

# choosing the right flooring unit

Stresscrete offers four standard types of flooring units, Unispan, Interspan, Hollowcore and Double Tee. Each has its own unique characteristics and advantages, but which one is right for your project? When choosing the right flooring unit for your project, you may need to consider the following:

## CEILING PROFILE

Unispan and Hollowcore have a flat unit profile, which may

be left uncovered eliminating the need for a suspended ceiling to achieve a flat look. Please check with your local Stresscrete branch to satisfy yourself that our 'off the form' finish meets your requirements. A paint finish may require additional surface preparation by the painting contractor.

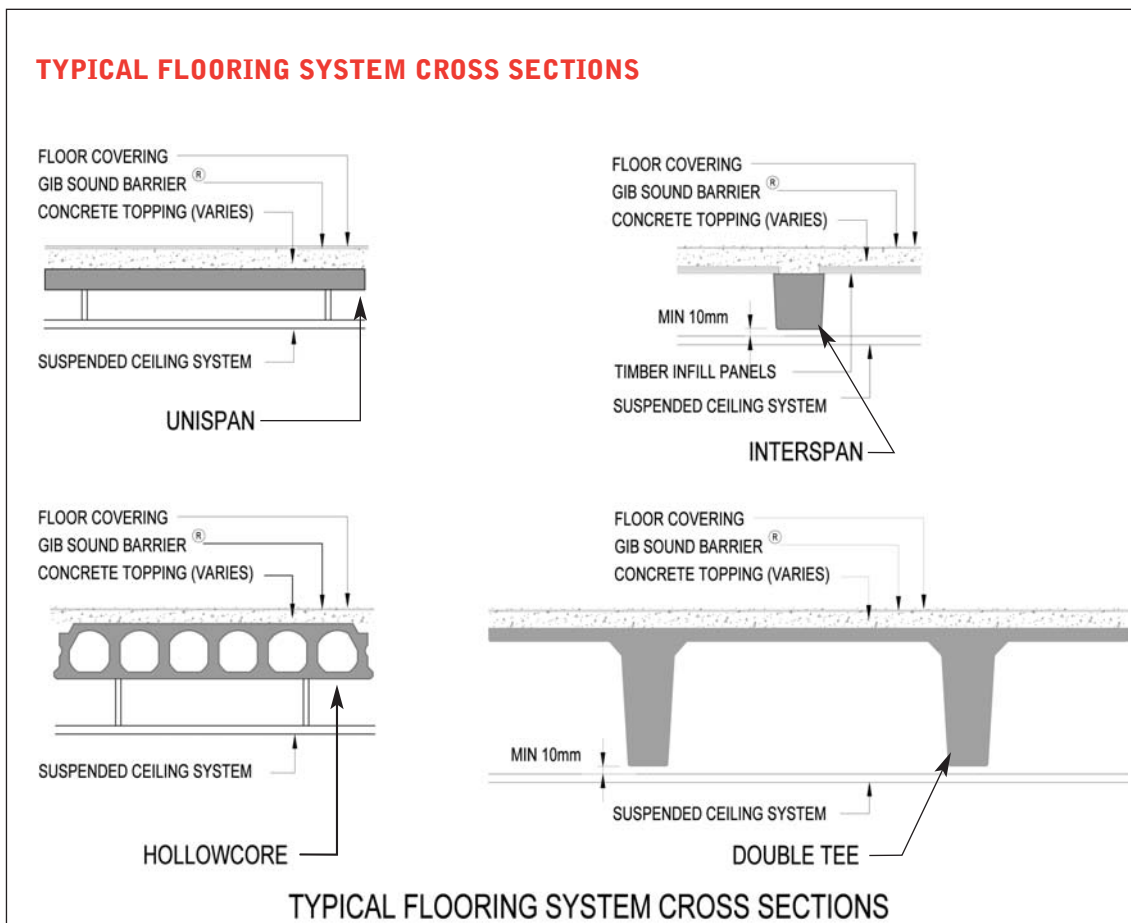
Interspan and Double Tees have a stepped profile and are easily fitted with a suspended ceiling to achieve a flat look.

A stepped profile has the advantage of being able to run services parallel between the vertical ribs.

## FLOOR LOADING AND DESIGN SERVICES

Floors are designed to comply with the requirements of the New Zealand Standards and Building Code. To ensure best practice, our staff maintains contacts with international professional groups and industry leaders.

Stresscrete's professional staff



are there to assist you with your specific floor design requirements.

### **OVERALL FLOOR DEPTH**

The overall depth of the flooring system will vary depending on the concrete topping thickness (typically a minimum of 65 mm), flooring unit depth (dependent on span and load) and the ceiling cavity depth.

For residential construction, Unispan is typically the shallowest flooring unit followed by Interspan.

For commercial construction, Hollowcore is typically the shallowest flooring unit followed by Double Tees.

### **FLOOR PENETRATIONS / OPENINGS**

Interspan and Double Tees can easily accommodate large floor penetrations. Most penetrations, both large and small can be allowed for in the flooring units with forward planning and specific design.

It is more difficult to accommodate large penetrations in Unispan and Hollowcore because of the number and location of the prestressing strands in the units. Our designers are able to offer you advice on how best to deal with each situation.

### **FLOOR FINISHES**

All of the flooring units are typically designed to have a cast in-situ concrete topping. The quality of finish and treatment of the concrete topping surface should be specified and be compatible with any secondary finishes.

### **TRANSPORTATION**

Individual flooring units vary in weight and size and normally require trucking and craneage. Stresscrete can arrange your full transportation requirements.

### **ON SITE INSTALLATION AND HANDLING**

All of our units require some form of onsite mechanical handling. Crane capacity and site access should be considered when choosing a flooring unit.

Interspan is the easiest and lightest unit to install, followed by Unispan, Hollowcore and Double Tees.

### **DURABILITY**

Our standard flooring units can be designed for interior and exterior use. We should be made aware of the particular conditions at time of placing order.

### **FIRE RESISTANCE**

Flooring units require different fire ratings depending on their utilisation and location within

the structure. We should be made aware of any special fire rating requirements and our design team will incorporate these requirements into our design.

### **PRECAMBER**

All of the flooring units are prestressed concrete elements. The prestressing force causes the unit to have an upward (positive) precamber. Once the topping concrete is placed, the precamber will normally reduce to a more level (neutral) position.

The Stresscrete team can assist and guide you through each stage of the design process, from product selection to onsite installation. Please contact your nearest branch.

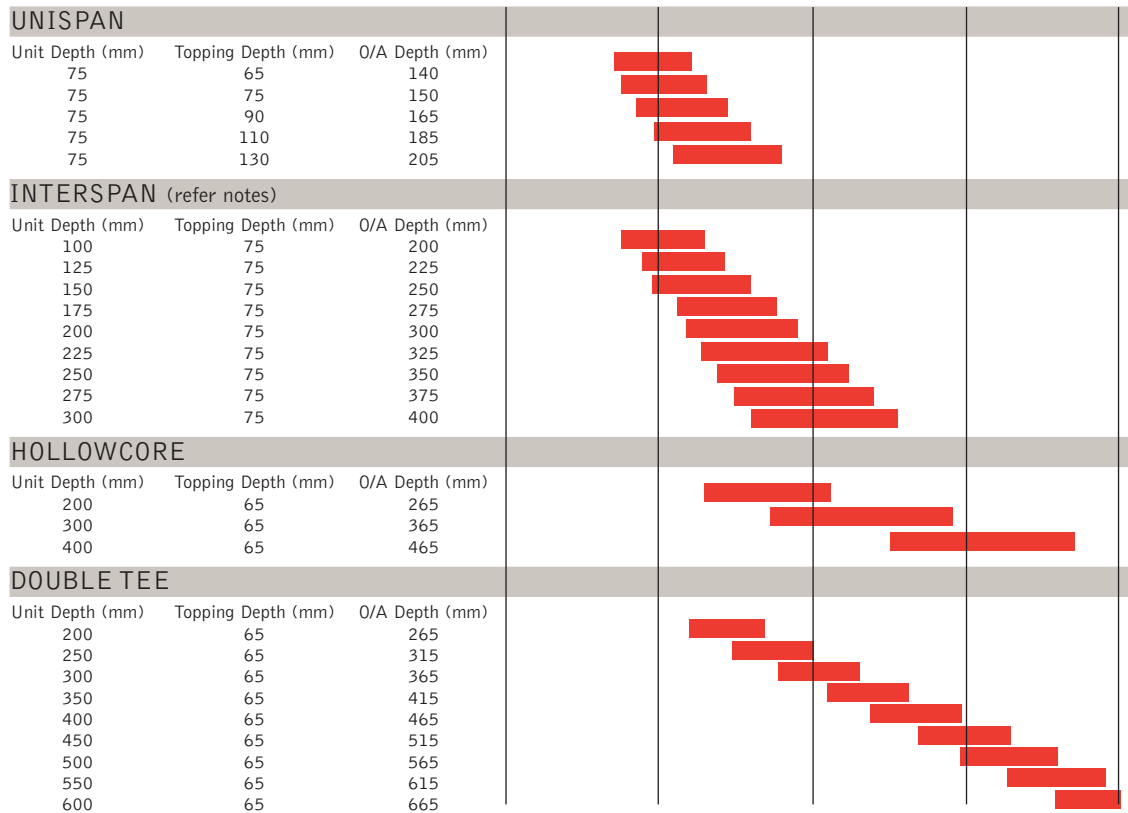
## COMPARATIVE SELECTION CHART FOR FLOOR SYSTEMS (INDICATIVE ONLY)

### RESIDENTIAL FLOORS

Live Load of 1.5 kPa and 0.5 kPa SDL

Typical Comparative span (m)

0 5 10 15 20

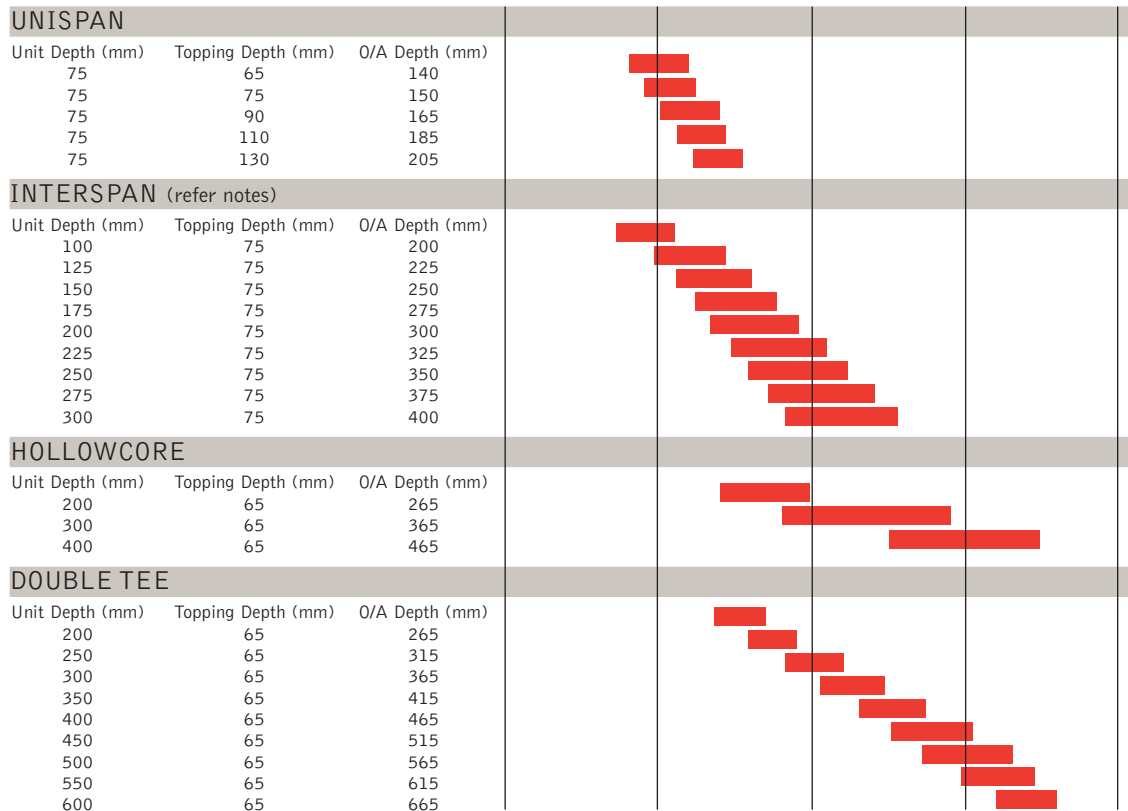


### COMMERCIAL FLOORS

Live Load of 3.0 kPa and 0.5 kPa SDL

Typical Comparative span (m)

0 5 10 15 20



NOTES: Charts are based on simply supported spans.

The overall floor depth quoted for Interspan is based on a 25mm deep timber plank. The plank depth, and hence overall floor depth, can vary depending on timber availability.