



# Abesco Z240 Fire Collars

## Technical Data Sheet

### Product Description

Abesco Z240 Fire Collars are designed to maintain the fire resistance of fire rated walls and floors where they are penetrated by plastic pipes.

They consist of a zinc coated cylindrical steel shell which is fitted around the pipe using the 2 integral 'slidlock' mechanisms. The steel shell contains a heat reactive graphite based intumescent material. Each collar is fastened to the wall using the integral 'fixing lugs' at the base of the unit.

Abesco Z240 Fire Collars are suitable for use on uPVC, cPVC, HDPE, MDPE, PP & ABS plastic pipes up to 250mm diameter.

### Typical Dimensions

Size	Height	Shell O/D
22-50mm	50mm	*
55-160mm	60mm	*
200mm	125mm	245mm
250mm	125mm	295mm
355mm	125mm	405mm
560mm	125mm	635mm
670mm	250mm	752mm

\* Depending on Fire Collar internal 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
	250mm	120 mins	120 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	55-110mm	240 mins	240 mins
	160 mm	180 mins	240 mins
	200mm	180 mins	180 mins
Surface mounting to timber and metal stud dry walls	55-200mm	120 mins	120 mins
Surface mounting to timber joist floor	55-200mm	120 mins	120 mins

### Test Standards

Testing in accordance with the methodology and criteria described in:

- BS 476 part 20:1987
- SABS 0177 part 2 (1991)
- BS EN 1366-3:1993

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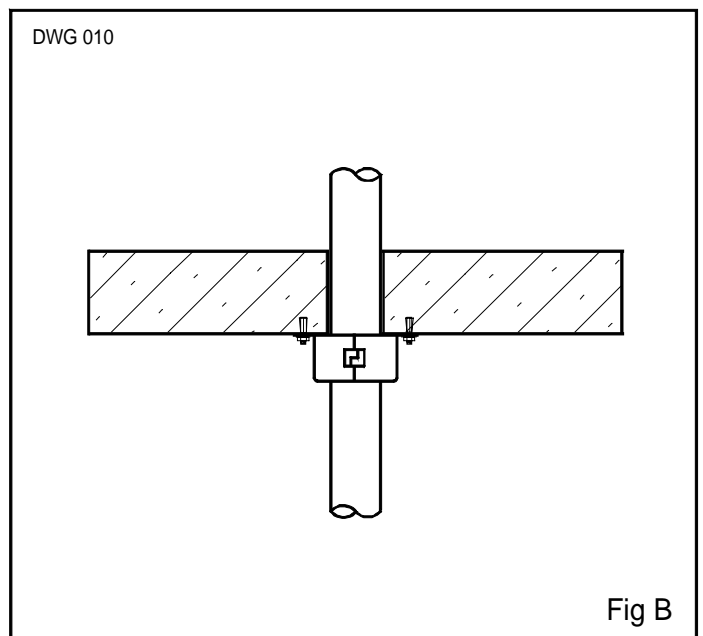
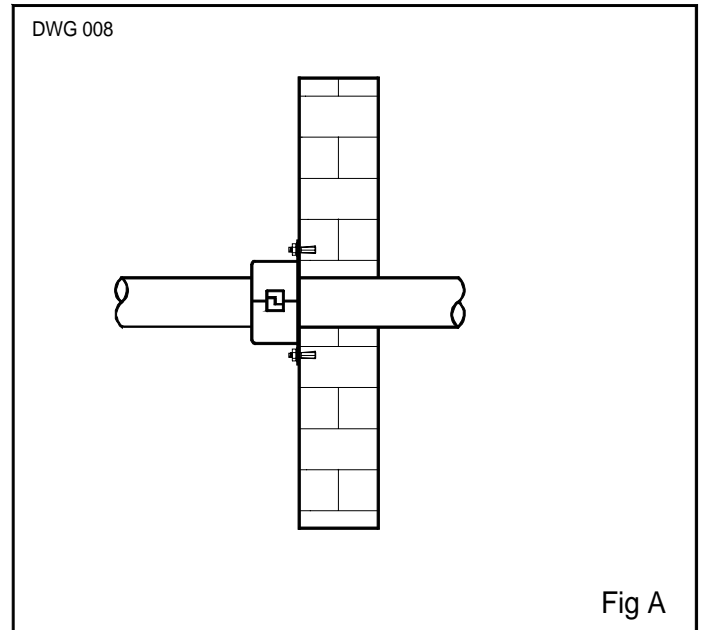
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### Installation Instructions

#### Surface Mounting to Concrete Wall or Floor

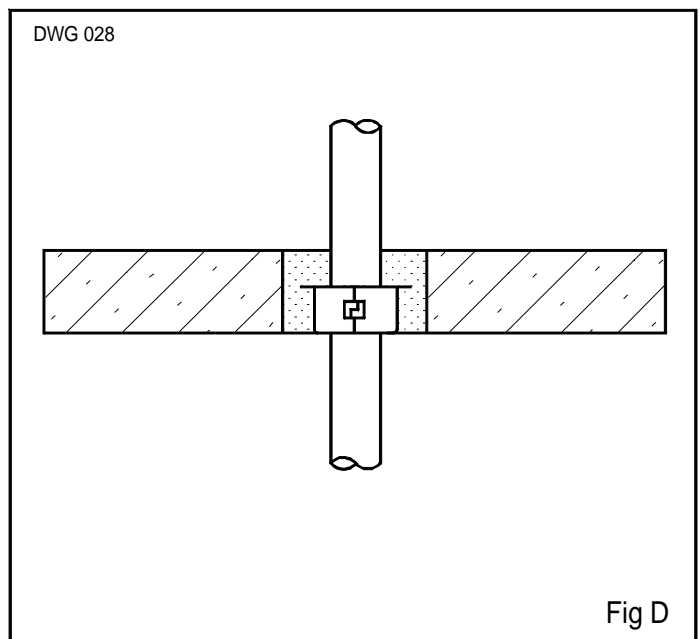
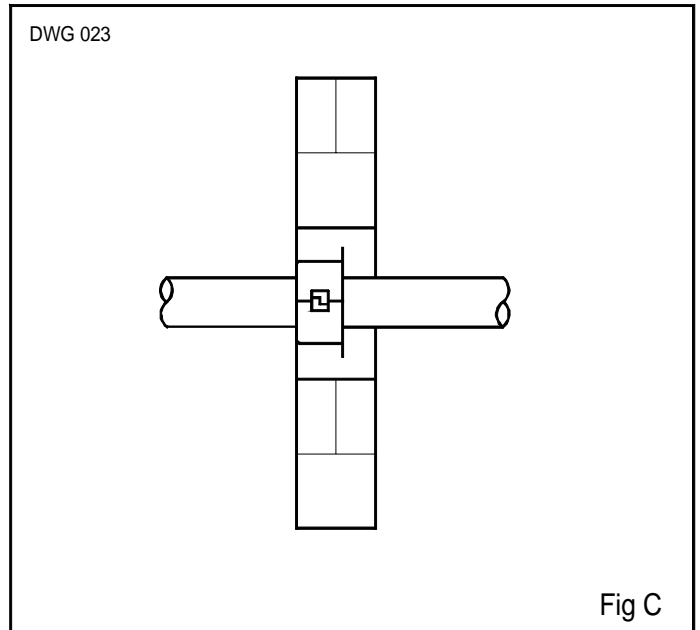
- 1 Please refer to Fig A and Fig B (Typical Installation Details)
- 2 Attach the Z240 Fire Collar around the pipe so that the integral fixing lugs are pressed tight to the surface of the concrete / blockwork wall or soffit (underside) of the concrete floor.
- 3 Mark the position of the bolts through the slots in the integral fixing lugs onto the concrete surface with a marker pen.
- 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 Acrylic Intumescent or 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 bolt heads are protruding through the slots in the mounting lugs, and that both halves of the collar are correctly fastened using the slidelock fixings on each side of the collar.
- 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, then an Z240 Fire Collar should be fitted to both sides of the wall.



### Installation Instructions

#### Cast In to Concrete Wall or Floor

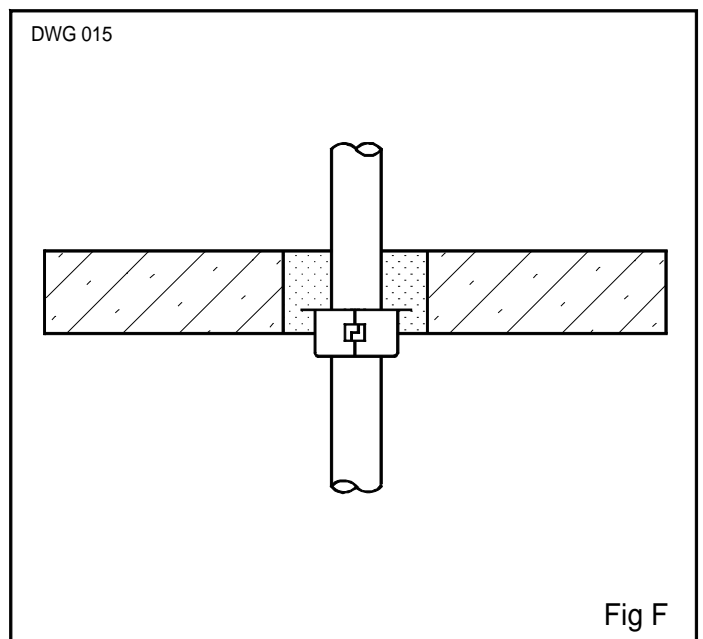
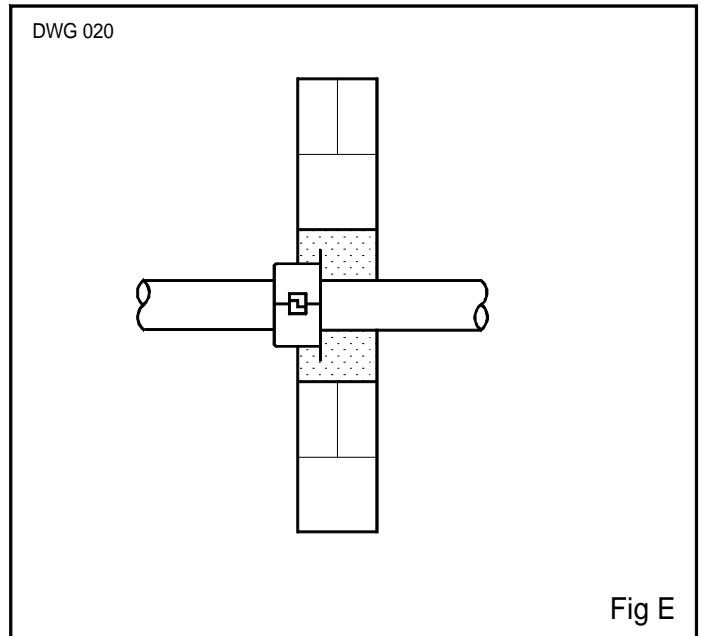
- 1 Please refer to Fig C and D (Typical Installation Details)
- 2 Ensure that there is adequate annular space between the pipe and the concrete floor or wall to allow for the Z240 Collar and sufficient Abesco 'FR' Mortar to cast the collar in situ.
- 3 Attach the Z240 Collar around the pipe and ensure that both halves of the collar are correctly fastened together using the slidelock fixings on each side of the collar.
- 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 Z240 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, then an Z240 Fire Collar should be fitted to both sides of the wall.



### Installation Instructions

#### Semi Cast In to Concrete Wall or Floor

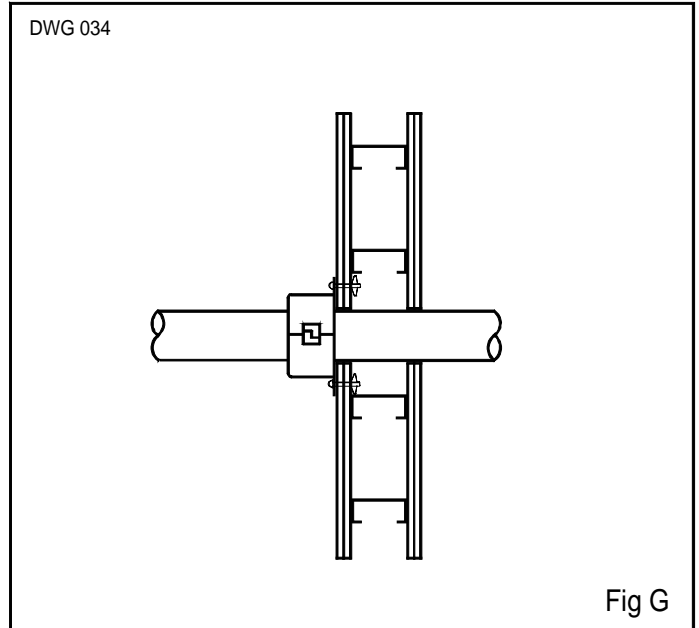
- 1 Please refer to Fig E and F (Typical Installation Details)
- 2 Ensure that there is adequate annular space between the pipe and the concrete floor or wall to allow for the Z240 Collar and sufficient Abesco 'FR' Mortar to cast the collar in.
- 3 Attach the Z240 Collar around the pipe and ensure that both halves of the collar are correctly fastened together using the slidelock fixings on each side of the collar.
- 4 Slide the collar into place, so that approximately half of the Z240 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, then an Z240 Fire Collar should be fitted to both sides of the wall.



### Installation Instructions

#### Surface Mounting to a Timber or Metal Stud Dry Wall

- 1 Please refer to Fig G (Typical Installation Details)
- 2 Attach the Z240 Fire Collar to the pipe so that the integral fixing lugs are pressed tight to the surface of the partition wall.
- 3 Mark the position of the bolt slots in the fixing lugs onto the surface of the wall with a marker pen.
- 4 Rotate the collar slightly, (or if access is restricted remove from pipe), and drill holes at the pre-marked positions to suit the fixings used.
- 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 both halves of the collar are securely fastened using the slidlock fixings and that the bolt slots in the fixing lugs are correctly aligned with the drywall cavity fixings mentioned above. Insert and tighten the correct screws or bolts recommended for use with the drywall cavity fixings, and ensure that the Z240 Collar is secured in position.
- 7 **NOTE:** Where there is a fire risk on both sides of a partition wall, or the direction of fire risk has not been determined, then the Abesco Z240 Fire Collar should be fitted to both sides of the wall, otherwise a fire collar can be fitted to the fire risk side only.



### Installation Instructions

#### Surface Mounting to a Timber Joist Floor

- 1 Please refer to Fig H (Typical Installation Details)
- 2 Attach the Z240 Fire Collar to the pipe so that the integral fixing lugs are pressed tight to the surface of the timber / plasterboard floor sheet.
- 3 Mark the position of the bolt slots in the fixing lugs onto the surface of the wall with a marker pen.
- 4 Rotate the collar slightly, (or if access is restricted remove from pipe), and drill holes at the pre-marked positions to suit the fixings used.
- 5 If the surface of the floor 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 Ensure fixing lugs align with the internal framing elements and fix into these through the timber and/or plasterboard sheet using 75mm steel fixing screws. Make sure the slidelock fixings of both halves of the collar are fully interlocked before fixing the collar securely to the timber soffit.

