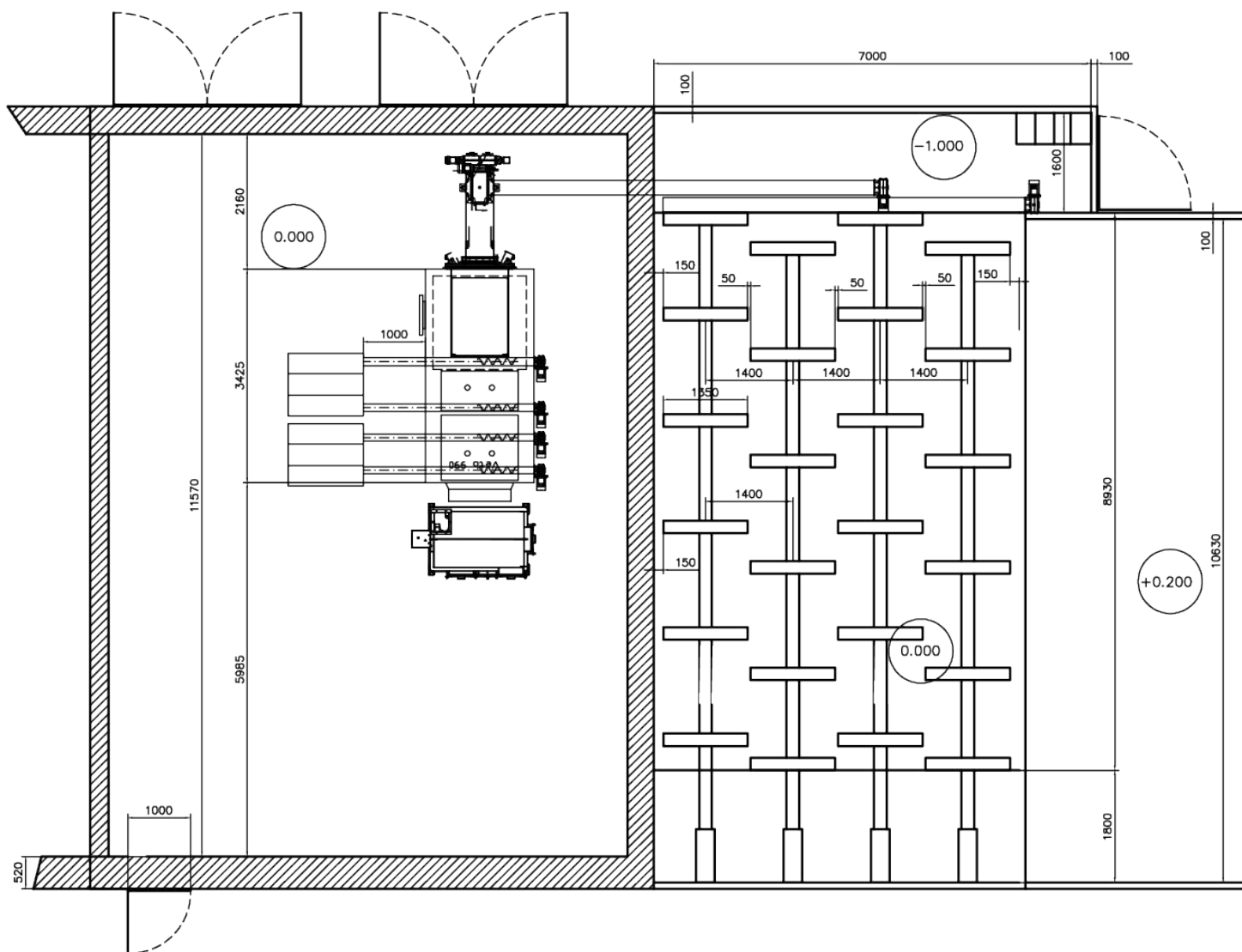
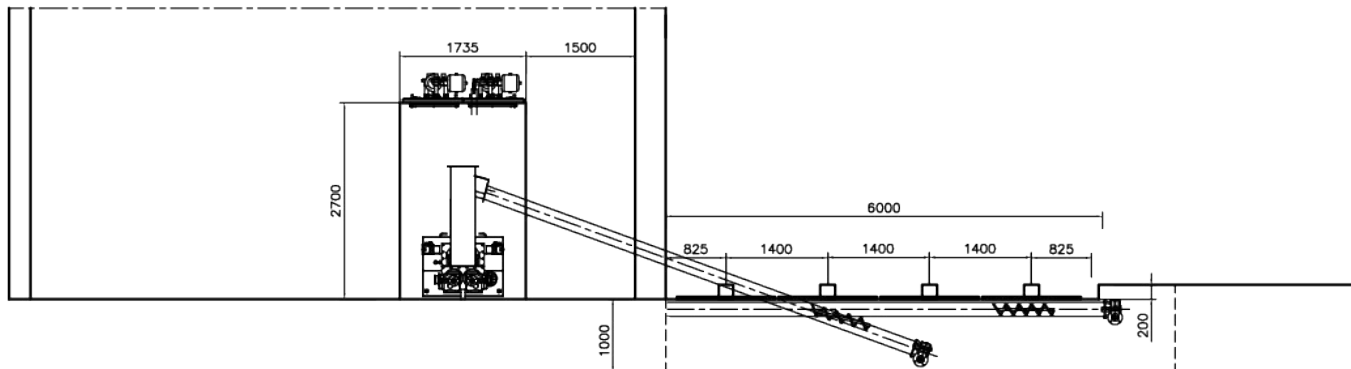
VETO 8

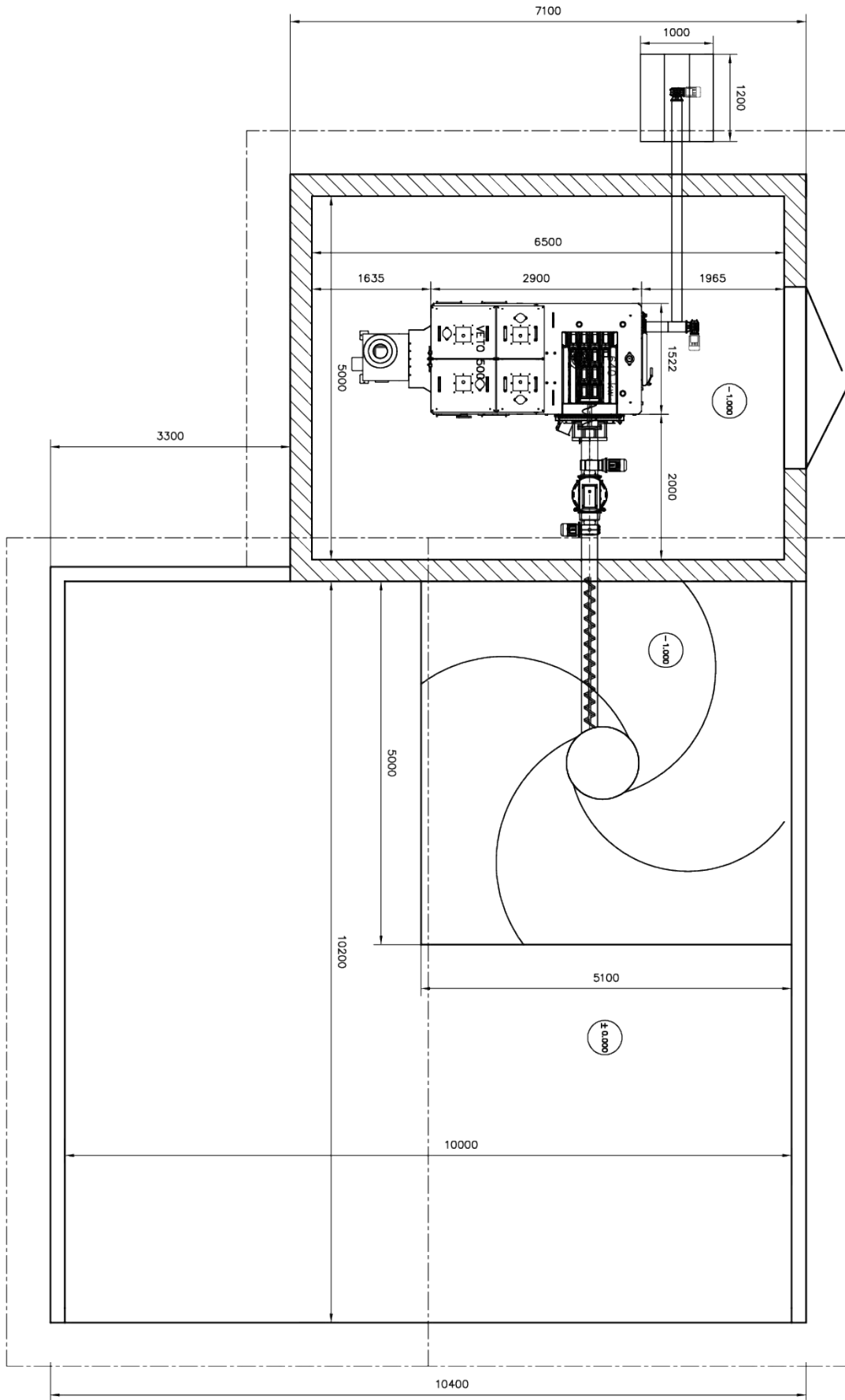


Installation options









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