



Brandschutzsysteme

Installation Instruction and Declaration of Performance

Air Fire Tech System RORCOL

according to the European
Technical Assessment ETA-13/0758

RORCOL V30

EI120

EI90



for plastic pipes

RORCOL V60

EI120

EI90



for plastic pipes, extended
field of application

RORCOL AV60

EI120

EI90



for multi-layer composite
pipes, cables and metal pipes

RORCOL M

EI120

EI90



for metal pipes

Fire protective gap filler



used to close the gap
between separating
element and
penetrating element

Mounting tool



used as an extension

INSTALLATION INSTRUCTION

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Important:

Please read this Installation Instruction and Declaration of Performance carefully and keep them for future reference.

The installation must be carried out exclusively in accordance with this Installation Instruction and Declaration of Performance. Deviations due to the installation may result in a considerable reduction in the fire resistance time.

Typographical and printing errors as well as technical changes cannot be ruled out.

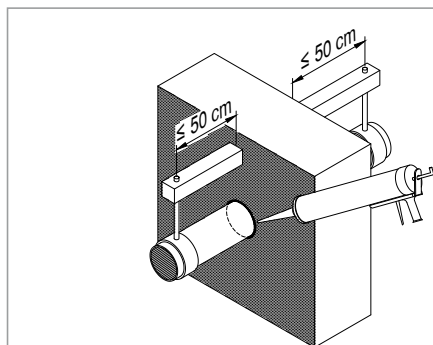
For penetration elements and classifications not mentioned in this Installation Instruction, please contact AIR FIRE TECH.

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Installation steps

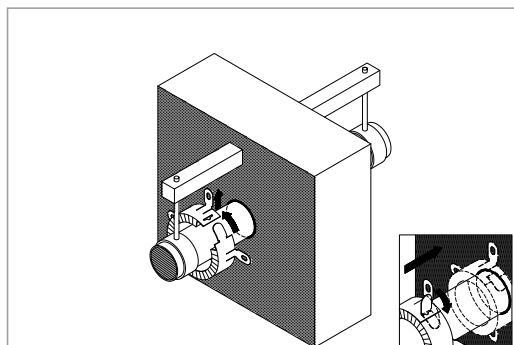
The pipe collars RORCOL are opened via the closure system, positioned around the pipe and fastened to the separating element of the penetration.



1

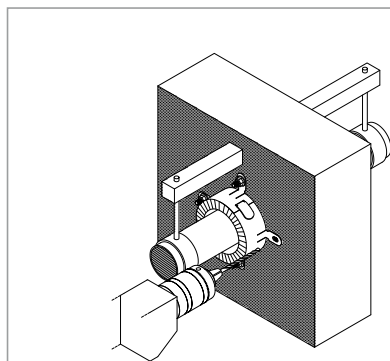
Seal annular gap ≤ 10 mm with fire protective gap filler BFM/K310 or acc. to the installation details.

Non-combustible service support construction max. 50 cm (max. 25 cm for plastic conduits and cables) on both sides of the wall or on the top side of the floor.



2

Open the pipe collar and position it around the pipe or insulated pipe.

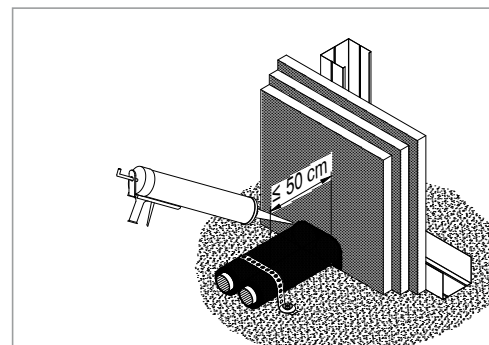


3

Mount the pipe collar acc. to the separating element and installation details.

Installation steps for Omega-application

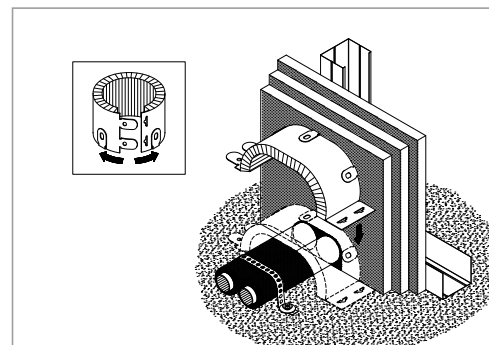
The pipe collars RORCOL V60 and AV60, used as Omega-application, are opened via the closure system and positioned around the pipe(s) at the separating element of the penetration. They are fixed to the adjacent building element (wall, ceiling or floor).



1

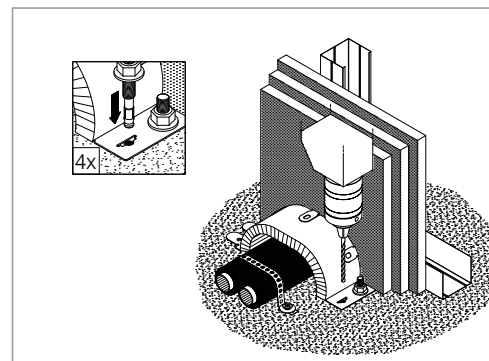
Seal annular gap and residual gap with fire protective gap filler BFM/K310 or acc. to the installation details.

Non-combustible service support construction max. 50 cm on both sides of the wall or on the top side of the floor.



2

Open the pipe collar and position it around the pipe(s) or insulated pipe(s).



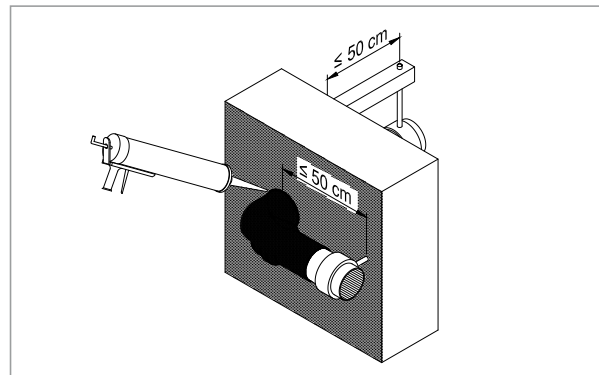
3

Mount the pipe collar with four screws acc. to the separating element and installation details.

Installation steps for U-application in walls

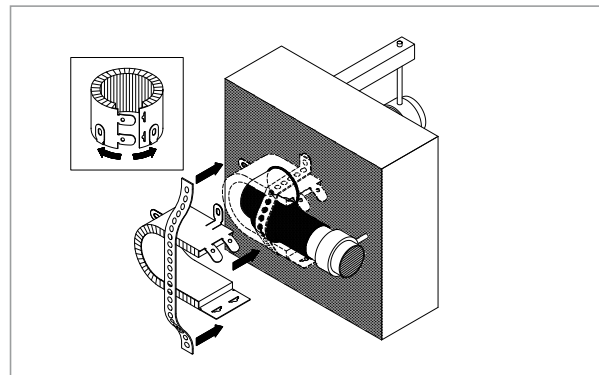
The pipe collar RORCOL V60, used as a U-application, is opened via the closure system, positioned around the pipe elbow and fixed to the wall of the pipe penetration.

Important: The dimension of the pipe collar must be selected one dimension larger than the dimension of the pipe!



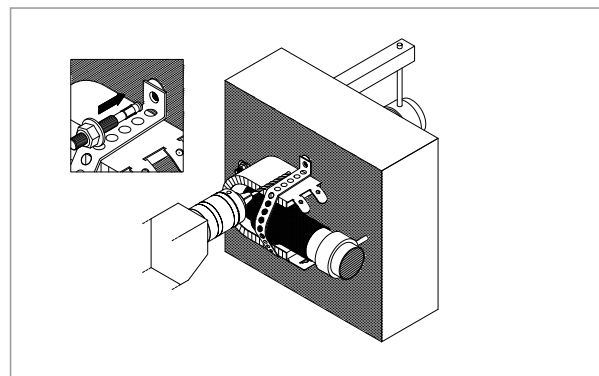
1

Seal annular gap and residual gap with fire protective gap filler BFM/K310 or acc. to the installation details.
Non-combustible service support construction max. 50 cm on both sides of the wall.



2

Open the pipe collar and position it around the insulated pipe elbow on the wall.
Position the perforated tape (provided by the customer) as tightly as possible over the pipe and the mounting lugs at the closure system of the pipe collar.



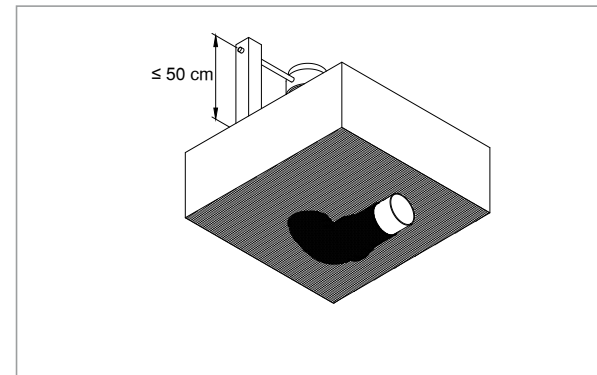
3

Mount the pipe collar and the perforated tape acc. to the separating element and installation details.

Installation steps for U-application in floors

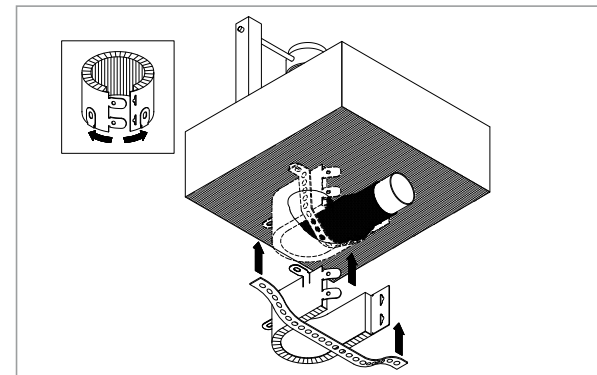
The pipe collar RORCOL V60, used as U-application, are opened via the closure system, positioned around the pipe elbow and fixed to the ceiling of the pipe penetration.

Important: The dimension of the pipe collar must be selected one dimension larger than the dimension of the pipe!



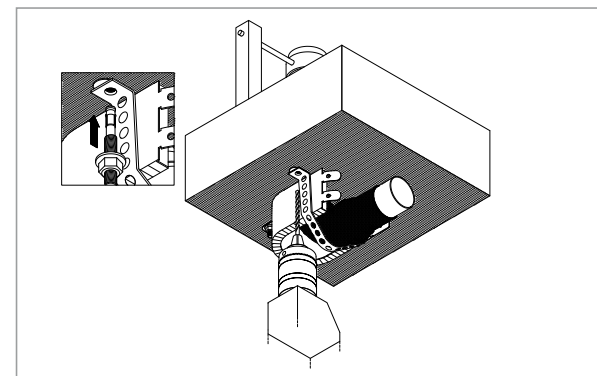
1

Seal annular gap and residual gap with fire protective gap filler BFM/K310 or acc. to the installation details.
Non-combustible service support construction max. 50 cm on the top side of the floor.



2

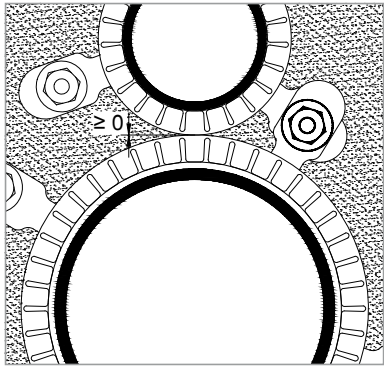
Open the pipe collar and position it around the insulated pipe elbows on the bottom side of the floor.
Position the perforated tape (provided by the customer) as tightly as possible over the pipe and the mounting lugs at the closure system of the pipe collar.



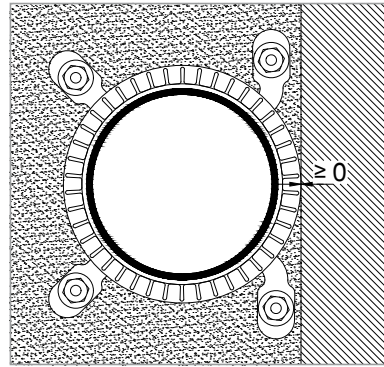
3

Mount the pipe collar and the perforated tape acc. to the separating element and installation details.

Pipe collars

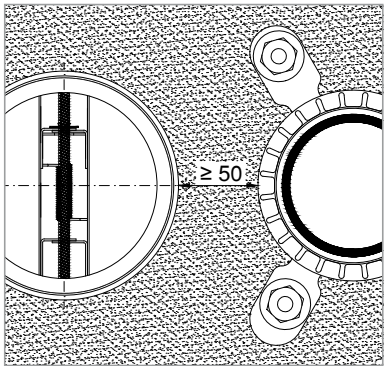


Concerted screw fastening of up to four pipe collars



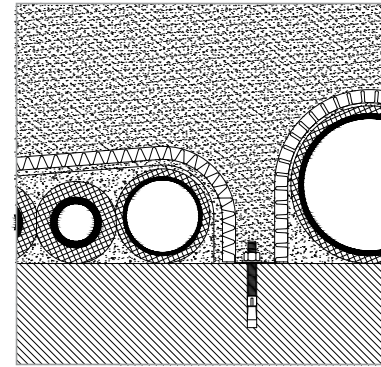
Distance to adjacent separating element
- Twisted mounting lugs

Fire dampers

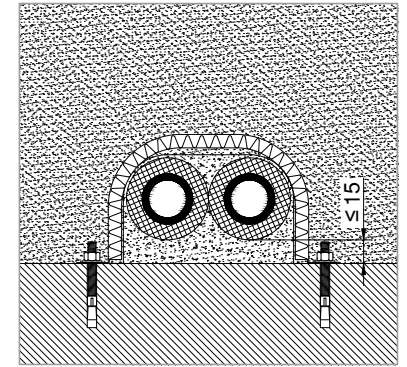


Distance to
AIR FIRE TECH fire dampers
(1139-CPR-1046/12) ≥ 50 mm.

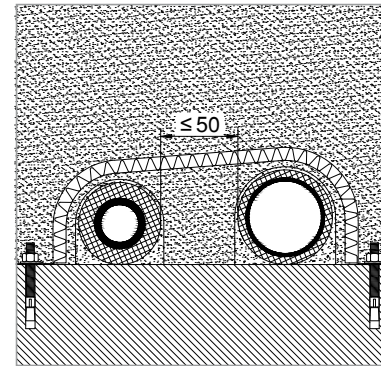
Omega-application



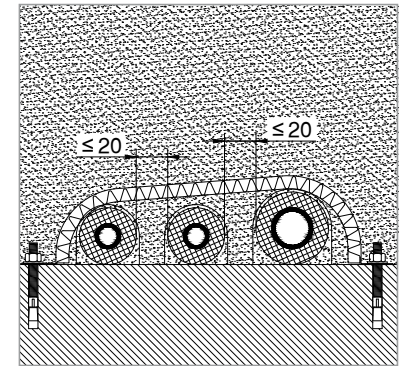
Concerted screw fastening



Distance between adjacent
separating element and pipe(s)



Distance between two pipes



Distance between pipes for multiple
pipe penetrations

Note

In walls, the pipe collars must be installed on one or both sides, in floors the pipe collars must be installed on the bottom side. When applying and installing the product, make sure to meet the requirements of additional national laws and regulations that may exist. The product must not be modified or exposed to mechanical load. The risk of spread of fire downwards caused by burning material, which drips through a pipe downwards to floors below, is not assessed with this European Technical Assessment. The installation must be carried out exclusively by authorised personnel. The applicability of the manufacturers' products for the given specific requirements has to be checked by the user.

For penetration elements and classifications not mentioned in this Installation Instruction, please contact AIR FIRE TECH.

Insulation

Continued-sustained insulations (CS) must have a minimum length of 500 mm in both directions measured from the surface of the separating element, local-sustained insulations (LS) must have a minimum length of 100 mm in both directions.

For detailed insulation materials and thicknesses, see "Permissible Insulations" table - page 26-27 and installation details.

Pipe end configurations

Plastic pipes are tested U/U (uncapped/uncapped) for ventilated pipe systems (sewage pipes, rainwater pipes, etc.).

Multi-layer composite pipes and thick-walled plastic pipes are tested U/C (uncapped/capped) for closed pipe systems (e.g. water pipes, heating pipes, etc.).

Metal pipes are tested U/C (uncapped/capped).

Pellet conveying tubes are tested U/U (uncapped/uncapped).

Plastic conduits are tested U/C (uncapped/capped). They must be sealed on at least one side of the penetration seal with commercially available silicone sealant.

Service support construction

Plastic pipes, multi-layer composite pipes and metal pipes must be fixed by means of a non-combustible service support construction max. 50 cm on both sides of the wall or on the top side of the floor.

Plastic conduits, cables and pellet conveying tubes must be fixed by means of non-combustible service support construction max. 25 cm on both sides of the wall or on the top side of the floor. The fixing must be selected so that the pipe clamp encloses the pipe as tightly as possible and ensures rigid suspension. Simply placing the pipe in or out of the pipe clamp is not permitted.

Pipe collar fixing

The pipe collar must be fixed with non-combustible screws and non-combustible dowels. For detailed information on fixings, see the table "Permissible separating elements" - page 14-15.

Use condition

The pipe penetration seal "Air Fire Tech System RORCOL" is intended for use at temperatures below 0 °C and with exposure to UV, but with no exposure to rain, and can therefore – according to EAD 350454-00-1104 clause 2.2.9.3.1 – be categorized as type Y₁. Since the requirements for type Y₁ are met, also the requirements for type Y₂, Z₁ and Z₂ are fulfilled.

Although a penetration seal is intended for indoor applications only, the construction process may result in it being subjected to more exposed conditions for a period before the building envelope is closed. For this case provisions shall be made to protect temporarily exposed penetration seals.

It is assumed that...

- ...damages to the penetration seal are repaired accordingly,
- ...the installation of the penetration seal does not affect the stability of the adjacent building element – even in case of fire,
- ...the lintel or floor above the penetration seal is designed structurally and in terms of fire protection such that no additional mechanical load (other than its own weight) is imposed to the penetration seal,
- ...the thermal movement in the pipe work will be accommodated in such way that it does not impose a load on the penetration seal,
- ...the installations are fixed to the adjacent building element in accordance with the relevant regulations in such a way that, in case of fire, no additional mechanical load is imposed to the penetration seal,
- ...the support of the installations is maintained for the required period of fire resistance and
- ...pneumatic dispatch systems, compressed air systems, etc. are switched off by additional means in case of fire.

Safety

Keep out of the reach of children.

Keep away from food, drinks and animal foodstuffs.

Not suitable for consumption.

Storage and transport

Dry at min. 3 °C to max. 35 °C.



**Stadt
Wien**

Prüf-, Inspektions- und
Zertifizierungsstelle



Notified Body
No. 1139

Zertifikat der Leistungsbeständigkeit

1139-CPR-0523/13 (3. Neufassung)

Gemäß der Verordnung (EU) Nr. 305/2011 des Europäischen Parlaments und des Rates vom 9. März 2011 (Bauprodukteverordnung - CPR), gilt dieses Zertifikat für die Bauprodukte

Brandschutzprodukte zum Abdichten und Verschießen von Fugen und Öffnungen und zum Aufhalten von Feuer im Brandfall: Abschottungen mit der Handelsbezeichnung „Air Fire Tech System RORCOL“

in Verkehr gebracht unter dem Namen oder der Handelsmarke von

Air Fire Tech Brandschutzsysteme GmbH
A-1130 Wien, Stranzenberggasse 7b/1/2
und hergestellt im Herstellungsbetrieb

Air Fire Tech Brandschutzsysteme GmbH
Werk Bad Vöslau

Dieses Zertifikat bescheinigt, dass alle Vorschriften über die Bewertung und Überprüfung der Leistungsbeständigkeit beschrieben in der

ETA-13/0758, herausgegeben am 02.06.2020
und
EAD 350454-00-1104

entsprechend System 1 für die in der ETA ausgewiesene Leistung angewendet werden und dass die vom Hersteller durchgeführte werkseigene Produktionskontrolle bewertet wurde zur Sicherstellung der

Leistungsbeständigkeit des Bauprodukts.

Dieses Zertifikat wurde erstmals am 7. Mai 2014 ausgestellt. Die vorliegende 3. Neufassung des Zertifikates 1139-CPR-0523/13 ersetzt die 2. Neufassung des Zertifikates vom 18. September 2018 und bleibt gültig, solange weder die ETA, das EAD, das Bauprodukt, das AVCP-Verfahren noch die Herstellbedingungen im Werk wesentlich geändert werden und sofern es nicht von der notifizierten Produktzertifizierungsstelle ausgesetzt oder zurückgezogen wird.



Head of the certification body
Dipl.-Ing. Martin Fehrer
Oberstadtbaurat (city planning councillor)

Vienna, 2 July 2020





Head of the testing, inspection
and certification body
Dipl.-Ing. Georg Pommer
Senate Councillor

MA 39 – CE 2020-0792 – Rinnböckstraße 15/2, 1110 Wien, post@ma39.wien.gv.at

No. 2020/RORCOL in accordance with Annex III of Regulation (EU) No. 305/2011
(Construction Products Regulation)

1. Unique identification code of the product-type:

Pipe collar RORCOL V30
 Pipe collar RORCOL V60
 Pipe collar RORCOL AV60
 Pipe collar RORCOL M
 Fire protective gap filler BFM/K310
 Mounting tool MH/RORCOL
2. Intended use:

Penetration sealing for combustible pipes, non-combustible pipes and cables through walls and floors according to Installation Instruction of ETA-13/0758
3. Manufacturer:

AIR FIRE TECH Brandschutzsysteme GmbH
 Stranzenberggasse 7b/1/2
 1130 Vienna
 AUSTRIA
4. System(s) of AVCP:

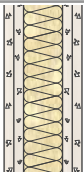
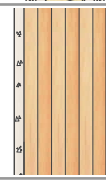
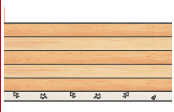
System 1
5. European Assessment Document:

EAD 350454-00-1104,
 Edition September 2017
 ETA-13/0758 of 02/06/2020
 Österreichisches Institut für Bautechnik (OIB)
 NB 1139 – Magistratsabteilung 39 –
 Prüf-, Überwachungs- und
 Zertifizierungsstelle der Stadt Wien
6. Declared performance:

Essential performance	Performance	Harmonised technical specification
Reaction to fire	Class E	EN 13501-1
Dangerous substances	None	Council Directive 67/548/EEC, Regulation (EC) no 1272/2008 and EOTA Technical Report TR 034
Durability and utalizability	Use condition Y ₁	EOTA Technical Report TR 024

DECLARATION OF PERFORMANCE

Permissible separating elements/fixings

Separating element / application		
SW EI90		Shaft walls ≥ EI90 Lining on one side with 2x20, 3x15 or 2x25 mm Gypsum plasterboards DF or DFR acc. to EN 520 or GM-FH2 acc. to EN 15283-1 Minimum width of steel studs (CW profiles): 50 mm with or without mineral wool
SW EI60		Shaft walls ≥ EI60 Lining on one side with 2x15 mm Gypsum plasterboards DF or DFR acc. to EN 520 or GM-FH2 acc. to EN 15283-1 Minimum width of steel studs (CW profiles): 50 mm with or without mineral wool
RW		Rigid walls Thickness ≥ 100 mm Density ≥ 500 kg/m³ Concrete and masonry components
FW		Flexible walls Thickness ≥ 100 mm Steel studs (CW profiles) or timber studs*, Lined on both faces with a minimum thickness of 12.5 mm and at least 2 layers, boards with classification A2-s1,d0 or A1 acc. to EN 13501-1 *Minimum distance between timber studs and penetration seals 100 mm, gap filled with mineral wool (melting point ≥ 1000 °C)
TW		Cross-laminated timber walls ETA-06/0138 - 150 mm cross-laminated timber, ETA-06/0138 - 100 mm cross-laminated timber + 15 mm gypsum plasterboards type DF on both sides acc. to EN 520
RF		Rigid floors Thickness ≥ 150 mm Density ≥ 500 kg/m³
TF		Cross-laminated timber floors ETA-06/0009 - 200 mm cross-laminated timber, ETA-06/0138 - 140 mm cross-laminated timber + 12.5 mm gypsum plasterboard type DF acc. to EN 520, ETA-06/0138 - 90 mm cross-laminated timber + 2x15 mm gypsum plasterboard type DF acc. to EN 520

DECLARATION OF PERFORMANCE

Pipe collar fixing	Annular gap / residual gap	Page
■ Dry-wall screws ≥ Ø3.5 x 45 mm with Ø20 mm washers (3x15, 2x25 mm) ■ Chipboard screws ≥ Ø6.0 x 40 mm (3x15, 2x25 mm) ■ Cavity dowels ≥ M6 with Ø20 mm washers	■ ≤ 10 mm with fire protective gap filler or non-combustible material over the entire thickness of the separating element ■ ≤ 15 mm with fire protective gap filler over the entire thickness of the separating element	28
■ Cavity dowels ≥ M6 with Ø20 mm washers	■ ≤ 10 mm with fire protective gap filler or non-combustible material over the entire thickness of the separating element	34
■ Metallic anchors or metallic plugs with screws ≥ M6 with Ø20 mm washers ■ Chipboard screws ≥ Ø6.0 x 55 mm (only for aerated concrete)	■ ≤ 10 mm with fire protective gap filler or non-combustible material over the entire thickness of the separating element ■ 5-20 mm with non-combustible material or mineral wool over the entire thickness of the separating element	36
■ Threaded bars ≥ M6 with Ø20 mm washers and nuts (when surface-mounted) ■ Dry-wall screws ≥ Ø3.5 x 35 mm with Ø20 mm washers (when flush mounted)	■ ≤ 10 mm with fire protective gap filler or non-combustible material over the thickness of the lining	40
■ Chipboard screws ≥ Ø6.0 x 120 mm	■ ≤ 10 mm with fire protective gap filler or non-combustible material over the entire thickness of the separating element ■ 5-20 mm mm with fire protective gap filler or non-combustible material at least 25 mm deep and mineral wool over the entire thickness of the separating element	42
■ Metallic anchors or metallic plugs with screws ≥ M6 with Ø20 mm washers ■ Chipboard screws ≥ Ø6.0 x 55 mm (only for aerated concrete)	■ ≤ 10 mm with fire protective gap filler or non-combustible material on the top side of the floor, at least 20 mm deep ■ ≤ 30 mm with mineral wool over the entire thickness of the separating element	44
■ Chipboard screws ≥ Ø6.0 x 90 mm with Ø20 mm washers	■ see installation details	48

DECLARATION OF PERFORMANCE

Permissible pipes

Pipe collar	Material or fabricate	Standard or manufacturer
RORCOL V30 and RORCOL V60	PE-HD Pipelife PE100	EN 12201-2, DIN 8074/DIN 8075
	PE-HD Geberit PE Geberit Silent-db20 Wavin PE	EN 1519-1, DIN 8074/DIN 8075
	PVC-U	EN 1401-1, DIN 8061/DIN 8062
	PVC-U	EN 1452-2, DIN 8062
	PP	EN ISO 15874-2, DIN 8077/DIN 8078
	PP CONEL Drain Geberit Silent-PP Geberit Silent-Pro Ostendorf HT PhonEX® AS Pipelife Master 3 PLUS RAUPIANO LIGHT Rehau HT Valsir PP Valsir Silere Wavin AS HT PLUS	EN 1451-1, DIN 8077/DIN 8078
	DYKASTil®	DYKA B.V.
	FRIAPHON®	Friatec AG
	POLO-KAL 3S	POLOPLAST GMBH & CO KG
	POLO-KAL NG	POLOPLAST GMBH & CO KG
	POLO-KAL XS	POLOPLAST GMBH & CO KG
	RAUPIANO PLUS	REHAU Gesellschaft m.b.H
	RAUTITAN flex	REHAU Gesellschaft m.b.H
	Pellflex/AS	HY-POWER Produktions und Handels GmbH
	Pellflex PU/AS	HY-POWER Produktions und Handels GmbH
	PP MASTER SN12	Pipelife Austria GmbH & Co KG

DECLARATION OF PERFORMANCE

Permissible separating elements / outer pipe diameter										Pipe end configuration
SW		RW	FW	TW		RF	TF			
Ei90	Ei60			150	130		200	152.5	120	
50						125				U/U
≤ 110		≤ 200		≤ 135		≤ 135	≤ 110	≤ 125	≤ 110	
110-125		≤ 250	≤ 200			110-125				
≤ 110		≤ 110				≤ 110				
≤ 50		≤ 110				≤ 110		50		
≤ 110		≤ 160		≤ 160	≤ 110	≤ 160	110	≤ 50		
≤ 75		≤ 75		≤ 75		≤ 160		≤ 50		
≤ 110		≤ 160				≤ 160		110-125		
		≤ 135				≤ 135				
≤ 110		≤ 160				≤ 160	110			
≤ 110		≤ 200				≤ 200	110			
≤ 110		≤ 110				≤ 110	110			
≤ 110		≤ 160				≤ 160		110-125		
≤ 25		50				≤ 63		50		
		58								U/U
		58								
		200-250								

DECLARATION OF PERFORMANCE

Permissible pipes

Pipe collar	Material or fabricate	Standard or manufacturer
RORCOL AV60	Metal pipes	Reaction to fire class A1 acc. to EN 13501-1, with a melting point $\geq$ steel and thermal conductivity $\leq$ steel
	Metal pipes	Reaction to fire class A1 acc. to EN 13501-1, with a melting point $\geq$ copper and thermal conductivity $\leq$ copper
	"alplex Mehrschichtverbundrohr"	FRÄNKISCHE ROHRWERKE Gebr. Kirchner GmbH & Co. KG
	"CLEVERFIT Radial"	Rettig Heating Sp. z o.o
	"EASYTEC Installationsrohr"	Rettig Austria GmbH
	"Geberit-Mepla-Rohr"	Geberit Vertriebs GmbH
	"HENCO Mehrschichtverbundrohr"	HENCO Industries NV
	"JRG Sanipex MT"	Georg Fischer JRG AG
	"K06 KELIT ALU-Verbundrohr PN20"	KE KELIT Kunststoffwerk GmbH
	"KAN-therm Aluminium-Verbundrohr"	KAN-therm GmbH
	"KELOX® Modulrohr"	KE KELIT Kunststoffwerk GmbH
	"MT-Verbundrohr"	Winkler GmbH
	"POLYSAN Mehrschichtverbundrohr"	Polysan HandelsgesmbH & Co KG
	"PRINETO Nanoflex-Rohr"	IVT Installations- und Verbindungstechnik GmbH & CO. KG
	"PRINETO Stabil-Rohr"	IVT Installations- und Verbindungstechnik GmbH & CO. KG
	"PYTHON Getränkeleitung"	Python Systems AG
	"RAUTITAN stabil"	REHAU Gesellschaft m.b.H.
	"Raxofix-Mehrschichtverbundrohr"	Viega GmbH
	"Roth Systemrohr Alu-Laserplus®"	ROTH WERKE GMBH
	"TECEflex Verbundrohr"	TECE GmbH
	"TECElogo Verbundrohr"	TECE GmbH
	"Uponor Verbundrohr"	Uponor Vertriebs GmbH
RORCOL M	Plastic conduits with an outer diameter of ≤ 50 mm (with/without cable with an outer diameter of ≤ 21 mm)	
	Tied bundles up to a total diameter ≤ 100 mm containing plastic conduits with an outer diameter of ≤ 50 mm (with/without cable with an outer diameter of ≤ 21 mm)	
	All types of sheathed cables (except waveguides) currently and commonly used in building practice in Europe with an outer diameter of ≤ 21 mm	
	Tied bundles up to a total diameter ≤ 100 mm containing sheathed cables (except waveguides) currently and commonly used in building practice in Europe with an outer diameter of ≤ 21 mm	
	Metal pipes	Reaction to fire class A1 acc. to EN 13501-1, with a melting point $\geq$ steel and thermal conductivity $\leq$ steel

DECLARATION OF PERFORMANCE

Permissible separating elements / outer pipe diameter										Pipe end configuration
SW		RW	FW	TW		RF	TF			
Ei90	Ei60			150	130		200	152.5	120	
≤ 28		≤ 76		≤ 54			≤ 76		≤ 35	U/C
≤ 28		≤ 22		≤ 18			≤ 28			
≤ 20		≤ 63								
≤ 32		≤ 63				≤ 63				
≤ 32		≤ 63				≤ 63				
≤ 32	≤ 26	≤ 63		26-32, 63	≤ 32	≤ 63		26, 63		
≤ 32		≤ 20	20			20		20		
≤ 32	≤ 26	≤ 40	40			≤ 63				
		20, 75-90								
≤ 32		≤ 63				≤ 20				
≤ 32	≤ 25	≤ 63				≤ 63				
≤ 26		40				≤ 63	20			
≤ 32		≤ 20	20			20		20		
							21			
≤ 33		≤ 63				≤ 63	21			
40, 80										
≤ 25		≤ 40				≤ 63				
≤ 32		≤ 63				≤ 63				
≤ 26		≤ 63				≤ 63				
≤ 32	≤ 26	≤ 63		26, 63		≤ 63		26, 63		
≤ 25		≤ 63				≤ 63				
≤ 32		≤ 63				≤ 63				
✓		✓		✓		✓				
✓		✓				✓				
✓		✓		✓		✓				
✓		✓				✓				
		≤ 76				≤ 76				U/C

DECLARATION OF PERFORMANCE

Permissible pipes - Omega-application

Pipe collar	Material or fabricate	Standard or manufacturer
RORCOL V60 mounted to the wall or floor	PE-HD	EN 1519-1, DIN 8074/DIN 8075
	Geberit PE	
	Geberit Silent-db20	
	Wavin PE	
	PP	EN 1451-1, DIN 8077/DIN 8078
	CONEL Drain	
	Geberit Silent-PP	
	Geberit Silent-Pro	
	Ostendorf HT	
	PhonEX® AS	
	Pipelife Master 3 PLUS	
	RAUPIANO LIGHT	
	Rehau HT	
	Valsir PP	
	Valsir Silere	
	Wavin AS	
	HT PLUS	
	DYKASTil®	DYKA B.V.
	POLO-KAL NG	POLOPLAST GMBH & CO KG
	POLO-KAL XS	POLOPLAST GMBH & CO KG
	RAUPIANO PLUS	REHAU Gesellschaft m.b.H
RORCOL V60 in a corner	PE-HD	EN 1519-1, DIN 8074/DIN 8075
	PP	EN 1451-1, DIN 8077/DIN 8078
	CONEL Drain	
	Geberit Silent-PP	
	Geberit Silent-Pro	
	Ostendorf HT	
	Pipelife Master 3 PLUS	
	PhonEX® AS	
	Rehau HT	
	Valsir PP	
	Valsir Silere	
	Wavin AS	
	HT PLUS	
	DYKASTil®	DYKA B.V.
	POLO-KAL NG	POLOPLAST GMBH & CO KG
	POLO-KAL XS	POLOPLAST GMBH & CO KG
	RAUPIANO PLUS	REHAU Gesellschaft m.b.H

DECLARATION OF PERFORMANCE

Permissible separating elements / outer pipe diameter										Pipe end configuration
SW		RW	FW	TW		RF	TF			
Ei90	Ei60			150	130		200	152.5	120	
≤ 110										U/U
≤ 110		≤ 75	≤ 50			≤ 110				
≤ 75		≤ 50				≤ 75				
≤ 110						110				
≤ 110		50				110				
≤ 110		50				110				
≤ 110						110				
90										U/U
≤ 78										
≤ 50										
75										
75										
75										
75										

DECLARATION OF PERFORMANCE

Permissible pipes - Omega-application

Pipe collar	Material or fabricate	Standard or manufacturer
RORCOL AV60 mounted to the wall or floor	PVC-U	EN 1452-2, DIN 8062
	PP	EN 1451-1, DIN 8077/DIN 8078
	POLO-KAL NG	POLOPLAST GMBH & CO KG
	POLO-KAL XS	POLOPLAST GMBH & CO KG
	RAUPIANO PLUS	REHAU Gesellschaft m.b.H.
	"alpeX Mehrschichtverbundrohr"	FRÄNKISCHE ROHRWERKE Gebr. Kirchner GmbH & Co. KG
	"CLEVERFIT Radial"	Rettig Heating Sp. z o.o
	"EASYTEC Installationsrohr"	Rettig Austria GmbH
	"Geberit-Mepla-Rohr"	Geberit Vertriebs GmbH
	"HENCO Mehrschichtverbundrohr"	HENCO Industries NV
	"JRG Sanipex MT"	Georg Fischer JRG AG
	"KAN-therm Aluminium-Verbundrohr"	KAN-therm GmbH
	"KELOX® Modulrohr"	KE KELIT Kunststoffwerk GmbH
	"POLYSAN Mehrschichtverbundrohr"	Polysan HandelsgesmbH & Co KG
	"PRINETO Stabil-Rohr"	IVT Installations- und Verbindungstechnik GmbH & CO. KG
	"RAUTITAN stabil"	REHAU Gesellschaft m.b.H.
	"Raxofix-Mehrschichtverbundrohr"	Viega GmbH
	"Roth Systemrohr Alu-Laserplus®"	ROTH WERKE GMBH
	"TECEflex Verbundrohr"	TECE GmbH
	"TECElogo Verbundrohr"	TECE GmbH
	"Uponor Verbundrohr"	Uponor Vertriebs GmbH
	Metal pipes	Reaction to fire class A1 acc. to EN 13501-1, with a melting point $\geq$ copper and thermal conductivity $\leq$ copper
	Conduits	EN 61386-21
		EN 61386-22

DECLARATION OF PERFORMANCE

Permissible separating elements / outer pipe diameter										Pipe end configuration
SW		RW	FW	TW		RF	TF			
Ei90	Ei60			150	130		200	152.5	120	
32										U/U
32-78		50								
50-75		75								
50-75		75								
50										
		26								U/C
≤ 26										
≤ 26										
≤ 26		26								
≤ 26		20								
≤ 32										
≤ 20										
≤ 25										
≤ 32		20								
≤ 26										
25										
25										
26		26								
26		26								
25										
25										
≤ 28		16								
≤ 50		≤ 50				≤ 50				
≤ 40		≤ 25								

DECLARATION OF PERFORMANCE

Permissible pipes - U-application

Pipe collar	Material or fabricate	Standard or manufacturer
RORCOL V60	PP	EN 1451-1, DIN 8077/DIN 8078
	CONEL Drain	
	Geberit Silent-PP	
	Geberit Silent-Pro	
	Ostendorf HT	
	PhonEX® AS	
	Pipelife Master 3 PLUS	
	RAUPIANO LIGHT	
	Rehau HT	
	Valsir PP	
	Valsir Silere	
	Wavin AS	
	HT PLUS	
	DYKASTil®	DYKA B.V.
	POLO-KAL 3S	POLOPLAST GMBH & CO KG
	POLO-KAL NG	POLOPLAST GMBH & CO KG
	POLO-KAL XS	POLOPLAST GMBH & CO KG
	RAUPIANO PLUS	REHAU Gesellschaft m.b.H

DECLARATION OF PERFORMANCE

Permissible separating elements / outer pipe diameter										Pipe end configuration
SW		RW	FW	TW		RF	TF			
Ei90	Ei60			150	130		200	152.5	120	
≤ 110		≤ 110				≤ 135				U/U
≤ 75		≤ 75				≤ 110				
≤ 90		≤ 110								
		≤ 110								
≤ 110		≤ 110				≤ 125				
≤ 90										
≤ 90		≤ 110								

DECLARATION OF PERFORMANCE

Permissible insulations

Material	Product
Polyethylene (PE)	Classification E / E ₁ acc. to EN 13501-1, density 25-55 kg/m ³ ; e.g. "Astraflex PE", "steinoflex® 405 R", "Tubolit AR Fonoblok"
Elastomer foam	Classification B-s3,d0 / B ₁ -s3,d0 acc. to EN 13501-1; e.g. "AF/Armaflex, Armaflex XG", "K-FLEX ST", "Kaiflex-ST"
Polyester	Classification E acc. to EN 13501-1; e.g. "Austrovlies® Abfluss", "Austrovlies® Dünnwand"
Mineral wool	Classification A1 / A2-s1,d0 acc. to EN 13501-1, density ≥ 25 kg/m ³ ; e.g. "CLIMCOVER Lamella Mat", "AUSTROFLEX Glaswoll-Lamellenmatte"
Insulating wool	Classification A1 acc. to EN 13501-1, Melting point ≥ 1000 °C, minimum compacted apparent density 40 kg/m ³ ; e.g. "ISOVER Universal Stopfwolle"
Composite material	Classification B-s3,d0 / E ₁ ,d2 acc. to EN 13501-1; e.g. "Astrophon Schallschutzmatte Typ ST GK 070", "Geberit Isol"
PE protective pipes	Classification E acc. to EN 13501-1, outer diameter ≤ 35 mm; e.g. "PROTECTION HOSE", "TECE Wellschutzrohr", "Uponor Schutzrohr"

DECLARATION OF PERFORMANCE

Manufacturer	Standard
e.g. Austroflex Rohr-Isoliersysteme GmbH, Steinbacher Dämmstoff GmbH, Armacell GmbH	EN 14313
e.g. Armacell GmbH, L'Isolante K-FLEX S.p.A., Kaimann GmbH	–
e.g. Austroflex Rohr-Isoliersysteme GmbH	–
e.g. Saint-Gobain ISOVER Austria GmbH, Austroflex Rohr-Isoliersysteme GmbH	EN 14303
e.g. Saint-Gobain ISOVER Austria GmbH	EN 14303
e.g. Austroflex Rohr-Isoliersysteme GmbH, Geberit Vertriebs GmbH & Co KG	–
e.g. HENCO Industries NV, TECE GmbH, Uponor Vertriebs GmbH	–

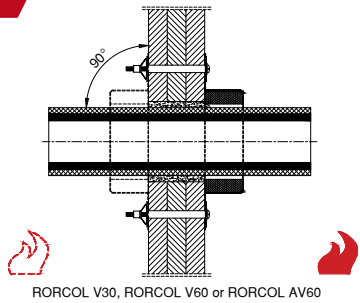
Type	Pipe type	
	Standard / product	Material
RORCOL V30 or RORCOL V60	EN 1519-1	PE
	EN 15874-2	PP
	EN 1451-1	
	PP pipes acc. to "Permissible pipes" table on page 16-25	
	EN 1401-1	PVC-U
	EN 1452-2	
RORCOL AV60	Multi-layer composite pipes acc. to "Permissible pipes" table on page 16-25	Al-PE
		Copper / steel
	Metal pipes	Steel

Pipe diameter [mm]	Insulation [mm]				Insulation type
	without	PE	Elastomer	Mineral wool	
≤ 200	✓	≤ 5	see application areas on page 28-53		LS / CS
≤ 110		≤ 10			
≤ 160		≤ 5			
≤ 250					
≤ 250					
≤ 110					
≤ 26		9-10	9-13	≤ 30	CS
≤ 32		9-10	9-25	≤ 40	
≤ 40			9-32	≤ 50	
≤ 50			13-32		
≤ 63			13-43		
≤ 16		≥ 10	≥ 9	≥ 30	
≤ 28			≥ 13		
≤ 42			≥ 19		
≤ 54			≥ 32		
≤ 76					

DECLARATION OF PERFORMANCE

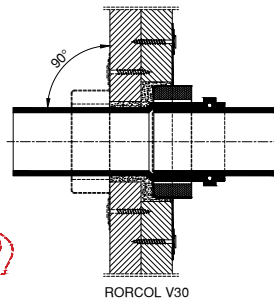
Installation details for shaft walls $\geq$ EI90

1



RORCOL V30, RORCOL V60 or RORCOL AV60

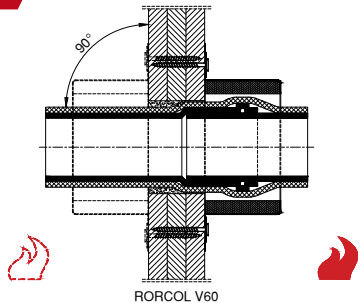
2



RORCOL V30

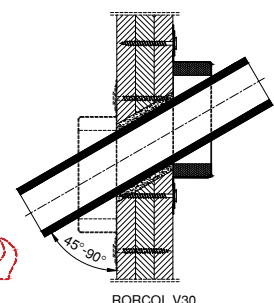
Important:
The pipe collar must not be positioned around the gasket!

3



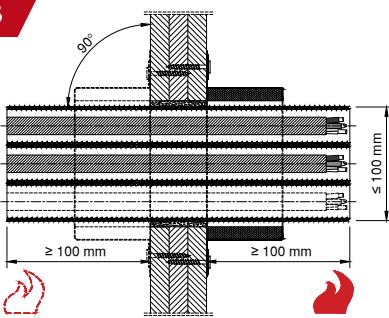
RORCOL V60

4



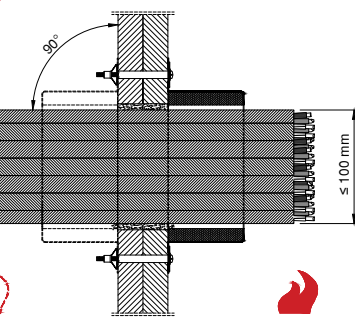
RORCOL V30

5



RORCOL AV60 $\leq$ DN110
for bundles of plastic conduits with/without cable

6



RORCOL AV60 $\leq$ DN110
for cable bundles

DECLARATION OF PERFORMANCE

Application areas for shaft walls $\geq$ EI90

Pipe penetration seal

Shaft walls $\geq$ EI90, lining 2x20, 3x15 or 2x25 mm

Type	Standard / Fabricate	Material	Pipe diameter [mm]	Insulation [mm]				Fire resistance class
				with-out	PE	Elastomer	Mineral wool	
RORCOL V30 or RORCOL V60	EN 1519-1	PE	≤ 110	✓	5			EI90
	EN 1451-1	PP						
	CONEL Drain							
	Geberit Silent-PP							
	PhonEX® AS							
	Pipelife Master 3 PLUS							
	RAUPIANO LIGHT							
	Wavin AS							
	DYKASTil®							
	POLO-KAL 3S							
	POLO-KAL NG / XS							
	RAUPIANO PLUS							
EN 1401-1	PVC-U	110-125						
EN 1452-2		≤ 110						
RORCOL V60	EN 15874-2	PP	≤ 50	✓	≤ 10			EI90
RORCOL AV60	Multi-layer composite pipes	Al-PE	≤ 33	see “Permissible insulations” on page 26-27				EI90
	Metal pipes	Copper / Steel	≤ 16			≥ 9	≥ 30	
			≤ 28			≥ 13		

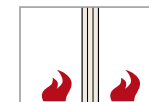
Cable penetration seal

Shaft walls $\geq$ EI90, lining 2x20, 3x15 or 2x25 mm

Type	max. DN	Standard / Fabricate	Penetrating elements	Outer diameter of tied bundles [mm]	Outer diameter of plastic conduits [mm]	Cable dimensions [mm]	Fire resist- ance class	
RORCOL AV60	110	EN 61386-21	Bundles of plastic conduits	≤ 100	≤ 40	≤ 18.5	EI90	
		EN 61386-22			≤ 50	≤ 21		
		All types of sheathed cables	Cable bundles		–	≤ 21		
		EN 61386-21	Plastic conduits		–	≤ 40		5x10.0 mm ²
		EN 61386-22			–	≤ 50		5x16.0 mm ²



– fire exposure on one or both sides

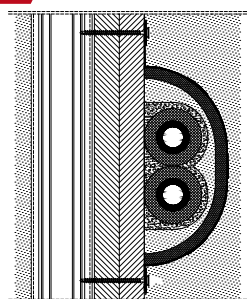


– fire exposure on both sides

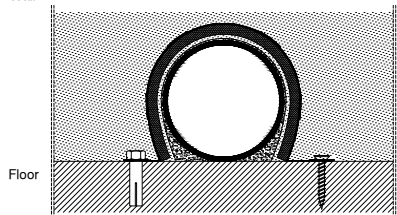
DECLARATION OF PERFORMANCE

Installation details for shaft walls $\geq$ EI90

7

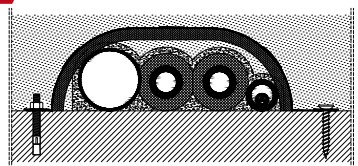


Wall

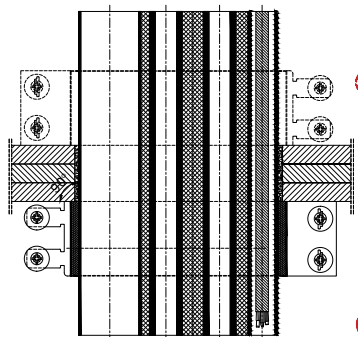


Floor

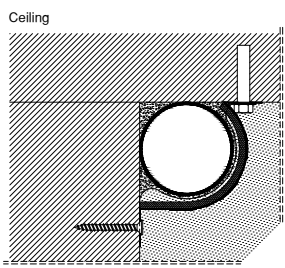
8



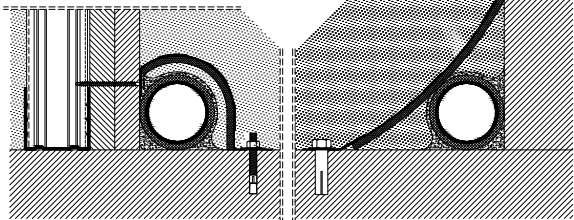
Floor



9



Ceiling



Floor

Working clearance see page 9

DECLARATION OF PERFORMANCE

Application areas for shaft walls $\geq$ EI90

Omega-application

Shaft walls $\geq$ EI90, lining 2x20, 3x15 or 2x25 mm

Type	max. DN	Standard / Fabricate	Material/ penetrating element	Pipe diameter [mm]	Insulation [mm]			Fire resistance class
					without	PE	Elastomer	
RORCOL V60	110	EN 1519-1	PE	≤ 110		5		EI90
		EN 1451-1						
		CONEL Drain						
		Geberit Silent-PP						
		PhonEX® AS						
		Pipelife Master 3 PLUS						
		RAUPIANO LIGHT						
		Wavin AS						
		DYKASTil®						
		POLO-KAL NG / XS						
RAUPIANO PLUS								
RORCOL AV60	80	Multi-layer composite pipes	max. 2x Al-PE	≤ 26		9-10	9-13	EI90
		EN 1451-1	max. 1x PP	≤ 75	✓	5		
		Metal pipes	max. 2x Copper	≤ 22			≥ 13	EI90
				≤ 18				
		EN 1452-2	max. 1x PVC-U	≤ 32	✓			
		EN 61386-21 EN 61386-22	max. 1x Plastic conduit	≤ 32	with 1 pc. cable max. 5x10.0 mm²			
	Metal pipes	max. 2x Steel	≤ 28			≥ 13	EI90	

Omega-application in a corner

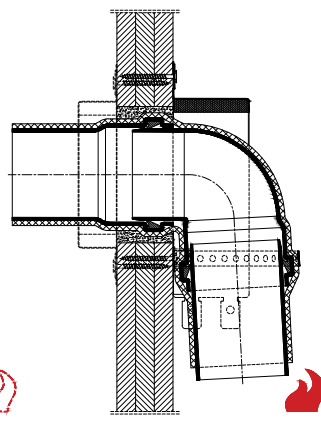
Shaft walls $\geq$ EI90, lining 2x20, 3x15 or 2x25 mm

Type	max. DN	Standard / Fabricate	Material/ penetrating element	Pipe diameter [mm]	Insulation [mm]			Fire resistance class
					without	PE	Elastomer	
RORCOL V60	63	EN 1519-1	PE	90		5		EI90
		EN 1451-1	PP	≤ 78				
		POLO-KAL NG		75				
		RAUPIANO PLUS		75	✓			

DECLARATION OF PERFORMANCE

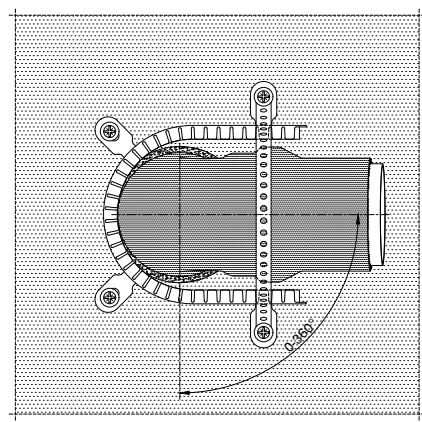
Installation details for shaft walls $\geq$ EI90

10



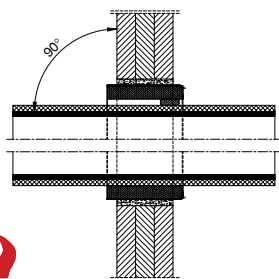
Diameter of plastic pipe Dimension RORCOL V60
 $\varnothing 50$ - DN6
 $\varnothing 75$ - DN110
 $\varnothing 90$ - DN110
 $\varnothing 110$ - DN125

11



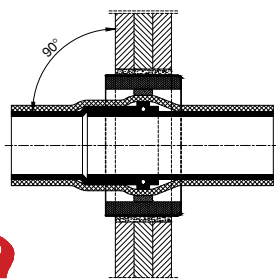
Perforated stainless steel tape or
 perforated steel tape with plastic coating
 Width $\geq$ 17 mm
 Thickness $\geq$ 1 mm
 Hole diameter $\leq$ 7 mm

12



RORCOL V60
 Seal the annular gap between pipe collar and pipe smoke-tight
 with commercially available silicone sealant

13



RORCOL V60
 Seal the annular gap between pipe collar and pipe smoke-tight
 with commercially available silicone sealant

DECLARATION OF PERFORMANCE

Application areas for shaft walls $\geq$ EI90

U-application

Shaft walls $\geq$ EI90, lining 2x20, 3x15 or 2x25 mm

Type	max. DN	Standard / Fabricate	Material/ penetrating element	Pipe di- ameter [mm]	Insulation [mm]		Fire resist- ance class
					without	PE	
RORCOL V60	125	EN 1451-1	PP	≤ 110		5	EI90
		CONEL Drain					
		Geberit Silent-PP					
		PhonEX® AS					
		Pipelife Master 3 PLUS					
		RAUPIANO LIGHT		≤ 90			
		Wavin AS					
		DYKASStil®					
		POLO-KAL NG					
		POLO-KAL XS					
		RAUPIANO PLUS		≤ 90			

Symmetrically inserted

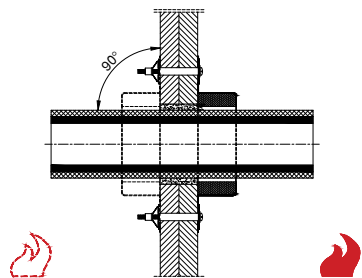
Shaft walls $\geq$ EI90, lining 2x20, 3x15 or 2x25 mm

Type	max. DN	Standard / Fabricate	Material	Pipe di- ameter [mm]	Insulation [mm]		Fire resist- ance class
					without	PE	
RORCOL V60	125	EN 1451-1	PP	≤ 110		5	EI90
		CONEL Drain					
		Geberit Silent-PP					
		PhonEX® AS					
		Pipelife Master 3 PLUS					
		RAUPIANO LIGHT					
		Wavin AS					
		DYKASTil®					
		POLO-KAL NG / XS					
		RAUPIANO PLUS					

DECLARATION OF PERFORMANCE

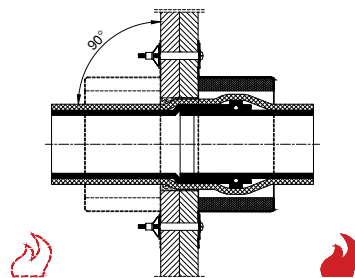
Installation details for shaft walls $\geq$ EI60

14



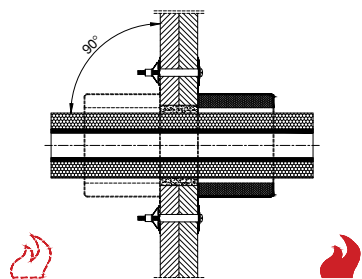
RORCOL V30, RORCOL V60 or RORCOL AV60

15



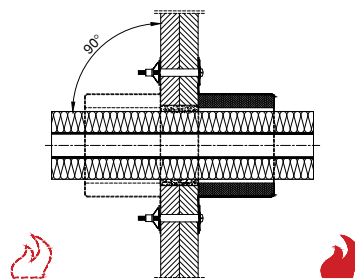
RORCOL V60
Plastic pipes with plug-in sleeve $\leq$ DN90,
with/without insulation

16



RORCOL AV60
for multi-layer composite pipes

17



RORCOL AV60
for non-combustible pipes

DECLARATION OF PERFORMANCE

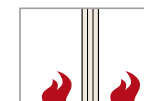
Application areas for shaft walls $\geq$ EI60

Pipe penetration seal Shaft walls $\geq$ EI60, lining 2x15 mm

Type	Standard / Fabricate	Material	Pipe diameter [mm]	Insulation [mm]				Fire resistance class
				with-out	PE	Elastomer	Mineral wool	
RORCOL V30 or RORCOL V60	EN 1519-1	PE	≤ 110	✓	5			EI60
	EN 1451-1	PP						
	CONEL Drain							
	Geberit Silent-PP							
	PhonEX® AS							
	Pipelife Master 3 PLUS							
	RAUPIANO LIGHT							
	Wavin AS							
	DYKASTil®							
	POLO-KAL 3S							
	POLO-KAL NG / XS							
RAUPIANO PLUS								
RORCOL AV60	Multi-layer composite pipes	Al-PE	≤ 26	see “Permissible insulations” on page 26-27				EI60
	Metal pipes	Copper / Steel	≤ 28				≥ 30	



– fire exposure on one or both sides



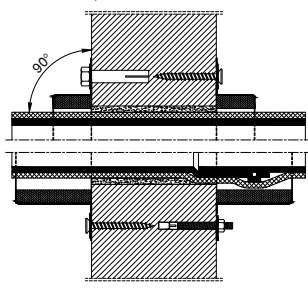
– fire exposure on both sides

DECLARATION OF PERFORMANCE

Installation details for rigid walls

18

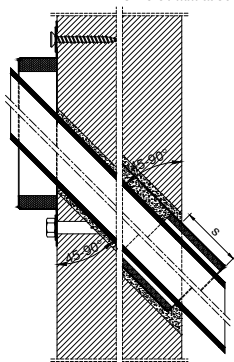
RORCOL V30, RORCOL V60 or RORCOL AV60



RORCOL V60
Plastic pipes with plug-in sleeve ≤ DN160,
with/without insulation

19

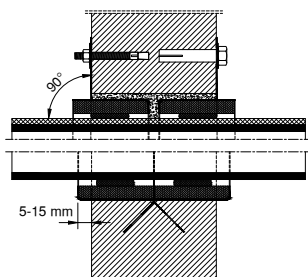
s = 47-61 mm at 45°
s = 21-61 mm at 67.5°
s = 5-61 mm at 90°



RORCOL V30 or RORCOL V60
Plastic pipes ≤ DN110,
uninsulated

RORCOL V60
Plastic pipes with
plug-in sleeve ≤ DN90,
uninsulated
Fill in annular gap 5-20 mm
with mortar

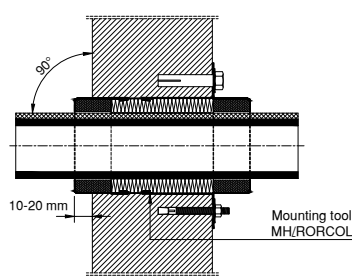
20



RORCOL V30, RORCOL V60 or RORCOL AV60
Plastic pipes ≤ DN160

Multi-layer composite pipes ≤ DN26
Fill annular gap between collar and pipe with 10-20 mm of commercially
available silicone sealant

21



RORCOL V30 or RORCOL V60
Plastic pipes ≤ DN160

Fill annular gap 5-20 mm with mineral wool
(melting point ≥ 1000 °C, A1 acc. to EN 13501-1,
minimum packing density 40 kg/m³)

DECLARATION OF PERFORMANCE

Application areas for rigid walls

Pipe penetration seal Rigid walls, thickness ≥ 100 mm

Type	Standard / Fabricate	Material	Pipe diameter [mm]	Insulation [mm]				Fire resistance class
				with-out	PE	Elastomer	Mineral wool	
RORCOL V30 or RORCOL V60	EN 1519-1	PE	≤ 200	✓	≤ 5	≤ 25 (V60 only)		EI90
	EN 1451-1	PP						
	CONEL Drain							
	Geberit Silent-PP							
	PhonEX® AS							
	Pipelife Master 3 PLUS							
	RAUPIANO LIGHT							
	Wavin AS							
	DYKASTil®							
	POLO-KAL 3S							
	POLO-KAL NG / XS							
	PP MASTER SN12							
RAUPIANO PLUS								
EN 1401-1	PVC-U	≤ 250						
EN 1452-2		≤ 110						
RORCOL V60	EN 15874-2	PP	≤ 110	✓	≤ 20	≤ 43	≤ 50	EI90
	Pellet pipes	PVC, PVC/PU	≤ 58	✓				
RORCOL AV60	Aluminium composite pipes	Al-PE	≤ 63	see "Permissible insulations" on page 26-27				EI90
	Metal pipes	Copper / Steel	≤ 18	≥ 10	≥ 9	≥ 30		
			≤ 22		≥ 13			
		Steel	≤ 42		≥ 19			
			≤ 76		≥ 25			
RORCOL M	Metal pipes	Steel	≤ 54		≥ 19	≥ 30	EI90	
			≤ 76		≥ 25			

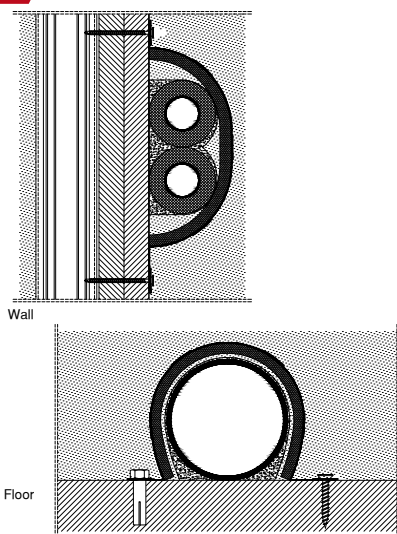
Multiple penetration Rigid walls, thickness ≥ 100 mm

Type	max. DN	Standard / Fabricate	Material/ penetrating element	Pipe di- ameter [mm]	Insulation [mm]			Fire resis- tance class
					without	PE	Elastomer	
RORCOL AV60	110	Multi-layer composite pipes	max. 4x Al-PE	≤ 26		9-10	9	EI90
	110	Metal pipes	max. 2x Copper	≤ 16		≥ 10	≥ 9	EI90
		EN 1451-1	max. 1x PP	≤ 32	✓			
		EN 61386-21 EN 61386-22	max. 1x Plastic conduit	≤ 25	with 1 pc. cable max. 5x2.5 mm²			

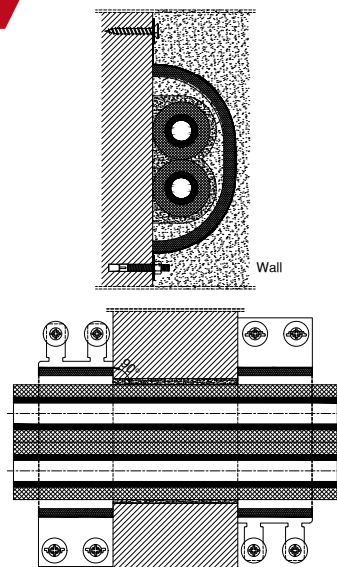
DECLARATION OF PERFORMANCE

Installation details for rigid walls

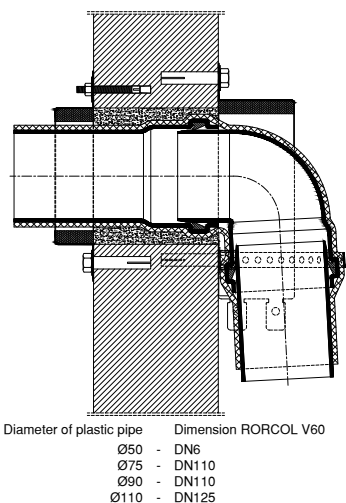
22



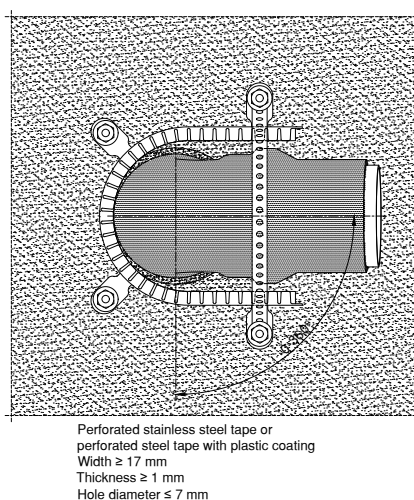
23



24



25



DECLARATION OF PERFORMANCE

Application areas for rigid walls

Omega-application Rigid walls, thickness ≥ 100 mm

Type	max. DN	Standard / Fabricate	Material/ penetrating element	Pipe diameter [mm]	Insulation [mm]			Fire resistance class
					without	PE	Elastomer	
RORCOL AV60	63	Multi-layer composite pipes	max. 2x Al-PE	≤ 26		9-10	9	EI90
		EN 1451-1	max. 1x PP	≤ 75	✓	5		
		Metal pipes	max. 2x Copper	≤ 16			≥ 13	EI90
		EN 1451-1	max. 1x PP	32	✓			
		EN 61386-21 EN 61386-22	max. 1x Plastic conduit	≤ 25	with 1 pc. cable max. 5x2.5 mm ²			EI90
		Multi-layer composite pipes	max. 2x Al-PE max. 1x Al-PE	≤ 26 ≤ 20		9-10	9	

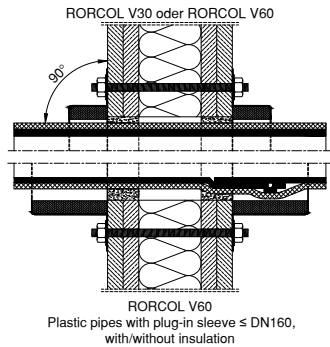
U-application Rigid walls, thickness ≥ 100 mm

Type	max. DN	Standard / Fabricate	Material/ penetrating element	Pipe diameter [mm]	Insulation [mm]		Fire resistance class
					without	PE	
RORCOL V60	125	EN 1451-1	PP	≤ 110		5	EI90
		CONEL Drain					
		Geberit Silent-PP					
		PhonEX® AS					
		Pipelife Master 3 PLUS					
		RAUPIANO LIGHT					
		Wavin AS					
		DYKASTil®					
		POLO-KAL NG					
		RAUPIANO PLUS					

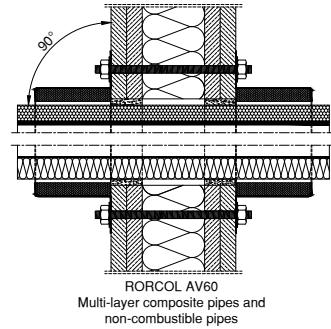
DECLARATION OF PERFORMANCE

Installation details for flexible walls

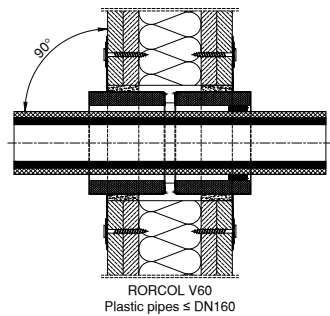
26



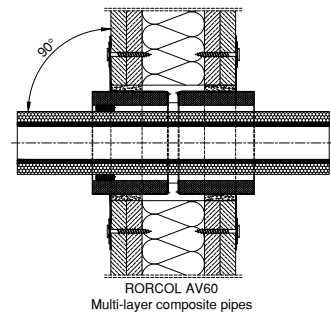
27



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DECLARATION OF PERFORMANCE

Application areas for flexible walls

Pipe penetration seal Flexible walls, thickness ≥ 100 mm

Type	Standard / Fabricate	Material	Pipe diameter [mm]	Insulation [mm]				Fire resistance class
				with-out	PE	Elastomer	Mineral wool	
RORCOL V30 or RORCOL V60	EN 1519-1	PE	≤ 200	✓	≤ 5	≤ 6		EI90
	EN 1451-1	PP	≤ 160					
	CONEL Drain							
	Geberit Silent-PP							
	PhonEX® AS							
	Pipelife Master 3 PLUS							
	RAUPIANO LIGHT							
	Wavin AS							
	DYKAStil®							
	POLO-KAL 3S							
	POLO-KAL NG					≤ 200		
	POLO-KAL XS					≤ 110		
	RAUPIANO PLUS	≤ 160						
EN 1401-1	PVC-U	≤ 200						
EN 1452-2	≤ 110							
RORCOL V60	EN 15874-2	PP	≤ 110	✓	≤ 5	≤ 43	≤ 50	EI90
RORCOL AV60	Multi-layer composite pipes	Al-PE	≤ 63	see “Permissible insulations” on page 26-27				EI90
	Metal pipes	Copper / Steel	≤ 16		≥ 10	≥ 9	≥ 30	
			≤ 22			≥ 13		
			≤ 42			≥ 19		
		Steel	≤ 76			≥ 32		

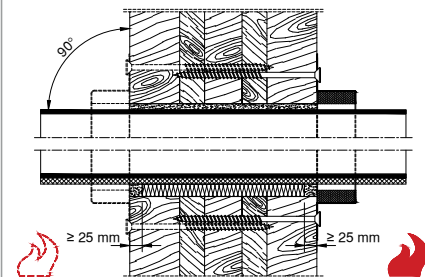
Multiple penetration Flexible walls, thickness ≥ 100 mm

Type	max. DN	Standard / Fabricate	Material/ penetrating element	Pipe diameter [mm]	Insulation [mm]		Fire resistance class
					PE	Elastomer	
RORCOL AV60	110	Multi-layer composite pipes	max. 4x Al-PE	≤ 26	≤ 5	9	EI90
	110	Metal pipes	max. 2x Copper	≤ 18	≥ 10	≥ 9	EI90
		EN 61386-21 EN 61386-22	max. 1x Plastic conduit	≤ 25	with 1 pc. cable max. 5x2.5 mm²		

DECLARATION OF PERFORMANCE

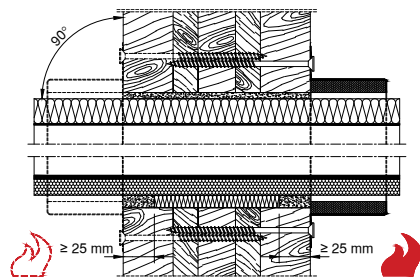
Installation details for cross-laminated timber walls

30



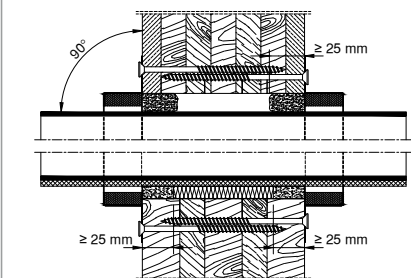
RORCOL V30 or RORCOL V60
Fill the annular gap between pipe and wall with 5-20 mm mineral wool (melting point $\geq 1000\text{ °C}$, A1 acc. to EN 13501-1, minimum packing density 40 kg/m³) and additionally fire protective gap filler BFM/K310 at least 25 mm deep

31



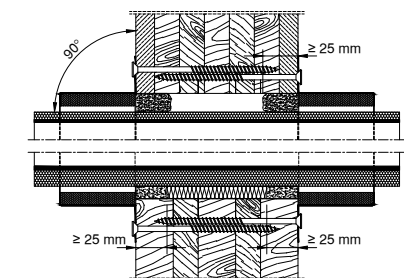
RORCOL AV60
Fill the annular gap between pipe and wall with 5-20 mm mineral wool (melting point $\geq 1000\text{ °C}$, A1 acc. to EN 13501-1, minimum packing density 40 kg/m³) and additionally fire protective gap filler BFM/K310 at least 25 mm deep

32



RORCOL V30 or RORCOL V60
Fill the annular gap between pipe and wall with 5-20 mm mineral wool (melting point $\geq 1000\text{ °C}$, A1 acc. to EN 13501-1, minimum packing density 40 kg/m³) and additionally fire protective gap filler BFM/K310 at least 25 mm deep

33



RORCOL AV60
Fill the annular gap between pipe and wall with 5-20 mm mineral wool (melting point $\geq 1000\text{ °C}$, A1 acc. to EN 13501-1, minimum packing density 40 kg/m³) and additionally fire protective gap filler BFM/K310 at least 25 mm deep

DECLARATION OF PERFORMANCE

Application areas for cross-laminated timber walls

Pipe penetration seal ETA-06/0138 - Cross-laminated timber walls Thickness $\geq 150\text{ mm}$ timber

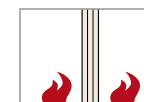
Type	Standard / Fabricate	Material	Pipe diameter [mm]	Insulation [mm]				Fire resistance class
				without	PE	Elastomer	Mineral wool	
RORCOL V30 or RORCOL V60	EN 1519-1	PE	≤ 135	✓	4-5			EI90
	EN 1451-1	PP	≤ 160					
	CONEL Drain		≤ 110					
	Geberit Silent-PP		≤ 125					
	PhonEX® AS		≤ 135					
	Pipelife Master 3 PLUS		≤ 110					
	RAUPIANO LIGHT		≤ 135					
Wavin AS								
RORCOL AV60	Geberit-Mepla-Rohr TECEflex Verbundrohr	Al-PE	26, 63	see “Permissible insulations” on page 26-27				EI90
	Metal pipes	Copper / Steel	≤ 18				≥ 30	
		Steel	≤ 42					
			≤ 54					

Pipe penetration seal ETA-06/0138 - Cross-laminated timber walls Thickness $\geq 100\text{ mm}$ timber + 15 mm gypsum plasterboards on both sides

Type	Standard / Fabricate	Material	Pipe diameter [mm]	Insulation [mm]			Fire resistance class
				without	PE	Elastomer	
RORCOL V30 or RORCOL V60	EN 1451-1	PP	≤ 110	✓			EI90
	Geberit Silent-PP						
	Pipelife Master 3 PLUS		50				
RORCOL AV60	Geberit-Mepla-Rohr	Al-PE	≤ 32	see "Permissible insulations" on page 26-27			EI90



– fire exposure on one or both sides

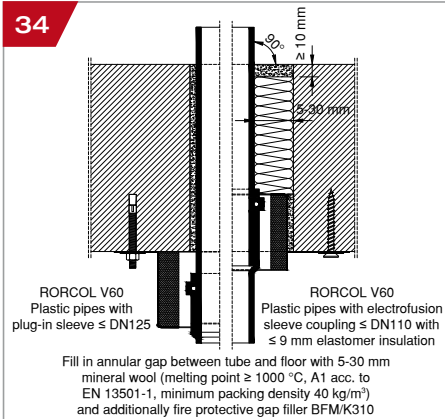


– fire exposure on both sides

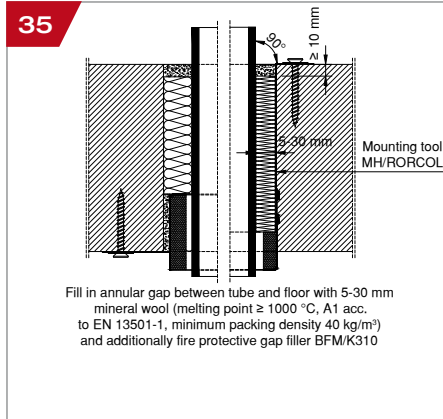
DECLARATION OF PERFORMANCE

Installation details for rigid floors

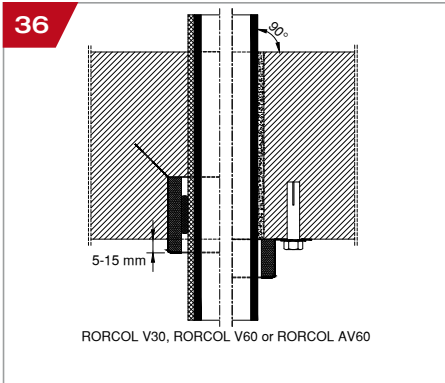
34



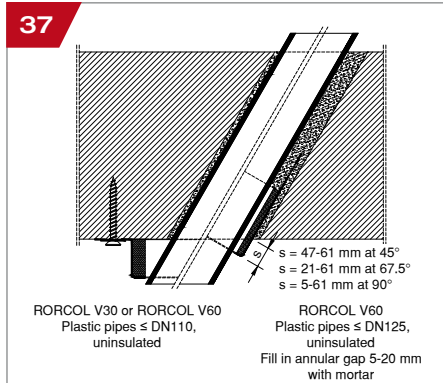
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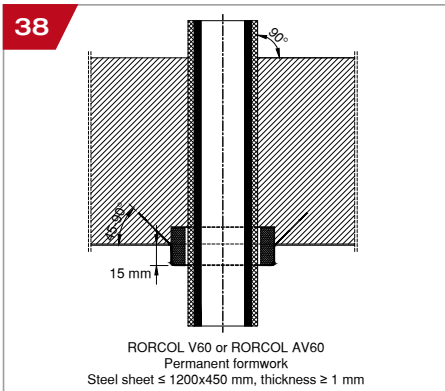
36



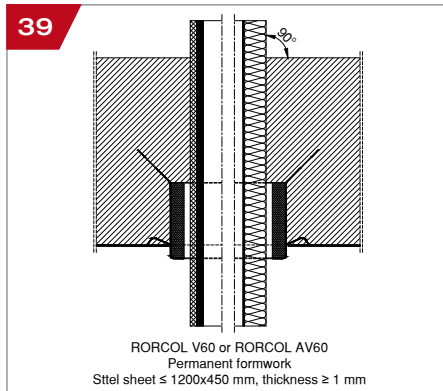
37



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DECLARATION OF PERFORMANCE

Application areas for rigid floors

Pipe penetration seal Rigid floors, thickness ≥ 150 mm

Type	Standard / Fabricate	Material	Pipe di- ameter [mm]	Insulation [mm]				Fire resist- ance class
				with- out	PE	Elastomer	Mineral wool	
RORCOL V30 or RORCOL V60	EN 1519-1	PE	≤ 135	✓	≤ 5	≤ 25 (V60 only)		EI90
	EN 1451-1	PP	≤ 160					
	CONEL Drain							
	Geberit Silent-PP							
	PhonEX® AS							
	Pipelife Master 3 PLUS							
	RAUPIANO LIGHT							
	Wavin AS							
	DYKASstil®							
	POLO-KAL 3S							
	POLO-KAL NG / XS							
	RAUPIANO PLUS							
EN 1401-1	PVC-U	110-125						
EN 1452-2		≤ 110						
RORCOL V60	RAUTITAN flex	PE	≤ 63		≤ 10	9-43	≤ 60	EI90
	EN 15874-2	PP	≤ 110	✓		≤ 25	≤ 50	
RORCOL AV60	Multi-layer composite pipes	Al-PE	≤ 63	see “Permissible insulations” on page 26-27				EI90
	Metal pipes	Copper / Steel	≤ 16	≥ 9	≥ 6	≥ 30		
			≤ 28				≥ 13	
		Steel	≤ 42				≥ 19	
			≤ 76				≥ 25	
RORCOL M	Metal pipes	Steel	≤ 54			≥ 19	≥ 30	EI90
			≤ 76			≥ 25		

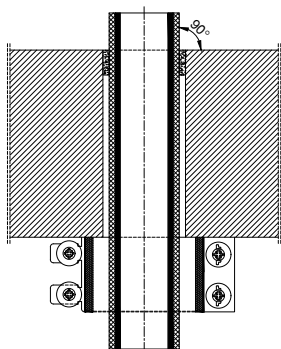
Multiple penetration Rigid floors, thickness ≥ 150 mm

Type	max. DN	Standard / Fabricate	Material/ penetrating element	Pipe di- ameter [mm]	Insulation [mm]			Fire resist- ance class
					without	PE	Elastomer	
RORCOL AV60	110	Multi-layer composite pipes	max. 4x Al-PE	≤ 26		≤ 10	≤ 9	EI90
	80	Metal pipes	max. 2x Copper	≤ 16		≤ 10		EI90
			max. 2x Copper	≤ 10		≤ 10		
		EN 1451-1	max. 1x Plastic conduit	≤ 20	with 1 pc. cable max. 5x2.5 mm²			

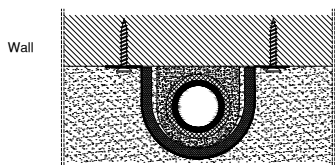
DECLARATION OF PERFORMANCE

Installation details for rigid floors

40

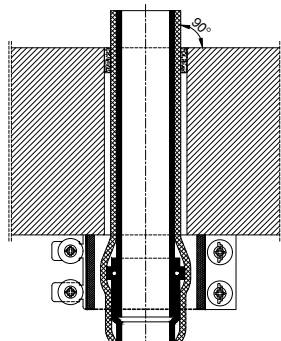


RORCOL V60



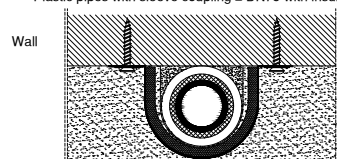
Wall

41



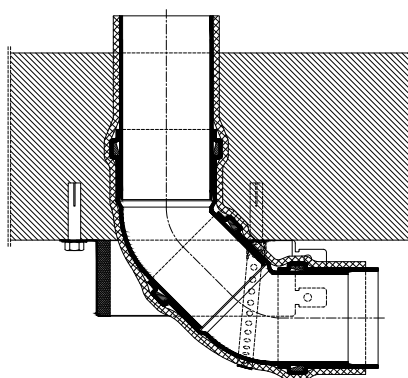
RORCOL V60

Plastic pipes with sleeve coupling $\leq$ DN75 with insulation



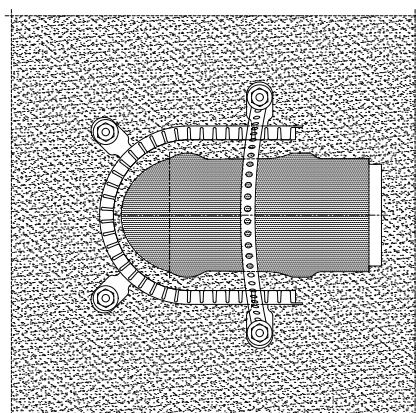
Wall

42



Diameter of plastic pipe	Dimension RORCOL V60
Ø50	- DN63
Ø75	- DN110
Ø90	- DN110
Ø110	- DN125
Ø125	- DN140
Ø135	- DN160

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Perforated stainless steel tape or
perforated steel tape with plastic coating
Width $\geq$ 17 mm
Thickness $\geq$ 1 mm
Hole diameter $\leq$ 7 mm

DECLARATION OF PERFORMANCE

Application areas for rigid floors

Omega-application

Rigid floors, thickness $\geq$ 150 mm

Type	max. DN	Standard / Fabricate	Material/ penetrating element	Pipe diameter [mm]	Insulation [mm]		Fire resistance class
					without	PE	
RORCOL V60	110	EN 1451-1	PP	$\leq$ 110		5	EI90
		CONEL Drain					
		Geberit Silent-PP					
		PhonEX® AS					
		Pipelife Master 3 PLUS					
		RAUPIANO LIGHT					
		Wavin AS					
		DYKASTil®					
		POLO-KAL NG / XS					
		RAUPIANO PLUS					

U-application

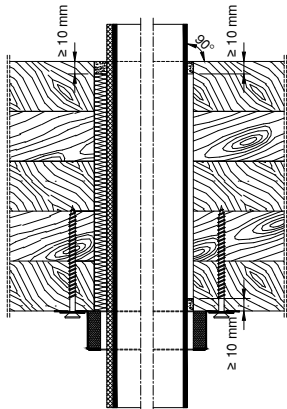
Rigid floors, thickness $\geq$ 150 mm

Type	max. DN	Standard / Fabricate	Material/ penetrating element	Pipe diameter [mm]	Insulation [mm]		Fire resistance class
					without	PE	
RORCOL V60	160	EN 1451-1	PP	$\leq$ 135		5	EI90
		CONEL Drain		$\leq$ 110			
		Geberit Silent-PP		$\leq$ 125			
		PhonEX® AS		$\leq$ 110			
		Pipelife Master 3 PLUS		$\leq$ 125			
		POLO-KAL NG		$\leq$ 110			
		RAUPIANO LIGHT		$\leq$ 110			
		Wavin AS		$\leq$ 110			

DECLARATION OF PERFORMANCE

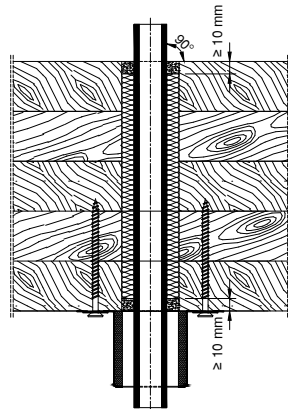
Installation details for cross-laminated timber floors

44



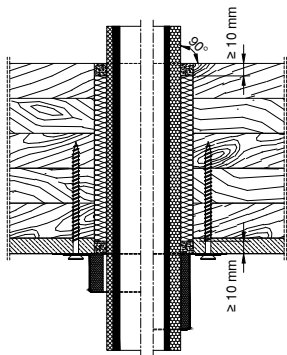
RORCOL V30 or RORCOL V60

45



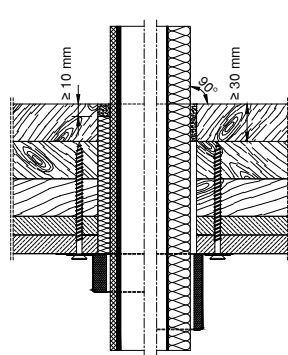
RORCOL AV60
for multi-layer composite pipes

46



RORCOL V30, RORCOL V60 or RORCOL AV60

47



RORCOL V30, RORCOL V60 or RORCOL AV60

DECLARATION OF PERFORMANCE

Application areas for cross-laminated timber floors

Pipe penetration seal

ETA-06/0009 - Cross-laminated timber floors
Thickness ≥ 200 mm timber

Type	Standard / Fabricate	Material	Pipe diameter [mm]	Insulation [mm]				Fire resistance class
				with-out	PE	Elastomer	Mineral wool	
RORCOL V30 and RORCOL V60	EN 1519-1	PE	≤ 110		5			EI90
	EN 1451-1	PP	110	✓				
	Geberit Silent-PP				5			
	POLO-KAL 3S			✓				
RORCOL AV60	POLO-KAL NG / XS	Al-PE	20					EI90
	MT-Verbundrohr		21	✓				
	PRINETO Nanoflex-Rohr							

Pipe penetration seal

ETA-06/0138 - Cross-laminated timber floors
Thickness ≥ 140 mm timber + 12.5 mm gypsum plasterboard

Type	Standard / Fabricate	Material	Pipe diameter [mm]	Insulation [mm]				Fire resistance class
				with-out	Poly-ester	PE	Elastomer	
RORCOL V30 and RORCOL V60	EN 1519-1	PE	≤ 125	✓		≤ 5		EI90
	EN 1451-1	PP	≤ 50		≤ 4			
	CONEL Drain		≤ 40					
	Pipelife Master 3 PLUS		110-125	✓				
	DYKastil®							
	RAUPIANO PLUS							
RORCOL AV60	Geberit-Mepla-Rohr	Al-PE	26, 63			≤ 5		EI90
	HENCO		20					
	POLYSAN						6	
	TECEflex Verbundrohr		26, 63				10	

Pipe penetration seal

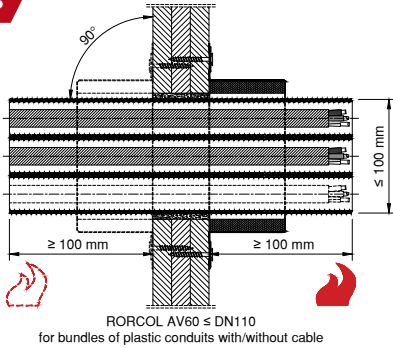
ETA-06/0138 - Cross-laminated timber ceilings
Thickness ≥ 90 mm timber + 2x15 mm gypsum plasterboards

Type	Standard / Fabricate	Material	Pipe diameter [mm]	Insulation [mm]				Fire resistance class
				with-out	PE	Elastomer	Mineral wool	
RORCOL V30 and RORCOL V60	EN 1519-1	PE	≤ 110	✓				EI90
RORCOL AV60	Metal pipes	Steel	≤ 35			≥ 13	≥ 30	EI90

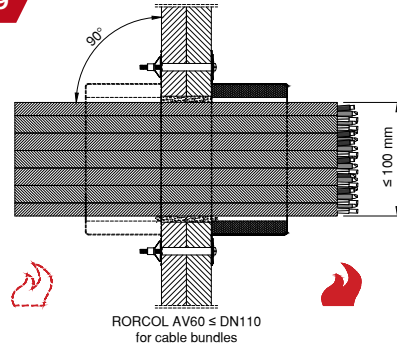
DECLARATION OF PERFORMANCE

Installation details for cable penetration seals

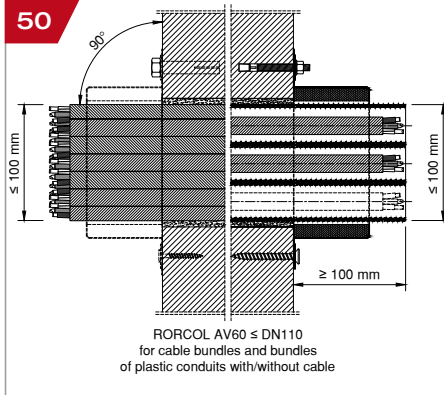
48



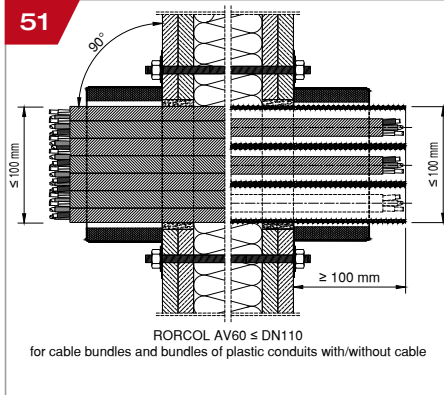
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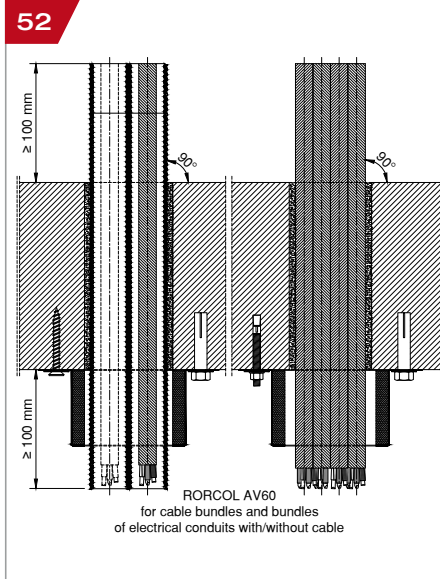
50



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DECLARATION OF PERFORMANCE

Application areas for cable penetration seals

Cable penetration seal

Shaft walls ≥ EI90, lining 2x20, 3x15 or 2x25 mm

Type	max. DN	Standard / Fabricate	Penetrating elements	Outer diameter of tied bundles [mm]	Outer diameter of plastic conduits [mm]	Cable dimensions [mm]	Fire resistance class
RORCOL AV60	110	EN 61386-21	Bundles of plastic conduits	≤ 100	≤ 40	≤ 18.5	EI90
		EN 61386-22			≤ 50	≤ 21	
		All types of sheathed cables	Cable bundles		–	≤ 21	
		EN 61386-21	Plastic conduits	–	≤ 40	≤ 5x10.0mm ²	
		EN 61386-22		–	≤ 50	≤ 5x16.0mm ²	

Cable penetration seal

Rigid walls or flexible walls, thickness ≥ 100 mm

Type	max. DN	Standard / Fabricate	Penetrating elements	Outer diameter of tied bundles [mm]	Outer diameter of plastic conduits [mm]	Cable dimensions [mm]	Fire resistance class
RORCOL AV60	110	EN 61386-21	Bundles of plastic conduits	≤ 100	≤ 25	≤ 15	EI90
		EN 61386-22			≤ 50	≤ 21	
		All types of sheathed cables	Cable bundles		–	≤ 21	

Cable penetration seal

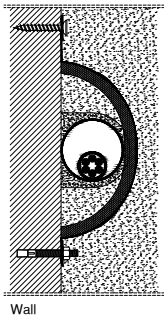
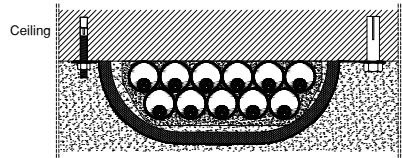
Rigid floors, thickness ≥ 150 mm

Type	max. DN	Standard / Fabricate	Penetrating elements	Outer diameter of tied bundles [mm]	Outer diameter of plastic conduits [mm]	Cable dimensions [mm]	Fire resistance class
RORCOL AV60	110	EN 61386-21	Bundles of plastic conduits	≤ 100	≤ 25	≤ 15	EI90
		EN 61386-22			≤ 50	≤ 21	
		All types of sheathed cables	Cable bundles		–	≤ 21	
		EN 61386-22	Plastic conduits	–	≤ 50	≤ 5x16.0mm ²	

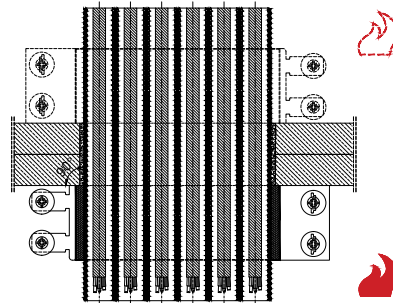
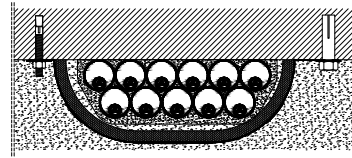
DECLARATION OF PERFORMANCE

Installation details for cable penetration seals, Omega-application

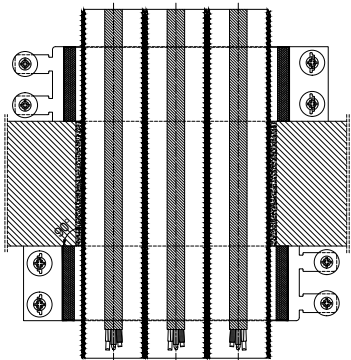
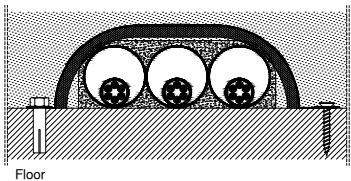
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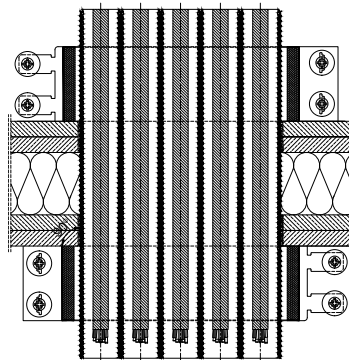
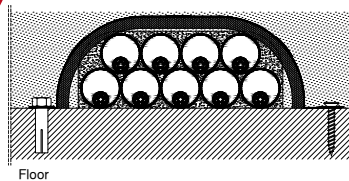
52



53



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DECLARATION OF PERFORMANCE

Application areas for cable penetration seals, Omega-application

Omega-application for cable penetration seals

Shaft walls $\geq$ EI90, lining 2x20, 3x15 or 2x25 mm

Type	max. DN	Standard / Fabricate	Penetrating elements	Outer diameter of tied bundles [mm]	Outer diameter of plastic conduits [mm]	Cable dimensions [mm]	Fire resistance class
RORCOL AV60	80	EN 61386-21	Bundles of plastic conduits	1	≤ 40	≤ 5x10.0mm²	EI90
		EN 61386-22		12	≤ 32	≤ 5x2.5mm²	
				11	≤ 25	≤ 5x6.0mm²	
				1	≤ 50	≤ 5x16.0mm²	

Omega-application for cable penetration seals

Rigid walls or flexible walls, thickness $\geq 100 \text{ mm}$

Type	max. DN	Standard / Fabricate	Penetrating elements	Outer diameter of tied bundles [mm]	Outer diameter of plastic conduits [mm]	Cable dimensions [mm]	Fire resist- ance class	
RORCOL AV60	80	EN 61386-21	Bundles of plastic conduits	2	≤ 25	≤ 5x2.5 mm ²	EI90	
		EN 61386-22		12	≤ 32	≤ 5x2.5 mm ²		
				11	≤ 25	≤ 5x6.0 mm ²		
				3	≤ 50	≤ 5x16.0 mm ²		
					≤ 1x95.0 mm ²			

The performance of the aforementioned product corresponds to the declared performance(s). The manufacturer named above is solely responsible for producing the declaration of performance in accordance with EU Regulation no. 305/2011.

Signed for the manufacturer
and in the name of the manufacturer by:

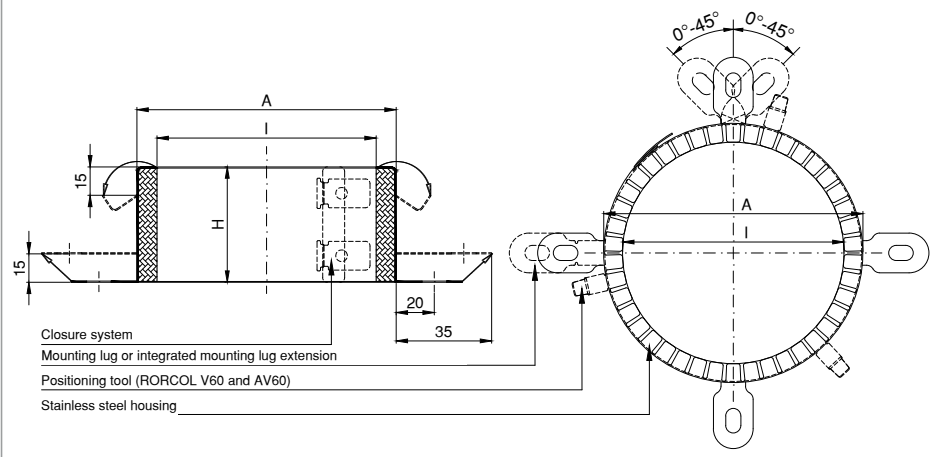
Vienna, July 2020



Air Fire Tech Brandschutzsysteme GmbH
Stranzenberggasse 7b/1/2, A-1130 Wien
T: 01 982 01 74-0, E: office@airfiretech.at

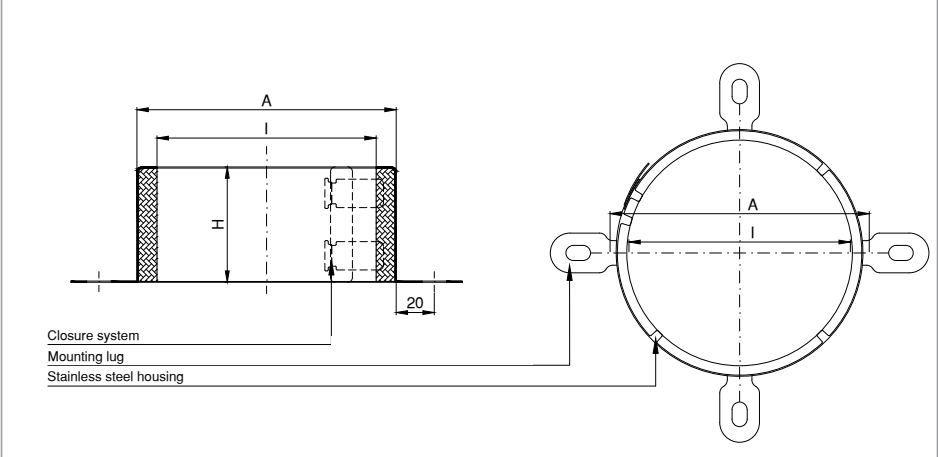
Uwe Stefani, Managing Director/CEO,
AIR FIRE TECH Brandschutzsysteme GmbH

Pipe collar RORCOL V30 - V60 - AV60



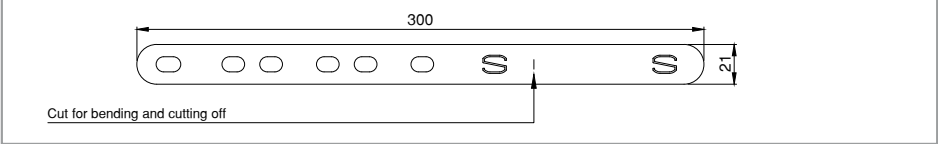
Type	Field of application	Dimension	Depth [H] [mm]	Outer diameter [A] [mm]	Inner diameter [I] [mm]	Number of mounting lugs
V30	for plastic pipes	DN40	31	57	46	3
		DN56		74	62	
		DN63		86	70	
		DN80		103	86	
		DN100		127	105	4
		DN110		142	119	
		DN125		161	133	
		DN140		178	146	
V60	for plastic pipes, extended field of application	DN56	61	74	62	3
		DN63		86	70	
		DN80		103	86	
		DN100		127	105	
		DN110		142	119	4
		DN125		161	133	
		DN140		178	146	
		DN160		201	168	5
		DN180		219	187	6
		DN200		246	209	8
DN250	303	261				
AV60	for multi-layer composite pipes, cables and metal pipes	DN40	61	58	45	3
		DN56		74	60	
		DN63		86	73	
		DN80		103	85	
		DN100		126	107	4
		DN110		138	120	
		DN125		158	135	
		DN140		177	150	
		DN160		197	171	5
Metal housing material: stainless steel						

Pipe collar RORCOL M



Type	Field of application	Dimension	Depth [H] [mm]	Outer diameter [A] [mm]	Inner diameter [I] [mm]	Number of mounting lugs
M	for metal pipes	DN110	61	131	119	4
		DN125		145	134	
		DN140		161	150	
		DN160		186	170	5
		DN200		231	209	6
		DN250		280	258	8
Metal housing material: stainless steel						

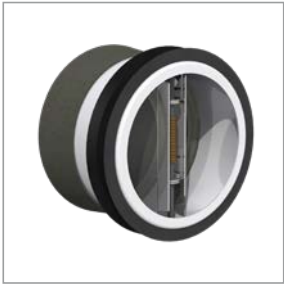
Mounting tool MH/RORCOL



Fire protection



Fire dampers*
INLAP
EI120(ho, ve, i↔o)S



Fire dampers**
FSA
FLI-VE(ho+ve)90



Access panels*
FIREREV
EI120 / EI90 / EI60 / EI30

* Listed products are not subject to ETA regulation.
** Classification and use according to national guidelines



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13
1139-CPR-0523/13
ETA-13/0758
EAD 350454-00-1104
DOP 2020/RORCOL
Pipe penetration seal "Air Fire Tech System RORCOL" Use category Y ₁
For other relevant characteristics, see ETA-13/0758