



ATMOS

GASIFICATION BOILERS

2023

Since 1935



COAL



WOOD

Meet **ECODESIGN** regulations





Production and sale of DOKOGEN gasification units



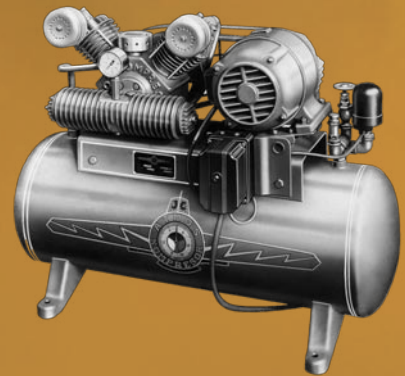
Skoda SUPERB with DOKOGEN gas generator, 1943



ARO 240 with DOKOGEN gas generator, 1985



The first exhibition after WWII – ATMOS Air compressors, 1945

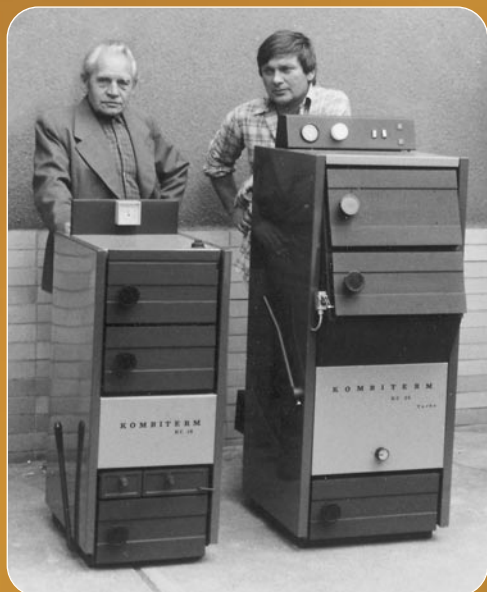


ATMOS PV2 compressor, 1950



Museum 2021 / boilers – compressors – motors

TRADITION AND EXPERIENCE 1935 – 2023



1988



Three generations
of the Cankař family



Since 1935

Family company **ATMOS** was established in Bohemia in **1935** by **Jaroslav Cankař senior** who came from a family of smith.

In the beginning he focused on developing gasification units for cars and ships with a trademark of **DOKOGEN**. They used the same principle as is used for modern **ATMOS** wood boilers. He was a great designer and inventor.

In 1942 he started development and from 1944 production of compressors **Atmos** that were exported to the entire world until nationalisation in 1951. After nationalisation he set up compressor repair shop and continued in development of compressor and gasification units.

In 1961 started development and production of boilers for coal and diesel.

In 1980, the company presented its first gasification boilers that ran on log and wood waste at the **Pragoterm** exhibition.

In 1985 development was focused on gas generators for car and ship engines and also the development of wood gasification boilers.

ATMOS was re-established in 1991 by **Jaroslav Cankař junior** who started producing boilers with his father. This was enabled by changes in the political system in the Czech Republic. Through intensive development of new products, production expansion, investment in and implementation of modern technologies **ATMOS** has become one of the biggest manufactures of gasification boilers in Europe. To this day, the company has developed over 145 types of hot-water boilers with 15 pending patents. One of the first boilers was **EKONOMIK** for coal developed in 1962 which started massive production.

Currently, three generations of the **Cankař family** are working to supply the European market with quality boilers that are environment friendly and energy saving.

The boilers are exported into 49 countries. Currently we produce 135 types of boilers. The whole company area consists of 75 000 m² includes 32 000 m² production area.



EKONOMIK Boiler, 1968



EKONOMIK Boiler,
1970



EKONOMIK Boiler, 1985



HIGH QUALITY MANUFACTURING

ADVANTAGES OF ATMOS BOILERS

- Modern construction
- Fully ceramic lined gasification chamber
- High efficiency up to 92 %
- Environmentally conscious
- Pressure controlled exhaust fan (DC 70 S)
- Large fuel chamber
- Easy ignition
- Easy operation and cleaning
- Dust free ash removal
- Compact dimensions and light weight
- Cooling loop to protect against overheating
- Boiler works at low output
- Ceramic with steel lining
- Gasification chamber made from 6 mm thick steel plates
- Rotating cast iron grates for easy ash cleaning
- Clean burning from ignition

ATMOS – always have confidence...



Training centre and museum – ATMOS 2



AND RELIABLE PRODUCTS

ACTUAL PRODUCTION PROGRAM

- wood gasification boilers in range
15 kW – 150 kW
- coal gasification boilers
15 kW – 50 kW
- coal briquettes gasification boilers
18 – 45 kW
- pellet boilers
5 kW – 80 kW
- combination boilers
15 kW – 35 kW
wood – pellets
- pellet burners A 25, A 45, A 85
from 5 to 80 kW



ATMOS DREVOPLYN



DC xx S/SX

Power output range 20 – 49 kW





ATMOS WOOD GASIFICATION

DC 18 S – DC 70 S

■ Gasification boilers – type Drevoplyn

The boilers are made of round gasification chamber with rear inlet of preheated primary and secondary air. Contain ceramic nozzle and in lower chamber with ceramic shaped parts and at the back is **suction ventilator**.

- Rear flue channel contains regulation of primary and secondary airs and equipped with draft regulator Honeywell. It allows operation of boiler even **without the suction ventilator**.
- The burning chamber of boiler is made from **6 mm** steel plates.
- The boilers are practical for its easy operation and cleaning.

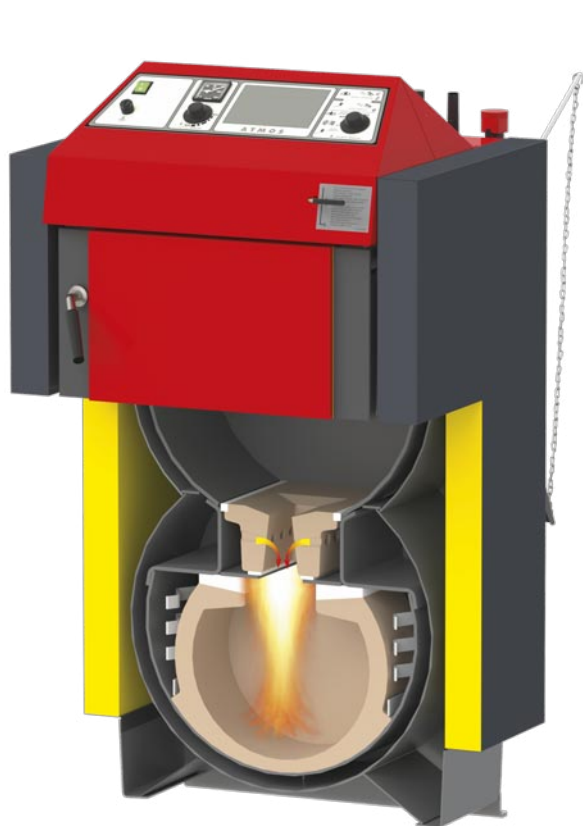
FUNCTION

The boilers use **wood gasification** (inverse burning), which takes place in the boiler's ceramic lined fire chamber. The Air supply is controlled by a suction fan, which allows fast boiler ignition and **clean burning from the start**. The boiler temperature is kept between 1000 – 1200 ° C. The boiler's burning chamber is made from **6 mm thick** steel plates.

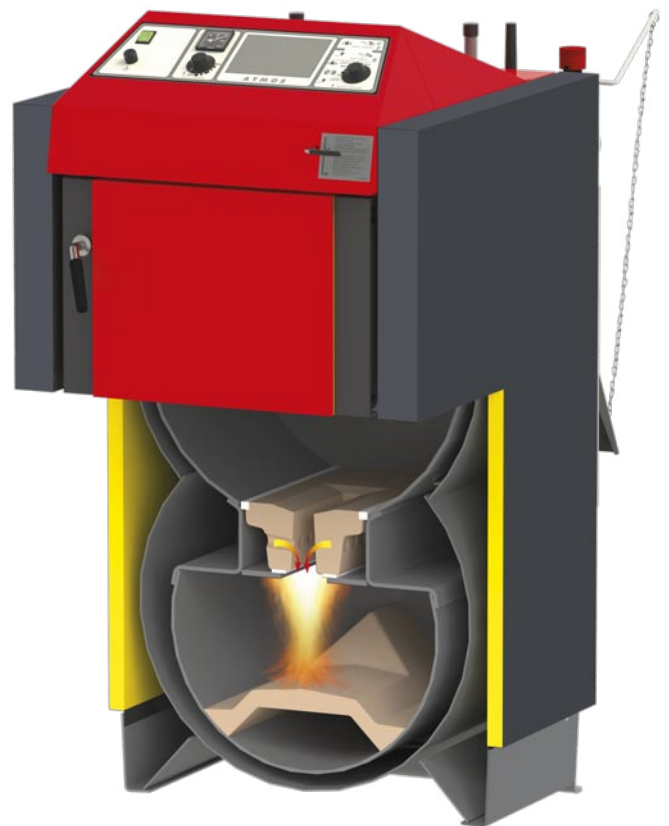
ENVIRONMENT

Through Inverse burning (gasification) and the use of a ceramic combustion chamber, the boiler is highly efficient and minimises harmful vapours as much as possible.

The boilers conform to the European regulations for environmentally friendly products and belongs to the 4th and 5th class of boilers under EU standard CSN EN 3035 and **Ecodesign 2015/1189**.

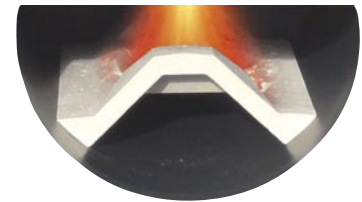
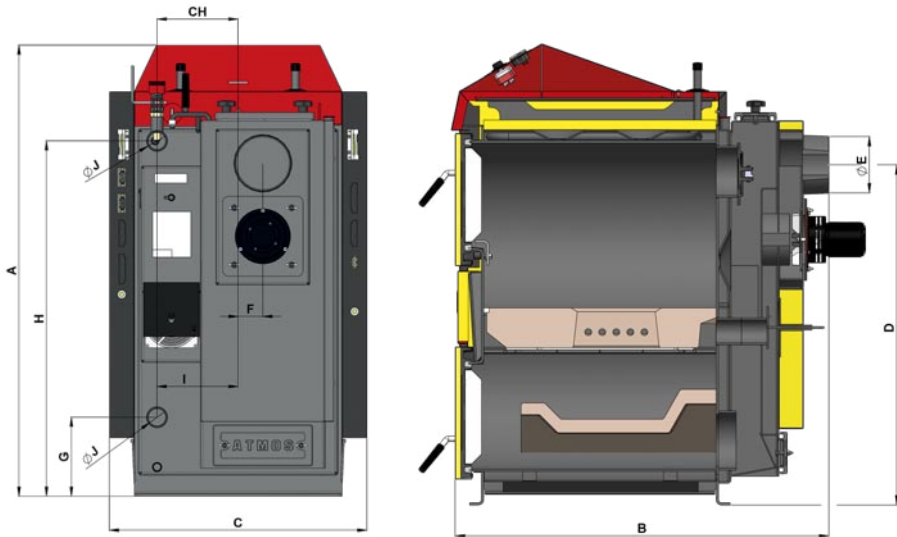


ATMOS Drevoplyn DC 18 S



ATMOS Drevoplyn DC 22 S - DC 50 S

DREVOPLYN – S



DC 18 S – DC 50 S

DIMENSIONS	DC 18 S	DC 22 S	DC 25 S	DC 30 SX	DC 32 S	DC 40 SX	DC 50 S
A	1185	1185	1185	1185	1260	1260	1260
B	758	959	959	959	959	959	1160
C	675*	675*	675*	675*	678	678	678
D	874	874	874	874	950	950	950
E	150 (152)	150 (152)	150 (152)	150 (152)	150 (152)	150 (152)	150 (152)
F	65	65	65	65	69	69	69
G	208	208	208	208	185	185	185
H	933	933	933	933	1008	1008	1106
CH	212	212	212	212	256	256	256
I	212	212	212	212	256	256	256
J	6/4"	6/4"	6/4"	6/4"	6/4"	6/4"	2"

*wide of boiler after side panels disassembly 555 mm

TYPE ATMOS DREVOPLYN		DC 18 S	DC 22 S	DC 25 S	DC 30 SX	DC 32 S	DC 40 SX	DC 50 S
POWER OUTPUT	kW	20	22	27	30	35	40	49
SPECIFIC DRAFT OF CHIMNEY	Pa	20	23	23	24	24	25	25
BOILER WEIGHT	kg	285	324	326	332	366	368	433
VOLUME OF WATER	l	45	58	58	58	80	80	89
VOLUME OF HOPPER	dm ³	66	100	100	100	140	140	180
MAXIMUM WOOD LENGTH	mm	330	530	530	530	530	530	730
SPECIFIED FUEL		DRY WOOD – CALORIFIC VALUE 15 – 17 MJ/kg, DIAMETER 80 – 150 mm, 12 – 20 % HUMIDITY						
MINIMUM TEMPERATURE OF RETURN WATER		65 °C						
CLASS OF BOILER UNDER EN 303-5		5	5	5	5	5	5	4
ECODESIGN EU 2015/1189 COMPLIANT		●	●	●	●	●	●	●
ENERGY EFFICIENCY CLASS		A+	A+	A+	A+	A+	A+	A+

ATMOS GENERATOR



DC xx GS/GSX

Power output range 15 – 70 kW





ATMOS GENERATOR

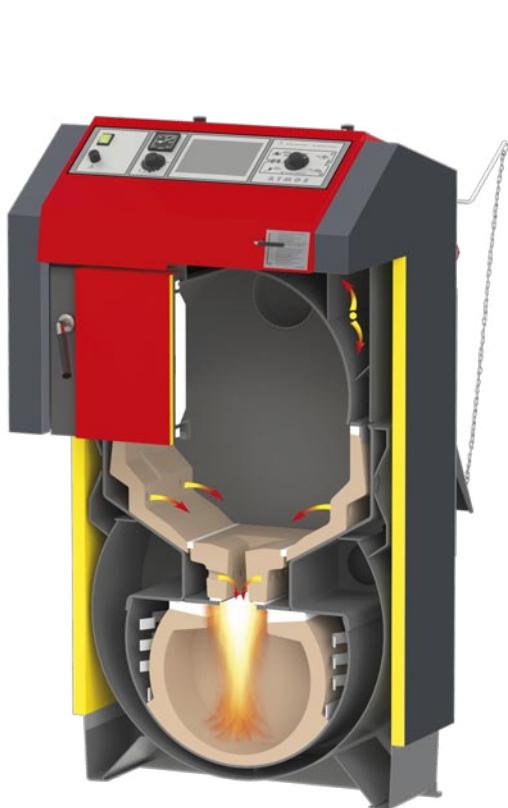
DC 15 GS – DC 70 GSX

- Boilers contain special lay out of burning chamber for wood gasification.
- The **burning chamber** is made from **heat-proof shaped pieces** at both sides with holes for primary air inlet.
- **Ceramic nozzle** in bottom of top chamber is equipped with holes for secondary air which is preheated for very high temperatures.
- **Suction ventilator** allows faster fire-up and lowers the smoking into the boiler room while refuelling.
- The **bottom chamber** is equipped with **ceramic shaped pieces** (spherical space)

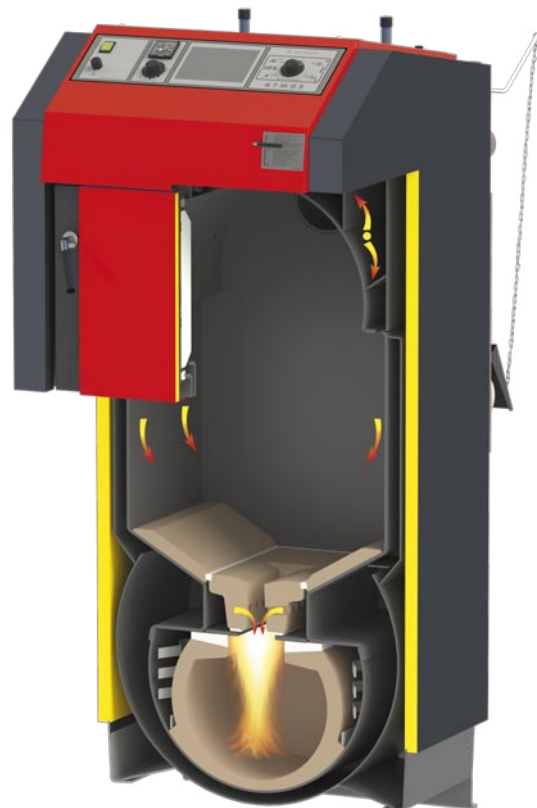
which allows burning in high temperatures 1100 – 1300 °C which assures clear and ecological burning.

- Rear flue channel contains regulation of primary and secondary airs and equipped with draft regulator Honeywell. It allows operation of boiler even without the **suction ventilator**.
- The burning chamber of boiler is made from **6 mm steel plates**.
- The boilers are practical for its easy operation and cleaning.
- DC 50 GSX and DC 70 GSX are not laid with special ceramic shaped parts in gasification chamber.

SHAPED CERAMIC COMPONENTS IN THE GASIFICATION CHAMBER = PERFECT COMBUSTION

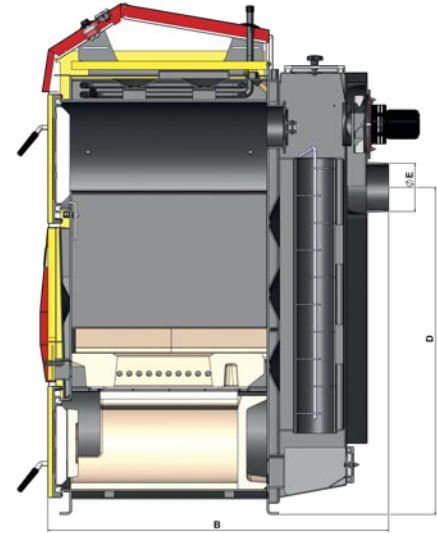
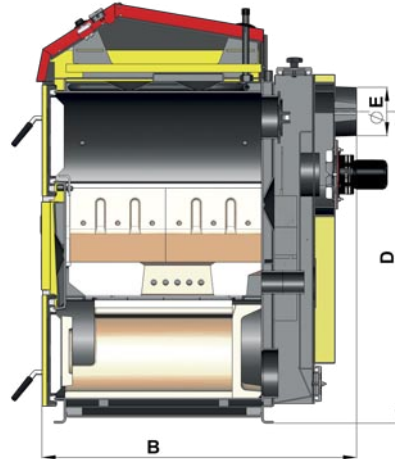
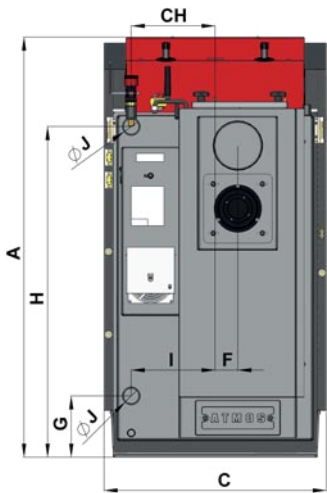


*ATMOS Generator
DC 15 GS, DC 20 GS, DC 25 GS, DC 32 GS, DC 40 GS*



*ATMOS Generator
DC 50 GSX, DC 70 GSX*

GENERATOR – GS ■ GSX



DC 15 GS – DC 40 GS

DC 50 GSX, DC 70 GSX

DIMENSIONS	DC 15 GS	DC 20 GS	DC 25 GS	DC 32 GS	DC 40 GS	DC 50 GSX	DC 70 GSX
A	1280	1280	1280	1280	1434	1563	1686
B	670	758	959	959	959	1042	1268
C	678	678	678	678	678	678	678
D	950	950	950	950	1099	997	1086
E	150 (152)	150 (152)	150 (152)	150 (152)	150 (152)	150 (152)	180
F	69	69	69	69	69	70	58
G	185	185	185	185	185	184	184
H	1008	1008	1008	1008	1152	1287	1407
CH	256	256	256	256	256	256	256
I	256	256	256	256	256	256	256
J	6/4"	6/4"	6/4"	6/4"	2"	2"	2"

TYPE ATMOS GENERATOR	DC 15 GS	DC 20 GS	DC 25 GS	DC 32 GS	DC 40 GS	DC 50 GSX	DC 70 GSX
POWER OUTPUT	15 kW	20	25	32	40	49	70
SPECIFIC DRAFT OF CHIMNEY	16 Pa	20	23	24	25	25	26
BOILER WEIGHT	302 kg	343	431	436	485	538	690
VOLUME OF WATER	56 l	64	80	80	90	120	170
VOLUME OF HOPPER	66 dm ³	80	120	125	160	210	280
MAXIMUM WOOD LENGTH	250 mm	330	530	530	530	530	730
SPECIFIED FUEL	DRY WOOD – CALORIFIC VALUE 15 – 17 MJ/kg, DIAMETER 80 – 150 mm, 12 – 20 % HUMIDITY						
MINIMUM TEMPERATURE OF RETURN WATER	65 °C						
CLASS OF BOILER UNDER EN 303-5	5	5	5	5	5	5	5
ECODESIGN EU 2015/1189 COMPLIANT	●	●	●	●	●	●	●
ENERGY EFFICIENCY CLASS	A+	A+	A+	A+	A+	A+	A+

ATMOS GENERATOR ■ DOKOGEN



DC xx GD

Power output range 19 – 49 kW





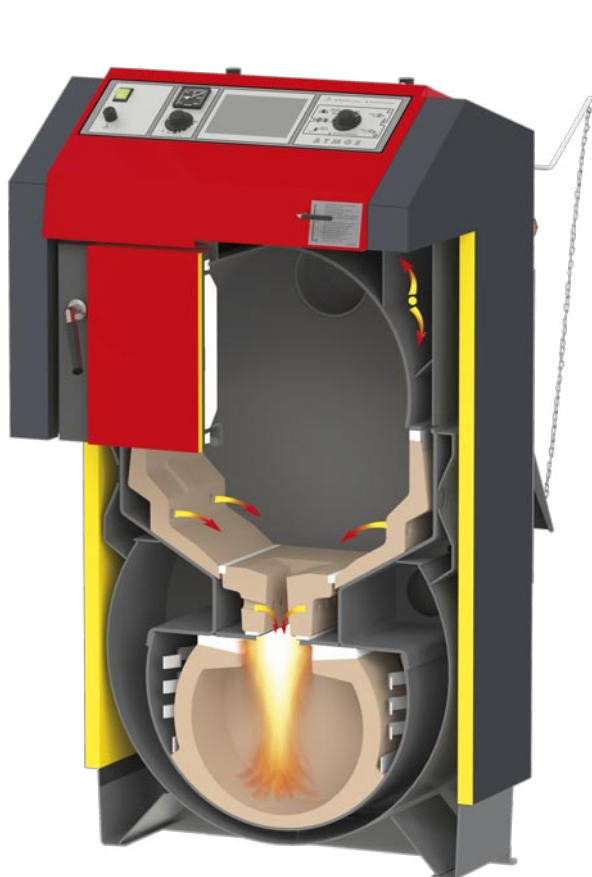
ATMOS GENERATOR – DOKOGEN DC 18 GD – DC 50 GD

The boilers were developed based on experience from development of **wood gas generators** (gasification units under mark **DOKOGEN**).

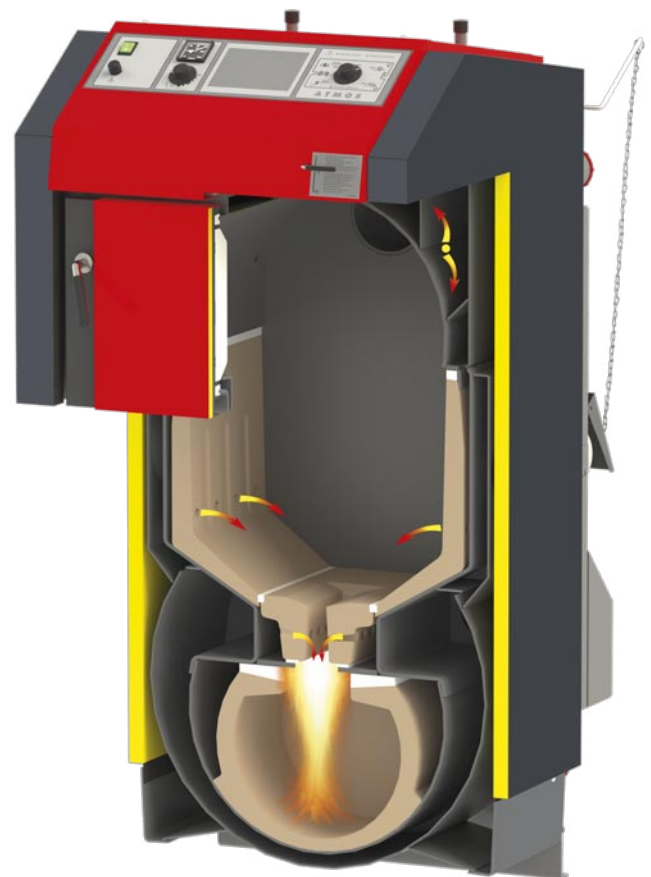
- Boilers **Generator DOKOGEN** contain special lay out of burning chamber for wood gasification.
- The **burning chamber** is made from **heatproof shaped pieces** at both sides with holes for primary air inlet.
- **Suction ventilator** allows faster fire-up and lowers the smoking into the boiler room while refuelling.

- **Ceramic nozzle** in bottom of top chamber is equipped with holes for secondary air which is preheated for very high temperatures.
- The **bottom chamber** is equipped with **ceramic shaped pieces** (spherical space) which allows burning in high temperatures 1100 – 1300 °C which assures clear and ecological burning.
- The burning chamber of boiler is made from **6 mm steel plates**.
- Rear flue channel contains **tube heat exchanger**, regulation of primary and secondary airs and equipped with the **suction ventilator**.

SHAPED CERAMIC COMPONENTS IN THE GASIFICATION CHAMBER = PERFECT COMBUSTION



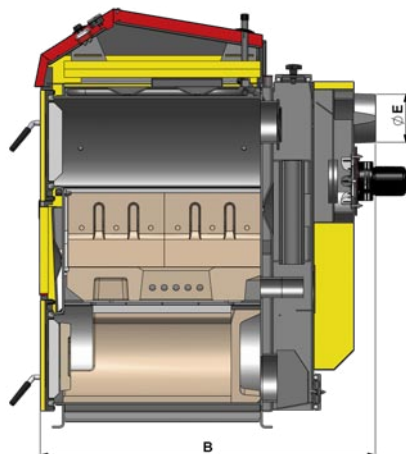
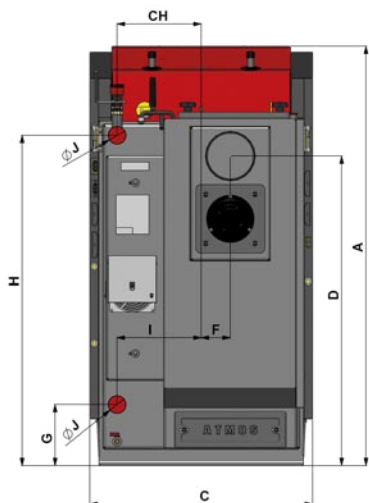
*ATMOS Generator – DOKOGEN
DC 18 GD – DC 30 GD*



*ATMOS Generator – DOKOGEN
DC 40 GD*

GENERATOR ■ DOKOGEN – GD

Tube heat exchanger



DC 18 GD – DC 50 GD

DIMENSIONS	DC 18 GD	DC 25 GD	DC 30 GD	DC 40 GD	DC 50 GD
A	1281	1281	1281	1435	1435
B	820	1020	1020	1120	1120
C	680	680	680	680	680
D	945	945	945	1095	1095
E	150 (152)	150 (152)	150 (152)	150 (152)	150 (152)
F	87	87	87	82	78
G	185	185	185	185	185
H	1008	1008	1008	1152	1152
CH	256	256	256	256	256
I	256	256	256	256	256
J	6/4"	6/4"	6/4"	2"	2"

TYPE ATMOS GENERATOR – DOKOGEN		DC 18 GD	DC 25 GD	DC 30 GD	DC 40 GD	DC 50 GD
POWER OUTPUT	kW	19	25	29,8	40	49
SPECIFIC DRAFT OF CHIMNEY	Pa	16	18	20	22	24
BOILER WEIGHT	kg	376	469	466	548	565
VOLUME OF HOPPER	dm ³	80	120	125	160	160
MAXIMUM WOOD LENGTH	mm	330	530	530	530	530
VOLUME OF WATER	l	73	105	105	112	128
MINIMUM TEMPERATURE OF RETURN WATER		65 °C				
SPECIFIED FUEL		DRY WOOD – CALORIFIC VALUE 15 – 17 MJ/kg, DIAMETER 80 – 150 mm, 12 – 20 % HUMIDITY				
CLASS OF BOILER UNDER EN 303-5		5	5	5	5	5
ECODESIGN EU 2015/1189 COMPLIANT		●	●	●	●	●
ENERGY EFFICIENCY CLASS		A+	A+	A+	A+	A+

BOILERS WITH AUTOMATIC WOOD IGNITION

AUTOMATIC WOOD IGNITION – NEWS

- the automatic wood ignition serves for automatic fire up
- it allows automatic fire up in the boiler based on time (week program) or based on temperature in accumulation tank
- easy and fast fire up assures electric heating element with a small amount of pellets – the fire up is very fast (circa 5 minutes)



Versions of automatic ignition:

- **standard** – with basic regulation AC 32 equipped simple turning knob for setting up time and temperature for automatic fire up. Version for boilers DC 32 S, DC 40 SX.
- **comfort** – with equithermal regulation ACD 04. Version for boilers DC 18 GD, DC 25 GD, DC 30 GD.



*ATMOS Drevoplyn
DC 32 S, DC 40 SX*



*ATMOS Generator – DOKOGEN
DC 18 GD, DC 25 GD, DC 30 GD*

ATMOS KOMBI



C xx S/ST / AC xx S

Power output range 16 – 48 kW





GASIFICATION BOILERS FOR COAL AND COAL BRIQUETTES

ADVANTAGES OF BOILERS

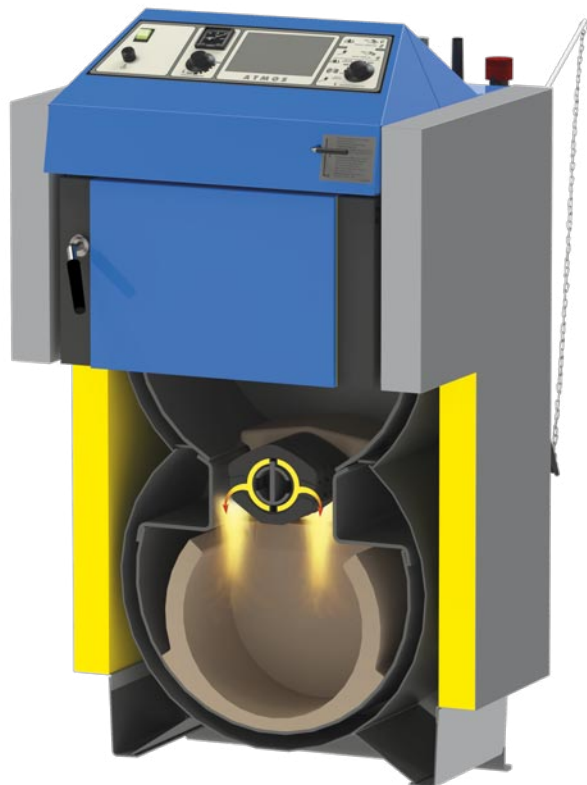
ATMOS KOMBI

C 15 S – C 50 S ■ AC 16 S – AC 25 S

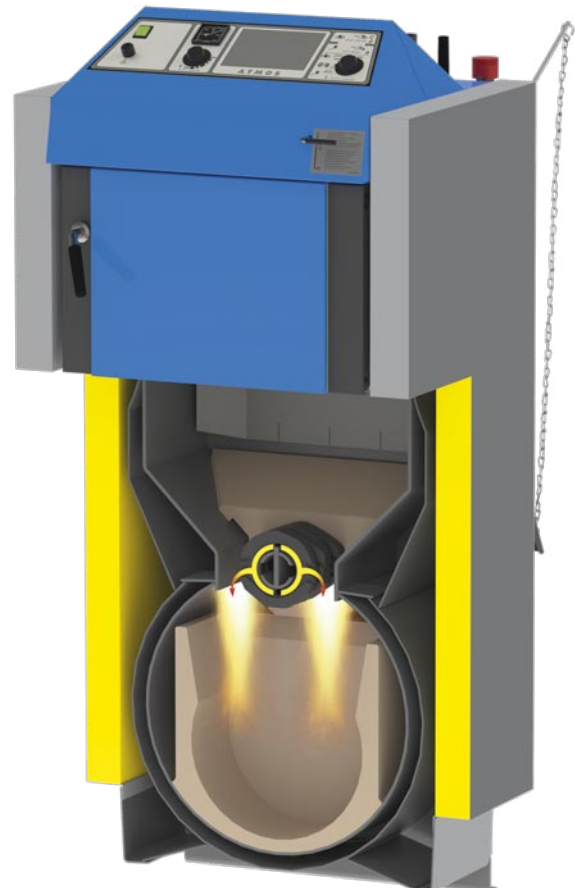
KOMBI type boilers consist of a rectangular gasification chamber with a special turning grate and a secondary air inlet.

The cast iron turning grates replace the ceramic nozzle used in wood gasification boilers. The lower chamber is equipped with special ceramic parts.

ATMOS Kombi gasification boilers take an alternative approach to coal burning, meaning coal can be a fuel for the future. **Wood can also be used burnt but only in limited amounts to achieve optimal burning.**



ATMOS Kombi
C 15 S, C 18 S – BROWN COAL
AC 16 S, AC 25 S – COAL-BRIQUETTES, BLACK ANTHRACITE COAL



ATMOS Kombi
C 25 ST, C 32 ST, C 40 S, C 50 S – BROWN COAL



ECOLOGICAL PERSPECTIVE

The **coal gasification process** in the new ATMOS KOMBI boiler achieves very low emissions. Thanks to power output regulations and high efficiency, the boilers have met our fuel saving goal. Reverse combustion in the burning chamber allows practically perfect burning of the pollutants. It is guaranteed to be environmentally friendly during boiler operation of at the nominal output.

All boilers comply with **Ecodesign EU 2015/1189** and are in **class 4 and 5** under EN 303-5.

OPERATION AND MAINTANANCE

The specified fuel is brown coal (size 1) or coal briquettes. The fuel is loaded 2 – 4 times a day and ash can be removed once every 1 – 7 days based on the fuel quality. The **exhaust ventilator** allows easier ignition and reduces the amount of smoke entering the boiler room to the absolute minimum.

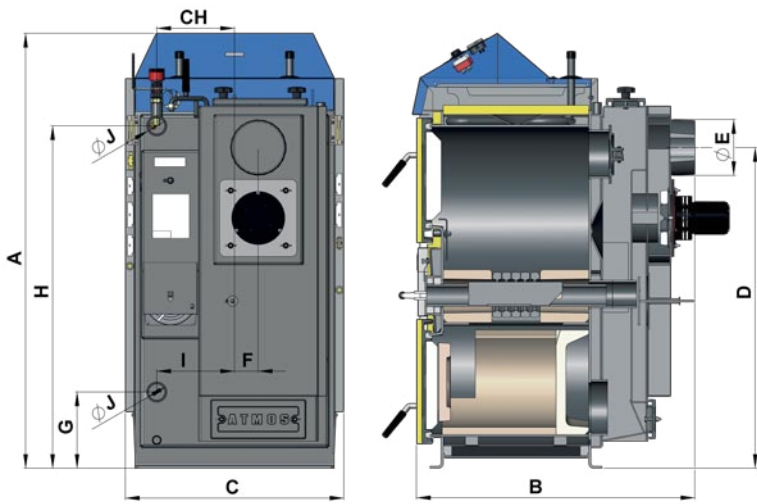
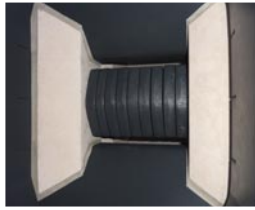
CHOOSING THE RIGHT BOILER

- **Do you plan to burn mainly coal?**
 - choose a coal gasification boiler.
- **Do you plan to burn logs?**
 - choose a gasification boiler, either the **ATMOS DREVOPLYN**, **ATMOS GENERATOR** or **ATMOS DOKOGEN** – they are best suited for wood burning and **have bigger hoppers which allows you to burn larger logs.**



KOMBI C

Cast iron grate allowing gasification



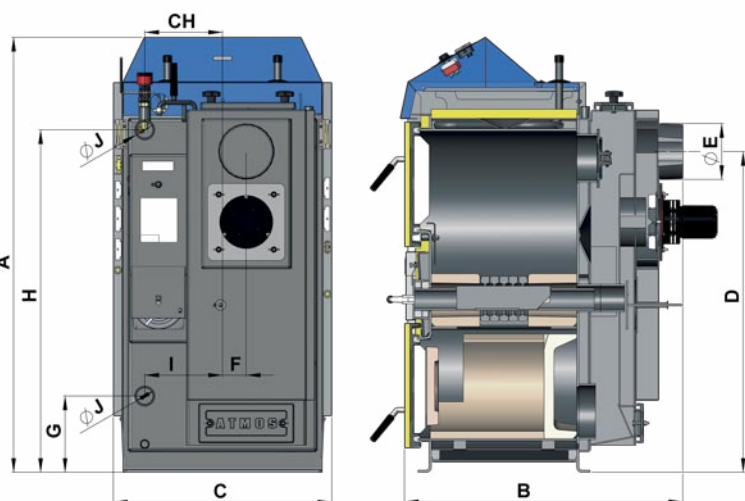
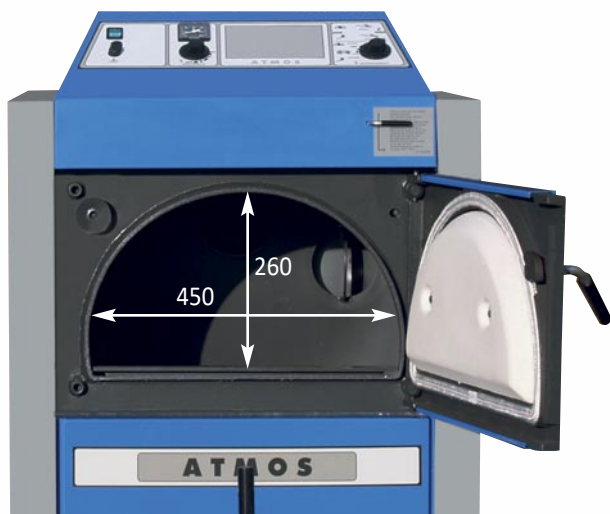
DIMENSIONS	C 15 S	C 18 S	C 25 ST	C 32 ST	C 40 S	C 50 S
A	1185	1185	1435	1435	1435	1435
B	658	758	758	858	1117	1117
C	595	675*	675*	675*	675*	675*
D	874	874	1121	1121	1121	1115
E	150 (152)	150 (152)	150 (152)	150 (152)	150 (152)	150 (152)
F	65	65	65	65	78	78
G	210	210	210	210	210	210
H	933	933	1177	1177	1177	1177
CH	212	212	212	212	212	212
I	212	212	212	212	212	212
J	6/4"	6/4"	6/4"	6/4"	2"	2"

*wide of boiler after side panels disassembly 555 mm

TYPE ATMOS KOMBI – BROWN COAL	C 15 S	C 18 S	C 25 ST	C 32 ST	C 40 S	C 50 S
POWER OUTPUT	16	20	25	32	40	48
SPECIFIC DRAFT OF CHIMNEY	16	20	23	25	28	28
BOILER WEIGHT	273	295	379	415	434	492
VOLUME OF WATER	37	45	68	74	77	105
VOLUME OF HOPPER	50	65	100	125	150	150
SPECIFIED FUEL	BROWN COAL SIZE 1 – CALORIFIC VALUE 17 – 20 MJ/kg					
COMPENSATORY FUEL	DRY WOOD – CALORIFIC VALUE 15 – 17 MJ/kg, DIAMETER 80 – 150 mm, 12 – 20 % HUMIDITY					
MAXIMUM WOOD LENGTH	250	330	330	430	530	530
MINIMUM TEMPERATURE OF RETURN WATER	65 °C					
CLASS OF BOILER UNDER EN 303-5	5	5	5	5	4	5
ECODESIGN EU 2015/1189 COMPLIANT	●	●	●	●	●	●
ENERGY EFFICIENCY CLASS	B	C	C	C	C	B

KOMBI AC

Cast iron grate allowing gasification



DIMENSIONS	AC 16 S	AC 25 S
A	1185	1185
B	658	758
C	595	675*
D	874	874
E	150 (152)	150 (152)
F	65	65
G	210	210
H	933	933
CH	212	212
I	212	212
J	6/4"	6/4"

TYPE ATMOS KOMBI – COAL-BRIQUETTES, BLACK ANTHRACITE COAL		AC 16 S	AC 25 S
POWER OUTPUT	kW	18	26
SPECIFIC DRAFT OF CHIMNEY	Pa	16	20
BOILER WEIGHT	kg	273	297
VOLUME OF WATER	l	37	45
VOLUME OF HOPPER	dm ³	45	60
SPECIFIED FUEL		COAL-BRIQUETTES, BLACK ANTHRACITE COAL	
COMPENSATORY FUEL		DRY WOOD – CALORIFIC VALUE 15 – 17 MJ/KG, DIAMETER 80 – 150 MM, 12 – 20 % HUMIDITY	
MINIMUM TEMPERATURE OF RETURN WATER		65 °C	
CLASS OF BOILER UNDER EN 303-5		5	5
ECODESIGN EU 2015/1189 COMPLIANT		●	●
ENERGY EFFICIENCY CLASS		B	C

*wide of boiler after side panels disassembly 555 mm





GASIFICATION BOILERS WITH PELLET BURNERS IN THE TOP DOOR



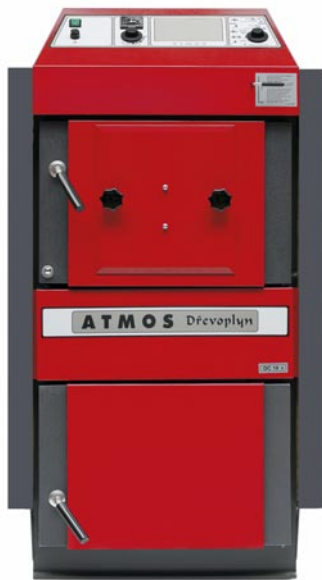
DC xx S / C xx S/ST / AC xx S
Power output range 3 – 45 kW



GASIFICATION BOILERS

ADVANTAGES OF ATMOS BOILERS WITH PELLET BURNER MODIFICATION IN THE TOP DOOR

- boilers have exhaust fan
- boilers have hole for burner in the top door
- the top door has a hole for the burner to be attached
- the door has a heat insulating cover for hole with a sealing cord
- the burning chamber door has a cover with two screws and nuts
- any existing boiler can be modified for pellet burning (left or right overversion)
- easy pellet burner cleaning
- easy boiler chamber cleaning
- high efficiency
- automatic pellets ignition
- pellet silo 240 – 500 l
- Ecodesign EU 2015/1189 compliant and class 5



O R I G I N A L F U E L

WITH PELLET BURNER IN THE TOP DOOR



Standard installation boiler DC 25 S
with conveyor DA2000 – 2 m conveyor
with 500 litre silo

Compact installation boiler C 18 S with set
– AZPU 240M – 240 litres silo

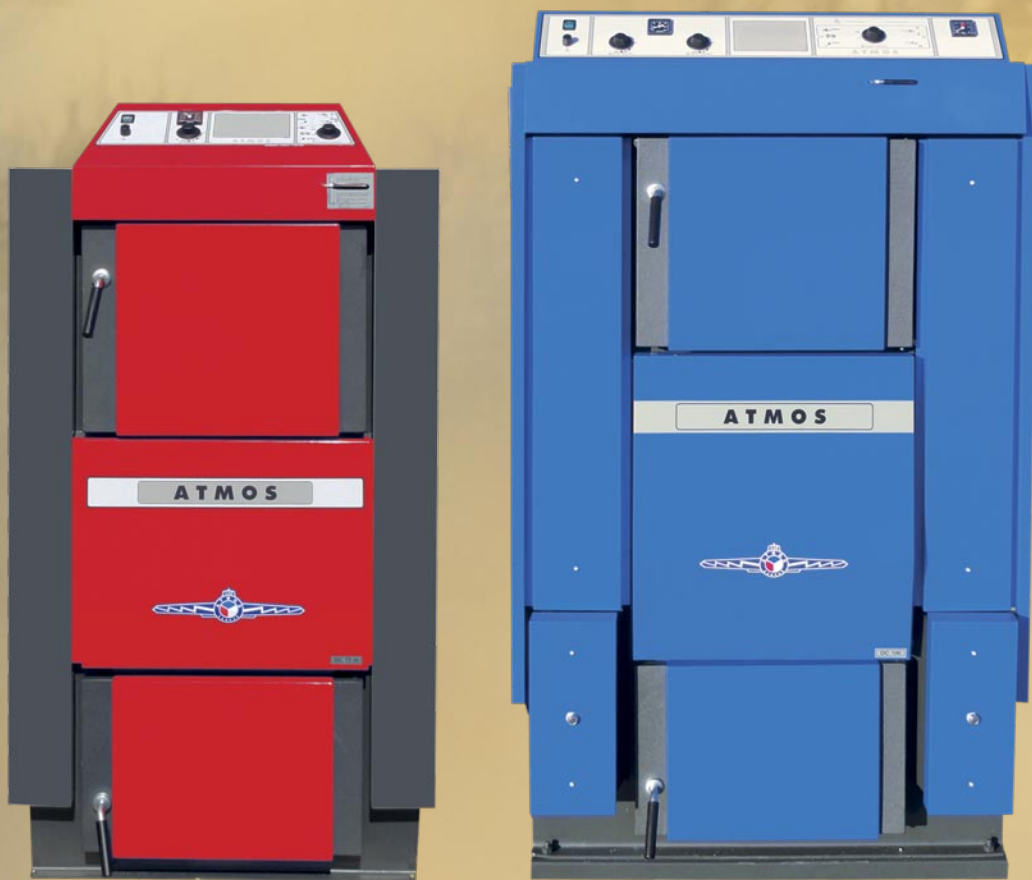
Compact installation
of boiler DC 32 S with set
AZPU 400 C – 400 litres silo

TYPE ATMOS KOMBI	C 15 S	C 18 S	C 25 ST	C 32 ST	AC 25 S
POWER OUTPUT FOR PELLETS (kW)	3 – 12	6 – 20	7 – 24	7 – 24	6 – 20
SPECIFIC FUEL	pellets	pellets	pellets	pellets	pellets
BOILER CLASS UNDER EN 303-5	5	5	5	5	5
ECODESIGN EU 2015/1189 COMPLIANT	●	●	●	●	●
ORIGINAL FUEL	brown coal	brown coal	brown coal	brown coal	coal-briquettes, black anthracite coal
BOILER CLASS UNDER EN 303-5 FOR ORIGINAL FUEL	5	5	5	5	5
ENERGY EFFICIENCY CLASS	A+	A+	A+	A+	A+

TYPE ATMOS DREVOPLYN	DC 18 S	DC 25 S	DC 30 SX	DC 32 S	DC 50 S
POWER OUTPUT FOR PELLETS (kW)	6 – 20	7 – 24	7 – 24	7 – 24	13 – 45
SPECIFIC FUEL	pellets	pellets	pellets	pellets	pellets
BOILER CLASS UNDER EN 303-5	5	5	5	5	5
ECODESIGN EU 2015/1189 COMPLIANT	●	●	●	●	●
ORIGINAL FUEL / POWER OUTPUT	wood / 20 kW	wood / 27 kW	wood / 30 kW	wood / 35 kW	wood / 49 kW
BOILER CLASS UNDER EN 303-5 FOR ORIGINAL FUEL	5	5	5	5	4
ENERGY EFFICIENCY CLASS	A+	A+	A+	A+	A+

ATMOS DREVOPLYN

BOILERS WITH BIGGER OUTPUTS



DC xx S

Power output range 70 – 150 kW



GASIFICATION BOILERS FOR WOOD

70 – 150 kW

USAGE

ATMOS' environmentally friendly boilers, the **DC 70 S**, **DC 100**, **DC 105 S** and **DC 150 S** are intended for heating large family homes, garden centers, workshops, business premises and other similar buildings. The boilers are designed to burn wood only. Dry logs and split wood 530 – 730 mm long maximum and 80 – 150 mm in diameter (depending on boiler type) may be used.

Logs with larger diameters may be used as well, but the boiler's nominal output may decrease and combustion time increase.

The boilers are not intended for burning saw dust or small particle wood waste. A small amount of these (roughly 10 %) may be burnt, but only along with logs. Due to the huge feeding hopper, it saves the user a lot of laborious wood splitting and treating operations. It saves both – the physical effort and also the time dedicated to these operations.



ATMOS DC 105 S, DC 150 S



ATMOS DREVOPLYN

GASIFICATION PROCESS

The boilers are designed for burning wood based on the gasification principle utilising two extraction fans (ventilators), which extracts the flue gas from the boiler. The gas produced is mixed with secondary air in the nozzle and fires into the bottom chamber. The process allows all burnable particles to be burnt with 81 – 90 % efficiency.

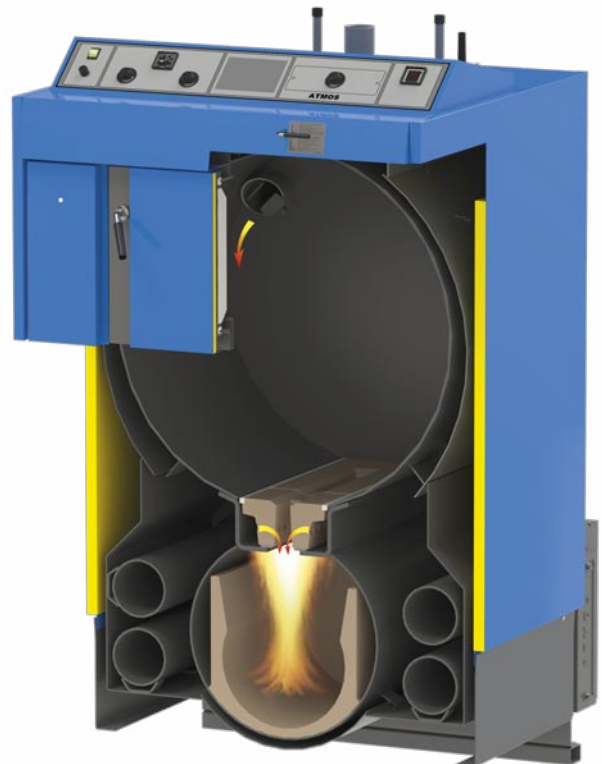
NEW

■ DC 100 boilers have two ventilation fans. Silo volume – 400 l.

■ DC 105 S and DC 150 S boilers have two exhaust fans.

There are two primary air inlets on both sides of the boiler. the air inlet is controlled by Belimo servo actuators.

Silo volume – 300 and 400 l.



ATMOS DC 100





ECONOMY

ATMOS wood Boilers are highly efficient, with low fuel consumption and a competitive price and benefit from a burning chamber that is made from 6mm steel plates. The boilers allow you to burn wood, which, in future, will likely remain among the most affordable fuels. Due to this, the boilers are incredibly economical compared to other types of boilers.

High efficiency = low fuel consumption.

INSTALLATION

ATMOS boilers must be installed with a thermo-regulating mixing valve or an electronically controlled mixing valve which keeps minimal tempe-

rature in the boiler's return pipe at 65 °C. The boilers must always be installed with a buffer tank that has at least 1000 litres in volume so the potential output of boiler can be used to the maximum.

We recommend installing an even bigger buffer tank with a volume of 5 000 – 6 000 litres. It de-creases fuel consumption and increases the practicality of burning. The boilers comply with EU regulation EN 3035 and are in class 4–5.

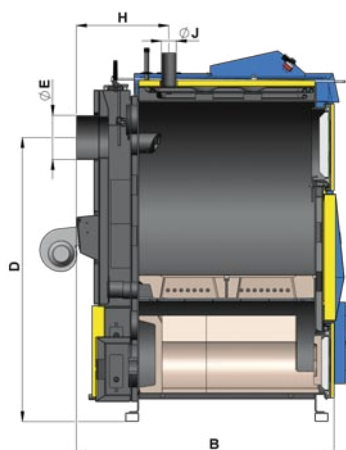
INSTALLING ACCUMULATION TANKS ALLOWS THE BOILER TO RUN AT IT'S PEAK EFFICIENCY AND ACHIEVE IT'S MAXIMUM LIFESPAN WITH ENVIRONMENTALLY FRIENDLY OPERATION.



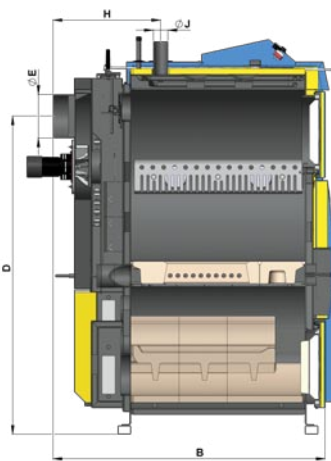
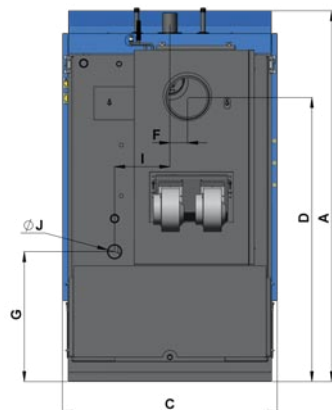
ATMOS DC 70 S



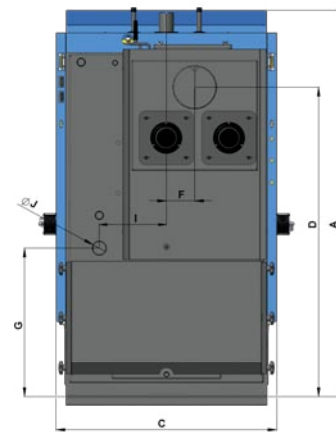
DREVOPLYN – S



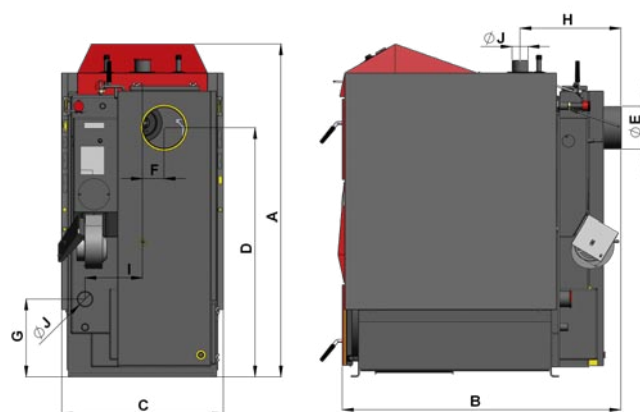
DC 100



DC 105 S, DC 150 S



DIMENS.	DC 70 S	DC 100	DC 105 S	DC 150 S
A	1399	1690	1813	1813
B	1166	1170	1095	1295
C	678	970	1010	1010
D	1047	1290	1459	1459
E	180	200	200	200
F	90	80	129	129
G	325	590	721	721
H	1230	420	492	492
CH	-	-	-	-
I	240	330	307	307
J	2"	2"	2"	2"



DC 70 S

TYPE ATMOS DREVOPLYN		DC 70 S	DC 100	DC 105 S	DC 150 S
POWER OUTPUT	kW	70	99	105	150
VOLUME OF HOPPER	l	180	400	300	400
MAXIMAL LENGTH OF WOOD	mm	730	730	530	730
SPECIFIC FUEL		DRY WOOD – CALORIFIC VALUE 15 – 17 MJ/KG, DIAMETER 80 – 150 MM, 12 – 20 % HUMIDITY			
MAXIMAL WATER PRESSURE	kPa	250	250	250	250
ELECTRIC INPUT	W	50	100	185	185
WEIGHT OF BOILER	kg	515	820	900	1030
SPECIFIC DRAFT OF CHIMNEY	Pa	30	35	25	25
MINIMUM TEMPERATURE OF RETURN WATER		65 °C	65 °C	65 °C	65 °C
TYPE OF VENTILATOR		BLOWING	BLOWING	EXHAUST	EXHAUST
CLASS OF BOILER UNDER EN 303-5		4	5	5	5
ENERGY EFFICIENCY CLASS		A+	A+	A+	A+
ECODESIGN EU 2015/1189 COMPLIANT		●	●	●	●

CONTROL / INSTALLATION

CONTROL PANEL WITH BASIC REGULATION



- main switch
- safety thermostat
- thermometer
- operating thermostat
- waste gas thermostat

THE BOILER'S CONTROL PANEL HAS AN INBUILT ACD 03 ELECTRONIC REGULATION UNIT



Regulation ACD 03 allows installation in top panel of all boilers.

THE BOILER'S CONTROL PANEL HAS AN INBUILT ACD 04 ELECTRONIC REGULATION UNIT



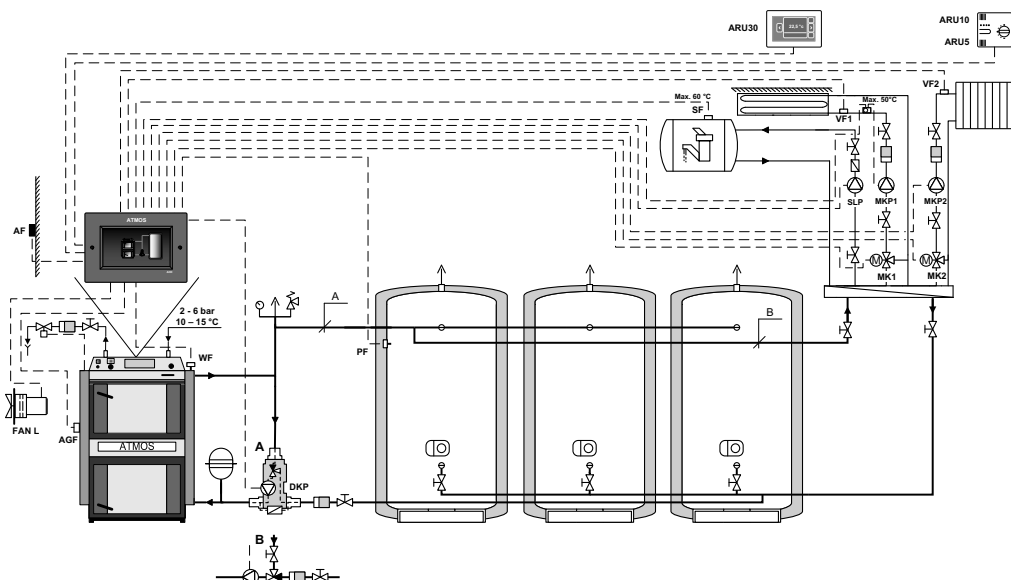
The unit controls:

- complete function of the boiler
- boiler circuit
- three mixing circuits (two heating circuits + one return mixing circuit)
- charging of accumulation tank
- charging DHW tank
- solar heating

Regulation ACD 04 is fitted in top panel of boiler.

DC 18 GD, DC 25 S, DC 25 GS, DC 25 GD, DC 30 GD a DC 32 S models are supplied with an integrated equithermal electronic ACD 04 unit including basic sensors.

INSTALLATION OF BOILER WITH LADDOMAT 22



Laddomat 22

The **Laddomat 22**'s design replaces the traditional connection composed of individual parts. It is composed of a cast iron body, thermoregulatory valve, high efficiency pump, non-returning flap, ball valves and thermometers. When the water temperature reaches 78 °C (72 °C), the thermoregulatory valve opens the water supply from the storage tank.

EQUITHERMAL CONTROLLER ACD 03 ■ 04



Regulator ACD 03/04



Room thermostat ARU30
with touch display



Room thermostat
ARU10



Room temperature
sensor ARU5

The **ATMOS ACD 03 ■ 04** equithermal controller is a new regulating device with touch color display allowing easy control of the boiler and heating system through intuitive design and the latest trends.

ACD 03 regulation can be installed in top panel of all boilers.
ACD 04 regulation is fitted in top panel of the boiler.

THE REGULATING DEVICE CAN CONTROL THE FOLLOWING:

1. **three mixing circuits** (eg. two heating circuits radiator + one heating circuit for floor heating) based on the required temperature in the room, outside temperature (equithermal curve) and times provided by 3 types of room sensors **or** **one return mixing circuit and two heating circuits** – the boiler circuit serves to keep minimal temperature of water returning into the boiler at 65 °C by through a threeway valve with servoactuator and pump and two heating circuits (eg. classic radiators or floor heating) based on required temperature in the room, outside temperature (equithermal curve) and times provided by 3 types of room sensors
2. **heating of water for washing** (DHW tank) for required temperature (eg. 55°C)
3. **solar heating** from solar collectors
4. **optimal charging and discharging of accumulation tanks** based on requires of the customer
5. **automatic switch between two sources (boilers)**, eg. boiler for wood and natural gas/wood and pellets
6. **complete operation of the boiler** based on requirement of the heating system and the exhaust fan on boiler

Electronic regulation **ATMOS ACD 03** is delivered as a **set** with all necessary sensors allowing easy installation onto the top panel of boiler:

Equithermal controller is recommended **for boilers with manual loading** (with flue gas sensor) set ACD 03 AGF, order code S0106

An **Equithermal controller** is recommended **for pellet boilers** (without flue gas sensor) set ACD 03, order code S0103

For **optimal and energy saving heating** of your house we recommend buying extra accessories (**for each heating circuit**) – **one room thermostat** unit either ARU5, ARU10, ARU30 with touch display for better heating circuit control. In case of using the regulation for solar heating it is necessary to buy a solar sensor FF00–75P65 (20 – 300 °C) and one more sensor KTF20.

INSTALLATION SET FOR BOILERS UP TO 40 kW

INSTALLATION OF BOILER

Boilers ATMOS have small dimensions and low which allows easy installation. The boiler must be fitted with a mixing thermoregulating valve or Laddomat 22 at the return pipe into the boiler keeping minimum temperature into the boiler 65 °C. The operation temperature of the boiler must be maintained within 80 – 90 °C.

We recommend installation with accumulation tanks. The advantage is longer life time and fuel saving by about 25 %. The boilers are not allowed to be installed in habitable rooms. They are supposed to be installed in well ventilated rooms.

NEWS

For fast and quality installation the boilers are equipped with a **complete installation sets** – accessories for various tape of boilers.



Boilers with installation set

The best choice for wood burning...



ATMOS

MANUFACTURED BY:

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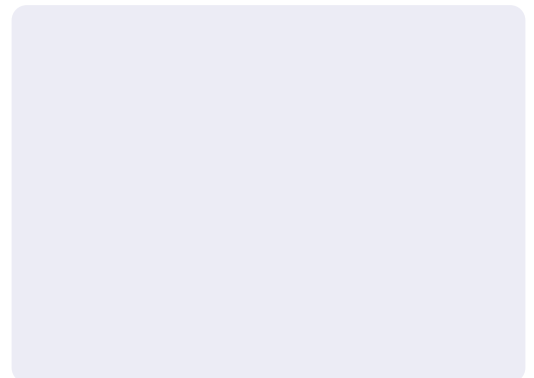
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02/23 ENG

Technical changes to boiler dimensions and design during the year are possible.