

# 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. Three versions are available: SL-S with hexagon head screw, SL-B with hexagon nut and SL-SK with countersunk head screw. European Technical Approval, 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 fixture	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 A4<sup>1)</sup>



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 fixture	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 10-25 A4	10020501	12020501	10x60	85	53	84	84	25	M 6	50	2,15
SL 10-50 A4	10025501	12025501	10x60	110	53	104	106	50	M 6	50	2,69
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.

<sup>1)</sup> Not part of approvals.

**Highload Anchor SL-SK A4<sup>1)</sup>**



- Stainless steel A4/316
- For non-cracked concrete

SL-SK

Description	Type SL-SK	Drill hole Ø x depth	Drill hole depth through fixture	Setting depth	Anchor length	Fixture thickness $t_{fx}$	Thread	Pkg. cont.	Weight per pkg.
	Ref. No.	mm	mm	mm	mm	mm		pcs.	kg
SL 10-25 A4	10020531	10x60	85	53	86	31	M 6	50	2,32

Other length and special assemblies on demand.

<sup>1)</sup> Not part of approvals.



**Extract from Permissible Service Conditions of ETA-08/0230 and Z-21.1-1638.**

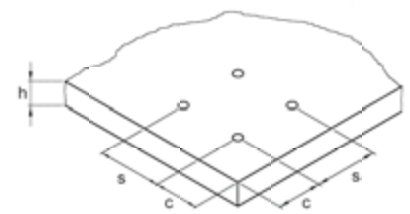
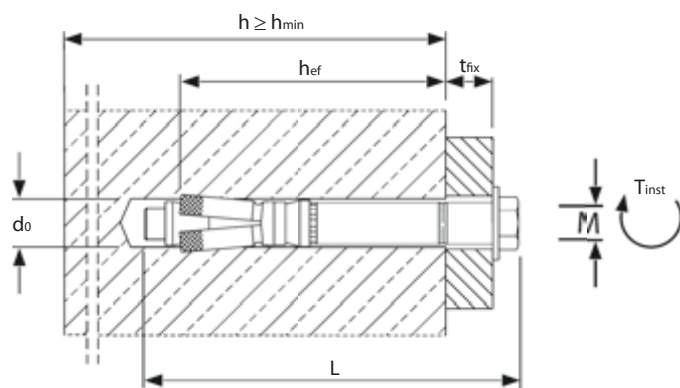
Approved loads for single anchor without influence of spacing and edge distance.  
Total safety factor as per ETAG 001 included ( $\gamma_M$  and  $\gamma_P$ ).

Recommended loads for single anchor without influence of spacing and edge distance.  
Total safety factor as per ETAG 001 included ( $\gamma_M$  and  $\gamma_P$ ).

Loads and performance data	Highload Anchor SL		SL 14 M 10	SL 10 <sup>1)</sup> M 6	SL 14 <sup>1)</sup> M 10	SL 28 <sup>1)</sup> M 20
			steel, zinc pltd.	A4-70	A4-70	A4-70
approved values - non-cracked concrete						
Mean ultimate loads, tension	C25/30 $N_{um}$	[kN]	43,3	15,9	40,8	160,8
	C25/30 $N_{um}$	[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	-	-	-
	$\geq$ 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	$h_{ef}$	[mm]	65	45	65	125
Characteristic spacing	$s_{cr,N}$	[mm]	195	135	195	375
Characteristic edge distance	$c_{cr,N}$	[mm]	97,5	67,5	97,5	187,5
Minimum spacing	$s_{min}$	[mm]	60	70	100	190
Minimum edge distance	$c_{min}$	[mm]	120	90	130	250
Minimum thickness of concrete slab	$h_{min}$	[mm]	130	130	200	350
Installation parameters						
Drill hole diameter	$d_o$	[mm]	14	10	14	28
Diameter of clearance hole in the fixture	$d_f$	[mm]	16	12	16	31
Depth of drill hole	$h_1$	[mm]	85	60	85	150
Installation torque	$T_{inst}$	[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](http://www.mkt.de).

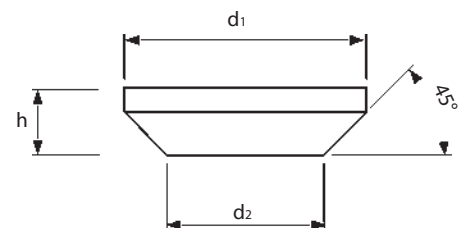
<sup>1)</sup> Not part of approvals.



**Dimensions countersunk head SL-SK [mm]**

	d1	d2	h
SL-SK 10 M 6	20,0	11,0	6,0

Countersunk head version SL-SK.



**Installation**

