

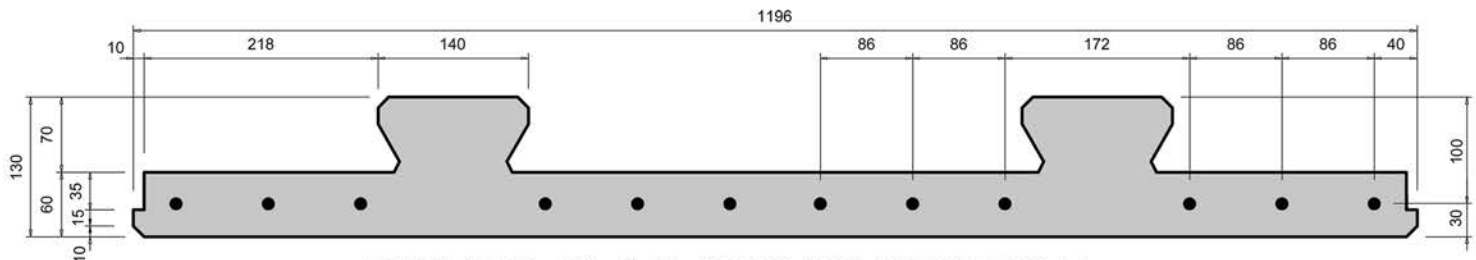


Ribbed Slabs

Precast, prestressed half-slabs with concrete upstands designed to provide:

- slab stiffness during handling
- spacing for mesh reinforcement.
- positive ties between the slabs and on-site concrete topping and a composite action between both.

Typical applications: townhouses, commercial buildings, hospitals



RIBBED SLAB CROSS SECTION

Technical Data:

CROSS SECTIONAL PROPERTIES

Width mm	1,196
Height of plank mm	60
Cross sectional net area mm ²	88,261
Top fiber to neutral axis (Y _{top}) mm	87
Bottom fiber to neutral axis (Y _{bot}) mm	43
Moment of inertia (I _x) mm ⁴	486 x 10 ³
Self weight of product kg/m ²	312

CONCRETE PROPERTIES

Concrete density, kg/m ³	2,400
Strength @28 days, f' _c , MPa	41
Strength @ release, f' _{ci} , MPa	28
Modulus of elasticity @ service, E _c , MPa	30 x 10 ³

PRESTRESSING STEEL

7-wire, high tensile, helical strand	
Ultimate strength, f _{pu} , MPa	1,860
Yield strength, f _{py} , MPa	1,630
Modulus of elasticity, E _p , MPa	195 x 10 ³
Nominal diameter, D, mm	9
Area of wire, A _p , mm ²	55

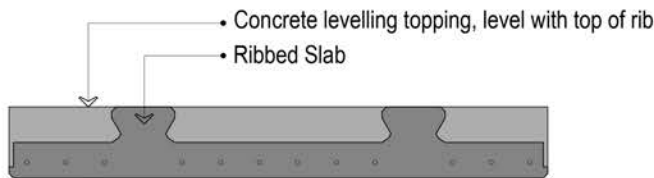
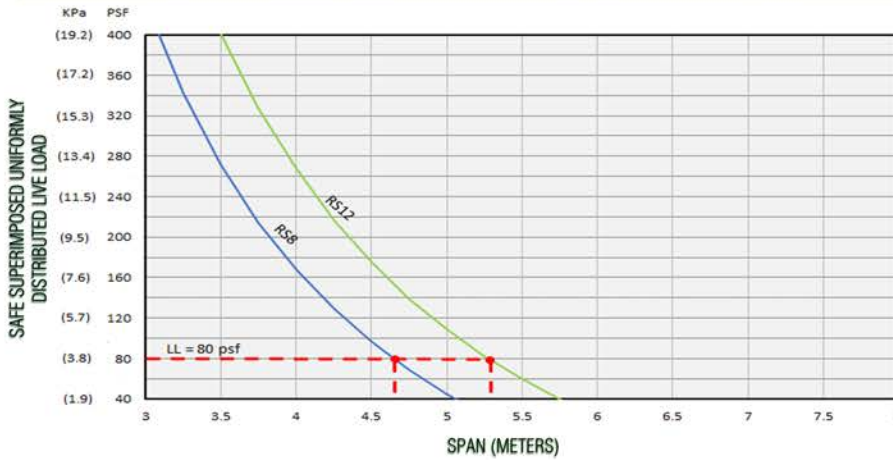
CONCRETE TOPPING

To produce a flat surface and solid slab section, add concrete topping level with the top of the rib in the space between ribs. Minimum strength @ 28 days, f'_c = 21 MPa (3,000 psi).

To increase capacity of the ribbed slab, add structural topping of 50 mm from the top of rib. Minimum strength @ 28 days, f'_c = 21 MPa (3,000 psi)

Wire mesh reinforcement: 6 mm diameter at 150 mm o.c.

CAPACITY CURVE OF RIBBED SLAB WITH TOPPING LEVEL WITH TOP OF RIB

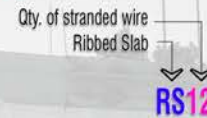


RIBBED SLAB WITH LEVELLING TOPPING

Guide in using the ribbed slab capacity curve :

1. Service live load (LL) shall be determined by the user/ designer.
2. Locate the live load in the graph.
3. Select the type of ribbed slab depending on the span needed.

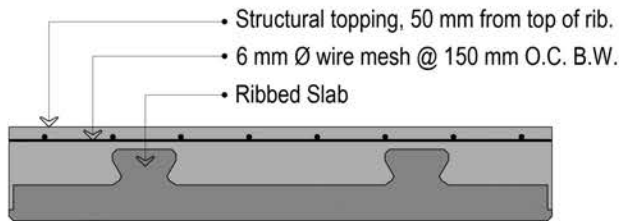
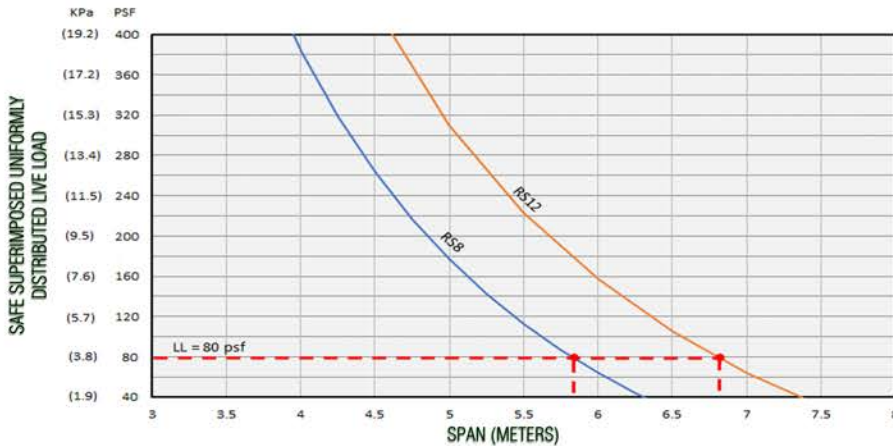
Legend :



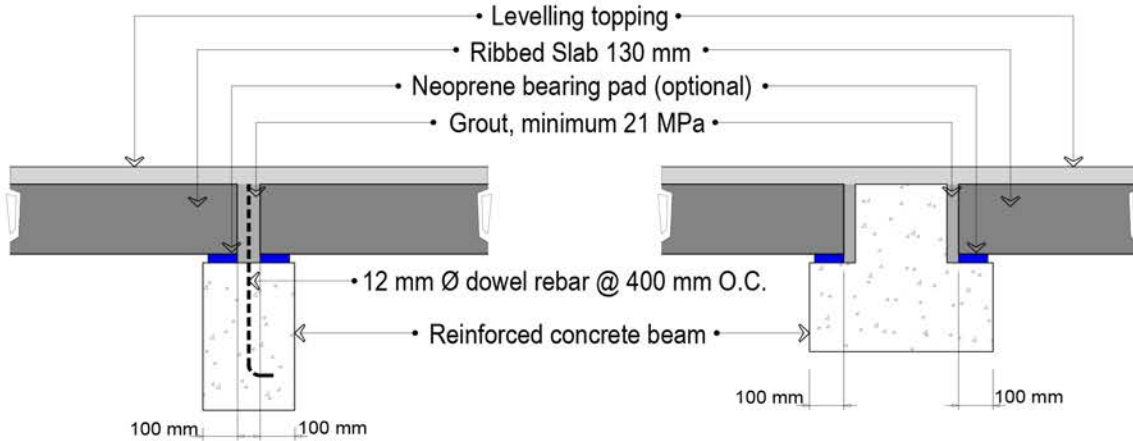
Note :

For higher loads and/or longer spans, please contact your Jackbilt Precast Specialist.

CAPACITY CURVE OF RIBBED SLAB WITH 50 mm STRUCTURAL TOPPING

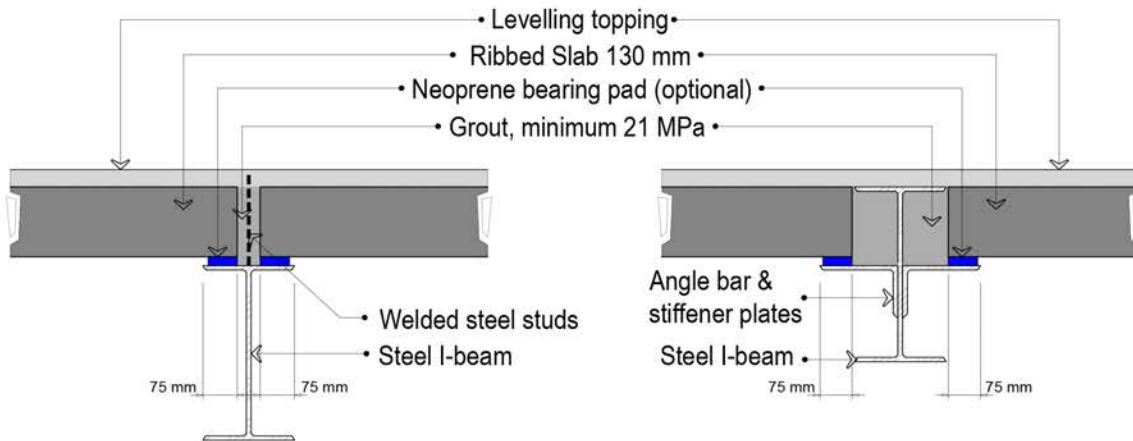


RIBBED SLAB WITH ADDITIONAL 50 mm STRUCTURAL TOPPING



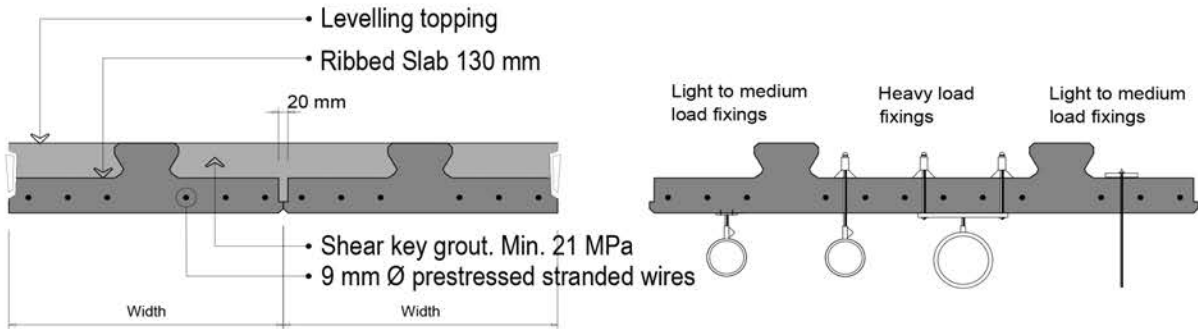
CONNECTION DETAIL ON TOP OF CONCRETE BEAM

CONNECTION DETAIL ON CORBEL TYPE CONCRETE BEAM



CONNECTION DETAIL ON TOP OF STEEL BEAM

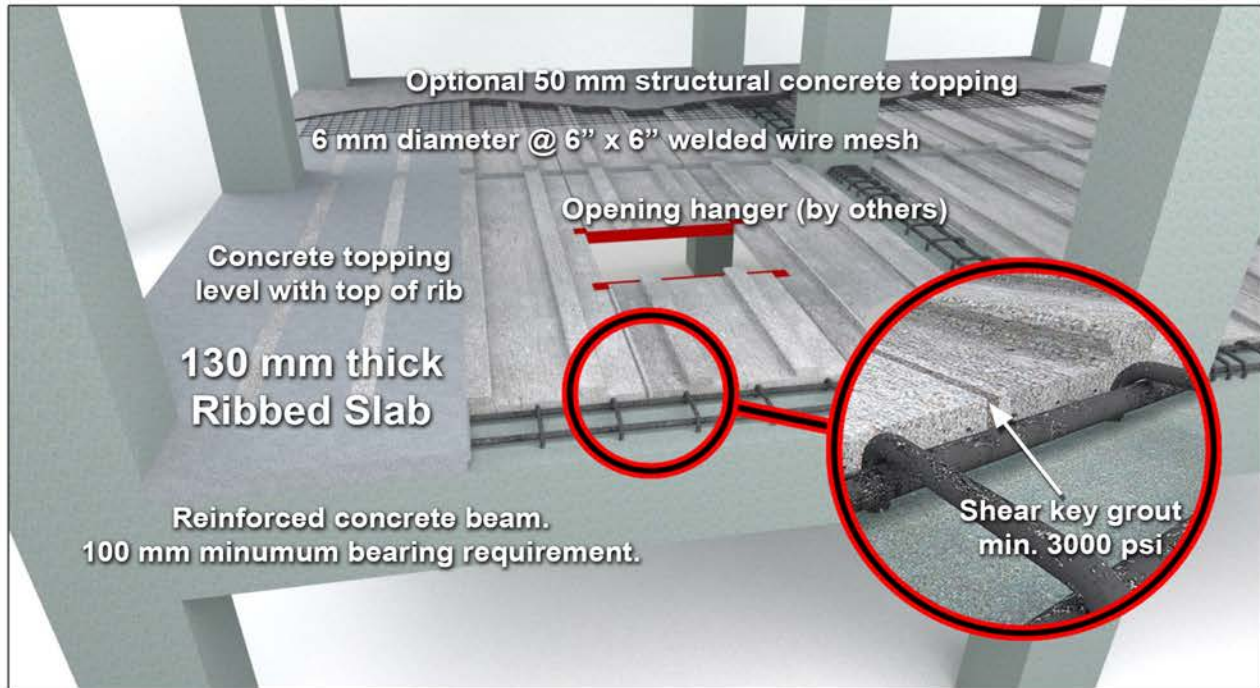
CONNECTION DETAIL INTEGRATED WITH STEEL BEAM



SHEAR KEY CONNECTION DETAIL

LOAD FIXINGS DETAIL

TYPICAL INSTALLATION



SHORING :

Only 1 shoring needed for every 3 meter span.



SMOOTH SOFFIT:

- No need for drop ceiling.
- Directly paintable.