Welcome - let us show you a revolution in suspended concrete flooring
FASTER
LIGHTER
EASIER
Speedfloor is a unique and innovative suspended concrete flooring system
THE SYSTEM
At the heart of the system is a specially rollformed, galvanised steel joist that is lightweight, easily installed and eliminates the need for propping.
The system: design

• The joist and the associated formwork system was designed and exhaustively tested in New Zealand before its introduction into the global market place.
• The Speedfloor system and intellectual rights are solely owned by Speedfloor Holdings Ltd.
• The joists are manufactured from pre-galvanised high tensile steel in a single pass rollformer, where they are rollformed, punched, pressed and slotted to a high degree of accuracy at a fast production rate. Ends brackets are simply bolted to the joist, which is then ready for delivery.
The system: installation

- Joists are lightweight. Bundles are lifted into position and then individual joists placed by hand.
The system: installation

- Speedfloor joists generally spaced at 49 ¼” centers.
- Held in place using the lockbars which clip into slotted holes.
The system: installation

- Lockbars at 12” centres to support plywood formwork.
- No propping required.
The system: installation

- Full sheets of ½” plywood formwork are laid from above creating a working platform.
- Cam action of lockbars secures ply.
The system: installation

- No stools/chairs or spacers are required to hold the mesh off the formwork.
- Mesh sits on top section of joist, becoming embedded in the concrete.
The system: installation

- After 3 days lockbars and plywood are stripped from the underside revealing a clean surface ready for services or a fire rated suspended ceiling.
Job Costing
Price Comparison

• Save between 16% and 21% per ft\(^2\) on your flooring cost by refining the steel structure and using a lightweight, innovative flooring system.
Profiled Floor: Supplied and Installed

2877.12 sq ft @ $2.75/ ft² $7,912.08
Concrete 4” thick 36 @ $70.00/yd³ $2,520.00
Concrete Placing @ 32.5/ ft² $935.06
Mesh @ $0.13/ ft² $374.02
Lockbar & Ply Inst. & Rem. @ $0.35/ ft² $1,006.99

Total Floor For Comparison $12,748.15
Total Square Footage Installed Cost $4.43 ft²
Casino Apartments have been chosen to best illustrate visually the application of Speedfloor for the sake of comparing costs for a profiled floor decking system and the Speedfloor Composite Joist System.

In this case the columns, and beams, as well as the pumping and placing of the concrete, are considered to be common to any system installed. However, purlins required for standard floor decking, OWS Joists, shoring, bracing and formwork for alternate systems would require additional considerations.

Handrails, perimeter scaffolding, cranage, step-downs, openings, etc are all considered as common to both systems as well.
Design

• Speedfloor rollformed joists are made from high strength, pre-galvanised steel.
• Concrete slab topping designed for minimum compressive strength of 3200 PSI after 28 days.
• Floor system design conforms to Composite Structure Standards.
• Durability meets Building Codes’ performance criteria.
Fire

• Can meet 2 and 3 hour fire rating requirements.
• Options:
  ° Use fire rated ceiling i.e. Gypsum Board.
  ° Spray fire protection directly onto joists
  ° additional in-slab reinforcement
• Further details on request.
Acoustic

• Performance similar to conventional insitu poured concrete slab.
• Enhanced with addition of suspended ceiling.
• Further details on request.
Design

200 Series

250 Series

400 Series
Load Span

Load span graph – 75mm topping
PROJECT EXAMPLES
Route 66, Broadway

• This 7 storey building was constructed using a structural steel frame, Speedfloor suspended concrete flooring system and precast concrete cladding.
Route 66, Broadway

- The ground floor retail has exposed Speedfloor joists fireproofed using intumescent paint.
- The store’s services, such as electrical cabling, have been accommodated through the exposed joists.
The lightweight nature of the Speedfloor and Structural Steel combination resulted in minimal foundations and a 16 week building program for this 10 storey carpark.
The ramp structure is cantilevered over the existing building next door via trusses on the roof which required the carpark decks to be in place before the ramps decks could be built.
Grafton Carpark

- This 22,000 m² (220,000 ft²) carpark is staff and patient parking for Auckland Hospital.
- The lightweight steel structure also accommodates three helicopter pads on the top floor.
Dilworth Building

- This commercial two-storey building with basement carparking was designed for a Blood-bank and commercial use.
Dilworth Building

- Easy access for extensive range of services in the floor-ceiling space was an advantage offered by Speedfloor.
Watt St Carpark

• This 3 level carpark was originally built as only one suspended level of Speedfloor.
• The system and speed of erection so impressed the owner that he added another two levels almost immediately.
These twin 12 storey apartment buildings were built using a pre-cast concrete core and structural steel frame.
Oceanside - Twin Towers

- Speed of erection and the ability to take the floor system off the critical path were key ingredients in the developer’s decision to use Speedfloor.
• Retail on the ground floor, car parking on the first floor and commercial on the top two floors.
• This building proved a challenge to construct with internal spiral ramps.

• Noise and fire rating was achieved with a combination of exposed sprayed on products and suspended fire rated ceilings.
Faster- Lighter- Easier

Summary of advantages

• Cost effective
• Lightweight
• Speed of erection
• Easily accommodates services
• Meets fire and acoustic requirements
• Flexible in its application
• In its first 3 years, Speedfloor quickly gained a substantial part of the suspended concrete flooring market in New Zealand. Its lightweight nature and speed and ease of erection make it highly competitive in all types of buildings.
Global Market

- The innovative design of the rollformed joist and its unique ability to be efficiently shipped, means the product has quickly reached destinations outside New Zealand including Melbourne and Sydney in Australia, Hawaii and mainland USA.
Global Market

- Franchises have been set up in Melbourne and Hawaii.
- Negotiations are ongoing with interested parties in Singapore, United Arab Emirates and the USA.
The Company

- Speedfloor Holdings is part of the Sullivan & Haddon Group.
Sullivan & Haddon Group are innovators in construction technology.

The group is committed to the use of technology in the construction industry as it offers significant commercial advantages over traditional methods.
In this presentation we have endeavoured to show you the many benefits of the Speedfloor suspended concrete flooring system. For additional information please use the contact details below.

Email: nick@speedfloorusa.com
Ph: 877-278-8802
Fax  513-732-1010
299 Haskell Lane,
Batavia, Ohio, USA
45103