

# SYSTEM 7

## September 2014



#### INTRODUCTION

Mi-Flues **System 7** vitreous enamelled stove pipe has been specifically engineered to give an authentic visual look, whilst at the same time being manufactured using the latest technology to ensure years of trouble free use.

#### **PRODUCT DESCRIPTION**

Produced in zero carbon steel, it has two coats, both internally and externally, of superior class A quality enamel applied.

The system is available in five standard diameters 100mm, 125mm, 150mm, 175mm and 200mm.

Mi-Flues **System 7** is available in three standard colours, Matt Black, Gloss Black and Brown.

System 7 is not suitable for condensing applications.

#### **APPROVALS**

Mi-Flues **System 7** conforms to: BS 1344 Part 1 Thermal shock resistance BS 1344 Part 7 Heat resistance BS EN 14483 Part 1 Acid resistance BS 6999 Specification for VE low carbon steel flue pipes

EN 1443:2003 Chimney General Requirements EN1856-2 T600 N1 D Vm L80180 G(\*\*) Note: \*\* 4 x diameter of the flue

#### COMPONENTS

All enamelled components are made from 1.2mm thick zero carbon steel. All joints are fully welded which provides an excellent gas sealed joint and offers minimum resistance to flue gas flow.

The system then has two coats of Class A quality enamel applied to both the inside and the outside of the pipes and accessories.

Components have been designed to be installed quickly, safely and simply. The system comprises of plain pipes, pipes with high temperature ceramic sealed doors, bends, tees complete with cleaning inspection caps, appliance adaptors and wall rosettes.

#### **APPLICATION**

Mi-Flues **System 7** stove pipe should only be used to connect from the appliance into an existing lined chimney, or to our **System 2** twin wall insulated stainless steel chimney, using an appropriate adaptor (as per illustrations on page 8).

**System 7** flue should not be used externally or should not be used to line an existing chimney.

Mi-Flues do not recommend cutting vitreous enamel pipes. This is because it is the vitreous enamel

coating that protects the mild steel pipe underneath from corrosion and attack from combustible deposits. Once the pipe is cut the mild steel will be exposed. Adjustable lengths are available to assist in

achieving an exact required length.

Mi-Flues System 7 should not be used on Insert Stoves. If a connecting flue pipe is required for an Insert Stove Mi-Flues System 1 or Mi-Flues Insert Stove kits should be used.

#### **INSTALLATION**

Mi-Flues **System 7** should be fitted at least four times the diameter of the pipe away from any combustible materials.

All sockets (female end) should be upward, with the male end dropping into the socket

(see illustration below). This ensures that no condensate

can escape and spoil the appearance of the finished installation.

The diameter specified by the appliance manufacturer dictates the chimney diameter and this should never be reduced.

Mi-Flues recommend a maximum run of 1.8m of System 7.

In all cases the product must be installed in accordance with Local

Building Regulations Document J and the manufacturers installation instructions.

#### JOINT ASSEMBLY

The male end of the pipe should sit inside the spigot outlet of the stove and should be sealed with Mi-Flues high temperature sealant (rated to 1000°C) or fire cement in accordance with appliance manufacturers guidelines.

There is a hole in the spigot end of the pipe. This hole is used in the manufacturing process and is in no way used for installation purposes.

If the fit is quite loose it is possible to pack the joint with fire rope prior to using the high temperature sealant (rated to 1000°C) or suitable fire cement.

Locking Clips are available to suit 100mm, 125mm and 150mm System 7 pipes. They are recommended on runs of more than three components.



Socket (Female)

Flue Gas

Direction

Male

To install the locking clip fit the male end of the pipe into the socket end of the pipe as shown below. Seal the joint using Mi-Flues high temperature sealant (rated to 1000°C) or fire cement. Once sealed, fit the locking clip around the pipe ensuring connection is made with both pipes. Once in correct position secure the locking clip by tightening the tensioning screw with a suitable allen key or flat head screw driver.



#### **LENGTHS**

#### **ADJUSTABLE LENGTHS**

Available in 300mm, 500mm, 1000mm and 1200mm.



Code	Dia. (A)	300 Length (B)	500 Length (B)	1000 Length (B)	1200 Length (B)
Sys. 7	100	260	460	960	1160
Sys. 7	125	260	460	960	1160
Sys. 7	150	260	460	960	1160
Sys. 7	175	260	460	960	-
Sys. 7	200	260	460	960	-

#### **ADJUSTABLE LENGTHS**

Mi-Flues do not recommend cutting vitreous enamel pipes. Adjustable lengths are available to assist in achieving the exact length required.

They are available in 125mm and 150mm diameters. Adjustable lengths are available in a matt black, gloss black or brown finish. The short component is adjustable from 310 - 480mm. The long component is adjustable from 510 - 880mm.



D CN CN

Long Adjustable

Dia (A)	125	150	
B Max.	880	880	
B Min.	510	510	

	-	
)ia (A)	125	15

1 <b>(A)</b>	125	150
lax.	480	480
/lin.	310	310



To fit an adjustable length, loosen the locking screws with a suitable screw driver. Adjust the telescopic pipes to the required length, ensuring that the overlap between the two pipes must not be less the 80mm. Once adjusted to required length, secure the telescopic lengths by fastening the locking screws. Seal the telescopic joint using Mi-Flues high temperature sealant (rated to 1000°) or fire cement.

#### **LENGTH - WITH CLEAN OUT DOOR**



Provision for inspecting a chimney system must be Lengths with doors are provided for this made. purpose. Manufactured with a non corrosive stainless steel access door with high temperature gasket and corrosion proof re-usable locking nuts. Lengths are available in 300mm, 500mm, 1000mm and 1200mm.

Code	Dia. (A)	300 Length	500 Length	1000 Length	1200 Length
Sys. 7	100	<b>B</b> =260 <b>C</b> =97	B =460 C =197	<b>B</b> =960 <b>C</b> =447	<b>B</b> =1160 <b>C</b> =547
Sys. 7	125	<b>B</b> =260 <b>C</b> =97	<b>B</b> =460 <b>C</b> =197	<b>B</b> =960 <b>C</b> =447	<b>B</b> =1160 <b>C</b> =547
Sys. 7	150	<b>B</b> =260 <b>C</b> =97	<b>B</b> =460 <b>C</b> =197	<b>B</b> =960 <b>C</b> =447	<b>B</b> =1160 <b>C</b> =547
Sys.7	175	-	<b>B</b> =460 <b>C</b> =197	<b>B</b> =960 <b>C</b> =447	-
Sys. 7	200	-	<b>B</b> =460 <b>C</b> =197	<b>B</b> =960 <b>C</b> =447	-

#### 45° Bend



Used to provide a 45° change of direction or can be used in pairs as an offset. Two by 45° bends can be used to create a 90° bend.

Product Code	Dia.(A)	(B)	(C)	(D)	(E)
Sys. 7	100	145	105	65	45
Sys. 7	125	155	110	70	50
Sys. 7	150	150	110	65	40
Sys. 7	175	170	116	76	54
Sys. 7	200	183	122	87	61

#### 45° Bend - with clean out door



This component provides access for cleaning and inspection. It is used to provide a 45° change of direction. Manufactured with a non corrosive stainless steel access door with high temperature gasket and corrosion proof re-usable locking nuts.

Product	(A)	(B)	(C)	(D)	(E)	(F)
Sys. 7	100	215	165	65	45	73
Sys. 7	125	215	167	70	50	73
Sys. 7	150	210	160	65	45	73
Sys. 7	175	202	149	76	54	63
Sys. 7	200	215	154	86	61	73

#### 90° Bend



Used to provide a 90° change of direction. It may be taken to be equal to two 45° bends.

Product	Dia.(A)	(B)	(C)
Sys. 7	100	114	154
Sys. 7	125	128	168
Sys. 7	150	132	173
Sys. 7	175	148	188
Sys. 7	200	164	199

#### 90° Bend With Door



Used to provide a 90° change of direction and includes a non corrosive stainless steel access door to facilitate cleaning of the chimney system. It may be taken to be equal to two 45° bends.

Product	Dia.(A)	(B)	(C)
Sys. 7	100	114	154
Sys. 7	125	128	168
Sys. 7	150	132	173
Sys. 7	175	148	188
Sys. 7	200	164	199

#### 90°TEE - with Cleaning Inspection Cap



A 90°Tee is used at the bottom of a flue run and allows the flue system to be easily cleaned. It is only to be used when installing the flue at the rear outlet of a stove. This is also designed to take a draught stabiliser.

Product Code	Dia.	(A)	(B)	(C)	(D)
Sys. 7	100	204	80	40	35
Sys. 7	125	251	108	40	35
Sys. 7	150	267	113	40	35
Sys. 7	175	260	110	40	35
Sys. 7	200	320	140	40	35

#### 45° Insulated Sleeve



Where System 7 passes through a non combustible wall, Mi-Flues recommend that an insulated sleeve is used around the pipe. An insulated sleeve is used to pass the pipe through the wall thus providing a continuous uninterrupted run through it.

Product	Dia.(A)	(B)	(C)
Sys 7	100	150	140
Sys. 7	125	180	140
Sys. 7	150	200	140
Sys 7	175	225	140
Sys 8	200	250	140

#### COMPONENTS

#### Start Off Adaptor

This is used to connect an appliance to a System 7 pipe. It is available in 125mm and 150mm.



Product	Dia. (A)	(B)
Sys. 7	115	35
Sys. 7	140	35

#### **Increasing Adaptor**

Designed to enable three diameters of System 7 pipe to be stepped up one diameter as appropriate. It increases the diameter from 100mm to 125mm, 125mm to 150mm and 150mm to 175mm.



### **Rosette Plates**

A rosette plate is used for aesthetic purposes to improve the finish of a flue as it penetrates a wall. Available in diameters from 100 mm to 200mm. Rosette plates are available in 90° and 45°

angles. They are also available in split form for retro fitting. Each rosette plate comes individually

packaged. The pack contains one plate, two half plates in the case of the split rosette, plugs and screws.

To install, fit the plate/plates around the flue pipe and secure to a non combustible wall using the fixings provided.

45° Rosette Plate	Product	Dia. (A)	(B)	(C)
	Sys. 7	100	207	250
	Sys. 7	125	230	284
Ċ	Sys. 7	150	254	318
	Sys. 7	175	281	356
	Sys. 7	200	305	392
90° Rosette Plate				
90° Rosette Plate		Die		
90° Rosette Plate	Product	Dia. (A)	(B)	(C)
90° Rosette Plate	Product Sys. 7	-	<b>(B)</b> 207	(C) 207
90° Rosette Plate		(A)		
90° Rosette Plate	Sys. 7	( <b>A</b> ) 100	207	207
90° Rosette Plate	Sys. 7 Sys. 7	(A) 100 125	207 230	207 230

#### Coloured finish access door

Mi-Flues can supply a coloured finished door (on request) as an alternative to the standard steel finish.



#### Coloured finish door plus Rosette plate



To install Mi-Flues System 7 door (as shown below), firstly remove original door by opening the screws with a suitable sized Allen key. Ensure surface of pipe is clean and smooth before fitting new door. To fit the new door, mate the gasket paper up with the inner face of the door and pierce two holes to allow for the fitting of the new screws. While firmly pushing the door against the pipe in order to maintain a good seal, tighten the two screws, fastening the door to the pipe. Mi-Flues System 7 door comes complete with the following components: 1x Vitreous enamelled door and 1x Gasket Paper



#### **Adjustable Wall Bracket**

A wall bracket provides lateral support to a chimney run. It is not a load bearing support. Available in various diameters— Wall bracket length can be adjusted from 50mm to 250mm by cutting extended bar.

Brackets are supplied with a stainless steel band and galvanised stem as shown.

Brackets are not available in a vitreous enamel finish. They can however be sprayed using a suitable enamel paint which is available from your local merchant.



#### Safety / Installation / Regulations

#### Connection to the Chimney

System 7 must only be used to make the connection between the appliance outlet spigot and the chimney. It should not pass through any roof space, partition wall or floor, except to pass directly into a chimney through a wall of the chimney (see installation illustration on final page).

System 7 should be guarded if there could be a risk of damage or if the burn hazard it presents is not immediately apparent.

#### Connection to System 2 twin wall chimney

When a System 7 flue pipe is joined to our System 2 twin wall insulated chimney which penetrates a combustible ceiling, the upper end of the System 7 pipe should terminate four times the diameter of the pipe below a combustible ceiling level Connecting flue pipe components should extend a distance of 600mm off a solid fuel appliance. This connection can be sealed using Mi-Flues high temperature sealant (rated to 1000°C) or a fire cement and the connection must be made in the same room as the appliance itself.

# Connection to Flexible liner through a non combustible wall

Connection to Mi-Flues System 35 flexible flue liner can be made either from directly under the chimney where the appliance is positioned within a fireplace or through the side of the chimney using one of our System 35 adaptors suitable for the purpose (see installation illustration on final page).



#### Connection to the appliance

System 7 is designed to fit straight into the appliance outlet spigot without the need for an adaptor. However, for smaller fitting diameter spigots, where the joint between the appliance outlet spigot and the flue pipe is quite loose, an adaptor is available to improve the tightness of the joint.

When making the connection between the appliance outlet and the System 7 pipe Mi-Flues high temperature sealant (rated to 1000°C) or fire cement should be applied.

#### Height of Connecting flue pipe

A run of System 7 Vitreous Enamel pipe should be limited to no more than a maximum of 1.8 metres.

#### Safety / Installation / Regulations Bends in Connecting Flue pipes

Top Outlet Appliance—System 7 should have no more than two bends in its length with an angle no greater than 45° when measured from the vertical. Where possible System 7 flue pipe should rise vertically straight.

Rear Outlet Appliance—Connection to a rear outlet appliance may be made using the 90° Tee or bend. The maximum horizontal distance from the outlet of the spigot should be no more than 150mm on solid fuel appliances, subject to the appliance manufacturers installation instructions.

#### **Distance to Combustible materials**

Mi-Flues **System 7** should be fitted at least four times the diameter of the pipe away from any combustible materials.

#### **Chimney Plate**

The chimney plate provides information regarding the Manufacturer, designation, nominal size, distance to combustibles, Installer name, installation date, chimney location and thermal distance.

It is to be completed by the Installer and securely fixed in an unobtrusive but obvious position within the building such as next to the electricity or gas consumer unit, next to the chimney hearth or next to the water supply stop-cock.

#### **Cleaning / Maintenance**

Adequate provision should be made for inspecting and cleaning the chimney system. Lengths and bends are available with access doors in the product range. A 90° Tee is also available as an Inspection/Cleaning component. Cleaning/Inspection access should be provided to suit the installation, unless sweeping can be undertaken through the appliance.

The chimney should be inspected regularly and cleaned at least twice a year, depending on usage and type of fuel used. This should be carried out with the use of a brush which should not be made from black steel.

The chimney should be maintained to ensure that the construction remains in good condition.

Any components showing signs of deterioration which may affect performance should be replaced under professional advice, any evidence of leakage identified by smoke staining should be rectified immediately.

If removing the access door during the cleaning process the existing gasket paper should be removed and replaced.

Replacement gasket paper is available through your local merchant.

#### **OFFSET CHART**

The offset chart below is using the recommended Mi-Flues System 7 45° bends. Within a run of system 7 flue no more than two bends should be used. Two bends are used to create one offset.



System 7 Offset Chart						
		Diameter				
		100m	125m	150m	175m	200m
(L)	Offset	m	m	m	m	m
0	x	118	123	125	137	144
	Y	284	308	302	337	352
300	Х	302	311	309	325	331
	Y	468	492	486	524	540
500	x	443	453	450	466	472
	Y	610	634	628	666	681
1000	Х	797	801	804	820	826
	Y	963	987	981	1020	1034
1200	Х	938	948	945	961	967
	Y	1105	1129	1123	1161	1176

#### 300mm Adjustable Length X Min 309 319 316 332 338 X Max 429 439 437 452 458 Y Min 475 500 532 546 494

#### 500mm Adjustable Length 473 X Min 450 460 458 480 X Max 712 722 719 735 741 635 673 688 Y Min 617 641 Y Max 878 903 897 935 950

620

614

652

667

596

Y Max

## **PRODUCT DESIGNATION**

Mi-Flues System 7 carries the following product designation code. EN1856-2 T600 N1 D Vm L80180 G (\*\*) Note: \*\*4 x diameter of the flue

System 7	EN1856-2	T600	N1	D	Vm	L80180	G(**	)
Standard					Î			
Temperatu	ure Level -							
Pressure L	_evel							
N, P or H								
Condensa W:Wet or I	te Resistan D:Dry	ce —						
Corrosion	Resistance							
(durability	against cor	rosion)						
Material sp	pecification							
Sootfire re	sistance an	d dista	nce	to co	mbust	ibles -		

G:Yes or O:No / distance to combustibles in mm

System 7 Technical Data	
Fuel	Solid Fuel, Oil, Gas
Material	1.8mm Double sided vitreous enamelled steel
Min. Distance to combustibles	Four times diameter of flue

#### Handling and Storage

All System 7 components are individually boxed or packaged and labelled. Relevant information from the label should be transferred to the chimney plate. Product should be stored in a dry suitable storage location.

The product is easy to handle, but care should be taken when holding, fitting or assembling any part of the system.

Users are advised to use suitable precautions such as gloves, eye/face protection, protective clothing etc to avoid injury.

Installers should be aware of the Safety, Health and Welfare at Work Act 2005 & Safety, Health and Welfare at Work (general application) regulations 2007. Installers should be aware of the possibility of disturbing asbestos when working in older properties. This should be dealt with in accordance with the strict guidance documents. Particular attention should be taken to ensure suitable PPE is used when applying certain fireclays which can be of a caustic nature, as well as when using any other substances which may be harmful.

#### Life Expectancy

Under normal operating conditions, and providing the system is installed and maintained correctly, Mi-Flues System 7 should provide many years service and is provided with a 10 year conditional life expectancy. Prolonged periods of slow burning can however reduce the life expectancy of the product.

System 7 connection to System 2 twin wall insulated stainless steel chimney

System 7 connection to an existing brick chimney



All flue systems must be installed according to current Building Regulations. Mi-Flues has adopted a policy of continuous product review, and in the interests of development and improvement the Company reserves the right to vary the appearance and performance of any of its products without prior notice. Correct at time of print (September 2014). For updates please check our website.

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8