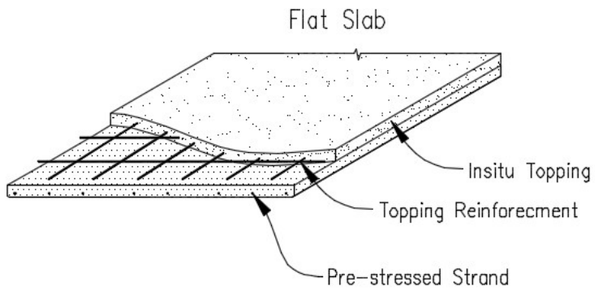
Floor System Easy Select Guide

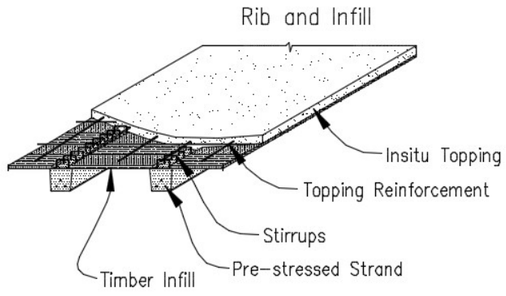
Stahlton Flatslabs

- Standard width is 2.4m wide in Christchurch for quicker installation. Made 1.2m wide in Auckland.
- Cost effective solution for short spans
- 150mm thick Flatslabs can provide fire ratings up to 4 hours
- Gives good acoustic rating
- Thinnest floor system available
- Propping is required ·2.5m for 75mm thick Flatslabs, ·5.5m for 150mm thick Flatslabs
- Heavy floor system providing good vibration performance



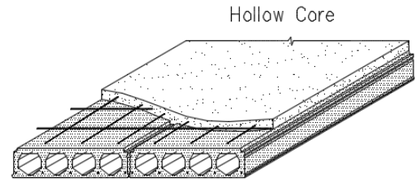
Stahlton Rib & In-fill

- Our lightest floor system.
- Cost effective solution for short to medium spans.
- All rib depths provide good fire ratings up to 165 mins with 100mm topping.
- Flexible in accommodating penetrations and set-downs.
- Ribs can be spaced to trim openings and closed up in areas of higher or concentrated loads maintaining typical floor depth.
- Propping is required ·2.5m for 100mm deep Ribs, ·6.0m for 300mm deep Ribs.
- Hangers cast in ends of ribs allow ribs to fit between beams reducing composite support beam depth.
- ·Timber in-fills can be decorative left exposed.



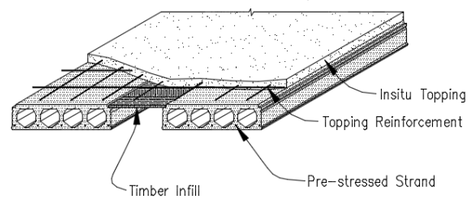
Stahlton Hollowcore

- Usually does not require propping.
- Cost effective solution for medium to long spans.
- Gives good acoustic rating.
- Thinnest floor system available for long spans.
- Superior deflection and vibration performance.
- Effective at sharing concentrated loads.
- Efficient manufacturing process allows large production quantities to be made quicker.



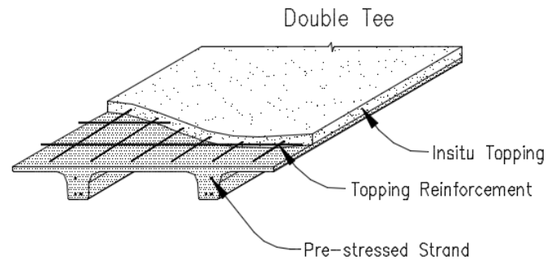
Spaced Stahlton Hollowcore

- Provides a lighter option, usually un-propped.
- ·Provides flexibility for penetrations and trimming openings
- ·Eliminates cutting costs for narrow units.
- ·Does compromise load sharing, vibration performance, load/span capacity and results in bigger hogging deflections as bare units.



Stahlton Double Tee

- Usually does not require propping.
- Cost effective for medium to long spans by varying depths.
- Penetrations can be easily accommodated passing through flanges between fixed legs.
- Can get additional capacity by trimming outer flanges.
- Services can be located between legs out of sight.
- 2.4m standard width results in quicker installation.
- Options for various supports; 55mm flange using "Zeus" hangers, partial leg or full leg support.



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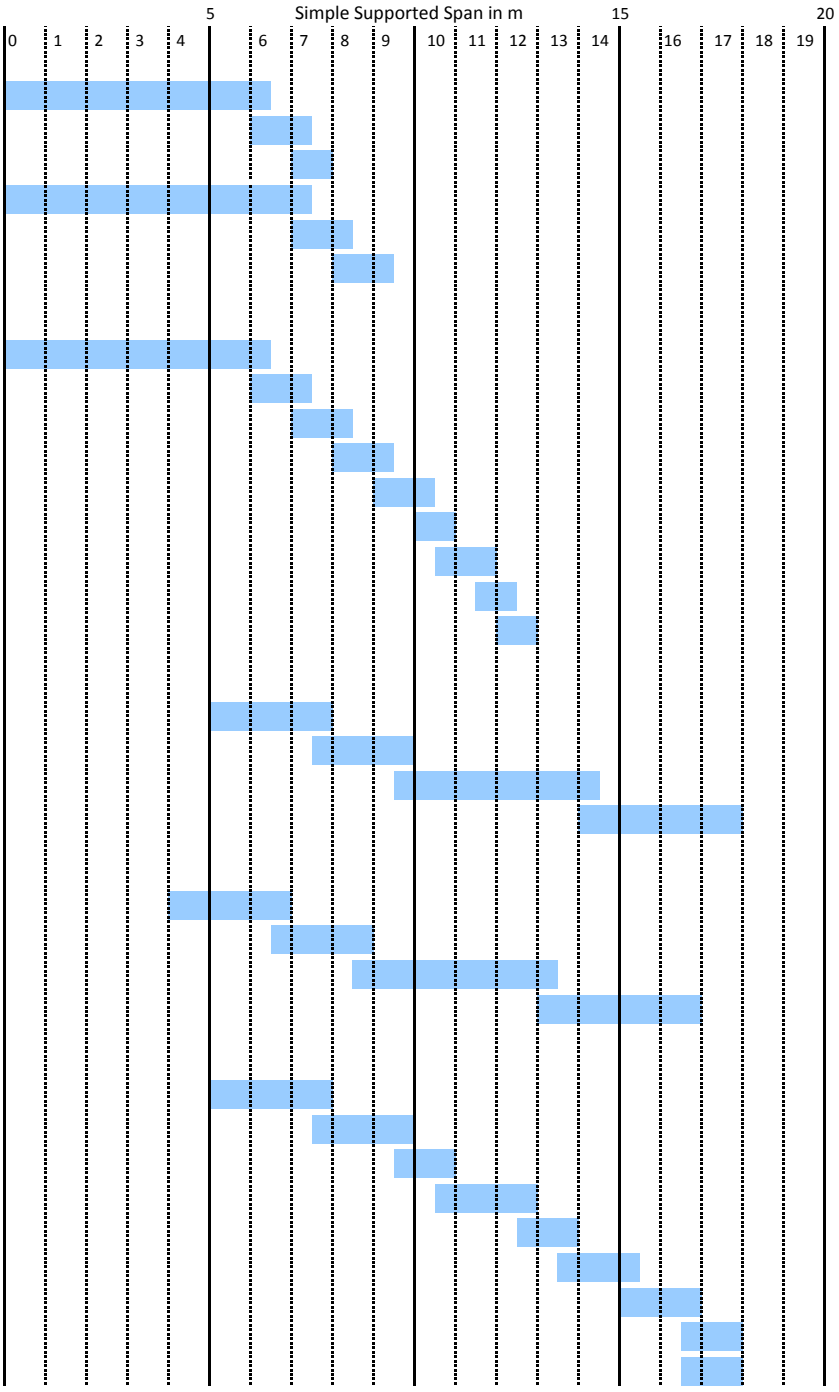
Floor System Easy Select Chart (indicative only)

Based on 3.0kPa live load plus 0.5kPa superimposed dead load.

Selecting the right floor system for your project is made easy using the chart below. Each of the five Stahlton products has it's own advantages:

Architectural appearance	Ribbed or flat soffit? Timber in-fill systems can utilise decorative selected timber.
Load capacity	Floor loading influences the best floor system to carry the load.
Floor self weight	Spaced products reduce the self weight on the structure to help reduce supporting member sizes.
Span to depth ratio	Optimise the floor system to allow the maximum number of levels to meet building height restrictions.
Flexibility for services	Ribbed systems to allow services to hidden between the ribs or legs. Provide provide options for penetrations.
Transport to site	Difficult access and distance need to be considered.
Installation on site	Access for cranes need to be considered.
Durability	We design our floor systems to meet interior or exterior use.
Fire resistance	Our design needs to consider your fire rating requirments. These tables meet minimum of 60/60/60 minutes.
Propped vs unpropped	All of our flooring systems are prestressed. Hollowcore and double tees do not usually require propping.

Unit Depth mm	Topping Depth mm	O/A Depth mm
Flat Slabs		
75	75	150
75	100	175
75	125	200
100	75	175
125	75	200
150	75	225
Rib & Infill at 900crs		
100	75	200
125	75	225
150	75	250
175	75	275
200	75	300
225	75	325
250	75	350
275	75	375
300	75	400
Hollowcore		
150	65	215
200	65	265
300	65	365
400	65	465
Spaced Hollowcore at 1800 crs		
150	65	215
200	65	265
300	65	365
400	65	465
Double Tees		
200	65	265
250	65	315
300	65	365
350	65	415
400	65	465
450	65	515
500	65	565
550	65	615
600	65	665



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Load/Span Tables for All Flooring Products (indicative only). **Product Data Sheet**

Flat Slab Load/Span Table

Unfactored maximum superimposed live load (Q_b) in kilopascals (kPa), (assuming no superimposed dead load ie. SDL = 0kPa).

75mm of 25MPa topping concrete

Flat Slab	Self wt	Simply supported span (m)													
depth (mm)	(kPa)	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	
75	3.8	19.0	15.0	11.6	8.4	7.0	5.7	4.4							
100	4.4		20.0	15.5	12.0	9.7	7.6	6.0	4.7	3.7					
125	5.0				15.6	12.2	9.7	7.7	6.1	4.8	3.8	2.9			
150	5.6					14.8	11.7	9.4	7.5	6.0	4.8	3.7	2.9	2.1	

Note: Indicates propping not required for these spans.

75mm Flat Slab

Topping	Self wt	Simply supported span (m)										
depth (mm)	(kPa)	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5
65	3.5	17.0	13.0	9.3	7.5	6.0	4.7					
90	4.1			14.0	10.2	7.9	6.6	5.0	4.0			
100	4.4					10.0	7.0	6.0	4.6	3.5	2.8	
125	5.0						9.0	8.0	6.0	4.0	3.5	2.3

Rib & In-fill. Ribs spaced at 900mm centres

Unfactored maximum superimposed live load (Q_b) in kilopascals (kPa), (assuming no superimposed dead load ie. SDL = 0kPa).

75mm of 25MPa topping concrete on rough sawn 25mm thick pinus radiata timber in-fills

Rib	Self wt	Simply supported span (m)														
depth (mm)	(kPa)	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	10	11	12	13	14
100	2.6	10.3	7.0	6.0	4.0	3.5	2.0									
125	2.8		10.8	7.6	6.7	5.5	4.3	3.7								
150	2.9				8.3	6.4	5.5	4.8	4.0	3.5						
175	3.0						8.4	6.4	5.5	4.8	4.0	2.5				
200	3.2							8.8	7.3	6.3	5.5	4.0	2.5			
225	3.3								9.0	7.8	6.5	4.5	3.0			
250	3.5									8.9	8.0	6.0	4.0	3.0		
275	3.5										9.5	7.0	5.0	3.5	2.5	
300	3.7											8.5	6.5	4.5	3.5	2.0

Hollowcore

Unfactored maximum superimposed live load (Q_b) in kilopascals (kPa), (assuming no superimposed dead load ie. SDL = 0kPa).

Unpropped and free of filled cores, beyond Figs C18 NZS3101:Part 2:2006, for added shear capacity to the left of the solid line.

75mm of 25MPa topping concrete

Hollowcore	Self wt	Simply supported span (m)														
depth (mm)	(kPa)	5.5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
150 Echo	4.0	11.0	9.6	7.2	5.4	4.8										
200 Echo	4.5			11.0	8.0	6.0	4.6	3.7								
200 Elematic	4.2			10.7	7.8	5.8	4.5	4.0	2.9							
300 Echo	5.5						10.3	8.1	7.1	6.2	5.0	5.0	3.9			
300 Elematic	5.2						8.5	7.2	5.5	4.7	3.6	4.9	3.7			
400 Echo	6.3									8.9	7.7	6.5	5.7	4.6	3.6	3.1
400 Elematic	6.2									8.1	7.2	6.4	5.5	4.9	3.8	3.9

Notes: Echo equipment is usually located in Auckland

Elematic equipment is usually located in Otaki and Christchurch

Double Tee

Unfactored maximum superimposed live load (Q_b) in kilopascals (kPa), (assuming no superimposed dead load ie. SDL = 0kPa).

Unpropped to the left of the solid line.

75mm of 25MPa topping concrete

Double Tee	Self wt	Simply supported span (m)														
depth (mm)	(kPa)	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
200	3.5	14.0	8.0	4.7	3.7											
250	3.7		12.5	7.5	6.4	4.8	3.4									
300	3.9			12.9	9.1	6.9	5.3	4.0								
350	4.1				11.7	9.5	7.1	5.3	4.1	3.2						
400	4.4					12.0	9.1	6.9	5.8	4.6	3.7					
450	4.6					13.0	10.5	9.2	7.4	5.8	4.5	4.1	2.7			
500	4.8						12.8	9.9	8.1	7.1	6.1	5.0	4.2	3.3	2.6	
550	5.0							14.0	11.2	9.0	7.3	5.9	4.8	4.0	3.3	2.6
600	4.8								12.5	10.1	8.2	6.7	5.4	4.3	3.5	2.7