

# RetroTie

# A remedial wall tie with a dry / resin fix

## Applications

- Versatile retrofit wall tie
- Use where there is hard external brick material or a resin bond is required in the near leaf
- Use where random testing is required of the security of fixing in the inner leaf







### Features

- Quick, easy, non-disruptive installation
- Effective in all common building materials
- · Far leaf security of fixing easily proof tested
- Mechanical fixing, without expansion, in the far leaf



Over 50 standard repair specifications are available online, covering all common structural faults. Relevant Repair Detail: RT02

Scan the QR Code for full Product Information, Case Studies and downloadable Repair Details



Injecting resin to complete the RetroTie installation

### Installation Procedures



I. Mark the points for RetroTie insertion on the face of the near leaf brickwork. Drill an appropriate diameter pilot hole through the near leaf brick and to the required depth into the far leaf. The hole should be drilled about half way up the brick and around 15mm from the end to avoid frogs and core holes



4. Position the plastic sleeve over the outer end of the RetroTie and slide it down the tie with the support tool until the mark on the tool stem is flush with the outer face. The sleeve centres the tie and seals the hole adjacent to the cavity



2. Widen the hole, through the near leaf only, to 12 mm diameter. Clean the hole in both the near and far leaves



**5.** Security of fixing in the far leaf can be tested with a Helifix Load Test Unit



3. Load the RetroTie into the support tool, insert through the near leaf and drive home into the far leaf. The 'O' ring marker allows the cavity width to be measured and avoids over-driving



6. Inject ExpoxyPlus TE resin until the hole is filled and then make good

## **Technical Specifications**

Material:	Austenitic stainless steel Grade 316 as standard (Grade 304 also available)
Diameter*:	8mm (10mm available)
Cross sectional area:	10mm <sup>2</sup> (15mm <sup>2</sup> )
Length:	<sup>3</sup> /4 of near leaf thickness + cavity width + far leaf penetration depending on material, typically 70mm
Standard lengths:	170mm, 195mm, 220mm, 245mm, 270mm, 295mm, 325mm and 350mm
Diameter of pilot hole:	Diameter of pilot hole (typically 5mm) to be ascertained on site
Depth of pilot hole:	Near leaf thickness + cavity width + far leaf penetration + 10mm
Diameter of clearance hole (near leaf)	12mm (14mm for a 10mm tie)
Minimum fixing density:	Project Specific
Bonding agent (near leaf only):	EpoxyPlus TE
Characteristic Performance <sup>†</sup> :	Earthquake Medium Duty, for cavity 75mm AS/NZS2699. I Type B Classification (8.0mm Tie)

\* NOTE Diameter measures from fin edge to fin edge.

<sup>+</sup> NOTE Classification derived from laboratory testing using selected materials. See the Helifix Remedial Wall Tie sheet (PS/DFRTRTi01) and related test materials for further details. Site conditions, including base materials and cavity widths, can vary widely and published loads and classifications are to be used as guide values only.

RECOMMENDED TOOLING	
For drilling pilot hole:	Rotary percussion 3-jaw-chuck drill
For drilling clearance hole:	SDS hammer drill or rotary percussion drill, where possible
For installing RetroTie:	Support tool fitted to a rotary hammer drill (SDS type)
For cleaning clearance hole:	Brush and airjet
For proof testing	Helifix Load Test Unit

#### **Related Publications**

Technical:	Remedial Stainless Steel Wall Ties PS/DFRTRTi01
Drilling and Load Testing:	Drilling and Testing Guide PS/DT01
Health and Safety:	Safe Installation Guide
Relevant Repair Detail:	RT02



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