

DOMUSA
T E K N I K

BIOMASS BOILER
BioClass

ELECTRONIC MODULATION
AUTOMATIC CLEANING SYSTEM
EASY INSTALLATION
POWERS LEVELS UP TO 132 kW



The most advanced technology
at the most reasonable price

DOMUSA TEKNİK has developed a wide range of biomass boilers 10 kW to 132 kW, which have obtained the highest possible European certification rating (Class 5 according to EN 303-5) in everything related to performance (up to 95%), safety, and low emissions of gases and dust.

In this range we can distinguish the following models:

BioClass HM

This model is available in a power range from 10 kW to 43 kW.

It can be installed with pellet hoppers of different sizes or HTP hoppers that apart from being used as pellet hoppers they are equipped with a stainless steel tank for DHW production.

Optionally, a compressor ashtray that extends the maintenance period is offered, as well as a wide range of accessories for feeding pellets from the silo.

BioClass HM OD

This boiler is designed to be installed outdoors. For this reason, the quality of the materials of the exterior panels have been carefully chosen to withstand inclement weather conditions.

An electronic control that can be operated remotely is included in the equipment. From this remote control various operating parameters can be changed.

BioClass HC

For installations of powers between 91 kW and 132 kW, using pine pellets as fuel, we present this modular boiler for cascade installations. It includes the hopper, a compressor ashtray and a vacuum system for pellet feeding.

BioClass HM66

This is a 66 kW boiler ready for use with pine pellets and includes a pellet hopper and a compressor ashtray plus a suction system for pellets feeding from the storage silo.



▲ BioClass HM 10-43



▲ BioClass HM OD



Economy

· Our competitive price policy along with the highest technical performance ensures that the annual savings compared to the use of other fuels, quickly offset the investment of the initial purchase.



Comfort

· DOMUSA TEKNİK's fully automatic burner and the heat exchanger cleaning system provide high comfort and convenience to the end user. The cleaning of the burner is specially designed to treat high strength and unburned ash to ensure both, durability and minimal maintenance of the equipment.



Warranty

· Due to the high quality of the materials used in the construction of the **BIOCLASS**, **DOMUSA TEKNİK** offers a 5 year warranty on the heat exchanger and 2 years on hydraulic and electric components.



▲ BioClass HC



▲ BioClass HM 66



SAVINGS

BIOCLASS low fuel consumption ensures a quick offset of the initial investment due to the efficiency of the boiler and electronic modulation.

EFFICIENCY

The body of the boiler and the heat exchanger are designed for maximum efficiency in the transfer of heat from the gases to the heating system.

The **BIOCLASS** boiler notably reduces the temperature of the combustion gases, thereby achieving the highest performance rates on the market.

AUTOMATIC CLEANING

Boiler cleaning is fully automatic. A set of cleaning springs that retain flue gases improve performance, while at the same time clean ash residues in the heat exchanger.

The cleaning springs are connected to the shaft of a motor via a cam system that regularly moves them vertically, thus cleaning the heat exchanger.

The burner has an automatic ash cleaning system. The lower part of the combustion chamber has a cleaning system to send ashes generated in the combustion periodically to the ashtray.

This system cleans the ashes even when the burner is operating, which allows cleaning without having to switch off the boiler. This optimizes fuel combustion performance and maximizes comfort.



MODULATION

The **BIOCLASS** boiler has an electronic control which regulates the exact amount of air depending on the amount of fuel to achieve the required temperature. This creates unbeatable burning performance especially at reduced power levels.

As it can operate at a reduced power mode, major consumption savings are possible as boiler power levels can modulate according to the needs on the heating installation.

By having a wide range of modulation and the possibility of working at low power, constant on/off cycles are reduced, avoiding energy losses when the boiler stops and enabling it to be installed even without a buffer tank.



EASY INSTALLATION

MULTIFUNCTION ELECTRONIC CONTROL

The BIOCLASS boiler has an electronic control that facilitates installation, due to multiple connection solutions for the various components of the installation. With this control installations can be performed with several zones including regulation over these zones with room thermostats or optional room sensors.

This control is designed so that modules can be implemented, which can control different kind of installations.



Electronic Control

Hotstream SYSTEM

The BIOCLASS 10, 16, 25 and 43 feature an innovative preheated return system. The Hotstream system avoids complicated mixing systems to prevent condensation that may occur as a result of cold returns. This preheating system supports direct returns to the boiler of up to 25 °C, which allow to make installations without back up protection, with any type of hydraulic configuration.

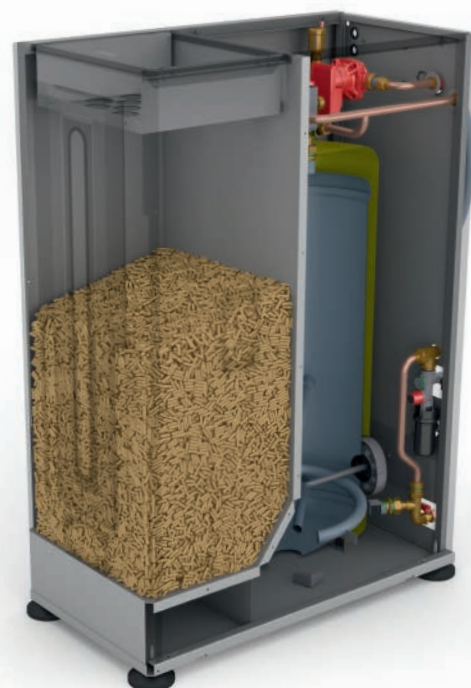
HYDRAULIC KITS

Optionally we offer a wide range of hydraulic kits that provide solutions to the most diverse installation needs in the house. All hydraulic kits incorporate climate control with an outdoor temperature regulation, thus optimizing the consumption of the installation. Among the different configurations that can be managed with these kits, we can highlight the possibility of making installations of underfloor heating systems even with two different temperature zones.



HTP PELLET HOPPER WITH AN INTEGRATED DHW STAINLESS STEEL CYLINDER

The HTP hopper allows the BIOCLASS boiler to be used for DHW production, making the installation easy and reducing the useful space required for the installation. The equipment includes all necessary components to combine a hot water cylinder with the BIOCLASS boiler, among these components we can highlight the unvented cylinder made of stainless steel, which comes with a 5 year warranty and allows multiple DHW points of service simultaneously.



INSTALLATION EXAMPLES

NOMENCLATURE

	Description		Description		Description
Vfas	Output sensor	Btd	BT DUO Buffer Tank	Vr	Retaining Valve
Kfs	Boiler sensor	Lago	LAGO OT + Remote Control	Sbt	Buffer Tank Sensor
Sext	External Sensor	TaD	Room Thermostat	BBt	Buffer tank pump
Mc	Control unit	VA	Thermostatic Anti condensing valve	Tacs	DHW thermostat
Bc	Circulation pump	Vm	DHW mixing valve	FBR2	FBR2 room sensor
Ss	Dhw tank sensor	Vs	DHW safety valve	TA	Room thermostat
Ac	DHW Cylinder	Vee	DHW expansion vessel	TaD	Direct circuit room thermostat
E26	Climatic control	Ve	Heating expansion vessel	TaM	Mixed Circuit Room Thermostat
BT	BT Buffer Tank	R	Electric heating element		



Mixed Circuit



D.H.W.



Direct circuit



Buffer tank with hot water



Buffer tank



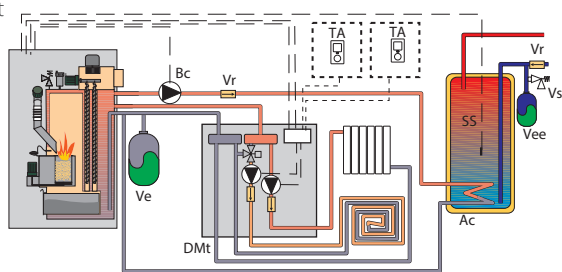
Hydraulic separator



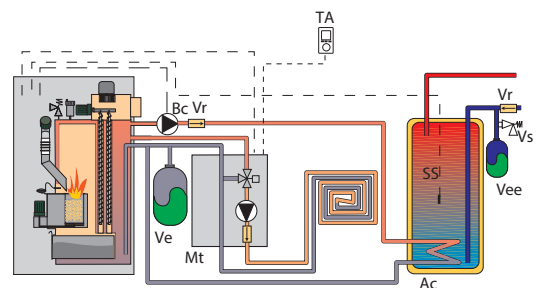
Outdoor compensation Unit

BIOCLASS HM WITH THERMOSTATIC VALVE HYDRAULIC KIT

KIT DMt

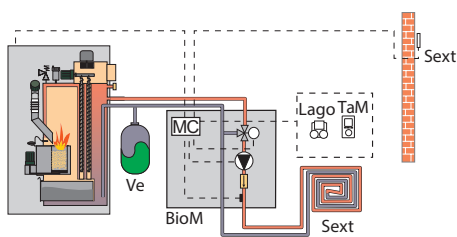


KIT Mt

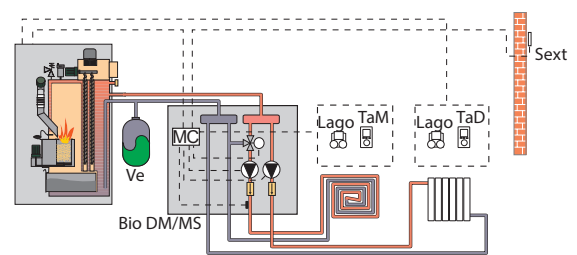


BIOCLASS HM WITH BIO HYDRAULIC KIT AND EXTERNAL SENSOR

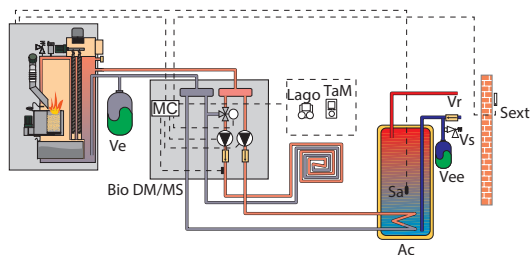
KIT BIO M



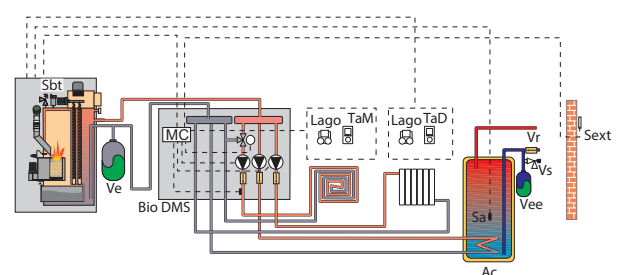
KIT BIO DM/MS



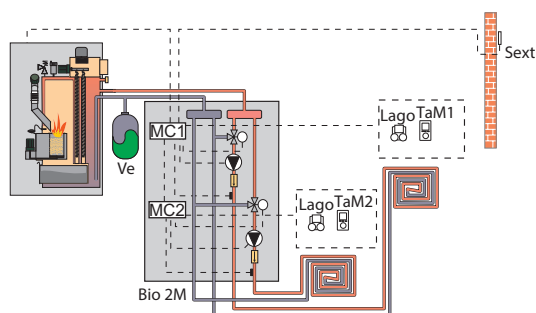
KIT BIO DM/MS



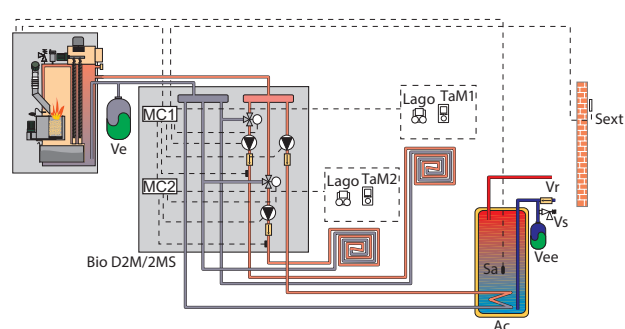
KIT BIO DMS



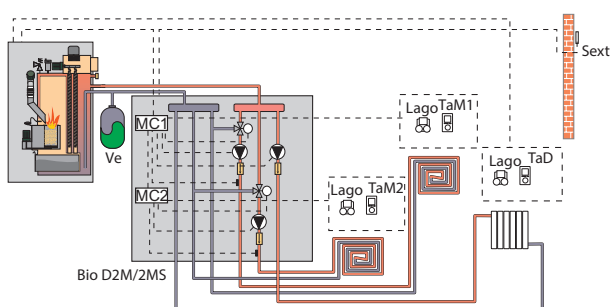
KIT BIO 2M



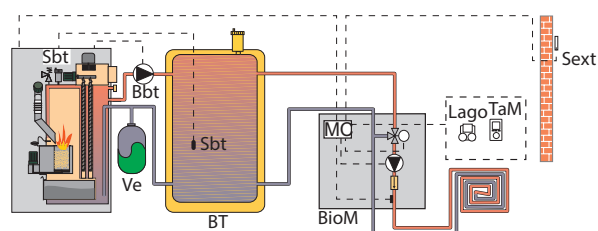
KIT BIO D2M/2MS



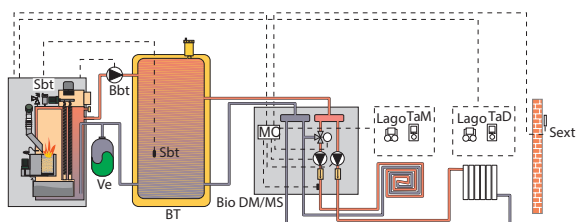
KIT BIO D2M/2MS



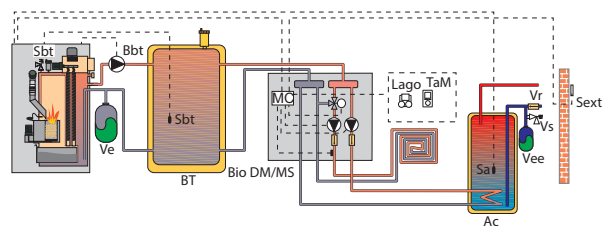
KIT BIO M + BT



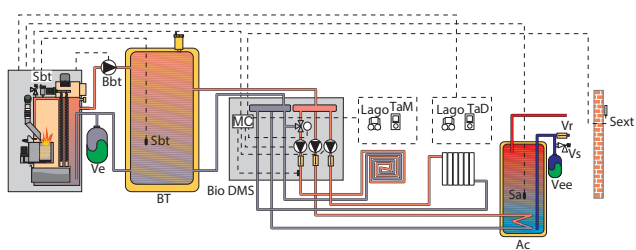
KIT BIO DM/MS + BT



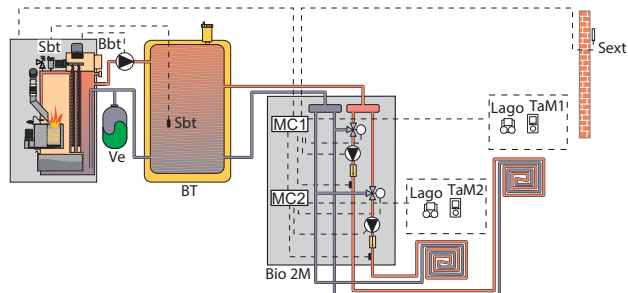
KIT BIO DM/MS + BT



KIT BIO DMS + BT



KIT BIO 2M + BT



BIOMASS BOILER



Mixed Circuit



D.H.W



Direct circuit



Buffer tank with hot water



Buffer tank

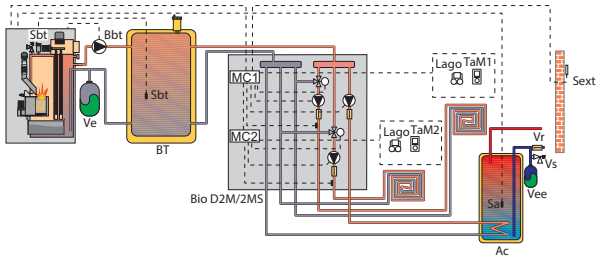


Hydraulic separator

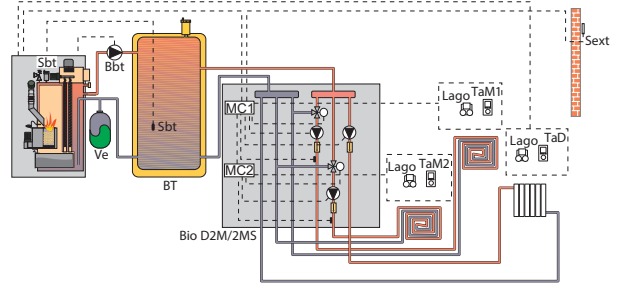


Outdoor compensation Unit

KIT BIO D2M/2MS + BT

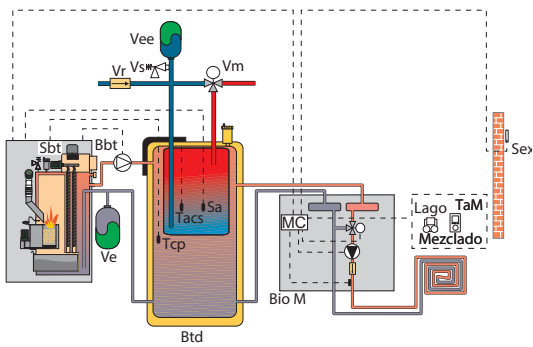


KIT BIO D2M/2MS + BT

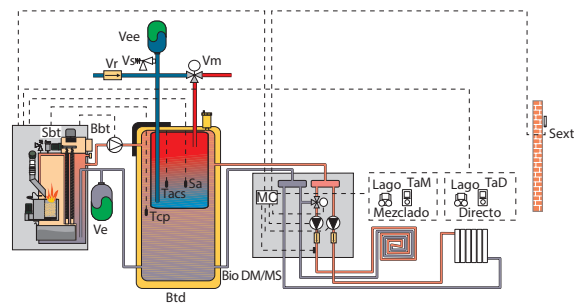


BIOCCLASS HM WITH BIO HYDRAULIC KIT AND EXTERNAL SENSOR

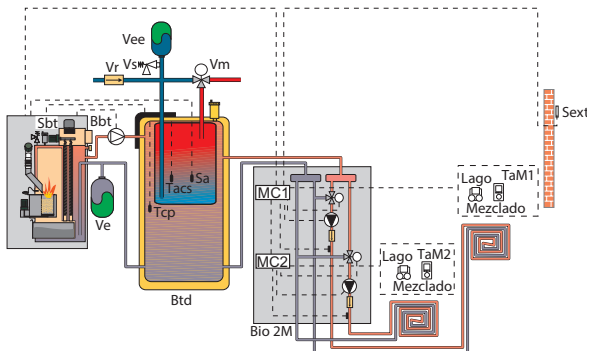
KIT BIO M + BT DUO



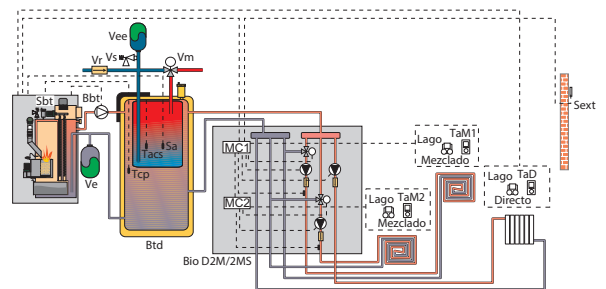
KIT BIO DM/MS+ BT DUO



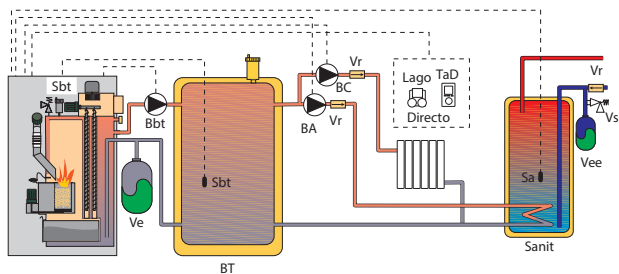
KIT BIO 2M + BT DUO



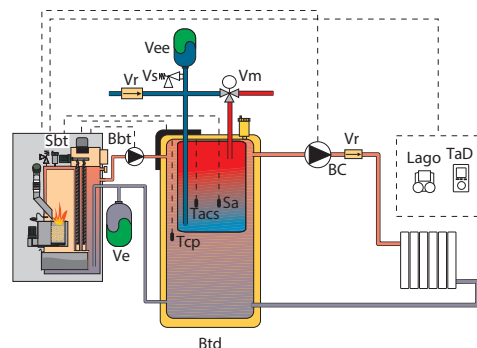
KIT BIO D2M / 2MS + BT DUO



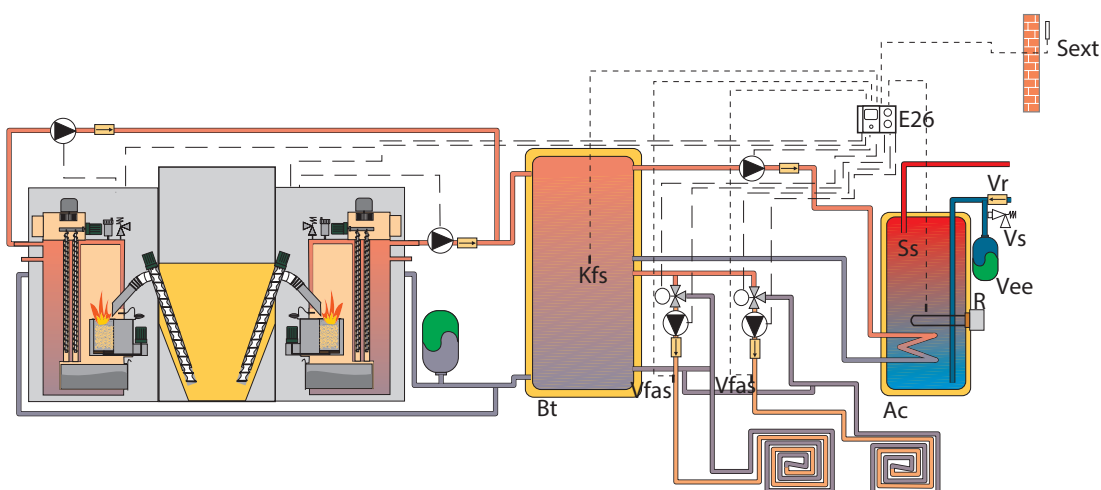
BIOCLASS HM WITH BT



BIOCLASS BT WITH BT DUO

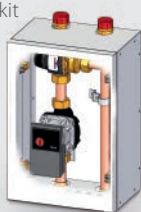


2 BOILERS IN CASCADE INSTALLATION WITH L HOOPER AND BT BUFFER TANK

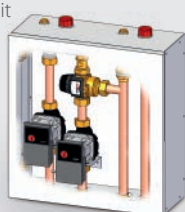


HYDRAULIC KITS

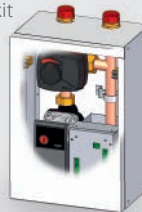
Hydraulic kit Mt



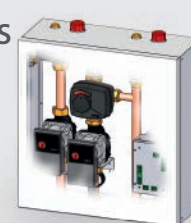
Hydraulic kit DMt



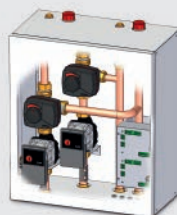
Hydraulic kit BIO M



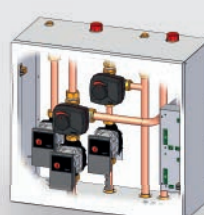
Hydraulic kit BIO DM/MS



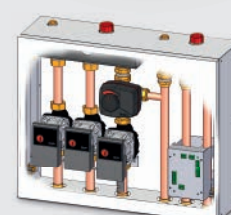
Hydraulic kit BIO 2M



Hydraulic kit BIO D2M/2MS



Hydraulic kit BIO DMS





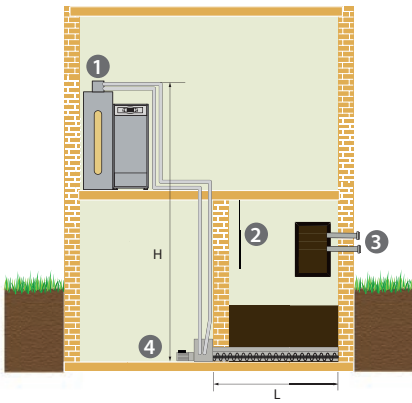
COMPRESSOR ASHTRAY

A compressor ashtray may be incorporated to the boiler to reduce ashtray emptying frequency. It has an ash compression system to reduce the amount of ashtray maintenance.

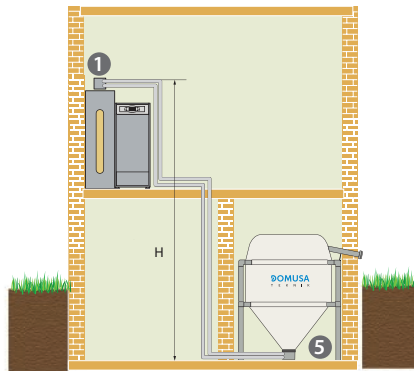


AUTOMATIC LOADING SYSTEM

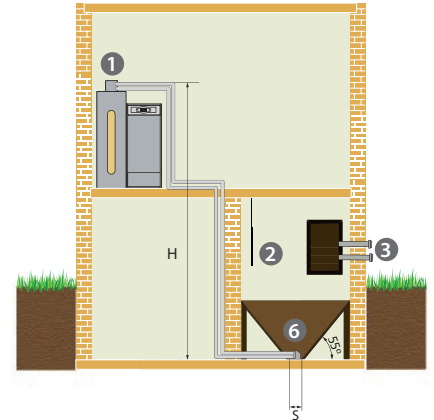
PELLET LOADING SYSTEM FOR HOME MADE SILO AND AUGER



LOADING SYSTEM WITH A CANVAS SILO



LOADING SYSTEM WITH A HOMEMADE SILO AND A FIXED VACUUM SYSTEM



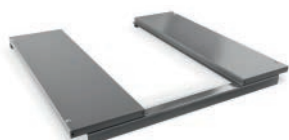
DESCRIPTION

- 1 CVU vacuum unit
- 2 Impact protection canvas
- 3 Storz filling connection pipe

- 4 Home made silo auger
- 5 Silo
- 6 Suction nozzle

MAX. HEIGHT (H)	m	6
MAX. SURFACE (S)	m ²	1
MAX LENGHT	m	25
MAX LENGHT (L)	m	5

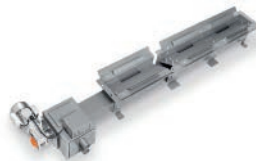
OPTIONS



Coupling kit for L hopper



Flexible hose



Homemade silo 1,5



CVU vacuum unit

HOME MADE SILO EQUIPMENT



Storz filling connection pipe



Impact protection canvas

SILO



There is a wide range of canvas silos available as an additional extra for the CVS automatic loading system.

These silos are quick and easy to assemble: no bolts or specific tools are required and assembly takes just 30 minutes using an Allen key. Their galvanised steel structure with cast iron parts, set screws and intermediate supports make them both visually attractive and long-lasting.

They are made of heavy duty technical fabric which allows static electricity to be discharged to the buildings or the boiler's

earth. The canvas allows ventilation of the pellets inside but prevents dust from escaping, so its filling systems do not require two Storz connectors.

They are made of heavy duty canvas with reinforced seams, preventing condensation caused by temperature variations.

They can be installed outdoors if protected from rain and direct sunlight.

Model	Capacity*		Dimensions		
	Tm	Surface m ²	Height m	Volume m ³	
Silo 2.0	1,8-2,5	1,45 x 1,45	2 / 2,5	3,2 - 3,8	
Silo 3.0	2,2-3,0	1,75 x 1,75	2 / 2,5	3,8 - 4,7	
Silo 4.0	3,0-4,1	2,05 x 2,05	2 / 2,5	5,1- 6,4	
Silo 5.0	3,7-5,2	2,25 x 2,25	2 / 2,5	6,2 - 8,0	

*The capacity of the silos depends on the type, density and quality of the pellets used, such as the height of the premises.

MANUAL LOADING HOOPERS



The BIOCLASS is equipped with an auger to which different hoppers can be incorporated.

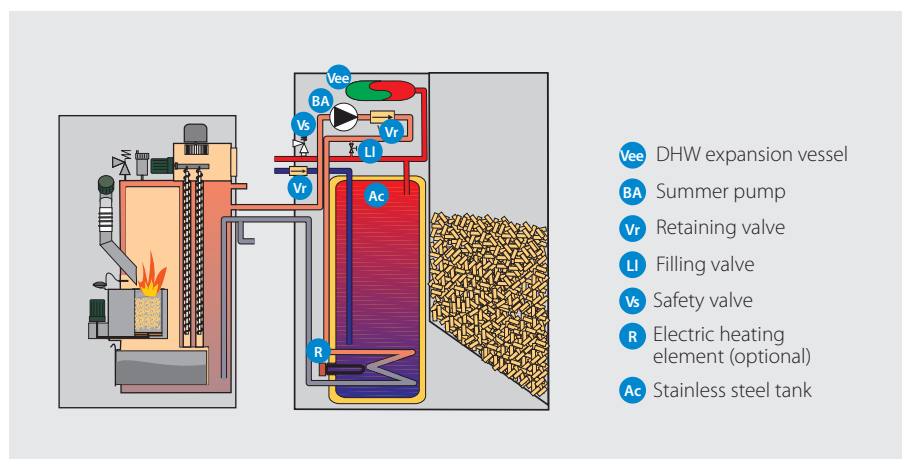
Hoppers of different sizes are delivered fully assembled with a loading grate.

HTP

The HTP hopper is an optional hopper for the BIOCLASS, which includes a complete DHW system.

The DHW is produced using a stainless steel cylinder equipped with all necessary safety systems.

Model	Fuel Capacity	DHW Capacity	Dimensions mm.		
	kg. pellet	L.	Width	Depth	Height
S Hooper	195	-	404	685	1,525
L Hooper	350	-	800	685	1,525
HTP 100-250	150	100	477	913	1,310
HTP 130-200	200	130	700	913	1,310



DIMENSIONS

Models	BioClass HM 10	BioClass HM 16	BioClass HM 25	BioClass HM 43	BioClass HM 66	BioClass HC 25/66	BioClass HC 43/66	BioClass HC 66/66	BioClass HM 16 OD	BioClass HM 25 OD
Width (boiler + hopper)	545*	545*	670*	670*	1,470	2,140	2,140	2,140	1,385	1,525
Height	1,310	1,310	1,310	1,310	1,765	1,765	1,765	1,765	1,485	1,485
Depth	755	755	820	1,045	1,620	1,620	1,620	1,620	795	860

* Width (only boiler, without hopper)

Models	Nominal power kW	Performance at nominal power	Partial charge power	Performance partial charge power	Minimum return temperature	Minimum chimney draft	Water content L.	Weight
BioClass HM 10	10.1	93.5	2.9	89.5	25	10	46	215
BioClass HM 16	15.6	93.5	4.2	88.5	25	10	55	235
BioClass HM 25	25.3	95	6.9	92	25	10	73	326
BioClass HM 43	42.7	94	11.4	94.5	25	10	104	385
BioClass HM 66	64.8	92.1	18	94.2	45	10	140	580
BioClass HM 16 OD	15.6	93.5	4.2	89.5	25	10	55	400
BioClass HM 25 OD	25.3	95	6.9	88.5	25	10	73	511
BioClass HC 25/66	91.4	-	-	-	45	15	213	-
BioClass HC 43/66	108.8	-	-	-	45	15	244	-
BioClass HC 66/66	132.2	-	-	-	45	15	280	-

EQUIPMENT AND OPTIONS

Models	BioClass HM	BioClass HM 66	BioClass HC	BioClass HM OD	Models	BioClass HM	BioClass HM 66	BioClass HC	BioClass HM OD
Auger	●	●	●	●	HTP 130-200	○	●	●	●
Anti flash-back system	●	●	●	●	CVS Vacuum unit	○	●	●	●
Ashtray	●	●	●	●	Silo	○	○	○	●
Compressor Ashtray	○	●	●	●	Hose (15 m)	○	○	○	●
Burner	●	●	●	●	Suction nozzle for homemade silo	○	○	○	●
Automatic burner cleaning system	●	●	●	●	Storz filling connection pipe	○	○	○	●
Safety Valve	●	●	●	●	Impact protection canvas	○	○	○	●
Automatic Heat Exchanger cleaning system	●	●	●	●	Back up protection kit for Bioclass HM 66	●	○	○	●
Fan motor	●	●	●	●	Circulation pump	○	●	○	●
Automatic Air Vent	●	●	●	●	Expansion vessel	●	●	●	●
Pressure transducer	●	●	●	●	Drain valve	●	●	●	●
Flow switch	●	●	●	●	Bioclass level sensor kit	○	●	●	●
Loading grate	●	●	●	●	LAGO FB OT + room sensor	○	●	●	○
DHW tank sensor	○	○	○	○	MYDOMO WiFi remote control	○	○	○	○
Pellet hopper	○	●	●	●	Collector for double aspiration system	●	●	●	●
HTP 100-150	○	●	●	●					

● Included ○ Optional ● Non-Included

MYDOMO WiFi
REMOTE CONTROL
OPTIONAL

DOMUSA

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