



Installation Instructions

DEFENSO® FF

Handle

Lift product using lifting points provided on the frame. Check the load capacity of the slings/chains according to the weight indicated on the product data sheet or on the product.

Preparation

1. Prepare the rebate corresponding to the dimensions and material shown on the product data sheet. (Concrete 3000psi (20MPa) mini and concrete block full solid 12MPa mini)
2. Clean the rebated surfaces.

Installation, levelling and shuttering

1. Locate and centre the product over the clear opening of the chamber. Refer to the product data sheet and if necessary temporarily open the hatch and then close it after centering.
2. Level the frame using nuts and bolt system M12 or M14 (not supplied) in Ø16mm holes in the frame or shims as necessary.
3. Drill and place bolts into each of the holes in the frame.
(If the frame is in several sections, each section must have the minimum bolts required)
 - For concrete: Use anchor bolts M16x130 mini grade 8.8 mini
Adapted to chamber material, refer to the manufacturer requirements.
 - For structural steelwork:
Use screw M16x40 mini grade 8.8 mini with nut M16 grade 08 mini

Finishing

1. Prepare the concrete infill mortar according to the manufacturer's recommendations. Concrete 3000psi (20MPa minimum). A quick-setting non-shrink mortar is recommended where normal curing time for standard mortar cannot be secured.
2. Pack the mortar under the frame and along the formwork. The frame must be fully seated on the bedding material to ensure a uniform distribution of the load and to avoid distortions.
3. Fill the rebate around the frame with mortar and if a layer of asphalt is required, leave a 20mm gap from mortar to ground level for asphalt to be laid up to the frame.
4. Where required cover concrete with wet canvas or tarpaulin to prevent excessive drying. Wait for complete curing of concrete.
5. Remove shuttering and render the chamber wall with mortar if necessary.
6. Open the cover and clean the product with water if necessary.
7. Close the product and fit the appropriate certified padlock as required.

Please note these instructions are provided for general information. The contractor installing the product is responsible for carrying out local risk assessment and safely installing the product.



Installation Instructions

DEFENSO® AG

Handle

Lift product using slings. Check the load capacity of the slings according to the weight indicated on the product data sheet or on the product.

Preparation

1. Prepare the chamber corresponding to the dimensions and material shown on the product data sheet.
2. Remove any existing sealant/debris and clean the surface around the opening.
3. If the product is SR4 rated, place two small beads of one part polysulphide sealant either side of bolt holes to be drilled.

Installation, levelling and shuttering

1. Locate and centre the product over the clear opening of the chamber. Refer to the product data sheet and open the hatch.
2. Ensure the product is level on all four sides and shim as necessary.
3. Drill and place bolts into each of the holes in the frame (11 Bolts minimum for SR4).
(If the frame is in several sections, each section must have the minimum bolts required)

- For concrete: Use anchor bolts M16x130 mini grade 8.8 mini
Adapted to chamber material, refer to the manufacturer requirements.

- For structural steelwork:
Use screw M16x40 mini grade 8.8 mini with nut M16 grade 08 mini

Finishing

1. Tighten all bolts and check the product is still level on all four sides.
2. Check the operation of all associated moving parts (Covers, safety grids, blocking arms, inner covers, padlock boxes, sealing screws) to ensure there are all working correctly.
3. If the cover is not closing or opening correctly, please check the levels again as the frame may have twisted when the bolts were tightened or is no longer level.
4. Seal both the inside edge and external edge with one part polysulphide sealant to ensure the product is watertight.
5. Clean the product with water if necessary.
6. Fit the appropriate certified padlock as required.

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