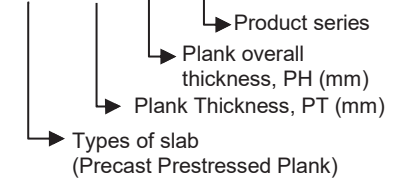


PRECAST PRESTRESSED PLANK

CODE OF COMPONENTS

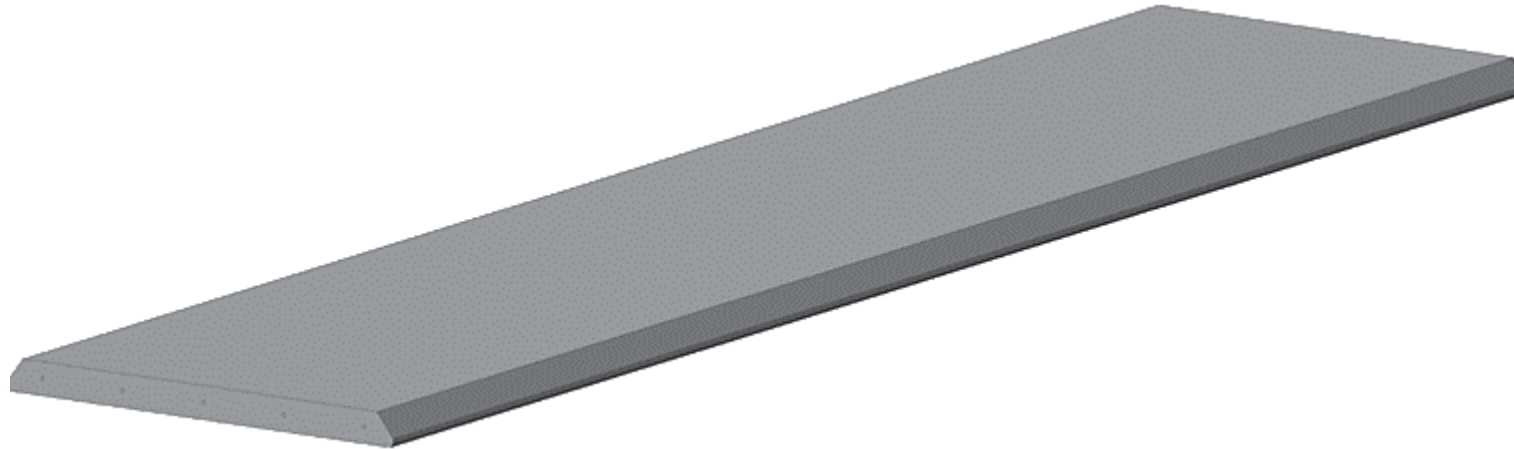
PSP90-165-01



Specification

Final Stage Design

- Input value of Superimposed Dead Load (SDL) and Live Load (LL) shall be adopted by users.
- Selfweight of precast prestressed slab, are already compute in the provided table.
- Load should be uniformly distributed.
- The application of concentrated load area on precast element shall be referred to competent person.
- All end condition shall be designed as condition as per BS 8110.
- Minimum concrete grade C50 for precast slab & grade C35 for cast in-situ toppings.
- All design is compliance with BS 8110 Part 1:1997 and BS 8110 Part 3:1985
- For the design of ultimate moment capacity, the strand position is considered 40mm from the slab soffit
- Minimum concrete grade C35 for initial stage design.
- Minimum concrete compressive strength of 25 N/mm² for first lifting.
- Minimum concrete compressive strength of 35 N/mm² for installation stage.
- Concrete cover to main reinforcement = 40mm.
- Fire resistance = 2 hours.
- Characteristic of strand
- Tensile (T) $f_{pu} = 1860$ Mpa
- The connection system between precast component and cast in-situ structure shall be referred to competent person.
- The design has been prepared in accordance with the BS 8110 (1997).



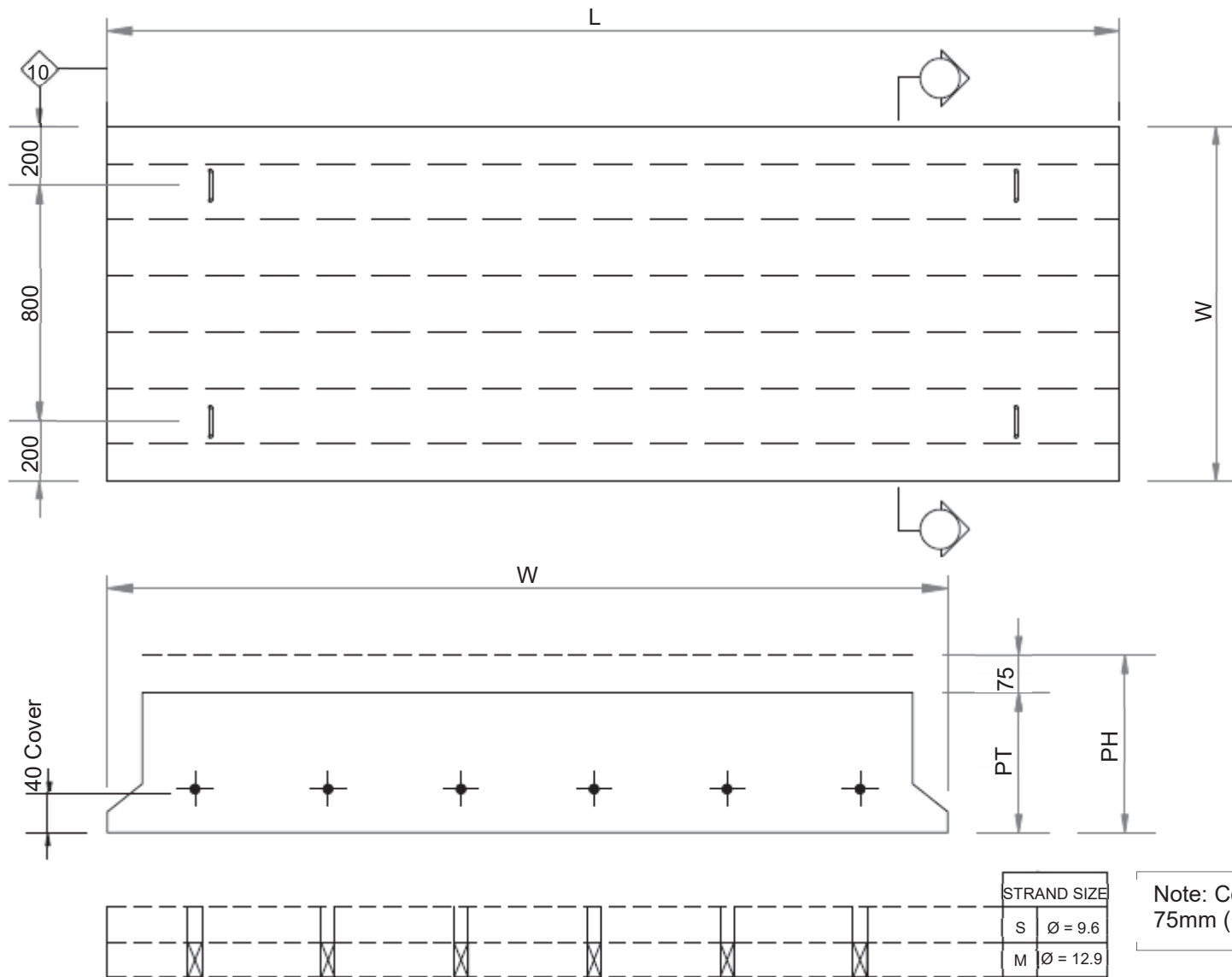
3D view



Front view

Precast Prestressed Plank

PRECAST PRESTRESSED PLANK – DETAILS



Note: Concrete cover 75mm (+0mm /-5mm)

Typical section & reinforcement arrangement

Table 30

Code of Component	Dimension			Loading Data	(kN/m ²)		
	Plank Thickness PT (mm)	Plank Width W (mm)	Overall Thickness PH (mm)	Superimposed Dead Load SDL	1.7	1.7	1.7
				Live Load LL	2.5	3.0	4.0
				Length L (mm)	Strand (Nos)		
PSP90-165-01	90	1200	165	3000	5S	5S	5S
PSP90-165-02	90	1200	165	3500	5S	5S	5M
PSP90-165-03	90	1200	165	4000	5M	5M	5M
PSP90-165-04	90	1200	165	4500	6M	6M	6M

For reinforcement arrangement refer to page 135 – page 136

Table 31

Code of Component	Dimension			Loading Data	(kN/m ²)		
	Plank Thickness PT (mm)	Plank Width W (mm)	Overall Thickness PH (mm)	Superimposed Dead Load SDL	1.7	1.7	1.7
				Live Load LL	2.5	3.0	4.0
				Length L (mm)	Strand (Nos)		
PSP100-175-01	100	1200	175	3000	5S	5S	5S
PSP100-175-02	100	1200	175	3500	5S	5S	5S
PSP100-175-03	100	1200	175	4000	5S	5M	5M
PSP100-175-04	100	1200	175	4500	5M	5M	5M
PSP100-175-05	100	1200	175	5000	5M	5M	5M
PSP100-175-06	100	1200	175	5500	7M	7M	7M

For reinforcement arrangement refer to page 135 – page 136

Table 32

Code of Component	Dimension			Loading Data	(kN/m ²)		
	Plank Thickness PT (mm)	Plank Width W (mm)	Overall Thickness PH (mm)	Superimposed Dead Load SDL	1.7	1.7	1.7
				Live Load LL	2.5	3.0	4.0
				Length L (mm)	Strand (Nos)		
PSP125-200-01	125	1200	200	3000	5S	5S	5S
PSP125-200-02	125	1200	200	3500	5S	5S	5S
PSP125-200-03	125	1200	200	4000	5S	5S	5S
PSP125-200-04	125	1200	200	4500	5S	5S	6S
PSP125-200-05	125	1200	200	5000	7S	7S	5M
PSP125-200-06	125	1200	200	5500	5M	5M	5M
PSP125-200-07	125	1200	200	6000	5M	5M	6M
PSP125-200-08	125	1200	200	6500	6M	7M	7M

For reinforcement arrangement refer to page 135 – page 136

Table 33

Code of Component	Dimension			Loading Data	(kN/m ²)		
	Plank Thickness PT (mm)	Plank Width W (mm)	Overall Thickness PH (mm)	Superimposed Dead Load SDL	1.7	1.7	1.7
				Live Load LL	2.5	3.0	4.0
				Length L (mm)	Strand (Nos)		
PSP150-225-01	150	1200	225	3000	5S	5S	5S
PSP150-225-02	150	1200	225	3500	5S	5S	5S
PSP150-225-03	150	1200	225	4000	5S	5S	5S
PSP150-225-04	150	1200	225	4500	5S	5S	5S
PSP150-225-05	150	1200	225	5000	5S	5S	5S
PSP150-225-06	150	1200	225	5500	5S	5S	6S
PSP150-225-07	150	1200	225	6000	7S	7S	7S
PSP150-225-08	150	1200	225	6500	5M	5M	5M
PSP150-225-09	150	1200	225	7000	5M	6M	6M
PSP150-225-10	150	1200	225	7500	6M	7M	7M

For reinforcement arrangement refer to page 135 – page 136