



**TECHNICAL PASSPORT,  
INSTALLATION AND MAINTENANCE  
MANUAL**

## Table of Contents

<b>1</b>	<b>SAFETY</b> .....	<b>3</b>
1.1	Notes about this instruction manual.....	3
1.2	Intended use .....	3
1.3	Installer advice .....	3
1.4	User advice .....	4
1.5	Minimum distance and flammability of materials.....	4
1.6	Cleaning and installation tools.....	4
<b>2</b>	<b>PRODUCT DESCRIPTION</b> .....	<b>5</b>
2.1	General information.....	5
2.2	Pellet boiler.....	5
2.3	Fuel .....	6
2.4	Boiler heating using other solid fuel types .....	7
<b>3</b>	<b>TECHNICAL SPECIFICATIONS</b> .....	<b>7</b>
<b>4</b>	<b>CHIMNEY</b> .....	<b>8</b>
<b>5</b>	<b>CONNECTION TO THE HYDRAULIC SYSTEM</b> .....	<b>8</b>
5.1	Installation in a closed system .....	8
<b>6</b>	<b>ELECTRICAL INSTALLATION</b> .....	<b>9</b>
<b>7</b>	<b>BOILER OPERATION</b> .....	<b>9</b>
7.1	General information.....	9
7.2	Accidental ignition of soot in a chimney .....	9
7.3	Cleaning and technical maintenance .....	9
<b>8</b>	<b>ENVIRONMENTAL PROTECTION</b> .....	<b>10</b>
8.1	Packaging disposal .....	10
8.2	Boiler utilization.....	10
<b>9</b>	<b>WARRANTY</b> .....	<b>10</b>
9.1	Warranty conditions.....	10
<b>10</b>	<b>WARRANTY APPLICATION</b> .....	<b>12</b>
10.1	Product passport.....	13

# 1 SAFETY

## 1.1 Notes about this instruction manual

This manual contains important information regarding proper installation, testing, use and maintenance of the boiler. The installation and usage instructions is meant for installers, who have specialized knowledge concerning the use of heating systems.

The solid fuel boilers in this document will be further regarded in general as boilers

## 1.2 Intended use

Before connecting the boiler to the heating system, it is necessary to read this user manual carefully. Stropuva P (pellet) is a boiler with helical conveyer automatic pellet feed, fired using 6 mm – 8 mm wood pellets. They are designed to heat housing units, premises, small shops, repair shops. The boiler's water temperature is 85 °C.

The boiler is made of steel sheets: inward 4 mm, outward 2.5 mm

An integral part of the Stropuva P boiler is the electronic control unit.

The company reserves the right to incrementally change the construction of the boiler and assures that these changes will not affect the operation of the boiler in a major way.

The boiler Stropuva P meets the European standard EN 303-5, provisions of Lithuanian laws and EU directives related to safety of products.

Installation and operation of boiler should be done according to country's regulations and indications of this manual. Otherwise, the manufacturer does not accept responsibility for possible defects and is forced to terminate the product warranty

## 1.3 Installer advice

When installing the boiler, regulations and standards of a country in which the device will be operated in must be adhered to:

- Country's construction standards, which provide requirements of installation, combustion air supply, smoke gas system type and connection to chimney.
- Regulations and standards related to safety of affiliated technical equipment and hydraulic heating systems.
- Recommended minimum installation distance from the boiler to a wall 1 m, the ceiling - 0,5 m. This makes it convenient to service and clean the boiler.

---

Use only original STROPUVA parts. STROPUVA is not responsible for damages done while using parts made by another manufacturer. A ventilation system must be installed in the room where the boiler is to be operating to ensure sufficient air supply.

---

### **DANGER**

Danger of being poisoned with carbon monoxide.

If the boiler uses air from the premises in which it is installed, there is a risk of life hazard in case of gas exhaust system failure caused by insufficient flow.

- Do not decrease the outlet diameter and do not cover them nor the chimney
- It is prohibited to use the boiler if this failure is not dealt with immediately

### **DANGER**

Danger of explosion.

Toxic fumes may form while burning plastic or liquid substances.

- Use only recommended fuel type.
- Turn of the boiler in case of danger of explosion, fire, formation of flammable gases or vapours.

### DANGER

Flammable substances or liquids may ignite.

- It is forbidden to store flammable substances and liquids near the boiler.
- Respect the indication of minimum distance between the boiler and easily flammable materials

## 1.4 User advice

### ATTENTION!

- Boiler can only be operated by adults who are familiar with the boiler's user manual.
- It is forbidden to leave children unattended at a running boiler.
  - Boiler's operating temperature must not exceed 85 °C.
  - It is forbidden to use liquid for boiler ignition or to increase the power of a boiler.
  - Removed ash should be placed in a nonflammable tank with a cover.
  - Only non-combustible materials may be used to clean heated boiler surfaces.
  - It is forbidden to place flammable items on or near the boiler (safe distance must be respected).
  - It is forbidden to store flammable materials on the boiler (for example, wood, paper, oil).

## 1.5 Minimum distance and flammability of materials

Recommended minimum distance may vary in different countries from the following indications. It can be learnt by asking your local installer or chimney sweep.

- Minimum distance from boiler wall and chimney to material of average or hardly flammable must be at least 400 mm.
- Minimum distance from flammable materials must be at least 1000 mm. If flammability is unknown, 1000 mm distance must be preserved.

Flammability of materials	
A – non-flammable	Asbestos, rocks, bricks, ceramic tiles, calcined clay, construction mortar, plaster (without organic additives)
B – not easily flammable	Plaster cardboard panels, basalt felt mats, panels AKUMIN, IZOMIN, RAJOLIT, "lignos", VELOX and "Heraclitus"
C1 – hardly flammable	Felt mat covered with beech wood or oak wood, panels HOBREX, VERZALIT, "Formica"
C2 – moderately flammable	Pine, larch and spruce wood, as well as coated products thereof
C3 – flammable	Asphalt, cardboard, cellulose materials, bituminized paper, hard panels, cork, polyurethane, polystyrene, polypropylene, polyethylene, hay

## 1.6 Cleaning and installation tools

The installation of the boiler requires conventional tools used by heating, liquid fuel and water system installers.

To maintain the boiler usual tools used at home, such as a shovel, broom, spade, are required. When cleaning the boiler, use a brush, poker and scraper, ash pump.

We recommend that you call a competent person for inspection / service of the boiler at least two times a year before and after the heating season.

## 2 PRODUCT DESCRIPTION

### 2.1 General information

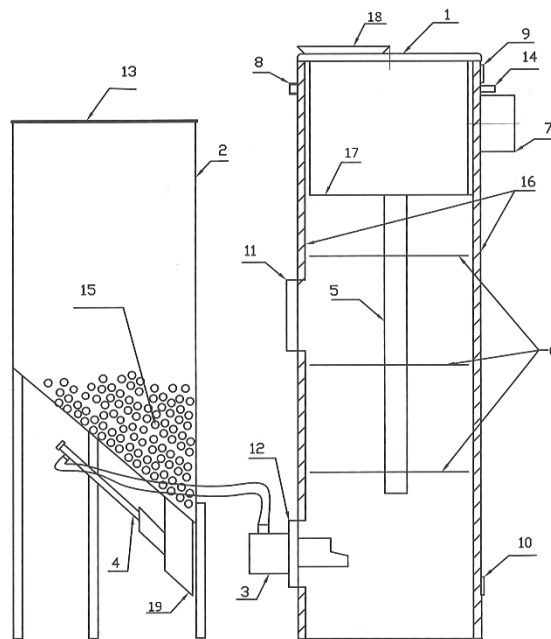
Pay attention to the instructions on how to connect the boiler to the heating system. When installing the boiler, it is necessary to follow the rules and standards of heating systems in force in the country of its installation:

The boiler may only be installed by a technician who complies with the applicable laws and requirements and knows the workings of the heating system. The quality of the boiler installation must be confirmed by the installer by issuing a certificate of installation works.

### 2.2 Pellet boiler

The boiler is used to heat the water of the heating system. The maximum outgoing water temperature is 85 °C, allowed operating pressure at the lowest point of the heating system – 1,5 bar. Technical data is presented in the annex table. Pellet boiler composition:

1. Boiler
2. Pellet hopper
3. Burner
4. Snout
5. Telescopic pipe
6. Turbulators
7. Smoke outlet
8. Coupling for thermometer
9. Heated water pipe
10. Return water pipe
11. Upper door
12. Lower doors
13. Hopper cover
14. Coupling for safety valve
15. Pellets
16. Heat exchanger
17. Air heating tank
18. Rollers system
19. Pellet feed unit



## 2.3 Fuel

The boiler is designed to be used with a pellet burner which consumes 6–8 mm wood pellets. The table below shows the requirements for the pellet quality. Using fuel that meets DIN 51731 or DIN PLUS or adheres to EN-14961-2 norms, extends the pellet burner's lifecycle. The pellet storage room must be dry and well ventilated. It is important that before filling the fuel container with pellets, their temperature is equal to the temperature of the boiler room.

### Pellet quality requirements.

Wood pellets Quality criteria	Unit of measurement	NORM	
		DIN plus	DIN 51731
Diameter	mm	$4 \leq d < 10(6)$	$4 \leq d < 10(6)$
Length	mm	$5 \times D(3)$	$< 50$
Density	kg/dm <sup>3</sup>	1,12	1,0-1,4
Ash content	%	$< 0,5(1);(7)$	$< 1,50$
Humidity	%	$< 10$	$< 12$
Humidity upon delivery	%	Not specified	Not specified
Calorific value	MJ/kg	$> 18(1)$	17,5 - 19,5 (2)
Sulphur	%	$< 0,04(1)$	$< 0,08$
Nitrogen	%	$< 0,3(1)$	$< 0,3$
Chlorine	%	$< 0,02(1)$	$< 0,03$
Dust collected	%	$< 2,3$	-
Compression facilitators	%	$< 2(8)$	(4)
Ash melting point	-	Not specified	Not specified
Arsenic	mg/kg	$< 0,08$	$< 0,08$
Lead	mg/kg	$< 10$	$< 10$
Cadmium	mg/kg	$< 0,5$	$< 0,5$
Chromium	mg/kg	$< 8$	$< 8$
Copper	mg/kg	$< 5$	$< 5$
Quicksilver	mg/kg	$< 0,05$	$< 0,05$
Zinc	mg/kg	$< 100$	$< 100$
Halogens	mg/kg	$< 3$	$< 3$
(1)	Dry weight		
(2)	Without water and dust		
(3)	Not more than 20% of pellets which length 7,5 greater than diameter		
(4)	DIN prohibits the use of accessories. This does not apply to small heating systems		
(5)	Manufacturer's warehouse		
(6)	Diameter tolerance $\pm 10\%$		
(7)	Dust levels of up to 0.8% are allowed, which may be naturally higher for certain types of wood		
(8)	Only natural additives from biomass are allowed		

For more detailed information please refer to the pellet burner manual (attached)

## 2.4 Boiler heating using other solid fuel types

After disconnecting the pellet burner, the boiler can be fired with firewood, briquettes, etc. To do this, screw the plug to the door instead of the pellet burner and install an air distributor on the telescopic tube. These parts are ordered additionally.

## 3 TECHNICAL SPECIFICATIONS

Parameters	Unit of measurement	S20P	S30P	S40P
Nominal power	kW	20	30	40
Nominal power range	kW	6-20	6-30	6-40
Heated area	m <sup>2</sup>	100-200	150-300	200-400
Efficiency	%	84	84	84
Boiler class LST EN 303-5	class	4	4	4
Maximum working pressure	bar	1,5	1,5	1,5
Maximum boiler operating temperature	°C	85	85	85
Minimum boiler operating temperature	°C	60	60	60
Minimum return water temperature	°C	50	50	50
Water tank volume	l	32	42	52
Combustion chamber volume	l	168	240	300
Hydraulic system connection dimensions DN 32	inch	1 1/4	1 1/4	1 1/4
Boiler hydraulic resistance	$\Delta t = 10\text{ °C} \rightarrow \text{mbar}$	10,2	10,2	10,2
	$\Delta t = 20\text{ °C} \rightarrow \text{mbar}$	2,9	2,9	2,9
Chimney connection	mm	Ø 180	Ø 200	Ø 200
Chimney height from the floor	mm	1550	1285	1549
Fuel consumption at nominal power	kg/h	4,5	5,5	6,0
Required chimney draft	mbar	0,12	0,12	0,12
Boiler diameter	mm	560	670	670
Boiler height	mm	2100	1700	2100
Boiler weight	kg	188	258	318
Door opening dimensions	mm	245 x 215	245 x 215	245 x 215
Power supply inlet	-	220 V, 3 A.	220 V, 3 A.	220 V, 3 A.
Boiler noise EN 15036-1	dB	63	63	63
Main fuel pellet length	mm	8 - 6 mm	8 - 6 mm	8 - 6 mm
Hopper diameter	mm	560	560	560
Hopper height	mm	1500	1500	1500
Hopper weight	kg	25	25	25
Hopper capacity	m <sup>3</sup>	0,25	0,25	0,25

Note: the boiler operates at a negative pressure in the firebox.

How to reduce boiler noise: we recommend installing the boiler in a separate room.

## 4 CHIMNEY

For appropriate boiler operation, chimney with a suitable height and diameter has to be installed. Before connecting the boiler to the chimney, check if its flue is suitable (flue diameter must not be lower than that of boiler's flue), if there are other systems connected to the chimney. Chimney must be installed according to current standards and regulations.

Chimney's draft must be 12 Pa. If draft is too low, the boiler will operate poorly (build-up of resins, congestion, smoking) and its service life will be shorter.

### NOTE

In order to prevent chimney's performance deterioration, caused by rain water steam and build-up of resin, it must be impermeable and isolated.

**In case of excessive draft, there is an increase in fuel consumption and in extreme cases there is a chance of overheating the device.** The technical condition of the chimney to which the boiler is connected must be assessed by the chimney sweep. To protect the system from gusts of wind, the chimney must protrude at least one meter above the roof. The room in which the boiler is to be installed must comply with "Rules for the installation of solid fuel heating stoves in buildings ST 8860237.02:1998"

The chimney must comply with certain regulations in force in the country of operation of the boiler.

The boiler flue must be connected to the steel part of the chimney of the correct size and shape. The connection must be airtight.

It is recommended to install sealed measuring points in the chimney during installation. We also recommend that you call a competent person to inspect and clean the chimney at least twice a year before and after the heating season.

## 5 CONNECTION TO THE HYDRAULIC SYSTEM

### 5.1 Installation in a closed system

According to requirements of this user manual, the boiler is allowed to be used in closed system only after installing specific safety devices.

The boiler's power and pellet burner is selected based on the premise heating area, taking into account the thermal resistance of the room, the amount of hot water prepared, etc., according to the recommendations of JSC "Stropuva ir ko" specialists.

This work may be performed by an authorized qualified technician.

Manufacturer does not take responsibility for quality, selection and appropriate installation from higher temperatures than 95 °C and higher pressures than 1,5 bar.

On our manufactured boiler (on the back side, near the flue) there is a ½ inch connection intended for protection system.

For safety, we recommend a thermal protection device Laddomat 5067 whose heat sensor is mounted in the water outlet pipe of the boiler.

We recommend calling a competent person for inspection / service of the heating system at least 2 times a year before and after the heating season.



## 6 ELECTRICAL INSTALLATION

The boiler STROPUVA P must be connected to an electrical system that fully complies with the regulations in force in the country of operation.

Improper installation can damage the controller, injuring people and the environment. The controller and device are powered by 220 V voltage. Therefore, connection work may only be carried out by a person who has the necessary knowledge, skills and meets the additional requirements in force in the country where the boiler is installed.

## 7 BOILER OPERATION

### 7.1 General information

The user must have effective boiler items such as a shovel, cleaning rod, and wear personal protective equipment, at least gloves and goggles.

It is forbidden to modify the design of the boiler or its principle of operation in any way, as well as to install other equipment - not installed at the factory or recommended by the manufacturer - as the boiler may fail.

This work must be carried out in accordance with the installation instructions or the regulations in force.

Before igniting the burner, check that the system is properly filled and in good condition. The condition of the chimney must also be checked.

It is allowed to test the boiler only by a qualified installer.

Use only dry fuel. Wet fuel can get stuck in the tank - burning will produce more smoke and the boiler will wear out faster.

We recommend to measure emissions after the first boiler start-up and, if necessary, adjust the boiler combustion.

We recommend that you do not operate the boiler in the event of a malfunction and contact the service department of JSC "Stropuva ir ko" immediately.

Note: After connecting and starting up the boiler, the customer must be instructed by a competent person on the use and maintenance of the boiler.

For more information on starting and operating the boiler, see the burner and controller instructions.

### 7.2 Accidental ignition of soot in a chimney

Soot can ignite in a dirty chimney. This can lead to an entire building or neighbouring buildings catching fire and can cause cracks in the chimney walls.

If soot catches fire in the chimney, it is very important:

- To stop the air flow from the boiler to the chimney by closing all openings (switching off the ventilator).
- For the fire brigade to remove potential fires outside the building that could be caused by burning soot being emitted from the chimney.

After extinguishing the chimney, do not use the boiler in order to carefully assess the technical condition of the chimney, repair any damaged areas and obtain permission from the competent administrative authority to continue using the chimney in accordance with the regulations in force in the country of operation of the boiler.

### 7.3 Cleaning and technical maintenance

The service life of the boiler is highly dependent on the frequency of its cleaning and proper maintenance. The boiler and burner must be cleaned periodically. Neglect causes significant heat loss

and impairs gas circulation inside the boiler and may result in corrosion and irreparable damage to the boiler. Clean the boiler at the end of the heating season.

## 8 ENVIRONMENTAL PROTECTION

### 8.1 Packaging disposal

The boiler is delivered in a package.

Wooden and paper packaging can be burned in boiler of solid fuel, if user has one, or disposed according to requirements of environmental protection.

Replaced parts of heating system need to be forwarded to respective waste management company.

### 8.2 Boiler utilization

At the end of the boiler's service life, it is dismantled and returned for recycling.

## 9 WARRANTY

### 9.1 Warranty conditions

#### 1.

If the user follows the instructions of installation, operation and maintenances, indicated in user manual, the distributor provides a warranty according to conditions listed below:

- Boilers are given a 24-month warranty from the day of purchase.

#### 2.

The warranty does not cover consumables such as padding, sealing gaskets, fireclay inserts, plugs, sockets, fuses. The warranty does not apply if mechanical, thermal or chemical damage to the device is due to improper actions or omissions.

#### 3.

Regulation of boiler combustion parameters, maintenance (cleaning), replacement of parts of the set service life (fuses, electric heaters, sealing gaskets) are not included in the scope of warranty work and the responsibility for them lies with the user.

#### 4.

The distributor is only liable under the terms of the warranty if the defect is due to the causes of the product sold or if a defect occurred in a physical device. The warranty does not cover any interruptions or failures of the boiler due to poor quality fuel or non-compliance with installation instructions or legislation, improperly selected equipment, improper chimney or poor draft in the chimney.

#### 5.

Arbitrary changes to the boiler design, non-compliance with the installation, operation and maintenance instructions in the manual, failure to operate the boiler or conduct mandatory inspection, or failure to pay the seller shall suspend or terminate the warranty. The user covers maintenance staff fees if:

- Maintenance personnel are called to perform non-warranty work.
- Repairs are needed due to the fault of the user or an independent distributor
- It is not possible to repair the fault for reasons beyond the control of the maintenance personnel (e.g. no fuel, no draft in the chimney, leaking system, improperly installed boiler).

**6.**

Biomass boilers require the temperature in the return circuit of the system to rise.

**7.**

The warranty only applies if the distributor notifies the manufacturer or the user submits a request and provides with a copy of the complaint and proof of purchase of the equipment. If the boiler passport is lost, the full responsibility for repair lies with the user.

**8.**

JSC "STROPUVA IR KO" assumes no responsibility for indirect loss or damage resulting from additional inconvenience due to the inability to use the equipment or its components that are covered by the warranty. Customer complaints about other defects that occur after delivery of the goods due to physical defects other than equipment defects are not accepted.

**9.**

All disputes indirectly or directly related to the contract are solved by a competent court, according to the registration place of territorial distributor. The distributor is allowed to choose a competent court according to the buyer's residence place.

## 10 WARRANTY APPLICATION

For the general manager of JSC "STROPUVA IR KO"

I ....., purchased in your company manufactured  
(name, surname or company name) product: .....  
manufacture no. .... (product name) (date of manufacture)  
.....  
(date of purchase, location, purchase document name and number)

After studying product's technical passport, I declare that product was installed according to requirements presented in manufacturer's technical passport and it's intended us, without breaching the requirements of user's manual. With respect to that, I have a complaint concerning this product:

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

I believe that shortcoming listed in the complaint were caused by defects of your product. I ask you to send your representatives to inspect the connected device, to determine and remove the defects. If it will be found that mentioned defects were caused by inappropriate installation or use of device or if there are no warranty covered faults, I commit to refund the expanses of transportation and time spent during travel and inspection, for your representatives, for each worker of the service crew (not more than for three workers).

**If I do not reimburse the indicated expenses in good faith within 7 calendar days, I agree that they would be recovered from me in accordance with the procedure established by the laws of the Republic of Lithuania.**

My address.....

Telephone .....

.....

Name, surname

.....

Signature

## 10.1 Product passport

The boiler passport must be filled carefully. If the passport is not completed, the warranty is void. In the event of a device failure, a copy of this passport is to be sent to the respective seller or distributor. The original passport is to be presented to the authorized repairer.

<b>Model</b>
<b>Serial No.</b>
<b>Nominal power</b>
<b>Date of purchase</b>
<b>Seller's stamp and signature</b>
<b>Installer's stamp and signature</b>
<b>Date of installation</b>
<b>Date of first use</b>
<b>Technical maintenance works</b>



## DECLARATION OF PERFORMANCE / EKSPLOATACINIŲ SAVYBIŲ DEKLARACIJA

No. Nr. DOP 001

- Unique identification code of the product-type /** S7; S10; S20; S40  
Produkto tipo unikalus identifikavimo kodas:
- Intended use /** Solid fuel boiler / Kieto kuro katilas  
Naudojimo paskirtis:
- Manufacturer /** JSC "Stropuva ir ko" / UAB "Stropuva ir ko"  
Gamintojas: Dariaus ir Girėno g. 81, Vilniaus m., Vilniaus m. sav., LT-02189  
**Authorized representative /** \_\_\_\_\_  
Įgaliotasis atstovas:
- System of AVCP /** System 4/ Sistema 4  
Eksploatacinių savybių pastovumo  
vertinimo ir tikrinimo sistema:
- Harmonised standard /** EN 303-5; EN 10204 - 3.1; EN 15614 - 1  
Darnusis standartas:
- Notified body /** Notified Body number : 1399  
Notifikuotoji įstaiga:
- Declared performance/s /**  
Deklaruojama (-os) eksploatacinė (-ės) savybė (-ės):

Essential characteristics/ Eksploatacinė savybė	Performance / Esminiai rodikliai	Harmonised technical Specification / Darnioji techninė specifikacija
Ps ( bar)	1.5	EN 303-5; EN 10204 - 3.1; EN 15614 - 1
Ts (°C )	95	
Terpė ( Fluid)	Vanduo 2 grupė (water 2 group)	
Volume ( n)	15, 22, 40, 52	
Priedo Nr. (Annex No)	15/26-6	

The performance of the product identified above is in conformity with the set of declared performance/s. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above. / Nurodyto produkto eksploatacinės savybės atitinka visas deklaruotas eksploatacines savybes. Ši eksploatacinių savybių deklaracija pateikiama vadovaujantis Reglamentu (ES) Nr. 305/2011, atsakomybė už jos turinį tenka tik joje nurodytam gamintojui.

Signed for and on behalf of the manufacturer by / Pasirašyta (gamintojo ir jo vardu):

*Valdas Stramlauskas*

name / vardas ir pavardė

*2015 04 14*

date of issue / išdavimo data



*[Signature]*

signature / parašas

JSC "Stropuva ir ko", company code 300149972, Kęstučio g. 1A, Lentvaris, Trakai dist. LT-25144

Tel. +370 5 255 17 63, mob. +370 656 08961

www.stropuva.lt info@stropuva.lt