

# Pyrosleeve®

INTUMESCENT FIRE DAMPERS

CI/SfB	(59)	(K2)
April 2000		

## Introduction

Section 10 of the Approved Document B3 1991 Fire Safety states:

*"If an element that is intended to provide fire separation is to be effective, then every joint, or imperfection of fit, or opening to allow services to pass through the element, should be adequately protected by sealing or fire stopping so that the fire resistance of the element is not impaired".*

*In appendix A5 of the same document it also specifies that the performance in terms of fire resistance is determined by reference to BS 476: Parts 20-24 1987 or for items tested or assessed prior to 1st January 1988, BS 476: Part 8 1972.*

Mann McGowan have designed and tested a range of intumescent products that solve the problem of fire penetration by effectively sealing the gaps through which fire and smoke would pass, for up to 4 hours when subjected to BS 476 fire resistance tests.

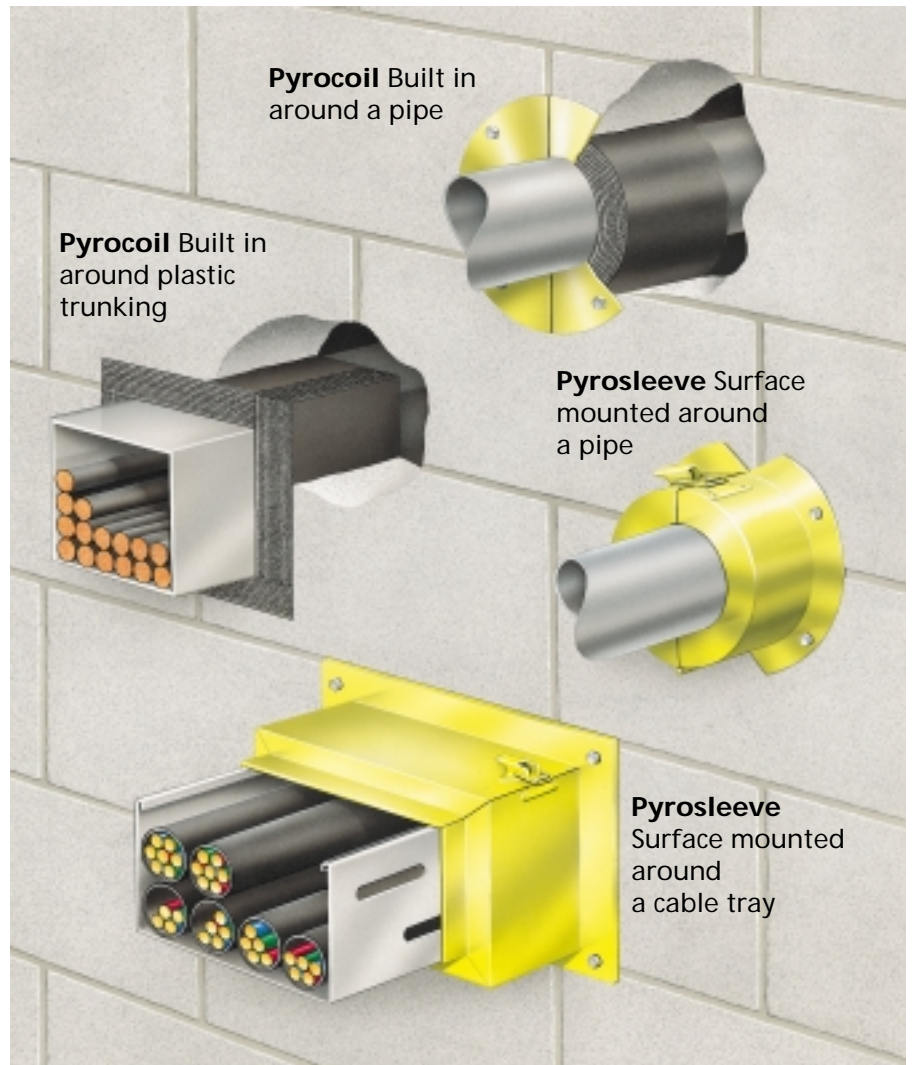
## Description

**Pyrosleeve** - Consists of a mild steel canister in either cylindrical, square or rectangular configuration that houses the intumescent internally. It is constructed from two identical sections hinged together and fastened by a toggle catch.

**Pyrocoil** - Is a preformed coil of intumescent material in cylindrical, square or rectangular variations with an outer band of self-adhesive tape. Pyrocoil can only be used in walls and floors of solid construction. A variation of this product can be used to fire seal an external void of up to 25mm all around the outside of damper.

## Performance

Both Pyrosleeve and Pyrocoil have successfully undergone fire resistance tests to BS 476: Parts 8, 20 and 22 and been assessed for up to 4 hours integrity and insulation.



## Applications

Pyrosleeve and Pyrocoil units can be fitted to provide fire sealing to mechanical and electrical services which pass through fire resisting walls and floors, including:-

- Plastic pipes to BS 4514 and BS 5255.
- Bare metal pipes to BS 1387 (M/S) and BS 2871: Part 1 1971
- ABS pipes
- Polypropylene pipes
- Insulated metal pipes - with thermo-degradable insulation
- Electrical cables - armoured
- Electrical cables - double insulated
- Electrical ductwork
- Electrical ladders and trays

## Construction

Pyrosleeve and Pyrocoil fire dampers should be installed around service penetrations in compartment or separating walls and floors as shown in the above illustration.

*Note: When Pyrocoils are used in floor slabs, support flanges must be fitted.*

## Finishes

Pyrosleeves have a zinc passivate protected coating as standard. Other finishes (ie stainless steel or colour coated) are available on request.

## Ordering

Orders can be placed direct with our sales office or through one of our approved Mann McGowan distributors.

## Installation

### Pyrosleeve

#### Surface Mounted Application

- 1 Open the toggle catch and refasten with the damper positioned around the service.
- 2 Locate into position on the underside of the floorslab or wall and mark the centre of the fixing holes.
- 3 Remove the damper, drill the holes and replace the damper around the service.
- 4 Butter the contact face of the support flange with Pyromas 500M and secure using 50mm x 8mm steel expansion bolts.

#### Built In Application

- 1 Open the toggle catch and refasten with the damper positioned around the service.
- 2 Slide the damper into position within the fire resistant structure.
- 3 Fill the gap between the external surface of the damper and the structure with Pyromas 500M intumescent mastic or concrete to the full depth of the damper.

### Pyrocoil

#### Floor Slab Applications

- 1 Handle with care
- 2 Carefully peel back the self-adhesive cloth tape on the outside of the damper.
- 3 Taking great care unwind the Pyrocoil.
- 4 Fix around the service and reseal using the self adhesive cloth tape.
- 5 Slide damper into position within the fire resistant structure.
- 6 Fill the gap between the external surface of the damper and the structure with Pyromas 500M intumescent mastic or concrete to the full depth of the damper.
- 7 Fix support flanges to the underside of slab.

#### Solid wall Applications

As per Floor Slab.

NB: Support flanges are only required if the service passes through an oversized hole up to 50mm greater than the overall dimension of the damper.

## SPECIFICATION

When specifying please use the following codes and format. Pyrosleeve and Pyrocoil are supplied 50mm long as standard.

- 1 Type of product ie: Pyrosleeve, Pyrocoil
- 2 Type of service penetration:
  - P = UPVC pipes and ducts
  - S = Mild Steel pipes
  - Cu = Copper pipes
  - Ci = Cast iron pipes
  - TP = Electrical trunking (plastic)
  - Ts = Electrical trunking (steel)
  - Tr = Electrical tray
  - E = Electrical cables
- 3 O/D of service (in millimetres)
- 4 Fire Resistance required (hours)

#### 5 Optional components:

- SF = Support Flange (for surface mounted applications)
- CSS = Cold Smoke Seal (not available on all designs)

#### 6 Thickness and type of insulation (where applicable) Insulation materials include:

- GF = Glass Fibre
- CS = Calcium Silicate
- MS = Magnesium Silicate
- MF = Mineral Fibre
- N = Neoprene foam
- EPS = Expanded Polystyrene
- C = Cork
- PU = Polyurethane

## EXAMPLE SPECIFICATIONS

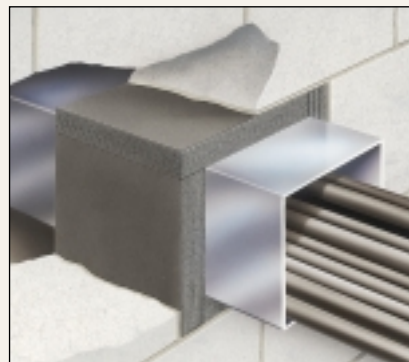
- 1 Fire stop, 110mm, UPVC pipes passing through concrete floors with Mann McGowan Pyrosleeve P 110/2 hour/SF as fire tested/assessed to BS 476: Part 20 1987.

*To be installed in accordance with manufacturer's instructions - contact at address below.*



- 2 Fire stop 50mm square plastic trunking passing through 215mm thick walls with Mann McGowan Pyrocoil TP 50 x 50/2 hour as fire tested/assessed to BS 476: Part 20 1987.

*To be installed in accordance with manufacturer's instructions - contact at address below.*



**Technical Advice:** Should you require any further information or advice on the use and application of Pyrosleeve, Pyrocoil or any other intumescent products in the Mann McGowan range, contact our technical sales team on the number below.

All information, specifications and illustrations contained in this literature are the property of Mann McGowan, they are given as guidance only and do not form the part of any contract. This leaflet cannot be reproduced or copied in any format without prior permission of the Directors. Pyrosleeve is a registered trademark of Mann McGowan.



Certificate No: 93/2172 FIRAS MEMBER