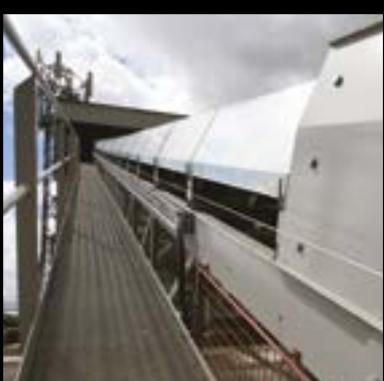




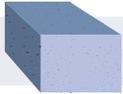
PRE-STRESSED LINTELS
CONCRETE CILLS
STEPS
COPEs
EDGING
T-BEAM FLOORING



ROBESLEE
CONCRETE LINTELS
CAN BE MADE
TO ARCHITECTS
PRECISE
SPECIFICATIONS

CONCRETE

COMPOSITE LINTELS



TYPE A (100 X 70mm)

Permissible U.D.L. in kN/m per layer of brickwork

50m/ton

| CLEAR SPAN (mm) | 600 | 900 | 1200 | 1500 | 1800 | 2100 | 2400 | 2800 | 3100 |
|----------------------|-------|-------|-------|-------|-------|------|------|------|------|
| Without Brickwork | 9.00 | 6.37 | 3.86 | 2.58 | 1.85 | 1.39 | 1.08 | - | - |
| 1 Layer of Brickwork | 10.50 | 9.00 | 7.01 | 5.00 | 2.75 | 1.62 | 1.31 | - | - |
| 2 Layers | 12.00 | 10.21 | 10.21 | 8.00 | 4.38 | 2.75 | 1.46 | 1.35 | 1.31 |
| 3 Layers | 16.25 | 16.25 | 16.25 | 9.37 | 5.75 | 4.44 | 2.50 | 2.25 | 2.00 |
| 5 Layers | 30.00 | 30.00 | 30.00 | 15.37 | 12.00 | 8.00 | 4.75 | 4.50 | 4.25 |

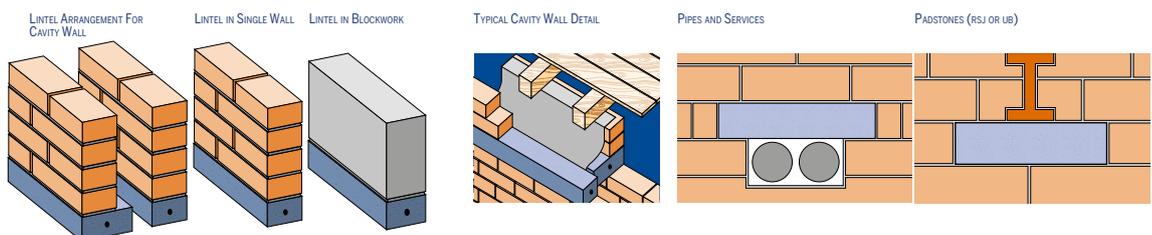


TYPE B (150 X 70mm)

Permissible U.D.L. in kN/m per layer of brickwork

36m/ton

| CLEAR SPAN (mm) | 600 | 900 | 1200 | 1500 | 1800 | 2100 | 2400 | 2800 | 3100 |
|----------------------|-------|-------|-------|-------|-------|------|------|------|------|
| Without Brickwork | 10.00 | 7.24 | 4.49 | 3.01 | 2.15 | 1.62 | 1.26 | - | - |
| 1 Layer of Brickwork | 13.61 | 13.61 | 9.26 | 6.50 | 3.02 | 2.31 | 1.81 | - | - |
| 2 Layers | 28.00 | 28.00 | 10.26 | 8.25 | 5.00 | 3.30 | 2.78 | 1.71 | 1.44 |
| 3 Layers | 29.50 | 29.50 | 25.00 | 10.00 | 6.00 | 4.66 | 3.98 | 2.60 | 2.19 |
| 5 Layers | 32.00 | 32.00 | 30.00 | 16.50 | 13.00 | 9.15 | 8.00 | 5.00 | 4.75 |



Composite lintels, Type A and Type B, are best used in conjunction with brickwork or blockwork - see tables for loadbearing capacities.

1. It is essential that the first two layers of brickwork, or one layer of blockwork, are laid with special care and that the mortar joints both vertical and horizontal are properly filled, leaving no voids. (1:3 cement, sand mortar is recommended).
2. Building blocks may be used if they are solid and have a minimum crushing strength of 3.0N/mm².
3. In lintels over 1.500m props must be used at the quarter points until mortar work has matured.
4. Where a D.P.C. is used it must be placed over the second layer of the blockwork - see sketch detail.
5. Minimum bearing of 150mm each side, or as directed by the structural engineer.

LINTELS

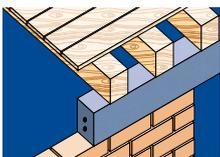


NON COMPOSITE LINTELS

Permissible U.D.L. in kN/m

| CLEAR SPAN (mm) | 900 | 1200 | 1500 | 1800 | 2100 | 2400 | 2700 | 3000 | 3300 | 3600 | 3900 |
|--------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|
| TYPE C (100 X 145mm) 27m/ton | 32.60 | 23.30 | 18.10 | 13.90 | 10.50 | 8.15 | 6.53 | 5.34 | 4.39 | 3.42 | 2.71 |
| TYPE D (145 X 100mm) 27m/ton | 30.10 | 20.00 | 13.40 | 9.58 | 7.20 | 5.17 | 3.70 | 2.74 | 2.09 | 1.62 | 1.29 |
| TYPE E (100 X 100mm) 38m/ton | 13.00 | 7.88 | 5.27 | 3.78 | 2.84 | 2.21 | 1.77 | 1.05 | - | - | - |
| TYPE F (145 X 145mm) 18m/ton | 41.60 | 29.80 | 22.70 | 16.20 | 12.20 | 9.49 | 7.59 | 6.22 | 5.18 | 4.39 | 3.19 |
| TYPE K9 (100 X 215mm) 18m/ton | 54.70 | 38.10 | 29.20 | 23.70 | 19.90 | 17.20 | 14.70 | 12.10 | 10.00 | 8.51 | 7.29 |
| TYPE G8 (140 X 215mm) 14m/ton | 64.10 | 56.80 | 44.67 | 32.18 | 24.95 | 19.58 | 15.91 | 13.04 | 10.42 | 8.79 | 7.57 |
| TYPE U2 (100 X 145mm) 27m/ton | 31.20 | 21.20 | 14.20 | 10.20 | 7.65 | 5.95 | 4.77 | 3.90 | - | - | - |
| TYPE U2 (145 X 100mm) 27m/ton | 23.40 | 14.20 | 9.48 | 6.79 | 5.10 | 3.97 | 3.18 | 2.60 | - | - | - |

BEARING DIRECT LOADS, SUCH AS JOISTS



These lintels are designed to withstand direct imposed loads. Rafters, wall plates and floor joists may be accommodated as directly imposed loads - see tables for loadbearing capacities.

BEARING: Minimum of 150mm each side or as directed by the structural engineer.
BRICKWORK: Non-composite lintels do not require brickwork bonded to them.
 Point loads from girders, trusses, steel beams ect. require to be referred to our Customer Advisory Service.

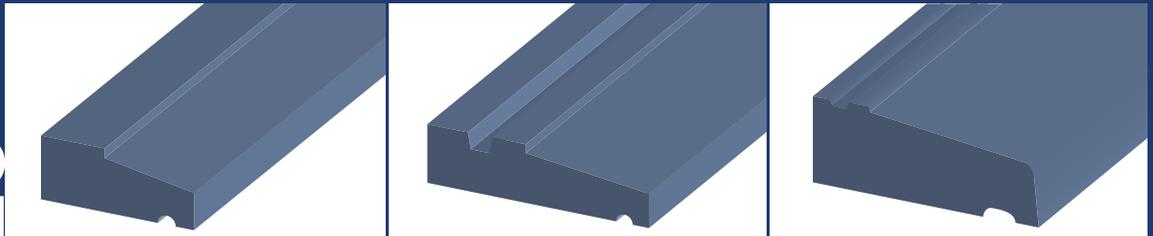
PROPPING: Propping is not required with this type of lintel.
POSITIONING: Lintels must be placed with wire in correct position.
 Lintels are marked top.
ORDERING: All sizes listed are normal stock sizes.

All lintels are designed in accordance with -
 BS 5977: Part 1: 1981, BS 5977: Part 2: 1983, BS 8110: Part 1: 1985, BS 8110: Part 2:
 Concrete used is Grade 50. Fire resistance is 1/2 hour. Fire resistance can be improved by the application of non-combustible finishes.

The evolution of new designs is continuous, and information is subject to change without notice. Customers should check with the supplier to ensure that they have the latest details. No liability or responsibility of any kind (including liability for negligence) is accepted in respect of advice, recommendations or specifications supplied by the company, its Servants or its Agents.

PRECAST

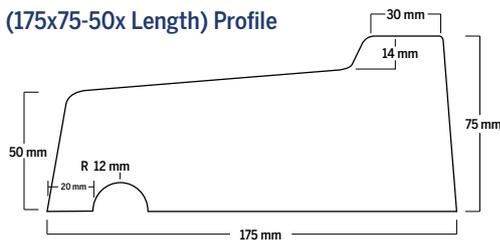
CILLS



CILLS Available in two standard types -

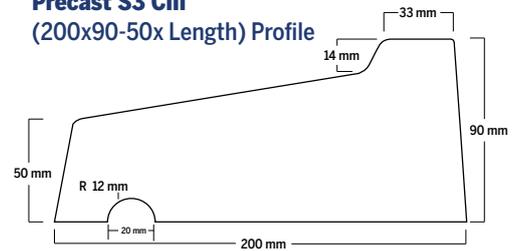
| TYPE S1 | TYPE S2 | TYPE S3 |
|---------------------------------|---------------------------------|---------------------------------|
| SECTION 175 X 75 - 50 X LENGTH. | SECTION 215 X 75 - 50 X LENGTH. | SECTION 200 X 90 - 50 X LENGTH. |

Precast S1 Cill
(175x75-50x Length) Profile



• Stock sizes (mm) - 600, 900, 1200, 1500, 1800, 2100, 2400 and 3000

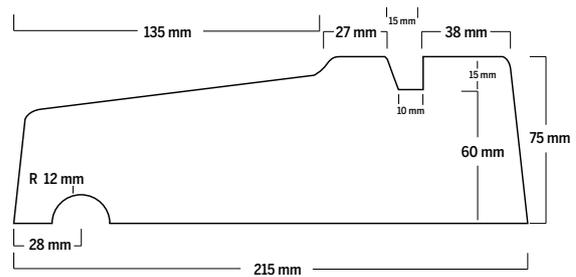
Precast S3 Cill
(200x90-50x Length) Profile



• Stock sizes (mm) - 600, 900, 1200, 1500, 1800, 2100, 2400, and 3000

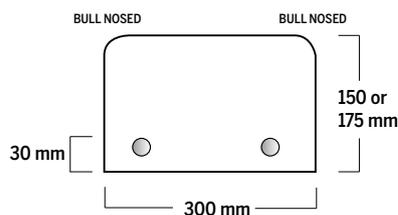
Precast S2 Cill
(215x75-50x Length)
Profile

• Stock sizes (mm) - 600, 900, 1000, 1200, 1500, 1800, 2100, 2400, and 3000

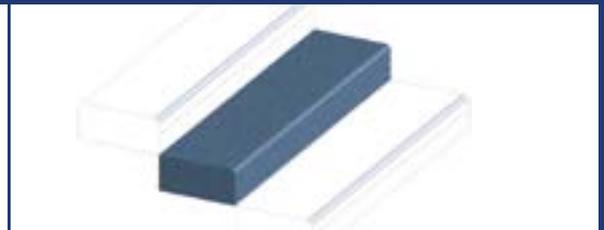


STEPS

Standard Precast Steps
ST1 (300x150) and ST2 (300x150)



• Stock sizes (mm) - 900, 1000, 1050, 1200, 1350, 1500, 1800, 2000, 2100 and 2400



STEPS Available in two standard types -

| ST1 | ST2 |
|---------------------|---------------------|
| LENGTH X 300 X 150. | LENGTH X 300 X 175. |

- All exposed surfaces are finished smooth
- Reinforcement is for handling (T12) with 30mm cover from bottom
- Steps are made using a 30N concrete

- Ice/Snow must not be removed using de-icing chemicals (e.g. salt)
- Non-standard sizes or sections can be made to customer specification

PRODUCTS

COPEES



COPEES Available in plain concrete, coloured or exposed aggregate finishes.

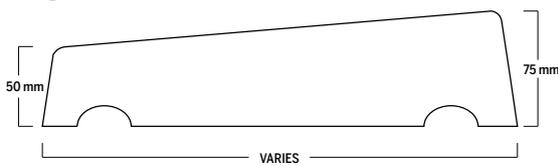
SINGLE WEATHERED

| TYPE | WIDTH | 'H' HEIGHT | LENGTH | DISTANCE BETWEEN DRIPS |
|------|-------|------------|--------|------------------------|
| SW1 | 175 | 75/50 | 900 | 110 |
| SW2 | 225 | 75/50 | 900 | 160 |
| SW3 | 300 | 75/50 | 900 | 240 |
| SW4 | 350 | 75/50 | 900 | 290 |
| SW5 | 400 | 75/50 | 900 | 330 |
| SW6 | 450 | 75/50 | 600 | 380 |

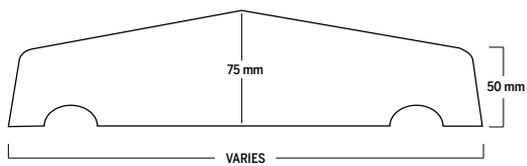
DOUBLE WEATHERED

| TYPE | WIDTH | 'H' HEIGHT | LENGTH | DISTANCE BETWEEN DRIPS |
|------|-------|------------|--------|------------------------|
| DW1 | 175 | 75/50 | 900 | 110 |
| DW2 | 225 | 75/50 | 900 | 160 |
| DW3 | 300 | 75/50 | 900 | 240 |
| DW4 | 350 | 75/50 | 900 | 290 |
| - | - | - | - | - |
| DW6 | 450 | 75/50 | 600 | 380 |

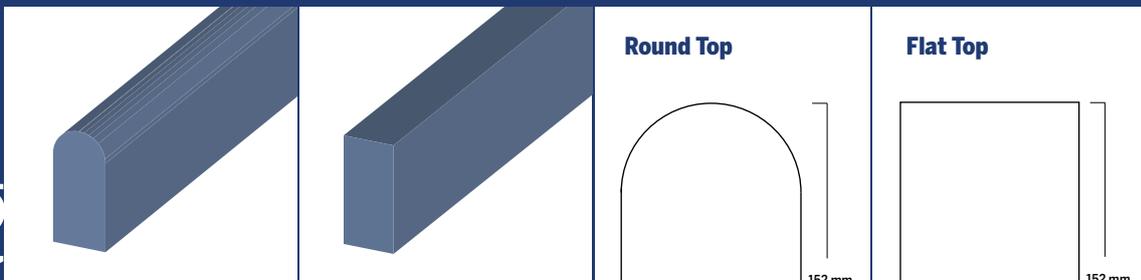
Single Weathered



Double Weathered



EDGING



EDGING Available in 2 standard types.

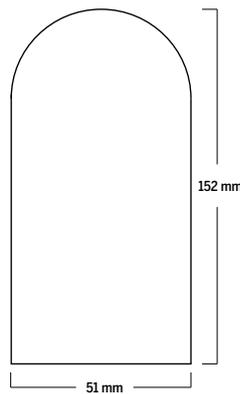
ROUND TOP

| HEIGHT | WIDTH | LENGTH |
|--------|-------|--------|
| 152 | 51 | 900 |

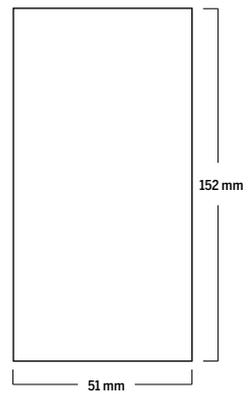
FLAT TOP

| HEIGHT | WIDTH | LENGTH |
|--------|-------|--------|
| 152 | 51 | 900 |

Round Top



Flat Top

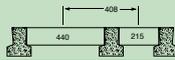
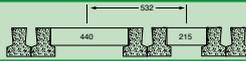


| | | |
|-----|----|-----|
| 205 | 51 | 900 |
|-----|----|-----|

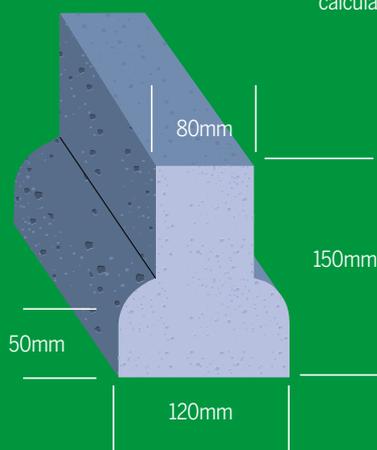
**HIGH STRENGTH,
EFFECTIVE
AND EASY TO INSTALL
FLOORING SYSTEM**

T-BEAM

T-BEAM FLOORS

| STANDARD CENTRES | SECTIONS | <i>Maximum Spans (m) for imposed load kN/m²</i> | | | | | |
|---|---|--|------|------|------|------|------|
| | | 1.5 | 2.0 | 2.5 | 3.0 | 5.0 | 7.0 |
| SINGLE 520 (1.8kN/m ²) |  | 4.40 | 4.10 | 3.90 | 3.80 | 3.20 | 2.80 |
| SINGLE 408 (1.9kN/m ²) |  | 4.90 | 4.60 | 4.40 | 4.20 | 3.60 | 3.20 |
| SINGLE 295 (2.2kN/m ²) |  | 5.60 | 5.30 | 5.10 | 4.90 | 4.20 | 3.80 |
| DOUBLE 644 (2.2kN/m ²) |  | 5.40 | 5.10 | 4.90 | 4.70 | 4.10 | 3.60 |
| DOUBLE 532 (2.4kN/m ²) |  | 5.80 | 5.60 | 5.30 | 5.10 | 4.40 | 4.00 |
| DOUBLE 420 (2.7kN/m ²) |  | 6.00 | 6.00 | 5.90 | 5.60 | 4.90 | 4.40 |
| TREBLE 770 (2.5kN/m ²) |  | 5.90 | 5.60 | 5.40 | 5.20 | 4.50 | 4.00 |
| TREBLE 658 (3.0kN/m ²) |  | 6.00 | 6.00 | 5.80 | 5.50 | 4.80 | 4.30 |

The above table shows maximum clear spans in metres for the Robeslee T42 Floor Beam (120x150) under uniformly distributed live loads using 1350 kg/m³ solid blocks. An allowance of 1.20 kN/m² for finishes has been made when calculating the table.



FLOORING

TECHNICAL INFORMATION

The **T42 Floor Beam**, combines concrete beams and infill blocks to provide a highly effective and easy to install flooring system.

The **T42 Beam** is nominally 150 deep and weighs 40kg/m. It is manufactured using concrete with a strength of 50 N/mm².

INFILL BLOCKS

Infill blocks can be any standard building blocks (440x215x100) complying with BS6073:Part 1-1981. They must have a minimum density of 1350 kg/m³ and have 3.5 N/mm² - minimum strength. For increased sound resistance we recommend using blocks with a density of 1800 kg/m³.

BEARINGS

All beams should be placed perpendicular to the end supports unless otherwise shown. Each beam requires a minimum end bearing of 100mm to each end when supported by brickwork/blockwork and 75mm when supported by steelwork.

GROUTING

A 3:1 sand:cement should be brushed into the joints between the beams and the blocks.

FLOOR FINISHES

When laid the floor can take a wide variety of finishes. We would recommend the use of a sand:cement levelling screed before the application of final finishes. Garage floors require a 50mm concrete screed using a Grade 25 concrete and suitable reinforcement.

CUT BLOCKS

All blocks are to be cut using suitable mechanical means to leave a clean, vertical square edged face.

SLIP BLOCKS

Slip Blocks 440 x 100x 40 (nominal) are used around the perimeter of the floor to make up the difference in level between the underside of the blocks.

SERVICE HOLES

Infill blocks may be omitted as necessary to accommodate services.

AIR VENTS

Void ventilators are required by the NHBC and the spacings may vary. Please consult vent manufacturers for details and supply.

HANDLING

Care should be taken to ensure all beams are lifted horizontally. Beams should not be lifted upside down or allowed to rotate while being handled.

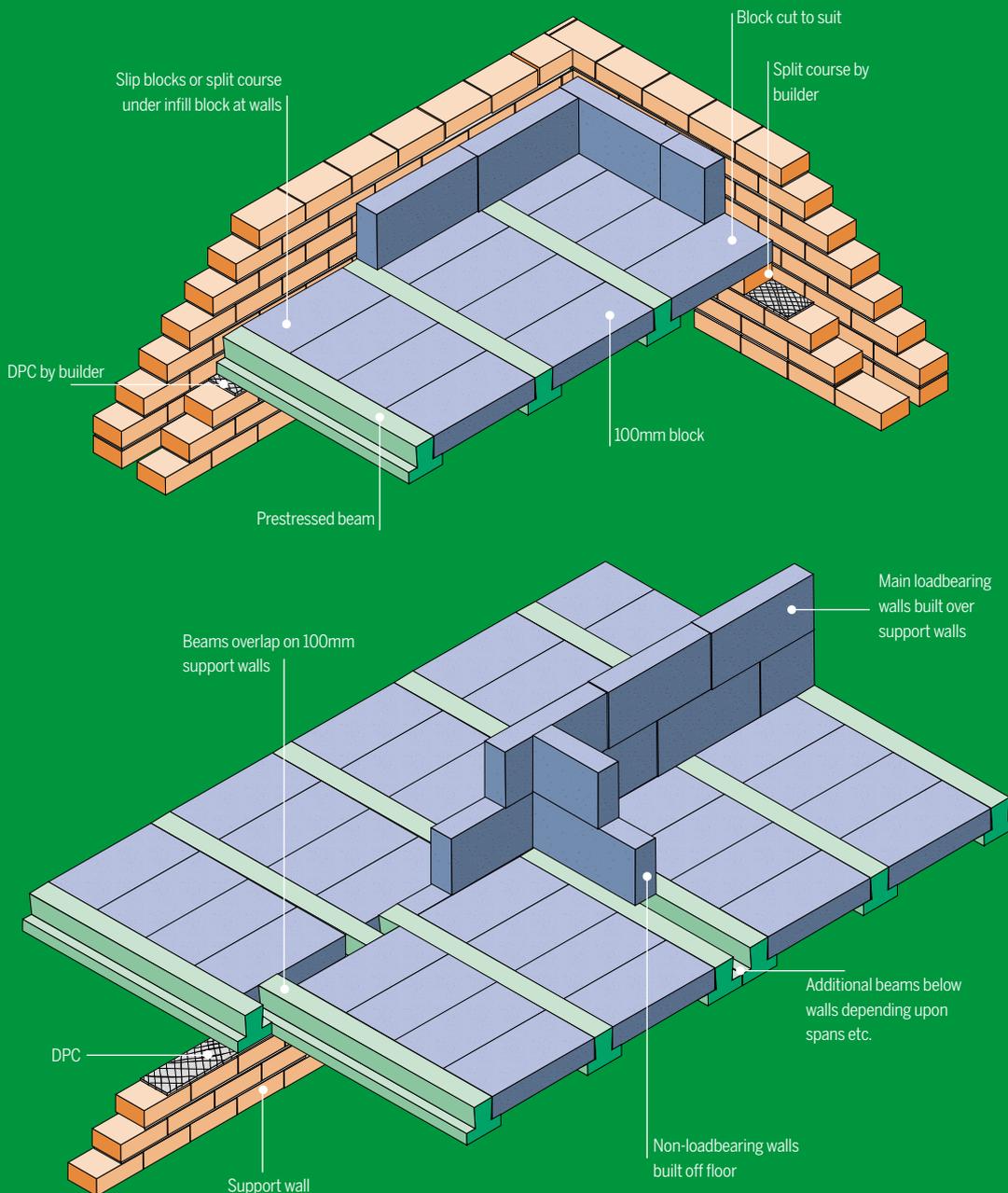
CAMBER

As the beams are made from prestressed concrete they have slight upward camber. Due allowance must be made for this in determining finishes an overall floor thickness.

The T42 Floor beam has been designed using our 'STAR' technology system (in accordance with BS 5977 Part 1: 1981 and Part 2: 1983 and BS 8110 Part 1: 1985 and Part 2: 1985) and is manufactured using an advanced extrusion method at our factory in Kirkintilloch.

The T42 Floor beam can be made to any required length up to 6 metres within given limits.

Robeslee offer a free technical and computer aided design service (telephone 0141 775 2677) to assist you in the use of the T42 Floor Beam. The service provides comprehensive details of floor layouts, working drawings and quantity requirements.





**NATIONWIDE COVERAGE
THROUGH OUR
TRANSPORT FLEET
& LEADING
BUILDERS MERCHANTS**



ROBESLEE CONCRETE COMPANY LTD.

**SOUTHBANK ROAD, KIRKINTILLOCH,
GLASGOW G66 1UA**

T_ 0141 775 2677

F_ 0141 777 8120

E_ SUPPORT@ROBESLEE.CO.UK

WWW.ROBESLEE.CO.UK