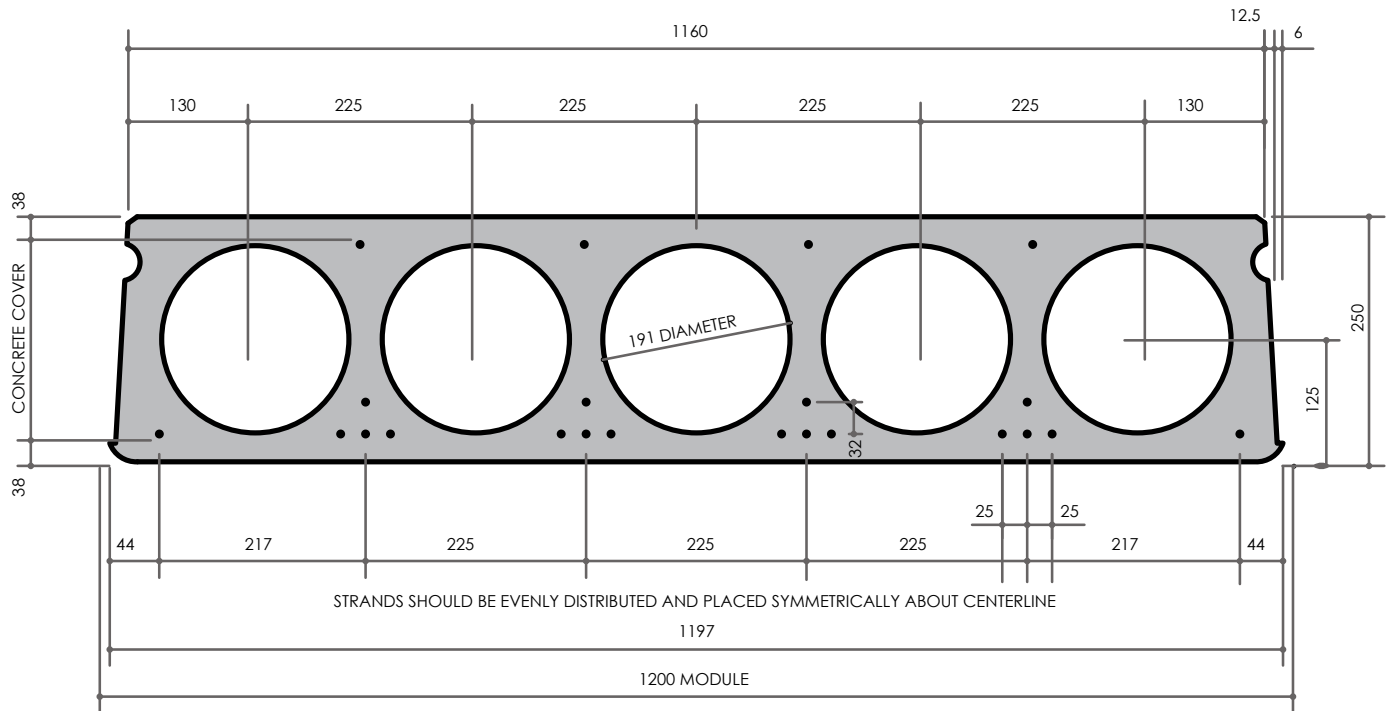


25cm Slab and Reinforcing Geometry

These tables are for general descriptive purposes only.

Actual design load tables are dependent on local codes and standards, material properties and product end usage.



Load Table of Allowable Superimposed Service Loads in kN/sq. metre

| Strand | Area of Steel (mm ²) | φMn (kN-m) | Span in metres | | | | | | | | | | | | | | | | | | |
|--------------|----------------------------------|------------|----------------|------|------|------|------|------|------|-----|-----|------|-----|------|-----|------|-----|------|-----|------|-----|
| | | | 6 | 6.5 | 7 | 7.5 | 8 | 8.5 | 9 | 9.5 | 10 | 10.5 | 11 | 11.5 | 12 | 12.5 | 13 | 13.5 | 14 | 14.5 | 15 |
| 4 - 9mm | 219 | 74.1 | 4.3 | 3.3 | 2.5 | 1.9 | | | | | | | | | | | | | | | |
| 6 - 11mm | 329 | 109.6 | 7.3 | 5.9 | 4.8 | 3.9 | 3.2 | 2.6 | 2.0 | 1.6 | | | | | | | | | | | |
| 4 - 13mm | 395 | 129.1 | 9.0 | 7.4 | 6.1 | 5.0 | 4.1 | 3.4 | 2.8 | 2.3 | 1.9 | 1.5 | | | | | | | | | |
| 8 - 11mm | 438 | 144.1 | 14.5 | 12.0 | 10.1 | 8.5 | 7.2 | 6.1 | 5.2 | 4.5 | 3.8 | 3.3 | 2.8 | 2.4 | 2.0 | | | | | | |
| 6 - 9mm | 445 | 144.6 | 14.6 | 12.1 | 10.1 | 8.5 | 7.2 | 6.2 | 5.3 | 4.5 | 3.8 | 3.3 | 2.8 | 2.4 | 2.0 | | | | | | |
| 10 - 11mm | 548 | 177.4 | 15.4 | 14.3 | 12.9 | 11.0 | 9.4 | 8.0 | 6.9 | 6.0 | 5.2 | 4.5 | 3.9 | 3.4 | 3.0 | 2.5 | 2.2 | | | | |
| 6 - 13mm | 592 | 188.5 | 15.4 | 14.3 | 13.3 | 11.8 | 10.1 | 8.7 | 7.5 | 6.5 | 5.7 | 4.9 | 4.3 | 3.8 | 3.3 | 2.8 | 2.5 | 2.1 | 1.8 | | |
| 8 - 9mm | 594 | 188.9 | 15.4 | 14.3 | 13.3 | 11.8 | 10.1 | 8.7 | 7.5 | 6.5 | 5.7 | 5.0 | 4.3 | 3.8 | 3.3 | 2.9 | 2.5 | 2.1 | 1.8 | | |
| 4+4 - 9+13mm | 614 | 195.6 | 15.4 | 14.3 | 13.3 | 12.3 | 10.6 | 9.1 | 7.9 | 6.8 | 6.0 | 5.2 | 4.6 | 4.0 | 3.5 | 3.0 | 2.6 | 2.3 | 2.0 | | |
| 10 - 9mm | 742 | 231.2 | 15.4 | 14.3 | 13.3 | 12.4 | 11.6 | 10.9 | 9.7 | 8.5 | 7.5 | 6.6 | 5.8 | 5.1 | 4.5 | 4.0 | 3.5 | 3.1 | 2.7 | 2.4 | 2.1 |
| 8 - 13mm | 768 | 239.1 | 15.4 | 14.3 | 13.3 | 12.4 | 11.6 | 10.9 | 10.1 | 8.9 | 7.8 | 6.9 | 6.1 | 5.4 | 4.7 | 4.2 | 3.7 | 3.3 | 2.9 | 2.6 | 2.2 |
| 5+5 - 9+13mm | 790 | 244.1 | 15.4 | 14.3 | 13.3 | 12.4 | 11.6 | 10.9 | 10.3 | 9.1 | 8.0 | 7.0 | 6.2 | 5.5 | 4.9 | 4.3 | 3.8 | 3.4 | 3.0 | 2.7 | 2.3 |
| 10 - 13mm | 987 | 293.9 | 15.4 | 14.3 | 13.3 | 12.4 | 11.6 | 10.9 | 10.3 | 9.8 | 9.3 | 8.9 | 7.9 | 7.1 | 6.3 | 5.7 | 5.1 | 4.5 | 4.1 | 3.6 | 3.3 |

(Includes 0.5 kN/m² dead load)

Values below lower heavy line indicate web shear controls.

Values above upper heavy line indicate long-time camber less than zero with no superimposed service loads.

Slab Selection and Material Properties

| | |
|---------------------------|---|
| Net Area | 149 262 mm ² |
| Moment of Inertia | 1 252.3 x 10 ⁶ mm ⁴ |
| Centroid From Slab Bottom | 125 mm |
| Section Modulus, Top | 10 018 x 10 ³ mm ³ |
| Section Modulus, Bottom | 10 018 x 10 ³ mm ³ |
| Web Width | 217 mm |
| V/s Ratio | 55.3 mm |
| Self Weight | 3.15 kN/m ² 320.8 kg/m ² |

| | |
|--------------------------|------------------------------------|
| Strength of Concrete | 40 MPa |
| Strength at Release | 28 MPa |
| Unit Weight of Concrete | 2400 kg/m ³ |
| Ultimate Steel Strength | 1860 MPa |
| Strand Jacking Stress | 1395 MPa |
| Strand Type | Low Relaxation |
| Grout Joint Requirements | 161 m ² /m ³ |

Self weights are based on grouted section.

