

DRAFT EDITION 01 - DECEMBER 2019

LIFTING
SYSTEM

EDILMATIC

EMZ



EDILMATIC

Content

1 LIFTING ANCHOR

ZER erection anchor for lifting and tilting	3
ZER-C conical erection anchor for lifting and tilting	8
ZER-MN unilateral erection anchor for lifting and tilting	13
ZE-TD-BS spread anchor for vertical lifting	18
ZE-TD spread anchor with two holes for vertical lifting	24
ZE-U universal anchor	27
ZE-R lowered anchor	29

2 LIFTING HANDLE

MSZE standard lifting handle with hot formed ring	32
EMSZE-C special lifting handle with steel wire	33

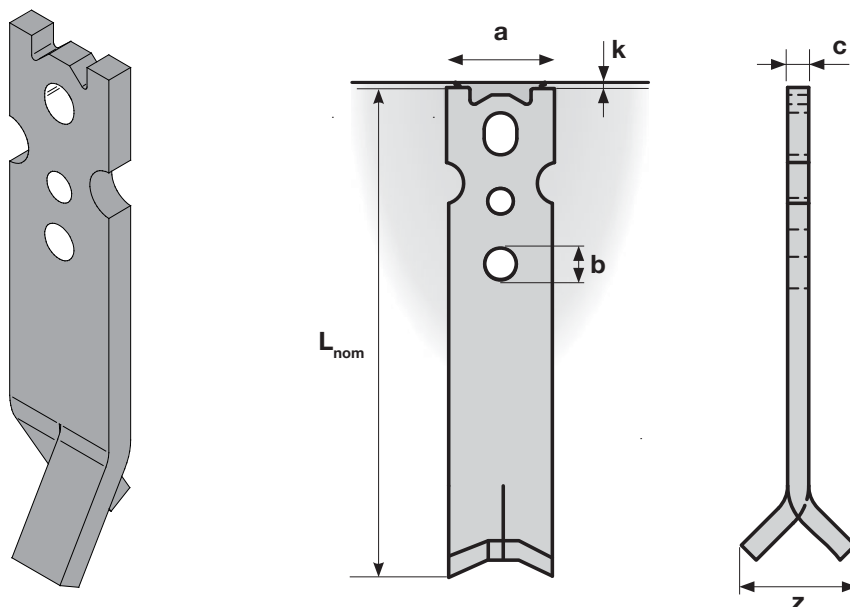
3 RECESS FORMER

EMZ recess former	34
-------------------	----

EDILMATIC EMZ LIFTING SYSTEM

ZER erection anchor for lifting and tilting

Types and dimensions

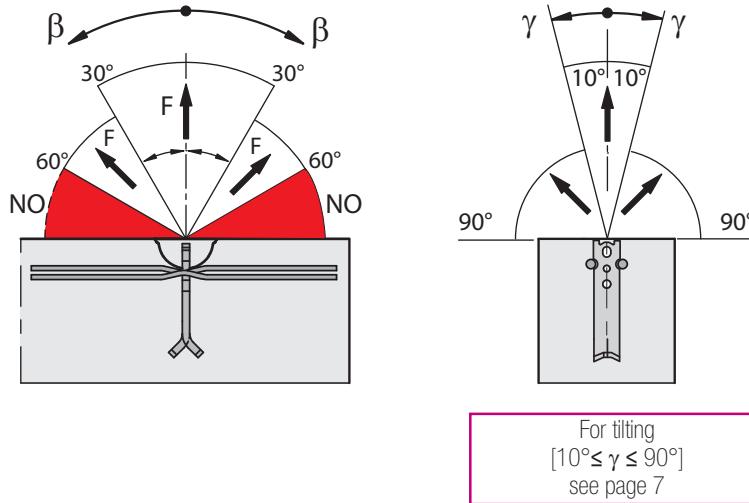


Load group (ton)	Anchor type	Code	Dimensions and sizes (mm)					
			a	b	c	z	L _{nom}	k
2.5 t	1.4 t	ZER1.4G	55	15	6	60	200	10
	2.5 t	ZER2.5G	55	15	12	70	230	10
5.0 t	4.0 t	ZER4G	75	19	15	80	270	10
	5.0 t	ZER5G	75	19	17.5	80	290	10
10 t	7.5 t	ZER7.5G	120	29	15	110	320	15
	10.0 t	ZER10G	120	29	20	110	390	15
26 t	12.5 t	ZER12.5G	150	35	20	140	500	15
	17.0 t	ZER17G	150	35	25	140	500	15
	22.0 t	ZER22G	150	35	30	140	500	15

EDILMATIC EMZ LIFTING SYSTEM

ZER erection anchor for lifting and tilting

Direction of loading and design loads

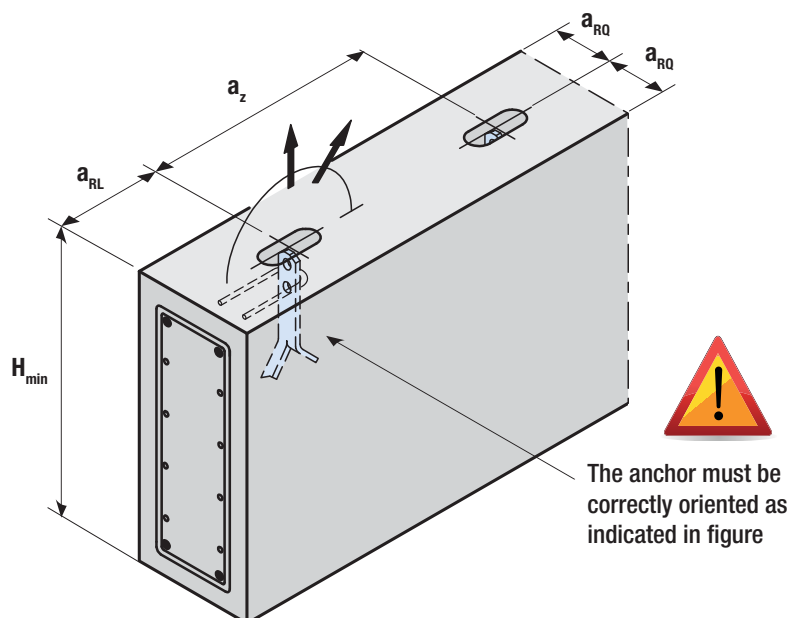


Load group	Anchor type	F_{max} (kN)	
		$\beta \leq 30^\circ \quad \gamma \leq 10^\circ$	$30^\circ < \beta < 60^\circ$
2.5 t	1.4 t	14	11.2
	2.5 t	25	20
5.0 t	4.0 t	40	32
	5.0 t	50	40
10 t	7.5 t	75	60
	10.0 t	100	80
26 t	12.5 t	125	100
	17.0 t	170	136
	22.0 t	220	176

EDILMATIC EMZ LIFTING SYSTEM

ZER erection anchor for lifting and tilting

Positioning prescriptions and edge distances

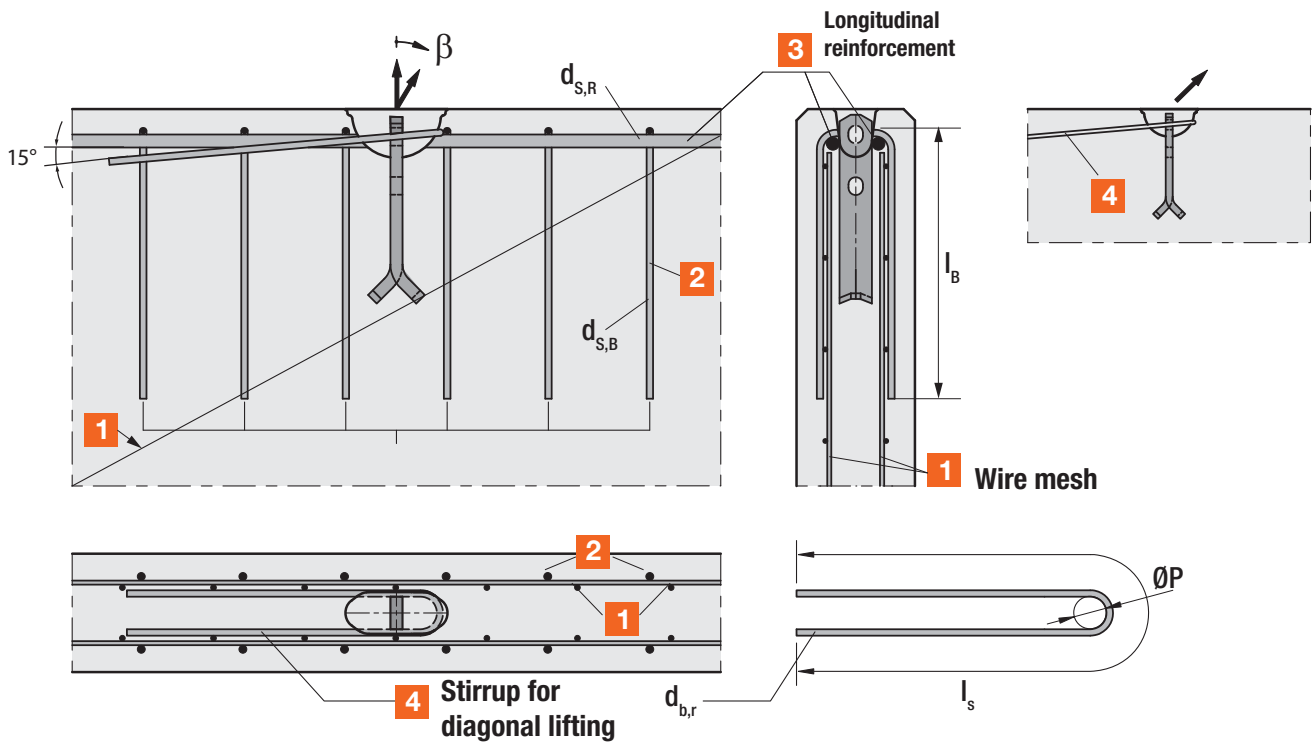


Load group	Anchor type	L_{nom} mm	a_z mm	a_{RL} mm	a_{RQ} mm	H_{min} mm
2.5 t	1.4 t	200	700	350	50	400
	2.5 t	230	800	400	60	460
5.0 t	4.0 t	270	950	475	75	540
	5.0 t	290	1000	500	80	580
10 t	7.5 t	320	1200	600	90	640
	10.0 t	390	1500	750	100	780
26 t	12.5 t	500	1500	750	120	1000
	17.0 t	500	1500	750	150	1000
	22.0 t	500	1500	750	180	1000

EDILMATIC EMZ LIFTING SYSTEM

ZER erection anchor for lifting and tilting

Additional reinforcement



Load group	Anchor type	1 Wire mesh		2 Longitudinal stirrups			3 Longitudinal reinforcement	4 Stirrup for diagonal lifting		
		Ø mm	A _s mm ² /m	n ^o _{min}	d _{s,B} mm	I _B mm	d _{s,R} mm	ØP mm	d _{br} mm	I _s mm
2.5 t	1.4 t	6	188	2	6	500	2 x Ø8	47	6	900
	2.5 t	6	188	2	8	600	2 x Ø8	47	8	1200
5.0 t	4.0 t	6	188	2	10	700	2 x Ø10	53	10	1200
	5.0 t	6	188	2	10	800	2 x Ø10	53	12	1550
10 t	7.5 t	6	188	4	10	800	2 x Ø10	71	14	2000
	10.0 t	6	188	6	10	800	2 x Ø12	71	16	2300
26 t	12.5 t	8	335	6	10	800	2 x Ø14	116	20	2300
	17.0 t	8	335	6	12	1000	2 x Ø14	116	24	2600
	22.0 t	10	524	6	12	1200	2 x Ø16	116	28	3000

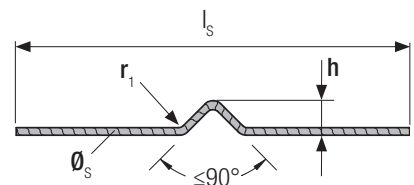
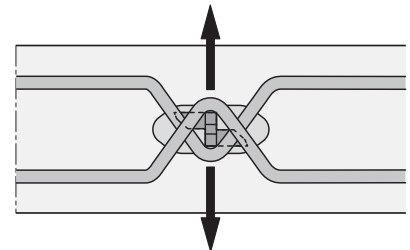
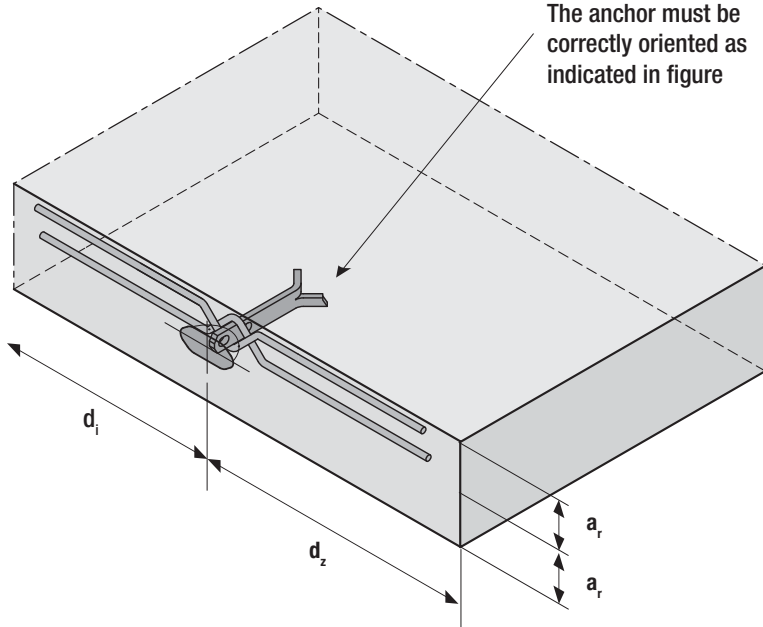
EDILMATIC EMZ LIFTING SYSTEM

ZER erection anchor for lifting and tilting

Prescriptions for tilting and lifting



The anchor must be correctly oriented as indicated in figure

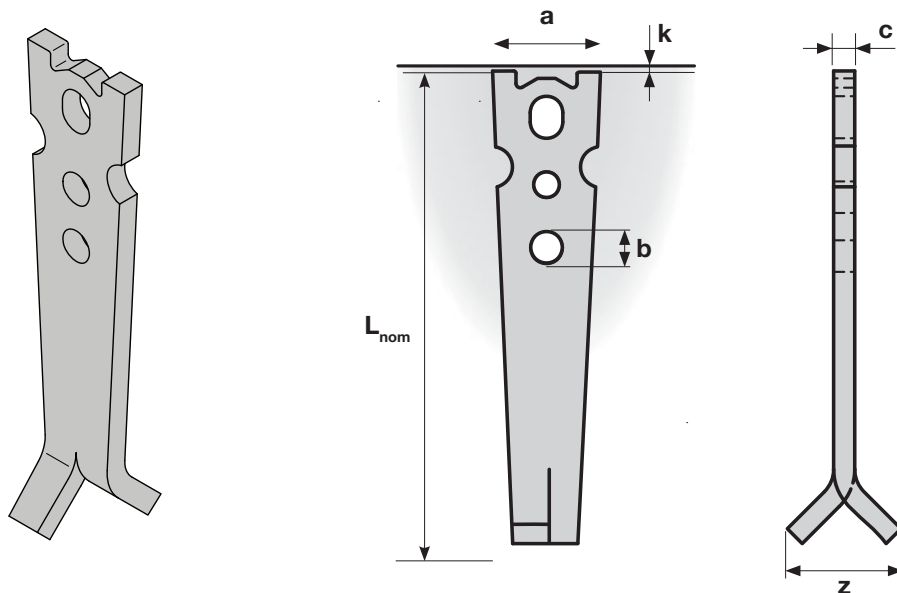


Load group	Anchor type	Load (kN)	Positioning distances			Stirrups for tilting		
			d _z mm	d _i mm	a _r mm	∅ _s mm	r ₁ mm	l _s mm
2.5 t	1.4 t	7.0	350	700	50	10	25	700
	2.5 t	12.5	400	800	60	12	25	800
5.0 t	4.0 t	20.0	475	950	75	14	32	950
	5.0 t	25.0	500	1000	80	16	32	1000
10 t	7.5 t	37.5	600	1200	90	20	40	1200
	10.0 t	50.0	750	1500	100	20	40	1500
26 t	12.5 t	62.5	750	1500	120	25	50	1800
	17.0 t	85.0	750	1500	150	25	50	1800
	22.0 t	110.0	750	1500	180	28	50	1800

EDILMATIC EMZ LIFTING SYSTEM

ZER-C conical erection anchor for lifting and tilting

Types and sizes

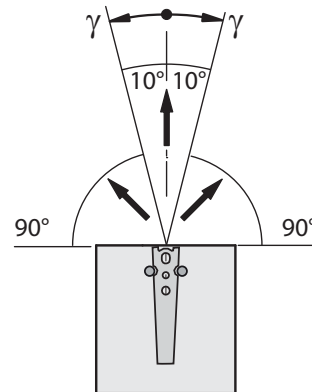
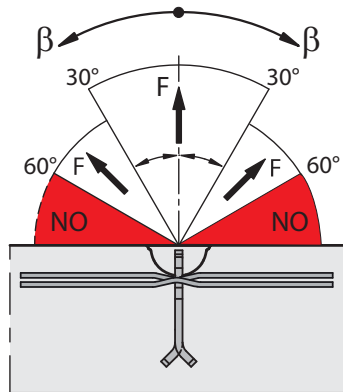


Load group	Anchor type	Code	Dimensions and sizes (mm)					
			a	b	c	z	L _{nom}	k
2.5 t	1.4 t	ZER-C1.4G	55	15	6	60	200	10
	2.5 t	ZER-C2.5G	55	15	12	70	230	10
5.0 t	4.0 t	ZER-C4G	75	19	15	80	270	10
	5.0 t	ZER-C5G	75	19	17.5	80	290	10
10 t	7.5 t	ZER-C7.5G	120	29	15	110	320	15
	10.0 t	ZER-C10G	120	29	20	110	390	15
26 t	12.5 t	ZER-C12.5G	150	35	20	140	500	15
	17.0 t	ZER-C17G	150	35	25	140	500	15
	22.0 t	ZER-C22G	150	35	30	140	500	15

EDILMATIC EMZ LIFTING SYSTEM

ZER-C conical erection anchor for lifting and tilting

Direction of loading and design loads



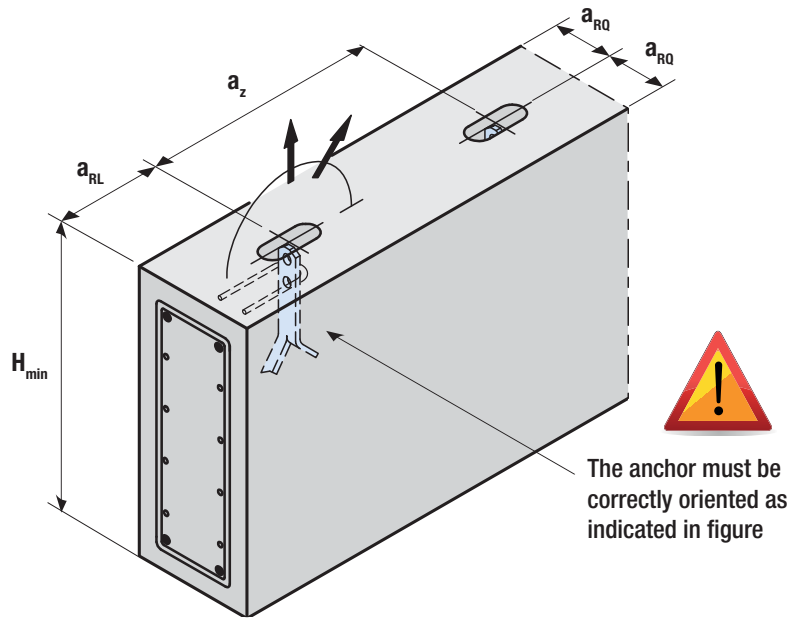
For tilting
 $[10^\circ \leq \gamma \leq 90^\circ]$
 see page 12

Load group	Anchor type	F_{max} (kN)	
		$\beta \leq 30^\circ \quad \gamma \leq 10^\circ$	$30^\circ < \beta < 60^\circ$
2.5 t	1.4 t	14	11.2
	2.5 t	25	20
5.0 t	4.0 t	40	32
	5.0 t	50	40
10 t	7.5 t	75	60
	10.0 t	100	80
26 t	12.5 t	125	100
	17.0 t	170	136
	22.0 t	220	176

EDILMATIC EMZ LIFTING SYSTEM

ZER-C conical erection anchor for lifting and tilting

Positioning prescriptions and edge distances

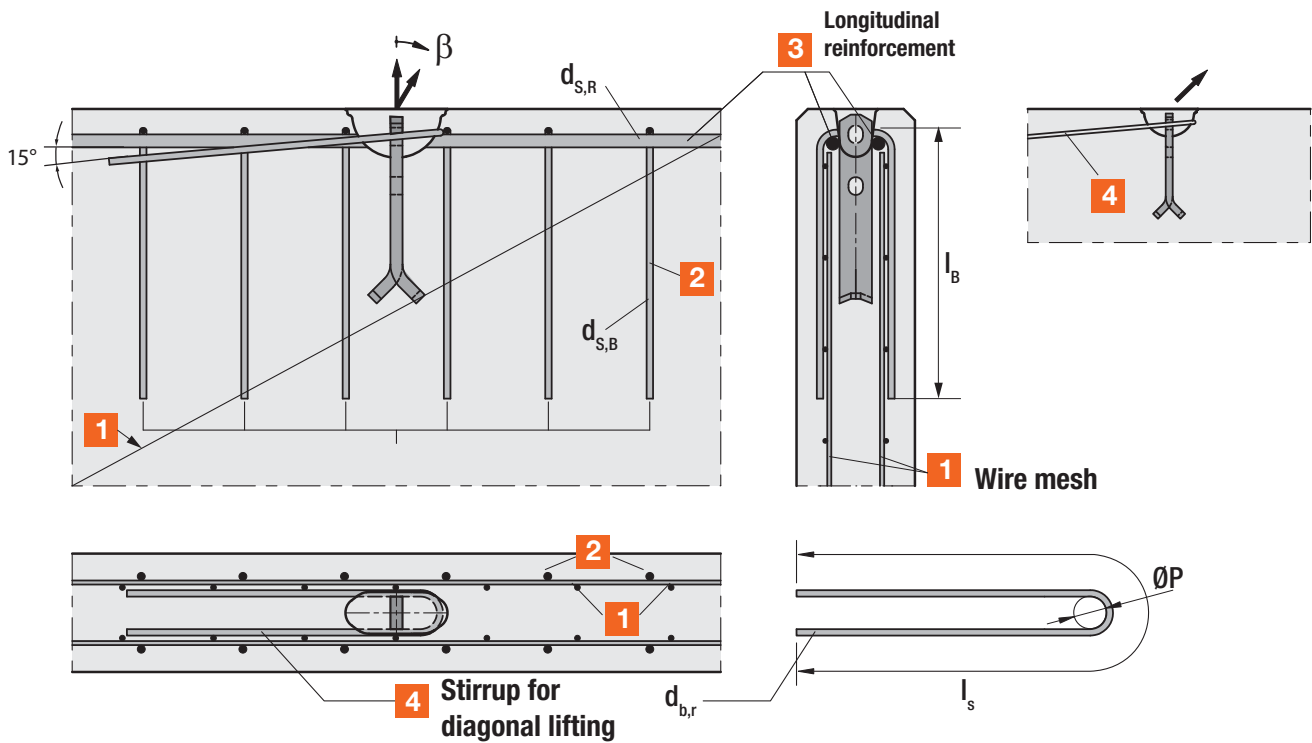


Load group	Anchor type	L_{nom} (mm)	a_z (mm)	a_{RL} (mm)	a_{RQ} (mm)	H_{min} (mm)
2.5 t	1.4 t	200	700	350	50	400
	2.5 t	230	800	400	60	460
5.0 t	4.0 t	270	950	475	75	540
	5.0 t	290	1000	500	80	580
10 t	7.5 t	320	1200	600	90	640
	10.0 t	390	1500	750	100	780
26 t	12.5 t	500	1500	750	120	1000
	17.0 t	500	1500	750	150	1000
	22.0 t	500	1500	750	180	1000

EDILMATIC EMZ LIFTING SYSTEM

ZER-C conical erection anchor for lifting and tilting

Additional reinforcement

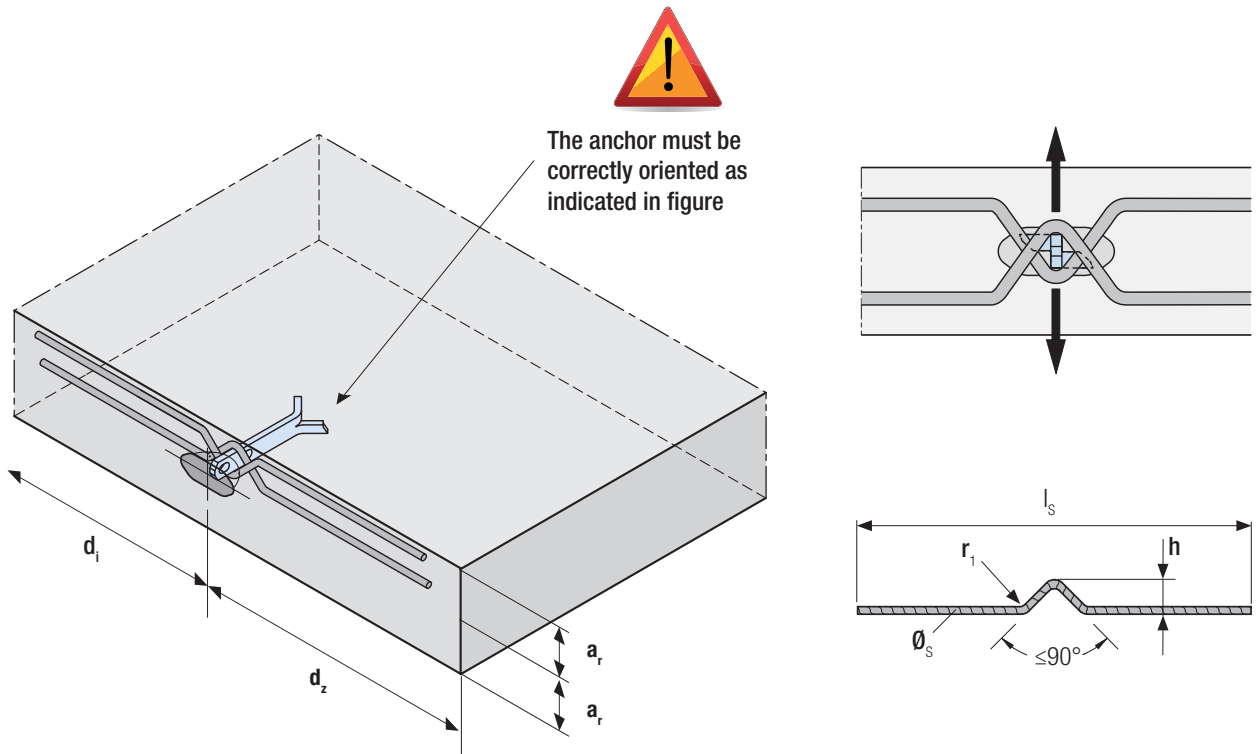


Load group	Anchor type	1 Wire mesh		2 Longitudinal stirrups			3 Longitudinal reinforcement	4 Stirrups for diagonal lifting		
		Ø (mm)	A _s (mm ² /m)	n ^o _{min}	d _{s,B} (mm)	l _B (mm)	d _{s,R} (mm)	ØP (mm)	d _{br} (mm)	l _s (mm)
2.5 t	1.4 t	6	188	2	6	500	2 x Ø8	47	6	900
	2.5 t	6	188	2	8	600	2 x Ø8	47	8	1200
5.0 t	4.0 t	6	188	2	10	700	2 x Ø10	53	10	1200
	5.0 t	6	188	2	10	800	2 x Ø10	53	12	1550
10 t	7.5 t	6	188	4	10	800	2 x Ø10	71	14	2000
	10.0 t	6	188	6	10	800	2 x Ø12	71	16	2300
26 t	12.5 t	8	335	6	10	800	2 x Ø14	116	20	2300
	17.0 t	8	335	6	12	1000	2 x Ø14	116	24	2600
	22.0 t	10	524	6	12	1200	2 x Ø16	116	28	3000

EDILMATIC EMZ LIFTING SYSTEM

ZER-C conical erection anchor for lifting and tilting

Prescriptions for tilting and lifting

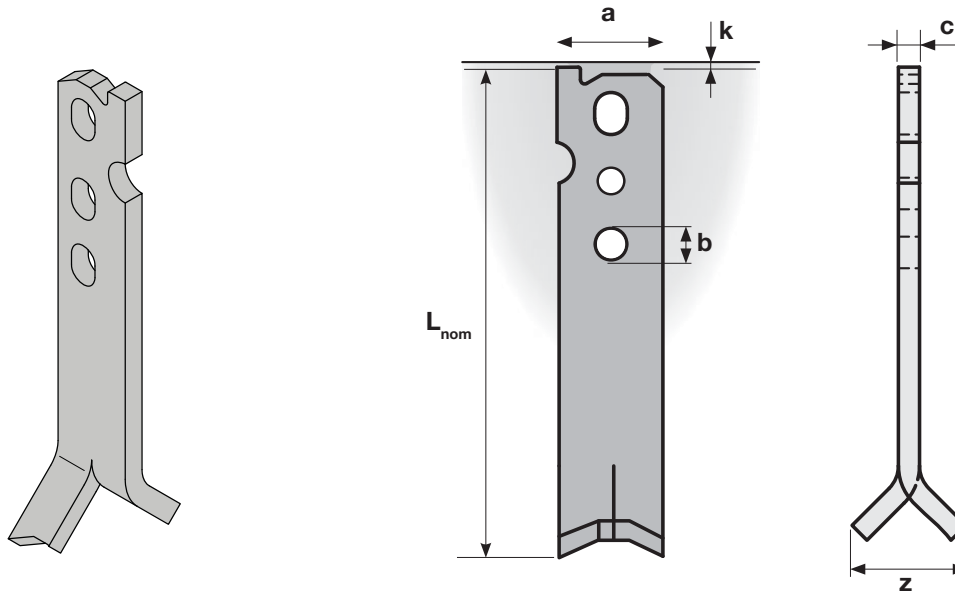


Load group	Anchor type	Design load (kN)	Positioning distances			Reinforcement for tilting		
			d_z (mm)	d_i (mm)	a_r (mm)	θ_s (mm)	r_1 (mm)	l_s (mm)
2.5 t	1.4 t	7.0	350	700	50	10	25	700
	2.5 t	12.5	400	800	60	12	25	800
5.0 t	4.0 t	20.0	475	950	75	14	32	950
	5.0 t	25.0	500	1000	80	16	32	1000
10 t	7.5 t	37.5	600	1200	90	20	40	1200
	10.0 t	50.0	750	1500	100	20	40	1500
26 t	12.5 t	62.5	750	1500	120	25	50	1800
	17.0 t	85.0	750	1500	150	25	50	1800
	22.0 t	110.0	750	1500	180	28	50	1800

EDILMATIC EMZ LIFTING SYSTEM

ZER-MN unilateral erection anchor for lifting and tilting

Types and sizes

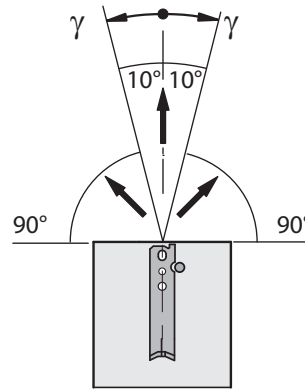
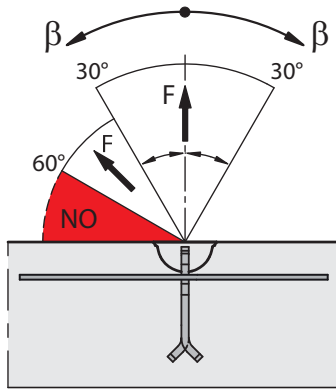


Load group	Anchor type	Code	Dimensions and sizes (mm)					
			a (mm)	b (mm)	c (mm)	z (mm)	L _{nom} (mm)	k (mm)
2.5 t	1.4 t	ZER-MN1.4G	45	15	6	60	200	10
	2.5 t	ZER-MN2.5G	45	15	12	70	230	10
5.0 t	4.0 t	ZER-MN4G	60	19	15	80	270	10
	5.0 t	ZER-MN5G	60	19	17.5	80	290	10
10 t	7.5 t	ZER-MN7.5G	100	29	15	110	320	15
	10.0 t	ZER-MN10G	100	29	20	110	390	15
26 t	12.5 t	ZER-MN12.5G	120	35	20	140	500	15
	17.0 t	ZER-MN17G	120	35	25	140	500	15
	22.0 t	ZER-MN22G	120	35	30	140	500	15

EDILMATIC EMZ LIFTING SYSTEM

ZER-MN unilateral erection anchor for lifting and tilting

Direction of loading and design loads



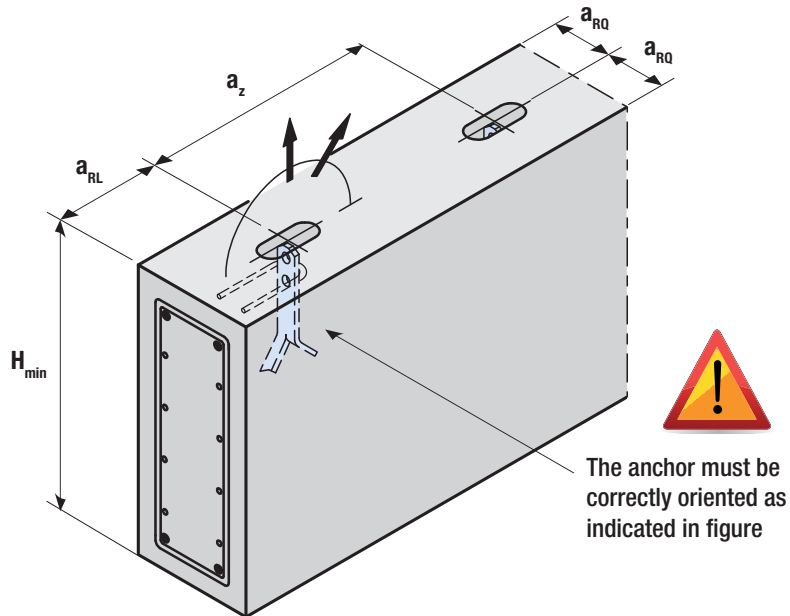
For tilting
 $[10^\circ \leq \gamma \leq 90^\circ]$
 see page 22

Load group	Anchor type	F_{\max} (kN)	
		$\beta \leq 30^\circ \quad \gamma \leq 10^\circ$	$30^\circ < \beta < 60^\circ$
2.5 t	1.4 t	14	11.2
	2.5 t	25	20
5.0 t	4.0 t	40	32
	5.0 t	50	40
10 t	7.5 t	75	60
	10.0 t	100	80
26 t	12.5 t	125	100
	17.0 t	170	136
	22.0 t	220	176

EDILMATIC EMZ LIFTING SYSTEM

ZER-MN unilateral erection anchor for lifting and tilting

Positioning prescriptions and edge distances

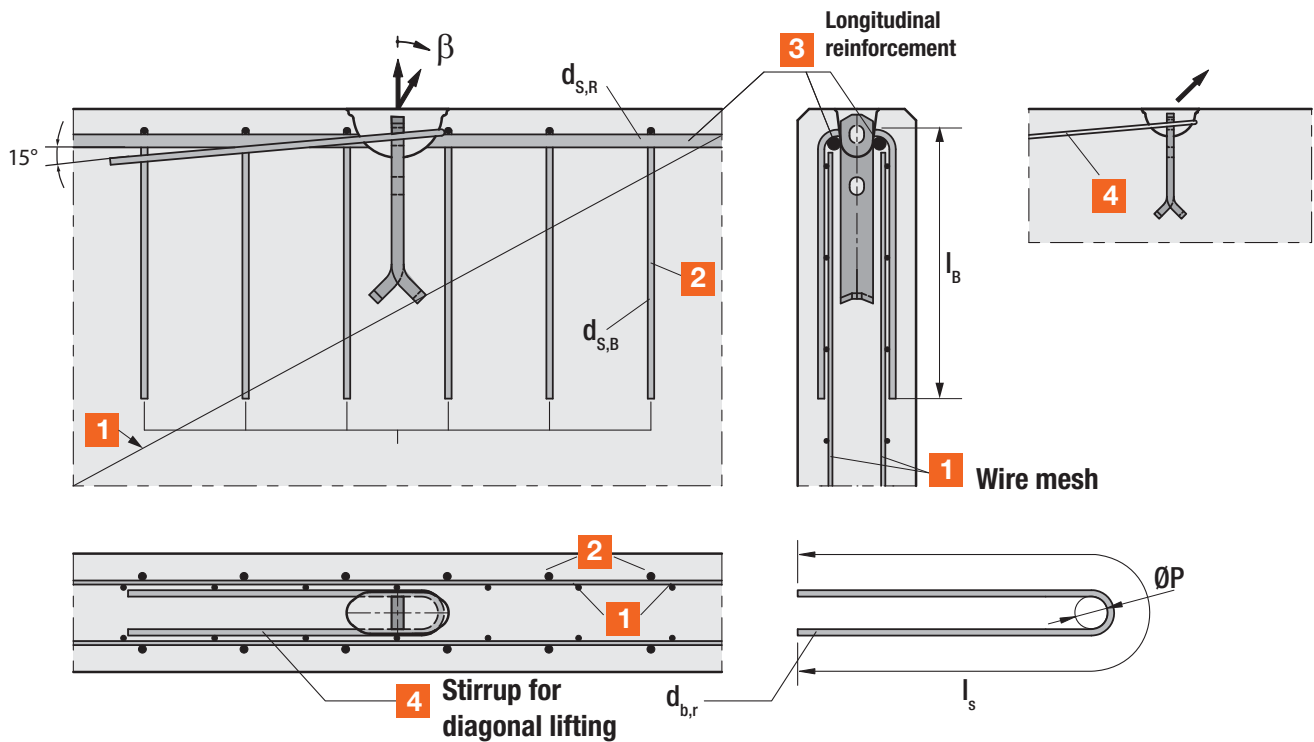


Load group	Anchor type	L_{nom} (mm)	a_z (mm)	a_{RL} (mm)	a_{RQ} (mm)	H_{min} (mm)
2.5 t	1.4 t	200	700	350	45	400
	2.5 t	230	800	400	60	460
5.0 t	4.0 t	270	950	475	70	540
	5.0 t	290	1000	500	70	580
10 t	7.5 t	320	1200	600	80	640
	10.0 t	390	1500	750	100	780
26 t	12.5 t	500	1500	750	120	1000
	17.0 t	500	1500	750	150	1000
	22.0 t	500	1500	750	180	1000

EDILMATIC EMZ LIFTING SYSTEM

ZER-MN unilateral erection anchor for lifting and tilting

Additional reinforcement

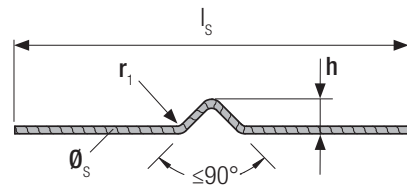
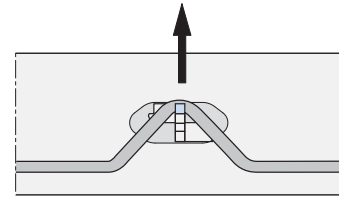
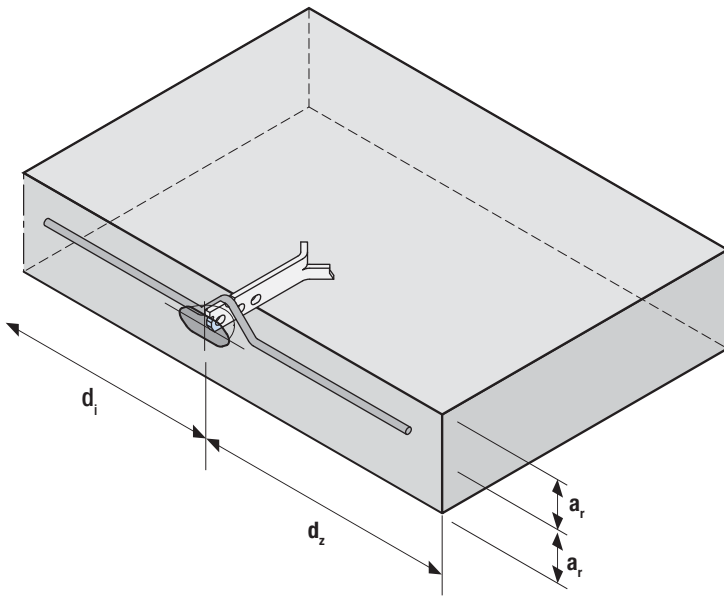


Load group	Anchor type	1 Wire mesh		2 Longitudinal stirrups			3 Longitudinal reinforcement	4 Stirrups for diagonal lifting		
		Ø (mm)	A _s (mm ² /m)	n° _{min}	d _{s,B} (mm)	l _B (mm)	d _{s,R} (mm)	ØP (mm)	d _{br} (mm)	l _s (mm)
2.5 t	1.4 t	6	188	2	6	500	2 x Ø8	47	6	900
	2.5 t	6	188	2	8	600	2 x Ø8	47	8	1200
5.0 t	4.0 t	6	188	2	10	700	2 x Ø10	53	10	1200
	5.0 t	6	188	2	10	800	2 x Ø10	53	12	1550
10 t	7.5 t	6	188	4	10	800	2 x Ø10	71	14	2000
	10.0 t	6	188	6	10	800	2 x Ø12	71	16	2300
26 t	12.5 t	8	335	6	10	800	2 x Ø14	116	20	2300
	17.0 t	8	335	6	12	1000	2 x Ø14	116	24	2600
	22.0 t	10	524	6	12	1200	2 x Ø16	116	28	3000

EDILMATIC EMZ LIFTING SYSTEM

ZER-MN unilateral erection anchor for lifting and tilting

Prescriptions for tilting and lifting

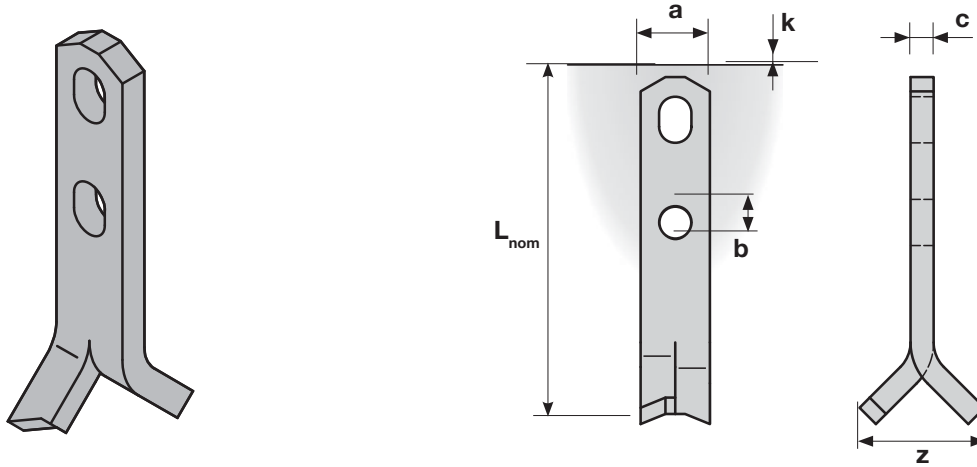


Load group	Anchor type	Design load (kN)	Positioning distances			Reinforcement for tilting		
			d _z mm	d _i mm	a _r mm	Ø _s mm	r ₁ mm	l _s mm
2.5 t	1.4 t	7.0	350	700	45	10	25	700
	2.5 t	12.5	400	800	60	12	25	800
5.0 t	4.0 t	20.0	475	950	70	14	32	950
	5.0 t	25.0	500	1000	70	16	32	1000
10 t	7.5 t	37.5	600	1200	80	20	40	1200
	10.0 t	50.0	750	1500	100	20	40	1500
26 t	12.5 t	62.5	750	1500	120	25	50	1800
	17.0 t	85.0	750	1500	150	25	50	1800
	22.0 t	110.0	750	1500	180	28	50	1800

EDILMATIC EMZ LIFTING SYSTEM

ZE-TD-BS spread anchor for vertical lifting

Types and sizes

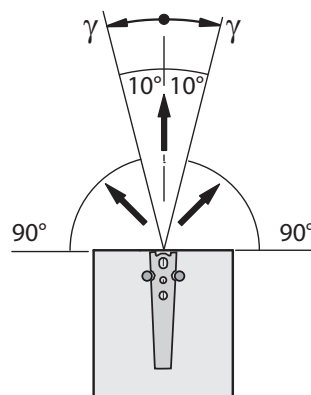
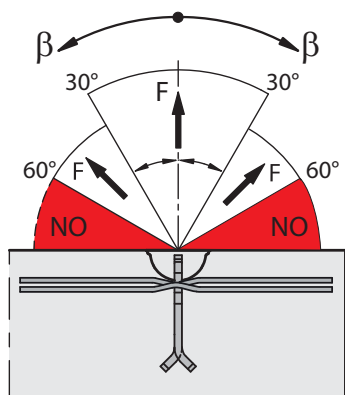


Load group	Anchor type	Dimensions and sizes (mm)						
		L _{nom} (mm)	a (mm)	b (mm)	c (mm)	z (mm)	k (mm)	
2.5 t	0.7 t	110	30	14	5	60	10	
		110						
	1.4 t	160	30	14	6	60	10	
		130						
		160						
	2.0 t	210	30	14	8	60	10	
		150						
2.5 t	2.5 t	200	30	14	10	60	10	
		250						
		150						
5.0 t	3.0 t	160	40	18	10	70	10	
		200						
		280						
	4.0 t	180	40	18	12	70	10	
		240						
		320						
	5.0 t	5.0 t	180	40	18	15	70	10
			240					
			400					
10 t	5.3 t	220	60	26	12	120	10	
		260						
		340						
	7.5 t	260	60	26	15	120	15	
		300						
		420						
10.0 t	10.0 t	300	60	26	20	120	15	
		370						
		520						
26 t	14.0 t	370	80	26	20	120	15	
		260						
	22.0 t	500	90	35	28	120	15	
		620						

EDILMATIC EMZ LIFTING SYSTEM

ZE-TD-BS spread anchor for vertical lifting

Direction of loading and design loads



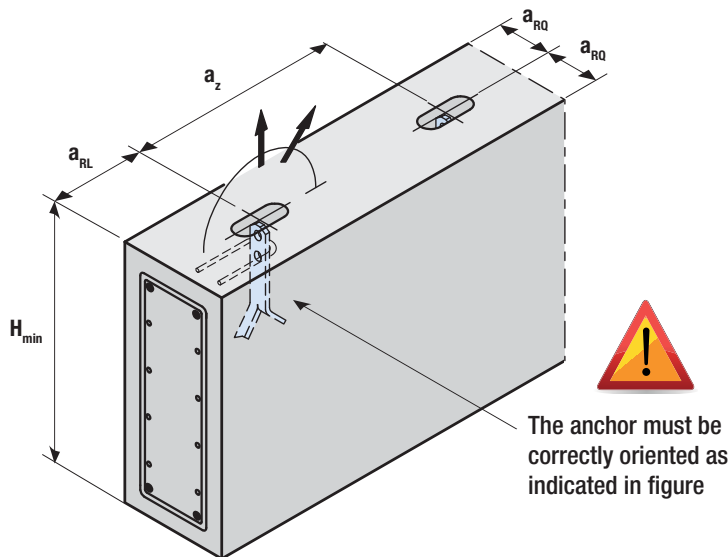
For tilting
 $[10^\circ \leq \gamma \leq 90^\circ]$
 see page 12

Load group	Anchor type	F_{\max} (kN)	
		$\beta \leq 30^\circ \quad \gamma \leq 10^\circ$	$30^\circ < \beta < 60^\circ$
2.5 t	0.7 t	7	5.6
	1.4 t	14	11.2
	2.0 t	20	16
	2.5 t	25	20
5.0 t	3.0 t	30	24
	4.0 t	40	32
	5.0 t	50	40
10 t	5.3 t	53	42
	7.5 t	75	60
	10.0 t	100	80
26 t	14.0 t	140	112
	22.0 t	220	176

EDILMATIC EMZ LIFTING SYSTEM

ZE-TD-BS spread anchor for vertical lifting

Positioning prescriptions and edge distances

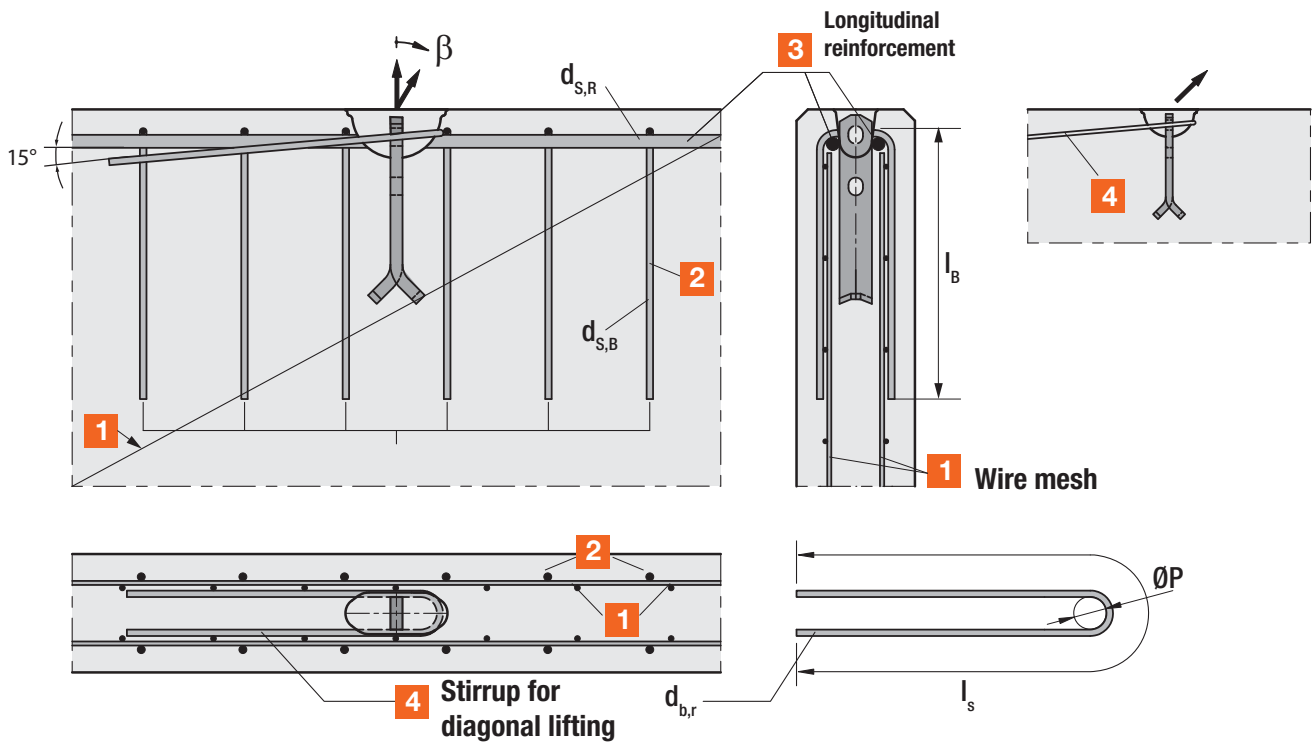


Load Group	Anchor type	L _{nom}	Concrete class			H _{min}	a _{RL}	A _z	
			15 N/mm ²	25 N/mm ²	35 N/mm ²				
			a _{RQ}						
2.5 t	0.7 t	110	35	35	35	200	280	280	
		110	60	40	35	190	380	380	
	1.4 t	160	35	35	35	290	530	530	
		130	80	55	45	225	450	450	
		160	60	40	35	285	570	570	
		210	45	35	35	385	770	770	
		2.0 t	150	90	65	50	260	520	520
			200	65	45	35	360	720	720
2.5 t	250	50	35	35	460	920	920		
	3.0 t	160	105	75	60	275	550	550	
200		80	60	45	350	710	710		
280		55	40	40	510	1025	1025		
5.0 t	4.0 t	180	140	100	80	310	610	610	
		240	100	70	55	425	850	850	
		320	70	50	40	590	1175	1175	
	5.0 t	180	190	135	110	300	600	600	
		240	135	95	75	420	840	840	
		400	75	55	45	740	1480	1480	
10 t	5.3 t	220	190	135	110	400	750	750	
		260	135	95	75	460	900	900	
		340	95	75	60	600	1240	1240	
	7.5 t	260	210	150	120	450	900	900	
		300	180	125	100	530	1060	1060	
		420	120	85	70	770	1540	1540	
	10.0 t	300	270	190	150	515	1030	1030	
		370	210	150	120	655	1310	1310	
		520	140	100	80	955	1910	1910	
26 t	14.0 t	370	350	250	200	615	1230	1230	
		260	265	190	150	795	1590	1590	
	22.0 t	500	450	320	260	850	1700	1700	
		620	350	250	200	1090	2180	2180	

EDILMATIC EMZ LIFTING SYSTEM

ZE-TD-BS spread anchor for vertical lifting

Additional reinforcement

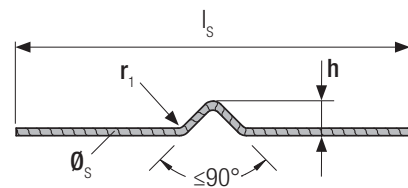
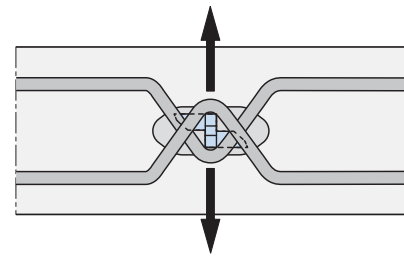
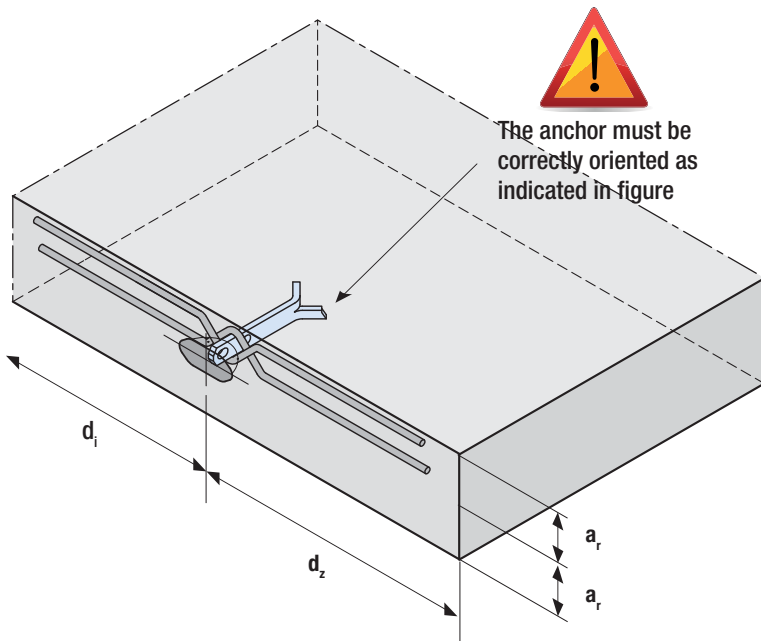


Load group	Anchor type	1 Wire mesh		2 Longitudinal stirrups			3 Longitudinal reinforcement	4 Stirrup for diagonal lifting		
		Ø (mm)	A _s (mm ² /m)	n ^o _{min}	d _{s,B} (mm)	l _B (mm)	d _{s,R} (mm)	ØP (mm)	d _{br} (mm)	l _s (mm)
2.5 t	0.7 t	6	188	4	6	300	2 x Ø8	47	6	600
	1.4 t	6	188	4	6	400	2 x Ø8	47	6	900
	2.0 t	6	188	4	6	500	2 x Ø8	47	6	950
	2.5 t	6	188	4	8	600	2 x Ø10	47	8	1200
5.0 t	3.0 t	6	188	4	8	700	2 x Ø10	47	8	1150
	4.0 t	6	188	4	8	800	2 x Ø10	53	10	1500
	5.0 t	6	188	4	10	800	2 x Ø12	53	12	1550
10 t	5.3 t	6	188	4	10	800	2 x Ø12	71	14	1700
	7.5 t	6	188	4	10	800	2 x Ø12	71	14	2000
	10.0 t	6	188	6	10	1000	2 x Ø14	71	16	2300
26 t	14.0 t	6	188	8	10	1000	2 x Ø16	116	20	2600
	22.0 t	6	188	8	12	1200	2 x Ø20	116	28	3300

EDILMATIC EMZ LIFTING SYSTEM

ZE-TD-BS spread anchor for vertical lifting

Prescriptions for tilting and lifting

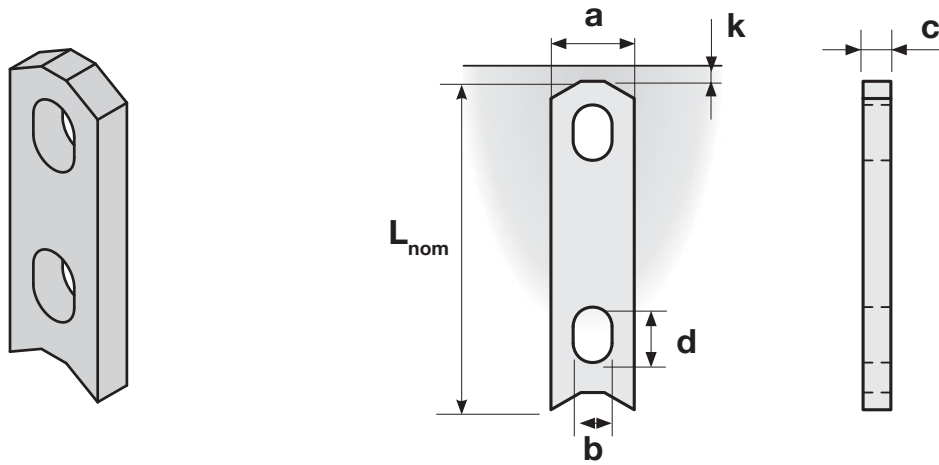


Load Group	Anchor type	L_{nom}	Positioning distances				Reinforcement for tilting		
			Design load (kN)	d_z (mm)	d_i (mm)	a_r (mm)	\varnothing_s (mm)	r_1 (mm)	l_s (mm)
2.5 t	0.7 t	110	3.5	140	280	35	8	25	600
		110	7.0	190	380	35	10	25	700
	1.4 t	160	7.0	265	530	35	10	25	700
		130	10.0	225	450	45	10	25	700
	2.0 t	160	10.0	285	570	35	10	25	700
		210	10.0	385	770	35	10	25	700
5.0 t	2.5 t	150	12.5	260	520	50	12	25	800
		200	12.5	360	720	35	12	25	800
		250	12.5	460	920	35	12	25	800
	3.0 t	160	15.0	275	550	60	14	32	900
		200	15.0	355	710	45	14	32	900
		280	15.0	513	1025	40	14	32	900
4.0 t	180	20.0	305	610	80	14	32	950	
	240	20.0	425	850	55	14	32	950	
	320	20.0	588	1175	40	14	32	950	
10 t	5.0 t	180	25.0	300	600	110	16	32	1000
		240	25.0	420	840	75	16	32	1000
		400	25.0	740	1480	45	16	32	1000
	5.3 t	220	21.5	375	750	110	16	32	1100
		260	21.5	450	900	75	16	32	1100
		340	21.5	620	1240	60	16	32	1100
7.5 t	260	37.5	450	900	120	20	40	1200	
	300	37.5	530	1060	100	20	40	1200	
	420	37.5	770	1540	70	20	40	1200	
10.0 t	300	50.0	515	1030	150	20	40	1500	
	370	50.0	655	1310	120	20	40	1500	
	520	50.0	955	1910	80	20	40	1500	
26 t	14.0 t	370	140.0	615	1230	200	25	50	1800
		260	140.0	795	1590	150	25	50	1800
	22.0 t	110.0	850	1700	260	28	50	1800	
		620	110.0	1090	2180	200	28	50	1800

EDILMATIC EMZ LIFTING SYSTEM

ZE-TD-BS spread anchor for vertical lifting

Types and sizes

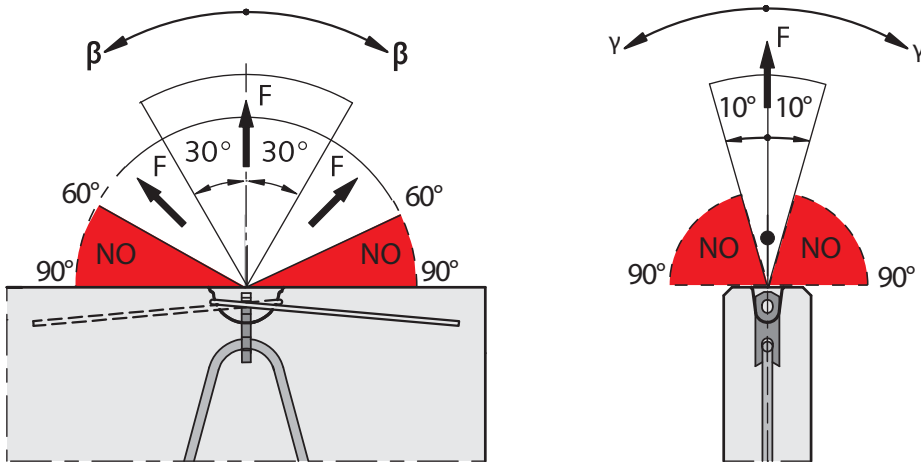


Load group	Anchor type	Dimensions and sizes (mm)				
		L _{nom} (mm)	a (mm)	b x d (mm)	c (mm)	k (mm)
2.5 t	0.7 t	90	30	14x20	5	10
	1.4 t	90	30	14x20	6	10
	2.0 t	90	30	14x20	8	10
	2.5 t	90	30	14x20	10	10
5.0 t	3.0 t	120	40	18x24	10	10
	4.0 t	120	40	18x24	12	10
	5.0 t	120	40	18x24	15	10
10 t	5.3 t	160	60	26x24	12	10
	7.5 t	160	60	26x32	16	15
	10.0 t	170	60	29x35	20	15
26 t	14.0 t	240	80	35x42	20	15
	22.0 t	300	90	35x42	25	15
	22.0 t	300	120	65x80	30	15

EDILMATIC EMZ LIFTING SYSTEM

ZE-TD spread anchor with two holes for vertical lifting

Direction of loading and design loads

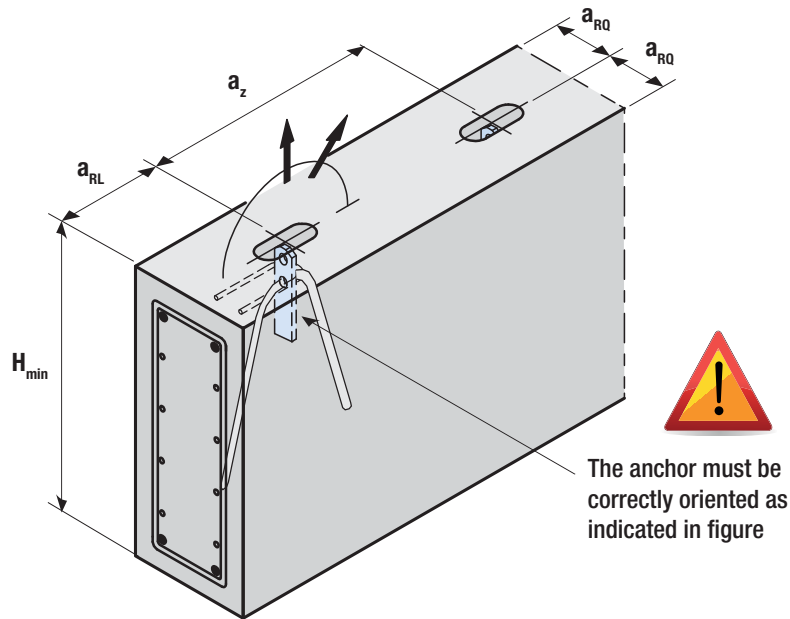


Load group	Anchor type	F_{max} (kN)	
		$\beta \leq 30^\circ \quad \gamma \leq 10^\circ$	$30^\circ < \beta < 60^\circ$
2.5 t	0.7 t	7	5.6
	1.4 t	14	11.2
	2.0 t	20	16
	2.5 t	25	20
5.0 t	3.0 t	30	24
	4.0 t	40	32
	5.0 t	50	40
10 t	5.3 t	53	42
	7.5 t	75	60
	10.0 t	100	80
26 t	14.0 t	140	112
	22.0 t	220	176
	22.0 t	260	206

EDILMATIC EMZ LIFTING SYSTEM

ZE-TD spread anchor with two holes for vertical lifting

Positioning prescriptions and edge distances

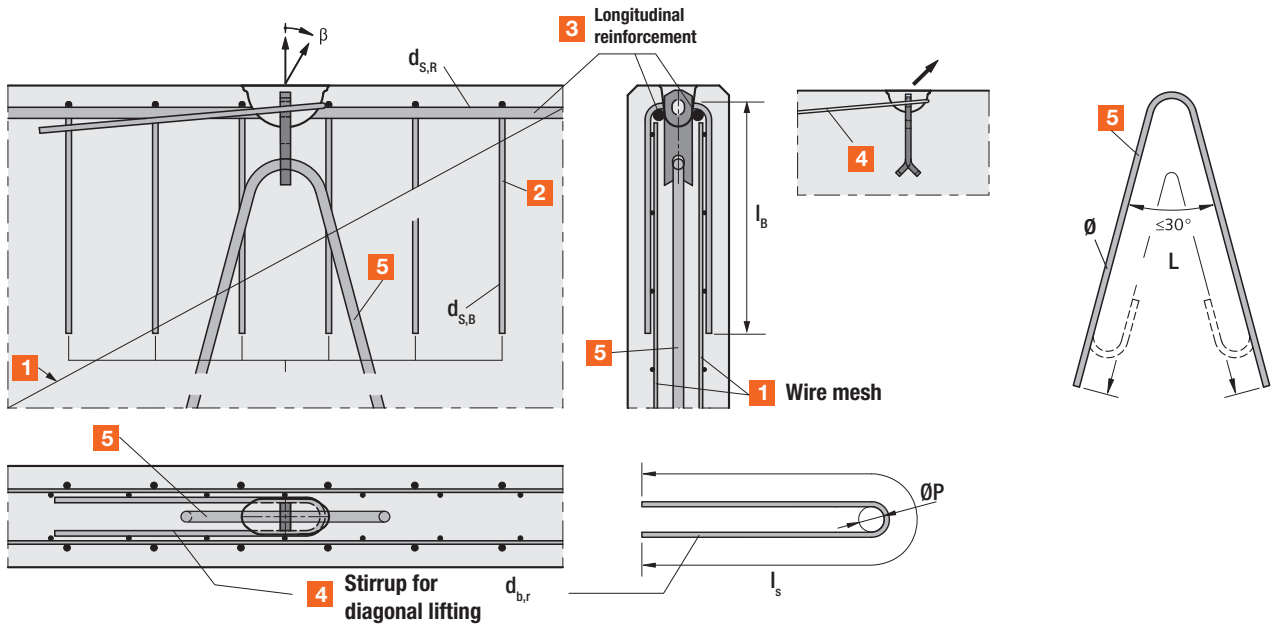


Load group	Anchor type	L_{nom} (mm)	a_z (mm)	a_{RL} (mm)	a_{RQ} (mm)	H_{min} (mm)
2.5 t	1.4 t	200	700	350	45	400
	2.5 t	230	800	400	60	460
5.0 t	4.0 t	270	950	475	70	540
	5.0 t	290	1000	500	70	580
10 t	7.5 t	320	1200	600	80	640
	10.0 t	390	1500	750	100	780
26 t	12.5 t	500	1500	750	120	1000
	17.0 t	500	1500	750	150	1000
	22.0 t	500	1500	750	180	1000

EDILMATIC EMZ LIFTING SYSTEM

ZE-TD spread anchor with two holes for vertical lifting

Additional reinforcement

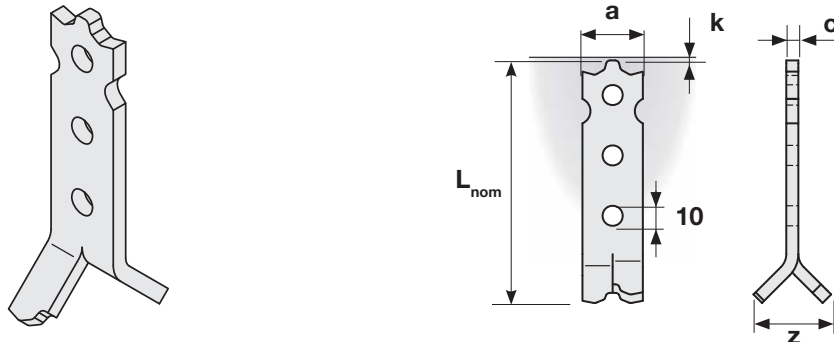


Load group	Anchor type	1 Wire mesh		2 Longitudinal stirrups			3 Longitudinal reinforcement	4 Stirrups for diadonal lifting			5 Additional stirrup	
		\emptyset (mm)	A_s (mm ² /m)	n°_{min}	$d_{s,B}$ (mm)	l_B (mm)	$d_{s,R}$ (mm)	$\emptyset P$ (mm)	d_{br} (mm)	l_s (mm)	\emptyset (mm)	L (mm)
2.5 t	0.7 t	6	188	4	6	300	2 x $\emptyset 8$	47	6	600	8	450
	1.4 t	6	188	4	6	400	2 x $\emptyset 8$	47	6	900	10	650
	2.0 t	6	188	4	6	500	2 x $\emptyset 8$	47	6	950	12	750
	2.5 t	6	188	4	8	600	2 x $\emptyset 10$	47	8	1200	12	900
5.0 t	3.0 t	6	188	4	8	700	2 x $\emptyset 10$	47	8	1150	14	950
	4.0 t	6	188	4	8	800	2 x $\emptyset 10$	53	10	1500	16	1100
	5.0 t	6	188	4	10	800	2 x $\emptyset 12$	53	12	1550	16	1300
10 t	5.3 t	6	188	4	10	800	2 x $\emptyset 12$	71	14	1700	16	1400
	7.5 t	6	188	4	10	800	2 x $\emptyset 12$	71	14	2000	20	1600
	10.0 t	6	188	6	10	1000	2 x $\emptyset 14$	71	16	2300	25	1750
26 t	14.0 t	6	188	8	10	1000	2 x $\emptyset 16$	116	20	2600	28	2150
	14.0 t	6	188	8	10	1000	2 x $\emptyset 16$	116	20	2600	28	3100
	22.0 t	6	188	8	12	1200	2 x $\emptyset 20$	116	28	3300	2x28	2650

EDILMATIC EMZ LIFTING SYSTEM

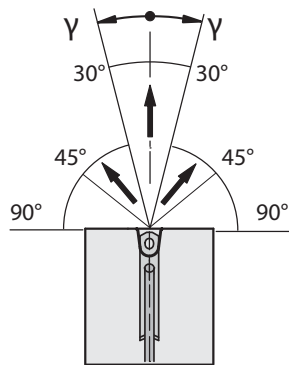
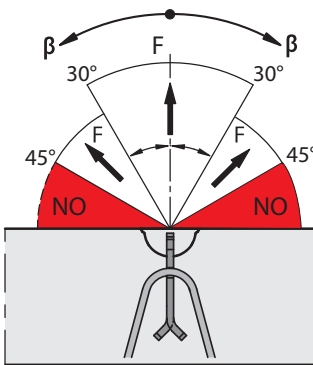
ZE-U universal anchor

Types and sizes

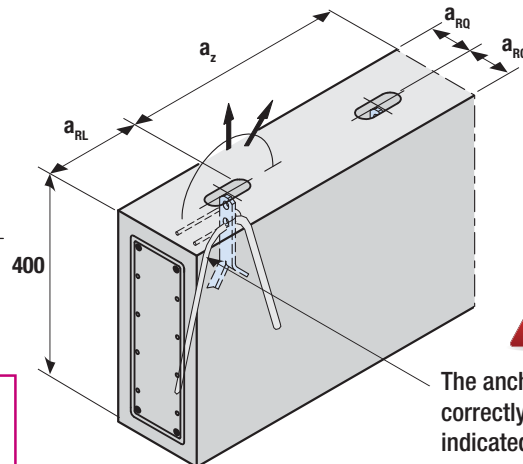


Load group	Anchor type	Dimensions and sizes (mm)					
		L _{nom}	a	b	c	z	k
1.25 t	1.25 t	100	30	10	6	40	10
	1.25 t	125	30	10	6	40	10

Design loads



For tilting
[45° ≤ γ ≤ 90°]
see page 28

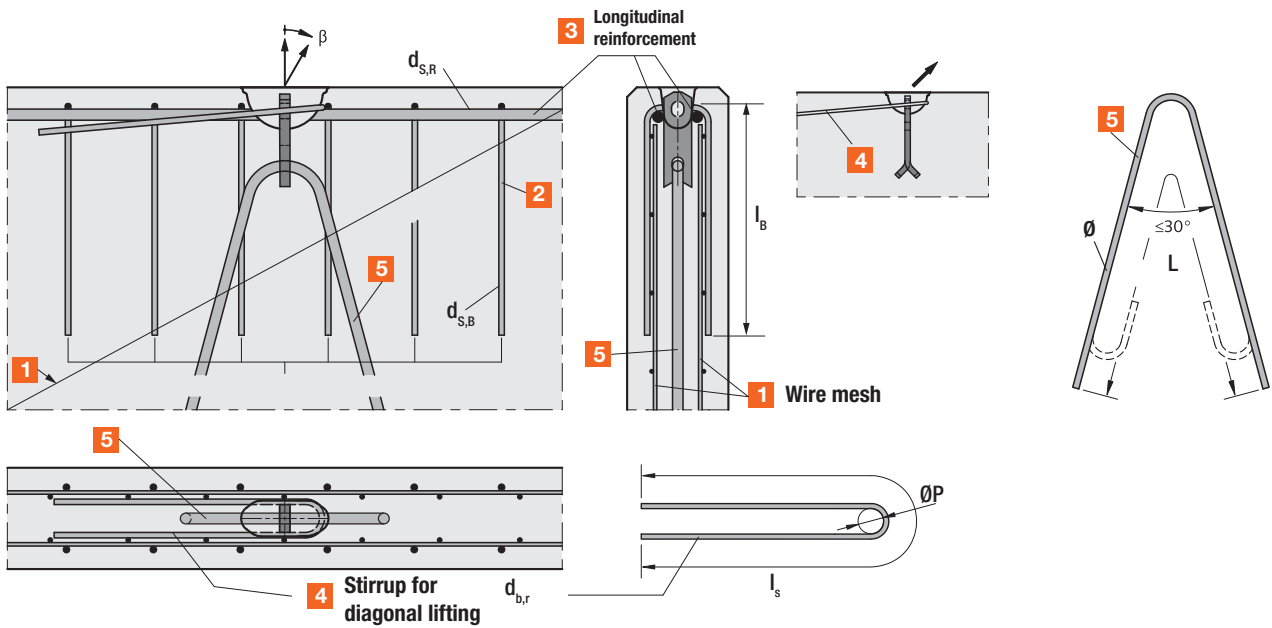


Load group	Anchor type	L _{nom} (mm)	a _{RQ} (mm)	a _{RL} (mm)	a _z (mm)	F _{max} (kN) β ≤ 30° γ ≤ 10°			F _{max} (kN) 30° ≤ β ≤ 45° 30° ≤ γ ≤ 45°		
						Concrete class f _{ck,cube}			Concrete class f _{ck,cube}		
						15 N/mm ²	25 N/mm ²	35 N/mm ²	15 N/mm ²	25 N/mm ²	35 N/mm ²
1.25 t	1.25 t	100	30	100	250	12.5	12.5	12.5	10.0	10.0	10.0
			40			12.5	12.5	10.0	10.0	10.0	
			50			12.5	11.6	12.5	10.0	10.0	10.0
			60			10.1	12.5	12.5	10.0	10.0	10.0
			70			11.3	12.5	12.5	10.0	10.0	10.0
1.25 t	1.25 t	125	30	100	250	12.5	12.5	12.5	10.0	10.0	10.0
			40			12.5	12.5	12.5	10.0	10.0	10.0
			50			11.1	12.5	12.5	10.0	10.0	10.0
			60			12.5	12.5	12.5	10.0	10.0	10.0
			70			12.5	12.5	12.5	10.0	10.0	10.0

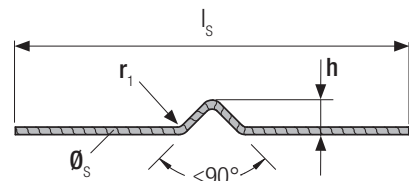
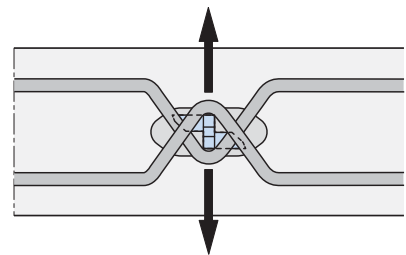
EDILMATIC EMZ LIFTING SYSTEM

ZE-U universal anchor

Prescriptions for tilting and lifting



The anchor must be correctly oriented as indicated in figure

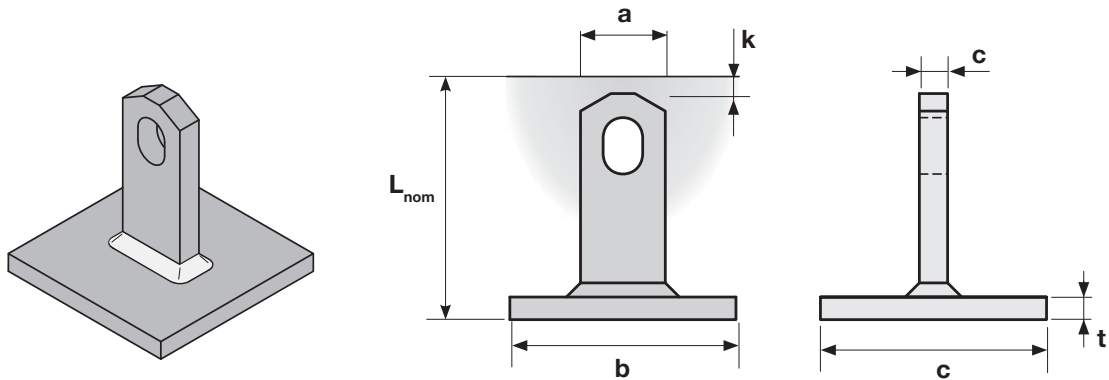


Load group	Anchor type	1 Wire mesh		2 Longitudinal stirrups			3 Longitudinal reinforcement	4 Stirrup for diagonal lifting			5 Additional stirrup		6 Stirrups for tilting		
		Ø mm	A _s mm ² /m	n _{min}	d _{s,B} mm	l _B mm	d _{s,R} mm	ØP mm	d _{br} mm	l _s mm	Ø mm	L mm	Ø _s mm	r ₁ mm	l _s mm
1.25 t	1.25 t	6	188	4	6	400	2 x Ø8	47	6	900	10	650	8	25	700

EDILMATIC EMZ LIFTING SYSTEM

ZE-R lowered anchor

Types and sizes

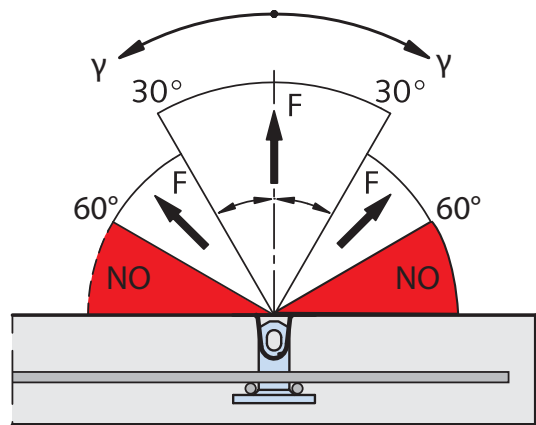
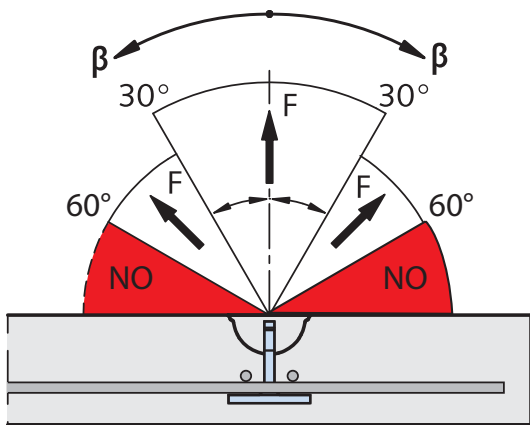


Load group	Anchor type	Code	Dimensions and sizes (mm)						Weight (kg)
			L _{nom}	a	b	c	t	k	
2.5 t	1.4 t	ZER1.4	50	30	80	80	8	10	0.45
	2.5 t	ZER2.5	80	30	100	100	8	10	0.56
5.0 t	5.0 t	ZER5	120	40	100	100	10	10	1.22
10.0t	10.0 t	ZER10	160	60	100	100	12	15	3.11

EDILMATIC EMZ LIFTING SYSTEM

ZE-R lowered anchor

Direction of loading and design loads

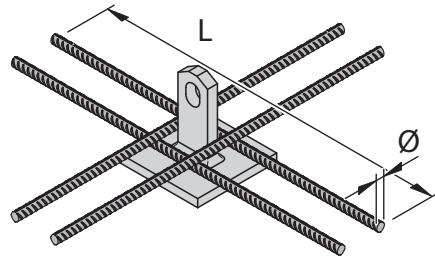
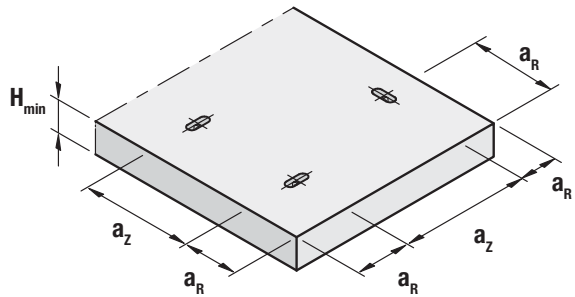


Load group	Anchor type	F_{max} (kN) $\beta \leq 30^\circ$ $\gamma \leq 30^\circ$	F_{max} (kN) $30^\circ \leq \beta \leq 60^\circ$ $30^\circ \leq \gamma \leq 60^\circ$
2.5 t	1.4 t	22.4	17.9
	2.5 t	33.9	27.1
5.0 t	5.0 t	59.0	47.2
10.0 t	10.0 t	93.9	75.1

EDILMATIC EMZ LIFTING SYSTEM

ZE-R lowered anchor

Additional reinforcement

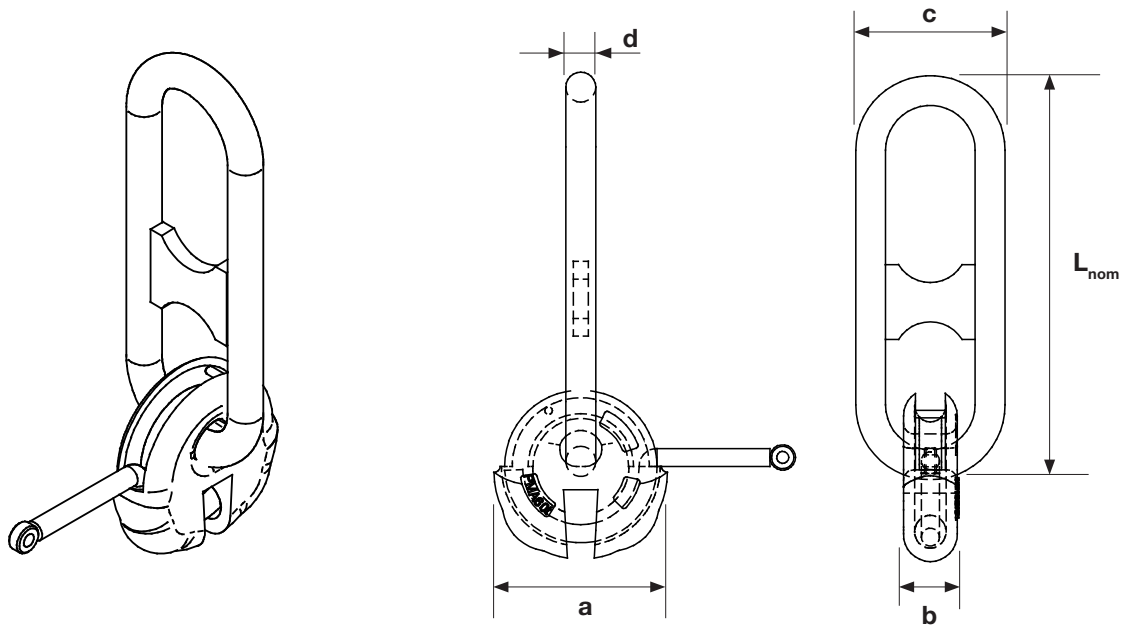


Load group	Anchor type	H_{min} (mm)	a_R (mm)	a_z (mm)	\emptyset (mm)	L (mm)
2.5 t	1.4 t	85	115	230	8	200
	2.5 t	110	165	330	10	300
5.0 t	5.0 t	150	240	480	12	450
10.0 t	10.0 t	195	330	660	16	600

EDILMATIC EMZ LIFTING SYSTEM

MSZE standard lifting handle with hot formed ring

Types, geometry and sizes

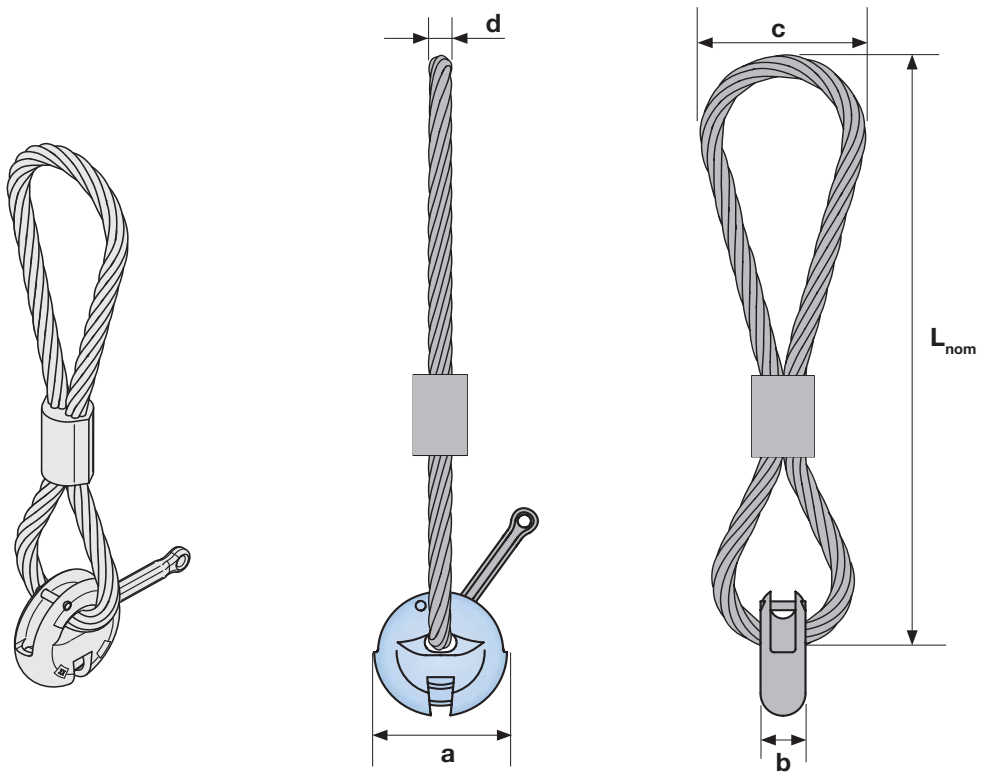


Load group	a (mm)	b (mm)	c (mm)	d (mm)	L _{nom} (mm)
2.5 t	80	27	58	15	225
5.0 t	105	36	65	20	275
10.0 t	150	50	90	25	350
26.0 t	2016	72	120	45	500

EDILMATIC EMZ LIFTING SYSTEM

MSZE-C special lifting handle with steel wire

Types, geometry and sizes



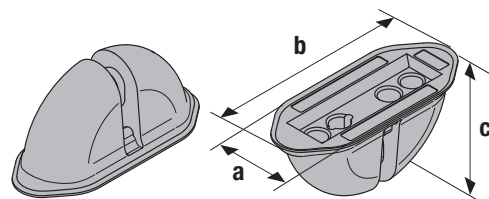
Load group	a (mm)	b (mm)	c (mm)	d (mm)	L _{nom} (mm)
2.5 t	80	27	15	12	225
5.0 t	105	36	20	16	275
10.0 t	150	50	25	25	350
26.0 t	2016	72	30	45	500

EDILMATIC EMZ LIFTING SYSTEM

EMZ recess former

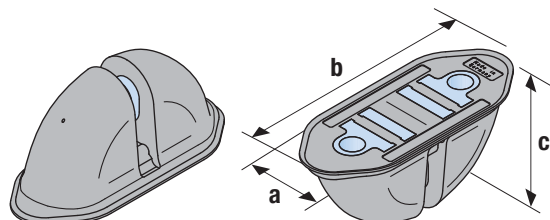
Rubber recess former - Types and sizes

Load group	Dimensions and sizes (mm)		
	a	b	c
2.5 t	ON DEMAND		
5.0 t	52	130	58
10.0 t	78	180	90
26.0 t	ON DEMAND		



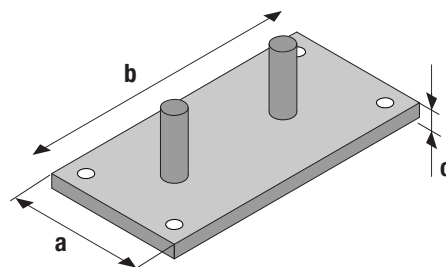
Rubber recess former with magnets - Types and sizes

Load group	Dimensions and sizes (mm)		
	a	b	c
2.5 t	ON DEMAND		
5.0 t	52	130	58
10.0 t	78	180	90
26.0 t	ON DEMAND		



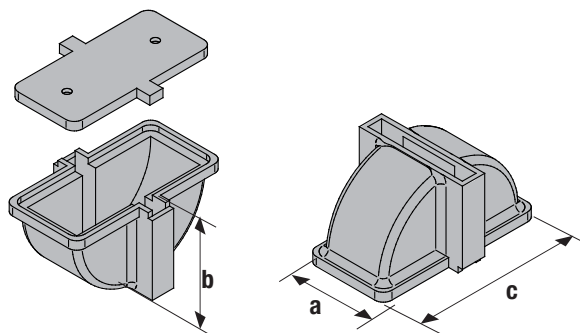
Steel plates for rubber recess former - Geometry

Load group	Dimensions and sizes (mm)		
	a	b	c
2.5 t	ON DEMAND		
5.0 t	33	88	6
10.0 t	48	130	8
26.0 t	ON DEMAND		



Plastic recess former - Types and sizes

Load group	Dimensions and sizes (mm)		
	a	b	c
2.5 t	ON DEMAND		
5.0 t			
10.0 t			
26.0 t			





EDILMATIC

Anchorage, support and lifting systems for precast concrete elements.
Accessories, fasteners and metal small parts.

EDILMATIC srl
Offices and Factory: Via Gonzaga, 11
46020 Pegognaga (MN) Italia
tel. +39-0376-558225 - fax +39-0376-558672
E-mail: info@edilmatic.it - internet: www.edilmatic.it



Any information and data provided in the present instructions are based on the present available information.
Edilmatic is not liable for any incorrect use of its products.
Edilmatic is not liable for possible incorrect information or printing mistakes.
Edilmatic reserves itself the right to change images, descriptions and technical information any time.