



# HILTI FIRESTOP ENDLESS COLLAR

European technical assessment  
ETA No.14/0085

Issue 12/2020



# CFS-C EL FIRESTOP ENDLESS COLLAR



## Applications

- Approved for use with PVC, PP, PE and a wide array of standard acoustic pipes
- Configurations tested include pipe elbows, inclined pipes, pipes with limited clearance to the wall
- Acoustic pipes tested with insulation and sound decoupling
- Zero distance required to CFS-B firestop bandage, CFS-C EL firestop endless collar and Conlit
- Suitable for use on shaft walls, coated board, drywall, aerated concrete, masonry and concrete

## Advantages

- Endless solution: one firestop product for all applications
- Problem solver for non-standard applications
- Easy installation
- Flexible firestop solution for waste water, roof drainage and pneumatic pipes
- Well-suited to complex pipe configurations

## Technical Data

<b>Base materials</b>	Drywall, Shaft wall, Aerated concrete, Concrete, Masonry
<b>Pipe diameter – range</b>	16 – 160 mm
<b>Application temperature range</b>	-5 – 50 °C
<b>Temperature resistance range</b>	-30 – 80 °C
<b>Reaction to fire class (EN 13501-1)</b>	E
<b>Dimensions (L x W x H)</b>	2580 x 52 x 17 mm
<b>Shelf life<sup>1)</sup></b>	Not relevant
<b>LEED VOC</b>	11 g/l
<b>Mold and mildew performance</b>	Class 0 (EN ISO 846)

1) at 77 °F/25 °C and 50% relative humidity; from date of manufacture

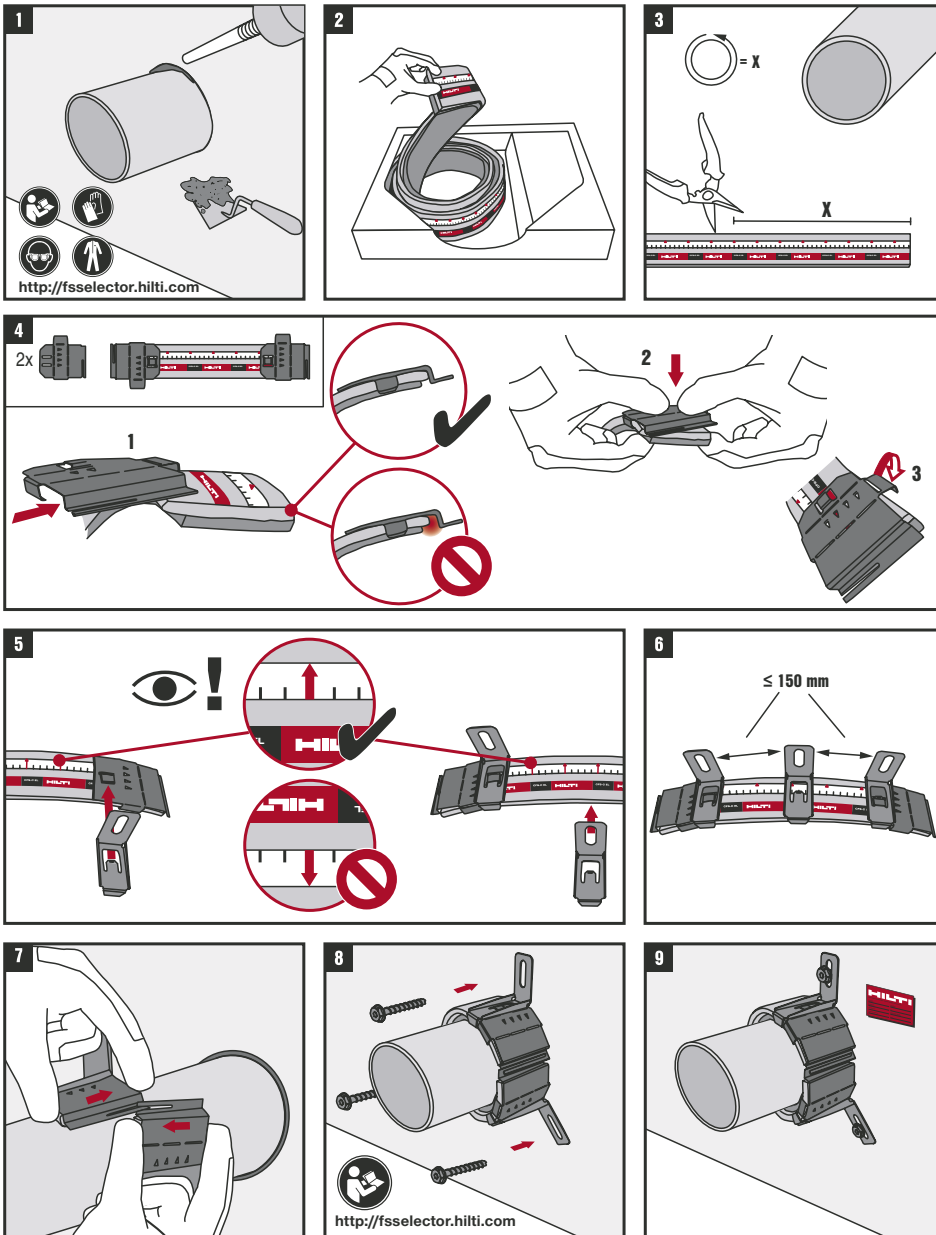


Ordering description	Height	Package contents	Sales pack quantity	Item number
CFS-C EL	17 mm	1x Firestop bandage CFS-C EL, 18x Closure plate CFS-C EL, 22x Hook CFS-C EL short	1 pc	2075120

## Accessories CFS-C EL

Ordering designation	Package contents	Item number
Closure plate CFS-C EL	18x Closure plates	2075121
Hook CFS-C EL short	22x Short hooks	2075122
Hook CFS-C EL long	2x Long hooks	2075123

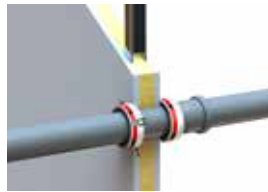
## GENERAL INSTRUCTIONS FOR USE



= X Ø ≤ 125mm 		mm	4 mm	9 mm	13 mm	25 mm		
			CFS C-EL mm	CFS C-EL mm	CFS C-EL mm	CFS C-EL mm	CFS C-EL mm	
2x 	-	16	130	130	160	260		
		32	150	180	210	310		
		40	180	200	230	340		
		50	210	230	270			
		56	230	250	290			
		63	250	280	310			
3x 	-	75	290	310	340			
		90	340	360	390			
		110	400	420	450			
		125 ≤ Ø ≤ 160mm 	KGII= 2x  4x	125	450	470	500	
		135		480	500	530		
		140	490	520	550			
		160	560	580	610			



## GENERAL INFORMATION



Partition	Shaft Wall	Drywall	Rigid Wall	Rigid Floor
<b>Base Material Thickness</b>	2 × 25 mm, 3 × 15 mm	≥100 mm	≥100 mm	≥150 mm
<b>Annular gap</b>	5–15 mm	0–15 mm	0–40 mm	
<b>Fixing to wall</b>	HUS3-H, HUS3-P	HTB-S, HHD-S	HUS-H, HUS-P	
<b>Gap filler</b>	CFS-FIL fully filled	CFS-S ACR*	CFS-S ACR* for annular gap ≤ 15 mm CFS-S ACR+mineral wool backing or mortar for annular gap ≤ 40 mm	
<b>Penetrant</b>	Plastic pipes (PE, PP) Aluminium composite pipes Flexible conduits Cables		Plastic pipes (PE,PP,PVC, ABS)	

\* Use CFS-S ACR as gap filler, unless otherwise noted. See ETA for full details for the correct application.

## MAIN APPROVED APPLICATIONS



Application	Pipe material	Pipe Ø mm	Shaft wall		Flexible wall	Rigid wall	Rigid floor
			2 × 25 mm	3 × 15 mm			
<b>Waste water</b> 	PVC (EN 1452-1, EN 1329-1, EN 1453-1, EN 1566-1, DIN 8061/62, EN ISO 15493), Friatec Friaphon		EI 90 U/U		EI 90U/U to EI 120U/U	EI 120U/U	EI 90 U/U to EI 180U/U
	PE (EN 1519-1, EN 12202-2, EN 12666-1, EN 15494, DIN 8074/75, Geberit dB 20)		EI 90 U/U			EI 120 U/U	
	PP (EN 1451-1), DIN 8077/78		EI 90 U/U		EI 120 U/C to EI 120 U/U		EI 90 U/U to EI 120 UU
	Mineralised PP acoustic pipes**		EI 90 U/U		EI 60 U/U to EI 120 U/U	EI 90 U/U to EI 120U/U	EI 120U/U
<b>Pneumatic tubes</b> 	PVC-U (DIN 6660)				EI 90 U/U		EI 120U/U
<b>Industrial</b> 	PE (EN 15494, EN 12201-2, DIN 8074/75) Wavin W	32 to 110			EI 90 U/C to EI 120 U/U	EI 120U/C to EI 120U/U	EI 90 U/U to EI 120U/U
<b>Heating, Sprinkler, Fresh water</b> 	PP-R (EN 15874), Aquatherm green pipe S, PE-X (EN15875), Rehau Rautitan flex)				EI 60 U/C to EI 120U/C		EI 120U/C
<b>Various</b>	ABS (EN 1455-1, EN 15493) and SAN+ PVC (EN 1565-1)		EI 90 U/U		EI 60U/U to 90 U/U	EI 90 U/U to 120U/U	EI 60 U/U to EI 120U/U
<b>Flue gas</b> 	PP (Burgerhout Safe), Al (Burgerhout Safe Alu fix), Concentric pipes***					15 to 90 min*	

\* Test evidence for 15 to 90mins available, please contact Hilti representative for further details.

\*\* Non-regulated pipes: Coes Blue Power®, Coes PhoNo Fire®, Geberit Silent PP®, Ke Kelit PhonEx AS®, Marley Silent®, Ostendorf Skolan db®, Pipelife Master 3®, Poloplast Polokal NG®, Poloplast Polokal 3S®, Poloplast Polokal XS®, Rehau Raupiano Plus®, Valsir Triplus®, Valsir Silere®, Wavin SiTech®, Wavin AS® or equal products

\*\*\* Concentric pipes: Burgerhout Concentric Alu pipe Steel/Alu, Burgerhout Twinsafe Concentric PP Steel/PP, Ubbink Ubifit Conc. CLC Steel/PP, Ubbink Conc. PP Push-Fit PP/PP

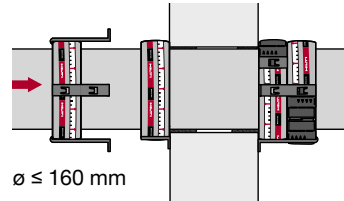
Excerpt of ETA document. Check the exact field of application for each pipe (type, diameter and pipe wall thickness) in the ETA 14/0085 document.



## OTHER APPROVED APPLICATIONS

### Straight large pipes

For pipes  $125 \text{ mm} \leq \varnothing \leq 160 \text{ mm}$

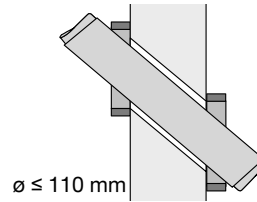


View ETA 14/0085 for details of approved pipes

Watch instructional video

### Inclined pipes

For pipes  $\varnothing \leq 110 \text{ mm}$

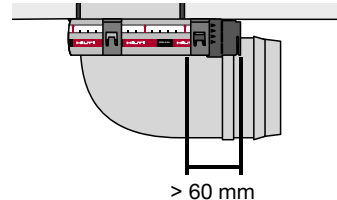


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### Elbow pipes

For pipes  $\varnothing \leq 110 \text{ mm}$

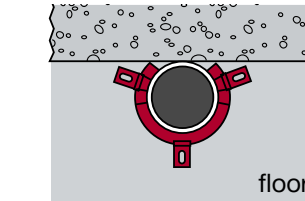


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### Pipe on wall/pipe in corner

For pipes  $\varnothing \leq 110 \text{ mm}$

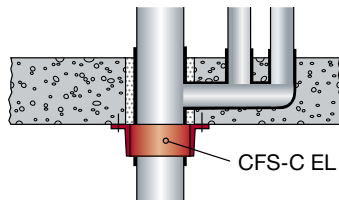


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Pipes through floors, CFS-C EL to completely cover pipe perimeter.

### Pipe junctions in floor (manifold)

For pipes  $\varnothing \leq 160 \text{ mm}$

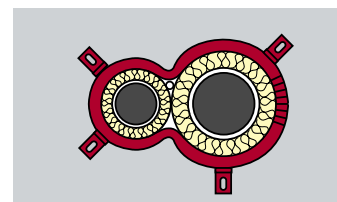
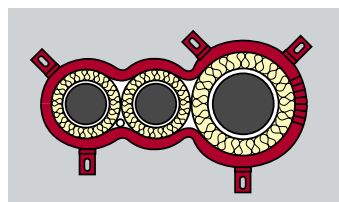


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CFS-C EL only installed on main waste water pipe.

### Multiple pipes in one collar

For pipes  $40 \text{ mm} \leq \varnothing \leq 90 \text{ mm}$



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Distance between hooks  $\leq 150 \text{ mm}$ .

### Zero distance to CFS-C EL, Conlit, CFS-B

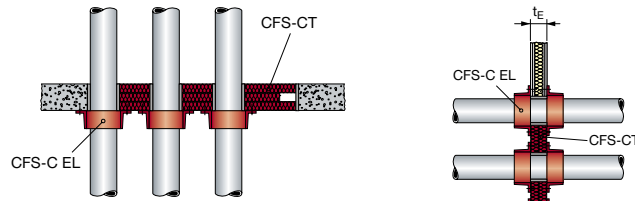
For pipes  $\varnothing \leq 110 \text{ mm}$



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**Coated boards**

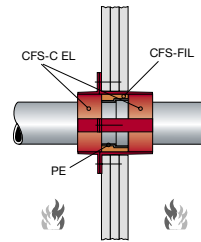
For pipes  $\varnothing \leq 100$  mm



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**Shaft wall 3 × 15 mm**

Elbow pipe, Coupling pipe, Multiple penetration, Mixed penetration of plastic pipe and aluminium composite pipe & aluminium composite and conduits



View ETA 14/0085 for details of approved pipes

Watch instructional video

## CHARACTERISTICS OF CFS-C EL

Characteristics	Assessment of characteristics	Norm, standard, test
<b>Health and the environment</b> Air permeability (gas tightness) Water permeability	Airtightness can be achieved up to 600Pa when annular gap is sealed with a sealant e.g. Hilti Firestop Acrylic Sealant CFS-S ACR (10 mm thick) or Hilti Firestop Mastic Filler CFS-FIL (50 mm thick).  Watertight to 1m head of water up to 3 days.	EAD 350454-00-1104
<b>Dangerous substances</b>	CFS-C EL was tested for SVOC and VOC according to EAD 350454-00-1104, clause 2.2.5.1, in accordance with EN 16516 with a loading factor of 0.007m <sup>2</sup> /m <sup>3</sup> . Release scenario IA1 and IA2 have been tested. The concentration of SVOC after 3 days and after 28 days was <0.005mg/m <sup>3</sup> . The concentration of the total emission of VOC after 3 days and after 28 days was, as well, <0.005mg/m <sup>3</sup> .	Material safety data sheet
<b>Protection against noise</b> Airborne sound insulation	Pipe DN 32 with Hilti Firestop endless collar: D <sub>n,e,w</sub> (C;Ctr)=68(-2;-6)dB R <sub>w</sub> (C;Ctr)=61(-3;-6)dB  Pipe DN 90 with Hilti Firestop endless collar: D <sub>n,e,w</sub> (C;Ctr)=64(-3;-3)dB R <sub>w</sub> (C;Ctr)=56(-2;-2)dB	Basis ETAG N°026 Part 2:2008-01 EN ISO 10140-1 : 2010 +A+:2012 EN ISO 10140-2 : 2010 EN ISO 717-1 : 2013 Additionally ASTM E 90-09 ASTM E 413-10
<b>Durability and serviceability</b>	Category Type Y2 (suitable for penetration seals intended for use at temperature below 0 °C) no exposure to rain or UV.	EAD 350454-00-1104
<b>Reaction to fire</b>	Class E	EN 13501-1





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