ACS

Technical Data Sheet

Stainless Steel Concrete Screw

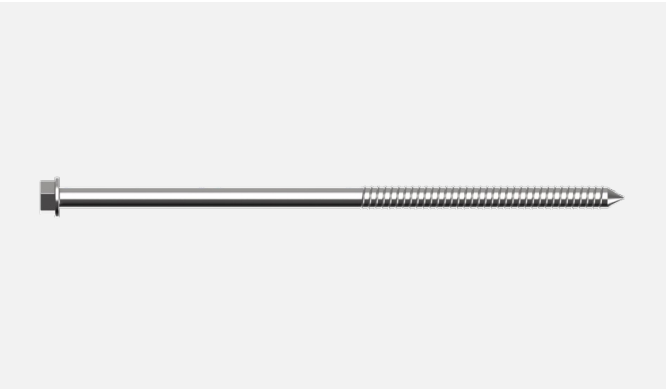


Stainless Steel Concrete Screw

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Product summary

The ACS Stainless Steel Concrete Screw is designed to fix ancillary components to concrete substrates with varying strength classes and other base materials, including masonry and timber. Table 1.1 below shows available fixing lengths and minimum and maximum fixture thicknesses for each length.



Product code	Screw length (mm)	Min fixture thickness (mm)	Max fixture thickness (mm)
CSHA263X055	55	0	30
CSHA263X100	100	50	75
CSHA263X125	125	75	100
CSHA263X150	150	100	125
CSHA263X175	175	125	150
CSHA263X200	200	150	175
CSHA263X230	230	180	205
CSHA263X250	250	200	225
CSHA263X275	275	225	250
CSHA263X300	300	250	275

Table 1.1 — Concrete screw lengths

Fixing parameters

Embedment: 25mm to 50mm
Pilot hole: 5mm diameter
Pilot hole length: Embedment + 15mm
Material: Stainless Steel
Head style: 5/16″ (8mm) hexagonal socket

Characteristic Mechanical Fixing Values

Shear VR_k: 9.7 kN
Tensile NR_k: 14.1 kN
Torque TR_k: 9.38 Nm

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Concrete substrates

Uncracked Concrete Parameters

Installation torque: 5Nm
Minimum spacing: 55mm
Minimum edge distance: 55mm
Minimum substate thickness: 100mm

Concrete design capacities

	25mm Embedment		35mm Embedment		50mm Embedment	
	Characteristic Tensile Capacity (NR_k)	Design Tensile Capacity (NR_d)	Characteristic Tensile Capacity (NR_k)	Design Tensile Capacity (NR_d)	Characteristic Tensile Capacity (NR_k)	Design Tensile Capacity (NR_d)
C20/25	2.76 kN	1.53 kN	4.43 kN	2.46 kN	7.44 kN	4.13 kN
0C25/30	3.08 kN	1.71 kN	4.96 kN	2.75 kN	8.32 kN	4.62 kN
C30/37	3.38 kN	1.88 kN	5.43 kN	3.02 kN	9.11 kN	5.06 kN
C35/40	3.65 kN	2.03 kN	5.87 kN	3.26 kN	9.84 kN	5.47 kN
C40/50	3.90 kN	2.17 kN	6.27 kN	3.48 kN	10.52 kN	5.84 kN
C45/55	4.14 kN	2.30 kN	6.65 kN	3.69 kN	11.16 kN	6.20 kN
≥C50/60	4.36 kN	2.42 kN	7.01 kN	3.89 kN	11.76 kN	6.53 kN

Table 1.2 — Concrete screw capacities

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Alternative Substrates

The fixing can be used for use in structural timber and 7N aggregate concrete blocks. Capacities are provided in table 1.3 below

	Embedment	Characteristic Tensile Capacity (NR_k)	Design Tensile Capacity (NR_d)
Timber (C16)	25mm	2.3kN	1.47kN
Block (7N)	50mm	3.81kN	2.12kN

Table 1.3

The results found within this document are based upon empirical testing with relevant factors applied. For individual load cases, designs should be checked by suitably qualified and competent individual before use, taking into account partial factors based on National Annexes relevant to their design and use.

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