



PROVIDING PROFESSIONAL  
QUALITY FLUE LININGS

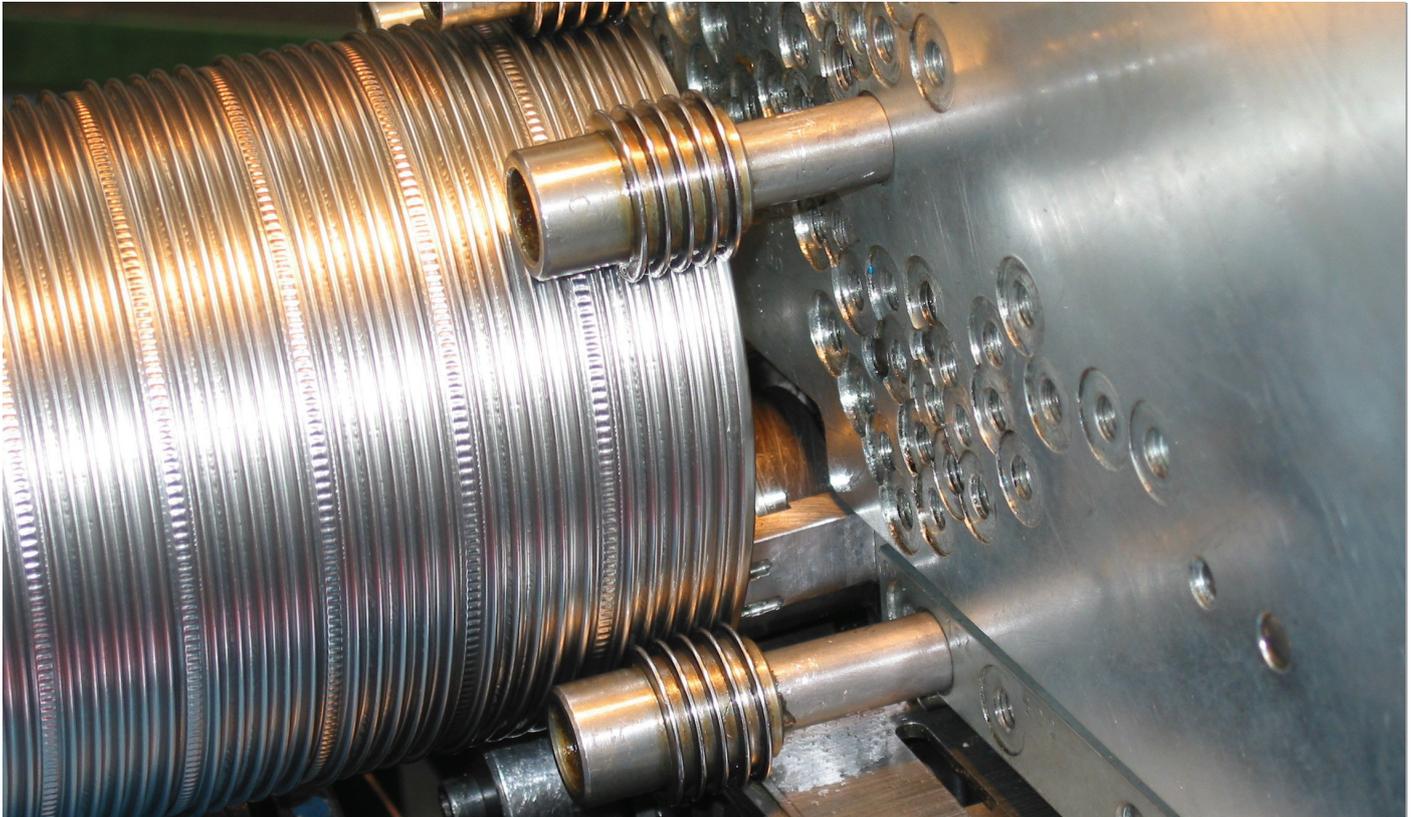
The Ultimate Flue Liners For Gas, Oil and Solid Fuels

## ABOUT US

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In the early '60's it was predicted, with government encouragement, that all buildings, particularly flats and houses, would be 'factory made'.

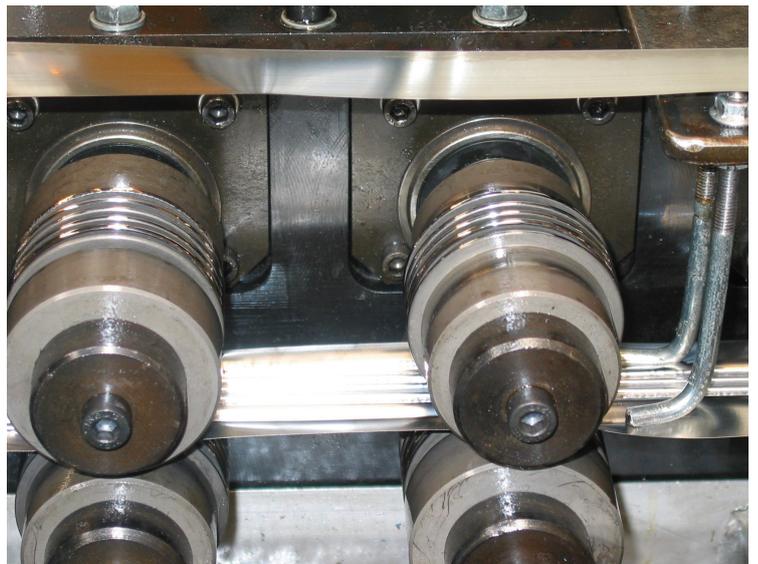
The venture was not a success but it did highlight the little appreciated problem at the time with the flues of high efficiency gas boilers; namely terrible condensation problems which permeated masonry chimneys producing some fascinating, but completely unwanted, psychedelic patterns in higher rooms!



British Gas (then known as the Gas Boards) had approached several flexible tube manufacturers to see if they could produce a tube which could be threaded down a chimney. The result was an adapted car heater tube with lead foil substituted for the bitumen impregnated paper of the original. It worked to a certain extent but was too heavy and would unwind at the drop of a hat.

In 1966 Turner and Wilson started to explore the possibility of making a flexible flue liner from stainless steel. The problem was finding someone to roll a suitable steel to a sufficiently thin gauge. This problem dogged the project for nearly two years by which time a subsidiary of G.K.N. had had the same thought, persuaded a steel company to make a special rolling and marketed the product. By accessing the same supplier, we were able to make and test our first machine, entering the market with our first commercial linings in 1968.

In 1980 Turner and Wilson developed the first flue linings to be welded. This was much more difficult than might be thought and over-coming the problems a slow and expensive process. The welded product was a great success and has since been imitated but not equalled.



High Quality Steel Technology

Unique Design System

Market Leader



## WHY CHOOSE US

Turner & Wilson have been leaders in flue lining technology since 1966, and were the first to develop advanced welding techniques for flue linings in 1980. Since then, literally millions of metres of liner have been manufactured by us in all diameters.

## OUR PRODUCTS

### WELDLINE

The perfect lining for all gas and 28 sec. oil applications. Welded seam single skin lining made from 0.1mm 316 grade stainless steel.

**DIAMETERS:**

5" 125mm - 20" 500mm

**MAX TEMP:**

1100°C (Exc) 600°C (Op)

**DESIGNATION No:**

BS EN 1856-2: T600 P2 W VML40010 G(25)

### TRIPLE LOCK

Triplelock liner, the first liner we ever made, is still a firm old favourite. With its chunky three way locking joint and sturdy construction.

**DIAMETERS:**

2.5" 63mm - 5" 125mm

**MAX TEMP:**

1100°C (Exc) 600°C (Op)

**DESIGNATION No:**

BS EN 1856-2: T600 N D3 VML40010 G(25)



### TWINFLEX 316

Twinflex Professional are highly flexible and robust liners, demanded and specified by countless professional installers who regard these superb liners quite simply as the 'best'.

**DIAMETERS:**

5" 125mm - 10" 250mm

**MAX TEMP:**

1100°C (Exc) 600°C (Op)

**DESIGNATION No:**

BS EN 1856-2: T600 N1 D VML50010 G(25)

### TWINFLEX 904

904 is the highest possible quality grade steel. The smooth inner bore allows optimum passage of the flue gases

**DIAMETERS:**

5" 125mm - 10" 250mm

**MAX TEMP:**

1100°C (Exc) 600°C (Op)

**DESIGNATION No:**

BS EN 1856-2: T600 N1 D VML70010 G(25)



ISO 9001  
FS 576960



## WHY LINE A CHIMNEY?

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A good draft is essential to an efficient flue. So for many years different sizes of chimney in different materials have been built to vent appliances. But the day comes when a liner must be fitted. It may be prompted by routine maintenance, or fitting a new appliance, or even the catastrophic failure of the existing liner. That's the day to choose carefully, because your installation will have to take much more than just the heat.

In fact a chimney is a chemical plant producing sulphurous acid, carbon monoxide and sulphur dioxide. Combine these with flue temperatures of over 1000°C and you'll realise that you need an extraordinary flue liner to ensure a trouble free life. There is one proven solution Twinflex MF from Turner & Wilson. It's a multi fuel flexible chimney liner constructed in twin-skin stainless steel, and it works equally well on enclosed appliances or open fires.



## ENCLOSED MULTI-FUEL APPLIANCES

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### Thermal Shock

In just a few seconds, the temperature of a boiler flue can rise from 100°C to 500°C. This induces huge thermal shock which no masonry or ceramic liner can withstand for long. Only high quality steel liner with its inherent bellow construction can expand and contract undamaged.

Twinflex MF is the extraordinary liner designed to withstand these immense shock loads.

### Brickwork, Condensation & Protection

Water is the main product of combustion. At first it's invisible in the form of super-heated steam. But high efficiency appliances lower the stack temperatures causing the steam to condense will saturate the brickwork. Worse still, they are acidic and cause long term damage to the masonry.

Stainless steel twinflex MF remains inert when attacked by acid condensation.

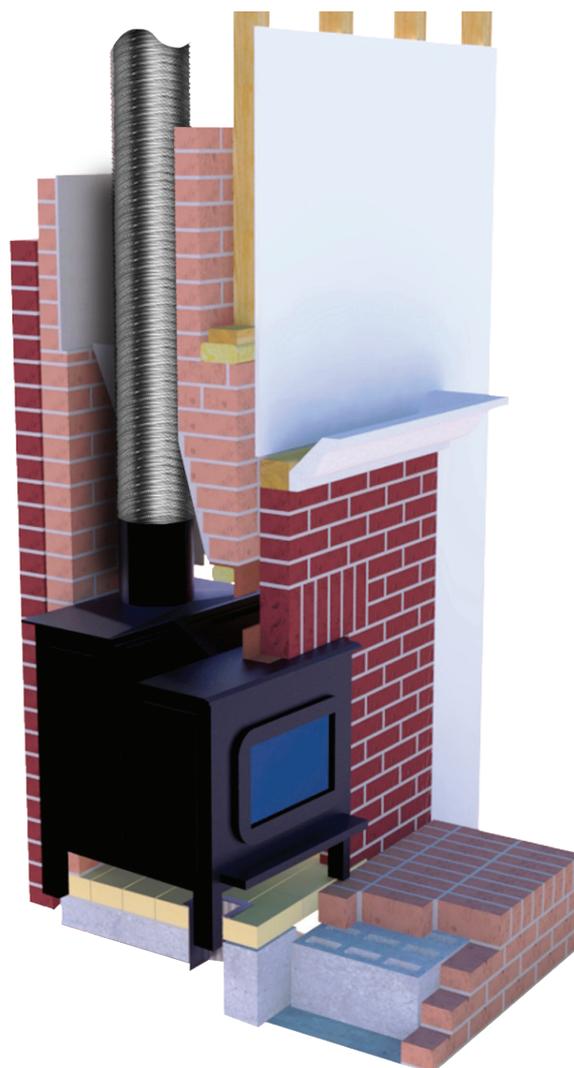
### Creating A Better Draft

Greater fuel efficiency can be a by product of using Twinflex MF. The correct sizing of the liner improves draft conditions to the appliance and brings the long term benefits of economy in operation.

## THE CHARACTERISTICS OF COMBUSTION

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Enclosed appliances and open fires produce quite different chimney effects. Understand these and you will choose a flue liner with confidence. The Twinflex MF liner has been designed to cope with all these problems.



# OPEN FIRES BURNING SOLID FUELS

## Over-fire drafts helps regulate the chimney

An open fire is the least efficient way to heat a house but it is to some extent self regulating. This is because huge quantities of air are drawn over the top of the fire and up the chimney. That's over 3,000 cu.ft/hr of air which takes no part in the burning process. This "over-fire draft" dilutes the gases and lowers the temperature in the chimney. It reduces thermal shock and dries the condensates.

A chimney in good repair with clay liners can cope with lower thermal shock from open fires. A stainless steel lining will be needed only if a specific size flue is required where some proprietary appliances has been installed.

If the brickwork is poor or if extra protection is needed then flue liners can help improve the situation.

## Liners will not cure smoke seeping into rooms

It's worth remembering that a chimney is under negative pressure. Air can be drawn into the flue through leaking masonry as distract from smoke forcing its way out. So when smoke is present in a building the cause will be due to down-drafts, blocked flues or the design of the fireplace.

# THE CHARACTERISTICS OF TWINFLEX MF

Some people think that flexible chimney liners are all much the same. Experienced installers know this is not the case, in fact Turner & Wilson Twinflex MF has several unique features which set it apart from 'ordinary' chimney liners.



Twinflex Joints lock in every direction with a large overlap to protect against condensates

### Triple lock construction

Twinflex has inner and outer wall jointed and locked in 3 planes. This gives maximum joint integrity and allows even weight and load distribution throughout the entire length of the installation.

### Superior Quality

Twinflex is built with high performance 316 or 904 molybdenum steels. The smooth inner bore allows optimum passage of flue gases and draining of condensates.

### High Overlap

The Twinflex is simply superior. The unique large overlap of the joint formed by the inner skin protects against acid penetration. On close inspection you'll find some liners on the market with minimal or non existent overlaps.



Conventional folded seam joints can loosen under compressive loads allowing condensates to enter

### Spring Loading

The unique Twinflex design and construction provides a built in shock absorption system. The liner will flex vertically. This helps resist the thermal shock when subjected to high temperatures. The narrow strip continuous steel used in manufacture also protects from high temperature ripple effects.

### European Extremes

Even under the EC definition of extreme conditions for violent chimney fires (1100°C). Twinflex remains intact. It's resilient in solid fuel, oil and gas installations.

### 316 Grade

**APPLICATIONS:** Dry Logs, Peat, Oil, Gas, Butane, Propane & Intermittent use with smokeless fuels

**SPECIFICATION:** High Quality Stainless Steel

### 904 Grade

**APPLICATIONS:** Dry Logs, Peat, Oil, Gas, Coal, Butane, Propane & Smokeless Fuels

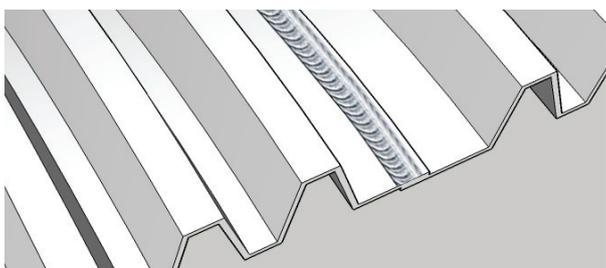
**SPECIFICATION:** High Quality Stainless Steel with increased chromium molybdenum content



## WHY CHOOSE WELDLINE?

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Why do the experts choose Weldline?  
In one word **STRENGTH!**



Turner & Wilson have been leaders in flue lining technology since 1966, and were the first to develop advanced welding techniques for flue linings in 1980. Since then, literally millions of metres of flexible liner has been manufactured by us in all diameters.



### Product Specification

Weldline is produced from a high quality 316 grade commercial stainless steel, which is constantly monitored for tolerance, consistency and conformance to specification. The joint is made with an overlap of the metal which is continuously welded. This creates the ultimate seal. Completely gas and water tight, yet still incredibly flexible.

When joints in this high quality material are welded, a bond is formed that is actually stronger than the metal itself.

**This is why the experts themselves choose Weldline!**

### Certified Product

Linings are covered by the scope BS 715: 1993 are kitemarked and manufactured under the requirements of BS EN ISO 9002 Quality Assurance scheme.



ISO 9001  
FS 576960

Weldline - Fully Welded Seam - 10 Ribs Between Seams

Triple Lock Seam - 6 Ribs Between Seams

## APPLICATION

Suitable for all gas installations. Including conventional and condensing appliances. Together with sulphur and proprietary additive free oils up to 28-second kerosene.

## AVAILABILITY

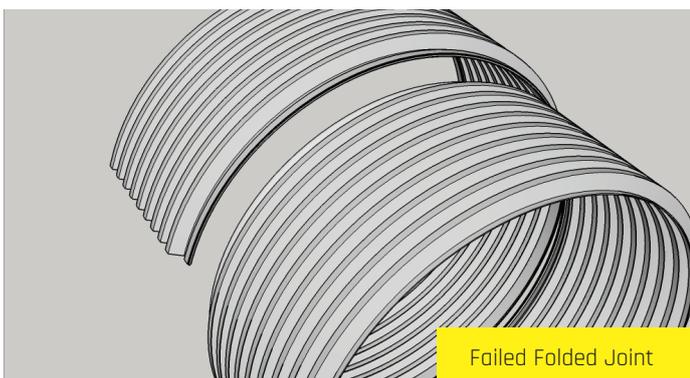
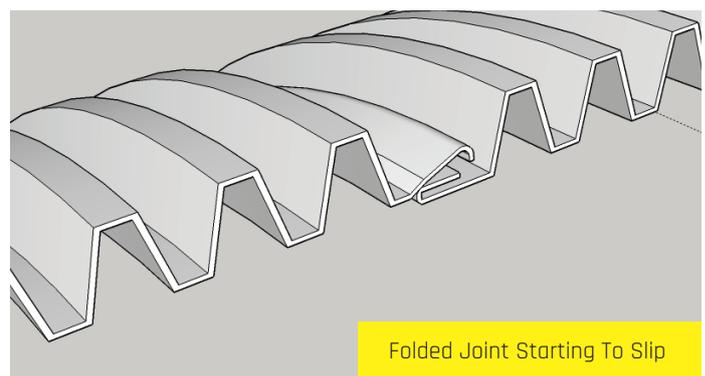
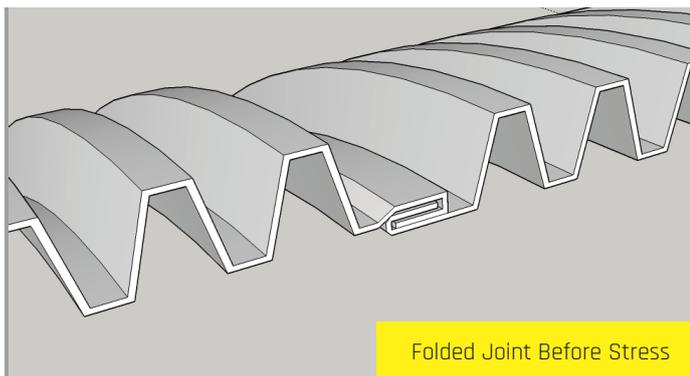
All products are available via our extensive national network of stockists and authorised distributors.

Weldline is manufactured in 11 diameters from 125mm to 500mm to cover all residential, commercial and industrial applications. If you require an alternative specification we also have Triple Lockseam available.

Triple Lock seam is manufactured with the same high quality material and features a joint which is folded and locked in 3 planes. This is available in 6 diameters from 50mm to 150mm.

## DESIGNED TO OVERCOME PROBLEMS

Below are some of the problems which can be experienced when using flue liner with a standard overlapping folded joint.



Standard flue lining joints are produced by simply making a fold in the metal. Simple folded joints are, however susceptible to becoming loose and unwinding, even under minimal stresses and bending. This causes the joint to slip and become porous to water and dangerous flue gases.

Failure of the joint in just one place will cause the entire folded joint to pull apart and subsequently separate along the whole length of the flue lining.

For all your project needs, and to be sure of your flue lining joints,

Do as the experts do..... specify Weldline.  
The superior flexible flue lining from Turner & Wilson.

## GET IN TOUCH

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