

MG2

Fire resistant collar

M1-F 05/2013

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PRODUCT PRESENTATION

MG2 - Fire resistant collar

The fire resistant collar MG2 is cast into the wall and installed around plastic pipes (PVC, HDPE) in order to prevent propagation of fire for up to 180'. MG2 has a 100% free passage.

MG2 + T - Fire resistant collar pre-mounted on pipe, built in version

The fire resistant collar MG2+T consists of a MG2, mounted on an HDPE pipe. MG2+T has a 100% free passage and is suitable for pressure free pipes.

MG2+R: Fire resistant collar pre-mounted on pipe with metal flanges, built in version

The fire resistant collar MG2+R consists of a MG2, mounted on an HDPE pipe. Both sides of the pipe are fitted with metal flanges with rubber seal. MG2+R has a 100% free passage and is suitable for pressure free pipes.

MG2-A: Fire resistant collar - surface mounted

The wall-mounted fire resistant collar MG2-A is installed around plastic pipes (PVC, HDPE) in order to prevent propagation of fire for up to 180'. In case of rigid or flexible walls, the MG2-A is installed on both sides of the wall. For a ceiling/floor situation, a single MG2-A on the downside of the floor is sufficient. The MG2-A collar has a 100% free passage.

MG2	MG2+T	MG2+R	MG2-A
			

APPROVALS AND TEST REPORTS

All Rf-Technologies' fire collars are submitted to a number of tests according to EN 1366-3 by official test institutes.




Europa : Classification according to EN 13501-2: 2005



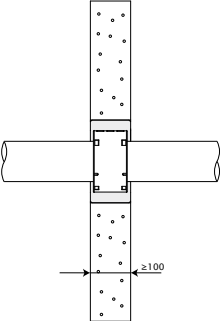
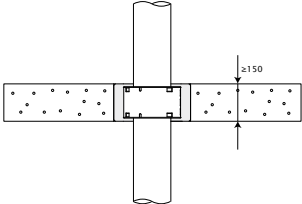
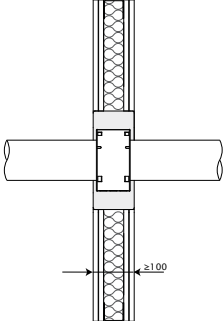
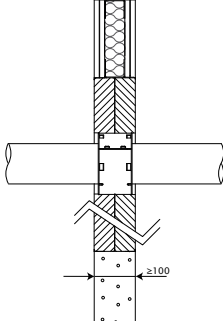
ISO : Certification: ISO 9001: 2008

FIRE TESTS ACCORDING TO EN 1366-3




MG2 built-in

Type	Material	Diameter pipe (mm)	Pipe wall thickness (mm)	Rigid wall  (A)	Rigid floor  (B)	Flexible wall 		
						Standard (C)	Pre-coated mineral wool * (D)	Pipe wall thickness
Standard	PVC	40-75	1,8-8,4	EI 120	EI 180	EI 120	EI 120	75 x 3
		80-110	2,2-8,2	EI 120	EI 180	EI 120	EI 120	110 x 3,2
		125-160	3,2	EI 120	EI 180	EI 120	EI 90	160 x 3,2
			11,9	EI 90	EI 180	EI 90		
	PE	40-75	3,0-6,8	EI 120	EI 180	EI 120	EI 120	75 x 3
		80-110	3,4-10,0	EI 120	EI 180	EI 120	EI 120	110 x 4,2
		125-160	6,2-14,6	E 120 EI 90	EI 180	E 120 EI 90	EI 120	160 x 6,2
			14,6	EI 120	EI 180	EI 120		
Geberit Silent-db20	PE	40-75	3,6	EI 120				
		80-110	6,0	EI 120				
		125-160	7,0	EI 90				
Zero distance [<100 mm] (E)	PVC, PE	40-110	See above	EI 120	EI 120			

* Also valid in rigid wall

Rigid wall (A)	Rigid floor (B)	Flexible wall (C)	Pre-coated mineral wool (D)
			

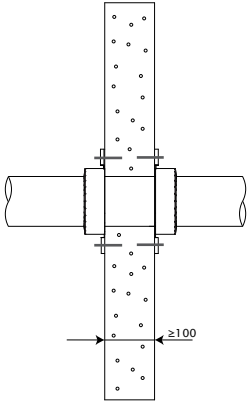
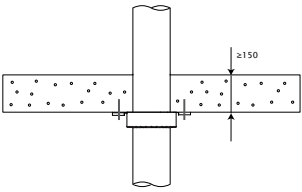
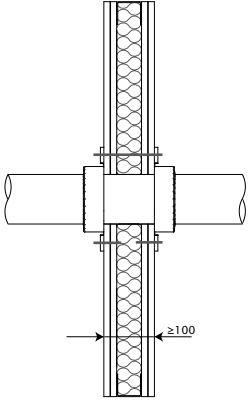
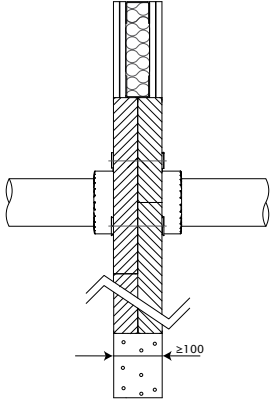
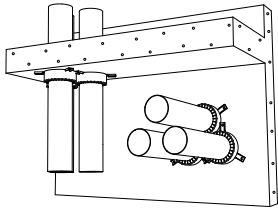
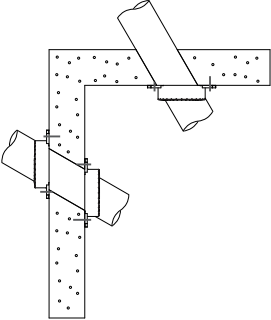
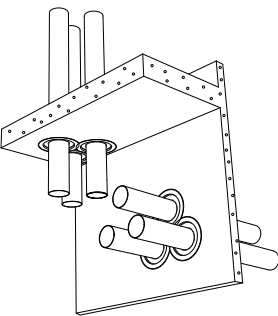
MG2-A surface-mounted

Type	Material	Diameter pipe (mm)	Diameter collar	Pipe wall thickness (mm)	Rigid wall	Rigid floor	Flexible wall		
					 (A)	 (B)		Standard (C)	Pre-coated mineral wool*** (D)
Standard	PVC	40–75	diameter collar = diameter pipe	1,8–8,4	EI 120	EI 180	EI 120**	EI 120	75 x 3
		80–110		2,2–8,2	EI 120	EI 180	EI 120**	EI 120	110 x 3,2
		125–160		3,2–7,7	EI 120	EI 180	EI 120**	EI 120	160 x 3,2
		125–160		3,2–11,9	EI 120	EI 90	EI 120**	EI 120	160 x 3,2
	PE	40–75		3,0–6,8	EI 120	EI 180	EI 120**	EI 120	75 x 3
		80–110		3,4	EI 120	EI 180	EI 120**		
		80–110		3,4–10,0	EI 120	EI 120	EI 120**	EI 120	110 x 4,2
		125–160		5,0	EI 120	EI 180	EI 120**		
		125–160		5,0–14,6	EI 120	EI 120	EI 120**	EI 120	160 x 6,2
		200		6,5		EI 120			
		250		8,0		EI 120			
	Geberit Silent-db20	40–75		3,6	EI 120	EI 180			
		80–110		6,0	EI 120	EI 120			
		125–160		7,0	EI 120	EI 90			
Zero distance [<100 mm] (E)	PVC	40–110	See above	EI 120	EI 180				
	PVC, PE	40–160		EI 120					
Oblique penetration till 30° (F)	PVC	40–110	*	1,8–8,4	EI 90* EI 120*	EI 120*			
	PE	40–110		3,4–10	EI 120*	EI 120*			

* See classification report

** Screws as well as threaded rods are allowed

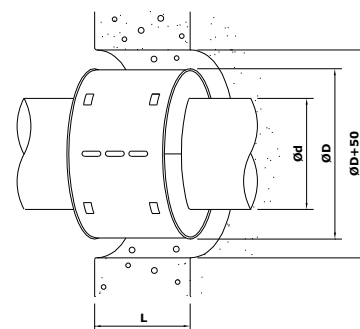
*** Also valid in rigid wall

Rigid wall (A)	Rigid floor (B)	Flexible wall (C)	Pre-coated mineral wool (D)
			
Zero distance (E)		Oblique penetration (F)	
			
			

RANGE

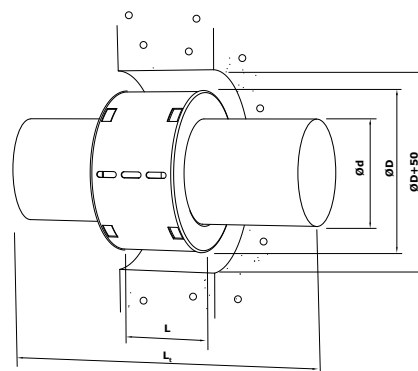
MG2: Fire resistant collar, built in version

Ød = Ø outer pipe	ØD	L	Kg	
40	67	85	0,16	117
50	77	85	0,20	127
56	83	85	0,21	133
63	90	85	0,22	140
75	102	85	0,26	152
80	123	85	0,43	173
90	133	85	0,51	183
100	143	85	0,56	193
110	153	85	0,58	203
125	182	105	1,23	232
160	215	105	1,54	265



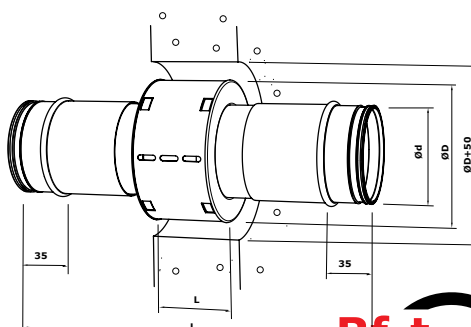
MG2+T: Fire resistant collar pre-mounted on pipe, built in version

Ød = Ø outer pipe	ØD	L	Lt	Kg	
100	143	85	315	0,91	193
125	182	105	315	1,88	232
160	215	105	325	2,25	265




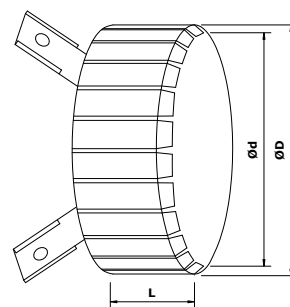
MG2+R: Fire resistant collar pre-mounted on pipe with metal flanges, built in version

Ød = Ø outer pipe	ØD	L	Lr	Kg	
100	143	85	385	1,33	193
125	182	105	395	2,20	232
160	215	105	395	2,92	265



MG2-A surface-mounted

Ød = Ø outer pipe	ØD	L	Kg	# fastenings	
40	58	40	0,11	2	Ød (= Ø outer pipe)
50	68	40	0,14	2	
56	74	40	0,16	2	
63	80	40	0,18	2	
75	93	40	0,21	2	
80	110	40	0,22	3	
90	125	40	0,26	3	
100	132	40	0,29	3	
110	140	40	0,31	3	
125	173	40	0,40	4	
140	187	40	0,46	4	
160	206	40	0,55	4	
200	263	80	1,85	4	
250	327	80	2,70	4	



STORING AND TRANSPORTATION

As the fire collars are a safety element, they need to be stored and handled with caution.

Caution:

- The collars need to be stored in a cool and dry environment, protected against frost and heat.
- Transport needs to be done in a closed vehicle.

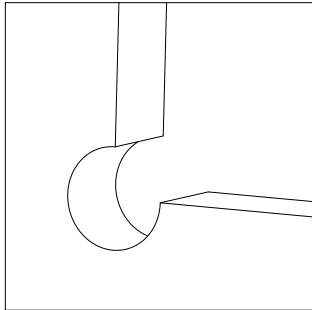
INSTALLATION

- The collar needs to be installed in conformity with the test report.
- The pipe has to be supported in order to guarantee the well-functioning of the sealing during a fire.
- The pipes have to be supported and secured according to the rules of good craftsmanship. The anchors have to be placed as closely as possible to the wall (at 500mm max for light partition walls).

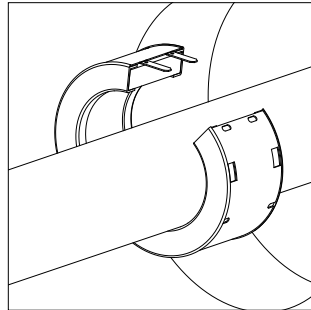
Installation in rigid wall, floor and ceiling

The fire collars were tested in aerated concrete walls of 100mm width and allow installation in both aerated concrete, brick as reinforced concrete walls. The floor tests were executed in 150mm thick aerated concrete slabs and allow installation in both aerated concrete, brick as reinforced concrete floors with a thickness and/or density equal or superior to the supporting construction used during the test.

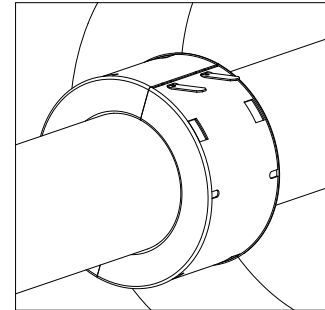
MG2 - MG2+T - MG2+R



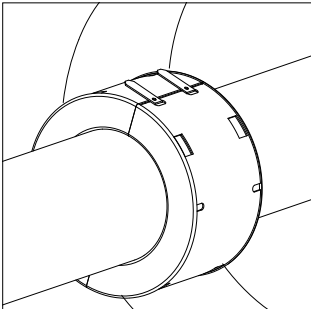
1. Provide an installation opening of $\varnothing D+50\text{mm}$.



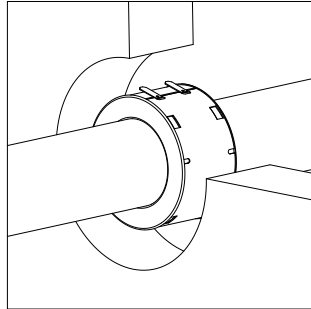
2. Remove the label. Open the fire collar and place it around the pipe .



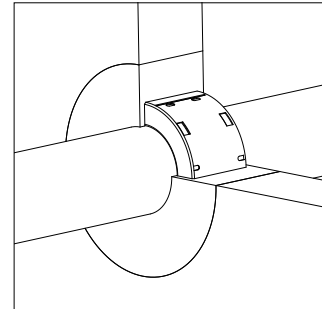
3. Slide the fastening strips through the corresponding holes.



4. Fold back the strips.



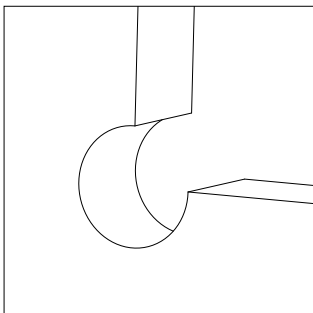
5. Slide the collar into the opening of the wall, in the middle of the wall thickness.



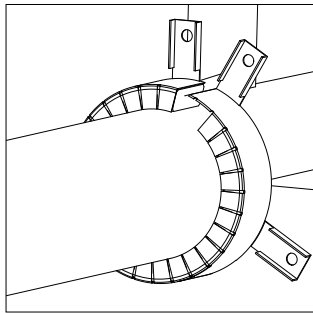
6. Seal with standard mortar (floor) or plaster (vertical wall).



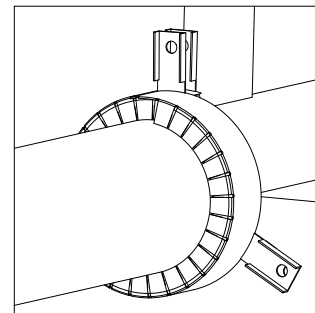
MG2 - A - wall mounted



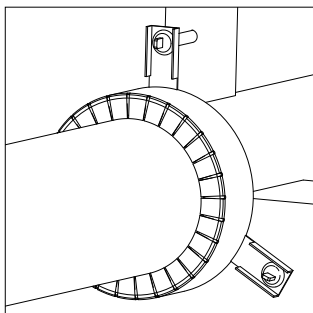
1. Provide an installation opening of $\varnothing d$ mm.



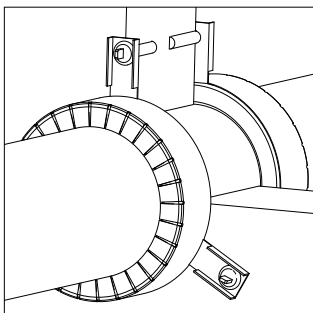
2. Keep one end of the collar in place with your left hand whilst bending the collar around the pipe with your right hand.



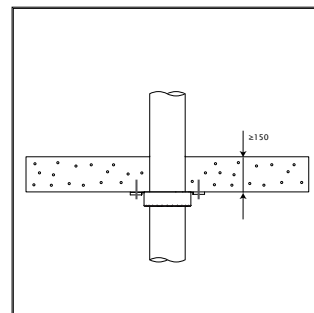
3. Click the wall anchors into each other, right anchor on top of the left one.



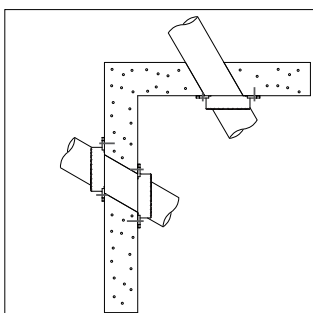
4. **Reinforced concrete:** place expander bolts in the pre-drilled holes $\varnothing 6$ mm and fasten them.
Aerated concrete: fix with universal M6 screws.



5.1 Repeat step 2 till 4 to mount the second collar on the other side of the wall



5.2 One MG2-A on the bottom side of the floor is sufficient for floor penetrations.



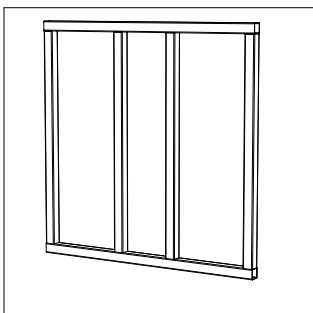
6. For oblique penetrations till 30° , choose the collar with dimensions as close as possible to the outside diameter of the pipe. See the classification report on www.rft.be for an overview of the classifications.



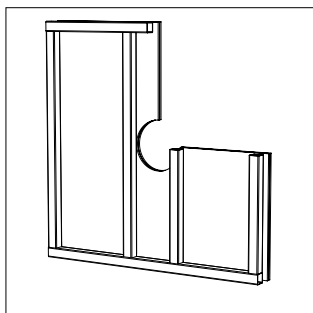
Placement in flexible wall – Metal stud gypsum plasterboard wall

The fire resistant collars MG2, MG2+T, MG2+R, MG2-A were tested in flexible walls of 100mm width [2x12,5mm type F gypsum plasterboards + metal stud 50mm with 40mm mineral wool filling (40kg/m³) + 2x12,5mm type F gypsum plasterboards]. A heavier or wider flexible wall as described in EN 1366-3, table 3 is also allowed.

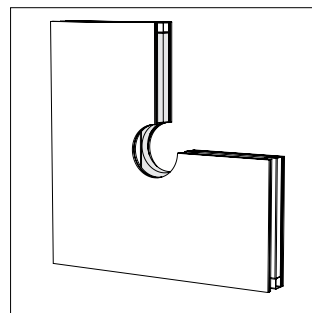
MG2 - MG2+T - MG2+R



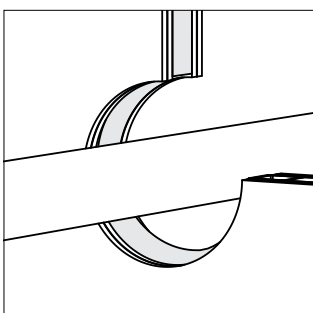
1. Fix two gypsum boards type F with a thickness of 12,5mm to one side of the metal stud wall.



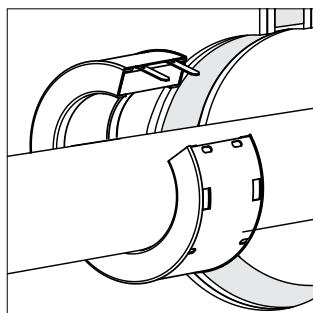
2. Provide a min. installation opening in the wall of ØD+50mm.



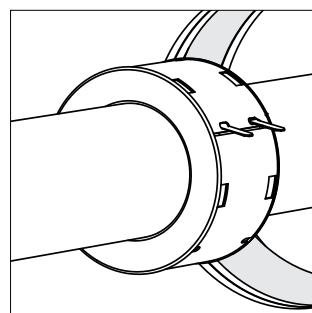
3. Insulate the wall and finish with two gypsum plasterboards type F.



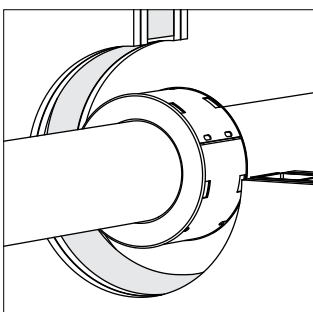
4. Place the plastic pipe.



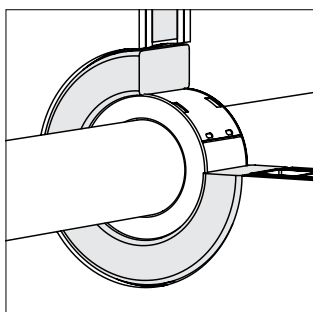
5. Remove the label. Open the collar and place it around the pipe.



6. Slide the fastening strips through the corresponding holes.



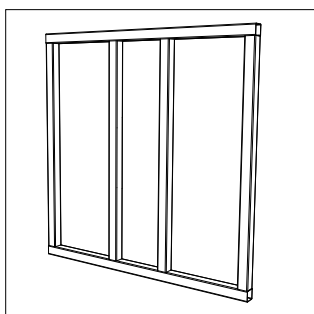
7. Fold back the strips and slide the collar into the opening of the wall, in the middle of the wall thickness.



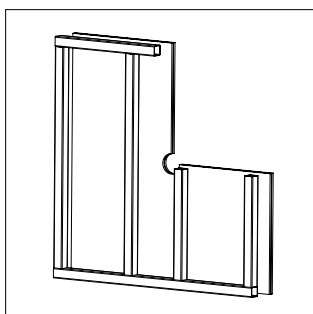
8. Seal with plaster.



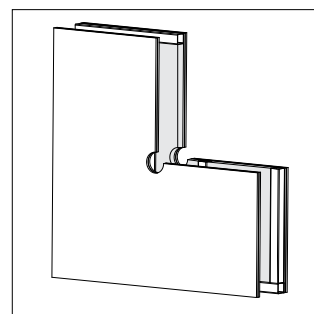
MG2 - A



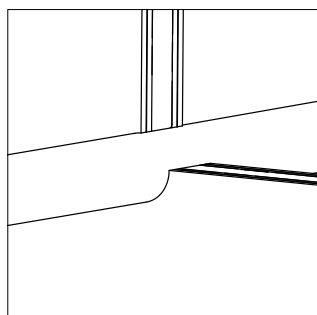
1. Fix 2 gypsum plasterboards type F of 12,5mm thickness to one side of the metal stud wall.



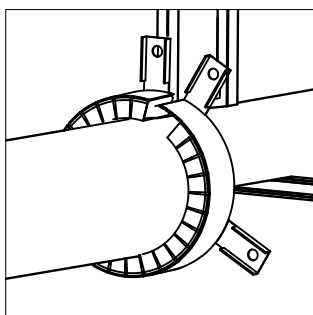
2. Provide an installation opening of $\varnothing d$ mm.



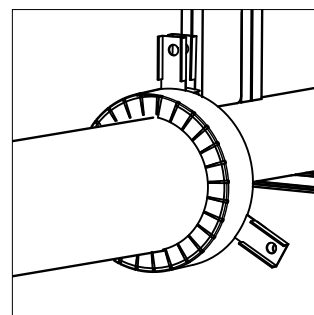
3. Insulate the wall and finish with two gypsum plasterboards type F.



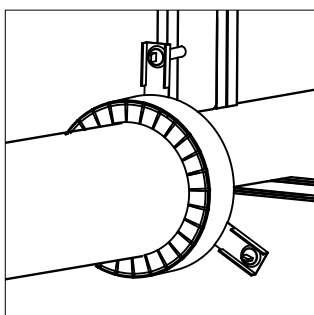
4. Place the plastic pipe.



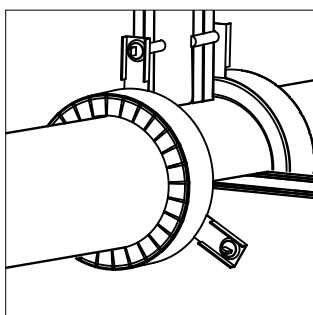
5. Keep one end of the collar in place with your left hand whilst bending the collar around the pipe with your right hand.



6. Click the wall anchors into each other, right anchor on top of the left one.



7. The MG2-A may be fixed by universal screws (M6) or by threaded rods, washers and bolts.



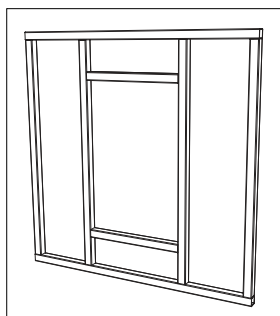
8. Repeat steps 5 and 6 for the MG2-A on the other side of the wall.



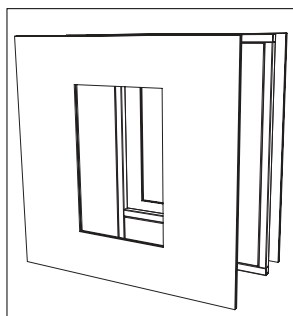
Installation in a flexible or massive wall - sealing with coated mineral wool plates

The fire resistant collars MG2, MG2+T, MG2+R, MG2-A were tested in flexible walls of 100mm width [2x12,5mm type F gypsum plasterboards + metal stud 50mm with 40mm mineral wool filling (40kg/m³) + 2x12,5mm type F gypsum plasterboards]. A heavier or wider flexible wall as described in EN 1366-3, table 3 is also allowed. An aerated concrete wall with equal (or larger width) is also allowed.

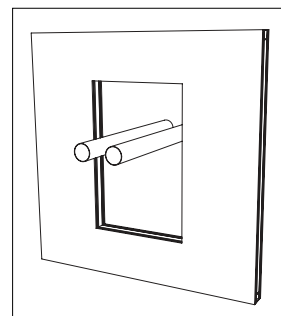
MG2 - MG2+T - MG2+R



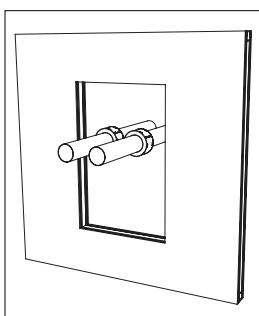
1. Provide an installation opening □ of maximally 1000x600mm.



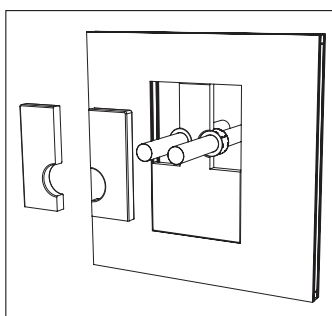
2. Fix two gypsum plasterboards type F of 12,5mm thickness to each side of the metal studs and insulate the wall with 40mm mineral wool, 40kg/m³.



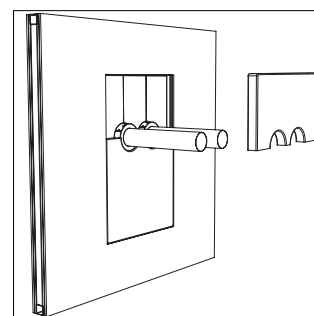
3. Place the plastic pipe(s). The distances between the pipes and the edges of the seal are min. 100mm.



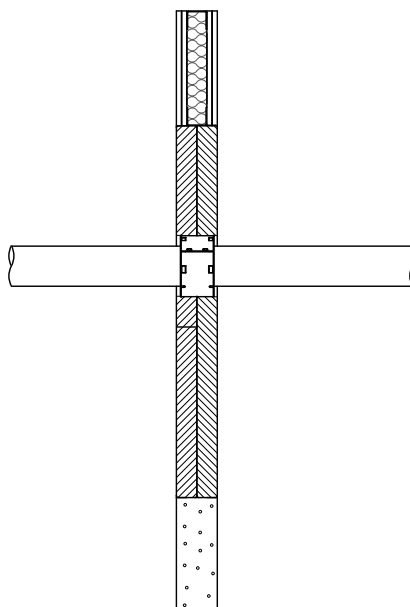
4. Place the built-in fire collars around the pipes by removing the label and fixing the collar by bending the fastening strips. Position the collars in the middle of the wall thickness.



5. Insulate the seal with the Basta-B of min. 50mm thickness around the fire collars. Use a saw or knife to dimension the mineral wool boards. Apply Basta-C coating on the lateral sides, as well as on the joints.



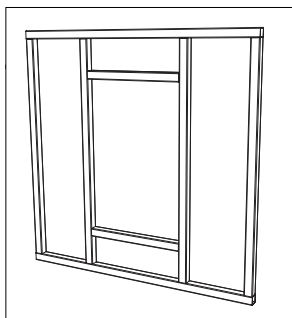
6. Put the second Basta-B of min. 50mm thickness around the collars. Avoid the joints from coinciding. Apply Basta-C coating on the lateral sides, as well as on the joints.



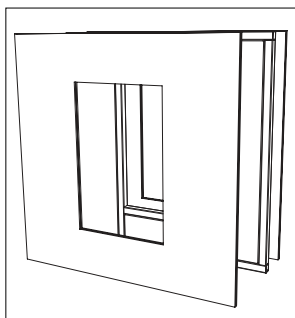
7. Put 3 threaded rods through the mineral wool boards and fix with M6, washers and bolts.



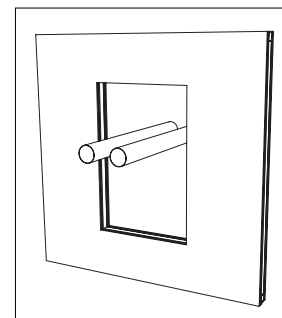
MG2 - A



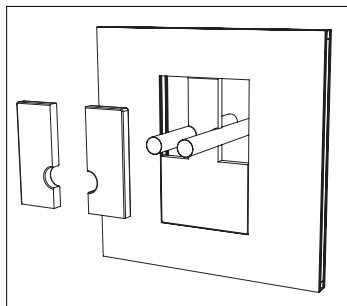
1. Provide an installation opening of maximally $\square 1000 \times 600 \text{ mm}$.



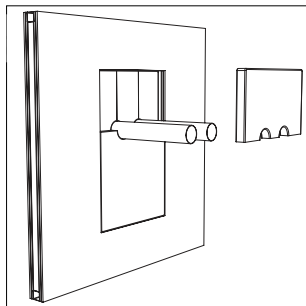
2. Fix two gypsum plasterboards type F of 12,5mm thickness to each side of the metal studs and insulate the wall with 40mm mineral wool, 40kg/m³.



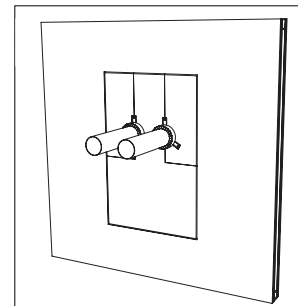
3. Place the plastic pipe(s). The distance between the pipes and the edges of the seal are min. 100mm.



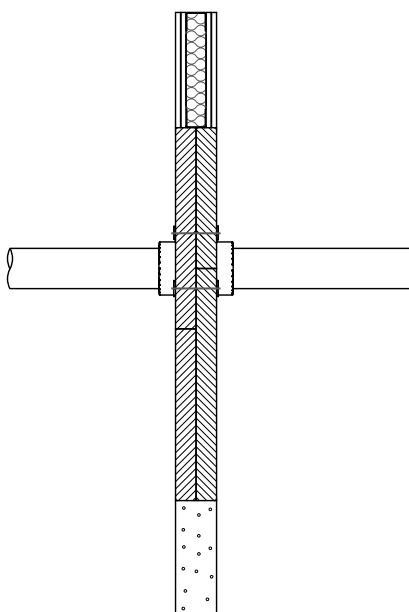
4. Insulate the seal with Basta-B mineral wool board of min. 50mm thickness around the pipes. Use a saw or knife to dimension the mineral wool boards. Apply Basta-C coating on the lateral sides, as well as on the joints.



5. Put the second Basta-B of min. 50mm thickness around the pipes. Avoid the joints from coinciding. Apply Basta-C coating on the lateral sides, as well as on the joints.



6. Place the surface-mounted collars at each side around the pipes and fix with threaded rods, washers and bolts (M6).



The installation of the fire collars needs to be done in accordance with the technical guidelines. Rf-Technologies cannot be held liable for non-conforming use; in this case, Rf-Technologies will decline any responsibility and the guarantee will expire immediately. More information on this product is also available on our website www.rft.be.