

INFORMATION SHEET

DECK FLANGE ASSEMBLY

10-04-2017



<http://www.bubbleproducts.co.uk/>

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1. INTRODUCTION.

The Bubble Deck Flange Kit is designed to -:

- 1. Allow accurate vertical alignment of the traditional chimney extension irrespective of the roof curvature.**
- 2. Create a suitable firestop distance in line with our requirements from potential fire causing hazards. (HOT FLUE PIPES)**
- 3. Provides a safe and neat way of getting a hot flue pipe through the inner and outer ceiling skin on a narrow boat.**
- 4. Provides a series of 10 fastener points to reduce the risk of leakage.**
- 5. Complies with our technical requirements.**

All narrow boats have a different roof curve, in many cases the offset on the traditional cast iron deck flange would not allow for correct vertical alignment of the traditional chimney extension resulting in unsightly and misaligned chimneys sticking out at obscure angles instead of being perfectly straight.

2003 and 2004 saw BEST BOAT IN SHOW at the Crick boat show all using the Bubble Products Deck flange assembly.

The Traditional deck flange was designed 200 years ago and would not comply with current domestic safety standards or ours.

Chimneys require a suitable firebreak from any combustible material and the traditional deck flange does not provide this.

The downward projecting socket can come into contact with the flue pipe and in extreme cases where solid fuel stoves have been left with ash pit doors open, the heat from the overheated flue pipe can conduct into the cast iron and cause a serious fire hazard.

As can be seen in Fig 1 The Bubble deck flange -:

Keeps the flue pipe away from the deck flange.

Creates a firestop from any foam or roof panel fixing battens or roof panels.

In houses this distance is a minimum of 150 mm for solid fuel appliance flues and 25mm from oil fired flues.

The traditional deck flange does not offer this degree of protection.

The Bubble Deck Flange kit comprises of all the components detailed in fig 1 and the parts list and it is generally supplied as kit or in separate pieces if required.

FIG 1 ASSEMBLY DETAILS

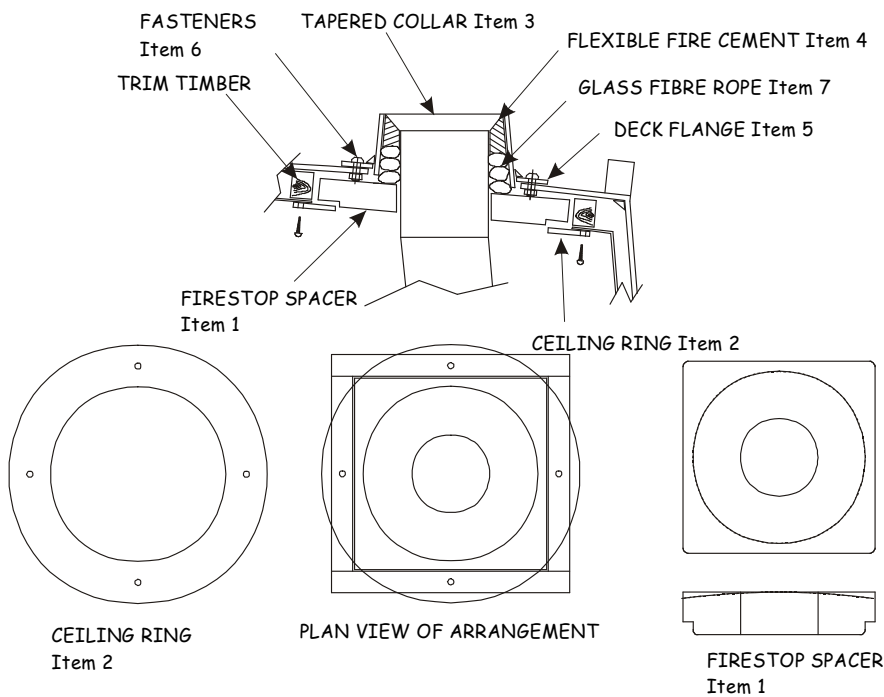
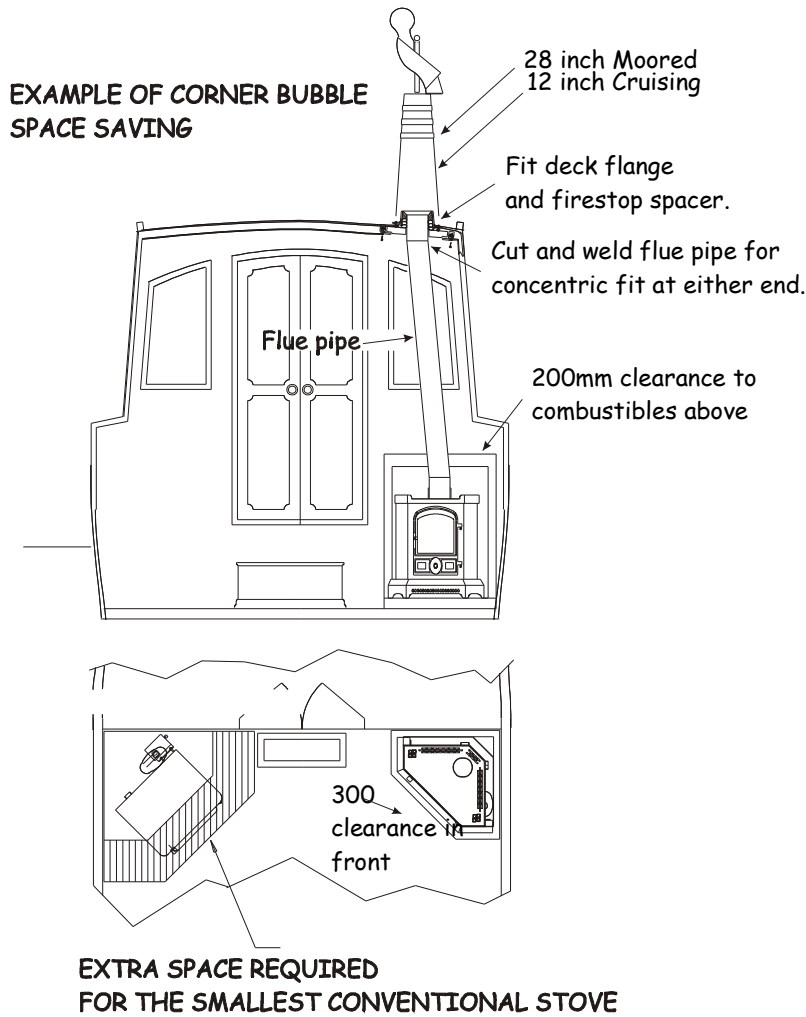


FIG 2 GENERAL ASSEMBLY



2. INSTALLATION.

Normally the stove will be fitted into a suitable fireplace, once this has been done the flue outlet hole in the roof of the boat can then be established.

If the hole is directly over the flue outlet on the stove then a straight flue can be used.

If hole is offset from the stove flue outlet then a flue pipe with suitable offset must be constructed.

NEVER USE A STRAIGHT PIPE AT AN ANGLE.

This is thoroughly bad practice, as the pipe expands and contracts it locks up in the deck flange and exerts massive pressure on the deck flange / roof structure of the boat and the flue outlet of the appliance.

If the flue pipe is correctly fabricated it will expand and contract easily, via the vertical end at the stove and the deck flange, without transmitting any pressure on the appliance or the boat as can be seen in FIG 2

With this in mind, it is important to make sure that the flue fits concentrically at both the stove end and as it passes through the fire stop spacer and deck flange.

To achieve this flue pipe may have to be marked out, notched and welded.

2.1 CUT THROUGH THE ROOF

Establish the through ceiling position of the flue pipe and mark it out, ready for cutting the hole.

Once you are happy with the flue pipe position, using the deck flange tube as a marking template, cut the hole in the roof to the same diameter as the internal of the deck flange tube approx 150mm dia.

2.2 POSITION THE DECK FLANGE.

1. After the hole is cut position the deck flange concentrically over it and mark out for drilling the boltholes.
2. Drill the bolt holes and temporarily bolt the deck flange to the cabin roof.
3. Fit the chimney to the tapered collar and position the assembly vertically as required in the flange.
4. Tack weld the flange to the collar making sure that the chimney is vertical.
5. Remove the chimney.
6. Remove the deck flange assembly and finish welding all around the joint.
7. Dress the underside of the flange to make sure that there is a clean flat surface.
8. Bolt the assembly to the boat with a suitable seal applied between the joint.

2.3 TRY THE FLUE PIPE

With the flue pipe welded to the correct angles, fit it up through the deck flange and trim it off **25mm below the top of the deck flange** to allow the flexible fire cement to be flounced into a suitable taper, as per the drawing. (Make sure that it is concentric to the collar.)

2.4 FIRE STOP SPACER

The fire stop spacer will be fitted from inside the boat in between the deck flange and the ceiling plate, concentric to the flue access hole, which has been cut in the roof of the boat.

It will provide heat protection for any combustible materials located near to the through roof location and it will provide a dead stop for the glass fibre rope, ceramic wool and fire cement filling.

The centre hole in the spacer is cut deliberately undersize to accommodate differing flue sizes and therefore it may be necessary to open it up to fit the flue pipe you are fitting, this can be done by using the flue pipe as a template and carefully marking round it.

If it is found necessary, file the excess material away with a rough rasp. (Do this a little at a time to make sure that a good fit is achieved.)

The top surface of the spacer may also need trimming to provide a snug fit up to the inner surface of the roof steelwork, this will have to be established when the roof steelwork is visible so that any obstacles can be seen.

Make sure that any combustible foam insulation or any other combustible material is carefully removed from the space into which the firestop spacer is to be fitted.

2.5 CEILING PLATE

1. The circular ceiling plate will be fitted inside the boat to hold the firestop spacer in place and provide a neat covering trim between the firestop spacer and the boat roof lining material.
2. It will be screwed up to the roof lining via 4 fasteners as illustrated in FIG1.
3. The roof lining material of the boat can be trimmed to a suitable diameter (which needs to be established by the installing engineer) taking into consideration roof structure and lining support timbers.
4. The outer diameter of the firestop spacer will need to be adjusted to allow it to fit up through the roof lining but still allow the support ring to hold it in place, take care when carrying out this work.

On solid fuel installations the firestop spacer is supplied oversize on the outer diameter to allow the installing engineer plenty of room for cutting and trimming to achieve the desired finish.

2.6 FINISHING

After the firestop spacer and ceiling ring have been fitted inside the boat and the flue pipe is pushed up through the firestop spacer, working outside the boat looking down around the flue pipe it is then possible to insulate the flue pipe from combustibles.

Cover the glass fibre rope with copious amounts of fire cement and gently wind it around the flue pipe. Gently pack the mixture down on to the fire stop spacer.

After the fibre glass rope has been fitted fill any other void area around the flue pipe using the ceramic wool and fire cement to pack any voids making sure that any combustibles are correctly insulated from the heat in the flue pipe.

To finish off flaunch the top of the joint between the outer diameter of the flue pipe and the inner diameter of the tapered chimney support tube with the fire cement to form a waterproof seal as is illustrated in FIG 1.

NOTE when packing the glass fibre rope down on to the fire stop spacer; **don't apply too much pressure, as the spacer is fragile.**

2.7 ABOVE DECK EXTENSION

A traditional above deck extension can be fitted in line with normal practice.

We recommend that a short extension is used for cruising and a min 28" extension is used when mooring.

In each case we recommend the use of a swivel cowl to minimise the effects of downdraughting.

3. ORDER CODES

Type in these part nos on our home web page (www.oilstoves.co.uk) to see prices.

100 mm Kit complete is pt no [77-02-821](#)

88.9 mm kit complete is pt no [77-02-820](#)

4. PARTS LIST

Item No	Description	PART NUMBER	Qty	Check
1	Fire stop spacer 88.9mm Dia (3 1/2")	87-01-560-FS	1	
1a	Fire stop spacer 100mm Dia (4")	87-01-560-FS2	1	
2	Ceiling ring	87-01-550-FSR	1	
3	Tapered collar	87-01-550-DF2	1	
4	Fire cement	77-01-954	1	
5	Deck flange	87-01-550-DF	1	
6	Deck flange fasteners	77-02-069	10	
7	Glass fibre rope (metre length)	77-01-923	1	
8	Ceramic Wool Pack		2	

WEIGHT.

12kg

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