



## **Polypropylene and airtight lines**



# Simple polypropylene line

## Condensation System Generator

Condensation boilers, in general, obtain better efficiency than the rest of the generators.

They reduce the combustion gas temperature until the steam from inside it condensates.

They give away latent heat of vaporization which is transmitted additionally to boiler's water, improving this way their efficiency.

If we use natural gas as combustible, the formed condensates have an acid character (pH 4-5) due to the nitric acid (H2NO3).

When used the diesel oil, the condensates are particularly aggressive (pH 2-4) due to the presence of the sulfur (S) into the combustible which is forming sulfurous acids (SOx) during the combustion and these are making reaction with the condensate water forming the sulfurous and sulfuric acid.

The condensates generated by the condensation boilers are abundant. This is why we need a corrosion high resistant duct.

The polypropylene is a material with corrosion high resistance which is the main and necessary characteristic in condensation use.

### Usages

- Combustion gas evacuation for condensation systems.
- Channellings for residual water evacuation domestic and sanitary use.
- Ventilation channellings as reflected by the regulation UNE EN 14471.
- Rain water channellings.



### Regulations

EN 14471 T120 P1/H1 O W2 O20 I E L

### General characteristic

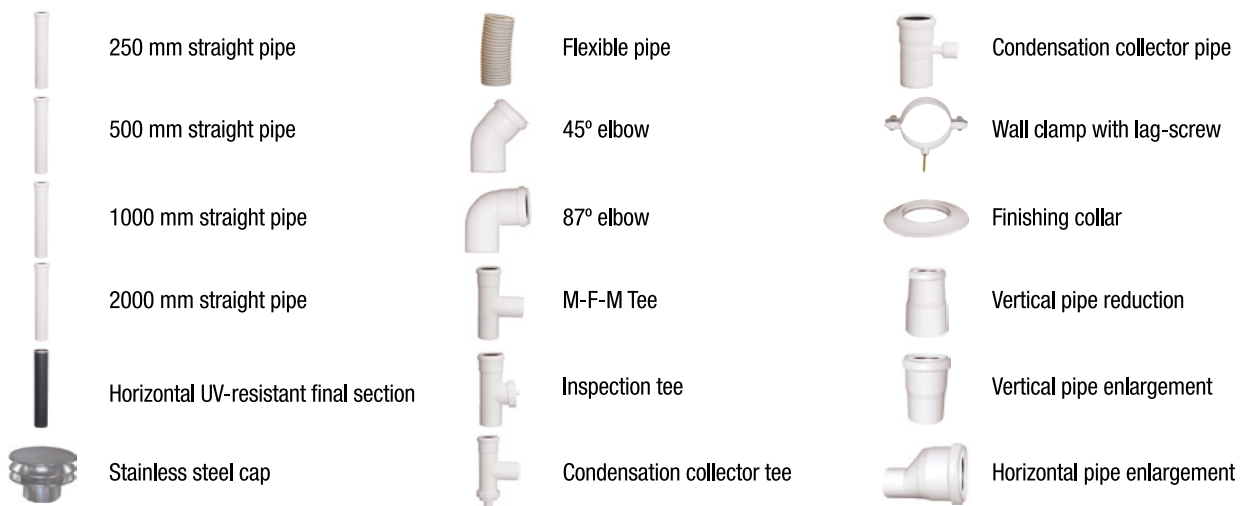
- Established polypropylene, hot waterproof and low inflammability.
- High resistance to the condensate acids and chemical products.
- Full airtight.
- Easy and fast installation.

### Materials

Localization	Description
Wall	Polypropylene
Finishings	White - Pipes and pieces Black - Anti UV and terminals Grey - Flexible pipe

### Diameters

ø60 ø80 ø100 ø110 ø125 ø160 ø200





# Coaxial polypropylene line

## Instructions

The duct has to be installed with an inclination of 3° of positive or ascendant slope.

By this, we make easier the fume evacuation, avoid the retention of condensates and the damage of the duct's material. The last, we'll make easier the condensate's evacuation to the drainage system.

## Pipe and accessories installation

Apply a thin layer of lubricants in the internal part of the joint in order to make easier the installation process.

Introduce the male terminal in the pipe, elbow or adaptor.

After the connection, assure that the airtight joint is correctly placed.

It has to be respected the sense of the fumes indicated by the manufacturer on the label. So, the male should be placed downwards so the condensations don't overflow outside the pipe

## Usages

Combustion gas evacuation for condensation systems.

Channellings for residual water evacuation domestic and sanitary use.

Ventilation channellings as reflected by the regulation UNE EN 14471.

Rain water channellings.



## Regulations

EN 14471

T120

P1/H1

O

W2

O00

I

E

L1

## General characteristic

Established polypropylene, hot waterproof and low inflammability.

High resistance to the condensate acids and chemical products.

Full airtight.

Easy and fast installation.

## Materials

Localization	Description
Internal wall	Polypropylene
External wall	Aluminized steel
Finishings	White epoxy

## Diameters

ø60/100

ø80/125



250 mm straight pipe



45° elbow



Condensation collector section

500 mm straight pipe



87° elbow



Adjustable wall clamp

1000 mm straight pipe



M-F-M tee



Finishing collar

UV resistant final section



Inspection tee



Vertical final stretch

280-500 mm extending pipe



Condensation collector tee



Inspection boiler vertical exit



# Simple airtight line

## Non-condensation system generator

The aluminum pipe is the ideal one for non-condensation systems and those which are making the evacuation individually. Permits combustion gas evacuation from standard gas evacuation generators, airtight or atmospheric, as well as the air intake used for the combustion in airtight generators.

Simple wall duct fabricated in aluminium of thickness 1 mm; covered by an white epoxy coverage that gives the pipe an homogeneous esthetic to the generator.

Very easy to install. Union male-female by the airtight joint.

## Duct easy to cut

The cut may be done with a fine saw or a pipe's special cutter.

The burrs after the cut have to be eliminated by a bastard cut-file and an angle of 15° has to let to make easier the installing and don't move the correct localization of the airtight joints.

Important note: The accessories must not be cut..

### Usages

Gas evacuation from the airtight boilers.

Air admission from the airtight boilers.



### Regulations

EN 1856-2

T200

P1

W

Vm

L13100

O(50,50)

### General characteristics

Union system between elements through silicone bilabial joint.

Easy cut by the cutter.

Resistant shockproof coverage; without stripping off.

### Materials

Localization

Description

Wall

Aluminium

Finishings

White epoxy coverage

### Diameters

ø60

ø80



200 mm straight pipe M-M / M-F



500 mm straight pipe M-M / M-F



1000 mm straight pipe M-M / M-F



1500 mm straight pipe M-M / M-F



2000 mm straight pipe M-M / M-F



2000 mm straight pipe M-M without finished



3000 mm straight pipe M-M / M-F without finished



Suction section



Exhaust section



F-F / M-F 45° elbow



F-F / M-F 88° elbow



Joint sleeve F-F



Wall clamp with lag-screw



Two flow adaptor



Suction grate



Exhaust cap



Finishing collar



Inspection section + condensation collector



# Coaxial airtight line

## Usages

- Gas evacuation for airtight boilers
- Air admission for airtight boilers



## Regulations

EN 1856-2 T200 P1 W Vm L13100 O(50,50)

## General characteristics

- Union system between elements through silicone bilabial joint.
- Easy cut by the cutter.
- Resistant shockproof coverage; without stripping off.

## Materials

Localization	Description
Internal wall	Aluminium
External wall	Aluminized steel sheet
Finishings	White epoxy coverage

## Diameters

ø60/100

ø80/110

ø80/125

	200 mm straight pipe M-F / M-M		M-F / M-M 45° elbow		Joint sleeve Pipe-Pipe F-F
	M-F / M-M 200 mm stainless steel straight pipe		Boiler connection checking point elbow		F-F stainless steel joint sleeve pipe-pipe
	500 mm straight pipe M-F / M-M		M-F 45° stainless steel elbow		Wall clamp kit
	M-F / M-M 500 mm stainless steel straight pipe		M-F 90° elbow		Wall clamp with plate
	1000 mm straight pipe M-F / M-M		M-M 90° elbow		Adjustable wall clamp
	M-F / M-M 1000 mm stainless steel straight pipe		F-F 90° elbow		Finishing collar
	F horizontal final section		M-F 90° stainless steel elbow		Vertical outlet
	M horizontal final section		Boiler connection elbow		Vertical inspection outlet
	F stainless steel horizontal final section		Final section + boiler connection elbow + clamp		
	Vertical roof outlet				
	Vertical final stretch		Inspection kit - final section + boiler inspection connection elbow + clamp		



**Plastica Technologies Limited**

Colman House, Station Road,  
Knowle, Solihull, B93 0HL  
United Kingdom

**T** +44 (0) 1564 432112

**E** [info@plastica.tech](mailto:info@plastica.tech)

**W** [www.plastica.tech](http://www.plastica.tech)