

Highload Anchor SL

Steel, zinc plated / Stainless steel A4/316



Highload Anchor SL



Highload Anchor SL A4

Range of loading: 5,4 kN - 66,8 kN

Range of concrete quality: C12/15 - C50/60

Description

The Highload Anchor SL is a torque controlled sleeve anchor for through fastenings in non-cracked concrete. Two versions are available: SL-S with hexagon head screw, SL-B with hexagon nut.

European Technical Assessment, Option 7 for anchor size M10 steel galvanized. German approval in concrete strength class C12/15.

Applications

Medium to heavy duty anchorings of base plates, supports, pallet racks, brackets, railings in non-cracked concrete.



M10 zinc plated

M10 zinc plated

Highload Anchor SL



SL-B SL-S

→ Steel, zinc plated

→ For non-cracked concrete

| Description | Type SL-S | Type SL-B | Drill hole Ø x depth | Drill hole depth through fi ture | Setting depth mm | Anchor length | | Fixture thickness | Thread | Pkg. cont. | Weight per pkg. |
|-------------|-----------|-----------|-------------------------|-------------------------------------|---------------------|---------------|-------------|----------------------|--------|------------|--------------------|
| | Ref. No. | Ref. No. | | | | Typ S mm | Typ B mm | | | | |
| SL 14-0 | 10205101 | 12205101 | 14x85 | 85 | 73 | 84 | 86 | 0 | M10 | 25 | 2,38 |
| SL 14-10 | 10210101 | 12210101 | 14x85 | 95 | 73 | 94 | 96 | 10 | M10 | 25 | 2,71 |
| SL 14-25 | 10220101 | 12220101 | 14x85 | 110 | 73 | 109 | 111 | 25 | M10 | 25 | 3,08 |
| SL 14-50 | 10225101 | 12225101 | 14x85 | 135 | 73 | 134 | 136 | 50 | M10 | 25 | 3,73 |
| SL 14-75 | 10230101 | 12230101 | 14x85 | 160 | 73 | 159 | 161 | 75 | M10 | 25 | 4,43 |
| SL 14-100 | 10235101 | 12235101 | 14x85 | 185 | 73 | 179 | 181 | 100 | M10 | 25 | 5,18 |
| SL 14-125 | - | 12240101 | 14x85 | 210 | 73 | - | 210 | 125 | M10 | 25 | 5,32 |
| SL 14-160 | - | 12245101 | 14x85 | 245 | 73 | - | 245 | 160 | M10 | 20 | 4,96 |

Other length and special assemblies on demand.

Highload Anchor SL A4¹⁾



SL-B SL-S

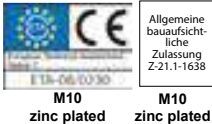
→ Stainless steel A4/316

→ For non-cracked concrete

| Description | Type SL-S | Type SL-B | Drill hole Ø x depth | Drill hole depth through fi ture | Setting depth mm | Anchor length | | Fixture thick- ness | Thread | Pkg. cont. | Weight per pkg. |
|-------------|-----------|-----------|-------------------------|-------------------------------------|---------------------|---------------|-------------|------------------------|--------|------------|--------------------|
| | Ref. No. | Ref. No. | | | | Typ S mm | Typ B mm | | | | |
| SL 10-10 A4 | 10010501 | 12010501 | 10x60 | 70 | 53 | 69 | 69 | 10 | M 6 | 50 | 1,73 |
| SL 14-10 A4 | 10210501 | 12210501 | 14x85 | 95 | 73 | 94 | 96 | 10 | M 10 | 25 | 2,60 |
| SL 14-25 A4 | 10220501 | 12220501 | 14x85 | 110 | 73 | 109 | 111 | 25 | M 10 | 25 | 3,02 |
| SL 14-50 A4 | 10225501 | 12225501 | 14x85 | 135 | 73 | 134 | 136 | 50 | M 10 | 25 | 3,68 |
| SL 28-30 A4 | 10610501 | 12610501 | 28x150 | 180 | 135 | 182 | 188 | 30 | M 20 | 5 | 4,30 |
| SL 28-60 A4 | 10615501 | 12615501 | 28x150 | 210 | 135 | 212 | 218 | 60 | M 20 | 5 | 5,02 |

Other length and special assemblies on demand.

¹⁾ Not part of assessment/approvals.



Extract from Permissible Service Conditions of European Technical Assessment ETA-08/0230 and of Approval Z21.1-1638.

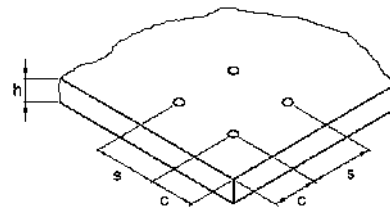
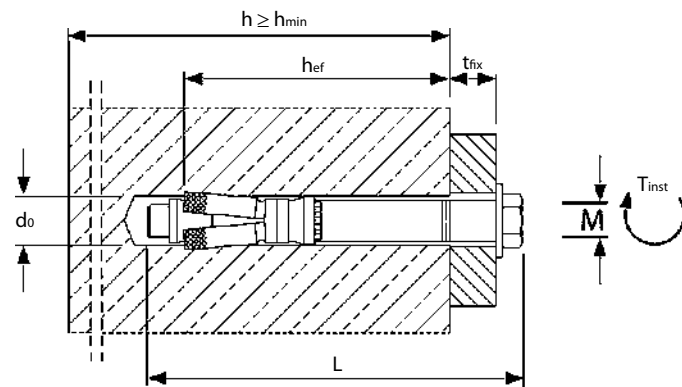
Approved loads for single anchor without influence of spacing and edge distance.
Total safety factor as per ETAG 001 included (γ_M and γ_p).

Recommended loads for single anchor without influence of spacing and edge distance.
Total safety factor as per ETAG 001 included (γ_M and γ_p).

| Loads and performance data | Highload Anchor SL | | SL 14 M 10 | SL 10 ¹⁾ M 6 | SL 14 ¹⁾ M 10 | SL 28 ¹⁾ M 20 |
|---|--------------------|------|-------------------|----------------------------|-----------------------------|-----------------------------|
| | | | steel, zinc pltd. | A4-70 | A4-70 | A4-70 |
| approved values - non-cracked concrete | | | | | | |
| Mean ultimate loads, tension | C25/30 Num | [kN] | 43,3 | 15,9 | 40,8 | 160,8 |
| | C25/30 Num | [kN] | 35,6 | 20,8 | 45,3 | 208,7 |
| Loads, tension | C12/15 N | [kN] | 7,6 | - | - | - |
| | C20/25 N | [kN] | 9,5 | 5,4 | 12,6 | 33,5 |
| | C30/37 N | [kN] | 11,6 | 5,4 | 13,8 | 36,9 |
| | C40/50 N | [kN] | 13,4 | 5,4 | 15,5 | 47,3 |
| | C50/60 N | [kN] | 14,8 | 5,4 | 15,5 | 52,0 |
| Loads, shear | C12/15 V | [kN] | 13,3 | - | - | - |
| | ≥ C20/25 V | [kN] | 13,3 | 6,7 | 14,5 | 66,8 |
| Bending moments | M | [Nm] | 34,3 | 4,9 | 23,9 | 208,1 |
| recommended values - non-cracked concrete | | | | | | |
| Effective anchorage depth | hef | [mm] | 65 | 45 | 65 | 125 |
| Characteristic spacing | Scr,N | [mm] | 195 | 135 | 195 | 375 |
| Characteristic edge distance | Ccr,N | [mm] | 97,5 | 67,5 | 97,5 | 187,5 |
| Minimum spacing | Smin | [mm] | 60 | 70 | 100 | 190 |
| Minimum edge distance | Cmin | [mm] | 120 | 90 | 130 | 250 |
| Minimum thickness of concrete slab | hmin | [mm] | 130 | 130 | 200 | 350 |
| Installation parameters | | | | | | |
| Drill hole diameter | do | [mm] | 14 | 10 | 14 | 28 |
| Diameter of clearance hole in the fi ture | df | [mm] | 16 | 12 | 16 | 31 |
| Depth of drill hole | h1 | [mm] | 85 | 60 | 85 | 150 |
| Installation torque | Tinst | [Nm] | 50 | 10 | 50 | 400 |
| Width across nut | SW | [mm] | 17 | 10 | 17 | 30 |

For anchor designing an easy to operate CD-ROM is available on request or can be downloaded at www.mkt.de.

¹⁾ Not part of assessment/approvals.



Installation

