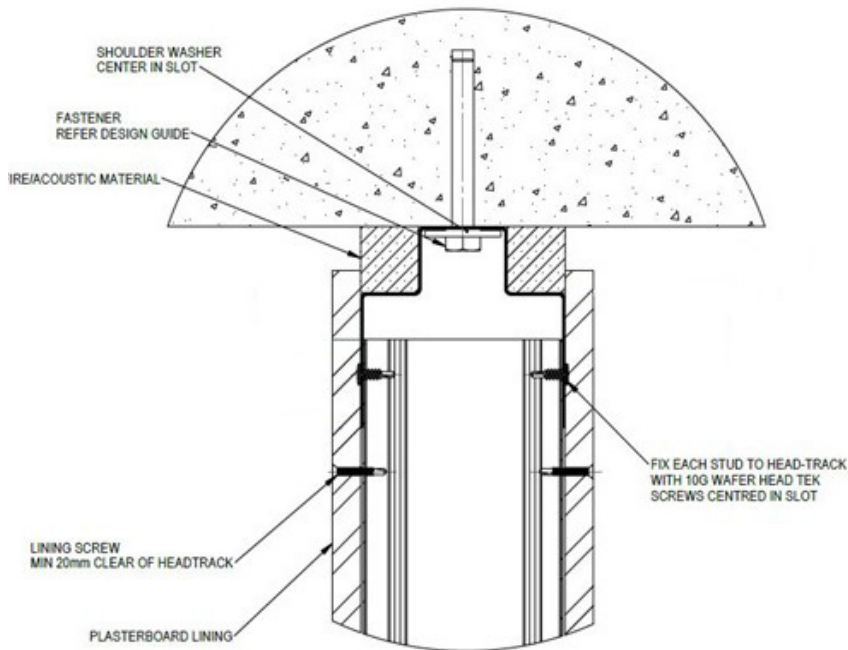


TECTONIC HEADTRACK

Full-height Partition Restraint



PRODUCT SUMMARY

The Tectonic Headtrack allows for the top of full-height walls to meet multiple performance criteria. It deals with inter-storey drift and vertical deflection between two structures effectively while not conceding acoustic and fire performance.

Slots in the vertical and horizontal plane of the head track are designed to allow for building deflection and inter-floor movement caused by seismic activity and dead/live loading. Wall junction details have been developed and tested to reduce damage to the wall due to seismic and building drift.

The recessed area of the track allows for the head-track to be fire and acoustically rated off the shelf.

- The Tectonic Headtrack allows for movement along multiple axes. The slots in the top of the headtrack allow for horizontal deflection (relative horizontal movement between storeys in an earthquake) and the vertical slots allow for vertical deflection between storeys due to dead/live loading as well as earthquake deflection). The system has been tested on a Shake Table.
- The Tectonic Headtrack has been fire tested according to AS 1530.4-2014 *Methods for Fire Test on Building Materials*.
- Sound intensity measurement showed that on a STC 52 wall there was no reduction in the overall acoustic performance of the partition.
- The Tectonic Head Track is easily integrated into either timber or steel 92 mm wall framing constructions.
- For full install instructions please refer to installation manual.

Free Markup Service Available

TECTONIC HEADTRACK MEETS THE B1 STRUCTURE PROVISIONS IN THE NEW ZEALAND BUILDING CODE.
(When designed and installed in full compliance with the Design and Installation Guide)

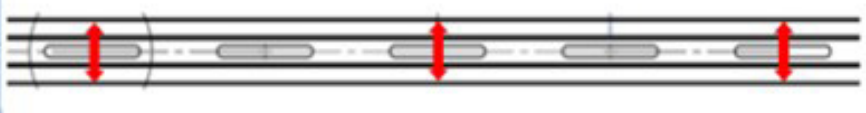
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During testing, building movement of up to 30mm was tested with no damage to the linings or framing, very minor damage to the stopped joints was observed. This is equivalent to 1% drift for a 3m high wall.

The head-track capacity under horizontal loads (seismic, wind and impact) is shown below. The System capacity and deflection is dependent on the anchor spacing.

Fixing Spacing = 600mm, Stud spacing 600mm:

| | | |
|--------------------------------|-----------|--|
| ULS Capacity | 2.75 kN/m |  |
| SLS1 Capacity (5mm deflection) | 1.5 kN/m | |

Fixing Spacing = 1200mm, Stud spacing 600mm:

| | | |
|--------------------------------|----------|--|
| ULS Capacity | 1.5 kN/m |  |
| SLS1 Capacity (5mm deflection) | 1.0 kN/m | |

Acoustic: An acoustic assessment was carried out on a wall system with a Tectonic Headtrack to evaluate the performance in a partition system. A high-density passive fire protection strip was fitted to both sides of the track in the specially designed recess. Sound intensity measurement showed that on a STC 52 wall there was no reduction in the overall acoustic performance of the partition. Where a fire rating is not required, a high mass filler strip can also be used, of between 4 – 5 kg m². Test report available on request.

Fire testing: The Tectonic Headtrack is defined as a control joint, therefore, when it is used in a fire rated system, the correct passive fire protecting must be employed. Tectonic Headtrack has been fire tested according to AS 1530.4-2014 Methods for Fire Test on Building Materials. Although the detailing is up to the fire engineer, we recommend two passive fire protection systems: RyanFire Batt 502 and RyanFire Graphite Strap.

Material properties: The Tectonic Headtrack is manufactured in New Zealand from 250 MPa, hot dipped galvanised mild steel. Standard material properties are presented below.

Standard length 2970 mm

Total depth 91 mm

Recess depth 30 mm

Gauge 1.2 mm

