



Abesco Compact Fire Collars

Technical Data Sheet

Product Description

Abesco Compact Fire Collars are designed to maintain the fire resistance of metal stud partition walls, concrete floors and blockwork walls where they are penetrated by plastic pipes.

They consist of a powder coated split / hinged cylindrical steel shell which can be opened and fitted around the pipe. The steel shell contains a heat reactive graphite based intumescent material. Each collar is fastened by means of a toggle clasp and has an integral mounting flange at one end, and is supplied with 4 pre-formed fixing brackets for ease of installation.

Abesco Compact Fire Collars are suitable for use on uPVC, cPVC, HDPE, MDPE, PP & ABS plastic pipes up to 200mm diameter.

Fire Performance Table

Installation	Size	Insulation	Integrity
Surface mounting to concrete wall / floor	55-160mm	240 mins	240 mins
	200mm	180 mins	180 mins
Cast in to concrete wall / floor	55-82mm	180 mins	240 mins
	110mm	120 mins	180 mins
	160-200mm	60 mins	120 mins
Semi cast in to concrete wall / floor	55-160mm	180 mins	240 mins
	200mm	180 mins	180 mins
Surface mounting to metal stud dry wall	55-160mm	120 mins	120 mins

Typical Dimensions

Size	Height	Shell O/D
22-50mm	60mm	*
55-160mm	60mm	*
200mm	125mm	245mm

* Depending on Fire Collar internal diameter

Test Standards

Testing in accordance with the methodology and criteria described in:

- BS 476 part 20:1987

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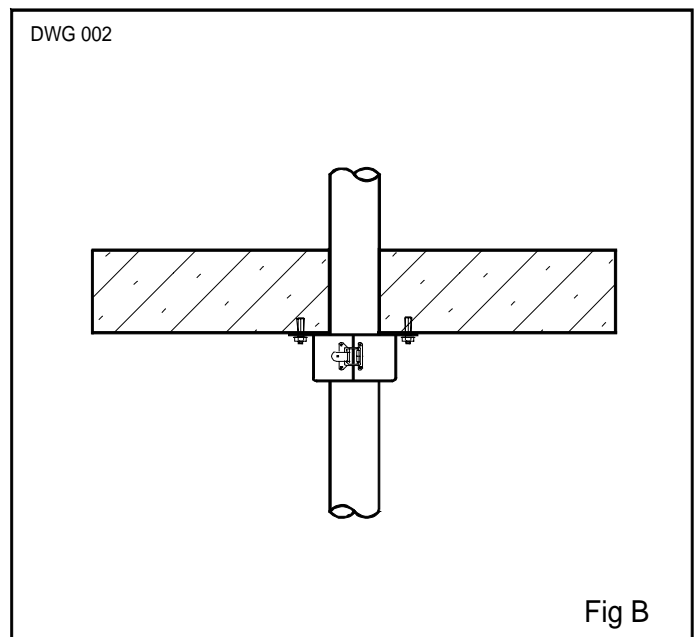
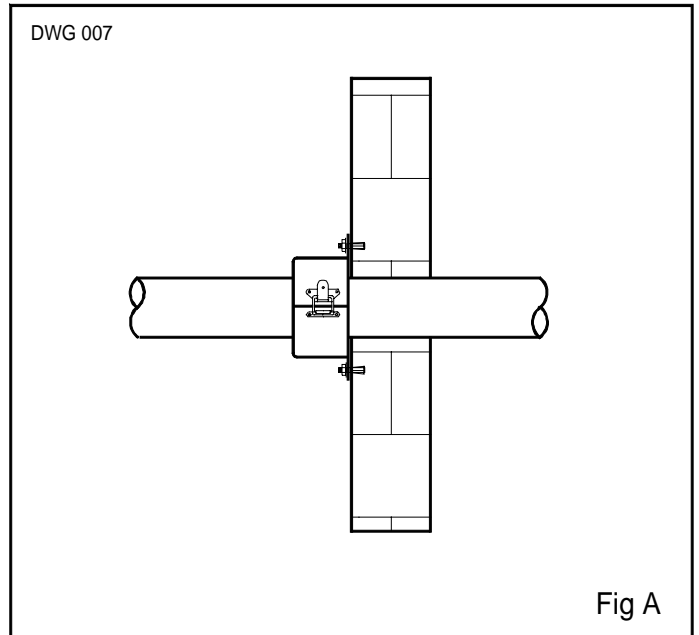
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Installation Instructions

Surface Mounting to Concrete Wall or Floor

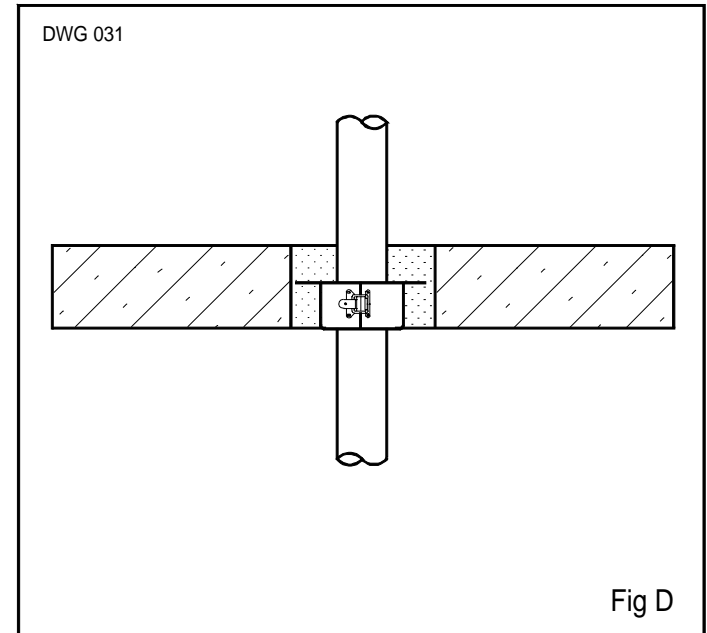
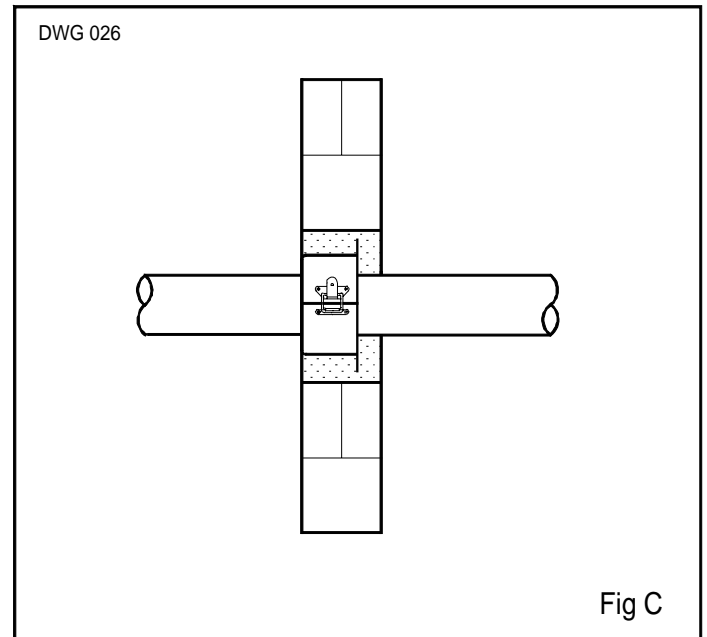
- 1 Please refer to Fig A and B (Typical Installation Details)
- 2 Attach the Compact Fire Collar around the pipe so that the integral mounting flange is pressed tight to the surface of the concrete / blockwork wall or soffit (underside) of the concrete floor.
- 3 Offer a fixing bracket up to the collar so that it will support the flange when fixed in place. Mark the position of the bolts through the slots in the fixing bracket onto the concrete surface with a marker pen. Repeat until the hole positions for all fixing brackets are roughly equally spaced around the collar flange.
- 4 Drill the bolt holes at the pre marked positions to suit the anchor bolts being used.
- 5 If the surface of the wall or floor is very uneven, it is recommended to bed the collar onto a bead of Abesco FR Intumescent or Abesco FR WB Silicone mastic to improve the smoke seal efficiency.
- 6 Insert the anchor bolts & tap home. Relocate the collar in position ensuring that the toggle clasp is snapped closed. Position the fixing brackets so that they support the flange of the collar, and so that the bolt heads protrude through the slot.
- 7 Finally, ensure that the collar is secured in position by tightening the retaining nuts onto the anchor bolts.
- 8 **NOTE: WALL FIXING ONLY** Where there is a fire risk on both sides of a wall, or the direction of fire risk has not been determined, the Compact Fire Collar should be fitted to both sides of the wall.



Installation Instructions

Cast In to Concrete Wall or Floor

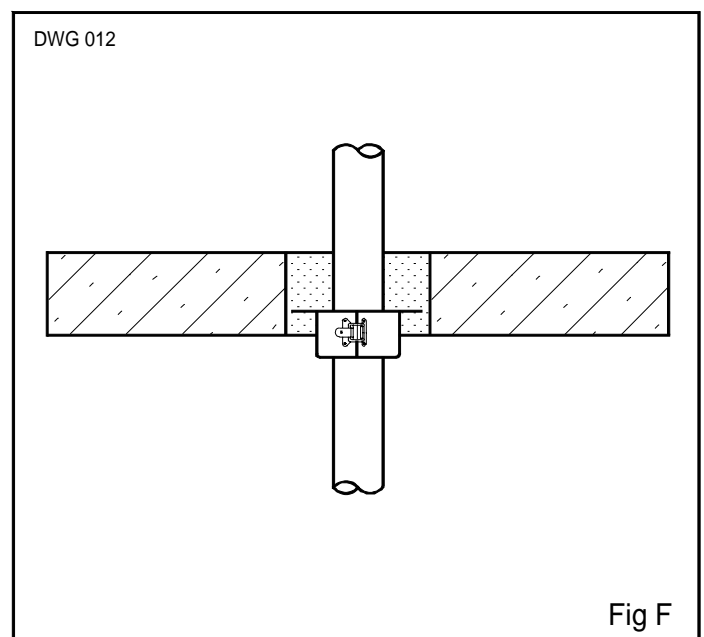
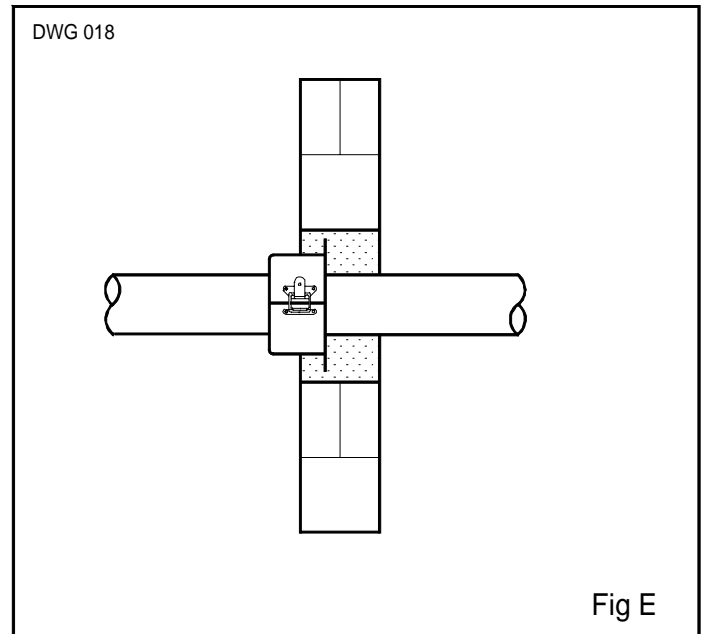
- 1 Please refer to Fig C and D (Typical Installation Details)
- 2 Ensure that there is adequate annular space between the pipe and the concrete floor or wall to allow for the Compact Fire Collar and sufficient Abesco 'FR' Mortar to cast the collar in situ.
- 3 Attach the Compact Fire Collar around the pipe and ensure that both halves of the collar are correctly fastened together using the toggle and latch fixing.
- 4 Slide the collar into place, so that the bottom edge is flush with the surface of the wall or the soffit (underside) of the concrete floor.
- 5 Fill the remaining space between the collar and the surrounding concrete floor with Abesco 'FR' Mortar (or other suitable non-combustible mortar). If necessary use a temporary shutter to retain the FR Mortar / non combustible mortar whilst it cures.
- 6 Check that the bottom edge of the Compact Fire Collar will remain exposed and be visible from the fire risk side of the wall or from the underside of the floor.
- 7 Remove any temporary shuttering or damming materials from around the seal only when the Abesco FR Mortar (or other suitable non-combustible mortar) has set or cured sufficiently.
- 8 **NOTE: WALL FIXING ONLY** Where there is a fire risk on both sides of a wall, or the direction of fire risk has not been determined, the Compact Fire Collar should be fitted to both sides of the wall.



Installation Instructions

Semi Cast In to Concrete Wall or Floor

- 1 Please refer to Fig C and D (Typical Installation Details)
- 2 Ensure that there is adequate annular space between the pipe and the concrete floor or wall to allow for the Compact Fire Collar and sufficient Abesco 'FR' Mortar to cast the collar in.
- 3 Attach the Compact Fire Collar around the pipe and ensure that both halves of the collar are correctly fastened together using the toggle and latch fixing.
- 4 Slide the collar into place, so that approximately half of the Compact Fire Collar is protruding from the surface of the wall or the soffit (underside) of the concrete floor, and the remaining half is positioned within the thickness of the wall or floor.
- 5 Fill the remaining space between the collar and the surrounding concrete floor with Abesco 'FR' Mortar (or other suitable non-combustible mortar). If necessary use a temporary shutter around the pipe / collar to retain the FR Mortar / non combustible mortar whilst it cures.
- 6 Remove any temporary shuttering or damming materials from around the seal only when the Abesco FR Mortar (or other suitable non-combustible mortar) has set or cured sufficiently.
- 7 **NOTE: WALL FIXING ONLY** Where there is a fire risk on both sides of a wall, or the direction of fire risk has not been determined, the Compact Fire Collar should be fitted to both sides of the wall.



Installation Instructions

Surface Mounting to a Metal Stud Dry Wall

- 1 Please refer to Fig G (Typical Installation Details).
- 2 Attach the Compact Fire Collar to the pipe so that the integral mounting flange is pressed tight to the surface of the partition wall.
- 3 Offer a fixing bracket up to the collar so that it will support the flange when fixed in place. Mark the position of the bolt holes through the slot in the fixing brackets onto the concrete surface with a marker pen. Repeat until the hole positions for all fixing brackets are roughly equally spaced around the collar flange.
- 5 If the surface of the wall is very uneven, it is recommended to bed the collar onto a bead of Abesco FR Intumescent or FR WB Silicone mastic to improve the smoke seal efficiency.
- 6 Insert suitable non-combustible drywall cavity fixings. Relocate the collar in position ensuring that the toggle clasp is snapped closed. Ensure the bolt slots in the fixing lugs are correctly aligned with the drywall cavity fixings mentioned above.
- 7 Insert and tighten the correct screws or bolts recommended for use with the drywall cavity fixings, and ensure that the Compact Fire Collar is secured in position.
- 8 **NOTE: WALL FIXING ONLY** Where there is a fire risk on both sides of a wall, or the direction of fire risk has not been determined, the Compact Fire Collar should be fitted to both sides of the wall.

