TECHNICAL DATA SHEET

VALSIR® WASTE SYSTEMS

COLLARWINGS

valsir®
QUALITY FOR PLUMBING

COLLARWINGS

Valsir Collarwings 240 is the new range of fire stop collars produced in compliance with the most recent standards and suitable for installation on plastic waste and drainage pipes. The Collarwings 240 fire stop collars are made of steel and painted with polyester powder fitted with special intumescent inserts which, in the event of fire, expand and squeeze the pipe thus preventing the passage of flames, combustion gas and vapours and acting as a thermal insulation.

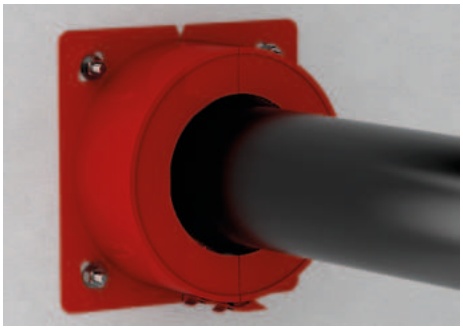
The collars can be installed either in a vertical wall or in the slab and they have a fire resistance **class of EI240 in compliance with European Standard EN 1366-3**.

Characteristics

- **Resistance class EI240** in compliance with standard EN 1366-3, the equivalent of a resistance to fire and combustion gas and a thermal insulation of at least 4 hours.
- **Range of diameters from 32 mm up to 160 mm.**
- Can be **installed in a vertical wall and in the ceiling**.
- Can be used on ventilated and non ventilated waste pipes and on rainwater drainage pipes.
- **Suitable for a wide range of pipes** (PP, HDPE, ABS, SAN+PVC, PVC-C, PVC-U) and soundproof systems (Triplus®, Silere®).
- **Simple and quick installation** thanks to the latch mechanisms and pre drilled base plate.
- **Can also be fitted to existing pipelines.**
- **Tested** in compliance with EN 1366-3 on a standard **wall in cellular concrete** (reports CSI1917FR and CSI1862FR), **in reinforced concrete slab** (report CSI1915FR) and for **drywall** (report CSI1983FR EI 60/90/120)

Table Collarwings 240 Valsir Technical data

Main characteristics	
Type	Fire and smoke protection for penetrations of walls and ceilings with plastic pipes.
Suitability	Valsir® HDPE, PP/PP3, Triplus®, Silere® waste systems, pipes in ABS, PVC-C, PVC-U, SAN+PVC.
Applicability	On vertical walls and in the ceiling and for ventilated waste pipes, non-ventilated waste pipes and rainwater drainage pipes.
Diameters	32 to 160 mm 200 to 315 mm
Fire resistance for concrete wall and concrete slab	EI 240 (EN 1366-3) for OD 32 to 160 mm EI 120 (EN 1366-3) for OD 200 to 315 mm
Fire resistance for drywall	EI 120 (EN 1366-3) for: HDPE (32÷75;160 mm), PP (32÷90 mm) e PVC (32÷100 mm) EI 90 (EN 1366-3) for HDPE (90÷125 mm) EI 60 (EN 1366-3) for PVC (125÷160 mm)
Removable	Yes



Dimentions

Code	De pipe [mm]	D [mm]	A [mm]	B [mm]	C [mm]	s [mm]
VS0411000	32	42	101	77	79	49,5
VS0411001	40	50	114	87	92	49,5
VS0411003	50	60	129	95	107	49,5
VS0411005	56/58	68	142	106	120	49,5
VS0411007	63	75	154	115	132	49,5
VS0411009	75	87	171	126	149	49,5
VS0411010	78/80	94	188	133	156	49,5
VS0411011	90	106	193	145	171	89,5
VS0411012	100	116	212	156	190	89,5
VS0411013	110	128	225	167	202	89,5
VS0411015	125	143	248	181	226	89,5
VS0411016	135	155	260	193	238	89,5
VS0411017	160	180	294	217	272	89,5

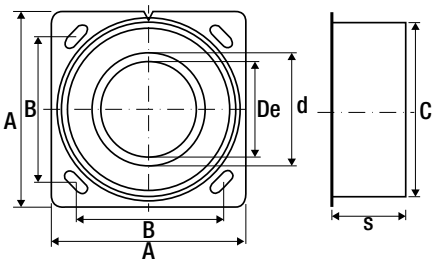
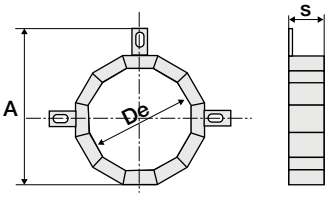


Table EI 120 Fire collars Technical data

Code	De tubo [mm]	A [mm]	s [mm]
VS0410019	200	257	177,5
VS0410021	250	319	232,5
VS0410023	315	395	330



Working

In the event of fire the intumescent material contained in the collar expands forming a “plug” thus cutting off the fire and preventing gas and fumes from spreading.
The special closure elements (reinforcing flaps) increase reactivity and efficiency of the system by completely squeezing the plastic pipe during the melting phase.

Phase 1

During the first phase of the fire the plastic pipe melts and the intumescent inserts expand.
The first is more reactive and acts immediately, the second, which expands at a higher temperature results in a high performance over time.

Phase 2

During the next few minutes the intumescent elements of the collar occupy the entire section left free by the plastic pipe that is in the process of melting. The intumescent inserts expand and act on the closure elements (reinforcing flaps) bringing them to the position of exposure to the fire.

Phase 3

The intumescent inserts shut off the hole entirely in a sufficient period of time so that the fire does not spread to other areas.
During this phase the closure elements (reinforcing flaps) are completely oriented and, as well as acting as a “container” for the expanded intumescent material, create another metal barrier against the fire.

The innovative design methods and attentive research activity have enabled the Collarwings collars to reach the EI240 classification, both in wall installations and in the slabs for different types of pipes and with a range of sizes from Ø 32 mm to Ø 160 mm.

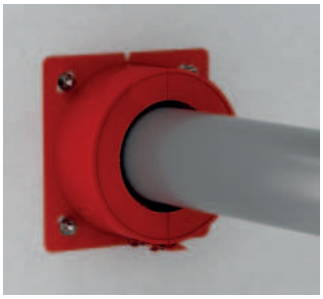
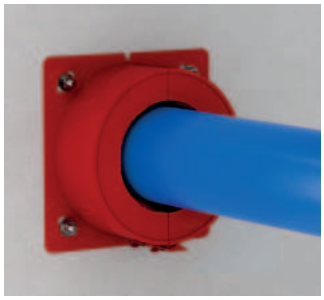
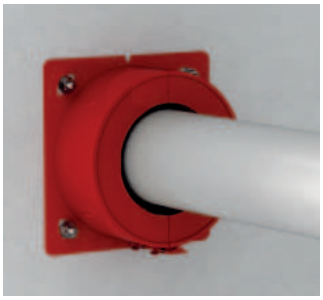
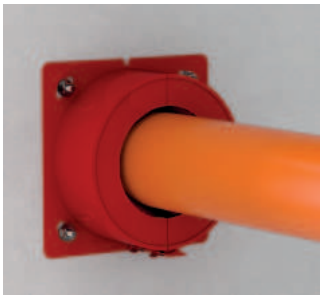
Test method

The Collarwings 240 collars were tested in the U/U (Open/Open) arrangement, that is with the pipes open both on the side exposed to the fire and the side not exposed to the fire.
This is the most demanding layout and if passed allows the collars to be used in all applications as provided for in standard 1366-3.

Testing arrangement	Side exposed to fire	Side not exposed to fire	Application for waste and rainwater drainage pipes in plastic
U/U	Open	Open	Applicable on any type of ventilated and non ventilated plastic pipe
C/U	Close	Open	n.a.
U/C	Open	Close	Applicable only on plastic non ventilated pipes
C/C	Close	Close	n.a.

Valsir Collarwings 240 can therefore be fitted on to a wide range of pipes of different diameters and types of plastic material, making it an extremely versatile and high performing product.

Collarwings 240 can be installed on the following range of pipes:
- HDPE, high density polyethylene for drainage inside the building.
- PP, polypropylene for drainage inside the building.
- Triplus®, triple layer soundproof waste system for drainage inside the building.
- Silere®, soundproof waste system for drainage inside the building.
- ABS, SAN+PVC, PVC-C, PVC-U for drainage inside the building.

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