



## Cast-in Lifting Loops

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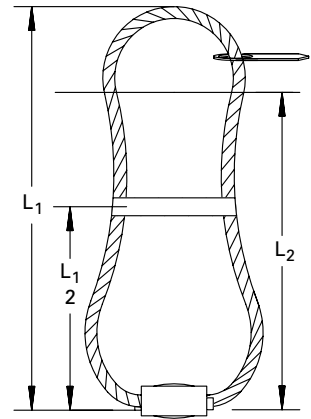
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# Cast-in Loop

The cast-in loop is used to lift reinforced concrete elements. The cast-in loops are marked with a coloured tag with the manufacturer, year of manufacture and load group. The cast-in loop is situated in the concrete element at the open side of the mould.

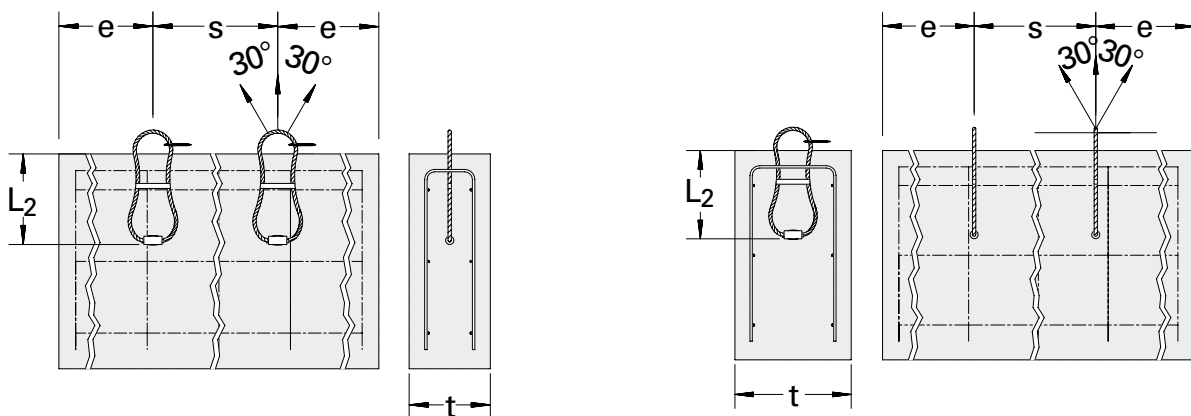
The thimble is situated in the mould. The marking must be visible after placing the concrete. Hoisting hooks of appropriate diameter can be inserted directly into the protruding cast-in loop. Care must be taken when storing the prefabricated element that the cables do not kink.

The withdrawal from use of the lifting loops is to be determined in accordance with the regulations for hoisting cables of the country of use. The installation and application of lifting anchor systems must be available in plant and on site. The national safety regulations for lifting anchors and systems must be obeyed.



Part No.	Load Group	Capacity	Loop dimensions			Minimum concrete element dimensions						
			Length	Embedment	Rope	Edge Dist	Spacing	Panel width, t				
			L <sub>1</sub>	L <sub>2</sub>	Ø*	e	s	Installed parallel to surface		Installed perpendicular to surface		
								Concrete strength N/mm <sup>2</sup>				
			kN	mm	mm	mm	mm	mm	15	25	15	25
				mm	mm	mm	mm	mm	mm	mm	mm	mm
CFS-CL-08	0.8	8	200	140	6	270	540	70	50	135	135	
CFS-CL-12	1.2	12	220	160	7	310	620	90	60	140	140	
CFS-CL-16	1.6	16	240	170	8	350	700	120	80	170	170	
CFS-CL-20	2	20	270	190	9	430	860	150	100	180	180	
CFS-CL-25	2.5	25	300	220	10	450	900	160	110	180	180	
CFS-CL-40	4	40	350	250	12	500	1000	220	150	220	220	
CFS-CL-52	5.2	52	370	270	14	530	1060	290	200	300	220	
CFS-CL-63	6.3	63	400	290	16	570	1140	320	220	320	280	
CFS-CL-80	8	80	470	330	18	650	1300	400	280	400	280	
CFS-CL-100	10	100	5200	370	20	730	1460	440	310	440	310	
CFS-CL-125	12.5	125	570	420	22	800	1600	560	390	550	400	
CFS-CL-160	16	160	650	480	26	930	1860	620	430	620	430	
CFS-CL-200	20	200	730	550	28	1050	2100	680	480	680	480	
CFS-CL-250	25	250	830	630	32	1200	2400	750	530	750	530	

\* Rope diameters are for design guidance purposes only. The rope diameter may vary from those quoted above. Change of the rope diameter will not affect the load capacity. For technical advice regarding edge distance and other setting out issues please contact CFS.

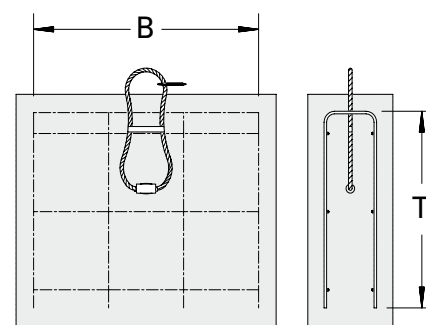


Installed parallel to surface

Installed perpendicular to surface

# Additional Reinforcement

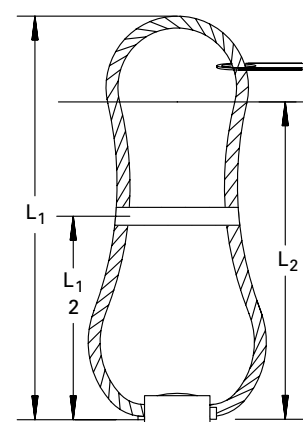
Part No.	Load Group	B	T	Reinforcement BSt 500 M
		mm	mm	mm <sup>2</sup> /m
CFS-CL-08	0.8	450	300	188
CFS-CL-12	1.2	500	350	188
CFS-CL-16	1.6	550	350	188
CFS-CL-20	2	650	450	188
CFS-CL-25	2.5	700	500	188
CFS-CL-40	4	800	550	188
CFS-CL-52	5.2	850	550	188
CFS-CL-63	6.3	950	600	188
CFS-CL-80	8	1050	700	257
CFS-CL-100	10	1200	800	257
CFS-CL-125	12.5	1300	900	257
CFS-CL-160	16	1500	1000	257
CFS-CL-200	20	1700	1150	377
CFS-CL-250	25	1950	1300	377



## Cast-in Loop Over 25t Capacity

Sizes are available up to 99 t capacity.

Part No.	Load Group	Capacity	Length		Rope Ø *
			L1	L2	
			mm	mm	
CFS-CL-280	28	280	680	460	36
CFS-CL-320	32	320	770	520	36
CFS-CL-370	37	370	950	640	40
CFS-CL-420	42	420	1000	660	44
CFS-CL-470	47	470	1100	740	44
CFS-CL-520	52	520	1200	800	48
CFS-CL-570	57	570	1350	900	48
CFS-CL-650	65	650	1430	960	46
CFS-CL-750	75	750	1530	1020	50
CFS-CL-850	85	850	1680	1120	52
CFS-CL-990	99	990	1800	1200	56



\*Please send CFS a drawing of your concrete element for advice on edge distances when using these high capacity loops.

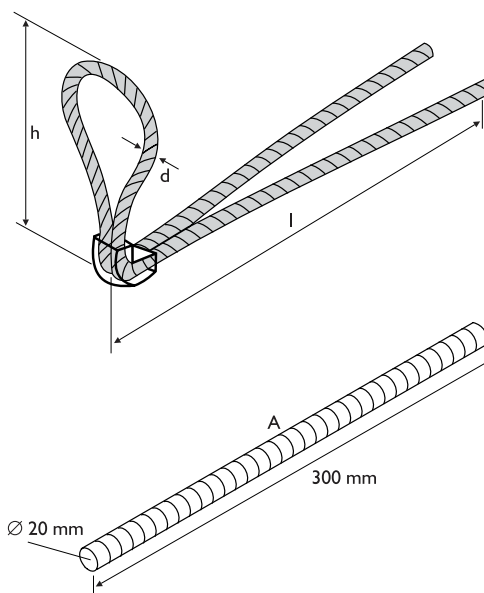
# Angled Wire Loops

Designed for edge lifting of concrete slabs.

Available in load groups up to 5.2 T.

Part No.	Load Group	Capacity kN	Rope Ø mm	h mm	d mm	l mm
CFS-AL-16	1.6	16	8	150	8	330
CFS-AL-25	2.5	25	10	150	10	330
CFS-AL-40	4.0	40	12	230	12	380
CFS-AL-52	5.2	52	14	230	14	380

Angled loops with specific dimensions can be produced to order. Bar A – Ø 20 mm length 300 mm to be placed centrally over the clip as close as possible to the outside.



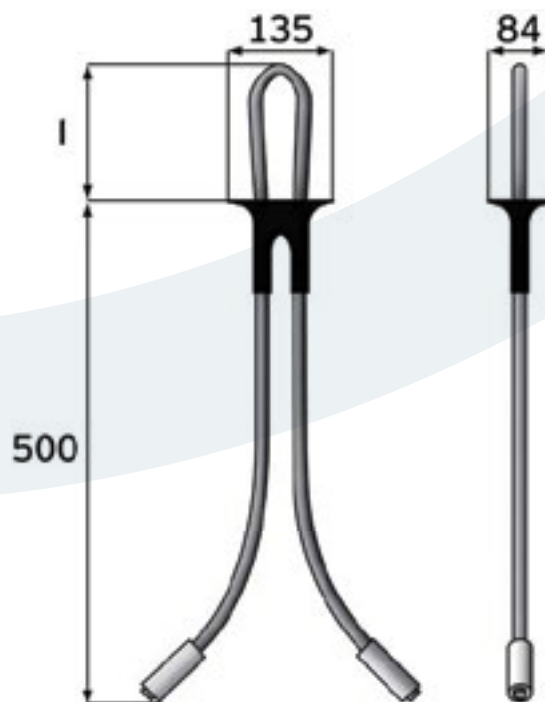
# Neowire Loops

Cast-in loops designed for tilt up of flat cast panels

Part No	Load Group	Ø mm	l
CFS-NEO-25-200	2.5	10	200
CFS-NEO-35-400	3.5	12	400
CFS-NEO-35-200	3.5	12	200
CFS-NEO-50-400	5	16	400
CFS-NEO-50-200	5	16	200
CFS-NEO-75-400	7.5	18	400
CFS-NEO-75-200	7.5	18	200

Manufactured from galvanised steel wire for load capacities please see handling instructions.

For this product, please do not use the method outlined in Section A1. These factors have already been included in the tables found within the Handling Instructions. The element weight to apply to the table is the actual unfactored weight of the unit.

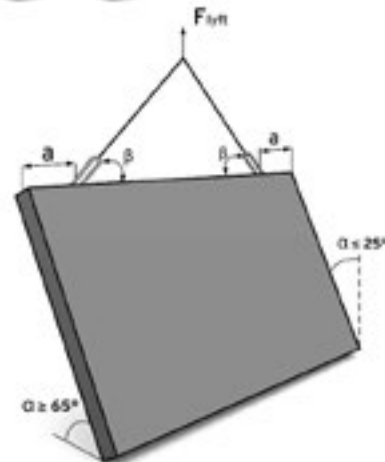
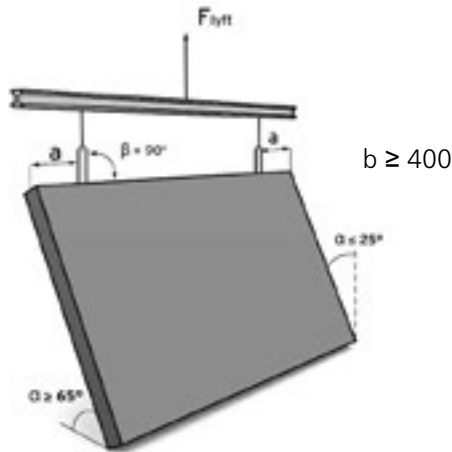
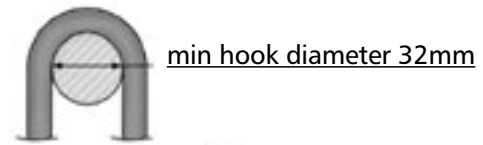


# Handling Instructions – Neowire for Erecting Panels from Tilt Tables

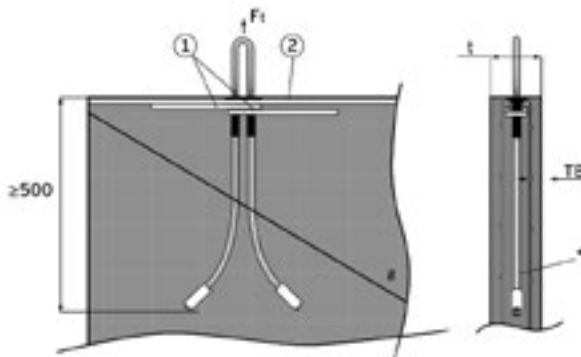
## Lifting of elements

### Conditions

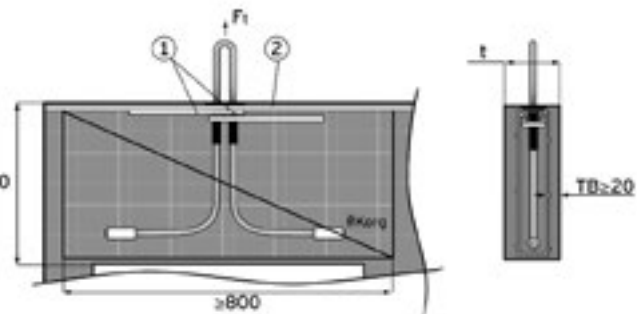
- 1) Min concrete strength at first time of lifting 16 MPa
- 2) Min concrete strength at worksite 28 MPa
- 3) Reinforcement quality B500BT or Nps500
- 4) Lifting with stationary crane, mobile crane or truck crane
- 5) Well greased steel form (adhesion force 1 kN/m<sup>2</sup>)



### SF3 First time of lifting (Method R21)



### SF4 Installation (Method S2)



\*wire lock is to be place centrally in the wall

2x # min 65 mm<sup>2</sup>/m, max mesh size 300

### Dimensioning values

The drawing above refers to lifting element above an opening  $t_{min} = 140mm$

#Basket = N-ties min  $\varnothing 6s150$   $f_{yk} = 500MPa$

The reinforcement shown is intended only for lifting. The designer is responsible for the remaining static reinforcement and the distribution of forces in the element.

Dimension NEOWIRE	$t_{min}$ [mm]	Reinforcement		Element weight [ton]		
		①	②	$\beta = 45^\circ$	$\beta = 60^\circ$	$\beta = 90^\circ$
$\varnothing 10$	100	1+1 $\varnothing 12$	1+1 $\varnothing 8$	3.5	4.3	5.0
$\varnothing 12$	120	1+1 $\varnothing 12$	1+1 $\varnothing 8$	4.9	6.0	7.0
$\varnothing 16$	150	1+1 $\varnothing 12$	1+1 $\varnothing 8$	7.1	8.6	10.0
$\varnothing 18$	150	1+1 $\varnothing 16$	1+1 $\varnothing 8$	9.1	11.1	12.6

Max element weight in the table above refers to installation, first time of lifting (SF3, R21) according to the drawing above is assumed.

# Handling Instructions – Neowire for Erecting Panels Cast Flat

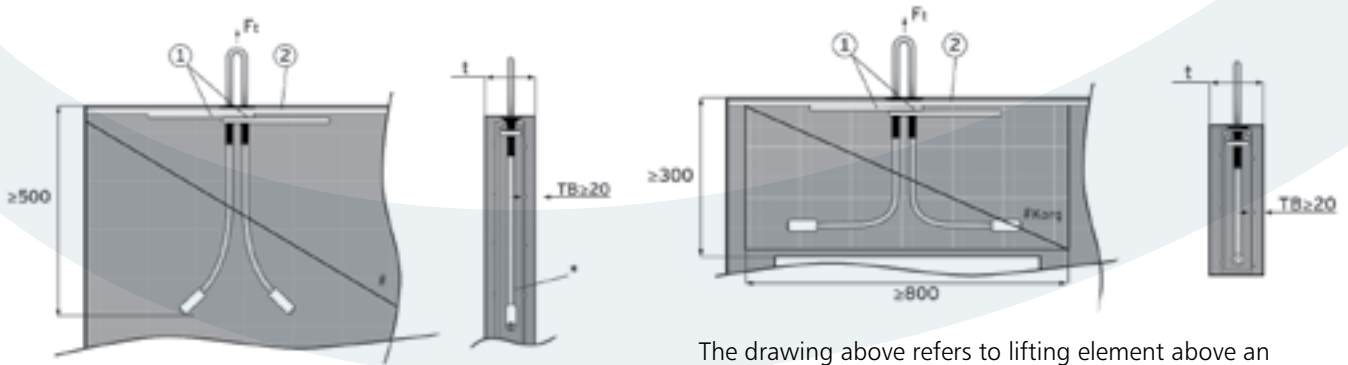
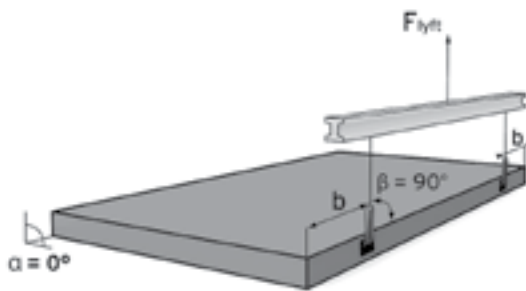
## Lifting of elements

### Conditions

- 1) Min concrete strength at first time of lifting 16 MPa
- 2) Min concrete strength at worksite 28 MPa
- 3) Reinforcement quality B500BT or Nps500
- 4) Lifting with stationary crane, mobile crane or truck crane
- 5) Well greased steel form (adhesion force 1 kN/m<sup>2</sup>)



min hook diameter 32mm



The drawing above refers to lifting element above an opening  $t_{min}=140mm$

#Basket = N-ties min  $\varnothing 6s150$   $f_{yk}=500MPa$

The reinforcement shown is intended only for lifting. The designer is responsible for the remaining static reinforcement and the distribution of forces in the element.

\*wire lock is to be place centrally in the wall

2x # min 65 mm<sup>2</sup>/m, max mesh size 300

### Dimensioning values

Dimension NEOWIRE	$t_{min}$ [mm]	Reinforcement		Max element weight [ton]
		①	②	
Ø10	120	1+1Ø12	1+1Ø8	6.0-F
Ø12	150	1+1Ø12	1+1Ø8	8.4-F
Ø16	150	1+1Ø12	1+1Ø8	12.0-F
Ø18	170	1+1Ø16	1+1Ø8	14.2-F

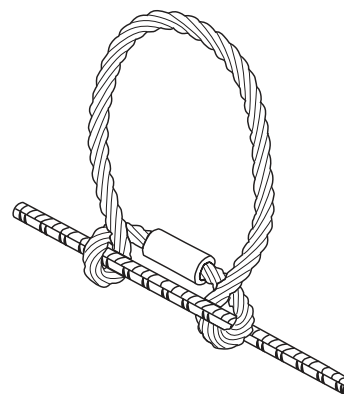
F=Adhesion to form work

OBS! Max element weight must not exceed values stated in N33-H1

# Cast-in Polypropylene Loops

CFS polypropylene loops are ideal for applications where the corrosion of a mild steel loop could be critical. For example in architectural cast stone, where rust staining would not be acceptable.

After use these loops can be cut off with a knife. For thin sections the loops can be passed around the reinforcement as shown in the drawing. Ensure the loop does not pass over any sharp edges that may cut the rope.



Loop tied around reinforcement in thin section

Part No.	Load Group	Capacity kN	Rope Ø mm	Height mm	d
CFS-POLY-150	0.15	1.5	6	200	2/3 of the height to be cast into the concrete.
CFS-POLY-250	0.25	2.5	8	220	
CFS-POLY-360	0.36	3.6	10	235	
CFS-POLY-500	0.5	5.0	12	255	
CFS-POLY-875	0.875	8.75	14	280	
CFS-POLY-1000	1.0	10	16	330	
CFS-POLY-1200	1.2	12	16	330	

