

E1SWS, E2SWS

Shaftwall - Fire Rated from Shaft side

One Way FRR

E1SWE, E2SWE, E3SWE

Shaftwall - Fire Rated from Either side

Two Way FRR

1, 2 or 3 Layers: No. of Layers of Plasterboard to one side of frame (Fire side)

| System Number | Lining Suffix | Fire Rating | Fire Rated Side | Noise Control | | | | Landing Side Lining Requirement |
|---------------|---------------|-------------|-----------------|---------------|------|------------|------|---|
| | | | | STC | | | | |
| | | | | 64mm stud | | 102mm stud | | |
| | | | | No fill | Fill | No fill | Fill | |
| E1SWS60 | -M13 | -/60/60 | Shaft Side | 39 | 45 | 42 | 46 | 1 x 13mm Elephant MultiSmart |
| E2SWS90 | -M26 | -/90/90 | | 43 | 49 | 46 | 50 | 2 x 13mm Elephant MultiSmart |
| E2SWS120 | -FM29 | -/120/120 | | 44 | 50 | 46 | 51 | 1 x 16mm Elephant FireSmart and 1 x 13mm Elephant MultiSmart |
| E1SWE30 | -M13 | -/30/30 | Either Side | 39 | 45 | 42 | 46 | 1 x 13mm Elephant MultiSmart |
| E2SWE60 | -M26 | -/60/60 | | 43 | 49 | 46 | 50 | 2 x 13mm Elephant MultiSmart |
| E2SWE90 | -FM29 | -/90/90 | | 44 | 50 | 46 | 51 | 1 x 16mm Elephant FireSmart and 1 x 13mm Elephant MultiSmart |
| E3SWE120 | -FM42 | -/120/120 | | 46 | 51 | 48 | 52 | 1 x 16mm Elephant FireSmart and 2 x 13mm Elephant MultiSmart |

Elephant Shaftwall systems outlined in this manual are when construction can only be done from one side. Ideal for lift and service shaft enclosures. All Elephant Shaftwall systems are non-load bearing.

Framing

Elephant Shaftwall systems utilises Rondo® E-Stud, CH-Stud and J-Track. Fix the Rondo® J-Tracks as the top and bottom channels. The vertical framing begins with the E-Stud, followed by CH-Studs and ends with the J-Stud. See construction sequence over page.

When connecting to structural steel, install the framing before fireproofing spray application.

Wall heights

| Maximum Stud heights | | | | |
|--|-----------|------|----------|----------|
| System Number | Stud Size | BMT | Pressure | |
| | | | 0.25 kPa | 0.35 kPa |
| E1SWE30-M13 E1SWS60-M13 | 64 | 0.55 | 2950 | 2640 |
| | | 0.90 | 3460 | 3090 |
| E2SWE60-M26 E2SWS90-M26 E2SWE90-FM29 E2SWS120-FM29 E3SWE120-FM42 | 64 | 0.55 | 3730 | 2660 |
| | | 0.90 | 4380 | 3890 |
| | 102 | 0.55 | 4250 | 3080 |
| | | 0.90 | 5510 | 4190 |

Framing & Lining Installation Procedure

Top and Bottom Tracks

Mechanically fix the Rondo® J-Track as the top and bottom channels at 600mm centres max and 100mm max from each end. Position the J-Track with short leg facing towards the landing side of the wall. When connecting to structural steel, install the Rondo® J-Track before fireproofing spray application.

End Studs

Cut the Rondo® E-Studs 15mm less than the full height between the top and bottom J-Track to allow an expansion gap. Fix the Rondo® E-Stud at 600mm centres max to the structure. Fix a Rondo® J-Stud on the opposite end of the wall using the same procedure, positioning the short leg of the J-Track towards the landing side and long leg towards the shaft side. When connecting to structural steel, install the Rondo® E-Stud and Rondo® J-Stud before fireproofing spray application.

Elephant Plasterboard Linings-Shaft Side

Two layers of 13mm Elephant MultiSmart on the shaft side.

Cut the 13mm Elephant MultiSmart lengthwise in half, leaving two 600mm wide panels and place them between the Rondo® E-Stud and Rondo® CH-Stud on the side closest to the shaft. Position the cut lining back to back with tapered edge at each side. Fix the panels hard to the floor leaving a 15mm expansion gap at the top of the frame. Fill this gap and other gaps with Flexible Fire rated sealant of the same FRR as required before lining the landing side. Use full height sheets where possible. Where sheet end butt joints are unavoidable they should be tight fitted and staggered by 300mm.

CH-Studs

Cut the Rondo® CH-Studs 15mm less than the full height between the top and bottom J-Track to allow an expansion gap. Friction fit the Rondo® CH-Studs vertically into the J-Track at 600mm centres max with the C profile of the CH-Stud facing towards the landing side and H profile towards the shaft side. Position the stud such that the shaft side panels slip into the H profile of the CH-Stud. This process is repeated further until the final gap is 600mm or less.

End Lining Panel - Fixing & Fastening

Cut the final lining panel to such a size that it fits into the already installed J-Stud. To fit the final end panel into the bottom J-Track, cut the flange of the J-Track and bend it down to fit the panel in and then return it back to vertical. Screw fix these panels to the long leg side of the Rondo® J-Stud using 41mm x 6g Self Tapping Drywall screws at 300mm centres. Fill the 15mm gap between the boards and the top J-Track and the gap between the J-Stud and the board with Flexible Fire rated sealant of the same FRR as required before lining the landing side.

Landing Side Lining

Fix Elephant plasterboard as per specified system vertically to each stud at 300mm centres and hard to the floor. Use full height sheets where possible. Do not fix the sheets to the top and bottom Rondo® J-Tracks. Staggered joints are required for systems with more than one layer of plasterboard. The top gaps are to be filled with Flexible Fire rated sealant of the same FRR as required. All sheets shall be formed over framing and sheet end butt joints must be formed over nogs.



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Fixing of Landing side Linings

Fasteners (As per Specified System Above)

| System Number | 1 st Layer | 2 nd Layer | 3 rd Layer |
|---------------|-----------------------------|-----------------------|-----------------------|
| | Self-Tapping Drywall Screws | | |
| E1SWS60-M13 | 13mm | — | — |
| E1SWE30-M13 | 32 x 6g | — | — |
| E2SWS90-M26 | 13mm | 13mm | — |
| E2SWE60-M26 | 32 x 6g | 41 x 6g | — |
| E2SWS120-FM29 | 16mm | 13mm | — |
| E2SWE90-FM29 | 32 x 6g | 41 x 6g | — |
| E3SWE120-FM42 | 16mm | 13mm | 13mm |
| | 32 x 6g | 41 x 6g | 63 x 8g |

Fastener centres

For both layers, sheets shall be screw fixed at 300mm centres along each framing member. Fasteners to be placed no closer than 12mm from sheet edge.

Jointing

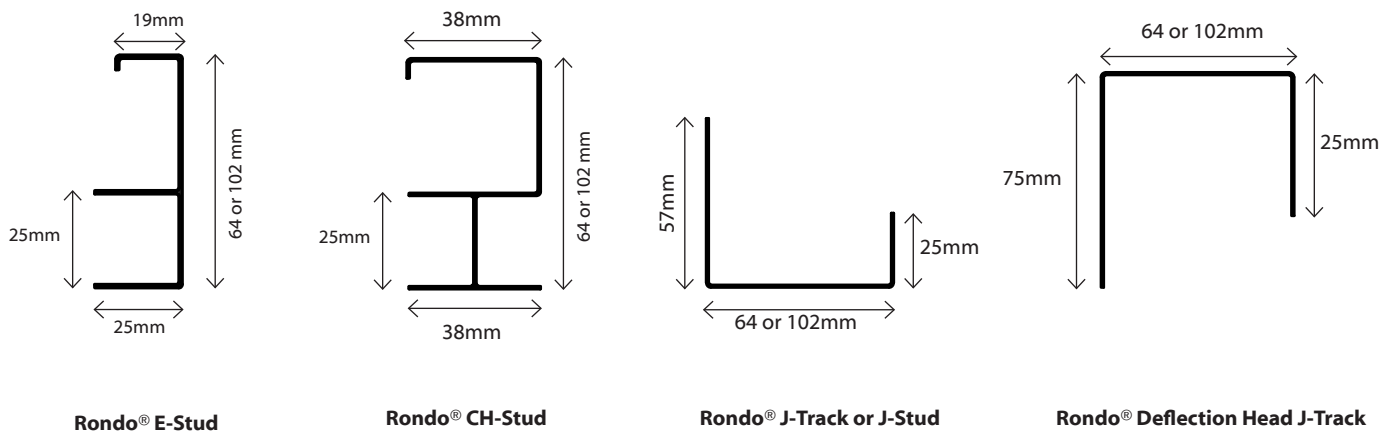
Shaft side: Unstopped

Landing Side

Inner Layer: Unstopped.

Single or Outer Layer: All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped in accordance with the publication entitled Elephant Plasterboard Installation Guide.

Shaftwall Framing Components



Construction Sequence

