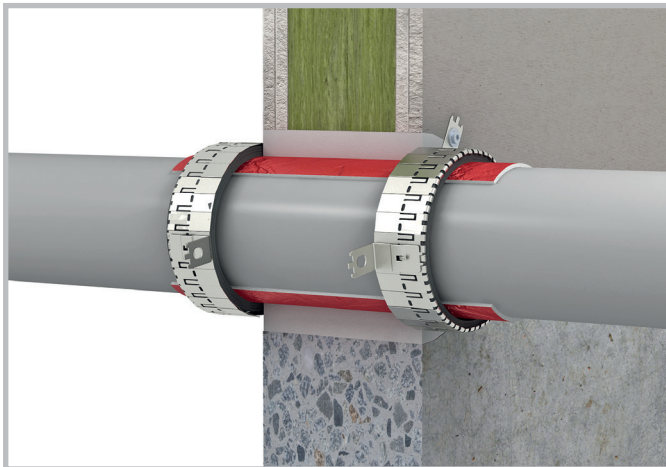


Assembly Instruction

ROKU® System EC Endless Collar

according to ETA-13/0640



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Assembly Instruction

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Target audience

This assembly instruction is addressed exclusively to trained experts on fire technology.

Usage of assembly instruction

- Please read through the lot of this assembly instruction carefully prior to work start. Regard in particular the following safety information.
- The holder of assessment assumes no liability for damages which are caused by disregard for this assembly instruction.
- Graphic depictions serve as examples only. Assembly results may vary visually.





Safety information

For processing of partition components, please regard the safety data sheets.



Protection and hygiene measures:

- Observe the usual precautions when handling chemicals. Wash hands before work breaks and immediately after handling the product. Avoid contact with skin, eyes and clothing. Take off stained or soaked clothes immediately.
Eye wash with clean water (EN 15154).
Wear closed work clothing.

	Respiratory protection - Dust mask When exposure limit is exceeded (e.g. possible when turning on), use particle-filtering half mask FFP 1 (white).
	Hand protection - Protective gloves Use waterproof, abrasion- and alkali-resistant nitrile gloves. Different requirements can result depending on application. Therefore observe additional recommendations by the protective gloves' manufacturer.
	Eye protection – Use safety goggles
	Body protection – Use protective work wear

Do not eat, drink or smoke during work. After finishing work, wash uncovered body parts with soap and water thoroughly.

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Components

Rigid walls

Depending on the pipe dimensions and desired fire resistance class, the wall must have a minimum thickness of ≥ 100 mm or ≥ 300 mm and consist of concrete, aerated concrete or masonry. The wall shall be classified in accordance to EN 13501 - 2 for the required fire resistance period.

Lightweight partition walls

The lightweight partition wall must have a minimum thickness of ≥ 100 mm and consist of wood or steel studding according to EN14195. The studding should be covered in at least two layers of cement or gypsum building panels (minimum thickness 12.5 mm), having the fire behaviour of class A1 or A2 according to EN 13501-1.

For wood studding, the penetration seal must have a minimum of ≥ 100 mm from the individual stands. The cavity in between the wall's coating and the stands or the penetration seal must be filled with at least 100 mm deep mineral wool of euro class A1 or A2 according to EN 13501 - 1.

The wall construction shall be classified in accordance with EN13501 - 2.

Rigid floors

Depending on the pipe dimensions and desired fire resistance class, the floor must have a minimum thickness of ≥ 150 mm and consist of concrete, aerated concrete or masonry with a minimum density of $550 \text{ kg} / \text{m}^3$. The rigid floor shall be classified in accordance with EN 13501 – 2 for the required fire resistance period.

Application field

Identifier	Wall	Lightweight partition wall	Floor
Thickness of the component	≥ 100 mm	≥ 94 mm	≥ 150 mm
Maximum size of isolated combustible pipelines	≤ 160 mm	≤ 160 mm	≤ 160 mm
Distance to other openings or installations	≥ 200 mm	≥ 200 mm	≥ 200 mm
Distance to other openings or installations if component reveal is not larger than 200 mm x 200 mm	≥ 100 mm	≥ 100 mm	≥ 100 mm

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Approved insulations

- For sound insulation, plastic sewer pipes with max. 4.0 mm thick PE foam strips can be used
- For aluminium composite or non-combustible pipes, synthetic rubber insulation (AF/Armaflex or SH Armaflex) of 9 to max. 44 mm can be used

Approved plastic pipes - wall -

- PVC-U pipes according to EN ISO 1452-1 or EN ISO 15493 and DIN 8061 / DIN
- PE-HD pipes according to EN 1519-1 or EN ISO 15494 and DIN 8074 / DIN 8075
- PP pipes according to EN ISO 15494 and DIN 8077 / DIN 8078
- „alpex F50 PROFI“ and „alpex L“ pipes of manufacturer „Fränkische Rohrwerke Gebr. Kirchner GmbH & Co. KG“ or similar product
- „BluePower®“ pipes of manufacturer „COES – Compagnia Edil Sanitaria S.p.A.“ or similar product
- „Uponor Unipipe Mehrschichtverbundrohr MLC“ pipes of manufacturer „Uponor GmbH“ or similar products with diameters
- „Wavin SiTech®“ pipes of manufacturer „Wavin GmbH“ or similar product
- „Fusiotherm® Stabverbundrohr“ pipes of manufacturer „aquatherm GmbH“ or similar product
- „Fusiotherm® SDR 11“ pipes of manufacturer „aquatherm GmbH“ or similar product
- „Geberit Silent-PP“ pipes of manufacturer „Geberit Vertriebs GmbH & Co KG“ or similar product
- „POLO-KAL NG“ pipes of manufacturer „POLOPLAST GmbH & Co KG“ or similar product
- „RAUPIANO PLUS“ pipes of manufacturer „REHAU AG & Co“ or similar product

Approved insulations - floors -

- PVC-U pipes according to EN ISO 1452-1 or EN ISO 15493 or DIN 8061 / DIN
- PE-HD pipes according to EN 1519-1 or EN ISO 15494 or DIN 8074 / DIN 8075
- PP pipes according to EN ISO 15494 and DIN 8077 / DIN 8078
- „alpex F50 PROFI“ and „alpex L“ pipes of manufacturer „Fränkische Rohrwerke Gebr. Kirchner GmbH & Co. KG“ or similar product
- „BluePower®“ pipes of manufacturer „COES – Compagnia Edil Sanitaria S.p.A.“ or similar product
- „Uponor Unipipe Mehrschichtverbundrohr MLC“ pipes of manufacturer „Uponor GmbH“ or similar products with diameters
- „Wavin SiTech®“ pipes of manufacturer „Wavin GmbH“ or similar product
- „Fusiotherm® Stabverbundrohr“ pipes of manufacturer „aquatherm GmbH“ or similar product
- „Fusiotherm® SDR 11“ pipes of manufacturer „aquatherm GmbH“ or similar product
- „Geberit Silent-PP“ pipes of manufacturer „Geberit Vertriebs GmbH & Co KG“ or similar product
- „POLO-KAL NG“ pipes of manufacturer „POLOPLAST GmbH & Co KG“ or similar product
- „RAUPIANO PLUS“ pipes of manufacturer „REHAU AG & Co“ or similar product

Approved metal pipes - wall and floor -

- Metal pipes with the fire behaviour of class A1 according to EN 13501-1 with a melting or decomposition point higher or equal to copper (1085 °C) and a thermal conductivity lower or equal to copper
- Metal pipes with the fire behaviour of class A1 according to EN 13501-1 with a melting or decomposition point higher or equal to steel (1085 °C) and a thermal conductivity lower or equal to steel

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Approved assignments and classifications

The pipe screening can be used on straight pipes arranged perpendicular to the wall or floor surface. The pipelines must be intended for non-combustible liquids or gases, for pneumatic conveying systems or vacuum lines only. Pneumatic conveying systems, compressed air lines or alike must be turned off through additional measures in the case of fire.

No ventilation systems

PVC-U pipes, non-insulated - in lightweight partition walls and rigid walls								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	1.8 to 5.6	–	X	X	2	120	120	U/C
> 50 to ≤ 75	1.8 to 8.4	–	X	X	3			
> 75 to ≤ 110	1.8 to 12.3	–	X	X	4			
> 110 to ≤ 125	2.2 to 12.2	–	X	X	5			
> 125 to ≤ 160	3.2 to 11.9	–	X	X	6			

PVC-U pipes, non-insulated, installed in an angle between 90° and 45° - in lightweight partition walls and rigid walls								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	1.8 to 5.6	–	X	X	2	120	120	U/C
> 50 to ≤ 75	1.8 to 8.4	–	X	X	3			
> 75 to ≤ 110	1.8 to 12.3	–	X	X	4			
> 110 to ≤ 125	2.2 to 12.2	–	X	X	5			
> 125 to ≤ 160	3.2 to 11.9	–	X	X	6	90	90	

PVC-U pipes insulated with polyethylene sound insulation (e.g. THERMACOMPACT TF™) - in lightweight partition walls and rigid walls									
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification			
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration	
≤ 50	1.8	≤ 4	X	X	4	120	90	U/C	
> 50 to ≤ 75	1.8	≤ 4	X	X	5				
> 75 to ≤ 110	1.8	≤ 4	X	X	4				
> 110 to ≤ 125	1.8 to 2.2	≤ 4	X	X	6				
≤ 50	1.8 to 5.6	≤ 4	–	X	2		120	120	U/U
> 50 to ≤ 75	1.8 to 8.4	≤ 4	–	X	3				
> 75 to ≤ 110	1.8 to 11.9	≤ 4	–	X	4				
> 110 to ≤ 125	3.2 to 11.9	≤ 4	–	X	5				
> 125 to ≤ 160	3.2 to 11.9	≤ 4	–	X	6		120		

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PE-HD pipes, non-insulated - in lightweight partition walls and rigid walls								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	1.8 to 4.6	–	X	X	2	120	120	U/C
> 50 to ≤ 75	1.8 to 8.4	–	X	X	3			
> 75 to ≤ 110	2.7 to 10.0	–	X	X	4			
> 110 to ≤ 160	4.0	–	X	X	8			
> 110 to ≤ 160	> 4.0 to 14.6	–	X	X	8	60	60	

PE-HD pipes, non-insulated, installed at in angle between 90° and 45° - in lightweight partition walls and rigid walls								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	1.8	–	X	X	2	120	120	U/C
> 50 to ≤ 75	1.8	–	X	X	4	90	90	
> 75 to ≤ 110	2.7	–	X	X	5			
> 110 to ≤ 125	3.2	–	X	X	7			
> 125 to ≤ 160	4.0	–	X	X	8			

PE-HD pipes insulated with polyethylene sound insulation (e.g. THERMACOMPACT TF™) - in lightweight partition walls and rigid walls -								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	1.8 to 4.6	≤ 4	X	X	2	120	120	U/C
> 50 to ≤ 75	1.8 to 6.8	≤ 4	X	X	3			
> 75 to ≤ 110	1.8 to 10.0	≤ 4	X	X	4			
> 110 to ≤ 160	4.0	≤ 4	X	X	6		90	
> 110 to ≤ 160	> 4.0 to 14.6	≤ 4	X	X	6			
≤ 50	1.8 to 4.6	≤ 4	–	X	2	120	120	U/U
> 50 to ≤ 75	2.7	≤ 4	–	X	3			
> 75 to ≤ 110	2.7	≤ 4	–	X	4			

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PP pipes, non-insulated - in lightweight partition walls and rigid walls								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	1.8 to 4.6	–	X	X	2	120	120	U/C
> 50 to ≤ 75	1.8 to 8.4	–	X	X	3			
> 75 to ≤ 110	2.7 bis 10.0	–	X	X	4			
> 110 to ≤ 125	4.0	–	X	X	8	90		
> 125 to ≤ 160	> 4.0 to 14.6	–	X	X	6			

PP pipes, non-insulated, installed at an angle between 90° and 45° - in lightweight partition walls and rigid walls								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	1.8	–	X	X	2	120	120	U/C
> 50 to ≤ 75	1.8	–	X	X	4			
> 75 to ≤ 110	2.7	–	X	X	5			

PE-HD pipes insulated with polyethylene sound insulation (e.g. THERMACOMPACT TF™) - in lightweight partition walls and rigid walls								
Rohrabmessungen [mm]		Dicke der Isolierung [mm]	Intumescent inlays			Feuerwiderstandsklassifizierung		
Außen- Ø	Wandstärke		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Rohrend-konfiguration
≤ 50	1.8 to 4.6	≤ 4	X	X	2	120	120	U/C
> 50 to ≤ 75	1.8 to 2.7	≤ 4	X	X	3			
> 75 to ≤ 110	2.7	≤ 4	X	X	4			

Plastic pipes alpex F50 PROFI, non-insulated - in lightweight partition walls and rigid walls								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 16	2.0	–	X	X	2	120	120	U/C

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Plastic pipes alpeX F50 PROFIL and alpeX L insulated with SH/Armaflex (length ≥ 500 mm – on both sides of the separating element, local-sustained LS or continued-sustained CS) - in lightweight partition walls and rigid walls								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 16	2.0	9.0	X	X	2	120	120	U/C
≤ 50	4.0	10.0	X	X	3		60	
≤ 75	5.0	9.0	X	X	4		90	
≤ 75	5.0	> 9.0 to 20.0	X	X	5			
≤ 75	5.0	> 20.0 to 30.0	X	X	6			
≤ 75	5.0	> 30.0 to 44.0	X	X	6	120		

Plastic pipes alpeX F50 PROFIL and alpeX L insulated with AF/Armaflex (length ≥ 500 mm – on both sides of the separating element, local-sustained LS or continued-sustained CS) - in lightweight partition walls and rigid walls								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 75	5.0	9.5	X	X	4	120	120	U/C
≤ 75	5.0	> 9.5 to 20.0	X	X	5			
≤ 75	5.0	> 20.0 to 30.0	X	X	6			

Plastic pipes BluePower® insulated with Polyethylene sound insulation (e.g. THERMACOMPACT TF™) - in lightweight partition walls and rigid walls								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	1.8	≤ 4	X	X	2	120	120	U/C
≤ 75	2.5	≤ 4	X	X	3			
≤ 110	3.4	≤ 4	X	X	4			

Plastic pipes Uponor Unipipe multi-layer composite piping MLC insulated with SH/Armaflex (length ≥ 500 mm – on both sides of the space-enclosing building element, continuous LS or continuous along pipe length CS) - in lightweight partition walls and rigid walls								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	4.5	27.5	X	X	4	120	120	U/C
≤ 110	10.0	9.5	X	X	6		90	
≤ 110	10.0	19.0	X	X	6		120	
≤ 110	10.0	30.0	X	X	6			

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Plastic pipes Uponor Unipipe multi-layer composite piping MLC insulated with AH/Armaflex (length ≥ 500 mm – on both sides of the space-enclosing building element, continuous LS or continuous along pipe length CS) - in lightweight partition walls and rigid walls								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	4.5	27.5	X	X	4	120	120	U/C
≤ 110	10.0	9.5	X	X	6		90	
≤ 110	10.0	19.0	X	X	6		120	
≤ 110	10.0	30.0	X	X	6		120	

Plastic pipes Wavin SiTech® insulated with polyethylene sound insulation (e.g. THERMACOMPACT TF™) - in lightweight partition walls and rigid walls								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	2.0	≤ 4	X	X	2	120	120	U/C
≤ 110	3.6	≤ 4	X	X	4		90	
≤ 110	3.6	≤ 4	X	X	5		120	
≤ 160	5.3	≤ 4	X	X	8		120	
≤ 50	2.0	≤ 4	---	X	2		120	U/U
≤ 75	2.6	≤ 4	---	X	3		120	
≤ 110	3.6	≤ 4	---	X	4	120		

Plastic pipes Fusiotherm® Stabverbundrohr not insulated - in lightweight partition walls and rigid walls								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 16	2.2	---	X	X	2	120	120	U/C
≤ 50	6.9	---	X	X	2			
≤ 75	6.9	---	X	X	3			
≤ 110	15.2	---	X	X	4			

Plastic pipes Fusiotherm® Stabverbundrohr insulated with SH/Armaflex (length ≥ 500 mm – on both sides of the space-enclosing building element, continuous LS or continuous along the pipe length CS) - in lightweight partition walls and rigid walls								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 16	2.2	9.0	X	X	3	120	120	U/C
≤ 50	6.9	10.0	X	X	3			

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Plastic pipes Fusiotherm® Stabverbundrohr insulated with AF/Armaflex (length ≥ 500 mm – on both sides of the space-enclosing building element, continuous LS or continuous along the pipe length CS) - in lightweight partition walls and rigid walls								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 110	15.2	31.0	X	X	6	120	120	U/C

Plastic pipes Geberit Silent-PP insulated with polyethylene sound insulation (e.g. THERMACOMPACT TF™) - in lightweight partition walls and rigid walls								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	2.0	≤ 4	X	X	2	120	120	U/C
≤ 75	2.6	≤ 4	X	X	3		90	
≤ 75	2.6	≤ 4	X	X	4		120	
≤ 110	3.6	≤ 4	X	X	4		90	
≤ 110	3.6	≤ 4	X	X	5			
≤ 125	4.2	≤ 4	X	X	6			
≤ 160	5.2	≤ 4	X	X	8			
≤ 50	2.0	≤ 4	---	X	2		120	U/U
≤ 75	2.6	≤ 4	---	X	3			
≤ 110	3.6	≤ 4	---	X	4			
≤ 125	4.2	≤ 4	---	X	5			
≤ 160	5.2	≤ 4	---	X	6			

Plastic pipes POLO-KAL NG insulated with polyethylene sound insulation (e.g. THERMACOMPACT TF™) - in lightweight partition walls and rigid walls								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	2.0	≤ 4	X	X	2	120	120	U/C
≤ 75	2.6	≤ 4	X	X	4		90	
≤ 110	3.4	≤ 4	X	X	5			
≤ 110	3.4	≤ 4	X	X	5			
≤ 125	3.9	≤ 4	X	X	6			
≤ 160	4.9	≤ 4	X	X	8			
≤ 50	2.0	≤ 4	---	X	2		120	U/U
≤ 75	2.6	≤ 4	---	X	3			
≤ 110	3.4	≤ 4	---	X	4			
≤ 125	3.9	≤ 4	---	X	5			
≤ 160	4.9	≤ 4	---	X	6			

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Plastic pipes RAUPIANO PLUS insulated with polyethylene sound insulation (e.g. THERMACOMPACT TF™) - in lightweight partition walls and rigid walls								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	1.8	≤ 4	X	X	2	120	120	U/C
≤ 75	1.9	≤ 4	X	X	3			
≤ 110	2.7	≤ 4	X	X	4			
≤ 125	3.1	≤ 4	X	X	5			
≤ 160	3.6	≤ 4	X	X	6			
≤ 50	1.8	≤ 4	---	X	2			U/U
≤ 75	1.9	≤ 4	---	X	3			
≤ 110	2.7	≤ 4	---	X	4			

Plastic pipes Triplus® insulated with polyethylene sound insulation (e.g. THERMACOMPACT TF™) - in lightweight partition walls and rigid walls								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 40	1.8	≤ 4	X	X	2	120	120	U/C
≤ 75	2.5	≤ 4	X	X	3			
≤ 90	3.1	≤ 4	X	X	4			
≤ 110	3.4	≤ 4	X	X	5			
≤ 125	3.9	≤ 4	X	X	6			
≤ 160	4.9	≤ 4	X	X	8			

Multiple penetrations of max. three plastic pipes made of PVC-U, PE-HD or PP through one shared pipe collar „ROKU® EC Endless Collar“ (distance in between pipes max. 15 mm; linear arrangement, not arranged in groups), not insulated - in lightweight partition walls and rigid walls								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 75	1.8 to 8.4	---	X	X	4	120	120	U/C

Metal pipes (copper pipes, steel pipes, stainless steel pipes) insulated with AF/Armaflex (Length ≥ 500 mm – on both sides of the space-enclosing building element, continuous LS or continuous along the pipe length CS) the intumescent inlay has to be installed inside and even on both sides with the space-enclosing building element (without metal band - in lightweight partition walls and rigid walls								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 28	1.0 to 14.2	6,0 to 35,0	X	X	2	120	120	U/C
≤ 54	1.5 to 14.2		X	X	2		60	
≤ 54	1.5 to 14.2		X	X	2		120	

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Metal pipes (copper pipes, steel pipes, stainless steel pipes) insulated with AF/Armaflex (Length ≥ 500 mm – on both sides of the space-enclosing building element, continuous LS or continuous along the pipe length CS) and an additional layer of AF/Armaflex (Length 300 mm, Thickness $\geq 9,0$ mm – on both sides of the space-enclosing building element, local-interrupted LI) the intumescent inlay has to be installed inside and even on both sides with the space-enclosing building element (without metal band - in lightweight partition walls and rigid walls - in lightweight partition walls and rigid walls

Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer \varnothing	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 54	1.5 to 14.2	9,0 to 35,0	X	X	2	120	90	CU

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PVC-U pipes, non insulated - in rigid floors								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	1.8 to 5.6	---	X	X	2	240	240	U/C
> 50 to ≤ 75	1.8 to 8.4	---	X	X	3			
> 75 to ≤ 110	1.8 to 12.3	---	X	X	4			
> 110 to ≤ 125	2.2 to 12.2	---	X	X	5	120	120	
> 125 to ≤ 160	3.2 to 11.9	-	X	X	6			

PVC-U pipes, non insulated with an angle between 90° and 45° - in rigid floors								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	1.8	---	X	X	2	120	120	U/C
> 75 to ≤ 110	12.3	---	X	X	3			
> 110 to ≤ 125	12.1	---	X	X	4			
> 125 to ≤ 160	11.9	---	X	X	6			
> 125 to ≤ 160	3.2	---	X	X	8			

PVC-U pipes insulated with Polyethylen sound insulation (e.g. THERMACOMPACT TF™) - in rigid floors								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	1.8 to 4.6	---	X	X	2	240	240	U/C
> 50 to ≤ 75	1.8 to 8.4	---	X	X	3		180	
> 75 to ≤ 110	2.7 to 10.0	---	X	X	4		120	
> 110 to ≤ 160	> 4.0 to 14.6	---	X	X	8			

PE-HD pipes, non insulated with an angle between 90° and 45° - in rigid floors								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	4.6	---	X	X	2	120	120	U/C
> 50 to ≤ 75	2.7 to 10.0	---	X	X	4			

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PE-HD pipes, insulated with Polyethylen sound insulation (e.g. THERMACOMPACT TF™) - in rigid floors								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	1.8	≤ 4	X	X	2	120	120	U/C
> 50 to ≤ 75	2.2	≤ 4	X	X	3			
> 75 to ≤ 110	1.8 to 10.0	≤ 4	X	X	4			

PE-HD pipes, vertically, directly positioned in the corner of the wall (Space between pipe and wall max. 10 mm), insulated with Polyethylen sound insulation (e.g. THERMACOMPACT TF™) - in rigid floors								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 110	10.0	≤ 4	X	X	4	120	120	U/C

PP pipes, non insulated - in rigid floors								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	1.8 to 4.6	---	X	X	2	240	240	U/C
> 50 to ≤ 75	1.8 to 8.4	---	X	X	3			
> 75 to ≤ 110	> 2.7 to 10.0	---	X	X	4	180	180	
> 110 to ≤ 125	> 3.1 to 11.4	---	X	X	6	120	120	
> 125 to ≤ 160	> 4.0 to 14.6	---	X	X	8			

PP pipes, non insulated with an angle between 90° and 45° - in rigid floors								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 110	2.7 to 10.0	---	X	X	4	120	120	U/C
> 110 to ≤ 125	3.2 to 12.0	---	X	X	6			
> 125 to ≤ 160	4.0 to 14.6	---	X	X	8			

PP pipes, vertically, directly positioned in the corner of the wall (Space between pipe and wall max. 10 mm), insulated with Polyethylen sound insulation (e.g. THERMACOMPACT TF™) - in rigid floors								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 110	2.7	≤ 4	X	X	4	120	120	U/C

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Plastic pipes alplex F50 PROFI, non insulated- in rigid floors								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 16	2.0	---	X	X	2	120	120	U/C
≤ 50	4.0	---	X	X	2			
≤ 75	5.0	---	X	X	4			

Plastic pipes alplex F50 PROFI and alplex L insulated with SH/Armaflex (Length ≥ 500 mm – on both sides of the space-enclosing building element, continuous LS or continuous along the pipe length CS) - in rigid floors								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 16	2.0	9.0	X	X	2	120	120	U/C
≤ 75	5.0	9.0	X	X	4			
≤ 75	5.0	> 9.0 to 20.0	X	X	5			
≤ 75	5.0	> 20.0 to 30.0	X	X	6			

Plastic pipes alplex F50 PROFI and alplex L insulated with AF/Armaflex (Length ≥ 500 mm – on both sides of the space-enclosing building element, continuous LS or continuous along the pipe length CS) - in rigid floors								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 75	5.0	9.5	X	X	4	120	120	U/C

Plastic pipes BluePower® insulated with polyethylene sound insulation (e.g. THERMACOMPACT TF™) - in rigid floors -								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	1.8	≤ 4	X	X	2	120	120	U/C
≤ 75	2.5	≤ 4	X	X	4	90	90	
≤ 110	3.4	≤ 4	X	X	5			

Plastic pipes Uponor Unipipe Mehrschichtverbundrohr MLC not insulated - in rigid floors -								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 16	4.5	---	X	X	2	120	120	U/C
≤ 75	7.5	---	X	X	3	90	90	
≤ 110	10.0	---	X	X	4			

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Plastic pipes Uponor Unipipe multi-layer composite piping MLC insulated with SH/Armaflex (Length \geq 500 mm – on both sides of the space-enclosing building element, continuous LS or continuous along the pipe length CS) - in rigid floors								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer \varnothing	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	4.5	10.0	X	X	3	120	120	U/C
≤ 63	6.0	9.0	X	X	4			
≤ 90	8.5	9.0	X	X	5			
≤ 110	10.0	> 9.0 to 20.0	X	X	6			

Plastic pipes Uponor Unipipe multi-layer composite piping MLC insulated with AF/Armaflex (Length \geq 500 mm – on both sides of the space-enclosing building element, continuous LS or continuous along the pipe length CS) - in rigid floors								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer \varnothing	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	4.5	27.5	X	X	4	120	120	U/C
≤ 75	7.5	30	X	X	5			
≤ 110	10.0	9.5 to 31.0	X	X	6			

Plastic pipes Wavin SiTech® insulated with Polyethylen sound insulation (e.g. THERMACOMPACT TF™) - in rigid floors								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer \varnothing	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	2.0	≤ 4	X	X	2	120	120	U/C
≤ 75	2.6	≤ 4	X	X	3			
≤ 110	3.6	≤ 4	X	X	4			
≤ 125	4.2	≤ 4	X	X	5	60	60	
≤ 160	5.3	≤ 4	X	X	6			
≤ 50	2.0	≤ 4	---	X	2			
≤ 75	2.6	≤ 4	---	X	3	120	120	U/U
≤ 110	3.6	≤ 4	---	X	4			
≤ 125	4.2	≤ 4	---	X	5			
≤ 160	5.3	≤ 4	---	X	6			

Plastic pipes Wavin SiTech® vertically, directly positioned in the corner of the wall (Space between pipe and wall max. 10 mm), insulated with Polyethylen sound insulation (e.g. THERMACOMPACT TFTM) - in rigid floors								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer \varnothing	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 110	3.6	≤ 4	---	X	5	120	120	U/C

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Plastic pipes Wavin SiTech®, with curve on the bottom of the floor and a sleeve within the floor, insulated with Polyethylen sound insulation (e.g. THERMACOMPACT TF™) - in rigid floors								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	2.0	≤ 4	X	X	3	120	120	U/U
≤ 75	2.6	≤ 4	X	X	4			
≤ 110	3.6	≤ 4	X	X	5			

Plastic pipes Fusiotherm® Stabverbundrohr, non insulated - in rigid floors								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 16	2.2	---	X	X	2	120	120	U/C
≤ 50	7.9	---	X	X	2			
≤ 75	11.8	---	X	X	3			
≤ 110	17.2	---	X	X	4			

Plastic pipes Fusiotherm® Stabverbundrohr insulated with SH/Armaflex (Length ≥ 500 mm – on both sides of the space-enclosing building element, continuous LS or continuous along the pipe length CS) - in rigid floors								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	6.9	10,0	X	X	3	120	120	U/C

Plastic pipes Fusiotherm® Stabverbundrohr insulated with AF/Armaflex (Length ≥ 500 mm – on both sides of the space-enclosing building element, continuous LS or continuous along the pipe length CS) - in rigid floors								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 110	15.2	31,0	X	X	6	120	120	U/C

Plastic pipes Fusiotherm® SDR 11, non insulated - in rigid floors								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 315	28.6	---	X	X	20	120	120	U/C

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Kunststoffrohre Geberit Silent-PP isoliert mit Polyethylen Schallisolierung (z.B. THERMACOMPACT TFTM) - in Massivdecken -								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	2.0	≤ 4	X	X	2	120	120	U/C
≤ 75	2.6	≤ 4	X	X	3			
≤ 110	3.6	≤ 4	X	X	4			
≤ 50	2.0	≤ 4	---	X	2			
≤ 75	2.6	≤ 4	---	X	3			U/U
≤ 110	3.6	≤ 4	---	X	4			
≤ 125	4.2	≤ 4	---	X	5			
≤ 160	5.2	≤ 4	---	X	6			

Plastic pipes Geberit Silent-PP, vertically, directly positioned in the corner of the wall (Space between pipe and wall max. 10 mm), insulated with Polyethylen sound insulation (e.g. THERMACOMPACT TF™) - in rigid floors								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 110	3.6	≤ 4	---	X	5	120	120	U/U

Plastic pipes Geberit Silent-PP, with curve on the bottom of the floor and a sleeve within the floor, insulated with Polyethylen sound insulation (e.g. THERMACOMPACT TF™) - in rigid floors								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	2.0	≤ 4	---	X	3	120	120	U/U
≤ 75	2.6	≤ 4	---	X	4			
≤ 110	3.6	≤ 4	---	X	5			

Plastic pipes POLO-KAL NG, insulated with Polyethylen sound insulation (e.g. THERMACOMPACT TF™) - in rigid floors								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	2.0	≤ 4	X	X	2	120	90	U/C
≤ 75	2.6	≤ 4	X	X	3			
≤ 110	3.4	≤ 4	X	X	4		120	U/U
≤ 50	2.0	≤ 4	---	X	2			
≤ 75	2.6	≤ 4	---	X	3			
≤ 110	3.4	≤ 4	---	X	4			
≤ 125	3.9	≤ 4	---	X	5			
≤ 160	4.9	≤ 4	---	X	6			

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Plastic pipes POLO-KAL NG, vertically, directly positioned in the corner of the wall (Space between pipe and wall max. 10 mm), insulated with Polyethylen sound insulation (e.g. THERMACOMPACT TF™) - in rigid floors -								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 110	3.4	≤ 4	---	X	5	120	120	U/U

Plastic pipes POLO-KAL NG, with curve on the bottom of the floor and a sleeve within the floor, insulated with Polyethylen sound insulation (e.g. THERMACOMPACT TF™) - in rigid floors -								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	2.0	≤ 4	---	X	3	120	120	U/U
≤ 75	2.6	≤ 4	---	X	4			
≤ 110	3.4	≤ 4	---	X	5			

Plastic pipes RAUPIANO PLUS insulated with Polyethylen sound insulation (e.g. THERMACOMPACT TF™) - in rigid floors								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	1.8	≤ 4	---	X	2	120	120	U/U
≤ 75	1.9	≤ 4	---	X	3			
≤ 110	2.7	≤ 4	---	X	4			
≤ 125	3.1	≤ 4	---	X	5			
≤ 160	3.6	≤ 4	---	X	6			

Plastic pipes RAUPIANO PLUS, vertically, directly positioned in the corner of the wall (Space between pipe and wall max. 10 mm), insulated with Polyethylen Schallsisolierung (e.g. THERMACOMPACT TFTM) - in rigid floors								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 110	2.7	≤ 4	---	X	5	120	120	U/U

Plastic pipes RAUPIANO PLUS, with curve on the bottom of the floor and a sleeve within the floor, insulated with Polyethylen Schallsisolierung (e.g. THERMACOMPACT TFTM) - in rigid floors								
Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 50	2.0	≤ 4	---	X	3	120	120	U/U
≤ 75	2.6	≤ 4	---	X	4			
≤ 110	2.7	≤ 4	---	X	5			

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Multiple conduits of max. three plastic pipes made of PVC-U, PE-HD or PP through the same collar „ROKU® EC Endless Collar“ (Space between the pipes max. 15 mm; linear arrangement, not arranged in groups), non insulated - in rigid floors

Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 75	1.8 to 8.4	---	X	X	4	120	120	U/C

Metal pipes (copper pipes, steel pipes, stainless steel pipes) insulated with AF/Armaflex (Length ≥ 500 mm – on both sides of the space-enclosing building element, continuous LS or continuous along the pipe length CS) the intumescent inlay has to be installed inside and even on both sides with the space-enclosing building element (without metal band - in rigid floors

Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 28	1.0 to 14.2	6.0	X	X	2	120	120	C/U
≤ 28	1,0 to 14,2	6.0 to < 20.0	X	X	3			
≤ 28	1.0 to 14.2	> 20.0 to 35.0	X	X	4			

Metal pipes (copper pipes, steel pipes, stainless steel pipes) insulated with AF/Armaflex (Length ≥ 500 mm – on both sides of the space-enclosing building element, continuous LS or continuous along the pipe length CS) with an additional layer of AF/Armaflex (Length 300 mm, Width ≥ 9,0 mm – on both sides of the space-enclosing building element, local-interrupted LI) the intumescent inlay has to be installed inside and even on both sides with the space-enclosing building element (without metal band) - in rigid floors

Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 108	2.0 to 14.2	13.0 to 30.0	X	X	2	120	120	C/U

Metal pipes (only steel pipes and stainless steel pipes) insulated with AF/Armaflex (Length ≥ 500 mm – on both sides of the space-enclosing building element, continuous LS or continuous along the pipe length CS), the pipe collar „ROKU® EC Endless Collar“ has to be installed at the bottom of the space-enclosing building element - in rigid floors

Pipe dimensions [mm]		Insulation thickness [mm]	Intumescent inlays			Fire resistance classification		
Outer Ø	Wall thickness		ROKU® Strip EM	ROKU® Strip	Layers	E	I	Pipe end configuration
≤ 108	2.0 to 14.2	13.0 to 30.0	X	X	2	120	120	C/U

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Approved assignment - wall

General informations

- The pipe collar „ROKU® System EC Endless Collar“ can be used for metal pipes and plastic pipes in openings in walls and floors.
- Every metal pipe or plastic pipe that needs to be sealed has to be equipped separately „ROKU® System EC Endless Collar“; with exception of multiple conduits of max. three plastic pipes made of PVC-U, PE-HD or PP. These pipes can be equipped with the same „ROKU® EC Endless Collar“.
- Plastic pipes, that are classified with pipe end configuration U/U, the pipe end configuration may be U/U, C/U, U/C and C/C.
- Plastic pipes, that are classified with pipe end configuration U/C, the pipe end configuration may be U/C and C/C.
- Metal pipes, that are classified with pipe end configuration C/U, the pipe end configuration may be C/U and C/C.
- Metal pipes have to be built in rectangular to the surface of the space-enclosing building element.
- Some plastic pipes can be installed in all angles between 90° and 45°.
- Metal pipes have to be insulated with „AF/Armaflex“.
- Plastic pipes can be insulated with „AF/Armaflex“, „SH/Armaflex“ or Polyethylen sound insulation (f.e. „THERMACOMPACT TFTM“). In some cases it is required to insulate plastic pipes.
- In case of a multiple conduit of max. three plastic pipes (lineare alignment, not arranged in groups) made of PVC-U, PE-HD or PP, equipped with a collective pipe collar „ROKU® EC Endless Collar“, that are build into vertical space-enclosing building elements, the plastic pipes may only be positioned horizontally.
- In some cases it is allowed to install the the pipe seal „ROKU® System EC Endless Collar“ on plastic pipes with curves on the bottom of a floor and a cinnecting sleeve withing the floor.
- In some floor conducts it is allowed that the pipe collar „ROKU® System EC Endless Collar“ may be installed on vertical plastic pipes that are positioned in the corner of the wall (Space between pipe and wall max. 10 mm). The pipe collar „ROKU® EC Endless Collar“ only covers the pipe from wall to wall.
- All ducts / pipes, metal pipes and plastic pipes - in light partition walls and rigid walls - have to be supported by a duct support device (e.g. pipe suspension) made of metal with a melting or decomposition point greater or euqal to 1085 °C (e.g. stainless steel or galvanised steel) on both sides of the space-enclosing building element.
- All ducts / pipes, metal pipes and plastic pipes - rigid walls - have to be supported by a duct support device (e.g. pipe suspension) made of metal with a melting or decomposition point greater or euqal to 1085 °C (e.g. stainless steel or galvanised steel) at least on the surface of the space-enclosing building element.




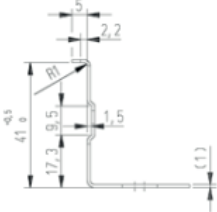
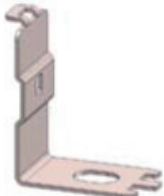
Assembly Instruction

ROKU® System EC Endless Collar

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Table

Quantity of hooks in dependency of the mouting conditions

		
Metal band		
		
Metal hooks		Pipe collar „ROKU® EC Endless Collar“

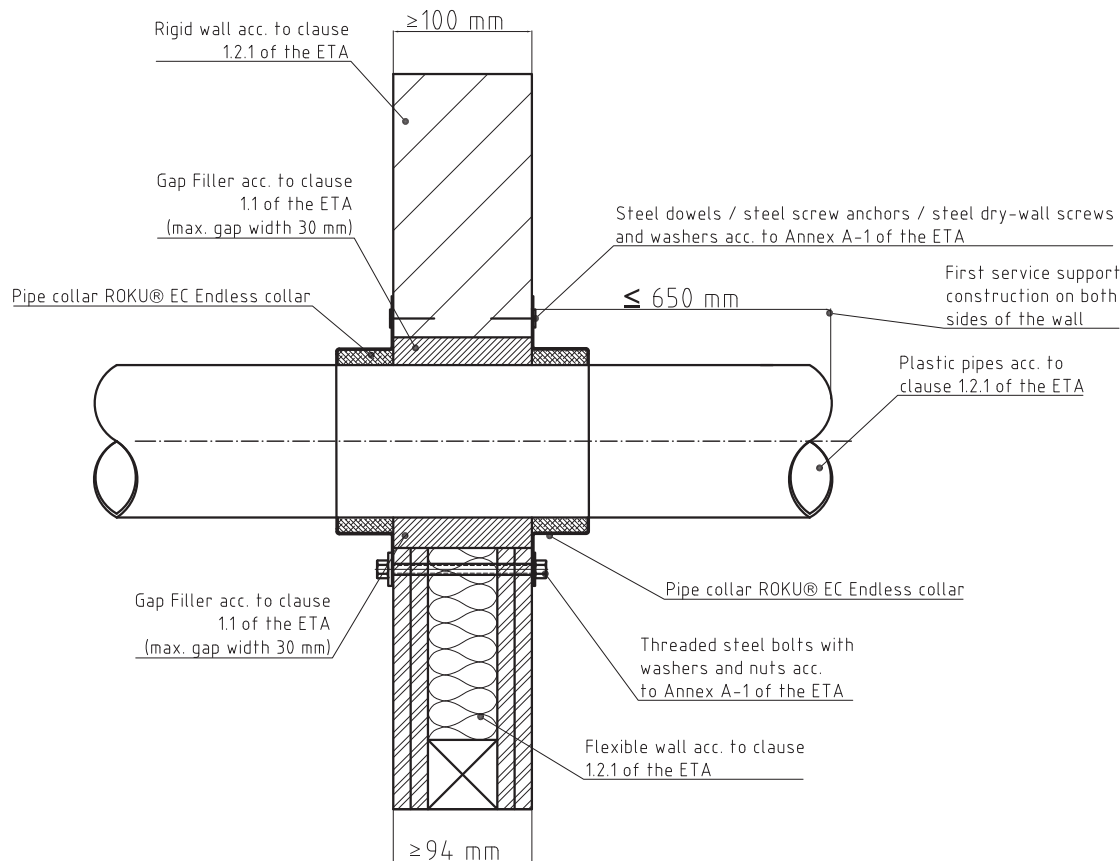
Space-enclosing building component	Alignment	Pipe diameter [mm]	Minimum quantity of metal hooks
Light partition	Rectangular	≤ 50	2
	Rectangular	> 50 to ≤ 110	3
	Rectangular	> 110 to ≤ 160	4
	Angle between 90° and 45	≤ 50	3
	Angle between 90° and 45	> 50 to ≤ 110	4
	Angle between 90° and 45	> 110 to ≤ 160	6
Rigid wall o rigid floor	Rectangular	≤ 50	2
	Rectangular	> 50 to ≤ 110	3
	Rectangular	> 110	4
	Angle between 90° and 45	≤ 50	3
	Angle between 90° and 45	> 50 to ≤ 110	4
	Angle between 90° and 45	> 110 to ≤ 160	6

Assembly Instruction

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Non insulated plastic pipes



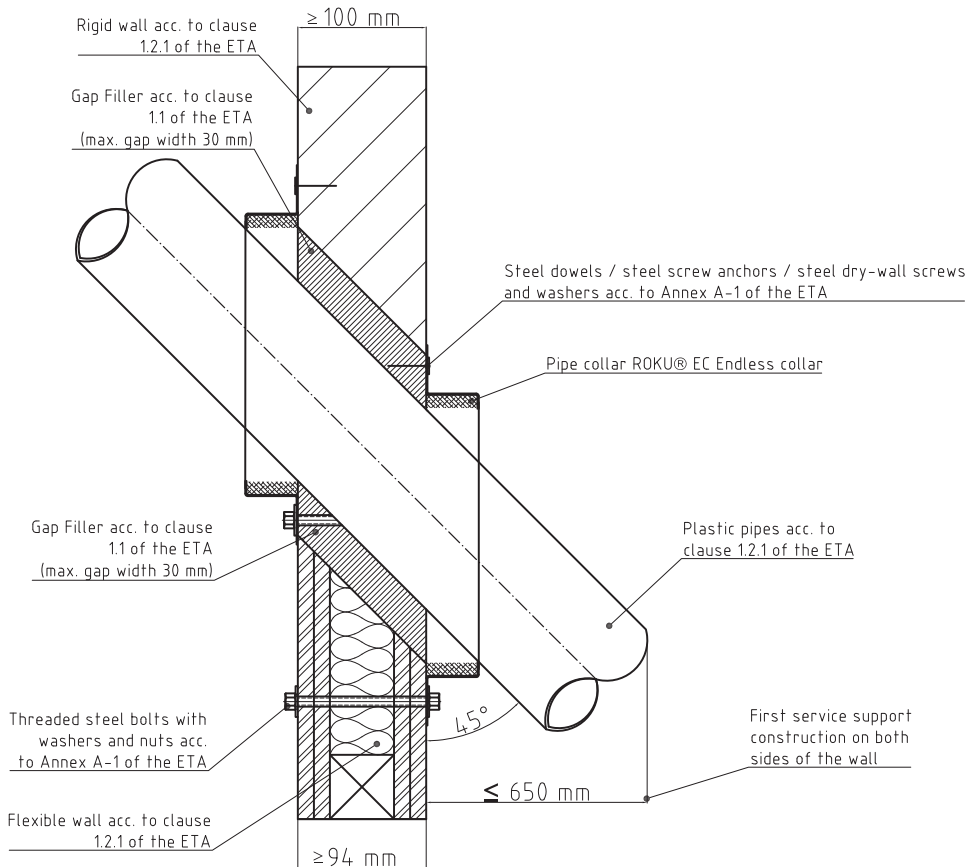
- > The „metal band“ have to be installed on both sides of the light partition wall.
- > The minimum quantity of „metal hooks“ have to be taken of the chart quoted above.
- > The „metal hooks“ have to be wrapped evenly around the pipe to be sealed.
- > **Light partition wall:** The „metal band“ has to be fixed with threaded rods made of steel (Outer diameter 6 mm to 8 mm – for pipes with outer diameter ≤ 50 mm or 8 mm – for pipes with outer diameter > 50 mm; Length \geq Thickness of the space-enclosing building element) and on both sides of the space-enclosing building element with washers and Nuts (in dependance to the outer diameter of threaded rod made of steel).
- > **Rigid wall:** The „metal band“ has to be fixed with matching steel plugs or steel screw washers (Outer diameter ≥ 6 mm) and roots (in accordance to outer diameter of steel plugs or steel screw anchors. In case of aerated concrete, the „metal band“ can be optionally be fixed with fast building screws made of steel (Outer diameter ≥ 5 mm; Length ≥ 50 mm) and washers (in accordance to outer diameter of fast building screws).

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according to ETA-13/0640

Non insulated plastic pipes mounted in an angle 90° and 45°



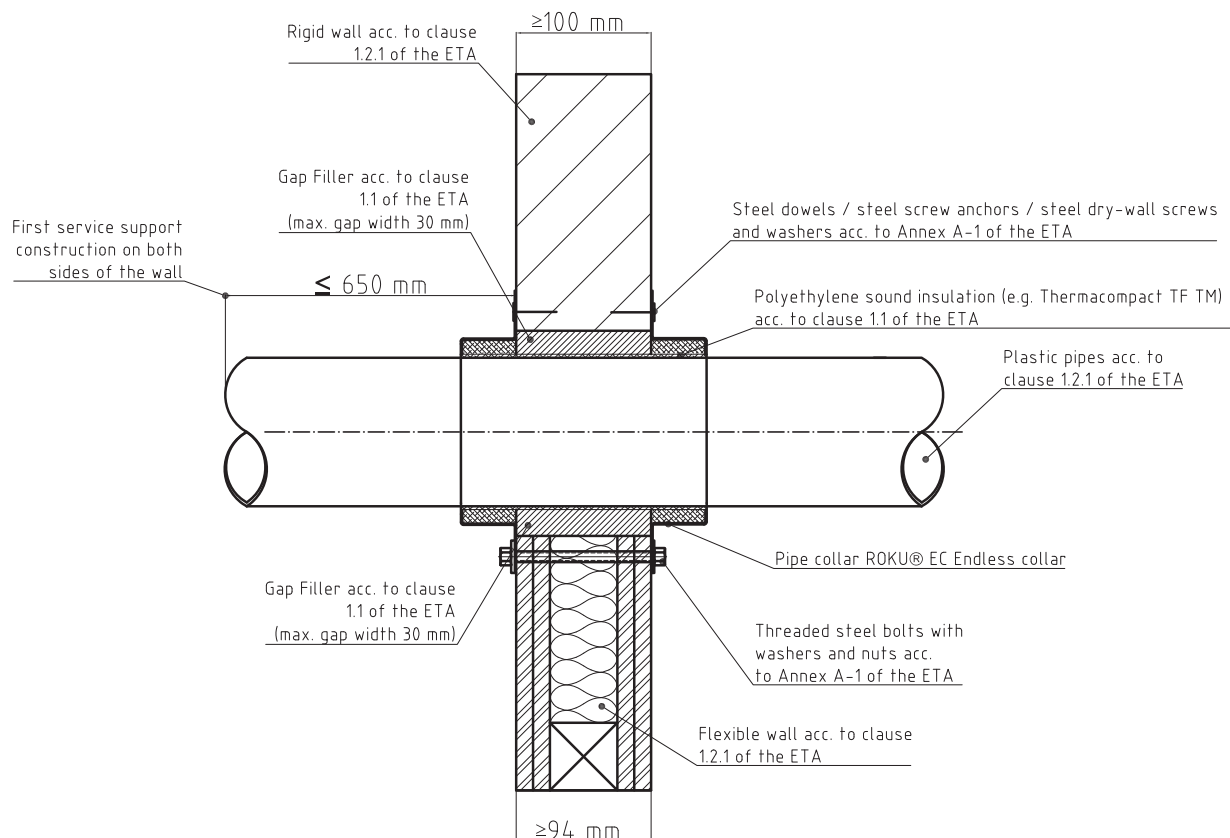
- > The „metal band“ have to be installed on both sides of the light partition wall.
- > The minimum quantity of „metal hooks“ have to be taken of the chart quoted above.
- > The „metal hooks“ have to be wrapped evenly around the pipe to be sealed.
- > **Light partition wall:** The „metal band“ has to be fixed with threaded rods made of steel (Outer diameter 6 mm to 8 mm – for pipes with outer diameter ≤ 50 mm or 8 mm – for pipes with outer diameter > 50 mm; Length ≥ Thickness of the space-enclosing building element) and on both sides of the space-enclosing building element with washers and Nuts (in dependance to the outer diameter of threaded rod made of steel).
- > **Rigid wall:** The „metal band“ has to be fixed with matching steel plugs or steel screw washers (Outer diameter ≥ 6 mm) and roots (in accordance to outer diameter of steel plugs or steel screw anchors. In case of aerated concrete, the „metal band“ can be optionally be fixed with fast building screws made of steel (Outer diameter ≥ 5 mm; Length ≥ 50 mm) and washers (in accordance to outer diameter of fast building screws).

Assembly Instruction

ROKU® System EC Endless Collar

according to ETA-13/0640

Plastic pipe insulation with Polyethylen sound insulation



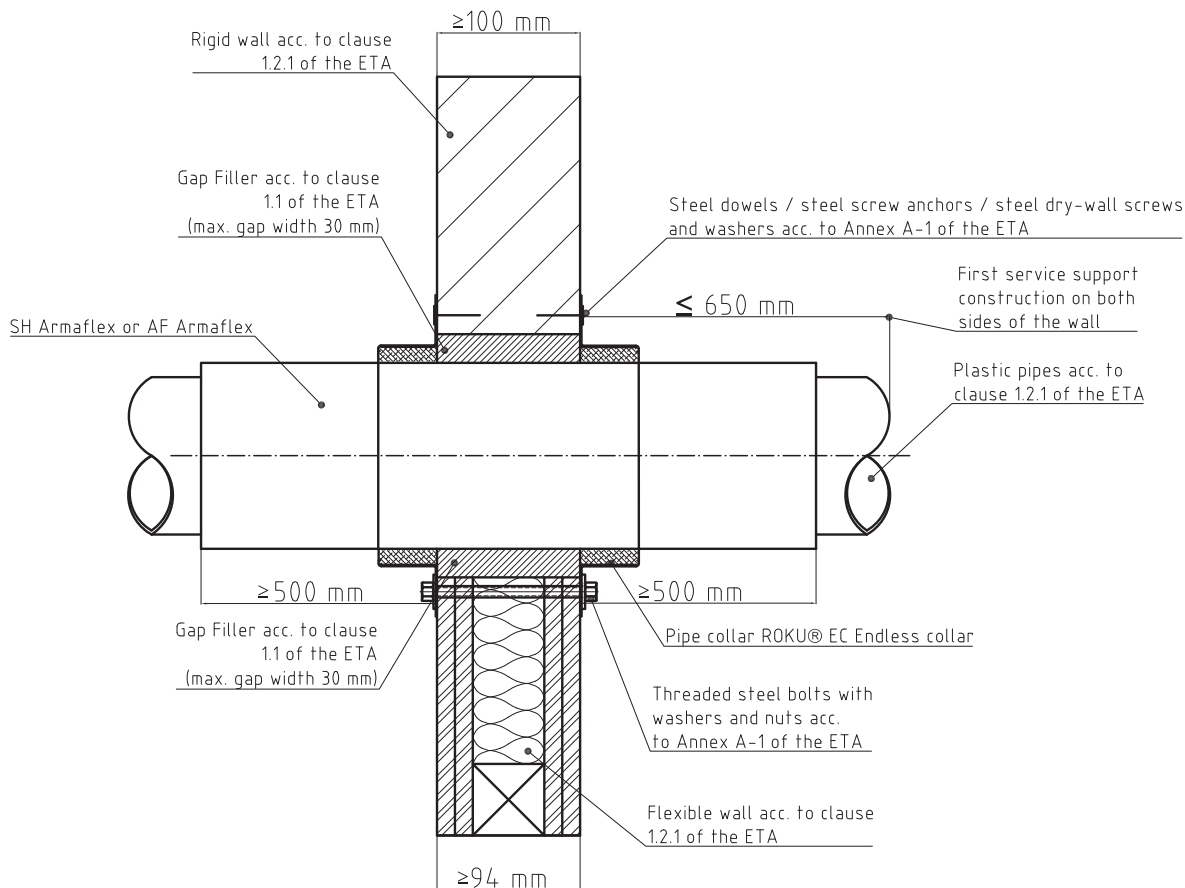
- > The hoses can either be pulled over the pipes or cut open and put around the pipe.
- > The pipes can only be insulated in the conduct area (even within the seal) or on its complete length.
- > Since measurements of hoses are specified, the surplus of insulation material can partially (on width between 20 mm to 40 mm) be 12 mm.
- > The „metal band“ have to be installed on both sides of the light partition wall.
- > The minimum quantity of „metal hooks“ have to be taken of the chart quoted above.
- > The „metal hooks“ have to be wrapped evenly around the pipe to be sealed.
- > **Light partition wall:** The „metal band“ has to be fixed with threaded rods made of steel (Outer diameter 6 mm to 8 mm – for pipes with outer diameter \leq 50 mm or 8 mm – for pipes with outer diameter $>$ 50 mm; Length \geq Thickness of the space-enclosing building element) and on both sides of the space-enclosing building element with washers and Nuts (in dependance to the outer diameter of threaded rod made of steel).
- > **Rigid wall:** The „metal band“ has to be fixed with matching steel plugs or steel screw washers (Outer diameter \geq 6 mm) and roots (in accordance to outer diameter of steel plugs or steel screw anchors. In case of aerated concrete, the „metal band“ can be optionally be fixed with fast building screws made of steel (Outer diameter \geq 5 mm; Length \geq 50 mm) and washers (in accordance to outer diameter of fast building screws).

Assembly Instruction

ROKU® System EC Endless Collar

according to ETA-13/0640

Plastic pipe insulation with SH/Armaflex or AF/Armaflex



- > The length of the hose has to be ≥ 500 mm (locally traversing LS or continuously traversing the pipe length - traversing CS) on both sides of the space-enclosing building material (measured on surface of the space-enclosing building material).
- > The hose has to be continuous over the minimum insulation length.
- > When hoses are installed all splices and longitudinal seam (with exception of hoses with self-adhesive equipment) have to be glued with „Armaflex Kleber 520“ and covered with „AF/Armaflex Band selbstklebend“ or „SH/Armaflex Band selbstklebend“.
- > The amount of „Armaflex Kleber 520“ applied is not allowed to exceed the amount prescribed by the manufacturer.
- > The measurements of „AF/Armaflex Band selbstklebend“ or „SH/Armaflex Band selbstklebend“ have to be 50 mm x 3 mm (width x thickness).
- > Diversion and pipe curves also have to be equipped with hoses along the minimum insulation length (≥ 500 mm – measured on surface of space-enclosing building material) on both sides of the space-enclosing building material.
- > The minimum quantity of „metal hooks“ have to be taken of the chart quoted above.
- > The „metal hooks“ have to be wrapped evenly around the pipe to be sealed.

Assembly Instruction

ROKU® System EC Endless Collar

according to ETA-13/0640

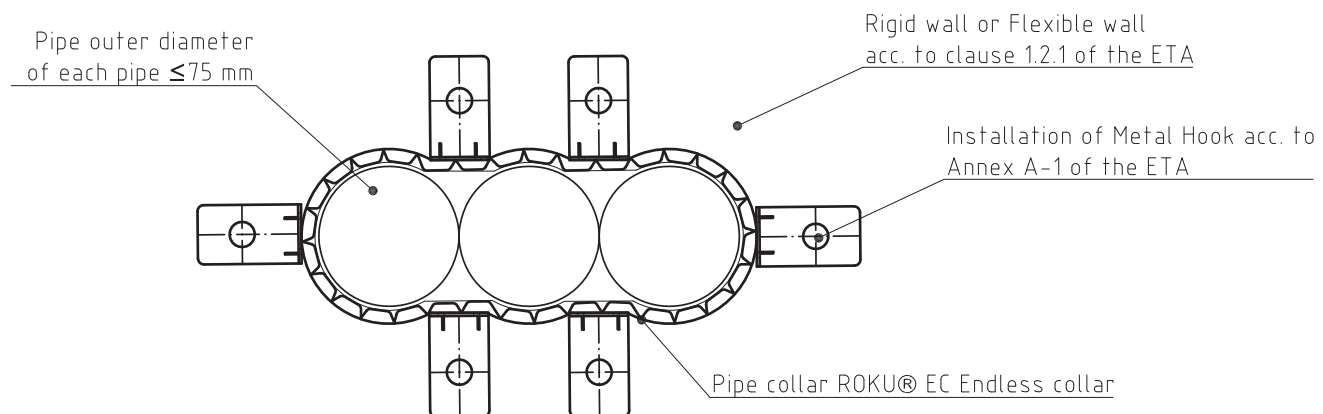
- > **Lightweight partition walls:** The „metal bands“ must be mounted with threaded rods made of steel (outer diameter 6 mm to 8 mm – for pipes with an outer diameter > 50 mm; length \geq thickness of space-enclosing building component) on both sides of the space-enclosing building component and fixed with washers and nuts (in accordance with the outer diameter of the steel threaded rods)
- > **Massive walls:** The “metal band” must be mounted with appropriate steel plugs or steel screw anchors (outer diameter \geq 6 mm) and washers (in accordance with the outer diameter of the steel plugs or steel screw anchors). For massive walls made of aerated concrete, the “metal band” can be alternatively mounted with coarse thread screws made of steel (outer diameter \geq 5 mm; length \geq 50 mm) and washers (in accordance with the outer diameter of the coarse thread screws made of steel)

Assembly Instruction

ROKU® System EC Endless Collar

according to ETA-13/0640

Multiple conduct of max. three plastic pipes made of PVC-U, PE-HD or PP through a mutual pipe collar „ROKU® EC Endless Collar“ (Space between pipes max. 15 mm; linear arrangement, not aligned in groups), non insulated



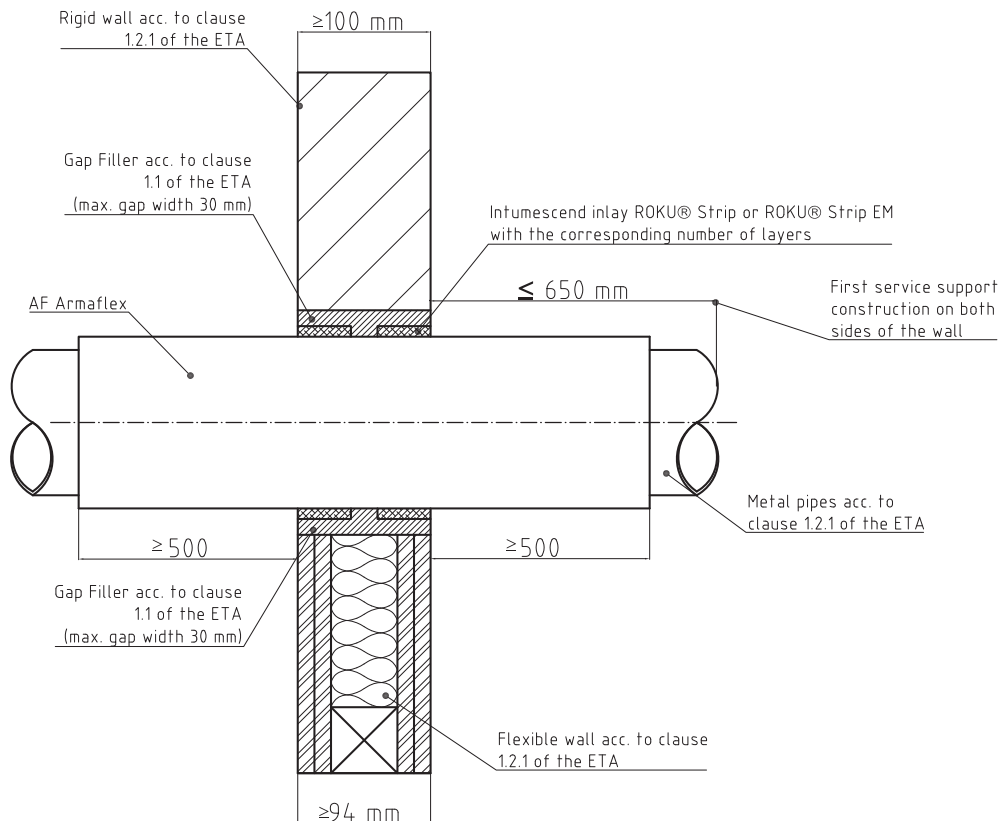
- > In case of multiple conducts of max. three plastic pipes made of PVC-U, PE-HD or PP through a mutual pipe collar „ROKU® EC Endless Collar“, a metal hook has to be installed between every pipe on top and the bottom of the „metal band“.
- > The „metal band“ have to be installed on both sides of the light partition wall.
- > The minimum quantity of „metal hooks“ have to be taken of the chart quoted above.
- > The „metal hooks“ have to be wrapped evenly around the pipe to be sealed.
- > **Light partition wall:** The „metal band“ has to be fixed with threaded rods made of steel (Outer diameter 6 mm to 8 mm – for pipes with outer diameter ≤ 50 mm or 8 mm – for pipes with outer diameter > 50 mm; Length \geq Thickness of the space-enclosing building element) and on both sides of the space-enclosing building element with washers and Nuts (in dependance to the outer diameter of threaded rod made of steel).
- > **Rigid wall:** The „metal band“ has to be fixed with matching steel plugs or steel screw washers (Outer diameter ≥ 6 mm) and roots (in accordance to outer diameter of steel plugs or steel screw anchors. In case of aerated concrete, the „metal band“ can be optionally be fixed with fast building screws made of steel (Outer diameter ≥ 5 mm; Length ≥ 50 mm) and washers (in accordance to outer diameter of fast building screws).

Assembly Instruction

ROKU® System EC Endless Collar

gemäß ETA-13/0640

Metal pipes insulated with AF/Armaflex and an additional layer of AF/Armaflex, intumescent inlays on both sides, internally, even with the space-enclosing building material (without metal band)



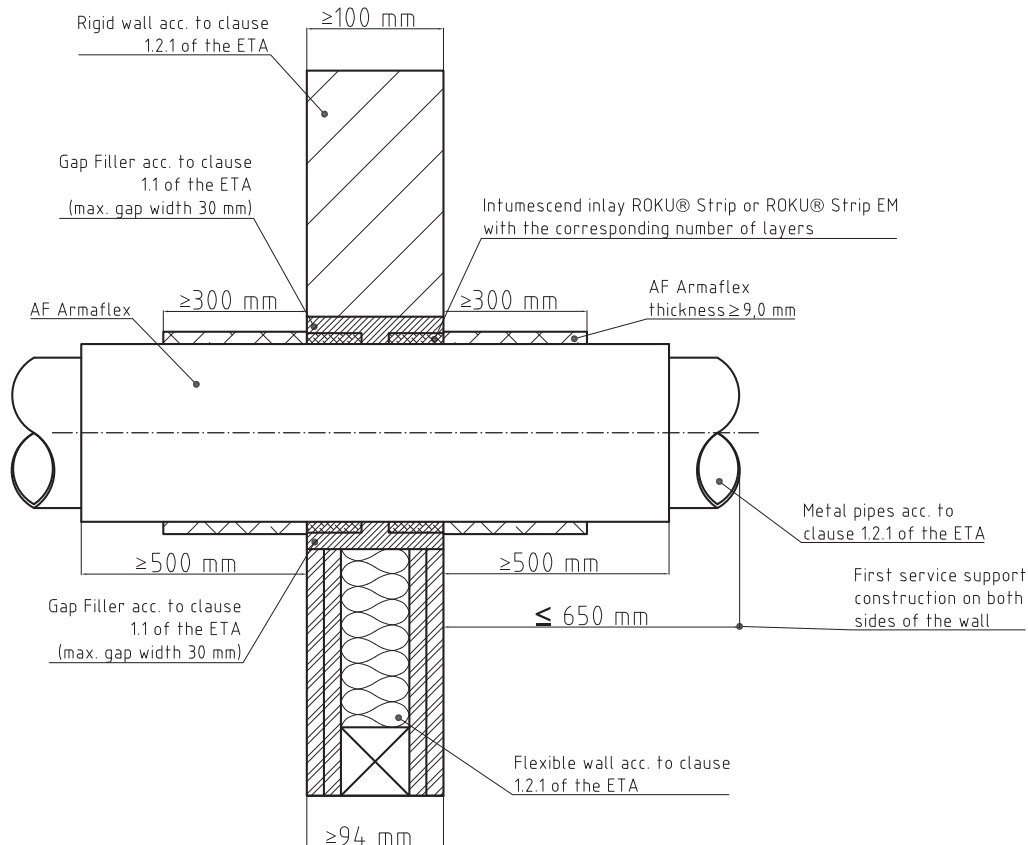
- > The length of the hose has to be ≥ 500 mm (locally traversing LS or continuously traversing the pipe length - traversing CS) on both sides of the space-enclosing building material (measured on surface of the space-enclosing building material).
- > The hose has to be continuous over the minimum insulation length.
- > When hoses are installed all splices and longitudinal seam (with exception of hoses with self-adhesive equipment) have to be glued with „Armaflex Kleber 520“ and covered with „AF/Armaflex Band selbstklebend“ or „SH/Armaflex Band selbstklebend“.
- > The amount of „Armaflex Kleber 520“ applied is not allowed to exceed the amount prescribed by the manufacturer.
- > The measurements of „AF/Armaflex Band selbstklebend“ or „SH/Armaflex Band selbstklebend“ have to be 50 mm x 3 mm (width x thickness).
- > Diversions and pipe curves also have to be equipped with hoses along the minimum insulation length (≥ 500 mm – measured on surface of space-enclosing building material) on both sides of the space-enclosing building material.

Assembly Instruction

ROKU® System EC Endless Collar

according to ETA-13/0640

Metal pipes insulated with AF/Armaflex and an additional layer of AF/Armaflex, intumescent inlays on both sides, internally, even with the space-enclosing building material (without metal band)



- > The length of the hose has to be ≥ 500 mm (locally traversing LS or continuously traversing the pipe length - traversing CS) on both sides of the space-enclosing building material (measured on surface of the space-enclosing building material).
- > The hose has to be continuous over the minimum insulation length.
- > When hoses are installed all splices and longitudinal seam (with exception of hoses with self-adhesive equipment) have to be glued with „Armaflex Kleber 520“ and covered with „AF/Armaflex Band selbstklebend“ or „SH/Armaflex Band selbstklebend“.
- > The amount of „Armaflex Kleber 520“ applied is not allowed to exceed the amount prescribed by the manufacturer.
- > The measurements of „AF/Armaflex Band selbstklebend“ or „SH/Armaflex Band selbstklebend“ have to be 50 mm x 3 mm (width x thickness).
- > Diversions and pipe curves also have to be equipped with hoses along the minimum insulation length (≥ 500 mm – measured on surface of space-enclosing building material) on both sides of the space-enclosing building material.

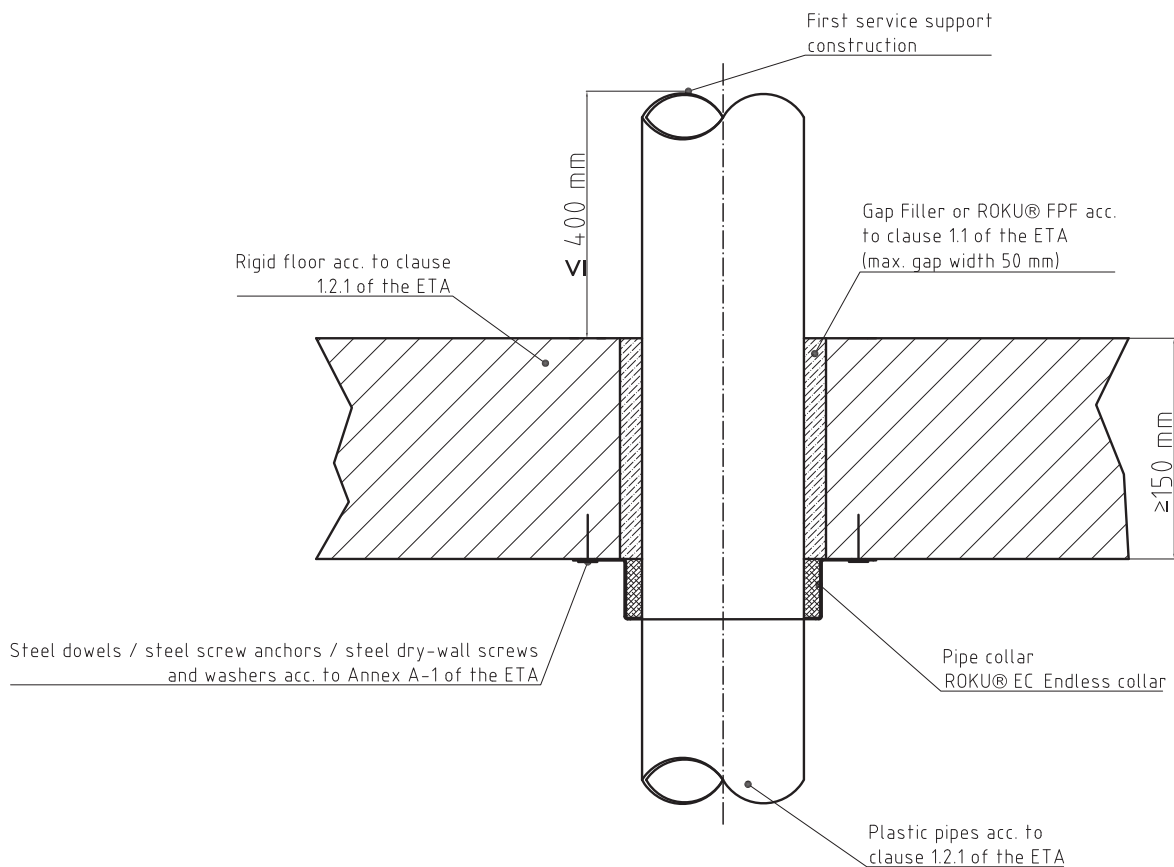
Assembly Instruction

ROKU® System EC Endless Collar

according to ETA-13/0640

Floor

Non insulated plastic pipes



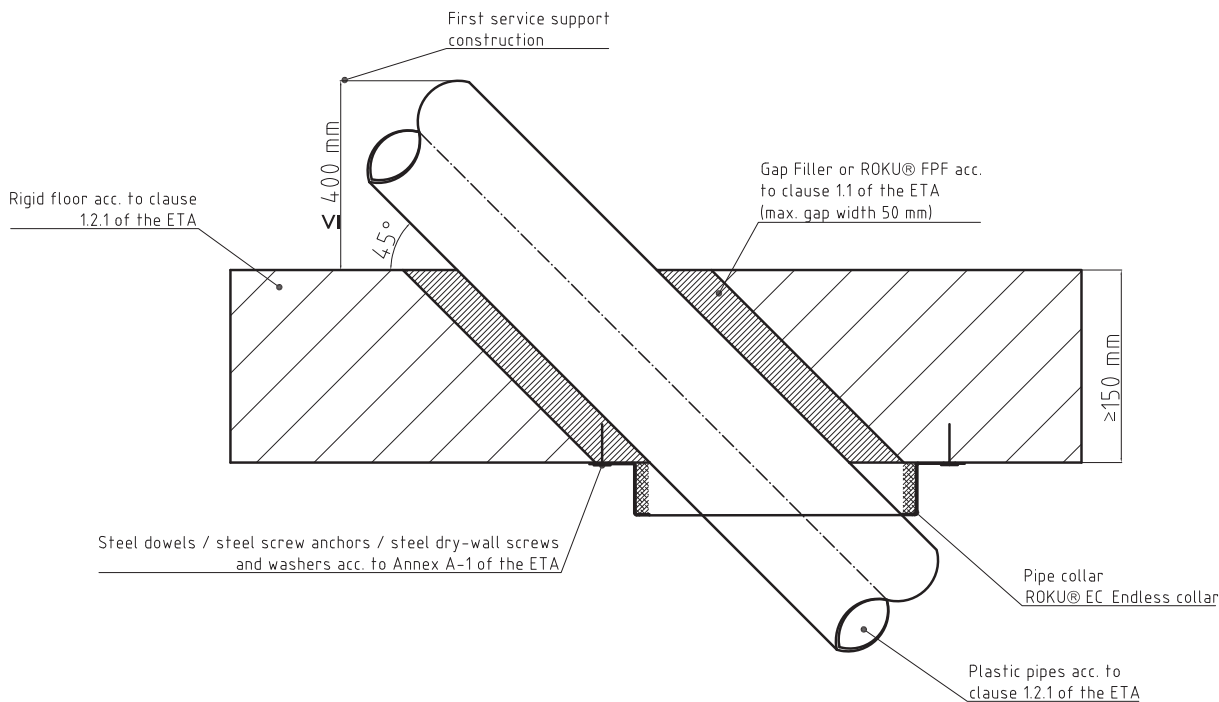
- > The „metal band“ have to be installed on both sides of the light partition wall.
- > The minimum quantity of „metal hooks“ have to be taken of the chart quoted above.
- > The „metal hooks“ have to be wrapped evenly around the pipe to be sealed.
- > **Rigid wall:** The „metal band“ has to be fixed with matching steel plugs or steel screw washers (Outer diameter ≥ 6 mm) and roots (in accordance to outer diameter of steel plugs or steel screw anchors. In case of aerated concrete, the „metal band“ can be optionally be fixed with fast building screws made of steel (Outer diameter ≥ 5 mm; Length ≥ 50 mm) and washers (in accordance to outer diameter of fast building screws).

Assembly Instruction

ROKU® System EC Endless Collar

according to ETA-13/0640

Non insulated plastic pipes mounted in an angle 90° and 45°



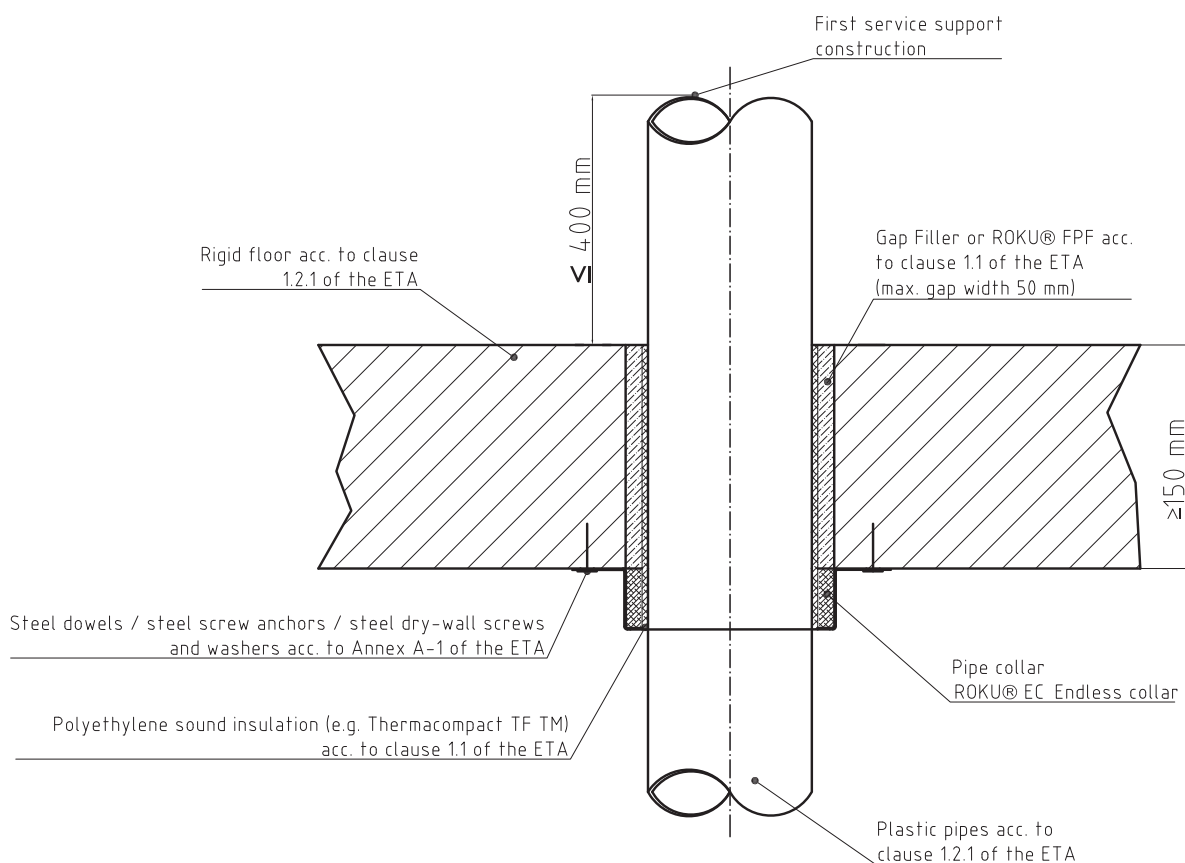
- > The „metal band“ have to be installed on both sides of the light partition wall.
- > The minimum quantity of „metal hooks“ have to be taken of the chart quoted above.
- > The „metal hooks“ have to be wrapped evenly around the pipe to be sealed.
- > **Rigid wall:** The „metal band“ has to be fixed with matching steel plugs or steel screw washers (Outer diameter ≥ 6 mm) and roots (in accordance to outer diameter of steel plugs or steel screw anchors. In case of aerated concrete, the „metal band“ can be optionally be fixed with fast building screws made of steel (Outer diameter ≥ 5 mm; Length ≥ 50 mm) and washers (in accordance to outer diameter of fast building screws).

Assembly Instruction

ROKU® System EC Endless Collar

according to ETA-13/0640

Plastic pipes insulated with Polyethylen sound insulation (e.g. THERMACOMPACT TF™)



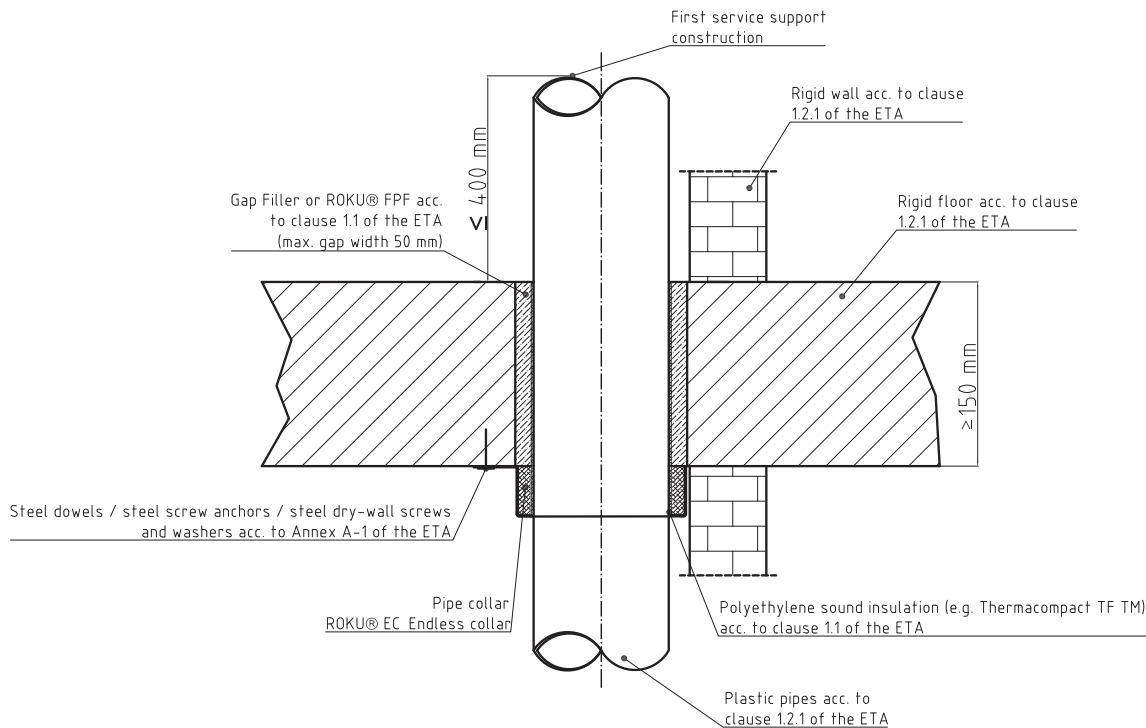
- > The hoses can either be pulled over the pipes or cut open and put around the pipe.
- > The pipes can only be insulated in the conduct area (even within the seal) or on its complete length.
- > Since measurements of hoses are specified, the surplus of insulation material can partially (on width between 20 mm to 40 mm) be 12 mm.
- > The „metal band“ have to be installed on both sides of the light partition wall.
- > The minimum quantity of „metal hooks“ have to be taken of the chart quoted above.
- > The „metal hooks“ have to be wrapped evenly around the pipe to be sealed.
- > **Rigid wall:** The „metal band“ has to be fixed with matching steel plugs or steel screw washers (Outer diameter ≥ 6 mm) and roots (in accordance to outer diameter of steel plugs or steel screw anchors. In case of aerated concrete, the „metal band“ can be optionally be fixed with fast building screws made of steel (Outer diameter ≥ 5 mm; Length ≥ 50 mm) and washers (in accordance to outer diameter of fast building screws).

Assembly Instruction

ROKU® System EC Endless Collar

according to ETA-13/0640

Plastic pipes that are positioned directly in the corner of the wall (Space between pipe and wall max. 10 mm), insulated with Polyethylen sound insulation (e.g. THERMACOMPACT TF™)



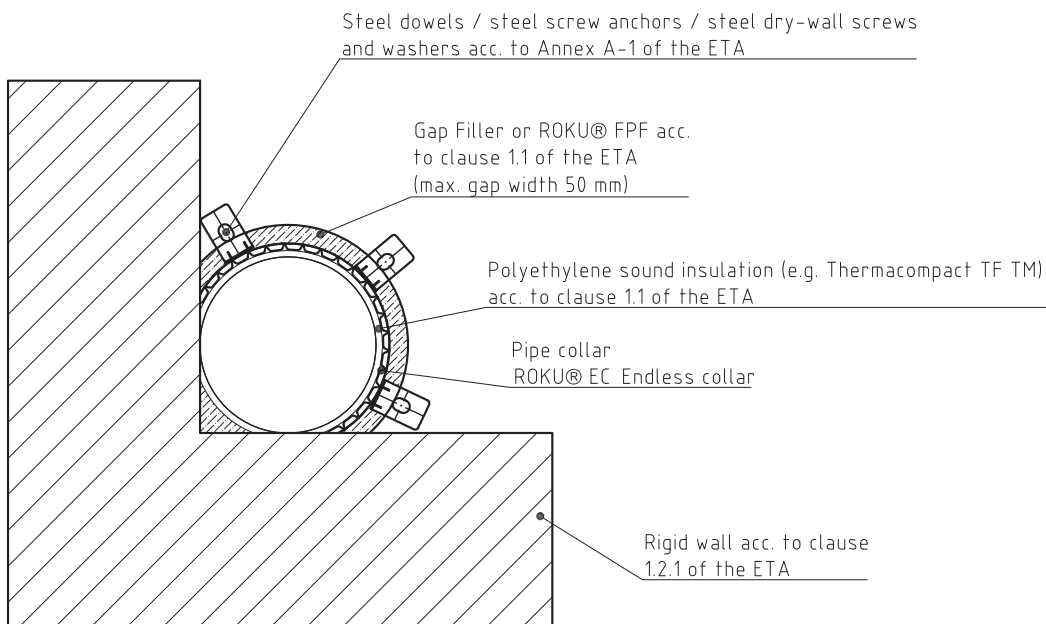
- > The hoses can either be pulled over the pipes or cut open and put around the pipe.
- > The pipes can only be insulated in the conduct area (even within the seal) or on its complete length.
- > Since measurements of hoses are specified, the surplus of insulation material can partially (on width between 20 mm to 40 mm) be 12 mm.
- > The „metal band“ have to be installed on both sides of the light partition wall.
- > The minimum quantity of „metal hooks“ have to be taken of the chart quoted above.
- > The „metal hooks“ have to be wrapped evenly around the pipe to be sealed.
- > **Rigid wall:** The „metal band“ has to be fixed with matching steel plugs or steel screw washers (Outer diameter ≥ 6 mm) and roots (in accordance to outer diameter of steel plugs or steel screw anchors. In case of aerated concrete, the „metal band“ can be optionally be fixed with fast building screws made of steel (Outer diameter ≥ 5 mm; Length ≥ 50 mm) and washers (in accordance to outer diameter of fast building screws).

Assembly Instruction

ROKU® System EC Endless Collar

according to ETA-13/0640

Plastic pipes that are positioned directly in the corner of the wall (Space between pipe and wall max. 10 mm), insulated with Polyethylen sound insulation (e.g. THERMACOMPACT TF™)



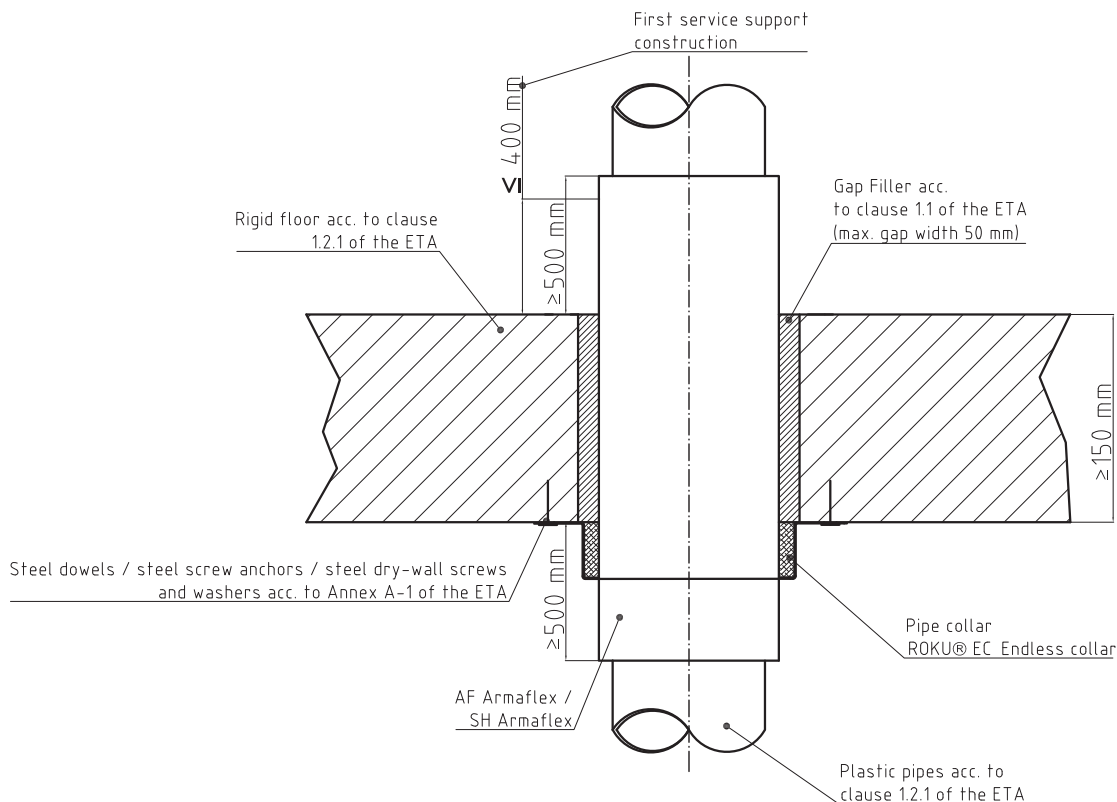
- > The hoses can either be pulled over the pipes or cut open and put around the pipe.
- > The pipes can only be insulated in the conduct area (even within the seal) or on its complete length.
- > Since measurements of hoses are specified, the surplus of insulation material can partially (on width between 20 mm to 40 mm) be 12 mm.
- > The „metal band“ has to be installed at the bottom of the rigid wall.
- > In case the „metal band“ is installed on vertical plastic pipe that is positioned directly in the corner of the wall (Space between pipe and wall max. 10 mm) three „metal hooks“ have to be used (one „metal hook“ in each corner and in the middle of the „metal band“).
- > **Rigid wall:** The „metal band“ has to be fixed with matching steel plugs or steel screw washers (Outer diameter ≥ 6 mm) and roots (in accordance to outer diameter of steel plugs or steel screw anchors. In case of aerated concrete, the „metal band“ can be optionally be fixed with fast building screws made of steel (Outer diameter ≥ 5 mm; Length ≥ 50 mm) and washers (in accordance to outer diameter of fast building screws).

Assembly Instruction

ROKU® System EC Endless Collar

according to ETA-13/0640

Plastic pipe insulation with SH/Armaflex or F/Armaflex



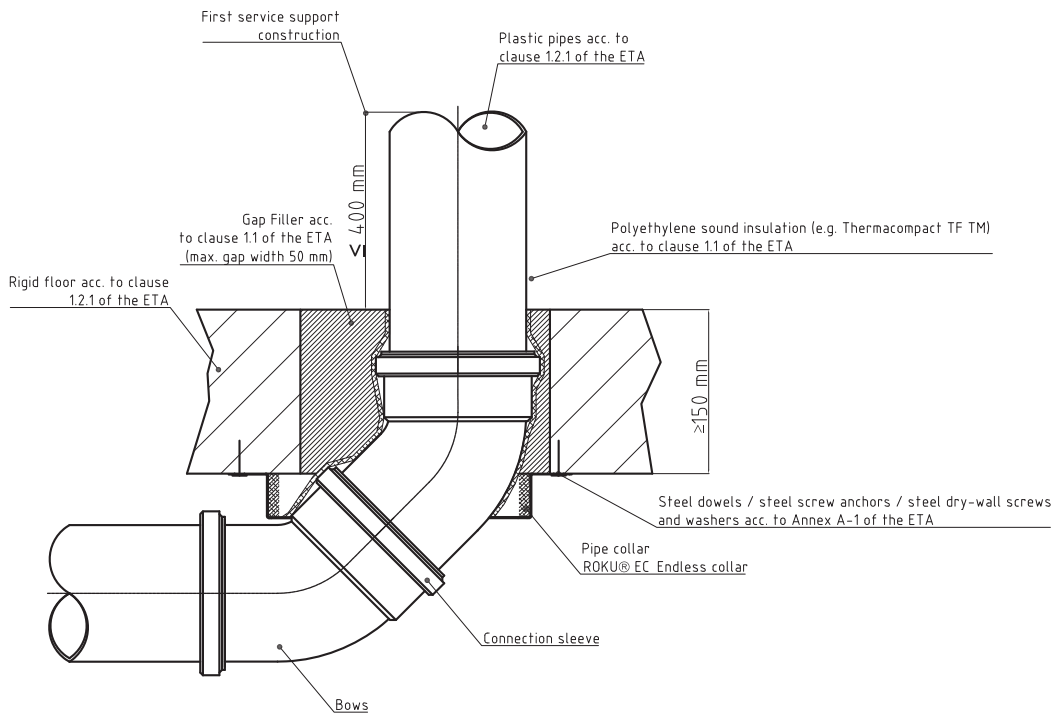
- > The „metal band“ have to be installed on both sides of the light partition wall.
- > The minimum quantity of „metal hooks“ have to be taken of the chart quoted above.
- > The „metal hooks“ have to be wrapped evenly around the pipe to be sealed.
- > **Rigid wall:** The „metal band“ has to be fixed with matching steel plugs or steel screw washers (Outer diameter ≥ 6 mm) and roots (in accordance to outer diameter of steel plugs or steel screw anchors. In case of aerated concrete, the „metal band“ can be optionally be fixed with fast building screws made of steel (Outer diameter ≥ 5 mm; Length ≥ 50 mm) and washers (in accordance to outer diameter of fast building screws).

Assembly Instruction

ROKU® System EC Endless Collar

according to ETA-13/0640

Plastic pipe with curves on the bottom of the floor and a connecting sleeve within the floor, insulated with Polyethylene sound insulation (e.g. THERMACOMPACT TF™)



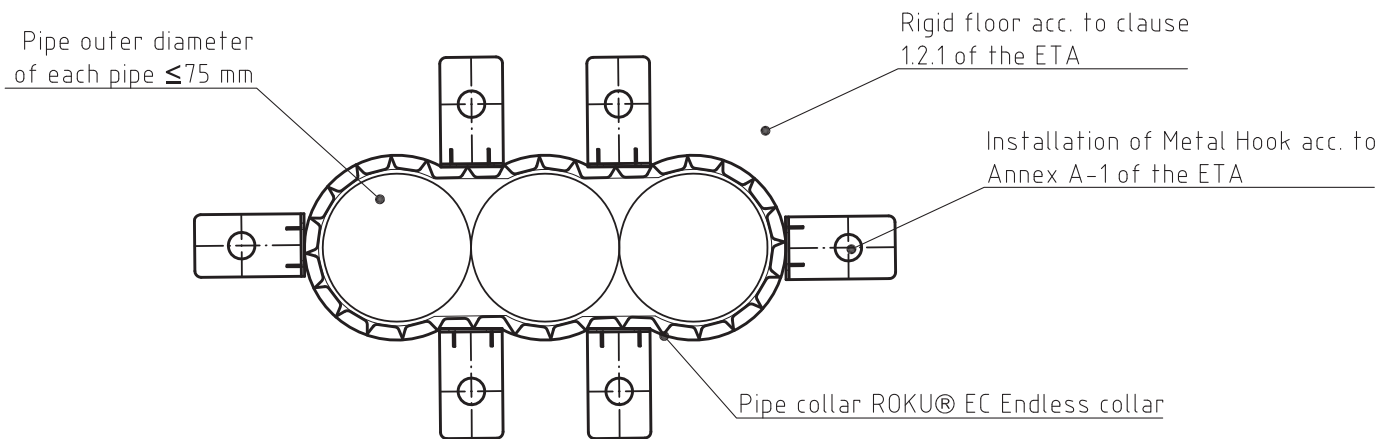
- > The hoses can either be pulled over the pipes or cut open and put around the pipe.
- > The pipes can only be insulated in the conduct area (even within the seal) or on its complete length.
- > Since measurements of hoses are specified, the surplus of insulation material can partially (on width between 20 mm to 40 mm) be 12 mm.
- > The „metal band“ have to be installed on both sides of the light partition wall.
- > The minimum quantity of „metal hooks“ have to be taken of the chart quoted above.
- > The „metal hooks“ have to be wrapped evenly around the pipe to be sealed.
- > **Rigid wall:** The „metal band“ has to be fixed with matching steel plugs or steel screw washers (Outer diameter ≥ 6 mm) and roots (in accordance to outer diameter of steel plugs or steel screw anchors. In case of aerated concrete, the „metal band“ can be optionally be fixed with fast building screws made of steel (Outer diameter ≥ 5 mm; Length ≥ 50 mm) and washers (in accordance to outer diameter of fast building screws).

Assembly Instruction

ROKU® System EC Endless Collar

according to ETA-13/0640

Multiple conduct of max. three plastic pipes made of PVC-U, PE-HD or PP through a mutual pipe collar „ROKU® EC Endless Collar“ (Space between pipes max. 15 mm; linear arrangement, not aligned in groups), non insulated



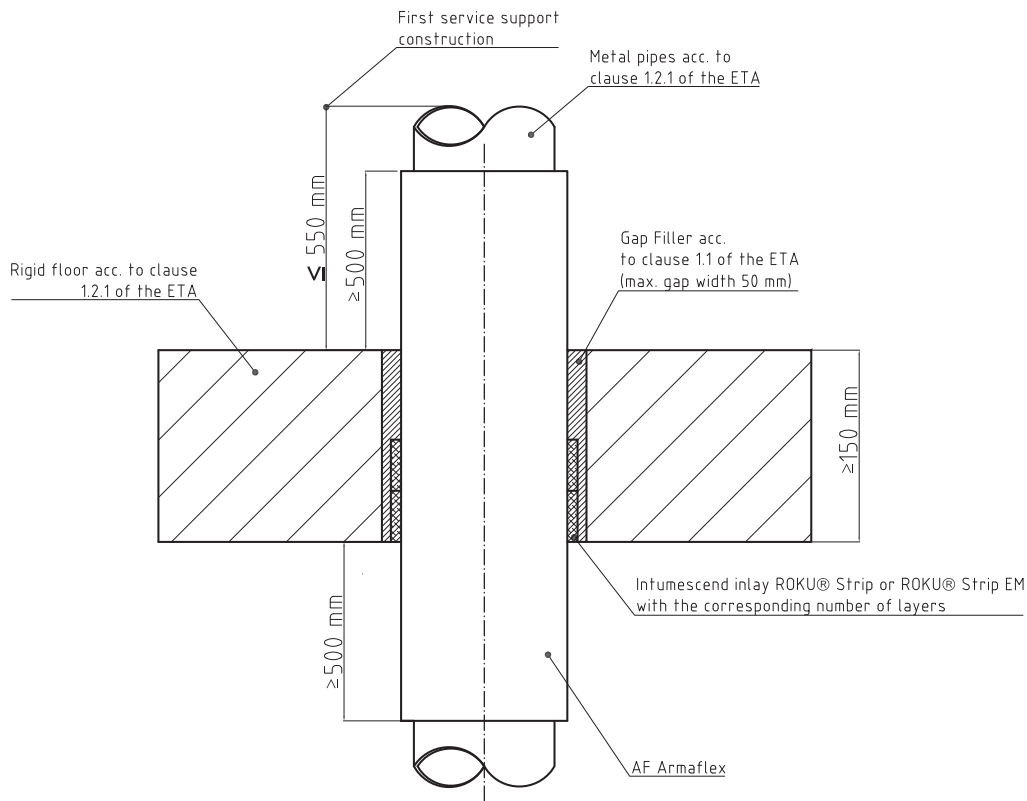
- > In case of multiple conducts of max. three plastic pipes made of PVC-U, PE-HD or PP through a mutual pipe collar „ROKU® EC Endless Collar“, a metal hook has to be installed between every pipe on top and the bottom of the „metal band“.
- > The „metal band“ have to be installed on both sides of the light partition wall.
- > The minimum quantity of „metal hooks“ have to be taken of the chart quoted above.
- > The „metal hooks“ have to be wrapped evenly around the pipe to be sealed.
- > **Rigid wall:** The „metal band“ has to be fixed with matching steel plugs or steel screw washers (Outer diameter ≥ 6 mm) and roots (in accordance to outer diameter of steel plugs or steel screw anchors. In case of aerated concrete, the „metal band“ can be optionally be fixed with fast building screws made of steel (Outer diameter ≥ 5 mm; Length ≥ 50 mm) and washers (in accordance to outer diameter of fast building screws).

Assembly Instruction

ROKU® System EC Endless Collar

gemäß ETA-13/0640

Metal pipes insulated with AF/Armaflex – intumescent inlays arranged behind one another, on the bottom side, inlying, flush to the space-enclosing building component (without metal band)



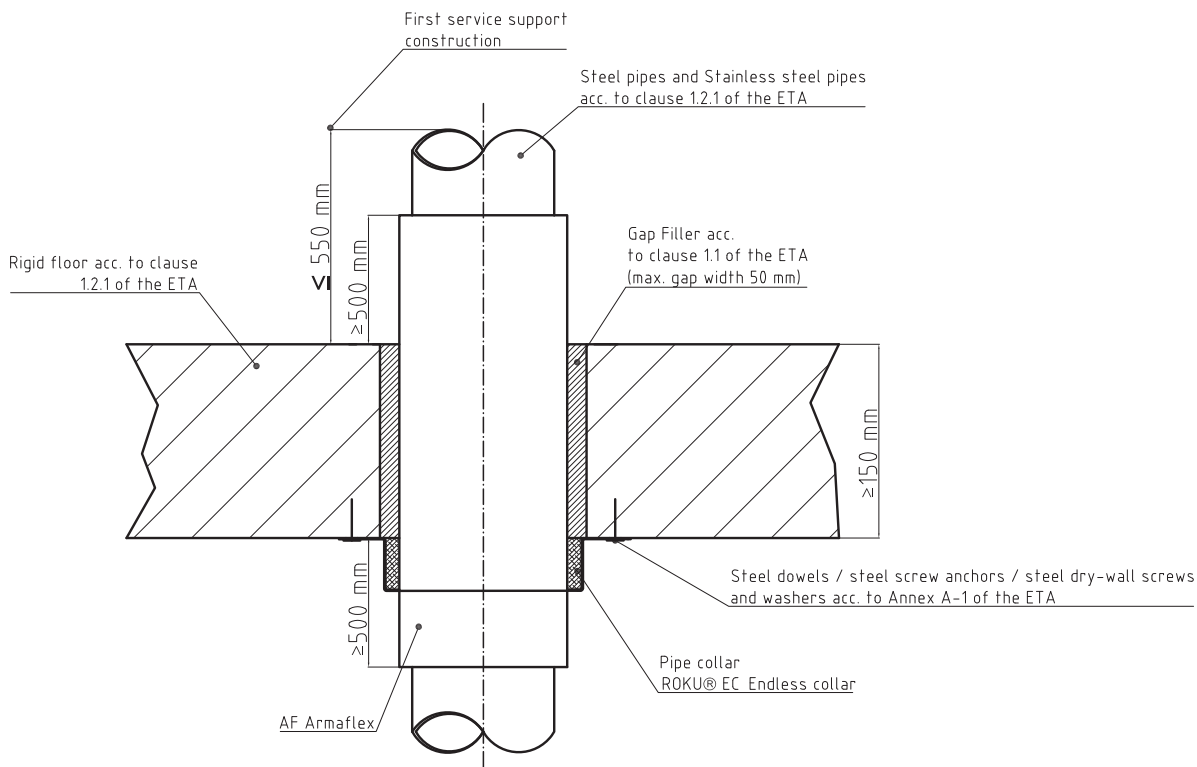
- > The length of the hose has to be ≥ 500 mm (locally traversing LS or continuously traversing the pipe length - traversing CS) on both sides of the space-enclosing building material (measured on surface of the space-enclosing building material).
- > The hose has to be continuous over the minimum insulation length.
- > When hoses are installed all splices and longitudinal seam (with exception of hoses with self-adhesive equipment) have to be glued with „Armaflex Kleber 520“ and covered with „AF/Armaflex Band selbstklebend“ or „SH/Armaflex Band selbstklebend“.
- > The amount of „Armaflex Kleber 520“ applied is not allowed to exceed the amount prescribed by the manufacturer.
- > The measurements of „AF/Armaflex Band selbstklebend“ or „SH/Armaflex Band selbstklebend“ have to be 50 mm x 3 mm (width x thickness).
- > Diversion and pipe curves also have to be equipped with hoses along the minimum insulation length (≥ 500 mm – measured on surface of space-enclosing building material) on both sides of the space-enclosing building material.

Assembly Instruction

ROKU® System EC Endless Collar

according to ETA-13/0640

Steel pipe and stainless steel pipe with AF/Armaflex – pipe collar „ROKU® EC Endless Collar“ no the floor bottom



- > The length of the hose has to be ≥ 500 mm (locally traversing LS or continuously traversing the pipe length - traversing CS) on both sides of the space-enclosing building material (measured on surface of the space-enclosing building material).
- > The hose has to be continuous over the minimum insulation length.
- > When hoses are installed all splices and longitudinal seam (with exception of hoses with self-adhesive equipment) have to be glued with „Armaflex Kleber 520“ and covered with „AF/Armaflex Band selbstklebend“ or „SH/Armaflex Band selbstklebend“.
- > The amount of „Armaflex Kleber 520“ applied is not allowed to exceed the amount prescribed by the manufacturer.
- > The measurements of „AF/Armaflex Band selbstklebend“ or „SH/Armaflex Band selbstklebend“ have to be 50 mm x 3 mm (width x thickness).
- > Diversion and pipe curves also have to be equipped with hoses along the minimum insulation length (≥ 500 mm – measured on surface of space-enclosing building material) on both sides of the space-enclosing building material.

Assembly Instruction

ROKU® System EC Endless Collar

according to ETA-13/0640

Applied products

Image	Article identifier	Art-No.
	U/U Dispenser box incl. 10 m ROKU® Strip fire protection wrap 3 m stainless steel band, 18 fastening hooks 6 identification signs, 1 assembly instruction	0303209011
	ROKU® Strip fire protection wrap 10,000 x 40 mm (l x w)	0303209011
	stainless steel wrap 3.000 mm	0707002101
	fastening hooks 18 pieces	0707002100
	identification sign 1 piece	0750050060
Accessories		
	ROKU® FPF Fire Protection Foam, 180 g	0726000000
	ROKU® FPF Fire Protection Foam, 180 g	0726000001

Assembly Instruction

ROKU® System EC Endless Collar

according to ETA-13/0640

Joint filler	Non-combustible, dimensionally stable building material of building material classification A1 or A2-s1,d0 according to EN 13501-1, like e.g. mortar, cement or gypsum joint filler
AF/Armaflex or similar product	Closed cell, elastomer foam insulation in the form of (slit) tubes (can be equipped with a self-adhesive gluing advice), with classification BL-s3,d0 – including „Armaflex glue 520“ – according to EN 13501-1 of manufacturer „Armacell GmbH“
AF/Armaflex wrap self-adhesive or similar product	Closed cell, flexible elastomer foam insulation in the form of Bändern mit einer Selbstklebevorrichtung, mit Klassifizierung B-s3,d0 gemäß EN 13501-1 vom Hersteller „Armacell GmbH“
SH/Armaflex or similar product	Closed cell, elastomer foam insulation in the form of (slit) tubes (can be equipped with a self-adhesive gluing advice), with classification BL-s3,d0 – including „Armaflex glue 520“ – according to EN 13501-1 of manufacturer „Armacell GmbH“
SH/Armaflex wrap self-adhesive or similar product	Glue on on the basis of polychloroprene, free of aromatic compounds (special glue for processing all flexible Armaflex insulation materials – with the exception of „HT/Armaflex“) of manufacturer „Armacell GmbH“
Armaflex glue 520 or similar product	Closed cell, polyethylene flexible foam insulation in the foam of tubes (can be coated with an PE-foil on the inner and outer side) with a thickness up to 4 mm, a density of 30 kg/m ³ up to 40 kg/m ³ and classification EL according to EN 13501-1 (e.g. „THERMACOMPACT TFTM“ of manufacturer „thermaflex®“)
Polyethylen sound insulation	Closed cell, polyethylene flexible foam insulation in the foam of tubes (can be coated with an PE-foil on the inner and outer side) with a thickness up to 4 mm, a density of 30 kg/m ³ up to 40 kg/m ³ and classification EL according to EN 13501-1 (e.g. „THERMACOMPACT TFTM“ of manufacturer „thermaflex®“)

Assembly Instruction

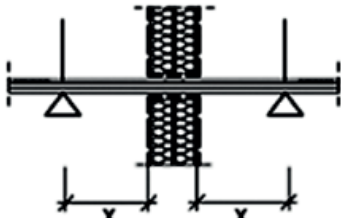
ROKU® System EC Endless Collar

according to ETA-13/0640

Arrangement of the first support (backings)

Supports/Backings of the installations in front of the wall insulation must consist of essentially non-combustible components and be arranged with a distance according to the following overview.

Installation	Wall	Floor
combustible pipes	≤ 650 mm on both sides	≤ 400 mm above
non-combustible pipes	≤ 650 mm on both sides	≤ 400 mm above

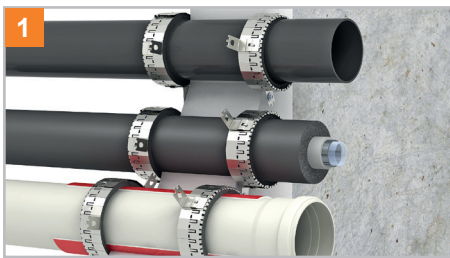


Assembly Instruction

ROKU® System EC Endless Collar

according to ETA-13/0640

Montageschritte



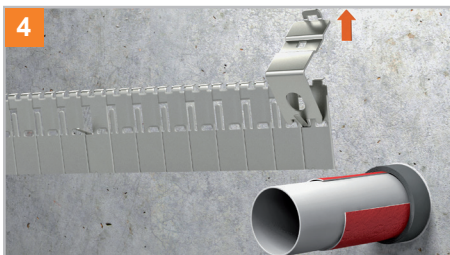
Before the installation of the pipe seal, it is to be checked if all boundary conditions (e.g. type and thickness of wall or floor, type and size of pipes and insulations as well as environmental conditions) comply with the regulations.



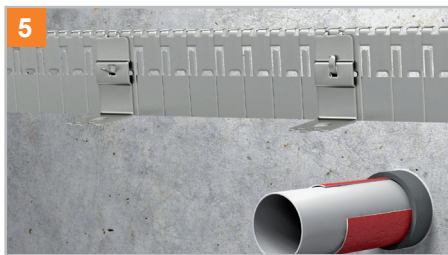
The collar can be applied on insulated or non-insulated pipes. The 40 mm wide intumescent wrap should be wrapped around the pipe and insulation dependent on the appropriate number of layers and pipe diameter. For the self-adhesive variant, strip the wrap off its protective film and glue individual layers together.



Bend the metal wrap with a fastening hook by counting the necessary metal link according the table. Mount the fastening hook to the upper side of the metal wrap. Make sure the fastening hook is flush with the metal wrap on the left side. Break off the metal wrap by moving it back and forth. By doing so, no additional tools are necessary.



Insert the hook's long nib into the wrap's long nib. By pressing down the hook and finally bending the nib by 90°, pinpoint the mounting points.



Mount the fastening hooks to the appropriate positions. Insert the 90° bended lug through the opening and bend it back so that the hook is fixed tightly.

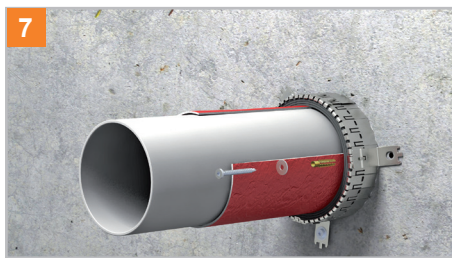


Bend two lugs on one end of the metal wrap by 90° so that both ends will connect. Insert the bended lugs into the horizontal openings. Finally, bend the lugs again so that the collar is closed tightly.

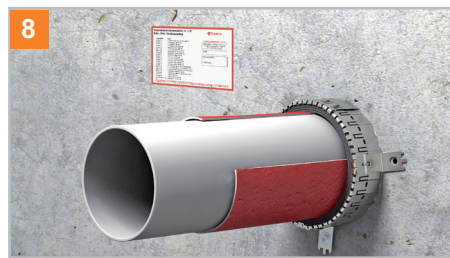
Assembly Instruction

ROKU® System EC Endless Collar

according to ETA-13/0640



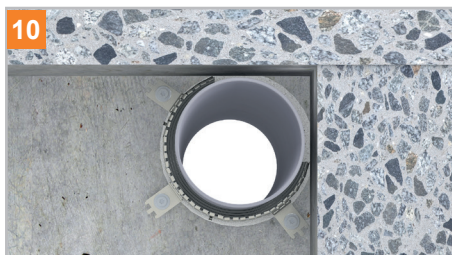
Mount each mounting point with the appropriate dowels to the wall / underneath the floor. For lightweight partition walls, work with mineral fibre seal and threaded rods M6 or M8. Finally, apply an identification sign to the seal.



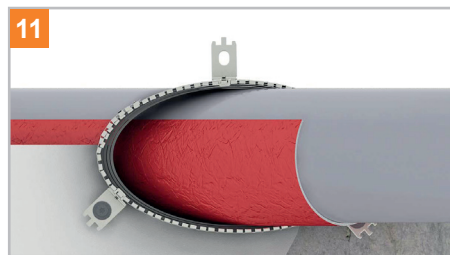
The penetration seal must be marked permanently with an identification sign. It must be placed next to the seal and is available at Rolf Kuhn GmbH.



Special application: Multiple installation of up to 3 pipes lined up next to each other (PVC, PE and PP) with an outer pipe diameter of ≤ 75 mm. The distance between the individual pipes must be max. 15 mm.



Solution for corners and narrow spatial conditions. Here, the intumescent fire protection wrap and the metal wrap each must be applied from corner to corner only. The distance between pipe and wall must be max. 10 mm. If the distance is larger, the collar must be mounted around the pipe completely. All remaining gaps and joints inside the floor can be filled with ROKU® FPF fire protection foam or with non-combustible building materials e.g. mortar or concrete. For filling with ROKU® FPF fire protection foam, the annular gap around the pipe or insulation must be max. 50 mm.



Diagonal application



2 x 45° bows

DECLARATION OF PERFORMANCE

for the construction product **ROKU® System EC Endless Collar**

Le/DoP Nr. 503/01/1307

1. Unique identification code of the product-type: **RK-13/0640**

2. Type, batch or serial number or any other element allowing identification of the construction product as required pursuant to Article 11(4): **order number: see delivery note**

3. Intended use or uses of the construction product, in accordance with the applicable harmonized technical specification, as foreseen by the manufacturer: **pipe sealing**

4. Name, registered trade name or registered trade mark and contact address of the manufacturer as required pursuant to Article 11(5): **Rolf Kuhn GmbH
Jägersgrund
D-57339 Erndtebrück**

5. If applicable, name and contact address of the authorized representative whose mandate covers the tasks specified in Article 12(2): **not relevant**

6. System or systems of assessment and verification of constancy of performance of the construction product as set out in Annex V: **system 1**

7. In case of the declaration of performance concerning a construction product covered by a harmonized standard: **not relevant**

8. In case of the declaration of performance concerning a construction product for which an European Technical Assessment has been issued: **the notified body MPA Braunschweig, No. 0761, has performed the initial inspection of the factory and of the factory production control and performs the continuous surveillance, assessment and approval of the factory production on a regular basis according System 1 and issued the following:**

**Certificate of Conformity:
No. 0761 – CPD – 0321 on basis of the ETA-13/0640**

Rolf Kuhn GmbH

Bahnhofstr. 12
82327 Tutzing
Germany

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☎ : + 49 8158 2501-25
✉ : info@rolfkuhnmbh.com

Directors
Harald Kuhn
Jürgen Wied

Register court Munich
HRB 52516
VAT no.: DE811146606

Bank details

Hypo Vereinsbank München
IBAN: DE14 7002 0000 133555
BIC: HYVEDEMMXXX

Postbank München
IBAN: DE44 7001 0080 0046 2618 04
BIC: PBNKDEFF

9. Declared performance

Essential characteristics	Performance	Harmonized technical specification
Fire resistance as a pipe sealing for combustible or non-combustible noninsulated or insulated pipes in flexible wall -, rigid wall - or rigid floor constructions by means of the fire protection collar type EC Endless Collar with a maximum dimension of 160 mm.	≤ EI 240 U / C or ≤ EI 120 U / U	ETA-13/0640
Reaction to fire of the intumescent inlayROKU® Strip	E	
Reaction to fire of the metal band	A1	
Durability and serviceability	Use category type Y1	
Release of dangerous substances none	none	
Air permeability	NPD	
Water permeability	NPD	
Mechanical resistance and stability	NPD	
Resistance to impact/movement	NPD	
Adhesion	NPD	
Airborne sound insulation	NPD	
Thermal resistance	NPD	
Water vapor permeability	NPD	
For more details please see ETA-13/0640		

10. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 9. This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.

Signed for and on behalf of the manufacturer by:

p.p Jürgen Stauffer, chief product and sales manager Kuhn Systeme
(name and function)

Erndtebrück, 01.07.2013
(place and date of issue)



.....
(Unterschrift)

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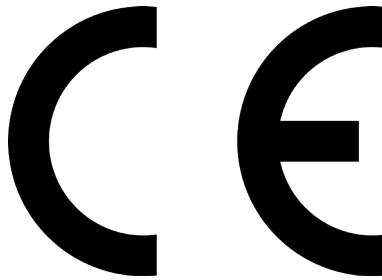
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0761

**Rolf Kuhn GmbH
Jägersgrund 10
D-57339 Erndtebrück**

13

Le/DoP Nr. 504/01/1505

ETA-15/0014

RK-13/0640

Fire resistance as a pipe sealing for combustible or non-combustible noninsulated or insulated pipes in flexible wall -, rigid wall - or rigid floor constructions by means of the fire protection collar type EC Endless Collar with a maximum dimension of 160 mm.	≤ EI 240 U / C or ≤ EI 120 U / U
Reaction to fire of the intumescent inlayROKU® Strip	E
Reaction to fire of the metal band	A1
Durability and serviceability	Use category type Y1
Release of dangerous substances none	none
Air permeability	NPD
Water permeability	NPD
Mechanical resistance and stability	NPD
Resistance to impact/movement	NPD
Adhesion	NPD
Airborne sound insulation	NPD
Thermal resistance	NPD
Water vapor permeability	NPD
For more details please see ETA-13/0640	

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