

TECH BRIEF 91

RONDO'S 605 EXTRA WIDE FURRING CHANNEL

The NEW Rondo 605 Extra Wide 64mm Furring Channel is an efficient solution to provide additional surface width accommodating fastenings at a wider range of distances.

Tailored for products demanding fastenings at a greater distance from the boards edge, the Rondo 605 Extra Wide 64mm Furring Channel is ideal for plasterboard, and panel products like Knauf's Stratopanel, and CSR's Troldekt.

The Rondo 605 Extra Wide Furring Channel's unique 64mm width eliminates the requirement for the traditional use of two Furring Channels side by side when creating a greater edge distance to accommodate a larger negative recess. That means an increased ease of installation and efficiency, using less product.

- The 605 Extra Wide Furring Channel can be fixed to masonry (including concrete) walls using the Rondo 607 Direct Fix Clip. (see figure 1). The 607 clip can also be used to fix 605 Furring Channels to concrete ceilings.

- The 609 Interchange Clip allows the 605 Furring Channel to be attached to KEY-LOCK Top Cross Rail primary members for use in suspended ceilings. (See figure 2)

- The 606 Direct Fix Clip is able to fix the 605 Furring Channel to steel purlins or timber joists in ceiling applications as well as to steel girts or timber stud work in walls (See Figures 3 & 4)

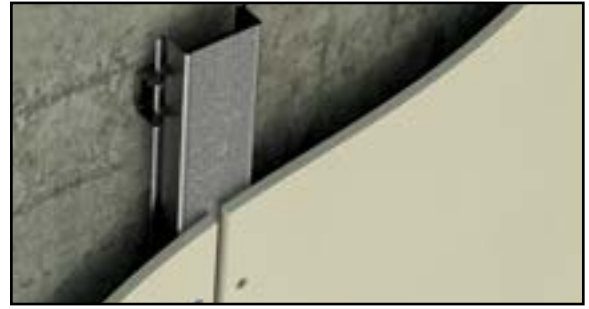


FIGURE 1

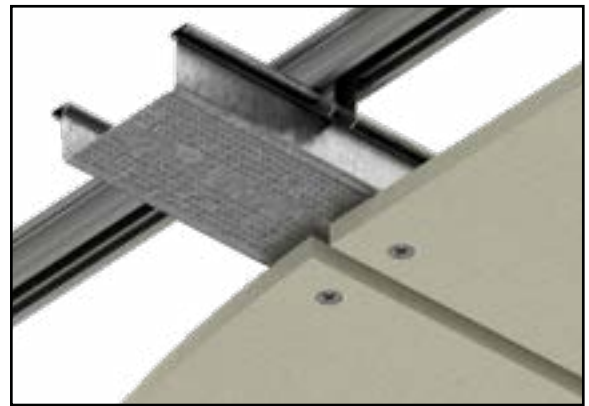


FIGURE 2



FIGURE 3



FIGURE 4

For more information on Rondo products and systems visit www.rondo.com.au or contact one of our Technical Representatives at your state Rondo Sales office on 1300 36 7663.

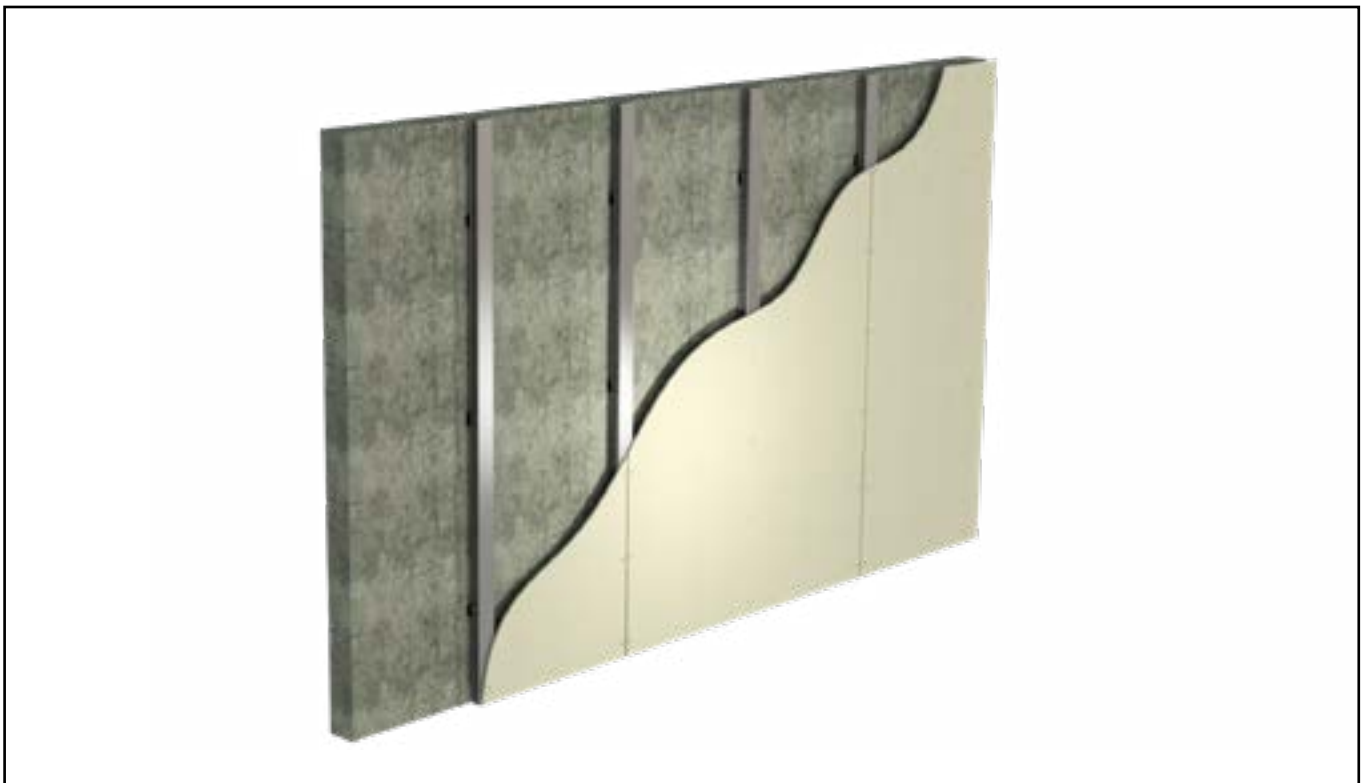


FIGURE 5: Typical Wall Installation of 605 Extra Wide Furring Channel and 607 Direct Fix Clip on a Concrete Wall.

TABLE 1 below provides the description and dimensions of each product used in 605 Furring Channel applications. Please turn overleaf for the maximum span table information.

Part Number	Description	Length	Weight	Stock Pack	Sub Pack
605	Extra Wide Furring Channel	4800mm	2.96	96	4
		6000mm	3.68		
606	Direct Fix Clip to Timber/Steel		0.03	300	100
607	Direct Fix Clip to Masonry		0.03	400	50
609	Interchange Clip		0.02	500	100

TABLE 2: VENTED CEILING FRAMING - TCR & FC SELECTION

Ultimate Wind Pressure (kPa)	Wall Track (WT)	Top Cross Rail (TCR)			Furring Channel (FC)		Maximum Lining Weight (kg/m ²)
	Rondo PN	Rondo PN	Spacing (TS Max) (mm)	Span (SS Max) (mm)	Rondo PN	Spacing (FS Max) (mm)	
0.0	140	127	1200	1200	605	600	18
			1200	900			46
			900	900			62
		128	1200	1200			41
			1200	900			67
			900	900			88

Notes:

(1) Serviceability limit state deflection is limited to the lesser of the following:

- a. $L/200$ for $G_{max}+W_{ser,dn}$ and $0.9G+W_{ser,up}$
- b. $L/360$ for G_{max}

(2) Refer to Table 4 and 5 for seismic restraint requirements.

(3) Refer to linings manufacturer for product span and fastener fixings details

TABLE 3: PRESSURE RESISTING CEILING FRAMING - TCR, FC & DOWNSTRUT SELECTION

	Lining		Wall Track (WT)	Suspension Rod (SR)		Top Cross Rail (TCR)		Furring Channel (FC)		Down Strut (Rondo PN)		
				Rondo PN	Spacing (SS Max) (mm)	Rondo PN	Spacing (TS Max) (mm)	Rondo PN	Spacing (FS Max) (mm)	Concrete Substrate		Steel Substrate
	Description	Weight (kg/m ²)	Rondo PN							Plenum Depth (mm) (230-1000)	Plenum Depth (mm) (1000-2000)	Plenum Depth (mm) (200-2000)
0.25	1/10mm or 1/13mm Standard Plasterboard	8.5	140	121	1200	127	1200	605	600	127	112	M535
	1/13mm Plasterboard (Other)	10	140	121	1200	127	1200	605	600	127	112	M535
	Unknown Lining 1	13	140	121	1200	127	1100	605	600	127	112	M535
	Unknown Lining 2	16	140	121	900	127	1200	605	600	127	112	M535
0.50	1/10mm or 1/13mm Standard Plasterboard	8.5	140	121	900	127	1200	605	600	127	112	M535
	1/13mm Plasterboard (Other)	10	140	121	900	127	1200	605	600	127	112	M535
	Unknown Lining 1	13	140	121	900	127	1200	605	600	127	112	M535
	Unknown Lining 2	16	140	121	900	127	1200	605	600	127	112	M535
0.75	1/10mm or 1/13mm Standard Plasterboard	8.5	140	121	900	127	900	605	600	127	112	M535
	1/13mm Plasterboard (Other)	10	140	121	900	127	900	605	600	127	112	M535
	Unknown Lining 1	13	140	121	900	127	900	605	600	127	112	M535
	Unknown Lining 2	16	140	121	900	127	900	605	600	127	112	M535
1.00	1/10mm or 1/13mm Standard Plasterboard	8.5	140	121	900	127	700	605	600	127	112	M535
	1/13mm Plasterboard (Other)	10	140	121	900	127	700	605	600	127	112	M535
	Unknown Lining 1	13	140	121	900	127	700	605	600	127	112	M535
	Unknown Lining 2	16	140	121	900	127	700	605	600	127	112	M535

Notes for Table 3:

- (1) Contact Technical Services for any other lining configurations not listed above
- (2) Serviceability limit state deflection is limited to the following:
- a. $L/200$ for $G_{max}+W_{ser,dn}$ and $0.9G+W_{ser,up}$
- b. $L/360$ for G_{max}
- (3) Refer to B2 Key-Lock series Table B2.4.2(A) for Downstruting options
- (4) Refer to linings manufacturer for product span and fastener fixings details

TABLE 4: MAXIMUM CEILING LENGTH FOR PERIMETER FIXING

Lining		Maximum Length of Ceiling Grid TCR x FC - (mxm)			
Description	Weight (kg/m ²)	Seismic Action (Fc/Wc)			
		0.12g	0.16g	0.20g	0.24g
1/10mm or 1/13mm Standard Plasterboard	8.5	12 x 12	12 x 12	12 x 12	10 x 10
1/13mm Plasterboard (Other)	10	12 x 12	12 x 12	11 x 11	9 x 9
Unknown Lining 1	13	12 x 12	12 x 12	9 x 9	8 x 8
Unknown Lining 2	16	12 x 12	10 x 10	8 x 8	7 x 7

TABLE 5: MAXIMUM BRACING AREA

Lining		Maximum Bracing Area (m ²)											
Description	Weight (kg/m ²)	BR1 - 64 x 0.5				BR2 - 64 x 0.75				BR3 - 92 x 0.75			
		Seismic Action (Fc/Wc)											
		0.12g	0.16g	0.20g	0.24g	0.12g	0.16g	0.20g	0.24g	0.12g	0.16g	0.20g	0.24g
1/10mm or 1/13mm Standard Plasterboard	8.5	35	26	21	17	41	31	24	20	41	31	24	20
1/13mm Plasterboard (Other)	10	32	24	19	16	37	28	22	18	37	28	22	18
Unknown Lining 1	13	27	20	16	13	31	23	18	15	31	23	18	15

Notes:

- (1) Contact Technical Services for any other lining configuration listed above
- (2) Refer to Key-Lock series Figure B2.4.2(C) and Tables B2.4.3(I) and (J)
- (3) Refer to linings manufacturer for product span and fastener fixings details

TABLE 6: SPAN TABLE FOR 64mm FACE FURRING CHANNEL LINED WITH KNAUF'S STRATOPANEL
Furring channels at 333mm centres maximum

Ultimate Wind Pressure Wu (kPa)	Serviceability Wind Pressure Ws (kPa)	Maximum Span (mm)		Clip and anchor demand (kN)	
		Single Span	2 or more Spans	Single Span	2 or more Spans
0.375	0.250	1760	2170	0.500	0.675
0.525	0.350	1620	2000	0.500	0.810
0.75	0.500	1470	1720*	0.500	0.938
1.000	0.670	1350	1520*	0.500	1.067

Notes:

(1) Maximum dead load of lining (G) = 10.5kg/m²

(2) Serviceability checked to the following limits:

a. L/600 Under Dead Load Only

b. L/200 Under Dead Plus Wind Service

(2) Maximum Furring Channel spacing = 333mm

(3) Connections to be independently checked, clip and anchor demand is the greater of 0.5kN and 1.5 x the vertical reaction at the fixing location in accordance with AS/NZS 2785:2020, Cl 2.3.4 (a) and (b)

* Maximum spans not applicable for direct fix applications, refer to Rondo for advice

(4) Refer to linings manufacturer for product span and fastener fixings details

TABLE 7: PRESSURE-RESISTING CEILING FRAMING - TCR, FC & DOWN STRUT SELECTION FOR CSR'S TROLDTEKT

Ultimate Wind Pressure (kPa)	Lining		Wall Track (WT)	Suspension Rod (SR)		Top Cross Rail (TCR)		Furring Channel (FC)		Down Strut (Rondo PN)		
				Rondo PN	Spacing (SS Max) (mm)	Rondo PN	Spacing (TS Max) (mm)	Rondo PN	Spacing (FS Max) (mm)	Concrete Substrate		Steel Substrate
	Description	Weight (kg/m ²)	Rondo PN							Plenum Depth (mm) (230-1000)	Plenum Depth (mm) (1000-2000)	Plenum Depth (mm) (200-2000)
0.25	Troldtekt	15.5	140	121	900	127	1200	605	600	127	112	M535
0.50	Troldtekt	15.5	140	121	900	127	1200	605	600	127	112	M535
0.75	Troldtekt	15.5	140	121	900	127	900	605	600	127	112	M535
1.00	Troldtekt	15.5	140	121	900	127	700	605	600	127	112	M535

Notes:

- (1)** Contact Technical Services for any other lining configurations not listed above
- (2)** Serviceability limit state deflection is limited to the following:
 - a. $L/200$ for $G_{max}+W_{ser,dn}$ and $0.9G+W_{ser,up}$
 - b. $L/360$ for G_{max}
- (3)** Refer to Rondo for Installation details
- (4)** Refer to linings manufacturer for product span and fastener fixings details

TABLE 8: MAXIMUM CEILING LENGTH FOR PERIMETER FIXING FOR CSR'S TROLDTEKT

Lining		Maximum Length of Ceiling Grid TCR x FC - (mxm)			
Description	Weight (kg/m ²)	Seismic Action (Fc/Wc)			
		0.12g	0.16g	0.20g	0.24g
Troldtekt	15.5	12 x 12	10 x 10	8 x 8	7 x 7

TABLE 9: MAXIMUM BRACING AREA FOR CSR'S TROLDTEKT

Lining		Maximum Bracing Area (m ²)											
Description	Weight (kg/m ²)	BR1 - 76 x 0.5				BR2 - 76 x 0.75				BR3 - 92 x 0.75			
		Seismic Action (Fc/Wc)											
		0.12g	0.16g	0.20g	0.24g	0.12g	0.16g	0.20g	0.24g	0.12g	0.16g	0.20g	0.24g
Troldtekt	15.5	23	17	13	11	26	20	18	13	26	20	18	13

Notes:

- (1) Contact Technical Services for any other lining configurations not listed above
- (2) Refer to Key-Lock series Figure B2.4.2(C) and Tables B2.4.3(I) and (J)
- (3) Refer to linings manufacturer for product span and fastener fixings details

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