

# Elite Concrete technical specifications

2.5 tonne lifting pin (Duo block BL2/KL750)  
pull out calcs with dynamic loading to 24.8Kn



## Lift calculation

### Project properties

Project description: Duo Block  
Part: BL2/KL750 with factor 2.8 Dynamic loading  
User/Advisor: Damian Smith (Euro Accessories)  
Customer/Applicant: Elite Precast Concrete  
Date: 1/2/2018

### General information

Anchortype: hoist anchor

#### Anchor properties

Anchor type	T-025-0170
Anchor length	L 170 mm
Diameter	D 14 mm
Foot diameter	D <sub>9</sub> 35 mm
Haeussler lengths	L <sub>1</sub> 181 mm
	L <sub>2</sub> 144 mm
	L <sub>3</sub> 148.5 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> 1200 mm
Width	W <sub>concrete</sub> 600 mm
Height	h <sub>concrete</sub> 450 mm

### Loads and load factors

Hoist angle factor	1.00
Bump factor	3.30
Adhesion factor	1.00
Number of anchors	1 st
Weight concrete element	7.5 kN
Force	24.8 kN



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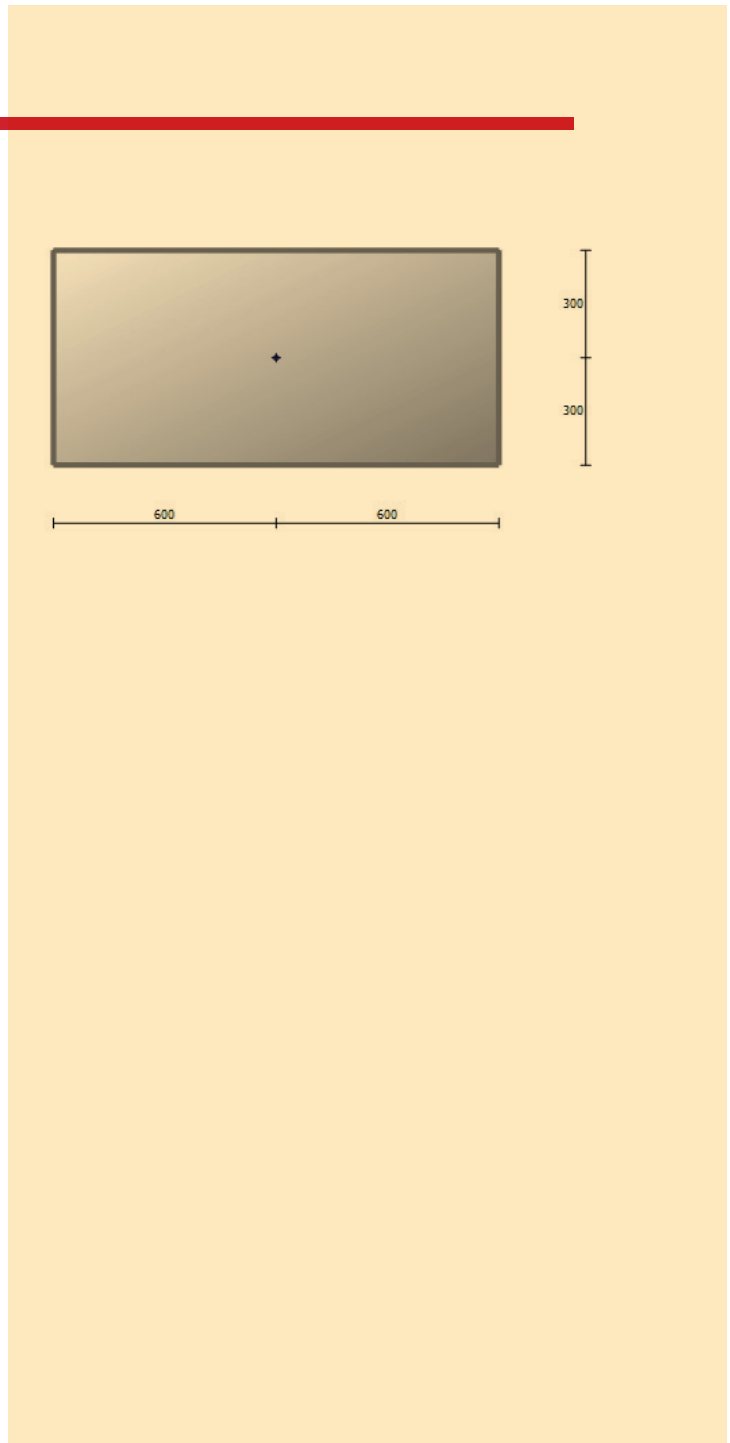
### Calculation results Haeussler formulas

Design force formula 1:	N/A kN
Design force formula 2:	819.30 kN
Design force formula 3:	73.79 kN
Design force formula 4:	167.86 kN
Design force formula 5:	146.62 kN
Design force formula 6:	128.06 kN
Design force formula 7:	N/A kN
Design force formula 8:	N/A kN
Design force formula 9:	69.73 kN
Design force formula 11:	N/A kN

Connection with anchortype T-025-0170 is sufficient  
(69.73 kN > 24.75 kN), in which 69.73 kN is the lowest capacity from the Haeussler formulas and 24.75 kN is the force on each anchor.  
(25.00 kN > 24.75 kN), in which 25.00 kN is the capacity of the anchor type.

When erecting additional armorment is not taken into account

Remarks : Use 1 off 2.5t x 170mm Pin Anchor for site handling, maximum dynamic load factor 3.3



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