

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 <sup>st</sup> Layer	2 <sup>nd</sup> Layer	3 <sup>rd</sup> Layer
	Self-Tapping Drywall Screws		
<b>E1SWS60-M13</b>	13mm	—	—
<b>E1SWE30-M13</b>	32 x 6g	—	—
<b>E2SWS90-M26</b>	13mm	13mm	—
<b>E2SWE60-M26</b>	32 x 6g	41 x 6g	—
<b>E2SWS120-FM29</b>	16mm	13mm	—
<b>E2SWE90-FM29</b>	32 x 6g	41 x 6g	—
<b>E3SWE120-FM42</b>	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**

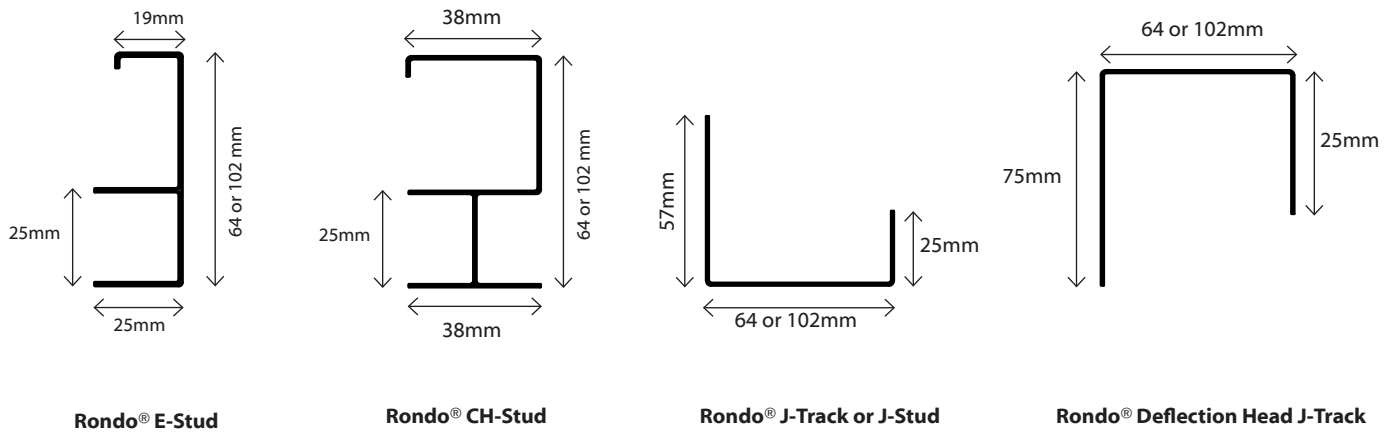
**Shaft side:** Unstopped

**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**

