

# BLÜCHER® EuroPipe



FIRE



ACOUSTICS



CUTTING IN



TIME



SUSTAINABILITY



KEEPING UP THE FLOW

## Fire

BLÜCHER, Europe's leading manufacturer of Stainless Steel Drainage Systems has tested its BLÜCHER® EuroPipe push-fit drainage pipework system in accordance with BS EN 1366-3:2009 (Fire resistance tests for service installations. Penetration seals.) and has had the test data classified to BS EN 13501-2 (Spread of fire)

### Spread of Fire

BLÜCHER® EuroPipe was rated E120 for all pipe sizes.

E120 states that the system maintained its integrity and did not allow the passage of smoke or flame from one fire compartment to another for the duration of 120 minutes.

### Non combustibility - The safest drainage system in the event of a fire.

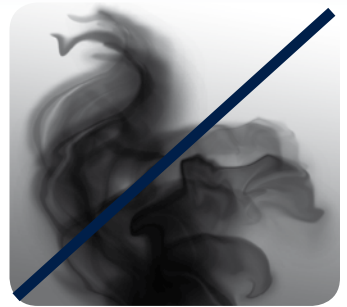
BLÜCHER® EuroPipe push-fit drainage pipework system complies with and is manufactured to BS EN 1124 Pt 1 & Pt 2 which states its reaction to fire is Class A1 – referring to the European Commission Decision 96/603/EC

BLÜCHER's E120 rating (Spread of Fire) along with Reaction to Fire Class A1 rating (Non combustibility) makes BLÜCHER's EuroPipe stainless steel drainage pipework system the safest drainage system in the event of a fire.



## Smoke

The biggest killer in any fire is smoke and fumes. As BLÜCHER® EuroPipe is manufactured from 100% stainless steel and has no need for any protective coatings either internally or externally, there are no noxious fumes to be emitted in the event of a fire from any coatings igniting



## No fire collars

As BLÜCHER® EuroPipe is considered as non combustible there is no requirement for fire collars. It is recommended that any structural openings are kept as small as possible and made good with cement mortar or stone wool.



## Rating classes

Class A is for non-combustible products like stainless steel, galvanized steel and cast iron. The class A comprises a number of sub-classes:

- A1 is the best fire rating and does not have any sub-classes
- A2 is a slightly inferior fire rating and has sub-classes S1-S3 and d0-d2
- **Class B** is for combustible products like plastics

**BLÜCHER® EuroPipe drainage pipes and fittings are rated class A1.**

**A1**  
BLUCHER  
EuroPipe



**A2**  
Cast  
iron



**B**  
Plastic



## Acoustics

At BLÜCHER we understand that noise is a common concern, but with BLÜCHER® EuroPipe noise need not be an issue at all. Our product has been tested to BS EN 14366 against alternative systems from plastics and metals and it has been found that BLÜCHER® EuroPipe compares very favourably.

In addition, the acoustic performance of BLÜCHER® EuroPipe can be further enhanced with the introduction of plasterboard and or insulation, a regular method of construction in modern buildings.

Where stringent acoustic performance is required acoustic brackets are available to increase the performance of BLÜCHER® EuroPipe.

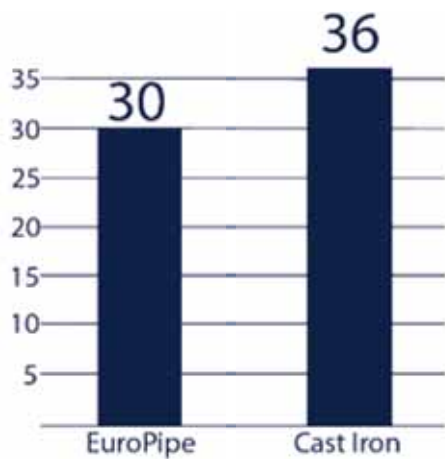


**Worried about noise?**

There is no need to worry that stainless steel pipes create excessive noise.

| Product                               | Bracket                       |
|---------------------------------------|-------------------------------|
| Cast Iron<br>BS EN 877                | Standard cast iron bracket    |
| BLÜCHER® EuroPipe<br>BS EN 1124 pt1&2 | Standard rubber lined bracket |

**Structure-borne noise dB(A) at 4 L/s**



Test results from the Fraunhofer Institute , Stuttgart using manufacturers recommended standard brackets



## Cutting in

The common mis-conception is that it is difficult to cut into or de-mount a push fit system.

BLÜCHER® EuroPipe is a push fit system that can easily be de mounted. This means that adding branches or making changes to an installed system is not limited to mechanically coupled systems but is also a feature of a modern push fit pipework system.



### Adding a branch to an installed BLÜCHER® EuroPipe system.

- A reciprocating saw is used to cut the pipe
- Using the deflection in the push fit joints the pipework can usually then be removed (should the distance between cut and nearest joint not be large enough a second cut may be required)
- The pipework can then be cut to size, where the branch is to be installed, using the BLUCHER cutting and bevelling tool.
- Brackets should be placed where necessary to hold the pipework firmly in place. In this illustration, as the additional branch was near to a change of direction, only one bracket was deemed necessary for safe installation
- With the pipework re-fitted and held in place by the new bracket, the new fitting can be installed
- A new length of pipe is then inserted into a retro fit socket designed for de-mounting
- The new section of pipe and retro fit socket are then fitted and the pipe drawn out of the retro fit socket until it joins with the new fitting
- The installation is complete



## Time

There are significant demands made on modern drainage systems. They are often exposed to large water volumes, high temperatures and various cleaning products in applications such as hospitals, restaurants, food processing and pharmaceutical industries.

Often the choice of drainage system is based on the initial purchase cost of the system. However calculations show that when comparing the overall cost of installation, labour and product-life expectancy, BLÜCHER® EuroPipe will be more cost-effective than cast iron or plastic\*. BSRIA confirm that BLÜCHER® EuroPipe is 40% quicker to install than mechanically jointed cast iron.

The weight of stainless steel is only  $\frac{1}{3}$  that of mechanically jointed cast iron, and consequently the costs of transportation and labour are reduced considerably when using stainless steel. A stainless steel drainage system is made from a durable material that will last at least the lifetime of the building in which it is installed without high maintenance, repair or replacement costs.



- 40% quicker to install than cast iron (BSRIA datasheet 5.11.2)
- Best overall whole life costs when compared to cast iron and plastic systems  
(According to independent research carried out by the Building Performance Group)
- Will stand the test of time with a design life in excess of 50 years\*
- Virtually maintenance free
- No requirement for additional coatings or paints
- Simple and safe to cut reducing health and safety risks
- 1/3rd the weight of cast iron
- Wide range of fittings and pipe lengths available ex stock
- Special fittings can be produced quickly and cost effectively
- Perfect for prefabricated stacks



\*



## Sustainable solutions

### 100% recyclable

Stainless steel is 100% recyclable without loss or degradation. It is a non-toxic product requiring no coatings or other surface treatment, and this makes recycling even easier and cleaner. In addition, stainless steel does not emit any toxic fumes in the event of fire.



### Low weight reduces CO<sub>2</sub> emission

Transport is one of the main sources of CO<sub>2</sub> emission. The level of emission is dependent on the volume and weight of the goods carried. A stainless steel drainage system weighs only one third of a similar cast-iron product and will consequently create much lower CO<sub>2</sub> emissions than heavier materials.

Stainless steel pipes have thinner walls, and the inner surface is smoother and consequently more hygienic. This means that a stainless steel pipe has a higher flow capacity than a similar pipe size in other materials. In addition, stainless steel has a low coefficient of expansion - up to 7 times lower than plastics. The lower weight offers numerous health and safety benefits on site and makes installation quicker and easier.

### Long product life

Stainless steel is practically maintenance-free, and this minimises costs for upkeep and repair. Even when the useful life of the building comes to an end, BLÜCHER® EuroPipe will still be functioning normally, and can be re-used or recycled.

### The carbon cost of BLÜCHER® EuroPipe

It has been calculated that, taking into consideration all costs from sourcing and manufacture of metal to production and associated transportation, the carbon footprint of BLÜCHER® EuroPipe is estimated to be approx 3.47kg Co<sub>2</sub> per 1m length of 110mm pipe. This is less than the Co<sub>2</sub> produced from manufacturing 3litres of freshly squeezed orange juice purchased from a major supermarket. The difference is, unlike orange juice, BLÜCHER® EuroPipe lasts in excess of 50 years, giving a 1m length of BLÜCHER® EuroPipe a carbon cost of just **0.07kg Co<sub>2</sub>** per annum.



#### Selected references

Nestlé, Tulip, Knorr, Kelloggs, McDonalds, CocaCola, Pepsi, Heineken, Carlsberg, Budweiser, Coors, Arla Foods, Danone, Unilever, Gerber Foods, Almarai dairy, IKEA, Tesco, Coop, Metro, Lidl, Heathrow Airport T5, Mercedes, Renault, L'Oreal, Sony, BASF, 3M, IBM, Colgate, Palmolive, Hilton Hotel, Hotel Marriot, Sofitel, Novotel, UCLH, Leeds Oncology St James

At BLÜCHER® more than 300 employees create an annual turnover of more than 50 million euro.

Through know-how, dedicated service and common sense we develop, produce and market high quality stainless steel drainage solutions for customers within the housing, commercial, industrial and marine sectors all over the world.

Find your local BLÜCHER® specialist at [www.blucher.com](http://www.blucher.com)

**BLÜCHER® EuroPipe**

**BLÜCHER® Channel**

**BLÜCHER® Drain**



KEEPING UP THE FLOW