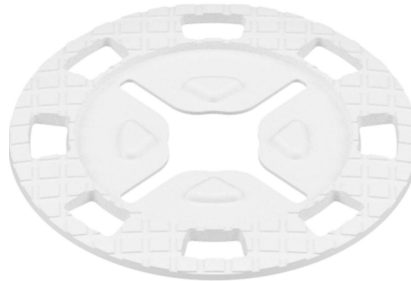
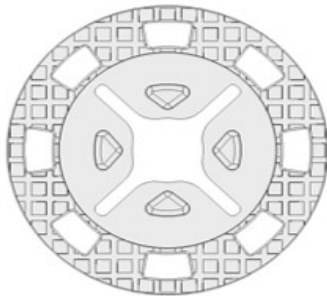


**FMR: 90mm diameter increase washer for fixing systems of external insulation panels**



**Features**

The FMR Increase system, thanks to its size and shape, offers a greater contact surface with the insulating panel. Ideal for fixing insulating panels made of soft materials (glass wool and rock wool), where a greater contact surface allows a good fixing without excessively compressing the panel material.

The FMR increase washer is adaptable to all our thermal insulation fixings (FMN & FMM) and to fixings made with FST washers.

**Advantages**

- Speed and ease of installation.
- Excellent resistance to external agents without oxidation problems.
- Excellent resistance to alkaline agents.

**Panels**

- EPS.
- PUR.
- Cork.
- Rock wool.
- Glass wool.

**Material**

PEHD - Neutral high density polyethylene (Compliant with REACH and RoHS directives).

**Instructions**

Insert the washer under the head of the fixing head used before inserting the plug into the support. Apply the instructions recommended in the technical data sheet of the fixing system used. It is recommended to store the washers at a temperature above 0°C and to apply them at a temperature between 5°C and 30°C.

**Matching BARTOLUCCI items**

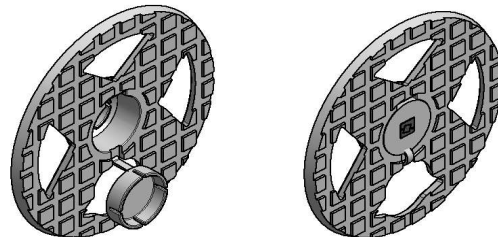
FMN - ETICS fixing with fibre-reinforced polymer nail



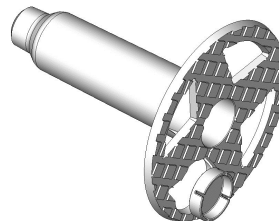
FMM - ETICS fixing with steel nail



FST - Polyamide washer to be combined with D8 through bolts and universal bolts



FSTXL - Extended polyamide washer to be combined with D8 through bolts and universal bolts



Example



**Performance:**

The anchorage holding loads depend on the combination of the type of support.

The resistance capacity of an isolated anchor to bending stresses is poor, therefore its application is not recommended.

In cases where dynamic stresses are applied, the application must be tested for each specific situation.

It is recommended to evaluate appropriate **safety coefficients based on the support material** together with the performance of the fastening head.

**Warnings :**

The data reported correspond to our current technical and applicative knowledge for an appropriate use of the product and are to be considered, in any case, indicative and general, therefore not binding for the same. It is recommended to carry out a preliminary practical test in order to verify the suitability of the product in relation to the intended use, purpose and its use. The person in charge of the construction site is responsible for verifying the suitability and correct implementation of the products described in this document for the use and purposes it intends.

**Packaging**

## Packages in boxes

Code	Description	∅ head [mm]	Pcs / box	box / Master Carton	Master Carton / pallet
FMR90	Increase washer for fixings	90	25	24	30

## Industrial packaging

Code	Description	∅ head [mm]	Pcs / Master Carton	Master Carton / pallet
FMRI90	Increase washer for fixings	90	1000	32

Pallets 100x120 cm, maximum height 1.95 meters.

**Notes for correct installation:**

The installation method significantly influences the sealing performance of a dry fastening system.

**DIAMETER AND EXECUTION OF THE HOLE.** The diameter of the hole for housing a plug is indicated in the technical data sheet. Poor stability of the drilling operations can cause oscillations during the execution of the hole, which could result in an excessively ENLARGED, CONICAL and/or OVALIZED hole, a situation that can compromise the sealing performance of the fastening.

**QUALITY OF THE SUPPORT.** Since plugs are generally used to fix objects with various construction materials, the quality and condition of the materials themselves is fundamental. If the support material is CRACKED or has VOIDS, the sealing action of an expansion plug will be compromised.

**CLEANING OF THE SEAT.** Even if dry systems are less sensitive to the presence of dust and particulate matter inside the installation site of the anchor than connection systems that use adhesives and/or reactive resins, the installation hole must still be thoroughly cleaned before inserting the anchor.

The presence of dust and particulate matter has a negative influence on the adhesion capacity of the fixing with the support. **NON-INTERFERENCE WITH OTHER STRUCTURAL ELEMENTS.** During the drilling phases, it is necessary to pay attention to the point where the hole is made, especially in reinforced concrete. If any reinforcement elements, such as reinforcing bars, are intercepted, this may cause damage to the static and/or dynamic performance of the structure itself.

**Handling :**

Store in the original packaging in a covered and dry place.

**Safety Instructions:**

According to the current European regulations, the articles in question do not require a Safety Data Sheet (Reg.1906/2007/CE - REACH). During application, the use of gloves, dust mask and protective glasses is recommended. Follow the safety regulations in place in the workplace.