

Report No: CONNECTIONS – 01 (Rev B)

Title: Use of Pneumatic Nailing Tools on MiTek Connectors

MiTek connectors are designed to be fitted with **blue MiTek 30x2.8mm dia. reinforced head nails** or **yellow MiTek 40x3.75mm dia. flat head nails**, hand hammered through pre-punched holes. Where pneumatic nailing tools are used with MiTek connectors, additional requirements apply

Prerequisites

1. The pneumatic nails shall be flat head, galvanized, and meet the requirements of Australian Standard AS 2334 “Steel Nails—Metric Series”.
2. An equal number of nails to MiTek nails shall be pneumatically driven by a tool with sufficient air pressure to fully drive the nails flush against the steel surface, and NOT be so excessive as to punch through the steel or cause fracture in timber
3. The user shall assess the suitability of connector for tool nailing, hazard risks, and meet WHS requirements regarding the use of nail tools in this application.

Pneumatic nailing tools may come with or without pre-fitted *Positive Placement Mechanism*. Not all building products are suitable for nailing using pneumatic tools. An assessment should be made in each case, or advice sought.

| Pneumatic Positive Placement Tool | Pneumatic Nail Gun (with Hardened Nails) |
|--|---|
| <p>Nails shall be installed in pre-punched holes in the connectors</p> | <p>Nails shall not be targeted at pre-punched holes. Instead, nails shall be driven into unpunched steel. All pneumatic driven nails shall be fitted in a similar distribution^ and spacing as the holes, and shall not be clustered closely together, nor be too close to pre-punched holes^^, or steel edges^^, or timber edges^^.</p> |
| <p>MiTek 30x2.8mm dia. reinforced head BLUE nail can be replaced with 35x3.05mm dia. OR 35x3.15mm dia. PPT nail</p> <p>MiTek 40x3.75mm dia. flat head YELLOW nail can be replaced with nails of same specification suitable for the PPT.</p> | <p>To achieve the published capacity of blue MiTek nails, the equivalent* pneumatic tool nails shall be Australian Standards compliant 32x2.5mm dia. screw shank hardened nails.</p> |
| <p>Provided suitable nails, any MiTek product with nail installation can be installed using PPT</p> | <p>Examples of suitable products: BlockFast, WallStrap, CycloneTie, Structural BracingStrap, CreeperConnector, and Boomerang Connector. Examples of unsuitable products: Trip-L-Grip, Universal Trip-L-Grip, MultiGrip, MiniGrip, and JoistHanger.</p> |

(^Note: Some MiTek products are specially dedicated for use with typical pneumatic nailing tools, by providing target rings and/or crosshairs for that purpose, e.g. CT180 CycloneTie, WallStrap, and

BlockFast. This alleviates the user from having to make instant decisions on the distribution and spacing in different products.)

(**Note:** Minimum Edge/End Distances to be used with typical pneumatic nail guns:

- Distance from timber edge: 10mm
- Distance from timber cut end: 40mm
- Distance from steel edge/pre-punched hole: 5mm)

(***Note:** The QBCC blog in Queensland which stipulates applying 20% more tool nails, does not apply to MiTek, but is directed at non-MiTek products which depend on larger hand driven nails to achieve their capacities.)

ILLUSTRATION:

Best practice illustration of using Positive Placement Tool [PPT] Nails v/s Pneumatic Nail Gun with Hardened Nails

