

**WALRAVEN**



# Pacifyre<sup>®</sup> MK II Fire Sleeves

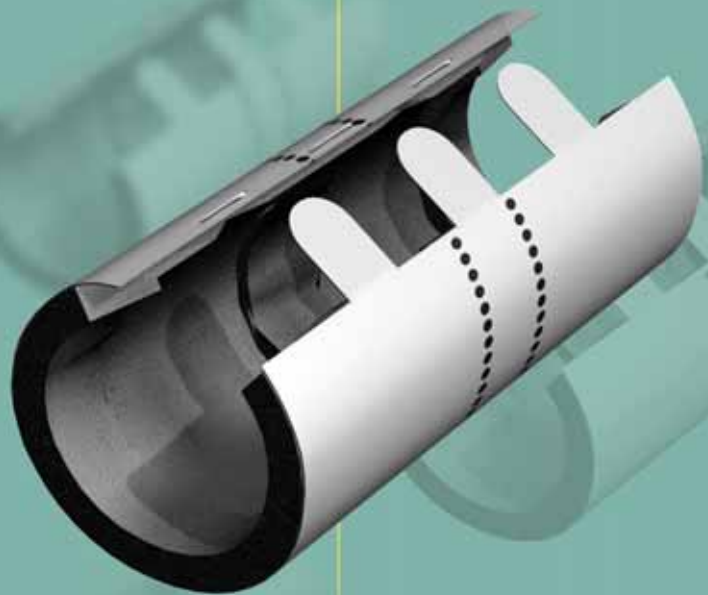
■ Fire, smoke and sound barrier

■ Fire resistant for 240 minutes

■ Easy to install

■ Wide range of applications

■ Conforms to BS standards

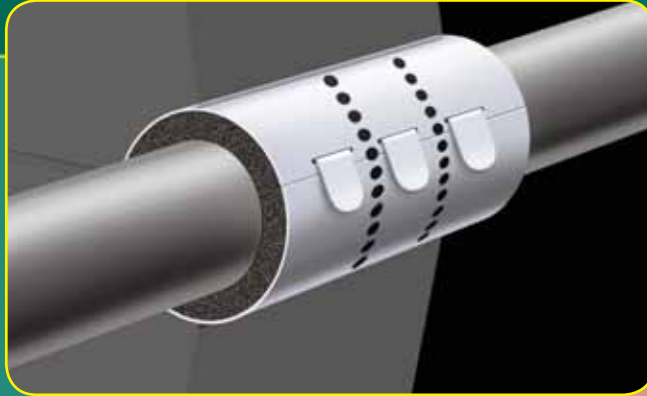


Easy self installation in  
accordance with the standards

**BETTER INSTALLATION SYSTEMS**

# Pacifyre® MK II

Easy self installation in accordance with the standards



■ In accordance with the most current guidelines for fire prevention (the Building Decree) every new building must be divided into fire compartments. Unprotected apertures for mechanical and electrical installations compromise the fire resistance of the walls, floors and ceilings of a fire compartment.

Therefore, Walraven advises a fire protection for apertures in which:

- the aperture for a plastic pipe is  $\varnothing$  25 mm or larger;
- the gap around a metal pipe (from 40 mm) is 6 mm or more;
- the inflammable insulation around a metal pipe (from 40 mm) is 6 mm or more.



*"Just the thing!"*

*Dutch Building Prize Jury*

## A new choice: simple and cost-effective

Until recently it was difficult to realise in a practical manner fire prevention in your projects in accordance with the present BS standards. You could choose between two possibilities: to contract out the work to a specialised company or to train your own employees to install fire prevention in accordance with the standards.

Walraven is pleased to offer you a simpler option. Install Pacifyre® MK II Fire Sleeves yourself. A suitable innovation with which you ensure a fire compartment that effortlessly complies with the new British regulations. With just one sleeve per aperture and without specialist training. The expenditure and time saved are crystal clear.

# Broad safety applications

■ The Pacifyre® MK II is a single component fire stop with which you can make an aperture for pipes fire resistant and smoke free. In homes, factories, offices or schools the Pacifyre® MK II is simple and easy to install around pipes through floors, ceilings, solid walls and modular walls. Pacifyre® MK II Fire Sleeves are available for plastic and metal pipes.

## Unique properties

Pacifyre® MK II has many unique properties. The sleeve is not influenced by damp and no maintenance is needed. The product remains operational for decades, while shrinkage and swelling of the pipe remain possible. The Pacifyre® MK II

contains no asbestos or other dangerous materials and emits no toxic gases or smoke in the event of a fire. In conclusion, the Pacifyre® MK II is one of the few fire stops that, as well as being fire resistant, also offers good sound proofing.

**“Simple and innovative”**

*Dutch Building Prize Jury*

## Strong in fire resistance

The Pacifyre® MK II exhibits its strengths particularly in fire resistance.

We are pleased to list the following facts:

Fire resistance	Wall of aerated concrete blocks	Modular wall
Metal pipe	Up to 240 minutes	Up to 150 minutes
Plastic pipe	Up to 120 minutes	Up to 120 minutes

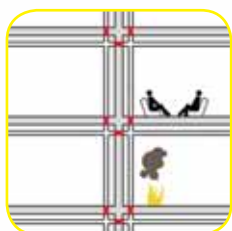
## The Pacifyre® MK II in action

The Pacifyre® MK II comprises of a sleeve of stainless steel for counter pressure and protection. A layer of intumescent ensures a seal in the event of a fire. The three foam strips allow sound and smoke no chance of penetrating another area.

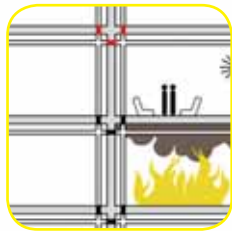
At a temperature in excess of 140 °C the Pacifyre® MK II starts to swell. The operational temperature of the pipe must

never be in excess of 120 °C. In case of a metallic pipe, the stop seals the space between pipe and wall against fire. With a plastic pipe the Pacifyre® MK II seals the aperture against fire by completely crushing the pipe.

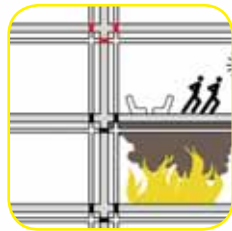
The Pacifyre® MK II has protected the adjoining areas completely and has given people the time to reach safety.



1. Fire breaks out in a fire compartment.



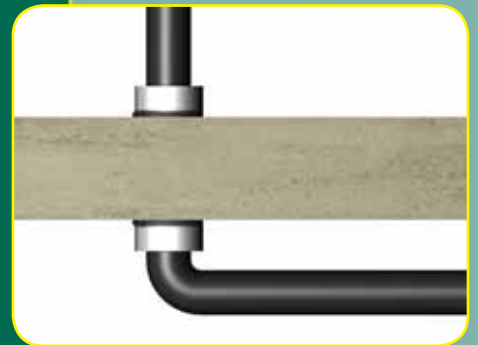
2. The fire spreads and the residents are warned.



3. The Pacifyre® MK II starts to work and the residents have time to reach safety.



Diagonally applicable



Small wall distance



Close spacing



The pipe can move freely within the aperture

# Simple and easy to install

■ The Pacifyre® MK II is installed simply and easily without using special fixing materials. Only one pair of hands is needed for the whole installation. Using the closing tabs, you simply clamp the sleeve around the pipe and then slide the sleeve into the aperture. You then fill the rest of the opening with fire resistant mortar and/or brickwork. And the job is done.

## No aperture

Are the walls, floors or ceilings placed without apertures? First you drill a hole through which you place the pipe. You then fix the sleeve around the pipe and slide it into the drilled hole. If there is any

space between the sleeve and the wall you can fill it with fire resistant cement or mortar.

## Ease of installation above all

The above mentioned instructions show how easy the Pacifyre® MK II is to use. The sleeve is available for nearly all materials and situations. Places with difficult accessibility (for example an aperture that is only accessible from one side) cause no problems. And because the Pacifyre® MK II is very compact, you can use it when the distance between wall and pipe is very small.

## Safety first

The Pacifyre® MK II Fire Sleeves have been extensively tested by independent authorities, both national and international. A summary of the results:

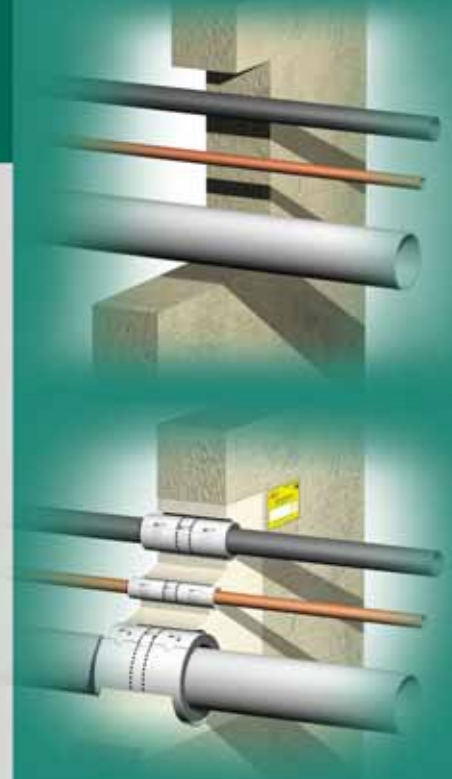
Fire			
<b>Metal pipe</b>		<b>Plastic pipe (not insulated)</b>	
<b>In wall of aerated concrete blocks</b>		<b>In wall of aerated concrete blocks</b>	
Fire resistance	Up to 240 minutes	Fire resistance	Up to 120 minutes
Test in accordance with:	BS 476: Part 20 (UK) Chiltern Test Report IF0044b	Test in accordance with:	BS 476: Part 20 (UK) Chiltern Test Report IF01061
<b>In modular wall</b>		<b>In modular wall</b>	
Fire resistance	Up to 150 minutes	Fire resistance	Up to 120 minutes
Test in accordance with:	BS 476: Part 20 (UK) Chiltern Test Report IF01047	Test in accordance with:	BS 476: Part 20 (UK) Chiltern Test Report IF03034

Also approved by Swedcert (Sweden) and recognised by TNO (Netherlands) and the Instituut voor Brandveiligheid ISIB België (Institute for Fire Safety ISIB Belgium).

Sound reduction with a metal pipe in a modular wall	
Weighted Sound Reduction Index (WSRI)	Rw 49-50
Test in accordance with:	BS 2750, Part 3 (Sound Research Laboratories Ltd UK) SRL Test Report C/98/5L/7424/1

It appears from all the tests that the sleeve complies amply with all the standards. You can realise a very simple and trustworthy fire resistant aperture without the need for any

training. In short: an innovative and effective product. The Pacifyre® MK II has been nominated for the Dutch Building Prize 2005 for good reason.



"The biggest advantage?  
Easily placed by one  
person with no extra fixing  
materials."

*Dutch Building Prize Jury*



1: Drill hole



2: Placing Fire Sleeve



3: Filling any leftover space

DN	For metal pipe:		Non- insulated	Insulated					
	Steel + stainl. (Ø)	Copper (Ø)		Insulation thickness (mm)					
				15	20	25	30	40	50
10	17,2	15	214 1 015017	214 1 045047	214 1 054056	214 1 063065	214 1 075077	214 1 093095	214 1 114116
-	-	18	214 1 018020	214 1 048050	214 1 057059	214 1 066068	214 1 078080	214 1 096098	214 1 117119
15	21,3	22	214 1 021023	214 1 051053	214 1 060062	214 1 069071	214 1 081083	214 1 102104	214 1 120122
20	26,9	28	214 1 027029	214 1 057059	214 1 066068	214 1 075077	214 1 087089	214 1 105107	214 1 126128
25	33,7	35	214 1 033035	214 1 063065	214 1 072074	214 1 084086	214 1 093095	214 1 114116	214 1 132134
32	42,4	42	214 1 042044	214 1 072074	214 1 081083	214 1 090092	214 1 102104	214 1 120122	214 1 141143
40	48,3	-	214 1 048050	214 1 078080	214 1 087089	214 1 096098	214 1 108110	214 1 126128	214 1 147149
-	-	54	214 1 054056	214 1 087089	214 1 093095	214 1 102104	214 1 114116	214 1 132134	214 1 153155
50	60,3	-	214 1 060062	214 1 090092	214 1 099101	214 1 108110	214 1 120122	214 1 138140	214 1 159161
-	64	-	214 1 063065	214 1 093095	214 1 102104	214 1 111113	214 1 123125	214 1 141143	214 1 162164
-	-	66	214 1 066068	214 1 096098	214 1 105107	214 1 114116	214 1 126128	214 1 144146	214 1 165167
65	76,1	76	214 1 075077	214 1 105107	214 1 114116	214 1 126128	214 1 135137	214 1 156158	214 1 177179
80	88,9	89	214 1 087089	214 1 117119	214 1 129131	214 1 138140	214 1 147149	214 1 168170	214 1 189191
-	-	108	214 1 108110	214 1 138140	214 1 147149	214 1 156158	214 1 168170	214 1 186188	214 1 207209
100	114,3	-	214 1 114116	214 1 144146	214 1 153155	214 1 162164	214 1 174176	214 1 192194	214 1 213215
-	-	133	214 1 132134	214 1 162164	214 1 171173	214 1 183185	214 1 192194	214 1 213215	214 1 231233
125	139,7	-	214 1 138140	214 1 168170	214 1 180182	214 1 189191	214 1 198200	214 1 219221	214 1 240242
-	-	159	214 1 159161	214 1 189191	214 1 198200	214 1 207209	214 1 219221	214 1 237239	214 1 258260
150	168,3	-	214 1 168170	214 1 198200	214 1 207209	214 1 216218	214 1 228230	214 1 246248	214 1 267269

Other dimensions on request

For plastic pipe (non-insulated):			
Pipe Ø (mm)	Part no.	Pipe Ø (mm)	Part no.
15-17	215 1 015017	93-95	215 4 093095
18-20	215 1 018020	96-98	215 4 096098
21-23	215 4 021023	99-101	215 4 099101
24-26	215 4 024026	102-104	215 4 102104
27-29	215 4 027029	105-107	215 4 105107
30-32	215 4 030032	108-110	215 4 108110
33-35	215 4 033035	111-113	215 4 111113
36-38	215 4 036038	114-116	215 4 114116
39-41	215 4 039041	117-119	215 8 117119
42-44	215 4 042044	120-122	215 8 120122
45-47	215 4 045047	123-125	215 8 123125
48-50	215 4 048050	126-128	215 8 126128
51-53	215 4 051053	129-131	215 8 129131
54-56	215 4 054056	132-134	215 8 132134
57-59	215 4 057059	135-137	215 8 135137
60-62	215 4 060062	138-140	215 8 138140
63-65	215 4 063065	141-143	215 8 141143
66-68	215 4 066068	144-146	215 8 144146
69-71	215 4 069071	147-149	215 8 147149
72-74	215 4 072074	150-152	215 8 150152
75-77	215 4 075077	153-155	215 8 153155
78-80	215 4 078080	156-158	215 8 156158
81-83	215 4 081083	159-161	215 8 159161
84-86	215 4 084086	162-164	215 8 162164
87-89	215 4 087089	165-167	215 8 165167
90-92	215 4 090092	168-170	215 8 168170

Other dimensions on request

Provide aperture in wall or floor sized for pipe(s) with an allowance for the Pacifyre® MK II.  
The smaller the hole the less "making good" after fitting.  
Install pipe work through aperture and fit the necessary pipe supports.

For holes to be drilled; select your available drill size within the min./max. allowance given below.

Drill diameter = Pipe diameter + Allowance  
OR  
Drill diameter = Insulation diameter + Allowance

Part no.	Intumescent Thickness	Minimal Allowance	Maximal Allowance
2141xxxxxx	1 mm	25 mm	85 mm
2144xxxxxx	4 mm	30 mm	90 mm
2151xxxxxx	1 mm	25 mm	85 mm
2154xxxxxx	4 mm	30 mm	90 mm
2158xxxxxx	8 mm	40 mm	100 mm
2152xxxxxx	12 mm	50 mm	110 mm

PACIFYRE® MK II FIRE SLEEVES:  
SIMPLE, EFFECTIVE AND RELIABLE!



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