



— WARM & COMFORT —



**AGNI**<sup>®</sup>

[WWW.AGNI-NSK.RU](http://WWW.AGNI-NSK.RU)

# WHY AGNI IS YOUR BEST CHOICE?

In our days consumer income grows by leaps and bounds but we try to minimize costs of the heating system. When you choose a heating device, you shouldn't forget about a choice of the correct chimney system. The chimney system carries out a very important function: takes away unhealthy products of combustion from premises in the atmosphere. Now the market is full of various heating devices - fireplaces, furnaces (bathing and heating), coppers, water heaters. But for any heating device the chimney system is necessary item.

Modern technologies allow solving simply and technologically the problem of installation of smoke exhaust system. A few years ago, modular chimneys from stainless acid proof and fire-resistant steel were in the greatest demand in the market. Such chimneys allowed considerably simplifying and accelerating installation procedure, but at the same time there was a problem of condensate formation on pipe sides. This phenomenon is observed practically at all types of chimneys, and it arises because of a difference of temperatures of the leaving smoke and pipe sides. Condensate is harmful to pipe sides, especially to a brick and metal surface without corrosion-resistant coating. Because of reaction of chemically aggressive substances with the formed condensate, pipe sides are destroyed and chimney system is braked down.

The most effective and economic way to protect a chimney is ENAMELING.

Specialists of our organization studied experience of the Russian and foreign producers of the heatgenerating equipment, and relying on the last scientific development of domestic military industrial complex, developed the Russia's first chimney which isn't exposed to destructive impact of hostile environment. The enameled AGNI chimneys in comparison with metal analogs possess higher thermal stability (900 °C temperature of enamel roasting) and have the increased resistance to temperature differences. The enameled metal coverings are applied in aircraft construction - thermally loaded engines parts, jet engines, items in chemical reactors, devices in especially hostile environment, and also in case of heat treatment and the subsequent hot deformation of special alloys. AGNI specialists use hardware and software from leading European manufacturers in production of chimneys, so this allows producing products that meet world standards. In addition to these qualities enamel has one more indisputable advantage over other chimneys - possibility of use of various color scale, including exclusive for any even the most refined interior and an exterior. At the moment, AGNI is the unique Russian manufacturer of enameled chimneys that are universal for all the world's leading furnaces manufacturers. Further brief specifications of enameled products produced by the company at the moment are presented.

# ENAMELED CHIMNEYS

In the production of enameled pipes special 0.5 mm steel is used. Its surface covered by the enamel layer from internal and outer side of the pipe. The production process of pipes includes their roasting under the influence of high temperature in special furnaces therefore on their surface the vitreous covering is formed. Due to this treatment enameled chimneys can be used in any heating constructions with high temperatures. They provide excellent traction and enamel minimizes the formation and accumulation of soot, so cleaning process becomes fast and efficient. Using of modular chimney can significantly speed up the installation of the heating equipment in general. Due to the chimney black enamel coating, pipes don't lose the esthetic appearance and always perfectly fit into an interior.

## ADVANTAGES OF ENAMELLED PRODUCTS:

- Acid resistance
- Alkalifastness
- Anti-corrosion
- Water- and gastightness
- Thermal shock and temperature changes resistance
- Explosion - and fire safety
- High mechanical abrasion resistance
- Long service life (more than 15 years)
- Hygienic safety
- Esthetic appearance



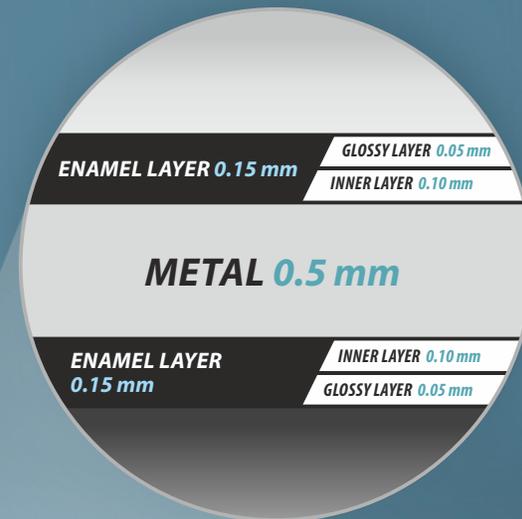
Enamel is a thin layer of rather fusible glass alloy, can be produced in different colors. It is applied on an article surface by immersion and alloyed by heating of this item. As a result it is formed a durable surface that is chemically combined with the steel base at the molecular level. Enamel has not only decorative, but also protective, anticorrosive qualities that allow to use it in the exterior conditions.



# AGNI CHIMNEYS

## – INNOVATIVE PRODUCT

Chimney production uniqueness consists in a covering of outer and inner surfaces of special steel by a layer of black glass enamel.



### Enameled surface has the following qualities:

- Acid resistance;
- Anti-corrosion;
- Thermal resistance;
- Mechanical strength.



### OUR CERTIFICATES

- Fire Safety Certificate
- Conformance Certificate
- ISO Certificate of Conformity



# COMPOSITION AND CHARACTERISTICS OF ENAMELED CHIMNEY

Considering the AGNI enameled chimneys it should be noted a number of benefits in comparison with similar production. At the base we use special steel for enameling. It is covered by a special layer which shares on the lower layer and upper glossy one. Temperature of roasting of the enameled covering constitutes 900 C.

One more advantage is that even in case of rough mechanical treatment with enameled products and the formation of small chips, only the top glossy layer peels off but the lower one remains intact, and since this layer constitutes about 80% of the total coverage, all product properties remain invariable.

Typically, chips are formed on the outer side of the chimney. Since AGNI chimneys are enameled not only outside, but also inside each element, the appearance of chips is no more than losses of a trade dress as the main functional loading lays down on an internal covering. One of the weakest places of pipes is the welded seam. While welding a metal embrittlement happened, so it makes welded seam as the most unprotected in this product. AGNI production provides welding "with an overlap", so such technology excludes a high-temperature impact on metal. Also the seam is filled in with enamel from both sides that is additional protection of the connection. It proves once again the advantage of enamel covering on both sides.

Among distinctive qualities of our chimneys it is possible to note their durability – more than 15 years. Also these products are highly resistant to the acidic environment. Placed in a 20% sulfuric acid solution, they can withstand 96 hours without any change in the structure.

The covering from enamel possesses high thermal stability - about 450 °C, and about 700 °C while short-term temperature increase, and also it has resistance to temperature differences. Experiments made over this production proof the aforesaid. AGNI chimneys sustained increase in temperature to 1160 °C (temperature of the oven fire) within half an hour.

Enamel doesn't change the color at a prolonged use, so tarnishing and stains don't remain on the chimney. AGNI chimneys will be suitable both for installation indoors, and in a bathhouse, because enamel and metal expansion coefficient is identical at temperature drops that prevents flaking of an enamel covering from the base at rapid cooling and heating.

# **MOUNTING AND OPERATING GUIDE OF MODULAR CHIMNEYS**

## **Single-walled, double-walled chimneys decorated by protective enamel coating with thermal insulation**

### **1. GENERAL PROVISIONS**

This installation and operation manual of AGNI's modular chimneys is made taking into account requirements of fire safety, and also requirements stated in the following normative documents:

- **Russian Building Norms and Regulations (the SNiP) 41-01-2003\*** "Heating, ventilation and air conditioning";
- **All-Union State Standard (the GOST) 9817-95** "Household devices running on different fuels. General specifications";
- **Fire Regulations 252-98** "Heat-generating devices running on different fuels. Fire safety requirements. Test methods";
- **All-Russian Voluntary Fire Organization** "Rules of works, repair of furnaces and flues".

### **2. DESCRIPTION OF AGNI'S MODULAR CHIMNEY SYSTEM**

The chimney is designed to output the products of combustion from the boiler, furnace, fireplace, etc. Depending on the operating conditions, chimneys have many design features and are made from different materials. Quality and overall performance of the heating device depends on used material and method of producing. Feature of modular AGNI systems consists in drawing protective and decorative enamel covering on all surface of a tube. This covering protects tubes from thermal influence, combustion gases, and their chemical reaction. Thickness of a product wall makes 0.8 mm. According to TOR 5263-001-21003764-2014, AGNI modules and accessories can be used for combustion gases offtaking with a temperature up to 450 °C. Short-term maximum allowable temperature is 750 °C. All production possesses a high quality that is confirmed with Conformance Certificates, All-Union State Standard Certificates, Fire Safety Certificate and ISO Certificate of Conformity 9001-2011 AGNI.

Modular systems can be single-wall (without insulation) and double-wall ("sandwich", with insulation):

- Single-wall chimney is a basic element of the chimney system, designed for removing of combustion products on straight sections. With the latest developments and innovative technologies, process of pipes manufacture provides to use not only a metal, but also enamel, which provides excellent traction, minimizes the formation and accumulation of soot in the chimney and prevents pipes from impact of condensate forming on the walls.

- Double-walled chimney system ("sandwich") intended for use as an independent, resistant to heat, acid and weather construction, used to remove the products of combustion from the heat generating devices operating on different fuels. Sandwich flues consist from two pipes inserted one into another between which isolation is laid. The internal part of sandwich pipe is enameled therefore its conductivity is considerably improved, thus efficiency of the furnace will increase. Reliability and durability of such two-wall chimney is also several times longer.

The materials used in modules production:

Special steel for enameling. Its main function is to serve as "metal basis" for enamel in modules.

Protective and decorative enamel covers all internal and external surface of a pipe in a double-walled flue with isolation.

Stone wool "**IZOTERM**" and "**ROCKWOOL**" is isolation between an internal and external contour. It prevents from condensate formation and improves a draft. Heat conduction coefficient of this heat-insulating material is  $0.036 \text{ W/m}^2\text{K}$  and working temperature is  $+600 \text{ }^\circ\text{C}$ .

Production of modules and components is made on the European equipment by highly qualified personnel. Each process step is inspected according to the Quality Guide developed in accordance with ISO 9001 and implemented at the entity. Products are packed in individual packaging.

### **3. TRANSPORTATION AND STORAGE**

Elements of AGNI chimneys must be transported in an upright position by any roofed vehicles according to rules of goods carriage operating in this mode of transport.

Products should be stored in closed storage facilities. Storage conditions have to correspond to standard rates of 4<sup>th</sup> group of All-Union State Standard (the GOST) 15150 in terms of the impact of environment climatic factors; storage conditions of 7<sup>th</sup> group are allowed too.

### **4. REQUIREMENTS TO CHIMNEY SYSTEMS**

Smoke pipelines have to ensure a complete extraction of combustion products in the atmosphere (item 5.1.1. of All-Russian Voluntary Fire Organization rules);

It is necessary to provide a separate chimney for each furnace and heating device (item 3.70. of Russian Building Norms and Regulations-91);

Section area of smokestack must not be less than the area of fume-collect branch pipe of heat generating unit (item 3.70. of Russian Building Norms and Regulations-91);

Metal pipes shall be made of special high-quality steel with the increased corrosion resistance. Wall thickness need to be at least 0,5 mm (All-Union State Standard);

There are special cinder pots 250 mm in depth in the grounds of the smoke pipelines for easy cleaning of carbon laydown (item 3.74 of Russian Building Norms and Regulations-91 and item 5.1.1 of All-Russian Voluntary Fire Organization rules);

Smoke pipelines must not have more than three bends, which radius of curvature should not be less than the diameter of the pipe (item 4.2.17. of All-Russian Voluntary Fire Organization rules);

Chimney height along the entire length should be at least 5 m (item 3.73 of Russian Building Norms and Regulations -91). This height provides the necessary resolution and creates draft. The height of the exhaust ducts located close to the chimneys must be equal to the height of chimney pipelines. (item 5.1.14. of All-Russian Voluntary Fire Organization rules).

## 5. INSTALLATION, OPERATION AND MAINTENANCE OF MODULAR CHIMNEY "AGNI"

5.1. Efficiency of the heating unit as well as the safety of those who are in a heated room depends on correct installation of the chimney; therefore it is necessary to focus on this step.

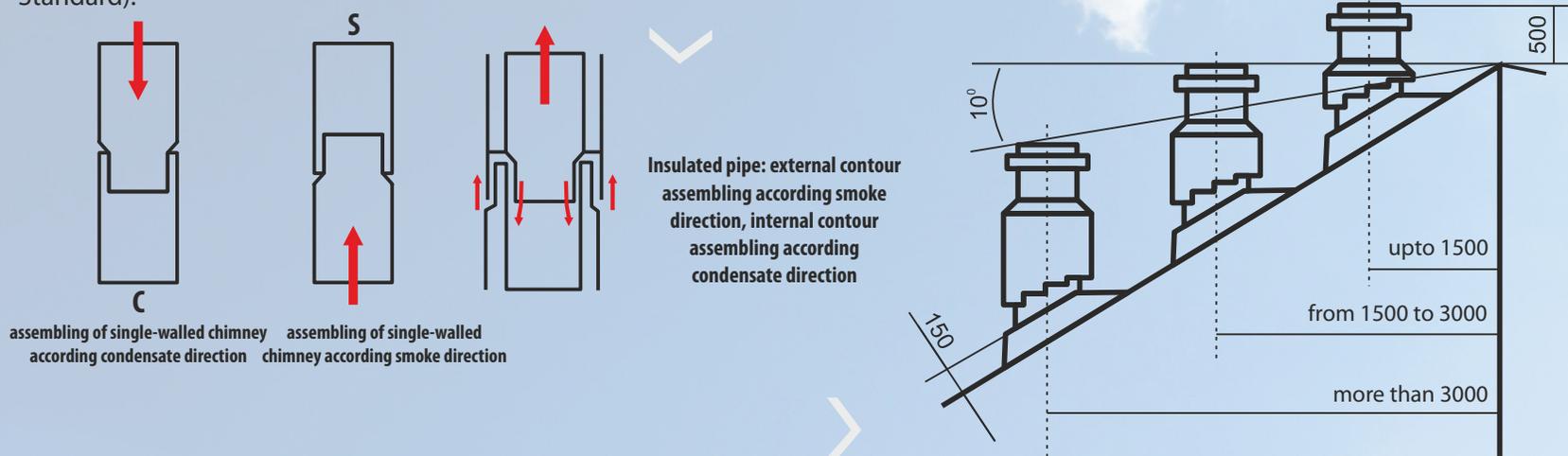
**Installation of systems must be performed by qualified, licensed personnel with all the requirements of fire safety and according to rules set out in codes of practice CP 7.13130.2009 and in Russian Building Norms and Regulations 41-01-2003.**

5.2. Before installation of the chimney all the items must be carefully checked for defects.

5.3. Diameter of a flue has to be chosen according to recommendations of the manufacturer of the thermal unit, and also to the norms and rules stated above. Height of the established flue should not be less than 5 meters. Exceptions are buildings without attic, in which height of the smoke channel can be accepted less than 5 meters, due to ensuring steady draft.

### 5.4. INSTALLATION NEED TO BE MADE USING A TOOL WITH PROTECTIVE RUBBERIZED SURFACE

5.5. Installation of elements is made upwards (begins from the heat generating device). The inner pipe is inserted inside the previous one, while the outer pipe is put on the previous one (Figure 1). To ensure the tightness of the chimney, it is recommended to apply sealant with thermal stability up to 10000 C at the ends of the corrugated inner pipe (such as silicate sealant «KRASS», item 5.3. of All-Union State Standard).



5.6. Elevation of chimneys over a roof should be accepted according to item 3.73. of Russian Building Norms and Regulations -91:

- at least 500 mm over a plane roof;
- at least 500 mm over the ridge of a roof or a parapet, in case of layout of a pipe at distance not more than 1500 mm from the ridge or a parapet;
- it should not be lower than a level of roof ridge or parapet in case of chimney layout at distance from 1500 to 3000 mm from the ridge or a parapet;
- it should not be below the line imaginably drawn down from the ridge at an angle of  $10^\circ$  to the horizon in case of layout of a chimney at distance more than 3000 mm from the ridge or a parapet.

5.7. Places of joints of pipes and other elements (bends, tees, etc.) shall be fastened by clamps, and shall be outside the ceiling overlapping. On each 2 m of a flue it is necessary to set a wall-mount bracket which has to be fastened to a wall, and the tee shall be set on a mounting pad. Fixing of connective pipes shall exclude possibility of sag (item 4.2.14 of All-Russian Voluntary Fire Organization rules).

5.8. Smoke channels should not come into contact with electrical wiring, gas pipelines and other communications. The indentation from elements of building and sheathing in case of flue crossing through floors and the roof must be as follow:

- Flue with insulation - 150 mm
- Flue without insulation - 300 mm.

5.9. A chimney must not have horizontal sections longer than 1 m.

5.10. When smoke channel passes through ceiling overlapping, distance from an internal wall of a flue to constructions of buildings made of the combustible materials which are protected from ignition shall be not less than 130 mm.

5.11. Constructions of buildings from combustible materials such as walls, overlappings, beams adjoining to smoke channels are necessary to be protected from ignition by ceiling block made of nonflammable materials or it should be a distance between them (item 3.78-3.79 of Russian Building Norms and Regulations -91, item 3.6.14. of All-Russian Voluntary Fire Organization rules).

5.12. Smoke channels should be placed near the interior walls and partitions made of noncombustible materials. However, the smoke channels is allowed to place in the outer walls made of noncombustible materials. If there are smoke channel sections passing through not heated locations or out of the building, such sections shall be heat-insulated to prevent condensation of water vapor from furnace gases in the channel (item 4.2.16 of All-Russian Voluntary Fire Organization rules).

5.13. It is allowed to connect no more than two warmly generating devices to one smoke channel. Thus, places of insert of connective pipes (branch pipes) shall be at distance not less than 1000 mm from each other.

5.14. During operation of a flue it is necessary to track its status carefully. To make cleaning of flues from carbon black, a deposit at least:

- once in three months for heating furnaces;
- once in two months for furnaces and hearth of the continuous action;
- once a month for stoves and furnaces of the continuous (long-time) fire chamber.

5.15. For cleaning the chimneys it is prohibited to use not intended for this device and detergents. Pollution on the chimney can be removed with a soft moistened cloth. Then it should be wipe dried. Heavy soiling is removed with the help of special detergents intended to care for enamel for example, Shumanit for enameled surfaces, Fairy) or similar.

5.16. During operation of heating systems it should be used only the fuel that is recommended in your thermal aggregates specification. Fuel, which is not appropriate, as well as its significant excess can cause inflammation inside of the chimney and cause it damage, as well as cause a fire!!!

5.17. After completion of installation work, check the tightness of joints and the draft in the channel.

#### 5.18. FORBIDDEN

- **Do not set a double-walled chimney (sandwich) as the start element. Due to installation a one-wall chimney as the start element it happens more effective heat removal from chimney system, so as excludes its destruction.**
- **Do not allow children and pets to connect with open parts of a flue!!!**
- **Do not establish in close proximity to the chimney subjects which can be damaged by the thermal radiation extending from it (furniture, wall-paper, wooden coverings, etc.).**
- **Do not modify any elements of a chimney (including cutting of flue elements), do not mount a chimney in the way which isn't provided by the producer.**
- **Do not dismantle the chimney and its mine; do not develop chimney with some devices and combustible materials.**
- **Do not dry clothes, shoes and other items on the details of the chimney.**
- **Do not remove the soot from the chimney by burning.**
- **Do not put out the fire by water in the furnace hearth, it reduces the service life of chimney because of a sharp drop of temperatures.**
- **Do not use a fuel containing substance of halocarbon!!! Sources of halocarbon are: alcohol, degreasers, detergents, sprays, linoleum, paints, etc.**
- **Do not clean the inner surface of the chimney by metal ruffs and sponges as they scratch the enamel surface!!!**
- **Do not wipe the working chimney before its complete cooling.**

#### 6. WARRANTY

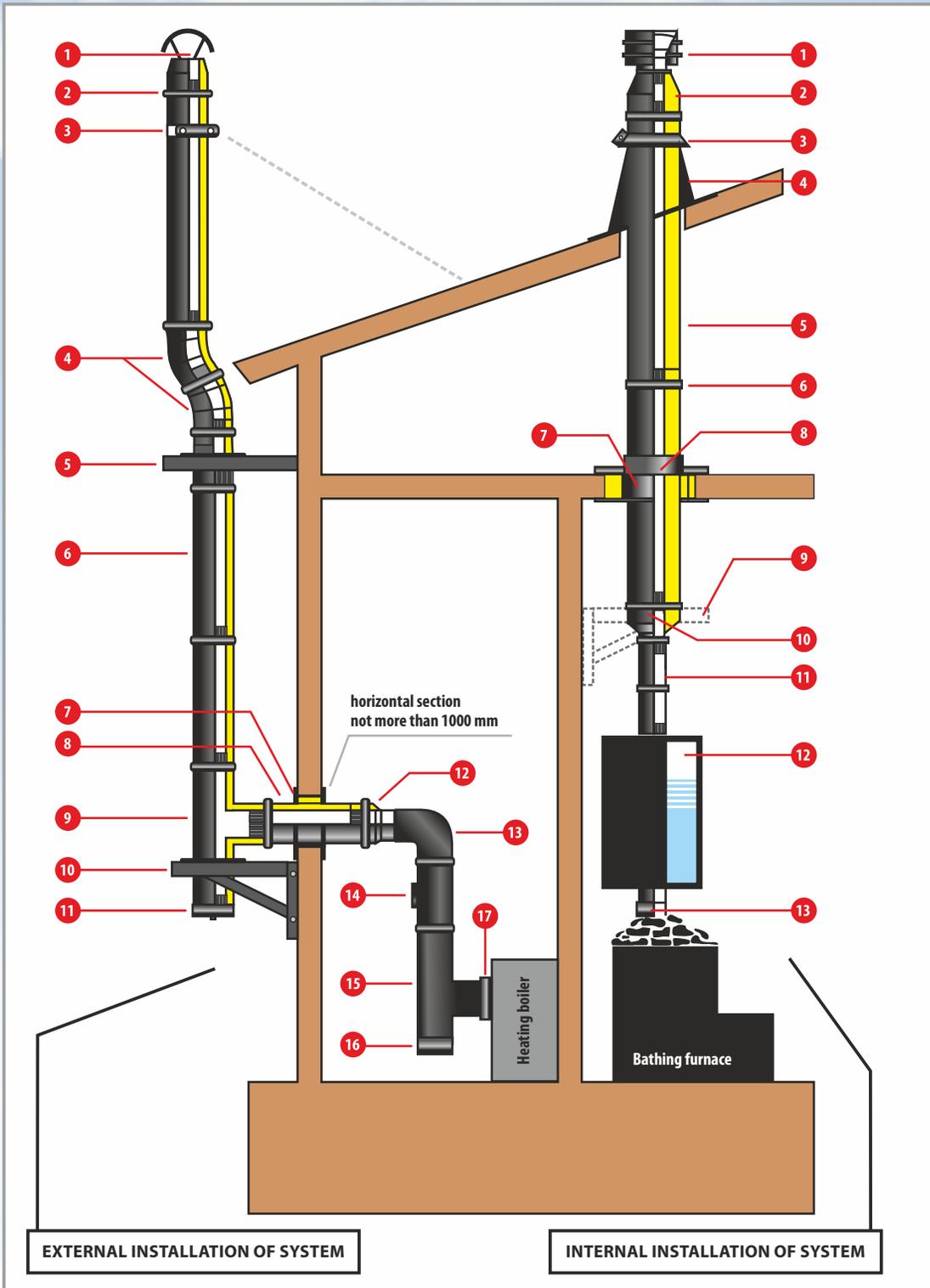
The producer guarantees compliance of AGNI chimney elements to requirements of TOR No. 5263-001 - 21003764-2014 at the observance of transportation and storage conditions established in Russian Building Norms and Regulations 15150. The warranty is valid in case of the prevention of halocarbons influence (e.g. chlorinated hydrocarbons).

Warranty period of chimney operation - 15 years from the date of sale (in case of implementation through a distribution network) or from the date of commissioning, on condition of carrying out installation works by the specialized organization.

This guarantee is valid only in case of operation of chimney with observance of all rules and recommendations listed in this manual. Thus installation of the heating device shall be executed according to recommendations of the producer that, in turn, shall be documentary supported by the relevant documents.

**P.S. In case of failure to carry out of any of the requirements specified in this instruction, the warranty period for production doesn't extend.**

## 7. INSTALLATION SCHEMES OF CHIMNEY SYSTEM

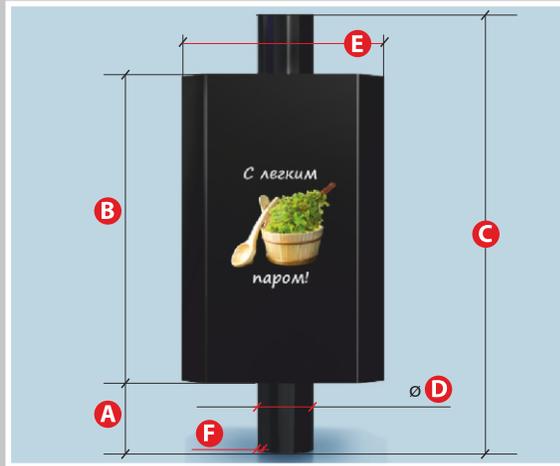


### EXTERNAL INSTALLATION OF SYSTEM

- 1 Enameled hatchway
- 2 Hose clamp with polymeric covering
- 3 Safety clamp with polymeric covering
- 4 Enameled sandwich-bend (135°)
- 5 Wall bracket with polymeric coating
- 6 Enameled sandwich-pipe 1 m
- 7 Through-pass block with polymeric coating
- 8 Enameled sandwich-pipe 0.5 m
- 9 Enameled sandwich-tee (90°)
- 10 Wall-mount bracket with polymeric coating
- 11 Enameled plug with a drain
- 12 Enameled start-sandwich
- 13 Enameled elbow pipe (90°)
- 14 Enameled chimney damper
- 15 Enameled tee (90°)
- 16 Enameled blind plug
- 17 Enameled boiler adapter

### INTERNAL INSTALLATION OF SYSTEM

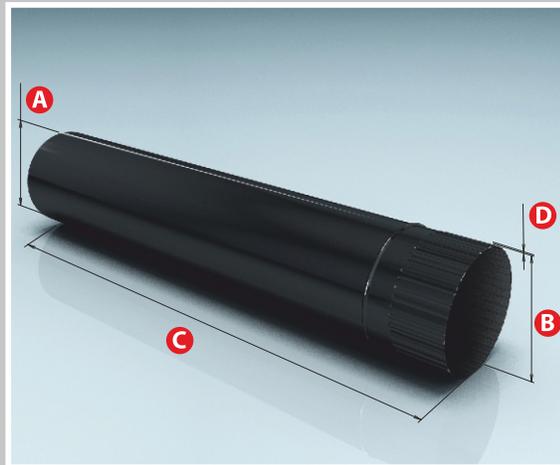
- 1 Enameled chimney wind deflector
- 2 Enameled changing hatchway
- 3 Apron with polymeric coating
- 4 Roofing element with polymeric coating
- 5 Enameled sandwich-pipe 1 m
- 6 Hose clamp with polymeric covering
- 7 Through-pass block with polymeric coating
- 8 Mounting pad with polymeric coating
- 9 Wall-mount bracket with polymeric coating (used if mounting pad is not installed)
- 10 Enameled start-sandwich
- 11 Enameled single-wall chimney 0.5 m
- 12 Enameled hot water tank
- 13 Enameled boiler adapter



## ENAMELED HOT WATER TANK

CAPACITY	50 L	63 L
A, mm	150	150
B, mm	550	600
C, mm	1000	1000
D, mm $\varnothing$	117	117
E, mm	400	400
F, mm	1,2	1,2

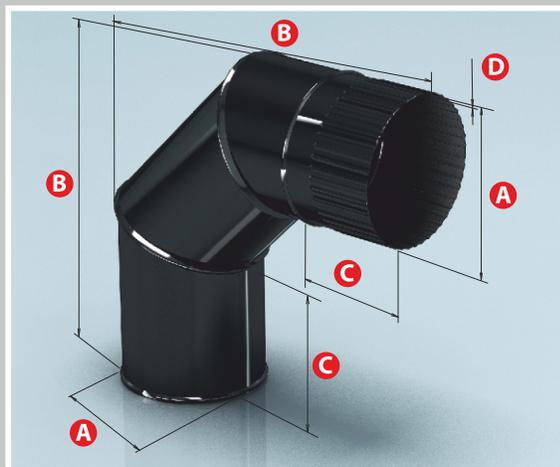
The tank on a pipe is a part of a hot water circuit system. Uniqueness of a tank contains double effect: water in the tank cools a pipe, and this greatly reduces the thermal load on the chimney, and received hot water can be used without additional accumulative portable tank.



## ENAMELED SINGLE-WALL CHIMNEY

It is a basic element of chimney system; it is intended for removal of combustion products through direct sections. Different standard sizes provide flexibility of mounting and allow collecting flues of different length.

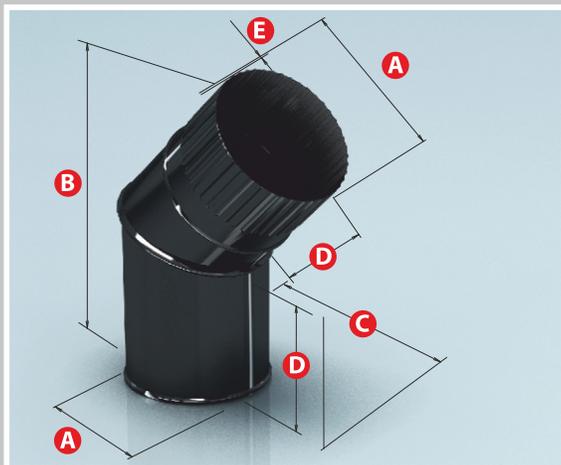
Diameter $\varnothing$ , mm	115	120	140	150	200
A, mm	115	120	140	150	200
B, mm	114	119	139	149	199
C, mm	1000/500/250				
D, mm	0,8				



## ENAMELED ELBOW PIPE (90°)

It is an element of a flue system for changing the direction of the flue pipe (90 degrees). It allows bypassing hindrances on the way of the flue pipe.

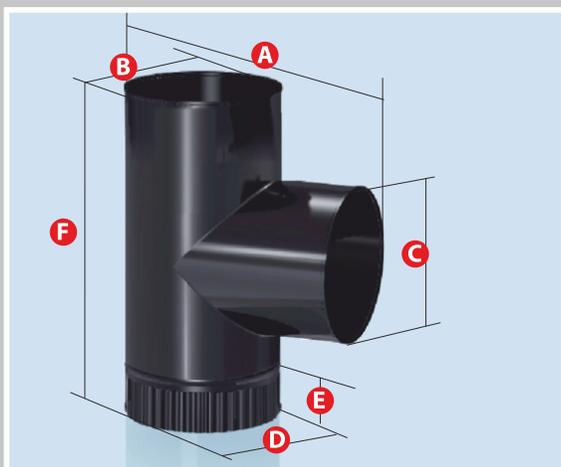
Diameter $\varnothing$ , mm	115	120	140	150	200
A, mm	115	120	140	150	200
B, mm	240	240	280	280	360
C, mm	90	90	100	100	110
D, mm	0,8				



## ENAMELED BEND (135°)

It is an element of a flue system for changing the direction of the flue pipe (135 degrees). It allows bypassing hindrances on the way of the flue pipe.

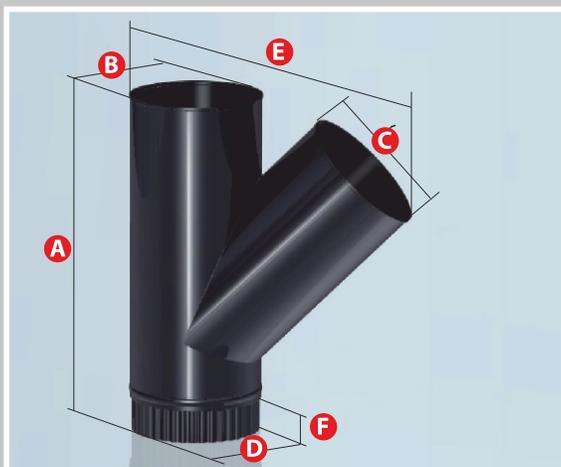
Diameter Ø, mm	115	120	140	150	200
A, mm	115	120	140	150	200
B, mm	235	240	270	280	330
C, mm	180	185	210	220	280
D, mm	90	90	100	100	110
E, mm	0,8				



## ENAMELED TEE D 90°

It allows easy changing direction of the flue pipe. It is used for connecting a heat generating device with the main channel. Tee with a plug executes a role of a clearing construction for facilitation of flue service.

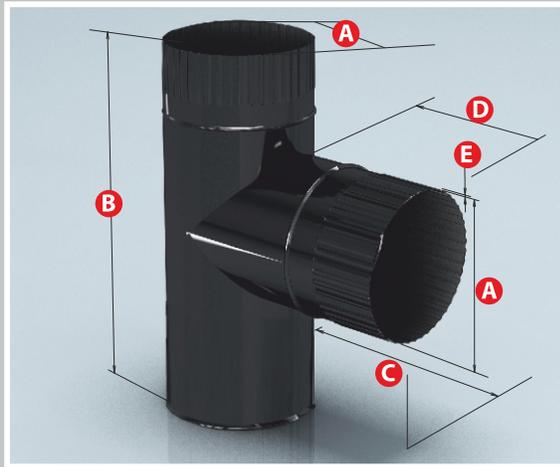
Diameter Ø, mm	115	120	140	150	200
A, mm	210	210	250	250	310
B, mm	115	120	140	150	200
C, mm	115	120	140	150	200
D, mm	115	120	140	150	200
E, mm	50	50	50	50	50
F, mm	300	300	350	350	420



## ENAMELED TEE D 135°

It allows easy changing direction of the flue pipe. It is used for connecting a heat generating device with the main channel. Tee with a plug executes a role of a clearing construction for facilitation of flue service.

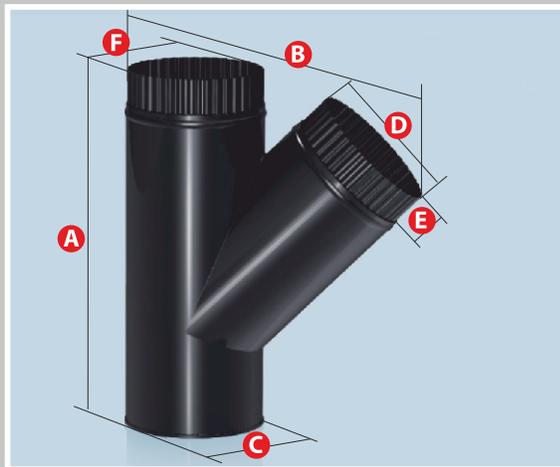
Diameter Ø, mm	115	120	140	150	200
A, mm	360	360	420	420	520
B, mm	115	120	140	150	200
C, mm	115	120	140	150	200
D, mm	113	118	138	148	198
E, mm	270	276	318	331	427
F, mm	50	50	50	50	50



## ENAMELED TEE K 90°

It allows easy changing the direction of the flue pipe. It is used for connecting a heat generating device to the main channel. Tee with a plug executes a role of a clearing construction for facilitation of flueservice.

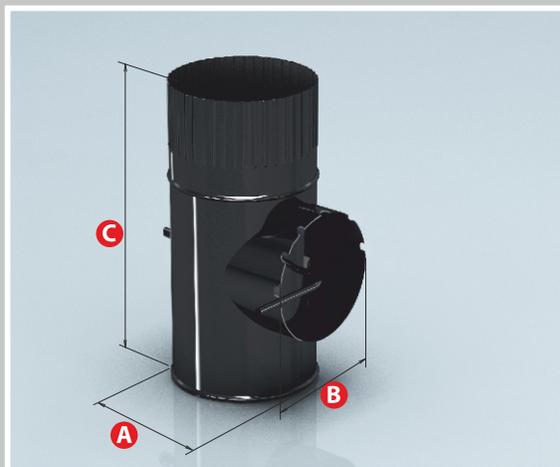
Diameter Ø, mm	115	120	140	150	200
A, mm	115	120	140	150	200
B, mm	300	300	350	350	420
C, mm	210	210	250	250	310
D, mm	95	90	110	100	110
E, mm	0,8				



## ENAMELED TEE K 135°

It allows easy changing the direction of the flue pipe. It is used for connecting a heat generating device to the main channel. Tee with a plug executes a role of a clearing construction for facilitation of flueservice.

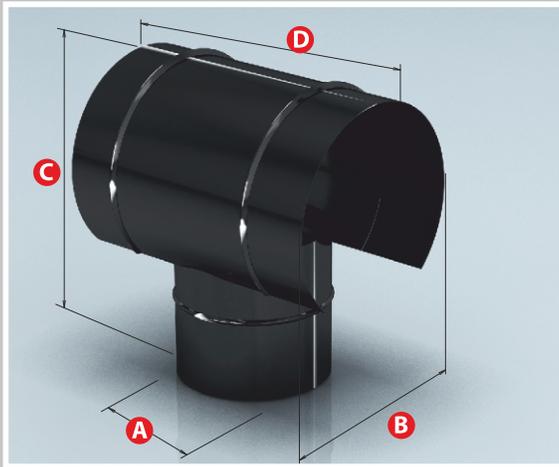
Diameter Ø, mm	115	120	140	150	200
A, mm	360	360	420	420	520
B, mm	270	276	318	331	427
C, mm	115	120	140	150	200
D, mm	115	120	140	150	200
E, mm	50	50	50	50	50
F, mm	115	120	140	150	200



## ENAMELED CHIMNEY DAMPER

It is used for traction control in the flue pipe. It can significantly increase the fuel combustion in furnaces and fireplaces.

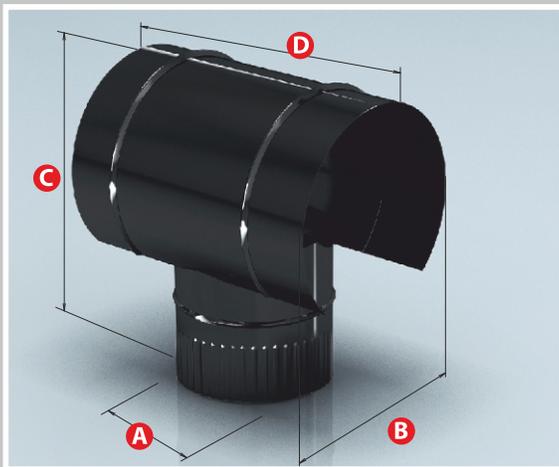
Diameter Ø, mm	115	120	140	150	200
A, mm	115	120	140	150	200
B, mm	90	90	110	110	150
C, mm	250	250	300	300	370



## ENAMELED CHIMNEY CAP D

The final element of the smoke channel. It protects the chimney from falling atmospheric precipitation inside the chimney.

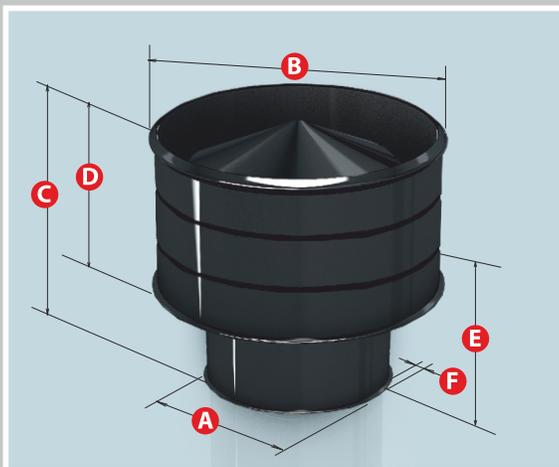
Diameter Ø, mm	115	120	140	150	200
A, mm	115	120	140	150	200
B, mm	160	160	190	190	250
C, mm	240	240	270	270	320
D, mm	220	220	260	260	360



## ENAMELED CHIMNEY CAP K

The final element of the smoke channel. It protects the chimney from falling atmospheric precipitation inside the chimney.

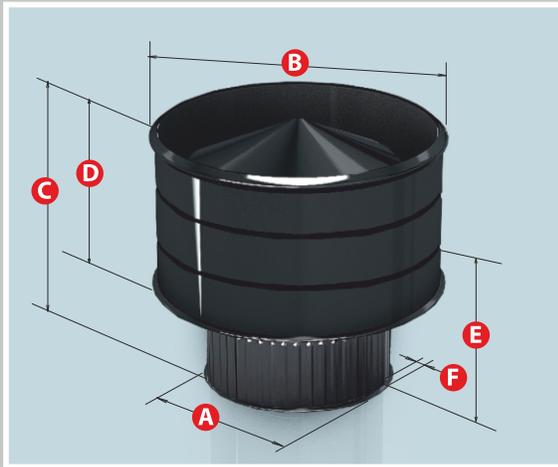
Diameter Ø, mm	115	120	140	150	200
A, mm	115	120	140	150	200
B, mm	160	160	190	190	250
C, mm	240	240	270	270	320
D, mm	220	220	260	260	360



## ENAMELED CHIMNEY WIND DEFLECTOR D

Chimney wind deflector is a special device which increases draft due to the wind power: the rarefied space in the deflector is formed by the wind, so exhaust gases from the lower part direct to upper part of a flue. One more function of the enameled deflector is protection of the fume channel against of garbage, snow and rain.

Diameter Ø, mm	115	120	140	150	200
A, mm	115	120	140	150	200
B, mm	270	270	310	380	380
C, mm	245	245	245	245	245
D, mm	180	180	180	180	180
E, mm	110	110	110	110	110
F, mm	0,8				



## ENAMELED CHIMNEY WIND DEFLECTOR K

Chimney wind deflector is a special device which increases draft due to the wind power: the rarefied space in the deflector is formed by the wind, so exhaust gases from the lower part direct to upper part of a flue. One more function of the enameled deflector is protection of the fume channel against of garbage, snow and rain.

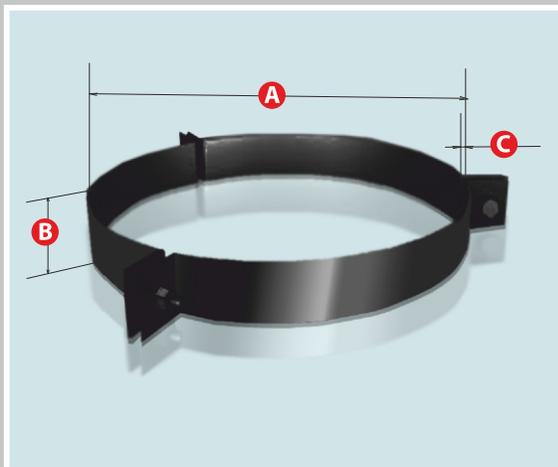
Diameter Ø, mm	115	120	140	150	200
A, mm	115	120	140	150	200
B, mm	270	270	310	380	380
C, mm	245	245	245	245	245
D, mm	180	180	180	180	180
E, mm	110	110	110	110	110
F, mm	0,8				



## HOSE CLAMP WITH POLYMERIC COVERING

It is intended for the mounting of single-walled chimney and used to seal the joints of the elements.

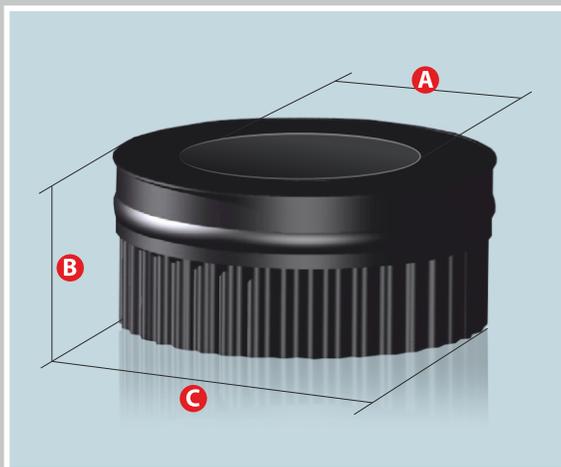
Diameter Ø, mm	115	120	140	150	200	210	280
A, mm	115	120	140	150	200	210	280
B, mm	85						
C, mm	0,8						



## SAFETY CLAMP WITH POLYMERIC COVERING

It is used for flue preserving from horizontal fluctuations in case of installation at the height more than 1.5m over the roof level.

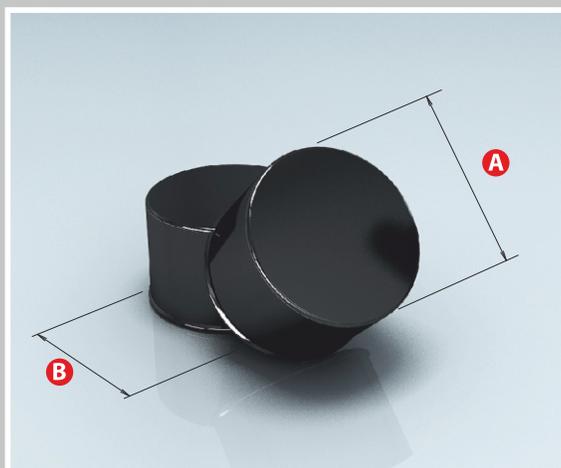
Diameter Ø, mm	115	120	140	150	200	210	280
A, mm	115	120	140	150	200	210	280
B, mm	45						
C, mm	1,5						



## ENAMELED TUBE PLUG WITH A HOLE

It is intended for protection of isolation and also used as a decorative element.

Diameter Ø, mm	115	120	140	150	200
A, mm	115	120	140	150	200
B, mm	200	200	210	210	280
C, mm	90				



## ENAMELED BLIND PLUG M

In combination with a tee it serves as clearing construction and facilitates maintenance of the chimney.

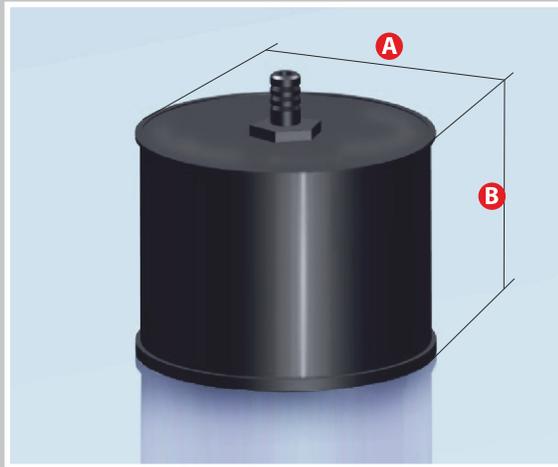
Diameter Ø, mm	115	120	140	150	200	210	280
A, mm	115	120	140	150	200	210	280
B, mm	117	122	142	152	202	212	282



## ENAMELED BLIND PLUG P

In combination with a tee it serves as clearing construction and facilitates maintenance of the chimney.

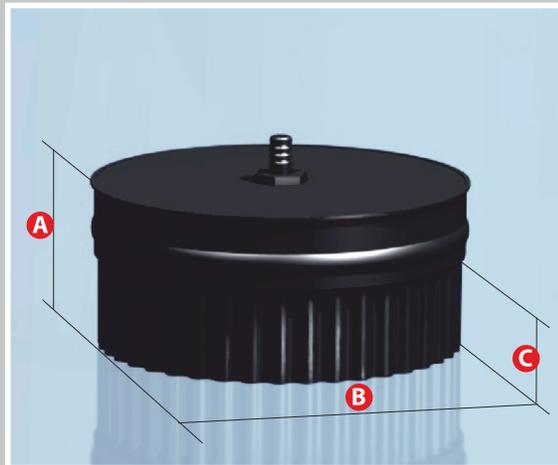
Diameter Ø, mm	115	120	140	150	200	210	280
A, mm	90	90	90	90	90	90	90
B, mm	112	118	138	148	198	208	278
C, mm	50	50	50	50	50	50	50



## ENAMELED PLUG WITH A DRAIN **M**

It is designed to remove condensate from the flue system.

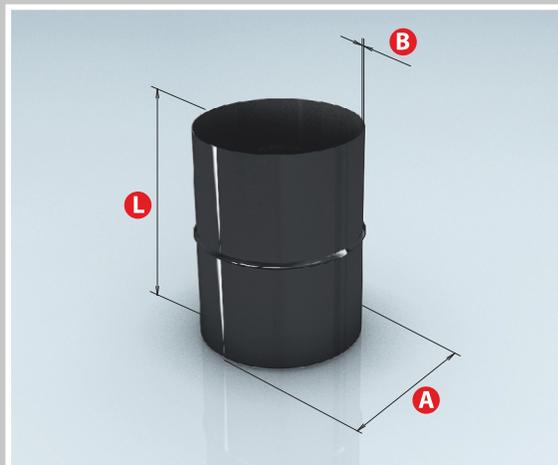
Diameter Ø, mm	115	120	140	150	200
A, mm	115	120	140	150	200
B, mm	90				



## ENAMELED PLUG WITH A DRAIN **P**

It is designed to remove condensate from the flue system.

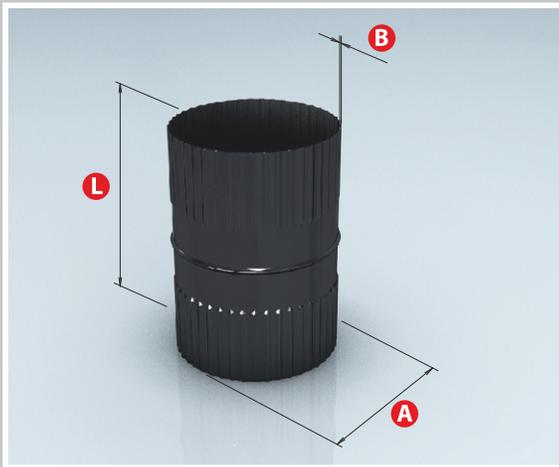
Diameter Ø, mm	115	120	140	150	200	210	280
A, mm	90	90	90	90	90	90	90
B, mm	112	118	138	148	198	208	278
C, mm	50	50	50	50	50	50	50



## SAFETY CLAMP WITH POLYMERIC COVERING

It is a connecting element for connection of different parts of smoke channels, and also for joining of one-wall flues with other types of flues.

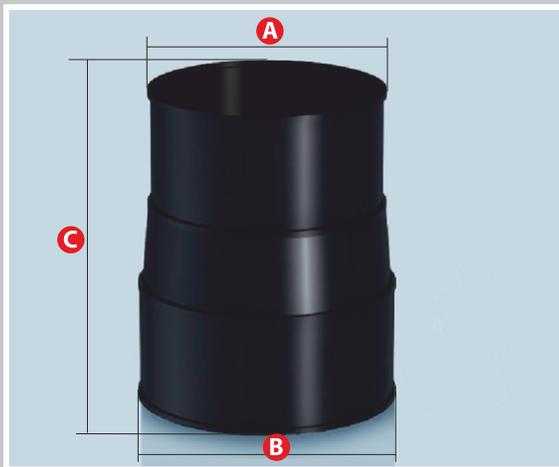
Diameter Ø, mm	115	120	140	150	200
A, mm	115	120	140	150	200
L, mm	140	140	150	150	180
C, mm	0,8				



## ENAMELED BOILER ADAPTER PP

It is a connecting element for connection of different parts of smoke channels, and also for joining of one-wall flues with other types of flues.

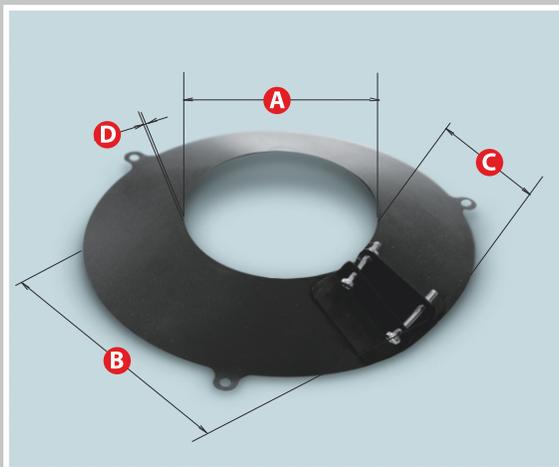
Diameter Ø, mm	115	120	140	150	200
A, mm	115	120	140	150	200
L, mm	140	140	150	150	180
C, mm	0,8				



## ENAMELED DOCKING ADAPTER

It is intended for convenient installation in case of need to connect a flue with a non-standard diameter to another one with a standard size.

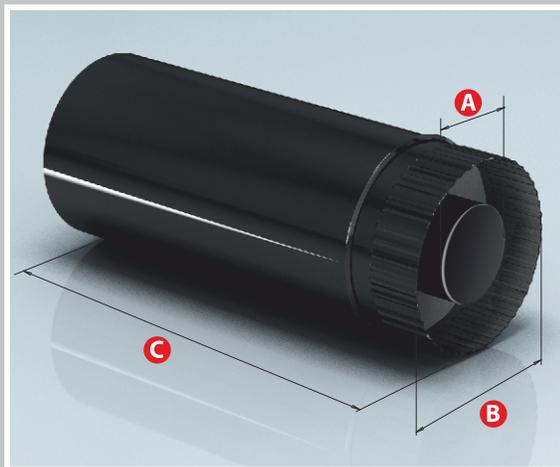
Diameter Ø, mm	100	110	115	115	120	130	140	150	150	150	150	150	180
A, mm	100	110	115	115	120	130	140	150	150	150	150	150	180
B, mm	115	115	120	125	130	140	150	160	175	180	200	200	
C, mm	250	190	190	190	250	250	250	250	250	250	250	250	250



## APRON WITH POLYMERIC COATING

It is intended for decorative protection of chimneys in case of passing through walls and floors.

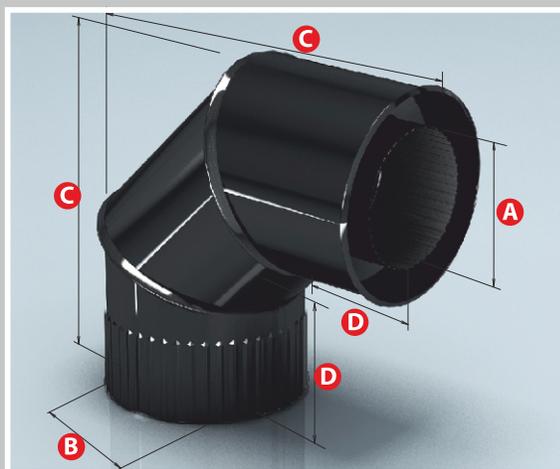
Diameter Ø, mm	115	120	140	150	200	210	280
A, mm	115	120	140	150	200	210	280
B, mm	250	250	280	280	350	350	420
C, mm	31,2	30,1	32,4	30,1	34,7	32,4	32,4
D, mm	0,8						



## ENAMELED SANDWICH-PIPE

It is a key element of the flue system intended for removing combustion products from straight sections. Various sizes provide flexibility of installation and allow mounting pipes of different lengths.

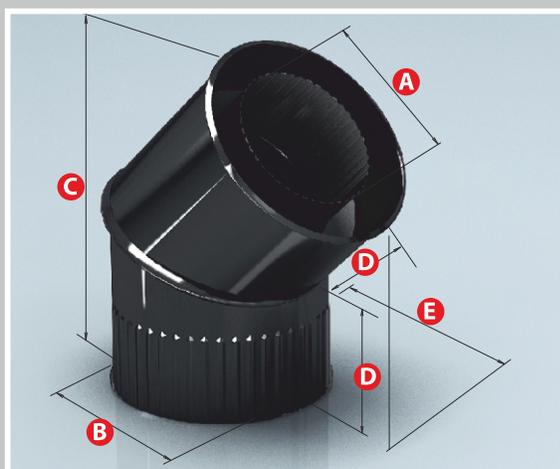
Diameter Ø, mm	115	120	140	150	200
A, mm	115	120	140	150	200
B, mm	200	200	210	210	280
C, mm	1000/500				



## ENAMELED SANDWICH-BEND 90°

It is an element of a flue system for changing the direction of the flue pipe (90 degrees). It allows bypassing hindrances on the way of the flue pipe.

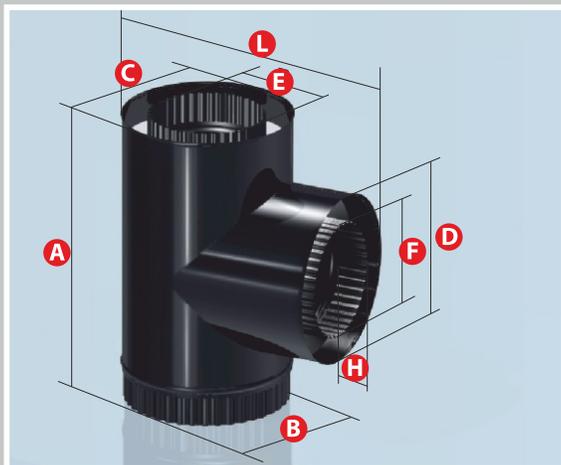
Diameter Ø, mm	115	120	140	150	200
A, mm	115	120	140	150	200
B, mm	200	200	210	210	280
C, mm	360	360	400	400	450
D, mm	110	110	110	110	110



## ENAMELED SANDWICH-BEND 135°

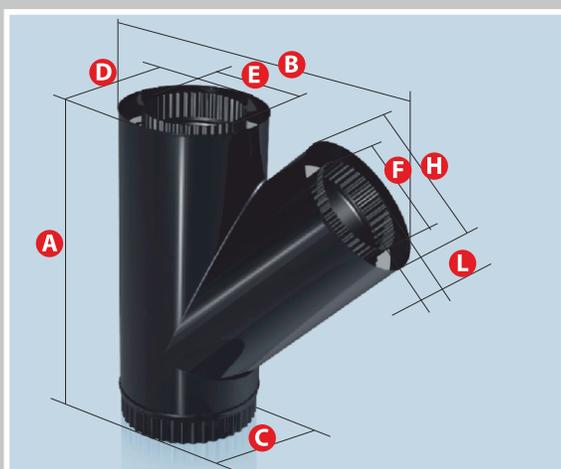
It is an element of a flue system for changing the direction of the flue pipe (135 degrees). It allows bypassing hindrances on the way of the flue pipe.

Diameter Ø, mm	115	120	140	150	200
A, mm	115	120	140	150	200
B, mm	200	200	210	210	280
C, mm	330	330	350	350	385
D, mm	110	110	110	110	110
E, mm	280	280	310	310	360



## ENAMELED SANDWICH-TEE 90°

Diameter Ø, mm	115	120	140	150	200
A, mm	420	420	430	430	500
B, mm	200	200	210	210	280
C, mm	200	200	210	210	280
D, mm	200	200	210	210	280
E, mm	115	120	140	150	200
F, mm	115	120	140	150	200
H, mm	50	50	50	50	50
L, mm	310	310	320	320	390



## ENAMELED SANDWICH-TEE 135°

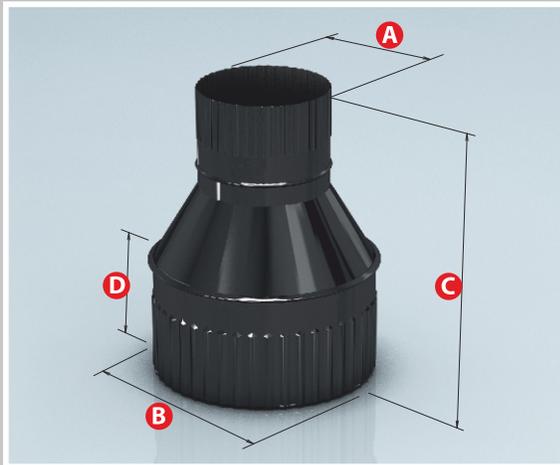
Diameter Ø, mm	115	120	140	150	200
A, mm	520	520	540	540	650
B, mm	520	520	540	540	650
C, mm	200	200	210	210	280
D, mm	200	200	210	210	280
E, mm	115	120	140	150	200
F, mm	115	120	140	150	200
H, mm	200	200	210	210	280
L, mm	50	50	50	50	50



## ENAMELED START-SANDWICH D

This element is intended to connect one-wall chimneys with double-wall ones.

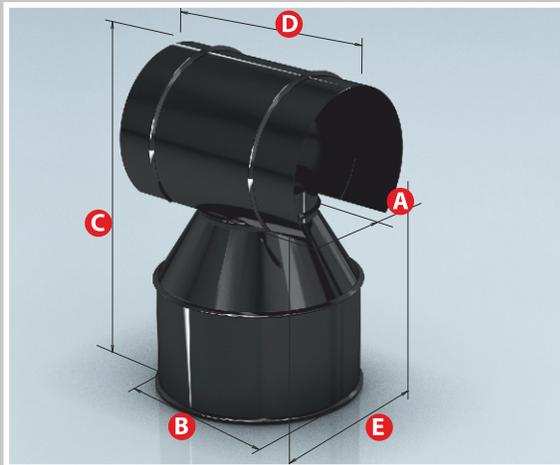
Diameter Ø, mm	115	120	140	150	200
A, mm	115	120	140	150	200
B, mm	200	200	210	210	280
C, mm	100	100	100	100	100
D, mm	50	50	50	50	50
E, mm	110	110	110	110	110
F, mm	280	280	280	300	300



## ENAMELED START-SANDWICH K

This element is intended to connect one-wall chimneys with double-wall ones.

Diameter Ø, mm	115	120	140	150	200
A, mm	115	120	140	150	200
B, mm	200	200	210	210	280
C, mm	280	280	300	300	300
D, mm	110	110	110	110	110



## ENAMELED HATCHWAY

The final element of the smoke channel. It protects the chimney from falling atmospheric precipitation inside it.

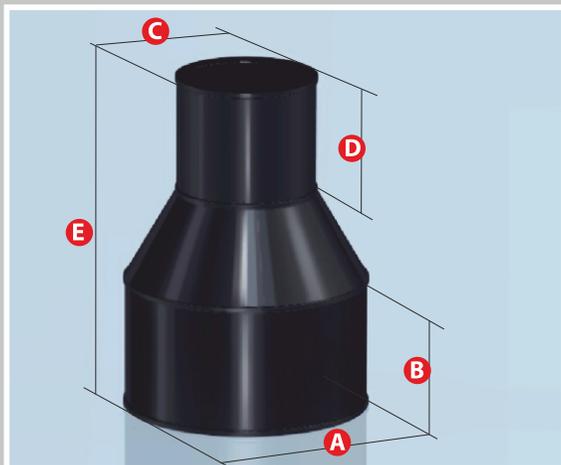
Diameter Ø, mm	115	120	140	150	200
A, mm	115	120	140	150	200
B, mm	200	200	210	210	280
C, mm	360	360	400	400	450
D, mm	250	250	300	300	350
E, mm	180	180	220	220	280



## ENAMELED CHANGING HATCHWAY D

It is connecting element for joint of different parts of smoke channels and also for joining of one-wall chimneys with other types of chimneys.

Diameter Ø, mm	115	120	140	150	200
A, mm	115	120	140	150	200
B, mm	200	200	210	210	280
C, mm	280	280	300	300	300
D, mm	110	110	110	110	110



## ENAMELED CHANGING HATCHWAY K

It is connecting element for joint of different parts of smoke channels and also for joining of one-wall chimneys with other types of chimneys.

Diameter Ø, mm	115	120	140	150	200
A, mm	200	200	210	210	280
B, mm	110	110	110	110	110
C, mm	115	120	140	150	200
D, mm	100	100	100	100	100
E, mm	300	300	300	300	300
F, mm	280	280	280	300	300

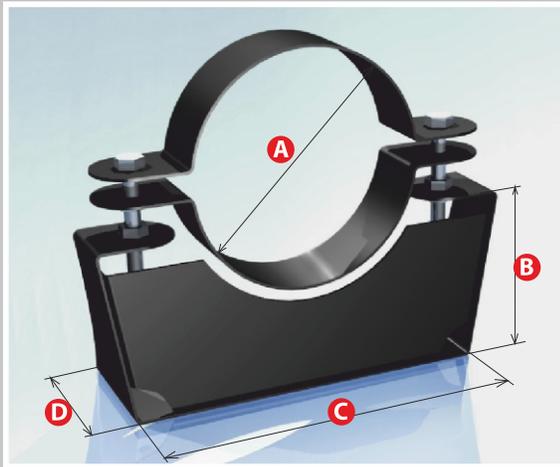


## ENAMELED HATCHWAY WITHOUT CAP

The final element of the smoke channel. It is set on a double-walled flue and protects a heat insulation layer.

Diameter Ø, mm	115	120	140	150	200
A, mm	115	120	140	150	200
B, mm	200	200	210	210	280
C, mm	190	190	195	195	195
D, mm	110	110	110	110	110

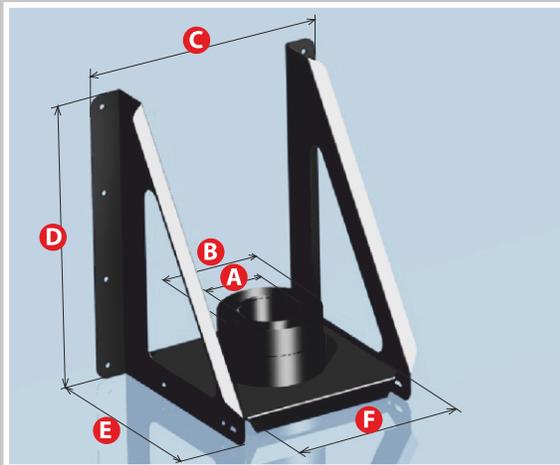




## WALL BRACKET WITH POLYMERIC COATING

It is used as a flue support. Also it can be used as bearing element for one-wall chimneys. It is used as the supporting element for mounting double-walled systems.

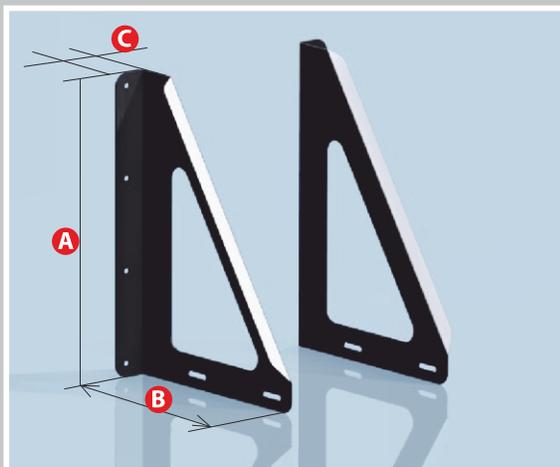
Diameter Ø, mm	115	120	140	150	200	210	280
A, mm	115	120	140	150	200	210	280
B, mm	90	90	110	110	150	150	200
C, mm	220	220	250	250	330	330	400
D, mm	70	70	70	70	70	70	75



## WALL-MOUNT BRACKET WITH POLYMERIC COATING

It is used for installing double-wall chimney. It is mounted on a vertical plane. There are a number of sizes for the selection of the desired distance and the possibility of adjustment.

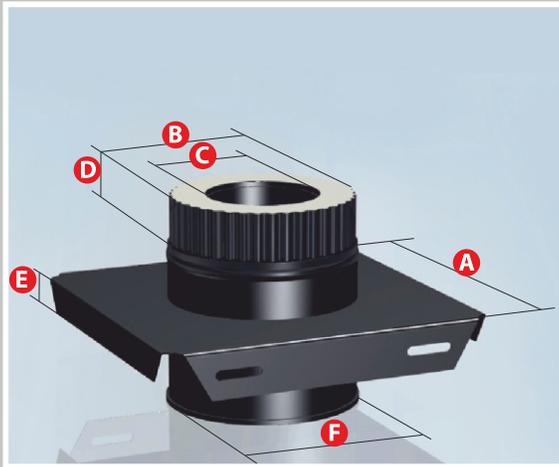
Diameter Ø, mm	115	120	140	150	200
A, mm	115	120	140	150	200
B, mm	200	200	210	210	280
C, mm	490	490	490	490	580
D, mm	560	560	560	560	650
E, mm	420	420	420	420	500
F, mm	360	360	360	360	450



## ANGLE WITH POLYMERIC COATING FOR WALL-MOUNT BRACKET

It is an element of the wall-mount bracket. Allows fixing not movably a mounting pad rather vertical surface; excludes horizontal offset of a flue and transfers weight to a building wall above the located construction.

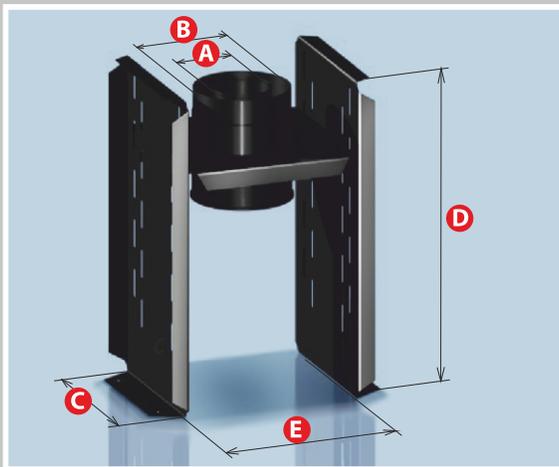
Diameter Ø, mm	115	120	140	150	200
A, mm	560	560	560	560	650
B, mm	420	420	420	420	500
C, mm	65	65	65	65	65



## MOUNTING PAD WITH POLYMERIC COATING

Mounting pad fixes the chimney, maintains its configuration and transfers the load of mounted elements of a chimney on the supporting structure (wall, ceiling).

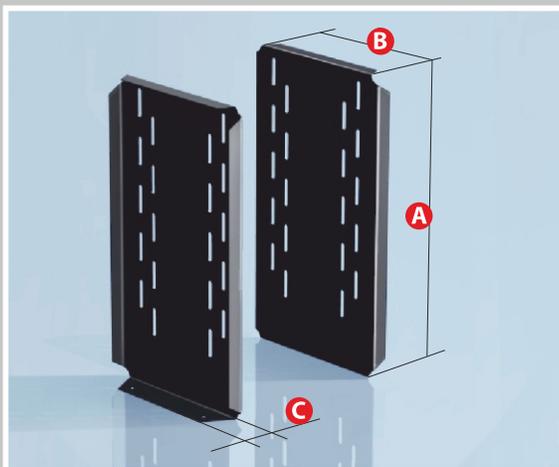
Diameter Ø, mm	115/200	120/200	140/210	150/210	200/280
A, mm	360	360	360	360	450
B, mm	200	200	210	210	280
C, mm	115	120	140	150	200
D, mm	50	50	50	50	50
E, mm	65	65	65	65	65
F, mm	200	200	210	210	280



## SUPPORTING MOUNTING PAD WITH POLYMERIC COATING

Supporting mounting pad is a bearing component. It maintains big loadings from flue system located above and transfers them to the base or the horizontal bearing blanking (wall, ceiling).

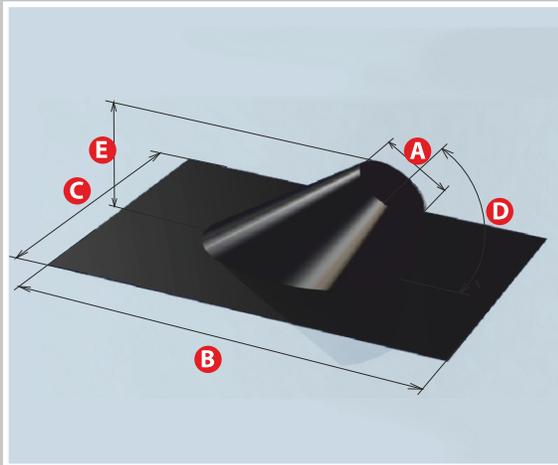
Diameter Ø, mm	115/200	120/200	140/210	150/210	200/280
A, mm	115	120	140	150	200
B, mm	200	200	210	210	280
C, mm	360	360	360	360	450
D, mm	640	640	640	640	640
E, mm	360	360	360	360	450



## SUPPORT WITH POLYMERIC COATING FOR MOUNTING PAD

It is used mounting pad for installation of a double-walled chimneys; the element is capable to maintain high loadings. Thanks to technological bores, it allows to regulate height of mounting pad that facilitates installation of system and allows to avoid joining of flue elements in horizontal blanking.

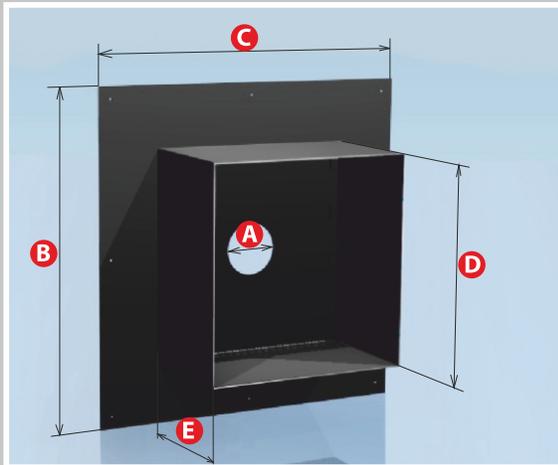
Diameter Ø, mm	115/200	120/200	140/210	150/210	200/280
A, mm	640	640	640	640	640
B, mm	360	360	360	360	450
C, mm	65	65	65	65	65



## ROOFING ELEMENT WITH POLYMERIC COATING

It is intended to pass of the chimney through the roof of the building and to protect chimney construction from falling atmospheric precipitation inside it.

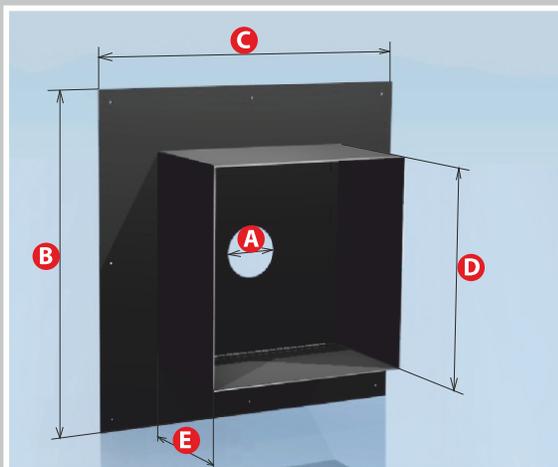
Diameter Ø, mm	115	120	140	150	200	210	280
A, mm	115	120	140	150	200	210	280
B, mm	600	600	700	700	800	800	900
C, mm	500	500	600	600	700	700	800
D, mm	60 (±15)						
E, mm	158	161	172	178	200	207	248



## CEILING BLOCK WITH POLYMERIC COATING

It is intended for fireproof passage of the chimney through walls and ceilings in order to protect against ignition of flammable construction of the premises.

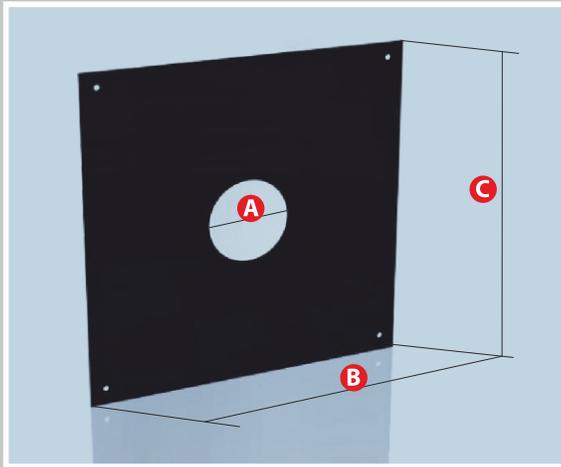
Diameter Ø, mm	115	120	140	150	200	210	280
A, mm	115	120	140	150	200	210	280
B, mm	800	800	840	840	900	900	940
C, mm	800	800	840	840	900	900	940
D, mm	500	500	540	540	600	600	680
E, mm	300						



## THROUGH-PASS BLOCK WITH POLYMERIC COATING

It is intended for fireproof passage of the chimney through walls and ceilings in order to protect against ignition of flammable construction of the premises.

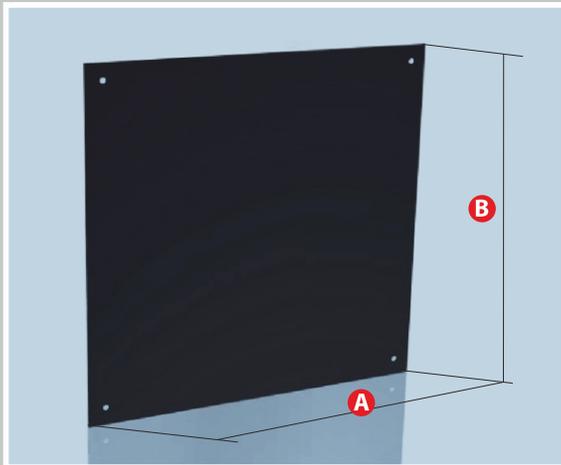
Diameter Ø, mm	115	120	140	150	200	210	280
A, mm	115	120	140	150	200	210	280
B, mm	500	500	550	550	600	600	680
C, mm	500	500	550	550	600	600	680
D, mm	320	320	350	350	410	410	480
E, mm	300						



## FLANGE WITH POLYMERIC COATING

It is intended for decorative protection of chimney in case of it passing through floors and walls.

Diameter Ø, mm	115	120	140	150	200	210	280
A, mm	115	120	140	150	200	210	280
B, mm	600	600	600	600	700	700	700
C, mm	600	600	600	600	700	700	700



## PROTECTIVE SCREEN WITH POLYMERIC COATING

It serves as a decorative and protective element in the place of installation of thermal units.

Diameter Ø, mm			
A, mm	500	600	1000
B, mm	500	1000	1000



Our company makes two modifications of thick-walled chargrills. The AGNI MINI chargrill is portable and it can always be taken in a hike. The AGNI chargrill is both mobile, and stationary; it is higher, than the AGNI MINI model and more functional as its design also provides a shelf for convenience of cooking.

	CHARGRILL AGNI	CHARGRILL AGNI MINI
<b>WIDTH</b> (GENERAL)	440 mm	360 mm
<b>WIDTH</b> (WORKTOP)	300 mm	300 mm
<b>HEIGHT</b>	862 mm	377 mm
<b>LENGTH</b>	600 mm	600 mm
<b>DEPTH</b> (LAYING OF COAL)	153 mm	153 mm
<b>WEIGHT</b>	25,8 kg	13,4 kg



## AGNI Company

Russian Federation  
630108, Novosibirsk  
32, Stacionnaya str.  
t.: 8 (383) 350-10-51  
e-mail: [agni-nsk@agni-nsk.ru](mailto:agni-nsk@agni-nsk.ru)  
[www.agni-nsk.ru](http://www.agni-nsk.ru)