

Schémas d'applications pour le bandage coupe-feu CFS-B



Applications pour industrie

- Tube Al composite avec isolant type Armaflex et protection additionnelle en cloison épaisseur 100 mm IND-FW-AL-0084
- Tube Al composite avec isolant type Armaflex en cloison épaisseur 100 mm IND-FW-AL-0085/86/87
- Tube Al composite avec isolant type Armaflex en voile rigide épaisseur 100 mm IND-RW-AL-0094/95/96/97
- Tube Al composite avec isolant type Armaflex en dalle rigide épaisseur 100 mm IND-RF-AL-0108/109

*) Tous les schémas sont également disponibles sur demande en format DWG pour faciliter l'insertion sur des plans.



CONTENTS

Al composite pipe in a flexible wall

ID

IND-FW-AL-0084

FIRESTOP BANDAGE

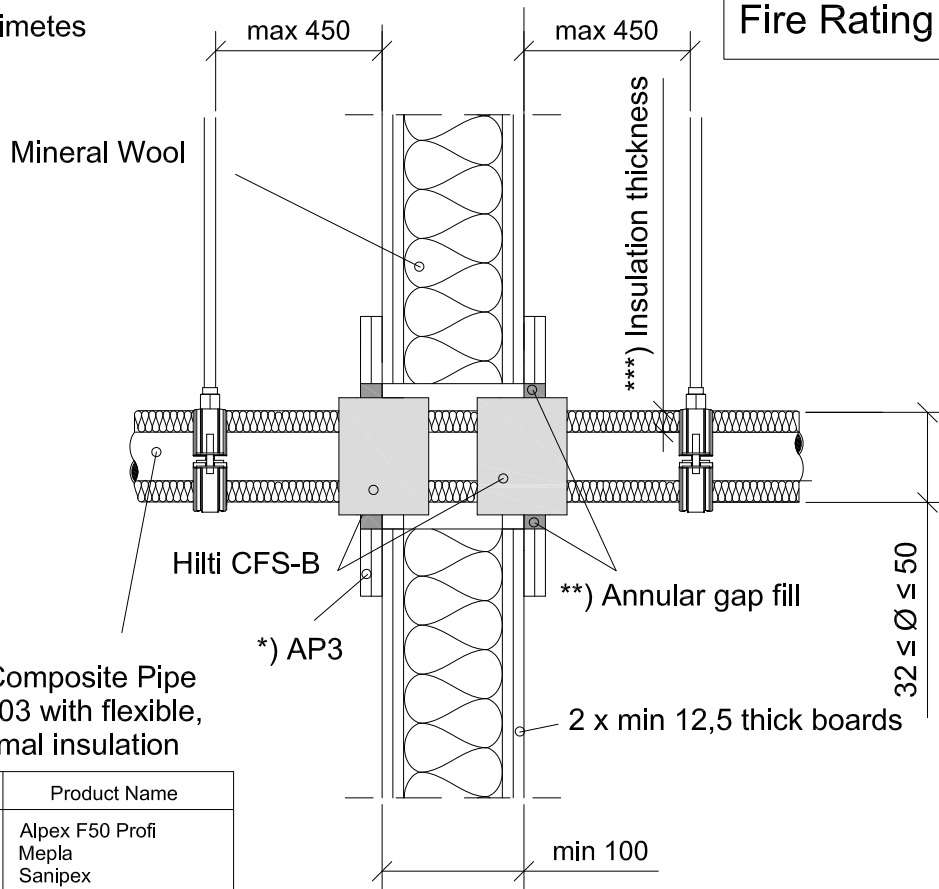
0084_01

REV
00

No scale

All units are in milimetres

Fire Rating EI 120 C/U



***) Aluminium Composite Pipe acc EN ISO 21003 with flexible, elastomeric thermal insulation

Manufacturer	Product Name
Frankische Rohrwerke	Alpex F50 Profi
Geberit	Mepla
Georg Fischer	Sanipex
Viega	SANIFIX Fosta-Rohr

*) Additional Protection

AP3
Beading/outside framing-beading for flexible wall (100mm) is applied by adding boards on both sides in two layers (2x12.5 mm Type F board) fixed with drywall screws. The resulting strips around the whole pipe are at least 50 mm in width.

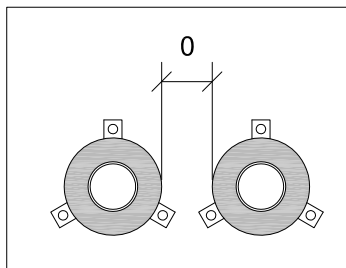
***) Annular gap fill material

Gap with (mm)	Annular Gap Fill
0-15	Hilti Firestop Acrylic Sealant CFS-S ACR or gypsum only with a depth > 25 mm on both sides of the wall

- Approval ETA-10/0212 of 06/05/2014
- Reaction to fire acc EN 13501-1
- Fire resistance test acc EN 1366-3
- Installation according to Hilti instructions

***) Pipe wall thickness and insulation

Pipe Ø	Insulation thickness			
	From		To	
	Small Ø	Large Ø	Small Ø	Large Ø
32-50	9.0	9.0	35.1	37.5



Zero distance between annular gap

***) List of approved elastomeric combustible insulation types

Product	Approved tpe of foamed elastomeric thermal insulation
ArmaceII GmbH	Armaflex AF, Armaflex SH, Armaflex Ultima, Armaflex HT
NMC Group	Insul-Tube (nmc), Insul-Tube H-plus (nmc)
Kaimann GmbH	Kaiflex KK plus, Kaiflex KK
L'isolante K-Flex	L'isolante K-Flex HT, L'isolante K-Flex ECO, L'isolante K-Flex ST, L'isolante K-Flex H, L'isolante K-Flex ST Plus



CONTENTS

Al composite pipe in a flexible wall

ID

IND-FW-AL-0085

FIRESTOP BANDAGE

0085_01

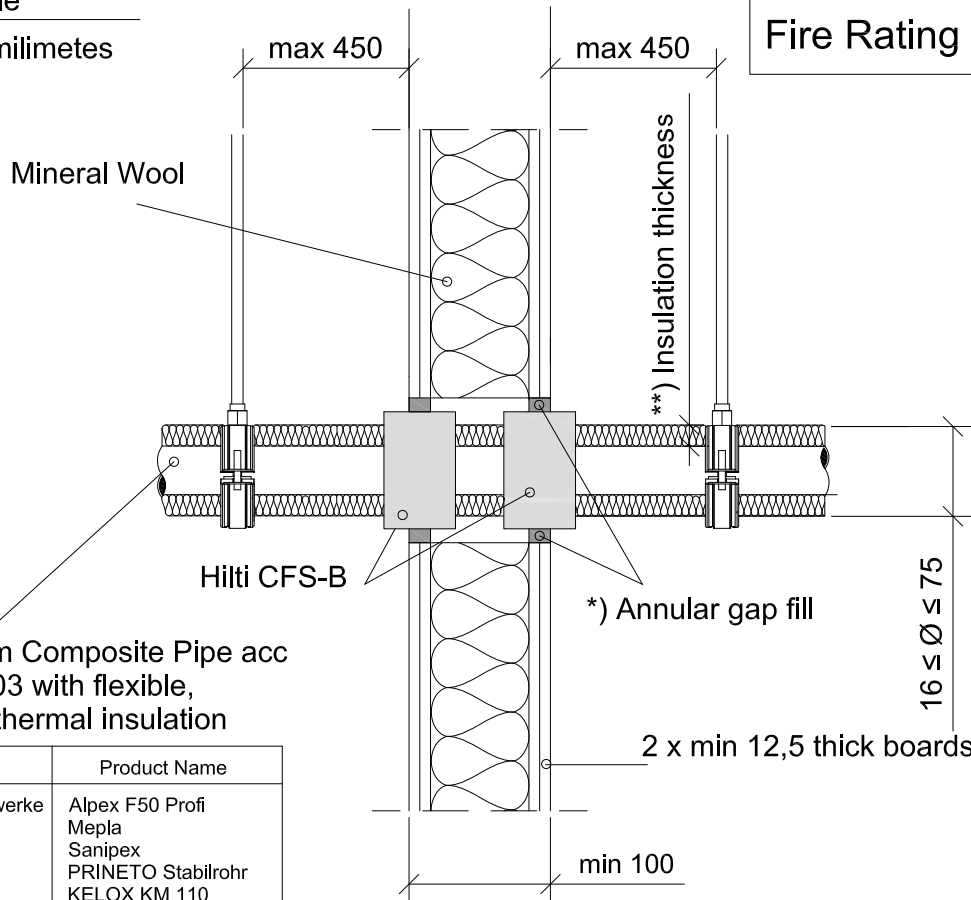
REV

00

No scale

All units are in millimetres

Fire Rating EI 120 U/C



***) Aluminium Composite Pipe acc EN ISO 21003 with flexible, elastomeric thermal insulation

Manufacturer	Product Name
Frankische Rohrwerke	Alpex F50 Profi
Geberit	Mepla
Georg Fischer	Sanipex
IVT	PRINETO Stabilrohr
Kekelit	KELOX KM 110
Rehau	Rautitau stabil
TECE	TECEflex Verbundrohr
Uponor	Unipipe MLC
Viega	SANIFIX Fosta-Rohr

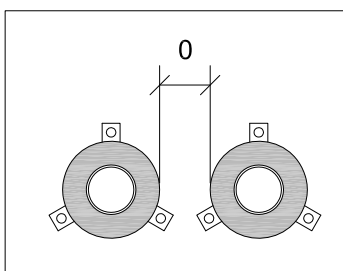
- Approval ETA-10/0212 of 06/05/2014
- Reaction to fire acc EN 13501-1
- Fire resistance test acc EN 1366-3
- Installation according to Hilti instructions

*) Annular gap fill material

Gap with (mm)	Annular Gap Fill
0-15	Hilti Firestop Acrylic Sealant CFS-S ACR or gypsum only with a depth > 25 mm on both sides of the wall

**) Pipe wall thickness and insulation

Product Name	Pipe Ø	Insulation thickness			
		From		To	
		Small Ø	Large Ø	Small Ø	Large Ø
Alpex F50 Profi and Geberit Mepla	50-75	37.5	40.5	37.5	40.5
Sanipex	40-63	9.0	9.0	36.5	39.0
PRINETO Stabilrohr	17-63	32	39	32	39
KELOX KM 110	16-73	32	40.5	32.0	40.5
Rautitau stabil	16-40	32	38.5	32.0	38.5
TECEflex Verbundrohr	16-63	32	40.5	32.0	40.5
Unipipe MLC	16-32	8.0	9.0	32.0	35.0
SANIFIX Fosta-Rohr	16-63	32	39.0	32.0	39.0



Zero distance between annular gap

**) List of approved elastomeric combustible insulation types

Product	Approved type of foamed elastomeric thermal insulation
Armacell GmbH	Armaflex AF, Armaflex SH, Armaflex Ultima, Armaflex HT
NMC Group	Insul-Tube (nmc), Insul-Tube H-plus (nmc)
Kalman GmbH	Kaiflex KK plus, Kaiflex KK
L`isolante K-Flex	L`isolante K-Flex HT, L`isolante K-Flex ECO, L`isolante K-Flex ST, L`isolante K-Flex H, L`isolante K-Flex ST Plus



CONTENTS

Al composite pipe in a flexible wall

ID

IND-FW-AL-0086

FIRESTOP BANDAGE

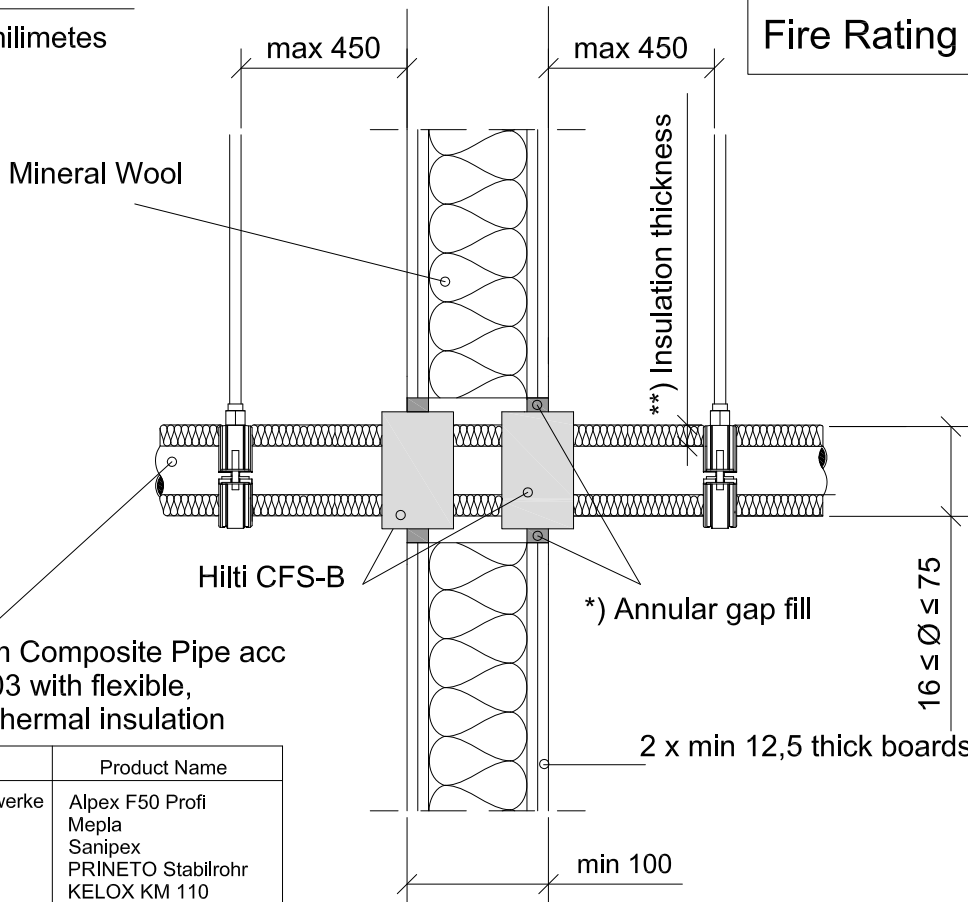
0086_01

REV
00

No scale

All units are in millimetres

Fire Rating EI 90 U/C



**) Aluminium Composite Pipe acc EN ISO 21003 with flexible, elastomeric thermal insulation

Manufacturer	Product Name
Frankische Rohrwerke	Alpex F50 Profi
Geberit	Mepla
Georg Fischer	Sanipex
IVT	PRINETO Stabilrohr
Kekelit	KELOX KM 110
Rehau	Rautitau stabil
TECE	TECEflex Verbundrohr

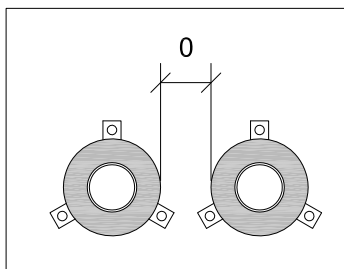
- Approval ETA-10/0212 of 06/05/2014
- Reaction to fire acc EN 13501-1
- Fire resistance test acc EN 1366-3
- Installation according to Hilti instructions

*) Annular gap fill material

Gap with (mm)	Annular Gap Fill
0-15	Hilti Firestop Acrylic Sealant CFS-S ACR or gypsum only with a depth > 25 mm on both sides of the wall

**) Pipe wall thickness and insulation

Product Name	Pipe Ø	Insulation thickness			
		From		To	
		Small Ø	Large Ø	Small Ø	Large Ø
Alpex F50 Profi, Geberit Mepla and Sanipex	16-32	8.0	9.0	32.0	35.0
PRINETO Stabilrohr	17-52	8.0	9.0	32.0	37.5
KELOX KM 110	16-75	8.0	14.0	32.0	40.5
Rautitau stabil	16-40	8.0	9.0	32.0	38.5
TECEflex Verbundrohr	16-50	8.0	9.0	32.0	37.5



Zero distance between annular gap

***) List of approved elastomeric combustible insulation types

Product	Approved tpe of foamed elastomeric thermal insulation
Armacell GmbH	Armaflex AF, Armaflex SH, Armaflex Ultima, Armaflex HT
NMC Group	Insul-Tube (nmc), Insul-Tube H-plus (nmc)
Kaimann GmbH	Kalflex KK plus, Kalflex KK
L'isolante K-Flex	L'isolante K-Flex HT, L'isolante K-Flex ECO, L'isolante K-Flex ST, L'isolante K-Flex H, L'isolante K-Flex ST Plus



CONTENTS

Al composite pipe in a flexible wall

ID

IND-FW-AL-0087

FIRESTOP BANDAGE

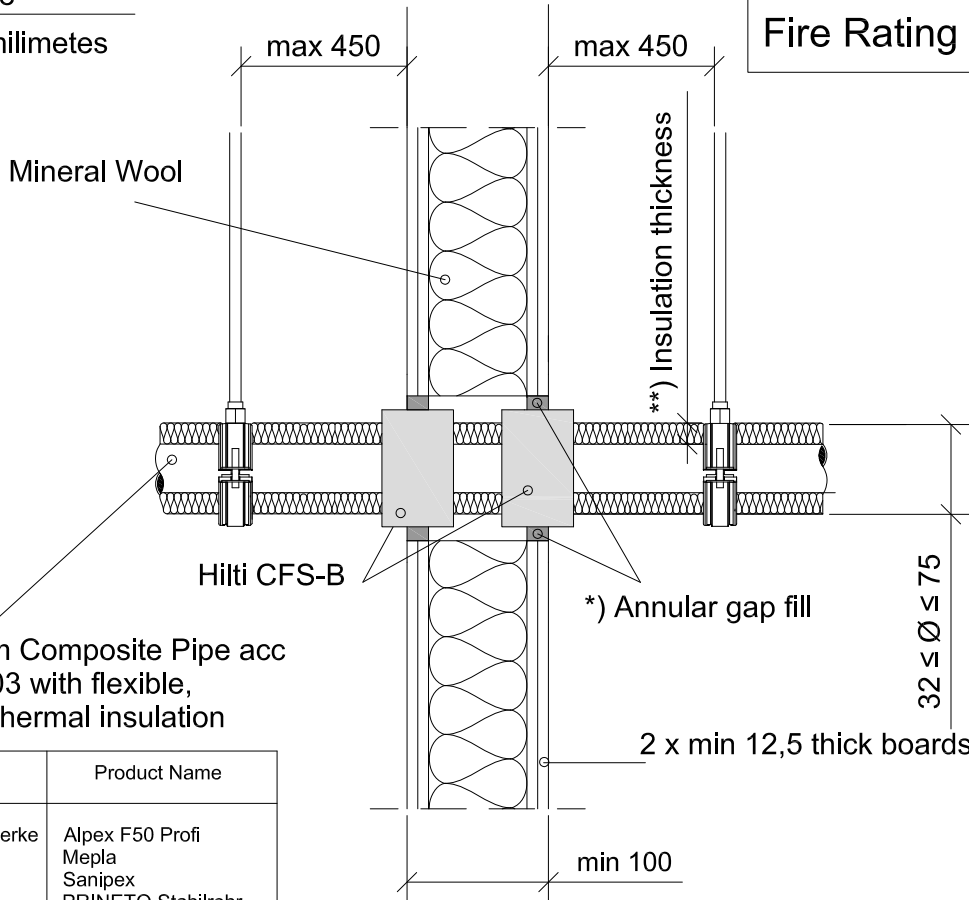
0087_01

REV
00

No scale

All units are in millimetres

Fire Rating EI 60 U/C



***) Aluminium Composite Pipe acc EN ISO 21003 with flexible, elastomeric thermal insulation

Manufacturer	Product Name
Frankische Rohrwerke	Alpex F50 Profi
Geberit	Mepla
Georg Fischer	Sanipex
IVT	PRINETO Stabilrohr
TECE	TECEflex Verbundrohr
Viega	SANIFIX Fosta-Rohr

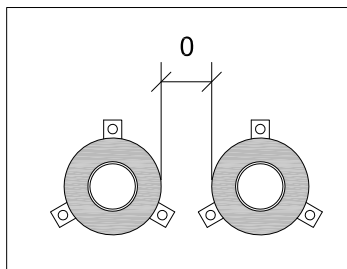
- Approval ETA-10/0212 of 06/05/2014
- Reaction to fire acc EN 13501-1
- Fire resistance test acc EN 1366-3
- Installation according to Hilti instructions

*) Annular gap fill material

Gap with (mm)	Annular Gap Fill
0-15	Hilti Firestop Acrylic Sealant CFS-S ACR or gypsum only with a depth > 25 mm on both sides of the wall

***) Pipe wall thickness and insulation

Product Name	Pipe Ø	Insulation thickness			
		From		To	
		Small Ø	Large Ø	Small Ø	Large Ø
Alpex F50 Profi and Geberit Mepla	32-40	9.0	9.0	35.0	36.5
	50-75	9.0	9.0	37.5	40.5
Sanipex	32-40	9.0	9.0	35.0	36.5
	50-63	9.0	9.0	37.5	39.0
PRINETO Stabilrohr	50-63	9.0	9.0	37.5	39.0
TECEflex Verbundrohr	63	9.0	9.0	29.0	29.0
SANIFIX Fosta-Rohr	32-63	9.0	9.0	36.5	39.0



Zero distance between annular gap

****) List of approved elastomeric combustible insulation types

Product	Approved tpe of foamed elastomeric thermal insulation
Armaceil GmbH	Armaflex AF, Armaflex SH, Armaflex Ultima, Armaflex HT
NMC Group	Insul-Tube (nmc), Insul-Tube H-plus (nmc)
Kaimann GmbH	Kaiflex KK plus, Kaiflex KK
L'isolante K-Flex	L'isolante K-Flex HT, L'isolante K-Flex ECO, L'isolante K-Flex ST, L'isolante K-Flex H, L'isolante K-Flex ST Plus



CONTENTS

Al Composite Pipe in a rigid wall

ID

IND-RW-AL-0094

FIRESTOP BANDAGE

0094_01

REV

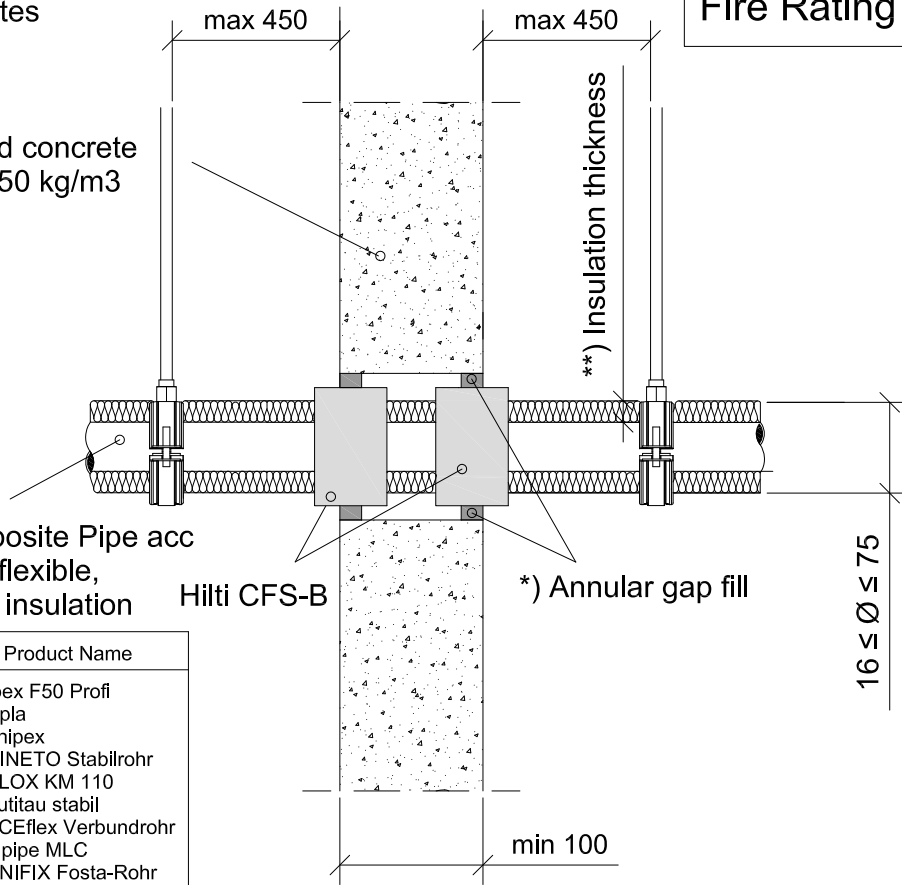
00

No scale

All units are in millimetres

Fire Rating EI 120 U/C

Concrete, aerated concrete or masonry, min 550 kg/m³



***) Aluminium Composite Pipe acc EN ISO 21003 with flexible, elastomeric thermal insulation

Manufacturer	Product Name
Frankische Rohrwerke	Alpex F50 Profi
Geberit	Mepla
Georg Fischer	Sanipex
IVT	PRINETO Stabilrohr
Kekelit	KELOX KM 110
Rehau	Rautitau stabil
TECE	TECEflex Verbundrohr
Uponor	Unipipe MLC
Viega	SANIFIX Fosta-Rohr

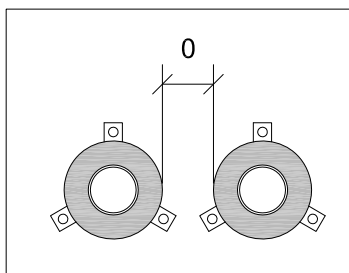
***) Insulation thickness

- Approval ETA-10/0212 of 06/05/2014
- Reaction to fire acc EN 13501-1
- Fire resistance test acc EN 1366-3
- Installation according to Hilti instructions

*) Annular gap fill material

Gap with (mm)	Annular Gap Fill
0-15	Hilti Firestop Acrylic Sealant CFS-S ACR only with a depth > 25 mm on both sides of the wall.
0-50	Cementious mortar acc EN 998-2, class M10 or gypsum over the entire thickness of the wall.

Product Name	Pipe Ø	Insulation thickness			
		From		To	
		Small Ø	Large Ø	Small Ø	Large Ø
Alpex F50 Profi and Geberit Mepla	50-75	37.5	40.5	37.5	40.5
Sanipex	40-63	9.0	9.0	36.5	39.0
PRINETO Stabilrohr	17-63	32	39	32	39
KELOX KM 110	16-73	32	40.5	32.0	40.5
Rautitau stabil	16-40	32	38.5	32.0	38.5
TECEflex Verbundrohr	16-63	32	40.5	32.0	40.5
Unipipe MLC	16-32	8.0	9.0	32.0	35.0
SANIFIX Fosta-Rohr	16-32	8.0	9.0	32.0	35.0
	16-63	32	39.0	32.0	39.0



Zero distance between annular gap

***) List of approved elastomeric combustible insulation types

Product	Approved tpe of foamed elastomeric thermal insulation
Armacell GmbH	Armaflex AF, Armaflex SH, Armaflex Ultima, Armaflex HT
NMC Group	Insul-Tube (nmc), Insul-Tube H-plus (nmc)
Kaimann GmbH	Kaiflex KK plus, Kaiflex KK
L'isolante K-Flex	L'isolante K-Flex HT, L'isolante K-Flex ECO, L'isolante K-Flex ST, L'isolante K-Flex H, L'isolante K-Flex ST Plus



CONTENTS

Al composite pipe in a rigid wall

ID

IND-RW-AL-0095

FIRESTOP BANDAGE

0095_01

REV

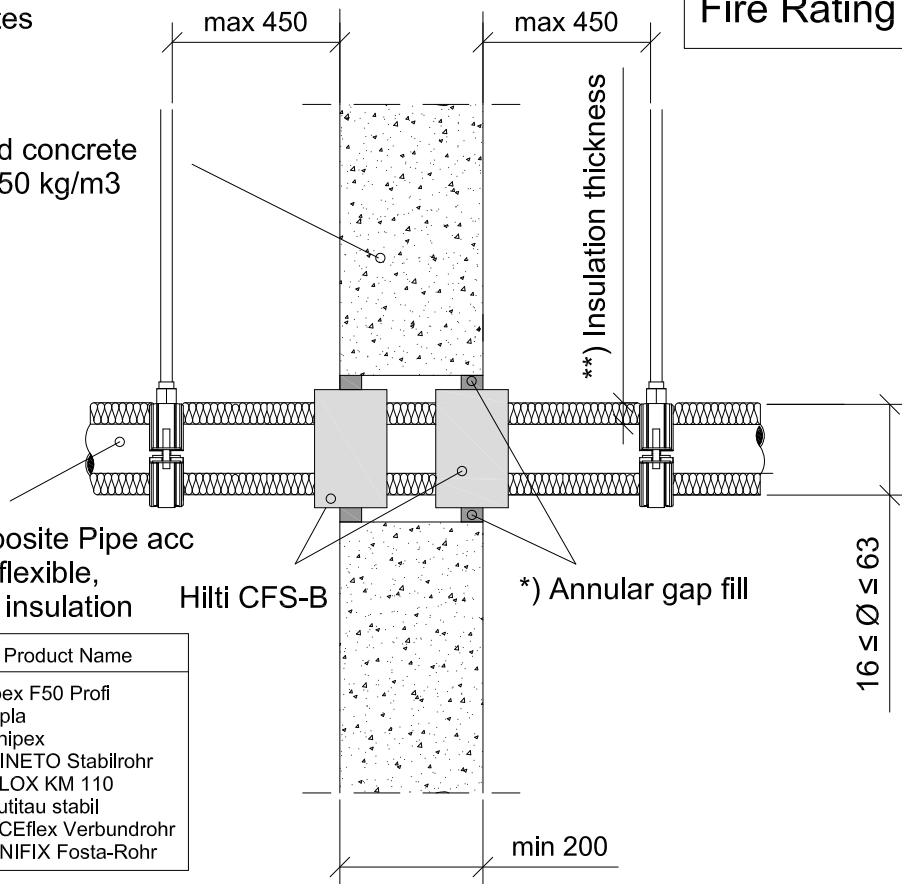
00

No scale

All units are in millimetres

Fire Rating EI 120 U/C

Concrete, aerated concrete or masonry, min 550 kg/m³



***) Aluminium Composite Pipe acc EN ISO 21003 with flexible, elastomeric thermal insulation

Hilti CFS-B

*) Annular gap fill

Manufacturer	Product Name
Frankische Rohrwerke	Alpex F50 Profi
Geberit	Mepla
Georg Fischer	Sanipex
IVT	PRINETO Stabilrohr
Kekelit	KELOX KM 110
Rehau	Rautitau stabil
TECE	TECEflex Verbundrohr
Viega	SANIFIX Fosta-Rohr

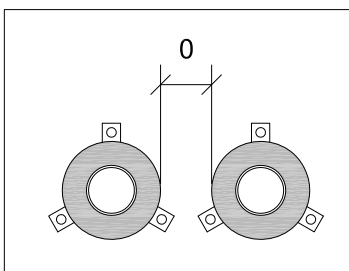
- Approval ETA-10/0212 of 06/05/2014
- Reaction to fire acc EN 13501-1
- Fire resistance test acc EN 1366-3
- Installation according to Hilti instructions

*) Annular gap fill material

Gap with (mm)	Annular Gap Fill
0-15	Hilti Firestop Acrylic Sealant CFS-S ACR only with a depth > 25 mm on both sides of the floor
0-50	Cementitious mortar acc EN 998-2, class M10 or gypsum over the entire thickness of the wall.

***) Pipe wall thickness and insulation

Pipe Ø	Insulation thickness			
	From		To	
	Small Ø	Large Ø	Small Ø	Large Ø
16-63	8.0	9.0	32.0	39.0



Zero distance between annular gap

***) List of approved elastomeric combustible insulation types

Product	Approved tpe of foamed elastomeric thermal insulation
Armaceil GmbH	Armaflex AF, Armaflex SH, Armaflex Ultima, Armaflex HT
NMC Group	Insul-Tube (nmc), Insul-Tube H-plus (nmc)
Kaimann GmbH	Kaiflex KK plus, Kaiflex KK
L'isolante K-Flex	L'isolante K-Flex HT, L'isolante K-Flex ECO, L'isolante K-Flex ST, L'isolante K-Flex H, L'isolante K-Flex ST Plus



CONTENTS

Al composite pipe in a rigid wall

ID

IND-RW-AL-0096

FIRESTOP BANDAGE

0096_01

REV

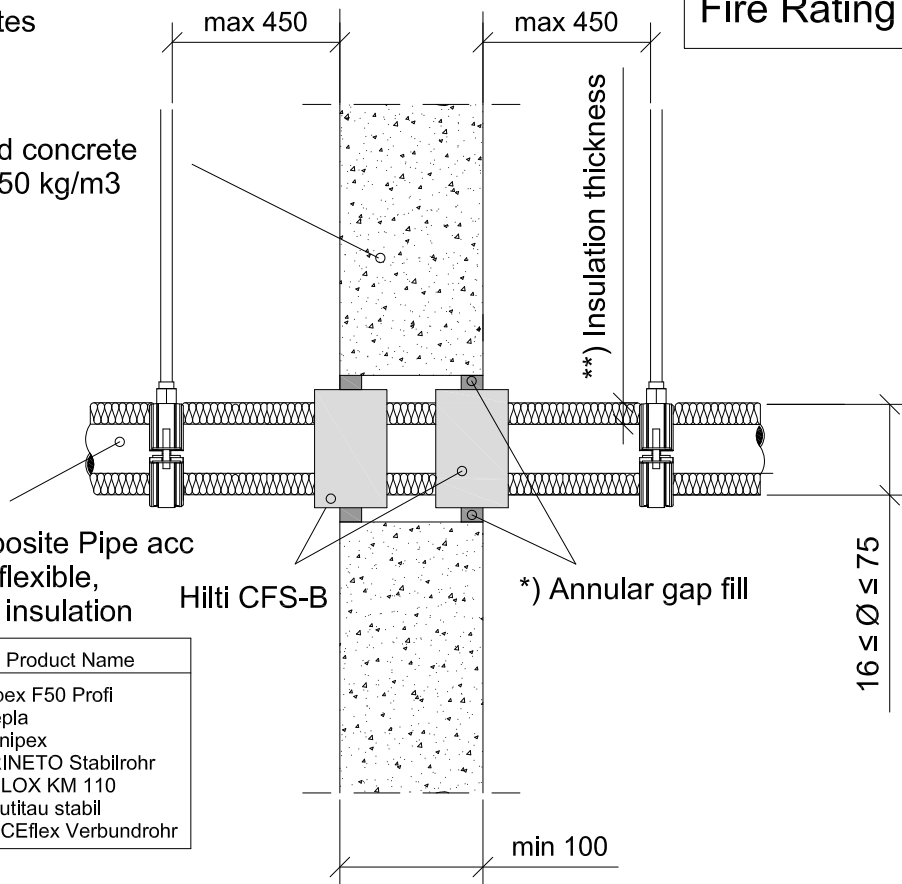
00

No scale

All units are in millimetres

Fire Rating EI 90 U/C

Concrete, aerated concrete or masonry, min 550 kg/m³



***) Aluminium Composite Pipe acc EN ISO 21003 with flexible, elastomeric thermal insulation

Hilti CFS-B

*) Annular gap fill

16 ≤ Ø ≤ 75

Manufacturer	Product Name
Frankische Rohrwerke	Alpex F50 Profi
Geberit	Mepla
Georg Fischer	Sanipex
IVT	PRINETO Stabilrohr
Kekelit	KELOX KM 110
Rehau	Rautitau stabil
TECE	TECEflex Verbundrohr

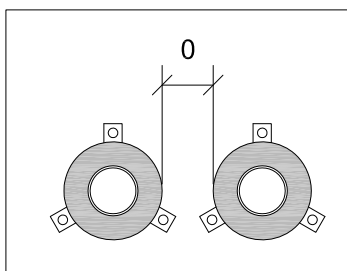
- Approval ETA-10/0212 of 06/05/2014
- Reaction to fire acc EN 13501-1
- Fire resistance test acc EN 1366-3
- Installation according to Hilti instructions

***) Insulation thickness

Product Name	Pipe Ø	Insulation thickness			
		From		To	
		Small Ø	Large Ø	Small Ø	Large Ø
Alpex F50 Profi, Geberit Mepla and Sanipex	16-32	8.0	9.0	32.0	35.0
PRINETO Stabilrohr	17-52	8.0	9.0	32.0	37.5
KELOX KM 110	16-75	8.0	14.0	32.0	40.5
Rautitau stabil	16-40	8.0	9.0	32.0	38.5
TECEflex Verbundrohr	16-50	8.0	9.0	32.0	37.5

*) Annular gap fill material

Gap with (mm)	Annular Gap Fill
0-15	Hilti Firestop Acrylic Sealant CFS-S ACR only with a depth > 25 mm on both sides of the wall
0-50	Cementitious mortar acc EN 998-2, class M10 or gypsum over the entire thickness of the wall.



Zero distance between annular gap

***) List of approved elastomeric combustible insulation types

Product	Approved tpe of foamed elastomeric thermal insulation
Armacell GmbH	Armaflex AF, Armaflex SH, Armaflex Ultima, Armaflex HT
NMC Group	Insul-Tube (nmc), Insul-Tube H-plus (nmc)
Kaimann GmbH	Kaiflex KK plus, Kaiflex KK
L'isolante K-Flex	L'isolante K-Flex HT, L'isolante K-Flex ECO, L'isolante K-Flex ST, L'isolante K-Flex H, L'isolante K-Flex ST Plus



CONTENTS

Al composite pipe in a rigid wall

ID

IND-RW-AL-0097

FIRESTOP BANDAGE

0097_01

REV

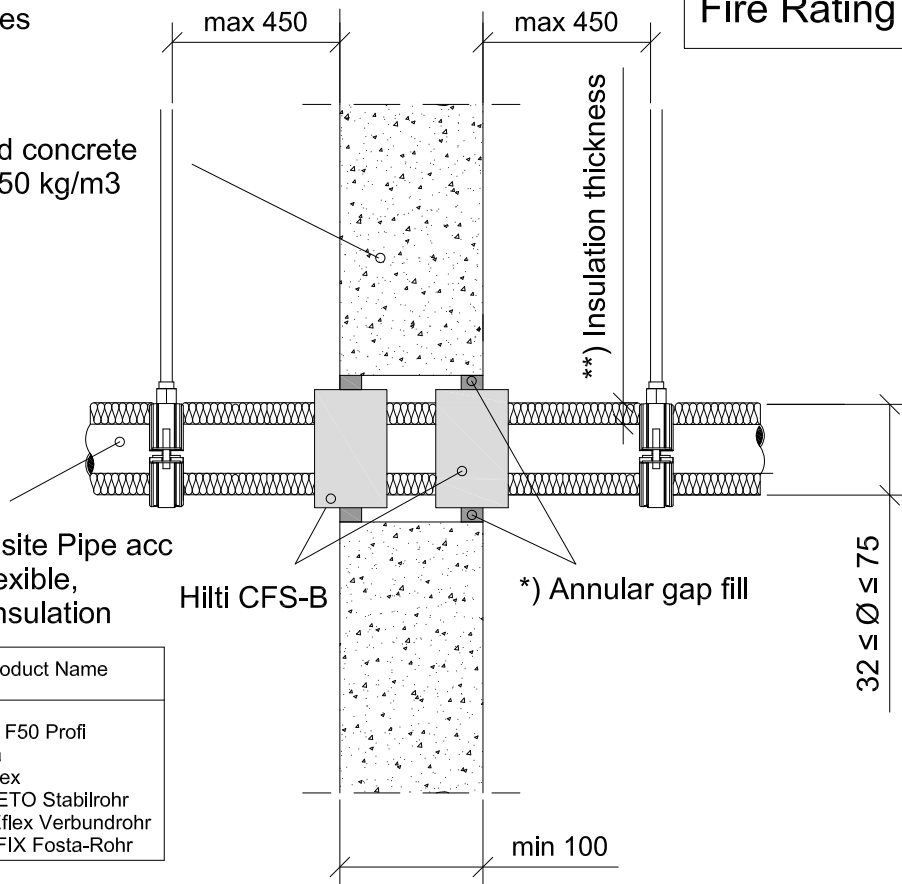
00

No scale

All units are in millimetres

Concrete, aerated concrete or masonry, min 550 kg/m³

Fire Rating EI 60 U/C



***) Aluminium Composite Pipe acc EN ISO 21003 with flexible, elastomeric thermal insulation

Manufacturer	Product Name
Frankische Rohrwerke	Alpex F50 Profi
Geberit	Mepla
Georg Fischer	Sanipex
IVT	PRINETO Stabilrohr
TECE	TECEflex Verbundrohr
Viega	SANIFIX Fosta-Rohr

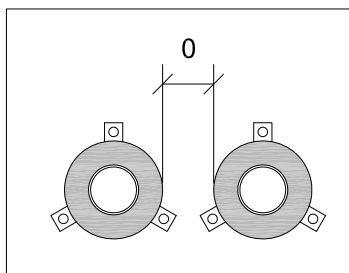
- Approval ETA-10/0212 of 06/05/2014
- Reaction to fire acc EN 13501-1
- Fire resistance test acc EN 1366-3
- Installation according to Hilti instructions

***) Insulation thickness

Product Name	Pipe Ø	Insulation thickness			
		From		To	
		Small Ø	Large Ø	Small Ø	Large Ø
Alpex F50 Profi and Geberit Mepla	32-40	9.0	9.0	35.0	36.5
	50-75	9.0	9.0	37.5	40.5
Sanipex	32-40	9.0	9.0	35.0	36.5
	50-63	9.0	9.0	37.5	39.0
PRINETO Stabilrohr	52-63	9.0	9.0	37.5	39.0
TECEflex Verbundrohr	63	9.0	9.0	29.0	29.0
SANIFIX Fosta-Rohr	32-63	9.0	9.0	36.5	39.0

*) Annular gap fill material

Gap with (mm)	Annular Gap Fill
0-15	Hilti Firestop Acrylic Sealant CFS-S ACR only with a depth > 25 mm on both sides of the wall.
0-50	Cementious mortar acc EN 998-2, class M10 or gypsum over the entire thickness of the wall.



Zero distance between annular gap

***) List of approved elastomeric combustible insulation types

Product	Approved tpe of foamed elastomeric thermal insulation
Armacell GmbH	Armaflex AF, Armaflex SH, Armaflex Ultima, Armaflex HT
NMC Group	Insul-Tube (nmc), Insul-Tube H-plus (nmc)
Kaimann GmbH	Kaiflex KK plus, Kaiflex KK
L`isolante K-Flex	L`isolante K-Flex HT, L`isolante K-Flex ECO, L`isolante K-Flex ST, L`isolante K-Flex H, L`isolante K-Flex ST Plus



CONTENTS

Al composite pipe in a rigid floor

ID

IND-RF-AL-0108

FIRESTOP BANDAGE

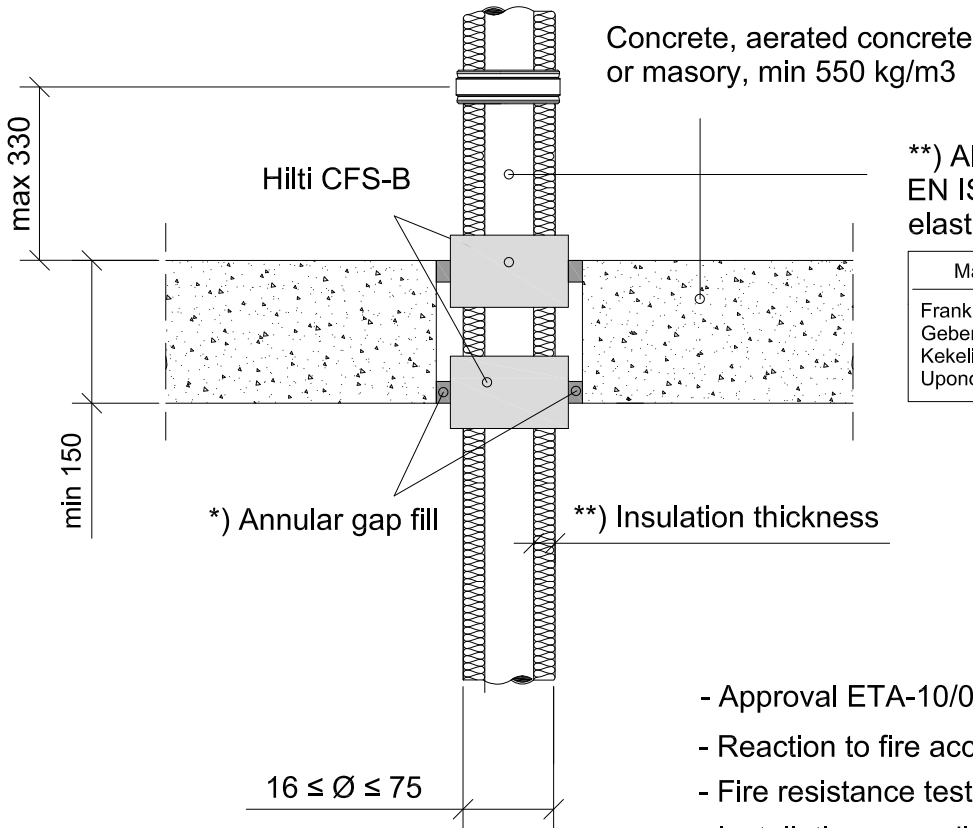
0108_01

REV
00

No scale

All units are in millimetres

Fire Rating EI 180 U/C



***) Aluminium Composite Pipe acc EN ISO 21003 with flexible, elastomeric thermal insulation

Manufacturer	Product Name
Frankische Rohrwerke	Alpex F50 Profi
Geberit	Mepla
Kekelint	KELOX KM 110
Uponor	Unipipe MLC

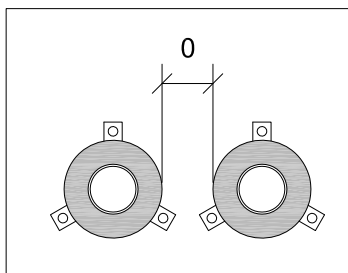
- Approval ETA-10/0212 of 06/05/2014
- Reaction to fire acc EN 13501-1
- Fire resistance test acc EN 1366-3
- Installation according to Hilti instructions

*) Annular gap fill material

Gap with (mm)	Annular Gap Fill
3-50	Cementious mortar acc EN 998-2, class M10 or gypsum over the entire thickness of the floor.

***) Insulation thickness

Product Name	Pipe Ø	Insulation thickness			
		From		To	
		Small Ø	Large Ø	Small Ø	Large Ø
Unipipe MLC	16-32	8.0	9.0	32.0	35.0
Alpex F50 Profi Mepla KELOX KM 110	75	40.5		40.5	



Zero distance between annular gap

***) List of approved elastomeric combustible insulation types

Product	Approved tpe of foamed elastomeric thermal insulation
Armacell GmbH	Armaflex AF, Armaflex SH, Armaflex Ultima, Armaflex HT
NMC Group	Insul-Tube (nmc), Insul-Tube H-plus (nmc)
Kaimann GmbH	Kaiflex KK plus, Kaiflex KK
L`isolante K-Flex	L`isolante K-Flex HT, L`isolante K-Flex ECO, L`isolante K-Flex ST, L`isolante K-Flex H, L`isolante K-Flex ST Plus



CONTENTS

Al composite pipe in a rigid floor

ID

IND-RF-AL-0109

FIRESTOP BANDAGE

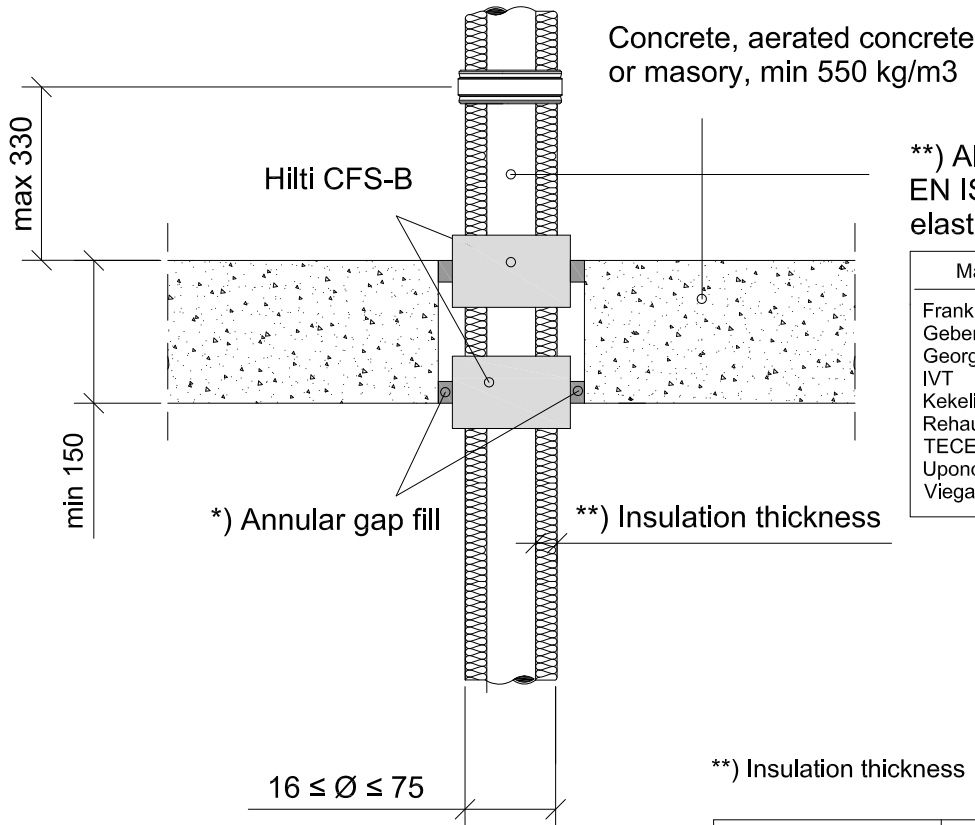
0109_01

REV
00

No scale

All units are in millimetres

Fire Rating EI 120 U/C



**) Aluminium Composite Pipe acc EN ISO 21003 with flexible, elastomeric thermal insulation

Manufacturer	Product Name
Frankische Rohrwerke	Alpex F50 Profi
Geberit	Mepla
Georg Fischer	Sanipex
IVT	PRINETO Stabilrohr
Kekelit	KELOX KM 110
Rehau	Rautitau stabil
TECE	TECEflex Verbundrohr
Uponor	Unipipe MLC
Viega	SANIFIX Fosta-Rohr

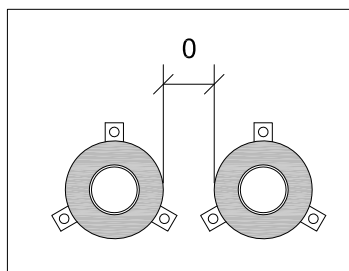
- Approval ETA-10/0212 of 06/05/2014
- Reaction to fire acc EN 13501-1
- Fire resistance test acc EN 1366-3
- Installation according to Hilti instructions

*) Annular gap fill material

Gap with (mm)	Annular Gap Fill
3-50	Cementitious mortar acc EN 998-2, class M10 or gypsum over the entire thickness of the floor.

**) Insulation thickness

Product Name	Pipe Ø	Insulation thickness			
		From		To	
		Small Ø	Large Ø	Small Ø	Large Ø
Alpex F50 Profi	16-40	8.0	9.0	32.0	36.5
Geberit Mepla	16-75	8.0	9.0	32.0	39.0
Sanipex	16-63	8.0	9.0	32.0	39.0
PRINETO Stabilrohr	17-63	8.0	9.0	32.0	39.0
KELOX KM 110 Rautitau stabil TECEflex Verbundrohr Unipipe MLC SANIFIX Fosta-Rohr	16-63	8.0	9.0	32.0	39.0



Zero distance between annular gap

**) List of approved elastomeric combustible insulation types

Product	Approved tpe of foamed elastomeric thermal insulation
Armacell GmbH	Armaflex AF, Armaflex SH, Armaflex Ultima, Armaflex HT
NMC Group	Insul-Tube (nmc), Insul-Tube H-plus (nmc)
Kaimann GmbH	Kaiflex KK plus, Kaiflex KK
L'isolante K-Flex	L'isolante K-Flex HT, L'isolante K-Flex ECO, L'isolante K-Flex ST, L'isolante K-Flex H, L'isolante K-Flex ST Plus