

Multicollar *Slim*

Universal Fire Collar

European
Technical Assessment
ETA 24/0330



Technical Data Sheet

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**Pragmatic, effective
and applicable
solutions**



Multicollar *Slim*

Universal Fire Collar



Fire resistance
≤ 120 minutes

EPD
VERIFIED



Diameter
Ø 315 mm



Working life
25 years

ALL IN ONE

Universal Fire Collar

Multicollar *Slim* is a 30 mm-high universal fire collar that consists of a stainless steel band made of 174 segments and a high-quality inlay on a graphite basis. In order to achieve the desired pipe diameter, the links can easily be separated. In the event of fire, the Multicollar *Slim* starts foaming and creates a firestopping seal to adjacent rooms. In combination with the Multimastic SP sealant, it is also possible to achieve a smoke-proof finish. This fire collar has been extensively tested in Europe in accordance with EN 1366-3. The Multicollar *Slim* fire collar is a single product for all applications. Thanks to the Multiclips and Multiscrews included in the box, installation is easily done by one person.

Multicollar *Slim* forms part of the Mulcol® Penetration Seal System.

Advantages

- ✓ Fire resistance ≤ 120 minutes
- ✓ Tested up to Ø 315 mm
- ✓ CE-certified
- ✓ Environmentally and user-friendly
- ✓ Easy to install
- ✓ One product for all applications
- ✓ One fixing medium for all structures
- ✓ Can be used anywhere thanks to its 30-mm height
- ✓ Also tested for non-standard applications
- ✓ User manual and all fasteners in one
- ✓ Halogen-free
- ✓ Working life of 25 years

Applications

- ✓ Rigid floors and walls
- ✓ CLT walls and floors
- ✓ Hollow core floors
- ✓ Sandwich panels
- ✓ Flexible walls
- ✓ Shaft walls
- ✓ Firestop boards

30 mm



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Technical insulation

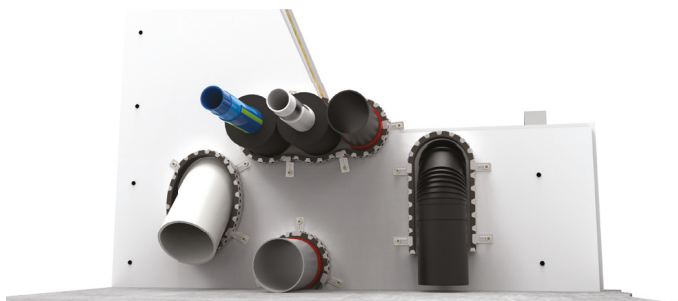
- ✓ Thermacompact® TF, PE-foam
- ✓ ABSound Sonocool Type PM
- ✓ Jaco Massa Reinforced Alu, Jaco Massa Alu and Jaco Massa Black Alu
- ✓ Merfisol Silver ALU
- ✓ AF/Armaflex and SH/Armaflex
- ✓ Kaiflex ST and Kaiflex KKplus s2
- ✓ Insul-Phen, Insul-Pirplus and Insul-Pir 33
- ✓ Kingspan Tarecpir M1, Kingspan Tarecpir CR, Kingspan Tarecpir B2, Kingspan Tarecpir HT, Kingspan Tarecpir HD and Kingspan Kooltherm FM, among others.

Types of penetrations

- ✓ Standard plastic pipes
e.g. PVC-U, PVC-C, PP, PE, PE-HD, ABS, SAN+PVC
- ✓ Sound-proofing plastic pipes
e.g. REHAU Raupanio plus, Geberit Silent-20dB, Wavin SiTech+, Wavin AS, Blue Power, POLO-KAL 3S
- ✓ Aluminium composite pipes such as: PE-Xb, PE-Xe, PE-RT
e.g. Henco, Uponor, Wavin Tigris, Geberit Mepla, REHAU Rautitan
- ✓ Fibre composite pipes such as: PP-R, PP-B, PP-RCT
e.g. Aquatherm, C/imatec, Aquatechnik
- ✓ Air-conditioning pipes
- ✓ Copper and steel pipes
- ✓ Electric cables and cable bundles
- ✓ Cable conduits with and without electric cables
- ✓ Aluminium flue gas discharge pipes
- ✓ Concentric flue gas discharge pipes steel/PP

Tested configurations

- ✓ Pipes in combination with steel pipe support shells
- ✓ Angled pipes (¾ principle)
- ✓ Pipes with a zero distance from walls and floors, U-shaped collar
- ✓ Pipes under a 45° angle
- ✓ Pipes tested with tuck-in joints, electro-welded joints and glued sleeves
- ✓ Pipes with 87°/90° and 2x 45° corner pieces
- ✓ Multiple pipe solutions
- ✓ Pipes with or without insulation



Packaging

	Dimensions	Box	Outer box	Pallet	Article number
Roll (174 segments)	2610 x 30 x 12 mm	1 piece	8 pieces	384 pieces	206001174

Accessories (included)

- ✓ 20 pieces of Multiclips, 30 mm
- ✓ 20 pieces of Multiscrews 7.5 x 40 mm
- ✓ 1 piece of Multibit T30
- ✓ 6 pieces of Conformity Statement

Accessories (available separately)



Multiclip Set

20 pcs. Multiclip, 30 mm
20 pcs. Multiscrew 7.5 x 40 mm
1 pc. Multibit T30
Article number 802060001



Multiclip Set L

20 pcs. Multiclip L, 60 mm
20 pcs. Multiscrew 7.5 x 40 mm
1 pc. Multibit T30
Article number 802060002



Conformity Statement

Contents 6 pcs.
Article number 802060104



Multiscrew FB

20 pcs. Multiscrew FB, 40 mm for assembly on firestopping boards
Article number 802060005

1. Technical Data

EAN-code	8719324470155
Colour stainless steel belt + inlay	Stainless steel + Anthracite
Shelf life	Not applicable
Transportation - storage temperature	-5 °C to +50 °C (store dry in the original packaging)
Application temperature	+5 °C to +50 °C
Temperature resistance	-20 °C to +80 °C
Density	$\rho = 900 \text{ kg/m}^3$ to 1350 kg/m^3
Expansion pressure	0.8 N/mm ² to 1.8 N/mm ² (at +300 °C)
Usage category¹⁾	Type Z ₁ in accordance with EAD 350454-00-1104
Reaction temperature	Approx. +180 °C
Expansion factor²⁾	6.5 x up to 18.5 x
Mounting from one side possible	Yes, please refer to ETA report 24/0330
Fire class	E in accordance with EN 13501-1
Approvals	ETA report 24/0330, VKF report 030953-02
Function preservation	25 years
Joint finish	Multimastic SP or Multimortar
Large gaps	Multimastic C system or Multimortar

¹⁾ Permissible environmental conditions

Product intended for use in conditions with > 85% RV, protected from temperatures below 0 °C, and without exposure to rain and/or UV (TR 024:2019, type Z₁).

Limited contact with splash water tolerated. Lasting wetness, stagnant water and water pressure must be avoided.

²⁾ Expansion factor

Tested on samples at +450 °C for 25 minutes with overload. The expansion factor is a laboratory characteristic value. The expansion factor in an installed state depends on the existing preconditions.

Enviromental documents

- ✓ EPD (Environmental Product Declaration)

Find all of our enviromental documents easily on our downloadpage or via the QR code:



Enviromental databases

Multicollar *Slim* is listed in the enviromental databases:

- ✓ SundaHus
- ✓ BVB (Byggvarubedomningen)
- ✓ Nordic Swan Ecolabel

2. Installation manual



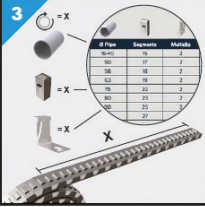
1

Make sure that the service penetration and the gap are free from dust, dirt and grease.



2

Openings $\leq 20 \text{ mm}^1$ can be sealed with Multimastic SP firestop mastic, over a depth of 10 mm.



3

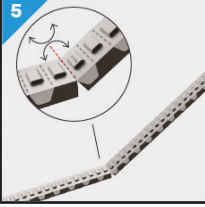
Measure the diameter of the service penetration. See the application table on the packaging (for plastic pipes²) for the length of Multicollar *Slim* (number of segments) and the multiclips required.

Ø Pipe	Segments	Multiclip
50-110	15	2
120	17	2
150	18	2
160	19	2
180	20	2
200	21	2
225	22	2
250	23	2



4

Count the number of Multicollar *Slim* segments required on the roll and then cut through the inlay with a knife.



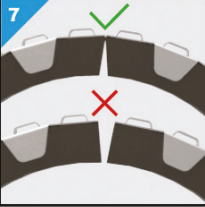
5

Break the Multicollar *Slim* where it has been cut.



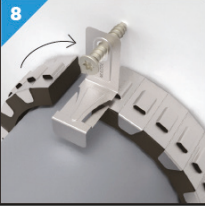
6

Cut the inlay away with the knife on both sides of the custom-size fire collar.



7

If the stainless-steel joints fit well together, the inlay has been properly cut.



8

Place the fire collar around the service penetration, attach the end of the fire collar with multiclip and secure with the screws provided.



9

Distribute the remaining Multiclips proportionally and secure with screws.



10

Fill in the conformity statement and paste it next to the fireproof seal.

¹ Larger openings around service penetrations can be sealed according to the installation requirements for the Multimastic C System or the Multimortar System.

² Steel pipes with insulation, depending on the fire resistance, can be provided with a single fire collar up to a total diameter of 283 mm.



For use and for more information about an application, refer to the Mulcol documentation, local and international approvals.

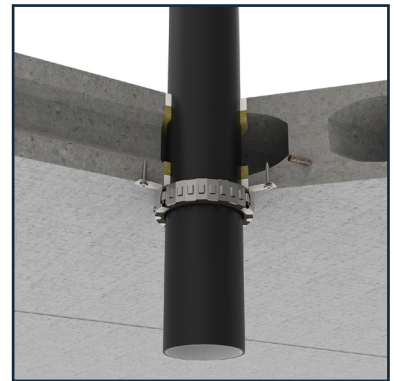
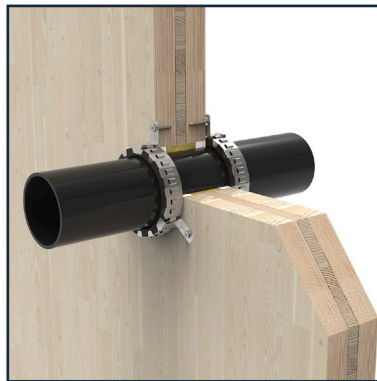
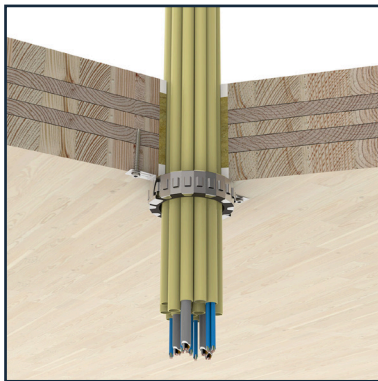
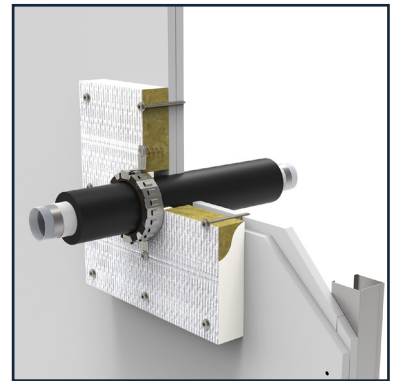
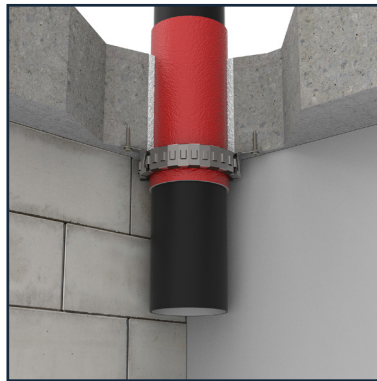
See the **Mulcol Fire Protection app** for the correct application in combination with fire resistance, or use our **selector** at www.mulcol.com.

3. Tested solutions

All the latest tested solutions with the Multicollar *Slim* can be found in our **Multiselector**. Scan the QR code or press the Multiselector button to get directly to the tested solution for your project.

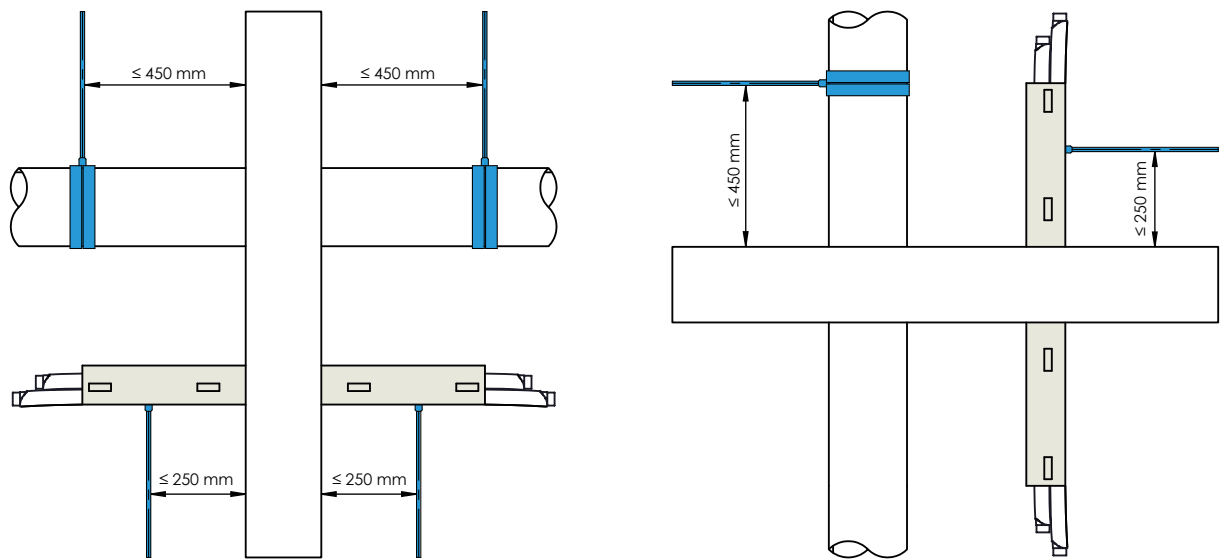


Our **Multiselector** can also be found in our **Mulcol Fire Protection App**. It can be downloaded from the **App Store** (iOS) or **Google Play Store** (Android).



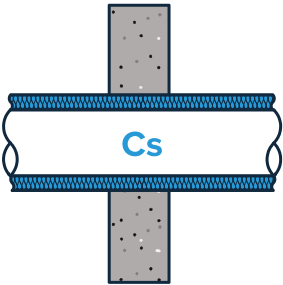
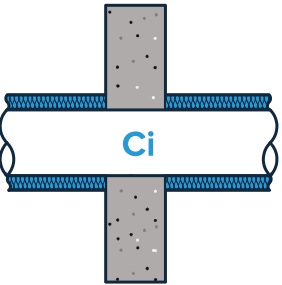
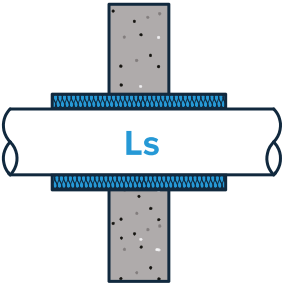
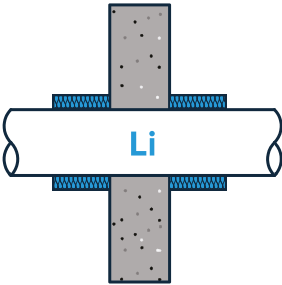
4. Service support

For all services (except cables and cable trays), the first support must be fitted ≤ 450 mm from the fire separating element, with cables and cable carriers at ≤ 250 mm. For floors the first support should be fitted at a distance of ≤ 450 mm from the top of the floor and for cables and cable carriers at ≤ 250 mm.



5. Pipe insulation (configuration)

Insulations serve different funtions and can therefor be arranged around pipes in different manners. This must be taken into account when applying fire stopping seals on these pipes. Possible configurations are shown below:

Continued Insulated		Locally Insulated	
Continued Sustained	Continued Interrupted	Locally Sustained	Locally interrupted
 Cs	 Ci	 Ls	 Li



6. Test configuration

Introduction

The test configuration determines the application of service penetrations. Before testing a combustible or non-combustible pipe, the intended use must be considered. Where will it be used in practice? Standard EN 1366-3 sets requirements in this regard. The end of the pipe must be capped or uncapped, based on this. See the test configuration in table 1 and 2.

In a test, the conditions to which the pipe and the sealing system are exposed to are determined by asking whether one or both pipe ends are capped in practice. The pressure and flowrate of hot gases will be different in a pipe that is in contact with the outside air than in a capped pipe. It is important to ensure that the sealing system is tested under appropriate conditions.

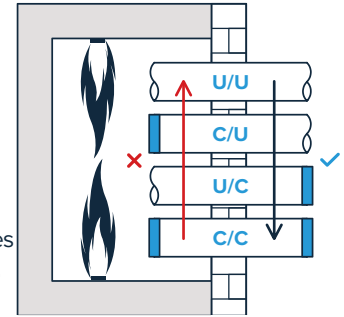


Table 1 - Test configuration plastic pipes

Test setup	Pipe end		Permitted use			
	In the oven	Outside the oven	U/U	C/U	U/C	C/C
U/U	Uncapped	Uncapped	✓	✓	✓	✓
C/U	Capped	Uncapped	✗	✓	✓	✓
U/C	Uncapped	Capped	✗	✗	✓	✓
C/C	Capped	Capped	✗	✗	✗	✓

Table 2 - Test configuration metal pipes

Test setup	Pipe end		Permitted use		
	In the oven	Outside the oven	U/C	C/U	C/C
U/C *	Uncapped	Capped	✓	✓	✓
C/U	Capped	Uncapped	✗	✓	✓
C/C	Capped	Capped	✗	✗	✓

Combustible pipes (plastic)

Table below shows a few examples of pipe types and the intended use, where the end of the pipe is capped or uncapped. The table does not take all possible applications into account. The choice of whether to close the end or leave it open depends on a number of aspects: is the system under pressure and it is ventilated or unventilated? Consider the intended use of the pipe to determine whether it should be capped or left uncapped. If national regulations set different requirements than those contained in the table below, follow the regulations.

Table - Test configuration plastic pipe by application

Type of pipe	Pipe end		Test setup
	In the oven	Outside the oven	
Rainwater drainage	Uncapped	Uncapped	U/U
Sewage, Ventilated	Uncapped	Uncapped	U/U
Sewage, Unventilated	Uncapped	Capped	U/C
Gas pipe, drinking water pipe, hot water pipe	Uncapped	Capped	U/C

There is no application for a plastic pipe penetration with a test classification of C/U or C/C, according to EN 1366-3.

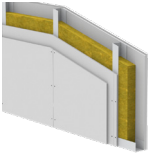
Non-combustible pipes (metal)

Metal pipes will normally be closed in the furnace as no open end is to be expected in the event of a fire, due to the high melting point of metal. With this, it is assumed that the service supporting construction remains in place. If the pipes are supported by a non fire resistant support system, the pipes are not closed in the furnace, as shown in the table below.

Table - Test configuration metal pipe by application

Type of pipe	Construction		Test setup
	In the oven	Outside the oven	
Supported by a fire supporting construction	Capped	Uncapped	C/U
Supported by a non fire supporting construction	Uncapped	Capped	U/C
Shafts for waste disposal	Uncapped	Capped	U/C

7. Constructions



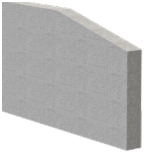
Flexible walls

The minimum wall thickness is 100 mm and consists of steel or timber studs* with at least 2 layers of cladding on both sides with a thickness of 12.5 mm per layer.



Flexible shaft walls

The minimum wall thickness is 100 mm and consists of steel or timber studs* with at least 2 layers of cladding on one side with a thickness of 15 (A2) or 20 (A1) mm per layer.



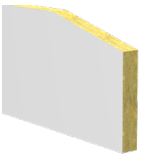
Rigid walls

The minimum wall thickness is 100 mm and consists of concrete, aerated concrete or brickwork with a minimum density of 400 kg/m³.



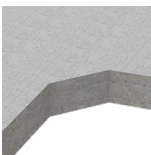
Cross laminated timber (CLT) walls

The minimum wall thickness is 100 mm and has a minimum density of 376 kg/m³.



Sandwich panel walls

The minimum wall thickness is 100 mm and consists of metal sheets with a stone wool core with a minimum density of 115 kg/m³.



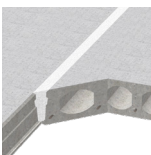
Rigid floors

The minimum floor thickness is 150 mm and consists of concrete or aerated concrete with a minimum density of 400 kg/m³.



Cross laminated timber (CLT) floors

The minimum floor thickness is 140 mm and has minimum density of 350 kg/m³.



Hollow core floors

The minimum floor thickness is 150 mm.

**There must be a minimum distance of 100 mm from each part of the conduit seal to a timber stud and the gap between the conduit seal and the stud must be capped. The cavity between the conduit seal and the stud must have at least 100 mm class A1 or A2 insulation (according to EN 13501-1).*

The construction must be classified in accordance with EN 13501-2 for the specified fire resistance.

We have tested different constructions with a variety of our products, check for specific allowed constructions Annex C in the respective ETA or find the specific solution via our Multiselector.

8. Available documents

Technical documents available

- ✓ Technical Data Sheet (TDS)
- ✓ Safety Data Sheet (SDS)
- ✓ CE certificate

Approvals

- ✓ Tested in accordance with EN 1366-3
- ✓ Classification in accordance with EN 13501-2
- ✓ Certified in accordance with EAD 350454-00-1104
- ✓ ETA report 24/0330
- ✓ VKF report 030953-02
- ✓ Declaration of Performance (DoP)
- ✓ EPD certificate

The above documents are available from your Mulcol contact or via www.mulcol.com

9. Tools



For help in finding the right firestopping solution for penetrations, see our **Multiselector** at www.mulcol.com or download the **Mulcol Fire Protection App** in the **App Store** (iOS) or **Google Play Store** (Android).



For the digital registration of firestopping in your buildings, you can use the **Mulcol Datamanager** free of charge. For registration on site, use our **Mulcol Fire Protection App**.



Make your project unique with the help of **Mulcol Project Manager**. In order to save costs, you can create a clear Project Book in the design phase, with cut-off details and relevant data for all firestop penetration seals on your construction project.



Mulcol International BV has compiled the technical data of this sheet with the utmost care and reserves the right to change product properties without prior notice. The user of this data remains responsible at all times for its correct application. In case of ambiguities or doubts, we advise you to consult with Mulcol International BV to ascertain whether this data meets the required application.

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