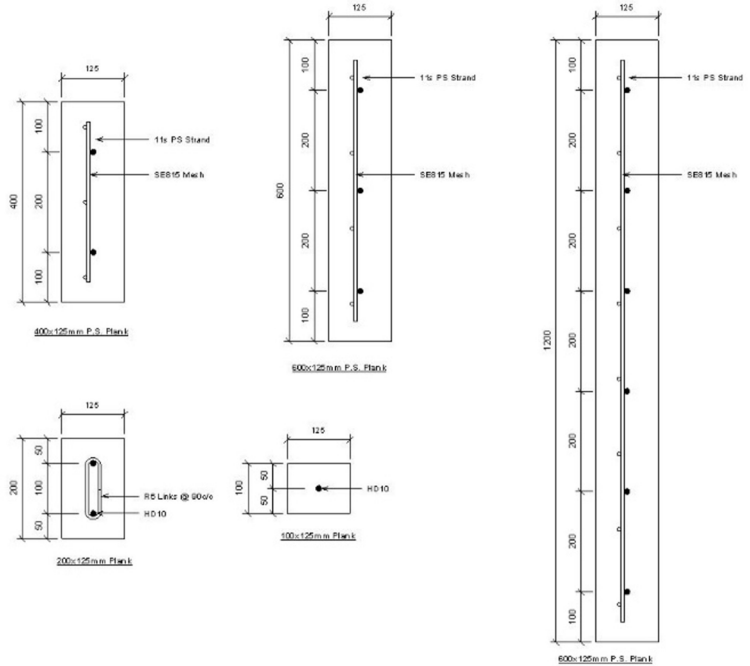


# Precast Pre-Stress Concrete Planks For Retaining Walls



Precast pre-stress concrete planks for retaining walls, an alternative to traditional timber planks. These concrete planks have an impressive 100-year lifespan, outperforming timber planks. Instead of using multiple timber planks, these concrete planks provide a single solution that saves costs and construction time. No need to worry about protecting steel columns or treating timber anymore, thanks to these hassle-free concrete planks. Their flexibility in width, suitability for marine environments, and zero-end movement make them a superior choice, backed by proven resistance to weather and time, with zero losses. Elevate your retaining wall projects with the durability and efficiency of precast, pre-stressed concrete planks.



Planking Dimensions		P.S Reinf. ( $f'c = 50\text{MPa}$ ) Jacking stress = 1100MPa (81.5kN/strand)			Transverse Reinf.	Maximum applied load (kPa)		
Depth	Thickness	Long Reinf.	$\text{ØMn}$	$\text{ØVn}$	SE72 Mesh	1.2	1.5	1.8
400	125	2/ 11s	10	15		62.5	50.0	41.7
600	125	3/ 11s	15	22.5				
1200	125	6/ 11s	30	45				

Planking Dimensions		Standard Reinf. ( $f'c = 50\text{MPa}$ )			Transverse Reinf.	Maximum UDL ( $\text{Øw}_{ult}$ ) for panel span in meters (kN/m /m)		
Depth	Thickness	Long Reinf.	$\text{ØMn}$	$\text{ØVn}$	SE72 Mesh	1.2	1.5	1.8
100	125	HD10	1.9	3.2	n/a	53.3	42.7	35.6
150	125	2 HD10	3.8	5	R6 @90c/c	55.6	44.4	37.0

Planks					
Type	Depth	Thickness	C/c wall span	Plank length	Weight
	mm	mm	mm	mm	Kg
P100	100CAP	125	1800/1750	1540	56
P200	200	125	1800/1750	1540	115
P400	400	125	1800/1750	1540	230
P600	600	125	1800/1750	1540	345
P1200	1200	125	1800/1750	1540	700

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## Concrete planks versus timber planks

### **Timber planks for building retaining walls have many limitations and deficiencies:**

1. Limited life span.
2. Double or triple planking due to strength requirements. Cost/construction time.
3. Galvanised steel columns require protection due to chemical treatment leaching.
4. Centre to Centre limitations.
5. H6 timber treatment for marine locations.
6. Slow erection rate due to size limitations and double planking.
7. Plank movement at ends due to shrinkage.
8. Deteriorating with time.
9. 5% timber losses.

### **Precast Pre-stressed Concrete planks, we offer:**

1. 100 years life span.
2. Single plank for full wall height. 50MPa concrete with prestressing.
3. No need for any protection to concrete contact with steel columns.
4. 1600 mm standard C/C for steel columns and 1750-1800 mm C/C for precast column system.
5. Flexible plank width to fit any column centre to centre on special orders.
6. Normal use for marine environment.
7. High erection rate with variable plank heights. (1200mm/600mm/400mm/200mm/100mm)
8. Zero ends movement.
9. Proved concrete resistance to weather and time.
10. Zero losses.

Atlas Tilt Slab product by licence from retaining wall supplies limited.

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