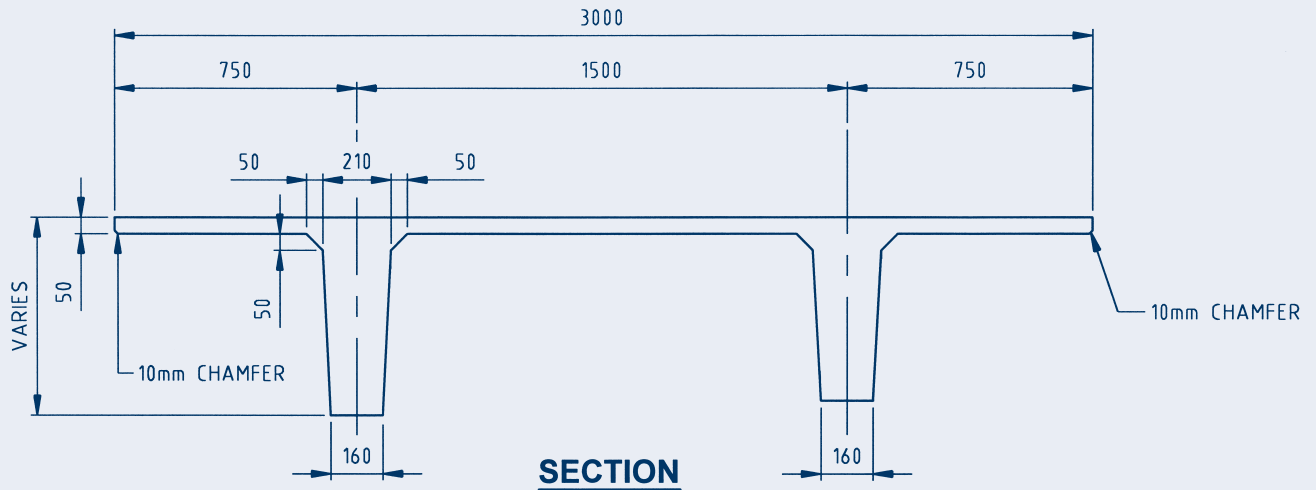




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Super Double Tee by HEB Precast



Safe Load/Span Tables

The table shows maximum superimposed live loads (kPa). 5 unit depths are shown.

Design Span (m)	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
200 mm deep	9.5	5.5	3.0												
300 mm deep			9.5	8.0	5.0	3.3	2.0								
400 mm deep					8.7	7.9	6.0	4.4	2.8	1.9					
500 mm deep						9.0	6.9	5.3	4.1	4.2	3.3	2.4	1.5		
600 mm deep								8.6	6.9	5.5	4.4	3.5	3.5	2.7	1.9

Notes

- 1 The maximum safe loads shown are based on simply supported spans for both serviceability (SLS) and ultimate (ULS) limit states. The section properties are based on transformed sections for maximum spans.
- 2 The load span table is based on a 65 mm topping with a topping concrete strength 20 MPa at 28 days.
- 3 Specified SUPER DOUBLE TEE Concrete strength is 40 MPa at 28 days
- 4 A theoretical estimate of residual short and long term camber can be provided for specific design cases.
- 5 Calculated deflection due to live load has been limited to span/500. If design is required for sustained super dead and/or live loads then long term creep deflection must be checked. This may result in a requirement for a more robust unit.
- 6 The load/span table is based on the durability requirements specified in NZS 3101:2006 for an internal environment exposure classification. Where a more severe exposure classification is specified then the load/span table live loads may require downgrading.

- 7 Minimum residual seating requirements are specified in NZS3101:Part 1:2006 at chapter 18, cl. 18.7.4. After allowing for tolerances this net value is usually 75mm in the span direction for both flange and leg support.
- 8 Dimensional tolerances are specified in NZS 3109:1997 Table 5.1 for precast concrete components.
- 9 Lifting devices are cast in. Chains or stops must be of the correct length to load each lifting device evenly and must be no more than 30 degrees off vertical. Units, if stored on site, are to be stacked on firm level ground, and dunnaged under the lifting points.
- 10 Topping concrete depths detailed are minimums and topping screeds are to be set to allow for camber and deflection due to the dead load of the topping. Good trade practice is required to seal the longitudinal flange joints between units prior to placing the topping concrete. The topping concrete must be cured for a minimum period of 7 days to avoid long term shrinkage. Protect the fresh topping concrete from rapid drying causing early age plastic shrinkage drying cracks. Saw cut control joints in the topping within 24 hours of completing finishing operations in order to control long term drying shrinkage cracking. The location of these joints may be specified by the Consulting Engineer.

Both Flange and Leg Support Seating is available

Section Properties

Are based on a 3000mm wide module Double Tee. The I, Zb, Zt properties shown in the table are the bare unit properties for the Double Tee depths shown. The concrete density is assumed to be 24 kN/cu.m.

	Bare Unit Area m ²	yb mm	I 10 ⁻⁴ m ⁴	Zb 10 ⁻³ m ³	Zt 10 ⁻³ m ³	Bare Unit kg/m	Bare Unit kg/m ²	Bare Unit kN/m ²	Composite Unit kN/m ²
200 mm deep	0.217	146	5.813	3.98	10.76	521	174	1.70	3.30
300 mm deep	0.256	216	18.740	8.68	22.31	614	205	2.01	3.61
400 mm deep	0.293	282	41.830	14.83	35.45	703	234	2.30	3.90
450 mm deep	0.3127	314	58.250	18.55	42.84	750	250	2.45	4.06
500 mm deep	0.328	347	76.570	22.07	50.05	787	262	2.57	4.18
600 mm deep	0.361	411	124.000	30.17	65.61	866	289	2.83	4.45

Design

HEB Precast can supply Producer Statements for both the design and manufacture of the SUPER DOUBLE TEE units.

Transport And Site Erection

HEB Precast can supply an additional service of site erection. We can supply experienced personnel to help the contractor/builder place the SUPER DOUBLE TEE units on site.

Quotations And Preliminary Design

HEB Precast has a free quotation and preliminary design service. The preliminary design will indicate the most economical SUPER DOUBLE TEE units for the loads and spans specified.

For Free Quotations Contact: HEB Precast

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