Hanson
HEIDELBERGCEMENT Group

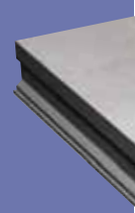


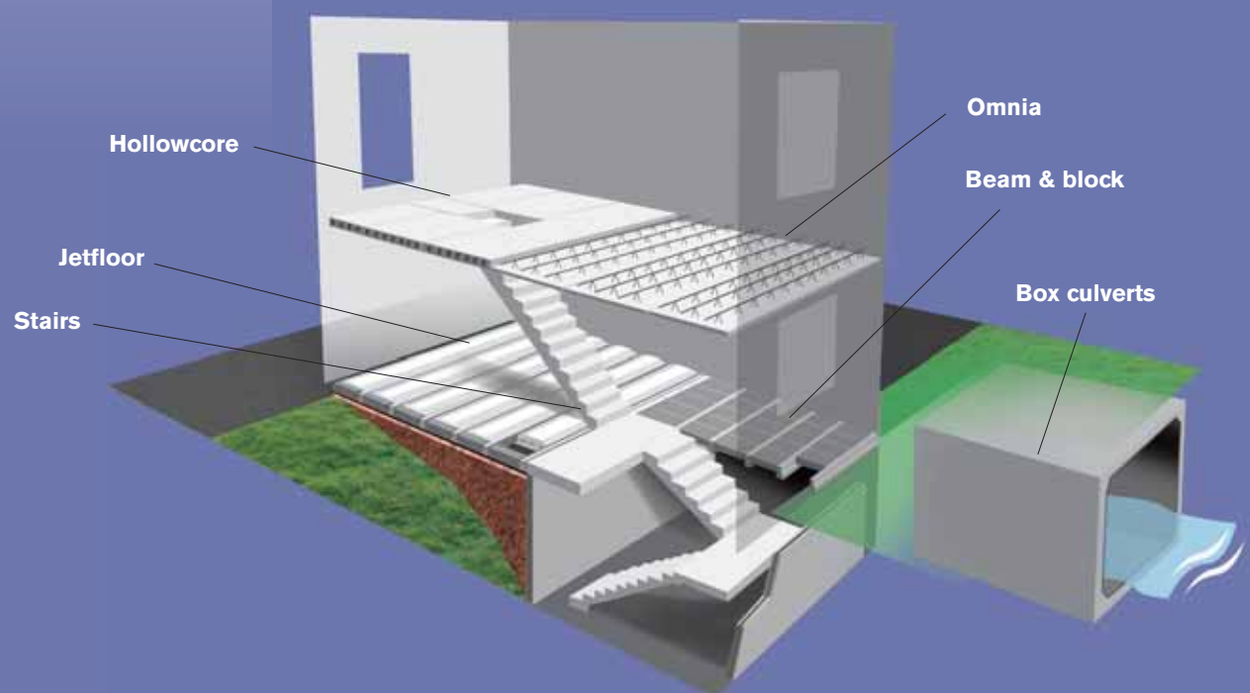

Hollowcore
FLOORING

Hollowcore
FLOORING

Prestressed hollowcore units form part of the comprehensive range of pre-cast concrete flooring products from Hanson Building Products

Hollowcore units are the ideal solution for all suspended floor applications including domestic housing, apartment blocks, offices and commercial buildings, car parks, hotels, schools and leisure complexes.





Hollowcore units provide the ideal solution in almost every situation where a clear spanning, durable deck is required.

Hollowcore

The Hanson range of hollowcore units is one of the most extensive available in the UK.

Solid composite

Solid composite flooring units provide similar advantages to hollowcore and offer a wide range of floor solutions for a given floor zone.

Hollowcore
SYSTEM OVERVIEW

The ideal solution for all suspended floor applications

The Hanson range of hollowcore units is now the most extensive available to the UK market.

Units are manufactured in a range of widths – increasing the versatility and scope of the product and enabling flooring solutions to be tailored to specific projects.

All units are quality assured in accordance with BS EN ISO 9001 and BS EN ISO 14001 and are prestressed during manufacture.

Hollowcore benefits

Clear, unpropped spans

- Fast and simple to erect
- Provides an immediate working platform

Can be used in all types of structure

- Masonry, steel and concrete

Excellent sound and fire resistance

Easier installation of services

- Holes and notches preformed during manufacture

Quality service guaranteed

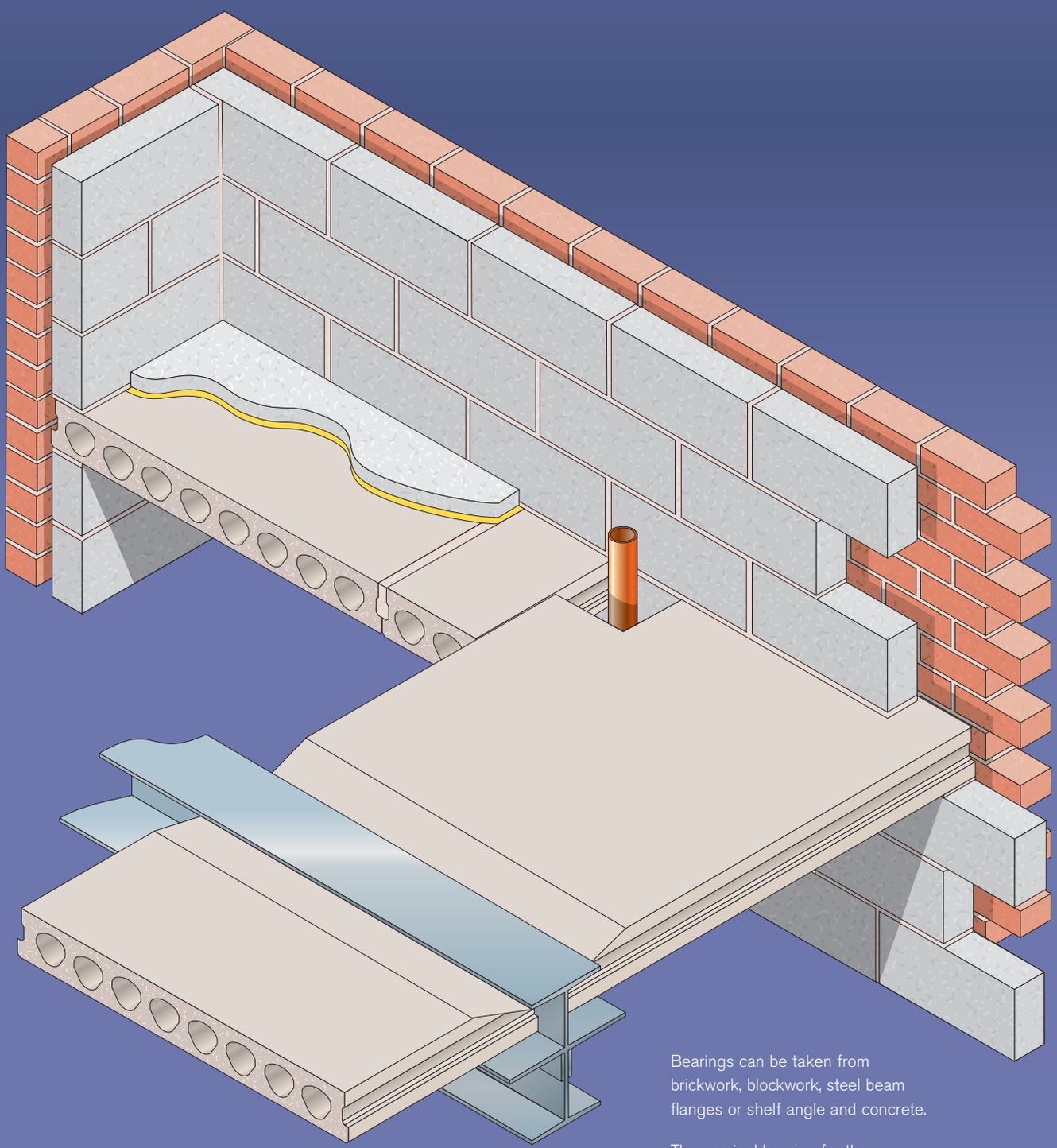
- Available nationwide either supply only or supply and fix
- Factory manufacture to consistent quality standards
- Complies with all relevant standards and manufactured in accordance with BS EN ISO 9001 and BS EN ISO 140001

The principal advantages of hollowcore are increased speed of construction and its ability to provide clear unpropped spans.

Units are delivered to site on a 'just-in-time' basis, are craned in to position and form an immediate working platform.

In addition the product offers other intrinsic benefits including excellent sound and fire resistance properties.

Hollowcore
CONSTRUCTION DETAILS

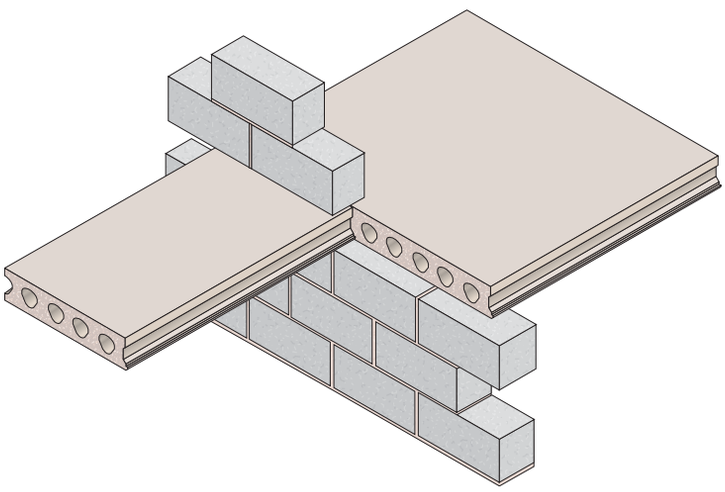


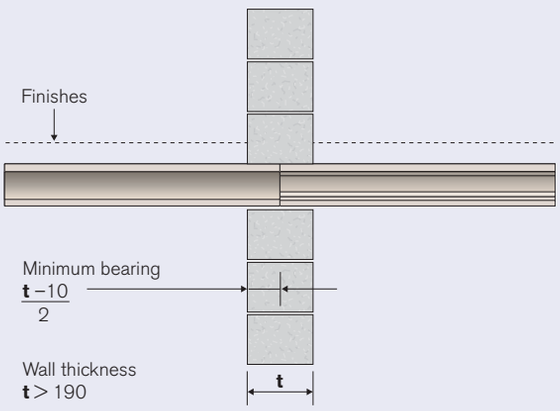
Bearings can be taken from brickwork, blockwork, steel beam flanges or shelf angle and concrete.

The nominal bearing for the conventional range of designs are:

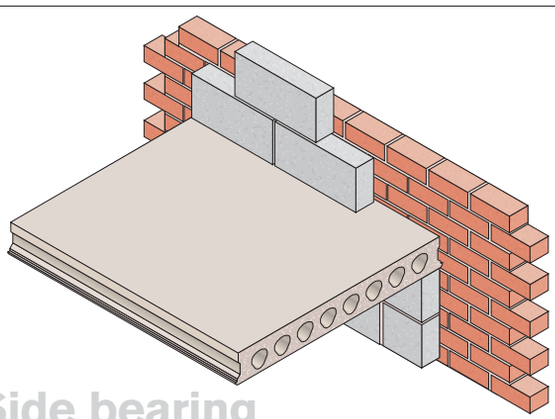
Masonry supports	100mm
Steel supports	75mm
Concrete	75mm

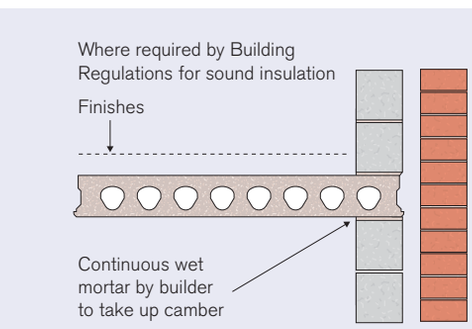
Masonry
BEARING DETAILS



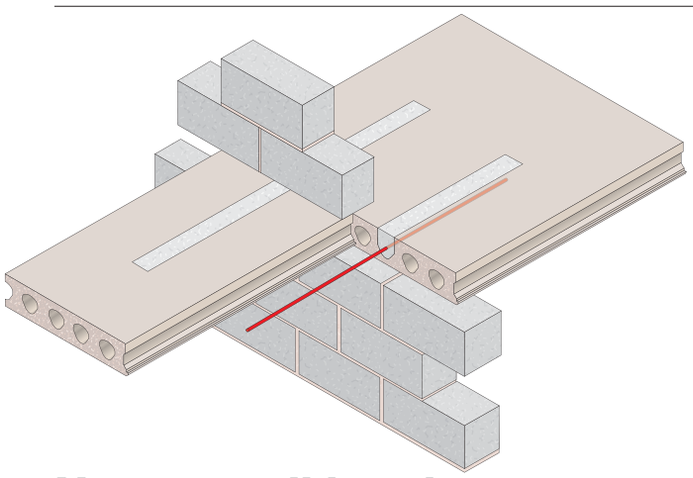


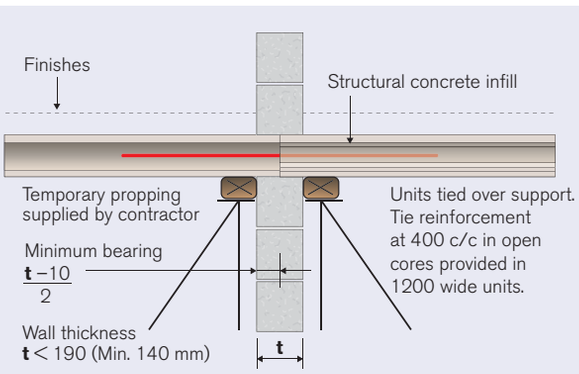
Bearing on masonry





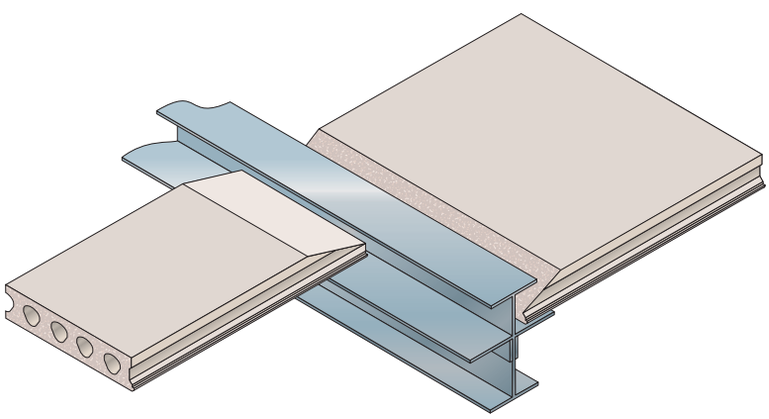
Side bearing

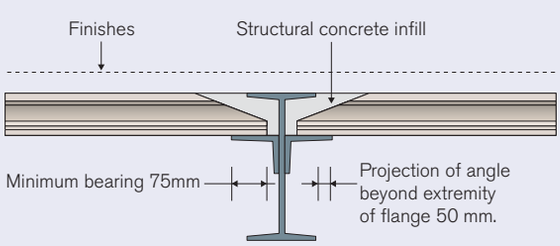


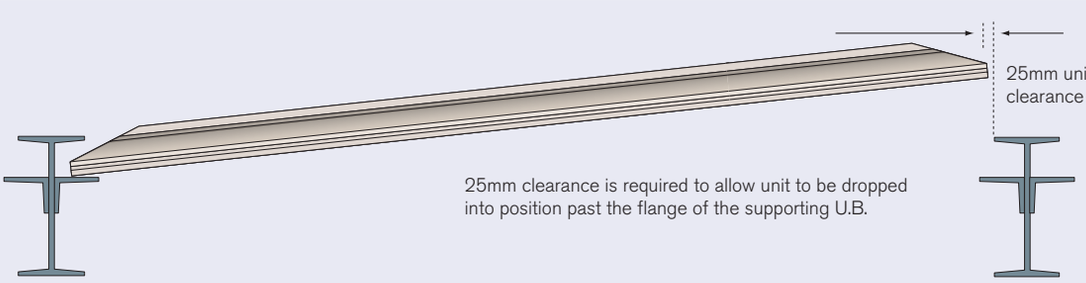


Narrow wall bearing

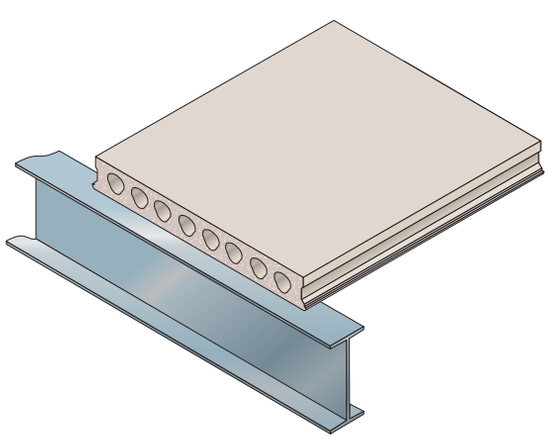
Steelwork
BEARING DETAILS

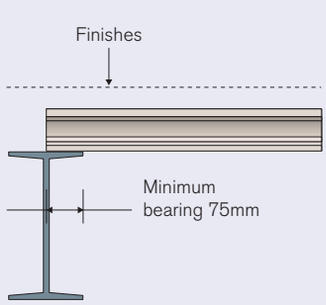






Bearing on shelf angles

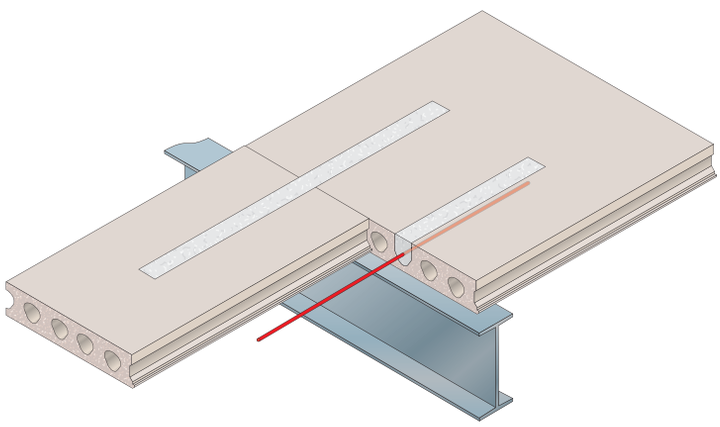


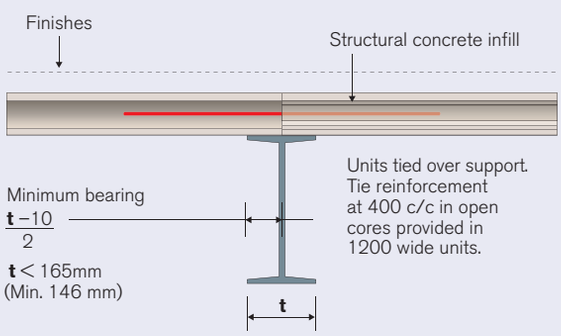


Bearing on top of steelwork

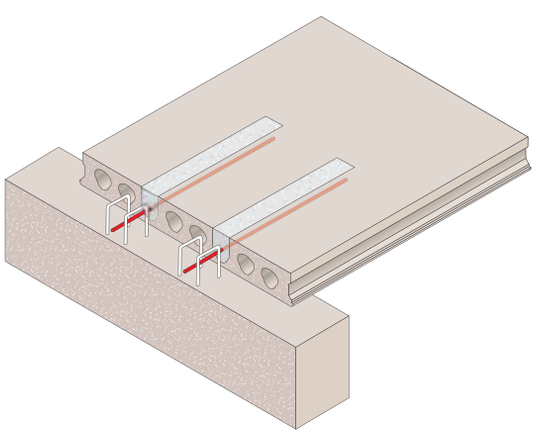
Hollowcore

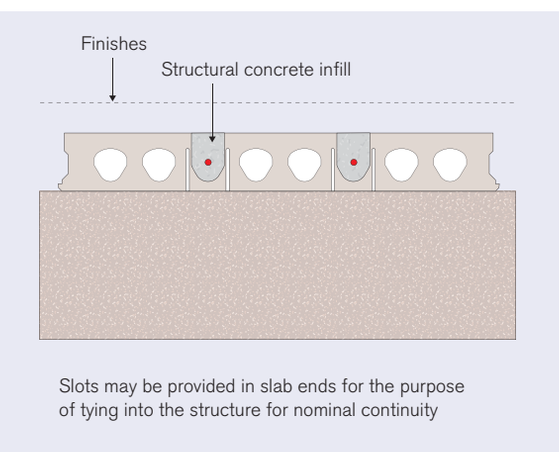
GROUTING & CONTINUITY





Continuity over steelwork



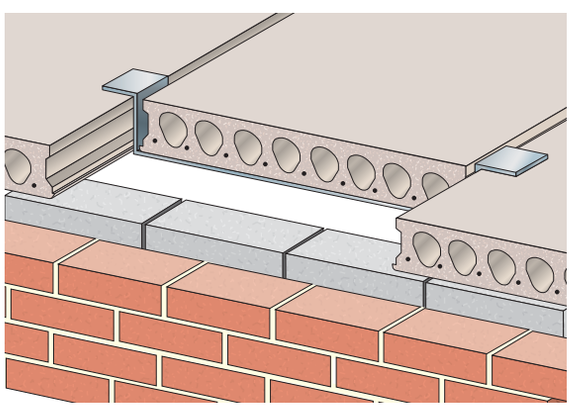


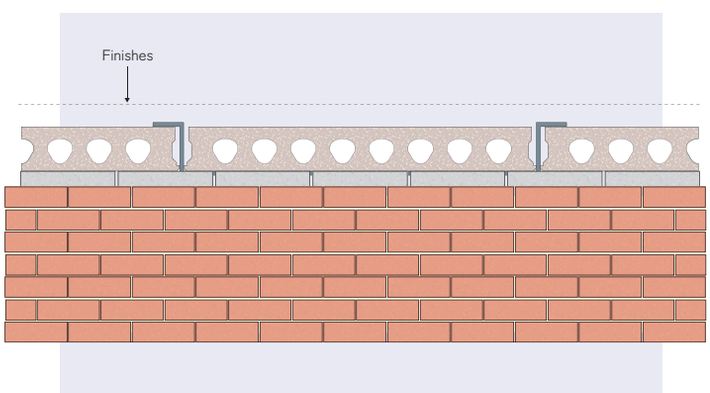
Continuity with concrete

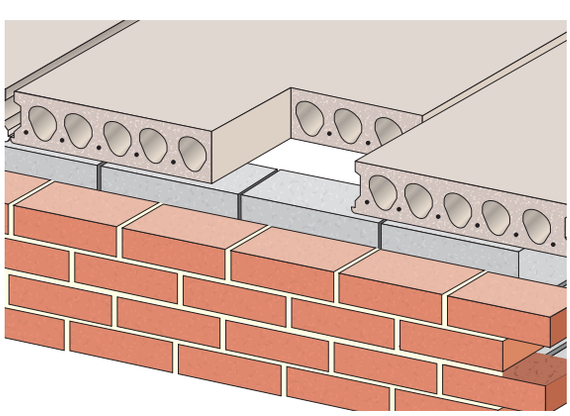
The sides of the hollowcore units are cast with a shear key profile which distributes loading to adjacent units when grouted. Grouting is normally undertaken with a 30N/mm^2 concrete.

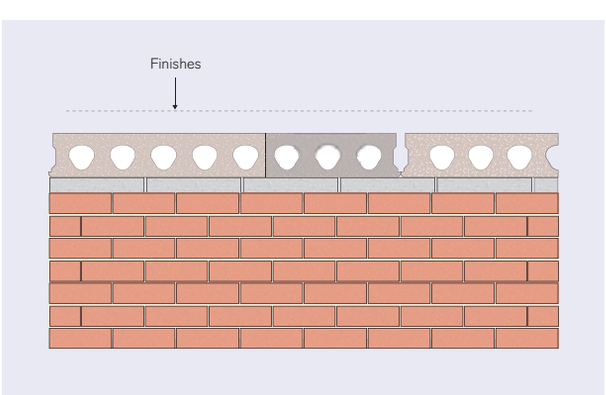
Continuity between the end of units can be provided via slots formed within the cores with tie reinforcement placed prior to insitu concrete filling.

Hollowcore
HOLES AND NOTCHES









Holes and notches

To accommodate service voids and column notches, the hollowcore can be preformed to individual requirements. Large opening may require steel trimming supports.

It is recommended that holes of less than 100mm diameter are drilled on site, on the centerline of cores.

Ceiling finishes

A number of ceiling finishing options are recommended for hollowcore units: Soffits can be plastered using a suitable bonding agent, Artex or similar can be used. Proprietary suspended ceiling systems can be hung from supports located between units.

A boarded ceiling can be fixed to batterns, held in place by galvanised clips located between units. Alternatively batterns can be screw-fixed directly to the soffit (drilling should not penetrate unit reinforcement).

Solid composite

FLOORING UNITS

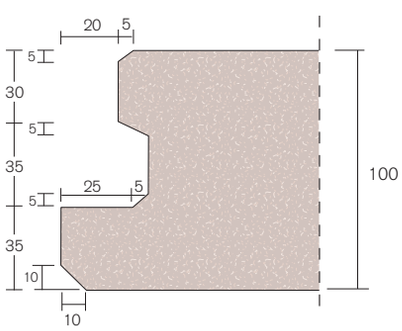
System overview

Solid composite units offer similar benefits to hollowcore but, being thinner, enable a wider range of composite solutions for a given floor zone.

Manufactured to the same factory standards, solid composite units are available in 100mm depth and up to 1200mm wide.

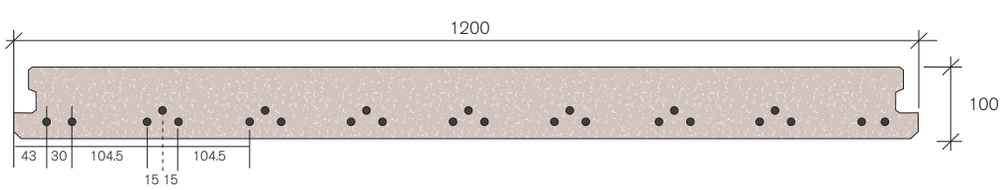
Unpropped construction is possible for spans up to 5.00m. For spans greater than these, temporary propping will enhance load/span characteristics.

Full technical advice is available.



Benefits

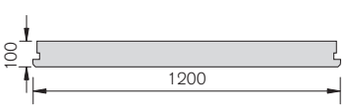
- Wide range of composite solutions
- Facilitates cantilever designs
- Choice of propped or unpropped construction
- Quality controlled factory production



Section details

Slab Reference	Width (mm)	Height (mm)	Weight (kN/m²)	Weight (kN/m)	Weight (kg/m)
P100	1200	100	2.40	2.88	294

Loadspan tables



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		Superimposed Loadings in kN/m²						Superimposed Loadings in kN/m²					
		1.5	2.0	2.5	3.0	4.0	5.0	1.5	2.0	2.5	3.0	4.0	5.0
Slab Ref.	SWT-kN/m²	Maximum Clear Span (m)						Maximum Clear Span (m)					
P100	2.40	5.00	5.00	5.00	4.98	4.65	4.37	5.00	5.00	4.98	4.80	4.50	4.25

Hollowcore
LOADSPAN TABLES

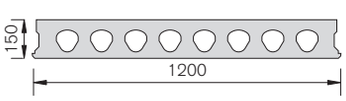
1200mm wide Hollowcore

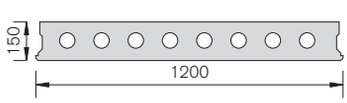
Section details

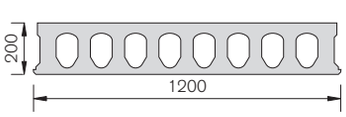
The loadspan tables below are given as a guide only.
Further advice is available on request.

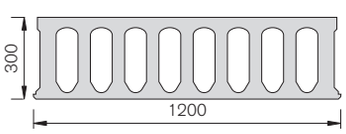
Slab Reference	Width (mm)	Height (mm)	Weight (kN/m²)	Weight (kN/m)	Weight (kg/m)
A150/A159	1200	150	2.53	3.04	310
A150H/A159H	1200	150	3.19	3.83	390
A200	1200	200	3.42	4.10	418
A300	1200	300	4.91	5.89	600

Loadspan tables









		Finishes = 1.5 kN/m²						Finishes = 2.0 kN/m²					
		Superimposed Loadings in kN/m²						Superimposed Loadings in kN/m²					
		1.5	2.0	2.5	3.0	4.0	5.0	1.5	2.0	2.5	3.0	4.0	5.0
Slab Ref.	SWT-kN/m²	Maximum Clear Span (m)						Maximum Clear Span (m)					
A150	2.53	7.40	7.40	7.40	7.40	7.11	6.70	7.40	7.40	7.40	7.40	6.90	6.52
A159	2.53	7.24	6.90	6.60	6.34	5.90	5.53	6.94	6.63	6.37	6.13	5.73	5.39
A150H	3.19	7.40	7.40	7.40	7.40	7.01	6.63	7.40	7.40	7.40	7.22	6.81	6.46
A159H	3.19	6.85	6.56	6.30	6.08	5.68	5.35	6.60	6.34	6.10	5.89	5.53	5.23
A200	3.42	9.75	9.35	8.99	8.68	8.13	7.68	9.40	9.04	8.72	8.43	7.92	7.50
A300	4.91	12.00	11.63	11.30	10.99	10.38	9.87	11.63	11.30	10.99	10.70	10.15	9.67

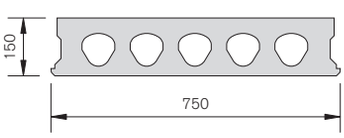
750mm wide Hollowcore

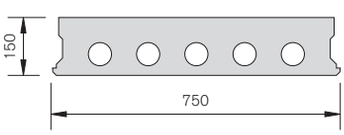
Section details

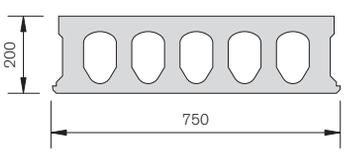
The loadspan tables below are given as a guide only.
Further advice is available on request.

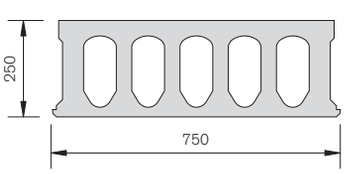
Slab Reference	Width (mm)	Height (mm)	Weight (kN/m²)	Weight (kN/m)	Weight (kg/m)
750-150	750	150	2.71	2.03	207
750-150sc	750	150	3.09	2.32	236
750-200	750	200	3.21	2.41	245
750-250	750	250	3.72	2.79	284

Loadspan tables









		Finishes = 1.5 kN/m²						Finishes = 2.0 kN/m²					
		Superimposed Loadings in kN/m²						Superimposed Loadings in kN/m²					
		1.5	2.0	2.5	3.0	4.0	5.0	1.5	2.0	2.5	3.0	4.0	5.0
Slab Ref.	SWT-kN/m²	Maximum Clear Span (m)						Maximum Clear Span (m)					
750-150	2.71	7.40	7.40	7.39	7.12	6.67	6.29	7.40	7.39	7.12	6.89	6.47	6.12
750-150sc	3.09	7.40	7.40	7.28	7.01	6.55	6.17	7.40	7.31	7.04	6.80	6.38	6.03
750-200	3.21	9.65	9.24	8.88	8.56	8.01	7.55	9.29	8.93	8.60	8.31	7.80	7.38
750-250	3.72	10.71	10.29	9.92	9.58	9.00	8.51	10.34	9.96	9.62	9.31	8.77	8.32

Nationwide
SERVICE

The Floors and Precast Division of Hanson Building Products now operates from a total of six dedicated plants located throughout the UK.

Two of these plants - Hoveringham (near Nottingham) and Somercotes (Derbyshire) - are state-of-the-art Hollowcore facilities.

This combined production capacity enables fast and efficient service throughout the UK.

Standards

All products are manufactured in accordance with relevant British/ European/Trade Association Standards.

All Hanson Building Products sites are quality assured to BS EN ISO9001 2000

We operate environmental management systems at all our production sites in accordance with the methodology set out in the BS EN ISO14001 2004.

Founding Member
UK Green Building Council
for a sustainable built environment

Other precast concrete products

- Jetfloor
- Beam and Block
- Staircases
- Omnia lattice girder flooring
- Omnia bridgedeck
- Cobiaxdeck (light weight, long spanning, floor slabs)
- Culverts
- Bespoke solutions

For Hollowcore solutions please contact us at:

Hanson Building Products
Hoveringham
Nottingham
NG14 7JX

Ground floor residential enquiries please call Housebuilder Services on **01636 832466**. For all other applications please call Estimating on **01636 832468**.

Hanson Building Products
Floors and precast locations

● Hollowcore production

Hanson Building Products
Head Office
Stewartby
Bedford
MK43 9LZ

Tel: 08705 258258
Website: www.hanson.com/uk

Floors and Precast Division

0870 6097094

Hanson - A global business

Hanson is one of the world's largest suppliers of heavy building materials to the construction industry. We produce aggregates (crushed rock, sand and gravel), ready-mixed and precast concrete, asphalt and cement-related materials and a range of building products including concrete pipes, concrete pavers, tiles and clay bricks

We are part of the HeidelbergCement Group, which employs 70,000 people across five continents, has leading positions in concrete and heavy building products and is the global leader in aggregates.

Hanson Building Products is the UK's largest brick and aircrete block producer. We also produce aggregate blocks, bagged aggregate and cement products, renders, pavers, pre cast floors and stairs, SUD systems and prefabricated building systems. The division incorporates London Brick, Thermalite, Red Bank, Cradley, Formpave and Structherm.

Hanson Building Products - A sustainable business

Hanson Building Products is committed to being a sustainable business and contributing to sustainable development. We achieve this by continuous improvement of our manufacturing and extraction processes and by providing products which contribute to sustainable construction.

Made at factories certified to ISO 14001, our clay and concrete products have many features which assist our customers in constructing attractive, sustainable buildings which enrich the built environment and are ideal for zero carbon developments. These include: thermal mass, insulation, longevity, durability, low maintenance, flexibility, flood resistance and the ability to be recycled. We can advise on how best to use our products in sustainable buildings and how they contribute to high ratings under the Code for Sustainable Homes and BREEAM.

Email: sustainabilityuk@hanson.biz
Web: www.hanson.com/uk/sustainability