

# Elite Concrete technical specifications

5 tonne lifting pin (all Legato blocks and TVCBs)  
pull out calcs with dynamic loading to 48Kn



## Lift calculation

### Project properties

Project description: Legato Blocks  
Part: 800mm x 800mm x 800mm 48kN load  
User/Advisor: Damian Smith  
Customer/Applicant: Elite Precast Concrete Limited  
Date: 11/3/2017

### General information

Anchortype: hoist anchor

#### Anchor properties

Anchor type	T-050-0180
Anchor length	L 180 mm
Diameter	D 20 mm
Foot diameter	D <sub>9</sub> 50 mm
Haeussler lengths	L <sub>1</sub> 195 mm L <sub>2</sub> 148 mm L <sub>3</sub> 155 mm

#### Concrete properties

Concrete cube strength	f <sub>ck</sub> 20MPa
Situation (at the time of hoisting) : assembly on construction site	
Cover on the foot of the anchor	C <sub>min</sub> 10 mm
Length	l <sub>concrete</sub> 800 mm
Width	W <sub>concrete</sub> 800 mm
Height	h <sub>concrete</sub> 800 mm

### Loads and load factors

Hoist angle factor	1.00
Bump factor	4.00
Adhesion factor	1.00
Number of anchors	1 st
Weight concrete element	12.0 kN
Force	48.0 kN



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## Calculation results Haeussler formulas

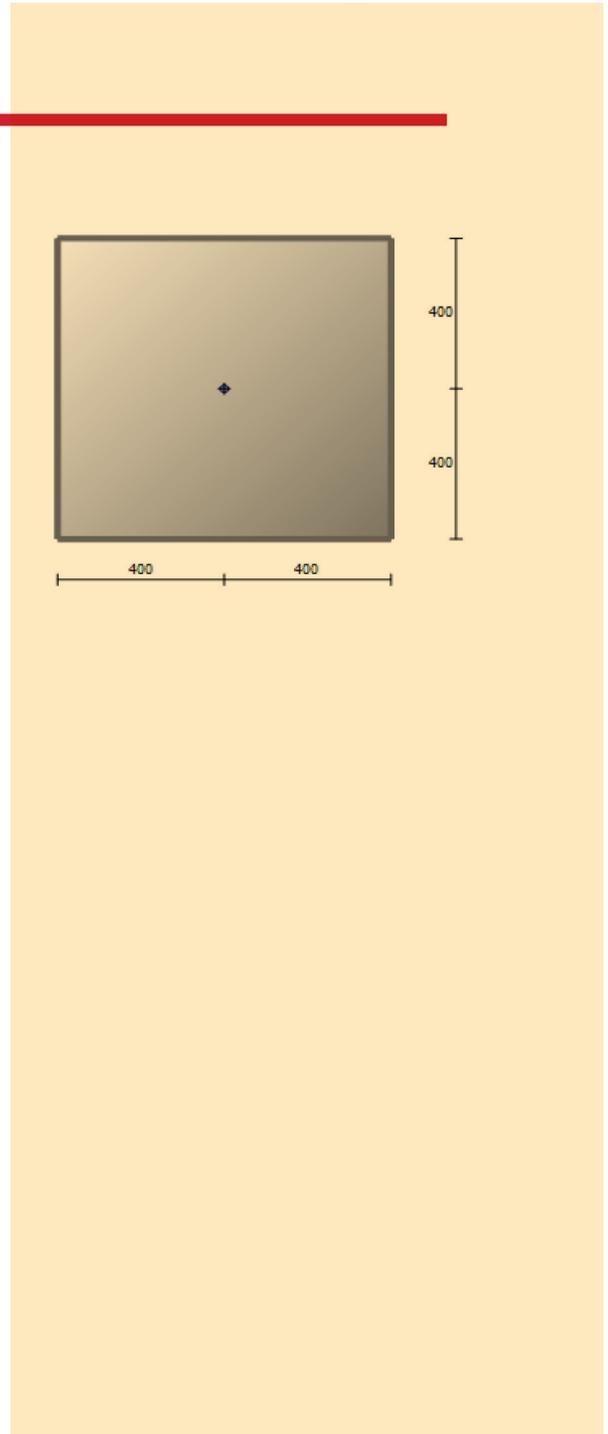
Design force formula 1:	N/A kN
Design force formula 2:	1457.82 kN
Design force formula 3:	86.77 kN
Design force formula 4:	120.56 kN
Design force formula 5:	113.04 kN
Design force formula 6:	105.99 kN
Design force formula 7:	N/A kN
Design force formula 8:	N/A kN
Design force formula 9:	103.97 kN
Design force formula 11:	N/A kN

Connection with anchortype T-050-0180 is sufficient

(86.77 kN > 48.00 kN), in which 86.77 kN is the lowest capacity from the Haeussler formulas and 48.00 kN is the force on each anchor.

(50.00 kN > 48.00 kN), in which 50.00 kN is the capacity of the anchor type.

When erecting additional armorment is not taken into account



Elite Precast Concrete Limited  
Halesfield 9, Telford, Shropshire TF7 4QW  
Tel: 01952 588885 Fax: 01952 582011  
[www.eliteprecast.co.uk](http://www.eliteprecast.co.uk)