

CFS-CID: FIRESTOP CAST-IN DEVICE

Product pack

ETA - 20/1233

TECHNICAL DATA

APPLICATIONS

CHANGE LOG 📀





Applications

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FIRESTOP CAST-IN DEVICE CFS-CID





- Concrete slabs built with traditional formwork
- New building construction
- Sealing combustible and non-combustible pipe penetrations
- Tested with pipe elbows, which allows reduced service zone

ADVANTAGES

- One-step firestop solution for a variety of pipe materials and diameters – no additional backfilling required
- Modular connection allows close placement of multiple penetrations
- Quick and simple installation
- Integrated moisture and smoke seal
- Lid strong enough to carry foot traffic and light access equipment





Technical data

Base materials	Concrete
Approvals	EN 13501-2: 2007+A1:2009, EN 1366-3:2009
Height	250 mm
Application temperature range	-5°C – 50°C
Temperature resistance range	-20°C – 100°C
Colour	Red
Re-penetration	Easy
Reaction to fire class (EN 13501-1)	E



Order description	Pipe diameter – range	Package quantity	Item number
CFS-CID 50	32– 63 mm	1 pc	2124523
CFS-CID 75	50 – 75 mm	1 pc	2124524
CFS-CID 110	80 – 110 mm	1 pc	2124525
CFS-CID 160	125 – 160 mm	1 pc	2124526



Applications



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MANIFOLD ADAPTER CFS-CID

APPLICATIONS

- · Creates an underside void for the installation of an elbow connector system
- Creation of a 70 mm deep recess in the slab
- · For use in conjunction with the appropriate cast-in device

ADVANTAGES

- Allows a manifold to be accommodated and thus simplifies plumbing installations
- Accommodates manifold connections and shower traps for walk-in showers and wet rooms
- Reduces final ceiling height by creating a 70 mm recess in the slab
- · Pipes can be installed closer to the ceiling, thus reducing spacing



Technical data	
Base materials	Concrete
Height	77 mm
Application temperature range	-5°C – 50°C
Colour	Red

Order description	Package quantity	Item number
CFS-CID Manifold adapter	1 pc	2124527

HEIGHT EXTENSIONS CFS-CID

APPLICATIONS

· For use with CFS-CID cast-in devices

ADVANTAGES

- · "Screw on" feature promotes a secure connection to the device and cover cap
- Adds 150 mm of height to pre-formed firestop devices



Technical data

Base materials	Concrete
Height	150 mm
Application temperature range	-5°C – 50°C
Colour	Red

Order description	Pipe diameter – range	Package quantity	Item number
Extension tube 6" CP 680-P 2"	32– 63 mm	1 pc	3537759
Extension tube 6" CP 680-P 3"	50 – 75 mm	1 pc	3537760
Extension tube 6" CP 680-P 4"	80 – 110 mm	1 pc	3537761
Extension tube 6" CP 680-P 6"	125 – 160 mm	1 pc	3537762



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OTHER APPROVED APPLICATIONS

Firestop Cast-in Extensions

To add an extra 150 mm to the Cast-in devices with a strong and stable connection.

Coupler and extensions available for all CFS-CID diameters.

Firestop Cast-in CFS-CID without pipe penetrations

All sizes tested and approved only with the lid on top.

Zero distance between Cast-in Devices

Possibility to assemble Firesto Cast-in devices with zero separation between them.





See ETA-20/1233 for details of approved pipes.



Applications

Change log



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CHARACTERISTICS

Characteristics	Assessment of characteristics	Norm, standard, test
Health and the environment Emission test	CFS-CID was tested for VOC emissions according to ISO 16000 and was deemed compliant to the AgBB regulations (version 2010). The concentration of SVOC after 3 and 28 days was < 5 μ g/m ³ . The concentration of the total emission of VOC after 3 and 28 days was <25 μ g/m ³	Material safety data sheet
Protection against noise Airborne sound insulation	Hilti CFS-CID 50 D $_{n,w} = 55 \text{ dB}$ Hilti CFS-CID 75 D $_{n,w} = 51 \text{ dB}$ Hilti CFS-CID 110 D $_{n,w} = 48 \text{ dB}$ Hilti CFS-CID 160 D $_{n,w} = 46 \text{ dB}$	EN ISO 10140-1 EN ISO 10140-2 EN ISO717-1
Durability and serviceability	Category Y2 (suitable for penetration seals for use in dry indoor conditions at temperature below 0 °C with with no exposure to rain nor UV.	EAD 350454-00-1104
Reaction to fire	Class E	EN 13501-1



Applications



Adapter/Extensions

Other approved applications

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INSTALLATION INSTRUCTIONS



CFS-CID Manifold Adapter Dimensions: 280 × 280 × 75 mm

To use with Firestop Cast-in CFS-CID 110 mm





Recess for pipe elbow couplers

EI 180 U/U for PVC and HD-PE pipes Ø = 110 mm







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APPLICATION INFORMATION

FOR PIPES/CABLE DIAMETERS

S = Single pipe/cable*

B = pipe/cable Bundle

*For pipes, if no S or B, assume single pipe.

FOR INSULATION

N-C = Non-Combustible (e.g., stone wool etc.) C = Combustible (e.g., Armaflex, phenolic etc.) None = No insulation

LS = Local Sustained

- LI = Local Interrupted
- CS = Continuous Sustained
- CI = Continuous Interrupted

Please note, in many cases details have numerous pages. Please check all pages for the necessary information as differing insulation layouts might be on differing pages (e.g., LS one page 1 and LI on page 2 etc.).

PENETRATION TYPE

Single = penetration seal intended for penetrations with only one service passing through

Multi = penetration seal intended for penetrations where more than one service of the same type (e.g. cables) or pipe material group pass through

Mixed = penetration seal intended for penetrations where more than one type of services (e.g. cables and pipes or pipes of different pipe material groups) pass through

CLASSIFICATION

Classification will give the best-case El value possible. As such, check each specific detail as there may be instances where a higher I value is possible or another sized service within the application may attain a lower value (e.g., 110mm pipe achieves El 120 but a 160mm pipe achieves El 90).

PRODUCT/DETAIL

Full product name first/Detail ID (See specific detail for the full ID).

Please note, in many cases details have numerous pages. Please check all pages for the necessary information.







Continued Sustained (CS)







Continued Interrupted (CI)





Technical data Applications

Change log 🔺 / CFS-CID

Single board drywall	Double Rigid wa	all Timber wall			R	igid floor	Timber			Linear joints
	Mechanical									
Min. base material thickness	Pipe Material	s 0 Size	I N/C	nsulatio C	None		ration type ¹ Multi Mixed	0 Classification	Pr	oduct/Detail
≥ 150	PE	Ø ≥ 40 to ≤ 160			~	~		El 180	CFS-C	D:SP-RF-M-01 📀
≥ 150	PE-S2 "Geberit Silent dB20"	Ø ≥ 56 to ≤ 160			~	~		El 180	CFS-C	D:SP-RF-M-01 📀
≥ 150	PVC	Ø ≥ 50 to ≤ 160			~	~		El 180	CFS-C	D:SP-RF-M-01 📀
≥ 150	PP	$\emptyset \ge 40$ to ≤ 160			~	~		El 180	CFS-C	D:SP-RF-M-01 📀
≥ 150	PP-R	Ø ≥ 32 to ≤ 160			~	~		El 180	CFS-C	D:SP-RF-M-01 📀
≥ 150	PE-Xa	$\emptyset \ge 32$ to ≤ 63			~	~		El 180	CFS-C	D:SP-RF-M-01 📀
≥ 150	PE-X (AL-Composite)	Ø 40		~	~	~		El 180	CFS-C	D:SP-RF-M-01 👂
≥ 150	Copper	Ø ≥ 18 to ≤ 89	~	~		~		El 180	CFS-C	D:SP-RF-M-02 📀
≥ 150	Steel	Ø ≥ 18 to ≤ 89	~	~		~		El 180	CFS-C	D:SP-RF-M-02 📀
≥ 150	PE (M)	Ø 110			~	~		El 180	CFS-C	D:SP-RF-M-03 📀
≥ 150	PE-S2 "Geberit Silent dB20" (N	I) Ø 110			~	~		El 180	CFS-C	D:SP-RF-M-03 📀
≥ 150	PVC (M)	Ø 110			~	~		El 180	CFS-C	D:SP-RF-M-03 📀
≥ 150	PP (M)	Ø 110			~	~		El 180	CFS-C	D:SP-RF-M-03 📀
≥ 150	Blank Opening	$\emptyset \ge 40$ to ≤ 160			~	~		El 180	CFS-C	D:SP-RF-M-04 📀

(M) = Manifold



Collar size	Pipe material	Pipe diameter	Pipe wall thickness	Classification with distance (S₅) 0mm	Classification with distance (S₅) 200mm	
	PE pipes according to EN 1519-1, EN 12666-1, EN 12201-2	40 - 63	3			
	PE pipes according to EN ISO 15494 and DIN 8074/8075	50 - 63	1.8 - 8.6	•		
	PE-S2 pipes, designation "Geberit Silent dB20"	56	3.2	- 		
CFS-CID 50 F	PVC pipes acc. to EN 1452-2, EN 1329-1, EN 1453-1	63	1.6 - 7	EI 120 - U/U	FL400 1141	
	PVC pipes acc. to EN 1452-2, EN 1329-1, EN 1453-1	50 - 63	1.6 - 7		EI 180 - U/U	
	PP pipes according to EN 1451-1	40 - 58	1.8 - 4			
	PE-Xa pipes designation "Rehau Rautitan Flex"	32 - 63	4.4 - 8.6	NI / A	-	
	PE-X pipes designation "Geberit Mepla",	40	3.5	N/A		
	PP-R pipes designation "Aquatherm"	32 - 63	2.9 - 5.8	El 120 - U/C	N/A	
	PE pipes according to EN 1519-1, EN 12666-1, EN 12201-2	75	3			
CFS-CID 75	PE pipes according to EN ISO 15494 and DIN 8074/8075	75	1.9 - 6.8	EI 120 - U/U	51400 1141	
	PE-S2 pipes, designation "Geberit Silent dB20"	56 - 75	3.2 - 3.6		EI 180 - U/U	
	PVC pipes acc. to EN 1452-2, EN 1329-1, EN 1453-1	75	8.4	N/A		
	PVC pipes acc. to EN 1452-2, EN 1329-1, EN 1453-1	75	2.2 - 8.4		N/A	
	PP pipes according to EN 1451-1	50 - 75	1.8 - 3.8	EI 120 - U/U	EI 180 - U/U	
	PP-R pipes designation "Aquatherm"	75	6.8 - 10.7	El 120 - U/C	N/A	
	PE pipes according to EN 1519-1, EN 12666-1, EN 12201-2	90 - 110	3.5 - 4.2			
	PE pipes according to EN ISO 15494 and DIN 8074/8075	90 - 110	2.2 - 10			
	PE-S2 pipes, designation "Geberit Silent dB20"	90 - 110	5.5 - 6	El 120 - U/U	EI 180 - U/U	
CFS-CID 110	PVC pipes acc. to EN 1452-2, EN 1329-1, EN 1453-1	90 - 110	1.8 - 8.1			
	PP pipes according to EN 1451-1	90 - 110	2.2 - 5.3			
	PP-R pipes designation "Aquatherm"	90	8.2	El 120 - U/C	N/A	
	PE pipes according to EN 1519-1, EN 12666-1, EN 12201-2	125 - 160	4.8 - 6.2			
	PE pipes according to EN ISO 15494 and DIN 8074/8075	125 - 160	3.1 - 9.1	EI 120 - U/U	EI 180 - U/U	
CFS-CID 160	PE-S2 pipes, designation "Geberit Silent dB20"	135 - 160	6.0 - 7.0	-		
		125	1.8	N/A	El 180 - U/U	
	PVC pipes acc. to EN 1452-2, EN 1329-1, EN 1453-1	125 - 160	1.8 - 7.7	EL100 1141	N/A	
	PP pipes according to EN 1451-1	125 - 160	3.1 - 7.5	EI 120 - U/U	EI 180 - U/U	
	PP-R pipes designation "Aquatherm"	160	14.6	EI 120 - U/C	N/A	

The application limits on this detail are for guidance purposes only. For more detailed information based on the full range of available test results please contact the Hilti Technical Advisory Service.
The product and application has been assessed as a minimum to the BS 476 standard. It may have additional European and worldwide testing. Please contact Hilti for further information.
All installations should be carried out in accordance with Hilti's installation instructions and by competent & experienced installers using Hilti branded products.

4. All services are to be correctly and adequately supported to prevent collapse and distortion.

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Information Not to scale A

All units are in millimetres

CFS-CID

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CID: SP-RF-M-01

PLASTIC PIPE

Fire Rating up to EI 180

Tested according EN 1366-3 Approval ETA-20/1233 Rubber Gasket to DWG • PDF • BIM/CAD • Web • achieve smoke and S6 acoustic performance without the need for S5* backfilling 50 ŝ Ś ŝ S4

CFS-CID type	S1: Inner diameter	S ₂ : Height	S ₃ : Base length	S₄: Base width	Pipe Ø
CFS-CID 50	74	250	94	114	32 - 63
CFS-CID 75	102	250	122	142	50 - 75
CFS-CID 110	128	250	162	172	90 - 110
CFS-CID 160	176	250	228	238	125 - 160

Se: Centre-to-centre distance									
	CFS-0	CID 50	CFS-CID 75		CFS-C	CFS-CID 110		CFS-CID 160	
	EI 120	EI 180	EI 120	EI 180	EI 120	EI 180	EI 120	EI 180	
CFS-CID 50	94	294	108	308	128	308	162	362	
CFS-CID 75	108	308	121	321	142	342	175	375	
CFS-CID 110	128	328	142	342	162	362	196	396	
CFS-CID 160	162	362	175	375	196	396	229	429	

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Add 1mm between each connection
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* S₅: 0 mm = El 120

S5: 200 mm = El 180

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Collar size	Pipe diameter	Pipe wall thickness	Insulation type	Pipe insulation thickness	Classification with distance (S₅) 0mm	Classification with distance (S₅) 200mm
	18 - 28	1 - 1.5	Elastomeric Foamed (CS)	8.0 - 19.0	N / A	El 180 - C/U
CFS-CID 50	18	1	Mineral Glasswool (LS)	20	El 120 - C/U	N/A
	18	1	Mineral Stonewool (LS)	20	N / A	El 180 - C/U
	18	1	Elastomeric Foamed (CS)	32	N / A	El 180 - C/U
CFS-CID 75	35	1.5	Mineral Glasswool (LS)	20	El 120 - C/U	N/A
	35	1.5	Mineral Stonewool (LS)	20	N / A	El 180 - C/U
	42 - 54	1.5 - 2.0	Elastomeric Foamed (CS)	17 - 36.5	N / A	El 180 - C/U
CFS-CID 110	76	2	Mineral Glasswool (LS)	20	El 120 - C/U	N/A
	35	1.5	Mineral Stonewool (LS)	20	N / A	El 180 - C/U
	54 - 76	2	Elastomeric Foamed (CS)	30 - 38	NL / A	
CFS-CID 160	89	2	Mineral Stonewool (LS)	20	– N/A	El 180 - C/U

*For Local Sustained Insulation situation, a minimum length of 500 mm is required.

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Information Not to scale All units are in millimetres Tested according EN 1366-3

DWG DDF BIM/CAD Web

Approval ETA-20/1233

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CID: SP-RF-M-02

PLASTIC PIPE

Fire Rating up to EI 180





CFS-CID type	S1: Inner diameter	S ₂ : Height	S ₃ : Base length	S4: Base width	Pipe Ø
CFS-CID 50	74	250	94	114	18
CFS-CID 75	102	250	122	142	35
CFS-CID 110	128	250	162	172	76
CFS-CID 160	176	250	228	238	89

Sc: Centre-to-centre distance: EI 120 with Glass Wool Insulation. EI 180 with stone wool or elastomeric insulation

	CFS-CID 50		CFS-CID 75		CFS-CID 110		CFS-CID 160	
	EI 120	EI 180	EI 120	EI 180	EI 120	EI 180	EI 120	El 180
CFS-CID 50	94	294	108	308	128	308	162	362
CFS-CID 75	108	308	121	321	142	342	175	375
CFS-CID 110	128	328	142	342	162	362	196	396
CFS-CID 160	162	362	175	375	196	396	229	429

Add 1mm between each connection

* S5: 0 mm = EI 120 with Glass Wool Insulation

S5: 200 mm = EI 180 with Stone Wool or elastomeric insulation

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CFS-CID

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CID: SP-RF-M-03 Information Not to scale MANIFOLD All units are in millimetres Tested according EN 1366-3 Fire Rating up to EI 180 See Detail CFS-SP-RF-M-01 or ETA Approval ETA-20/1233 for further details DWG O PDF O BIM/CAD O Web O C Concrete min. density max 250 550 kg/m^3 Hilti CFS-CID 0 ິ່ min 150 min. 4 Δ Δ Hilti CFS-CID Manifold Adapter 1.6 - 14.6 * S6 110 * S5** Rubber Gasket to achieve smoke and acoustic performance without the need for backfilling Ś တိ S4

CFS-CID type	S₁: Inner diameter	S ₂ : Height	S3: Base length	S4: Base width	S₅: Dist between manifolds	S₀: Centre to centre	Pipe Ø
CFS-CID 110	110	77	172	172	0	278	76

* See ETA-12/1233

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CID: SP-RF-M-04



Fire Rating up to EI 180



Collar size	Classification with distance (S ₅) 0mm	Classification with distance (S ₅) 200mm
CFS-CID 50		
CFS-CID 75	FI 100	FL 100
CFS-CID 110	EI 120	El 180
CFS-CID 160		

CFS-CID type	S1: Inner diameter	S ₂ : Height	S ₃ : Base length	S4: Base width	Pipe Ø
CFS-CID 50	74	250	94	114	18
CFS-CID 75	102	250	122	142	35
CFS-CID 110	128	250	162	172	76
CFS-CID 160	176	250	228	238	89

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CHANGE LOG

Date	Description



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