DOMUSA TEKNIK

BIOMASS BOILER

DUAL THERM

PELLET/ WOOD BOILER
AUTOMATIC FUEL SWAP
BACK UP PROTECTION SYSTEM INTEGRATED IN BOILER HEAT EXCHANGER
PELLET HOPPER INCLUDED
HEAT EXCHANGER AND BURNER AUTOMATIC CLEANING SYSTEM
AUTOMATIC LOG IGNITION

ErP Compliant

CLASS A+

CLASS 5 FOR PELLET IN EN 303/5

The most advanced technology
at the most reasonable price

DUAL THERM

DOMUSA TEKNIK introduces into the biomass heating market an innovative solution where the use of two types of fuel can be combined into a single product, while incorporating all the comfort and performance of a fully automatic boiler, and at the same time also incorporating a pellet hopper, to gain autonomy of use according to customer's preferences. In other words, a pellet boiler, with a combustion chamber prepared for use with logs as an alternative fuel.

SAVINGS

The DUAL THERM boiler reduces fuel consumption by recovering the investment in a reduced time. This is based on boiler efficiency and electronic modulation.

THE FUEL

Wood is a renewable source of energy traditionally used in households, which remains an economical and ecological alternative to non-renewable fossil fuels which are subject to speculative market pressures, causing serious price fluctuations.

Furthermore, the availability of logs in some geographical areas, reduces costs taking advantage of the agricultural and forestry by products.

A + EFFICIENCY

The heat exchanger is especially designed to maximize the heat exchange of the gases to the water and subsequently to the installation.

The DUAL THERM boiler can significantly reduce the temperature of combustion gases, thus achieving the best performance of the market, with an A + energy rating.

ELECTRONIC MODULATION

The DUAL THERM boiler has an electronic board that controls the amount of fuel supplied in order to achieve the necessary temperature in the boiler. This permits unbeatable combustion even at low power levels. Being able to operate at a reduced power level, great savings in consumption can be achieved, as the power of the boiler is adjusted to the demand of the installation. Having a wide range of modulation and being able to work at low power levels reduces the boiler's on/off cycles, avoiding losses due to stops.

AUTONOMY

The indistinct use of pellet or logs automatically reduces the dependence of loads and maintains greater autonomy of operation.

FUEL SWAP

The Dual Therm boiler allows logs or pellet to be used, according to user preference. The boiler goes automatically into pellet operation mode in the event that the wood runs out in the combustion chamber and no wood is refilled, thus maintaining the comfort of the installation without worrying about reloading logs into the boiler.

LARGE COMBUSTION CHAMBER

The large combustion chamber, in which logs of up to 50 cm can be used, together with the high efficiency obtained by fan modulation, allows a longer autonomy of loading for the operation with wood logs.

PELLET HOPPER INCLUDED

The DUAL THERM is equipped with a pellet feed auger and a 110 kg pellet hopper.

COMFORT

With this boiler we can enjoy the advantages of using wood , with the same comfort that any other automatic pellet boiler offers.

AUTOMATIC CLEANING

The cleaning of the heat exchanger and the burner is automatic. A set of cleaning springs that retain flue gases improve performance, while at the same time cleaning 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.

AUTOMATIC IGNITION

The placement of the pellet burner below the combustion chamber of the logs allows the automatic ignition. In the ignition process, the pellet is first ignited by an electric low consumption igniter, to later ignite the logs placed in the combustion chamber. This gives the DUAL THERM boiler the ability of automatically operating the heating system and domestic hot water even when using logs.

EASE OF INSTALLATION

The DUAL THERM features 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 35º C, which allow to make installations without back up protection, with any type of hydraulic configuration.

REMOTE CONTROL WiFi MyDOMO

Our optional WIFI remote control MyDOMO allows remote control of the boiler with Android or iOS devices connected to the internet.

From a mobile device you can see indoor and outdoor temperatures, system pressure and alarm notifications. You can also modify DHW temperature, change summer/winter mode, program the boiler and see events history.

Combustion chamber

Heat exchanger automatic cleaning mechanism

Pellet burner

Automatic cleaning

Ash pan
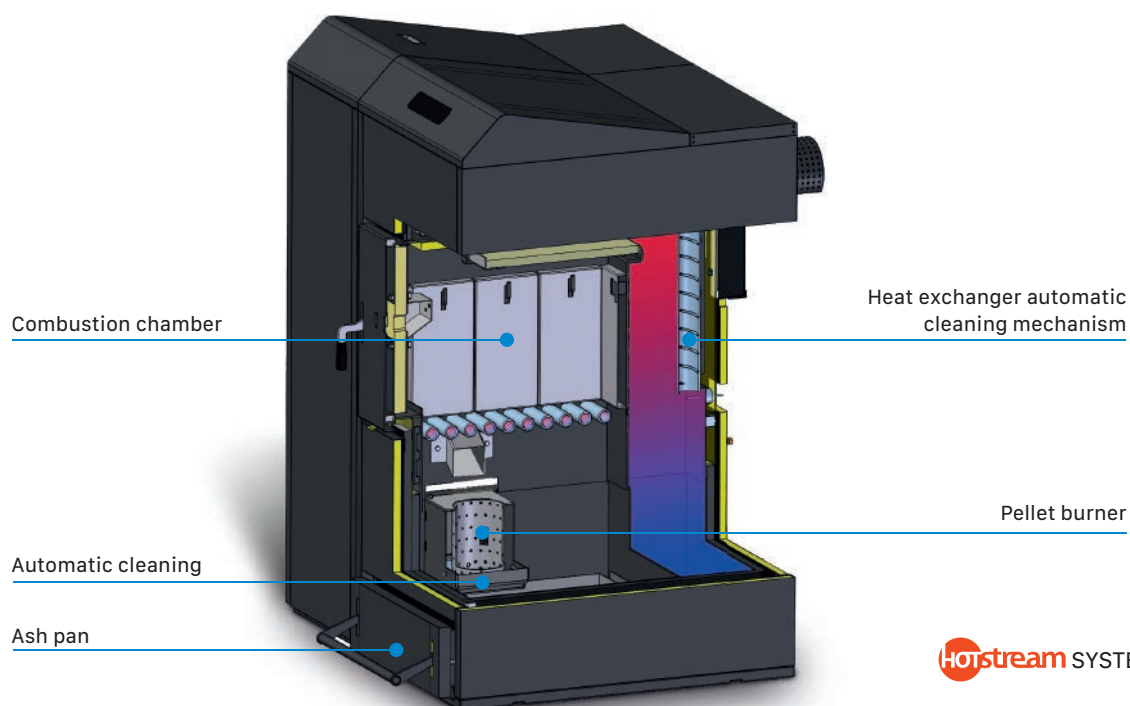
Hotstream SYSTEM

OPTIONS

HYDRAULIC KITS

Optionally a wide range of hydraulic kits are offered to give solutions to the most diverse needs of installation in the houses. All the hydraulic kits incorporate a climate regulator with control over the water flow temperature depending on the outside temperature, thus optimizing the consumption of the installation.

Among the different configurations that can be managed with these kits, is the possibility of making installations of under floor heating, even with two zones of different water flow temperatures.

Hydraulic kit **BIO M**
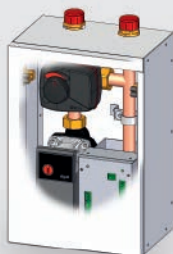
Hydraulic kit **BIO DM/MS**
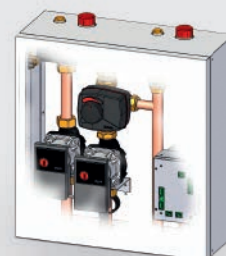
Kit BIO DM

Kit BIO MS

Hydraulic kit **BIO 2M**
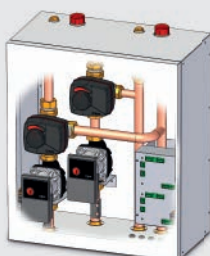
Hydraulic kit **BIO D2M/2MS**

Kit BIO D2M

Kit BIO 2MS
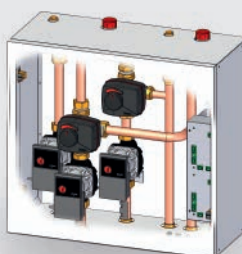
Hydraulic kit **BIO DMS**
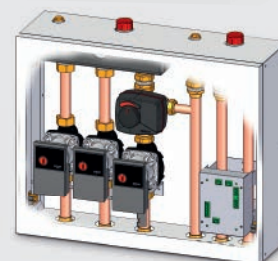
INSTALLATION EXAMPLES

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	Weather compensation 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		
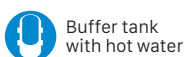
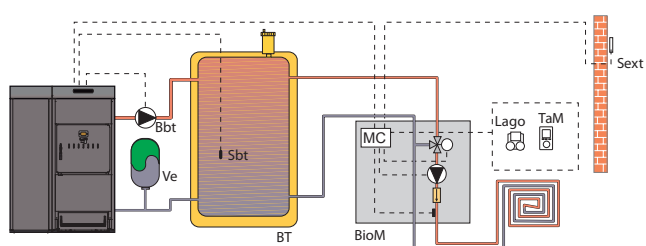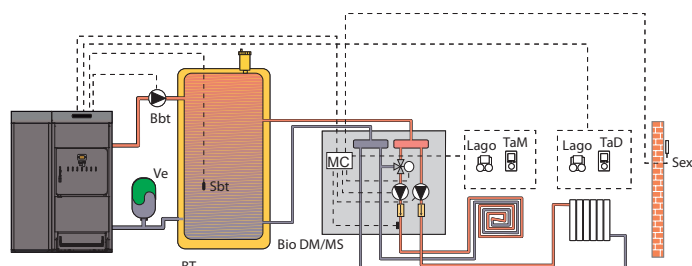Mixed Circuit · D.H.W · Direct circuit · Buffer tank with hot water · Buffer tank · Hydraulic separator · Outdoor compensation Unit

DUAL THERM WITH BIO HYDRAULIC KIT AND WEATHER COMPENSATION SENSOR

KIT BIO M + BT

KIT BIO DM/MS + BT

BIOMASS BOILER

Mixed Circuit

D.H.W

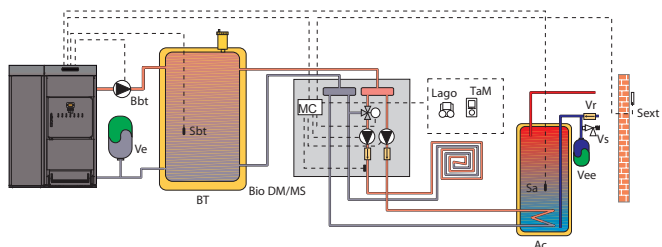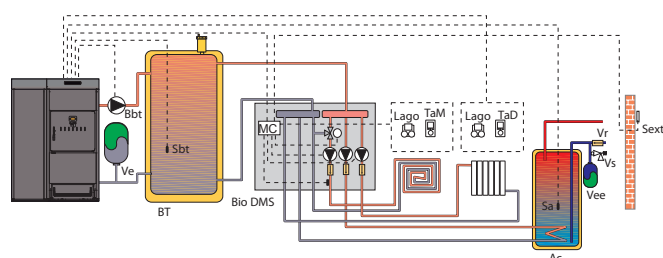**Direct circuit**

Buffer tank with hot water

Buffer tank

Hydraulic separator
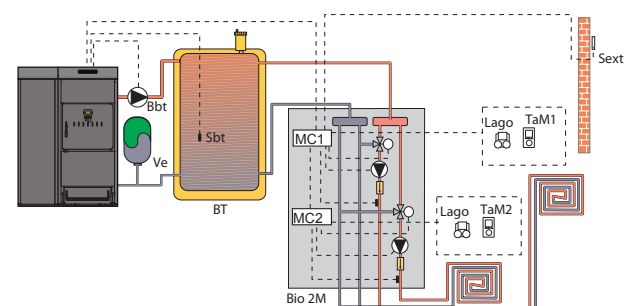

Outdoor compensation Unit
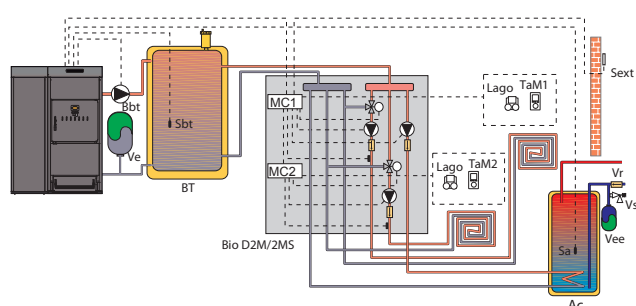

KIT BIO DM/MS + BT

KIT BIO DMS + BT

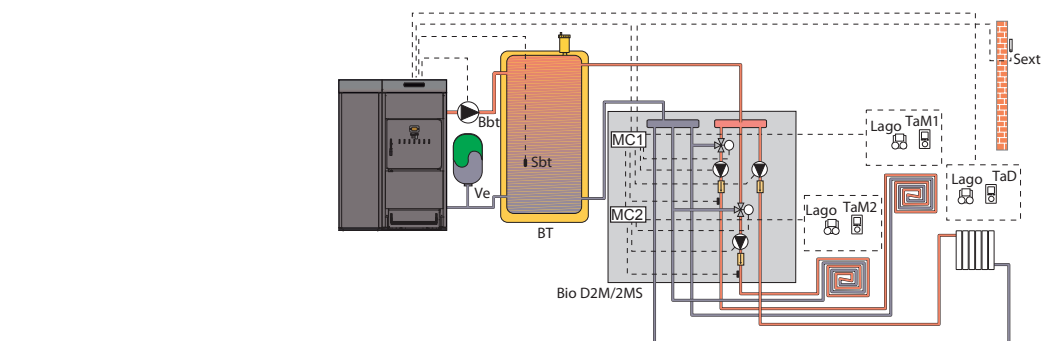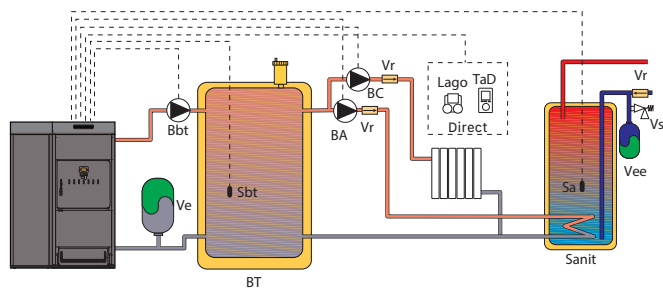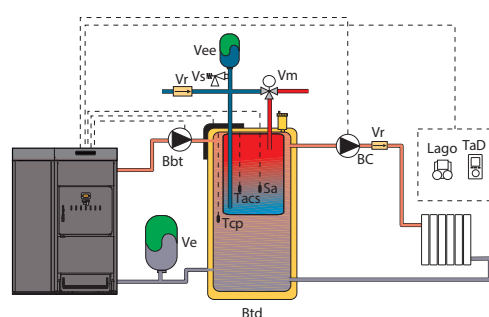## KIT BIO 2M + BT

KIT BIO D2M/2MS + BT

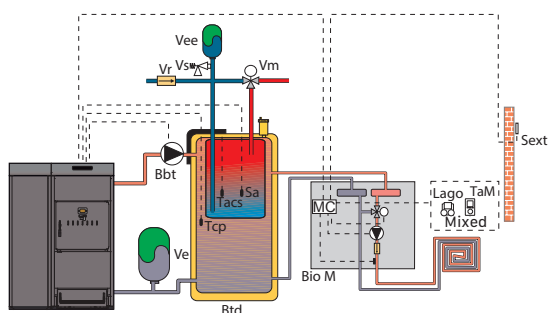## KIT BIO D2M/2MS + BT

DUAL THERM WITH BT
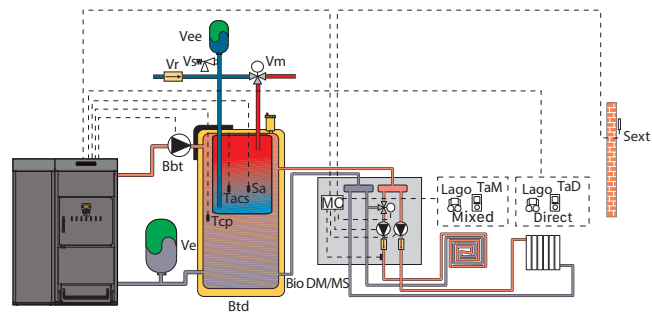

DUAL THERM WITH BT DUO

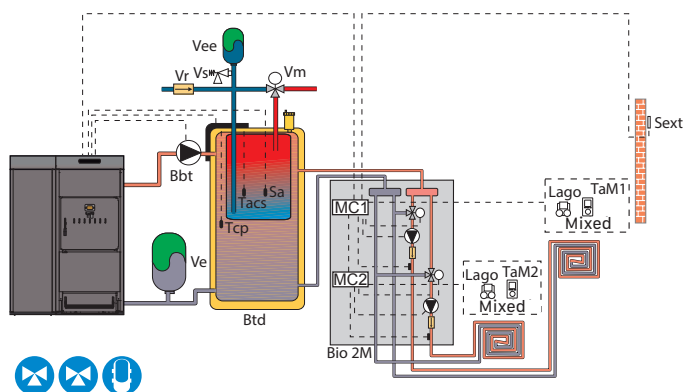## DUAL THERM WITH BIO HYDRAULIC KIT AND WEATHER COMPENSATION SENSOR

KIT BIO M + BT DUO

KIT BIO DM/MS+ BT DUO

KIT BIO 2M + BT DUO

KIT BIO D2M / 2MS + BT DUO
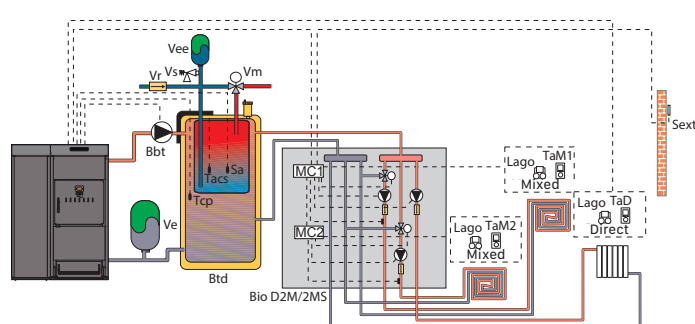
DIMENSIONS
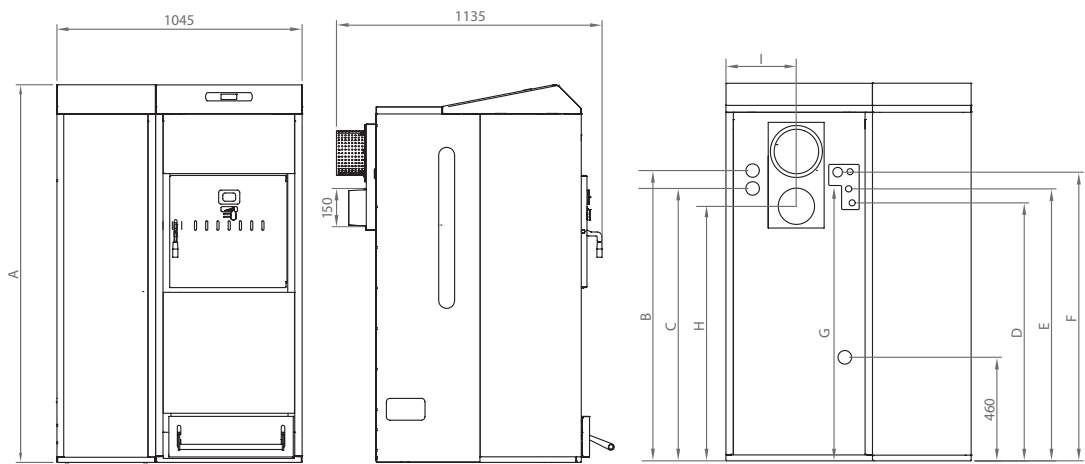
Modelo	A	B	C	D	E	F	G	H	I
DUAL THERM 25	1,460	1,080	1,005	950	1,010	1,085	980	920	310
DUAL THERM 35	1,610	1,230	1,155	1,100	1,160	1,230	1,110	1,070	310

EQUIPMENT

1. Pellet hopper
2. Pellet Auger
3. Pellet burner with automatic cleaning
4. Ash pan
5. Water cooled grate tubes
6. Combustion chamber
7. Electronic control
8. Heat exchanger automatic cleaning mechanism
   a) Safety cooler coil
   b) Back up protection system

OPTIONS

DHW tank sensor
Buffer tank sensor
High efficiency pump
Overheating safety discharge valve
LAGO FB OT + room sensor
Hydraulic kits
BT DUO buffer tank
BT buffer tank
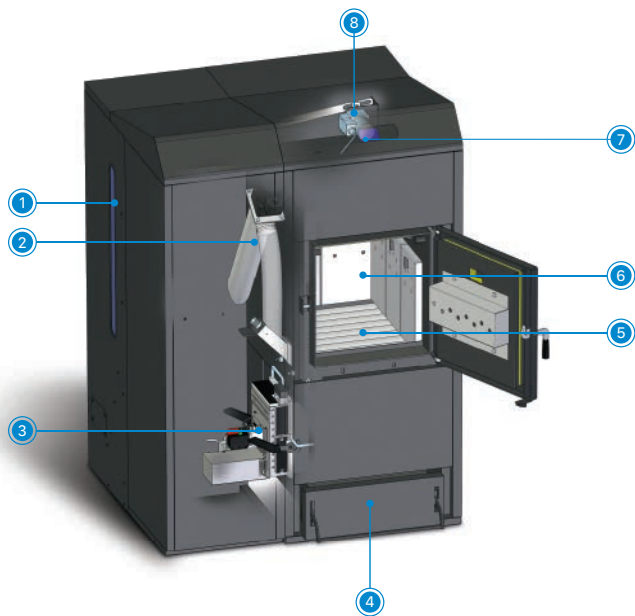
Model	Fuel	Nominal Power kW		Efficiency with pellet at nominal power %	Water content in the boiler L	Fuel capacity kg. pellet	Wood log maximum length cm
		Pellet	Wood				
DUAL THERM 25	Pellet + Wood	25	23	90	83	110	50
DUAL THERM 35	Pellet + Wood	35	31	91	97	145	50

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T E K N I K