

HALFEN HD-SL30 LIFTING ANCHOR SYSTEM

TECHNICAL PRODUCT INFORMATION



Introduction

Textile reinforced concrete (TRC) has developed in recent years into a construction technique that has its benefits and advantages in applications where conventional types of reinforcement have their limits. It is possible to construct more slender and lightweight components, as the concrete covering to ensure corrosion resistance is no longer required. The corrosion resistance and the load-bearing capacity of carbon or glass fibre textile reinforcement are considerably higher than

when using conventional reinforcement steel. This method allows thin, large-format façade panels with a thickness as low as 3 cm to be produced. The HD-SL30 Transport anchor system was developed by HALFEN to ensure safe and reliable lifting and transport of this type of precast element; with thicknesses of ≥ 3.0 cm.

As with all HALFEN Transport anchor systems, the HD-SL30 system meets the European Machinery Directive

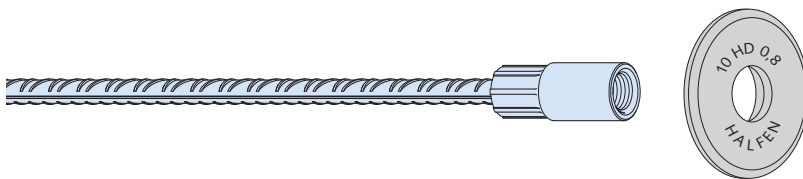
requirements (MD) 2006/42/EC. To also guarantee safe application of the transport anchor system the resistances for the cast-in anchors are additionally subject to the requirements of the guidelines in VDI/BV-BS 6205*.



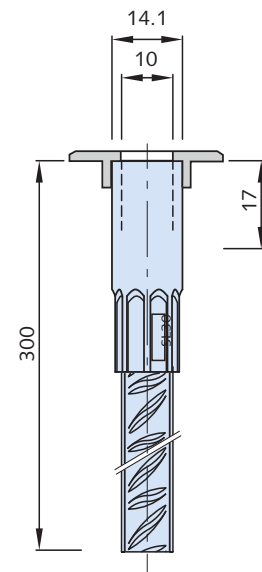
VDI/BV-BS 6205

VDI/BV-BS* = Bundesverband Bausysteme e.V. Association of structural systems

Anchor: HD-SL30



The threaded sleeve and reinforcement bar are made of stainless steel.



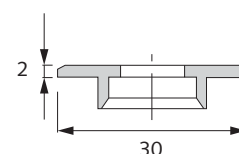
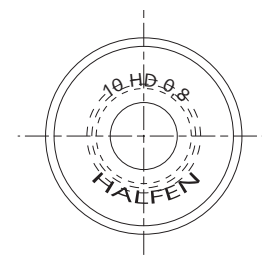
HD Anchor

| Load class | Article name | Article number | Thread diameter M | External diameter [mm] | Length [mm] | Thread depth [mm] |
|------------|----------------------|----------------|-------------------|------------------------|-------------|-------------------|
| 0,8 | 6350-0,8-300 SL30 A4 | 0740.230-00001 | 10 | 14.1 | 300 | 17 |

Identification cap

According to VDI guideline VDI/BV-BS 6205 easy visual identification of the lifting anchor must be possible even after concreting.

The identification cap provides immediate visual reference, listing all pertinent anchor information, while its 30 mm radius also ensures the anchor centre is at least 15 mm from the bottom of the formwork. This ensures the relevant swivel-head lifting link can be used.



Identification cap

| Load class | Article name | Article number | Outer diameter [mm] | Colour |
|------------|--------------|----------------|---------------------|-----------|
| 0,8 | 6357-10-SL30 | 0741.110-00011 | 30 | dark grey |

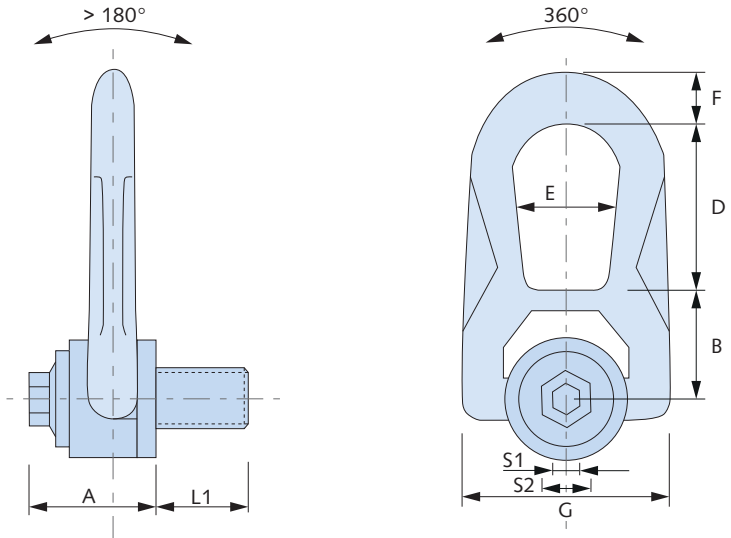
LIFTING ANCHOR SYSTEM HD-SL30 FOR THIN, FIBRE REINFORCED ELEMENTS

Approved double-swivel lifting link

The lifting link has been developed for concrete elements with a minimal thickness of 30 mm. The head of the lifting link can be screwed into the anchor sleeve using a hex key.

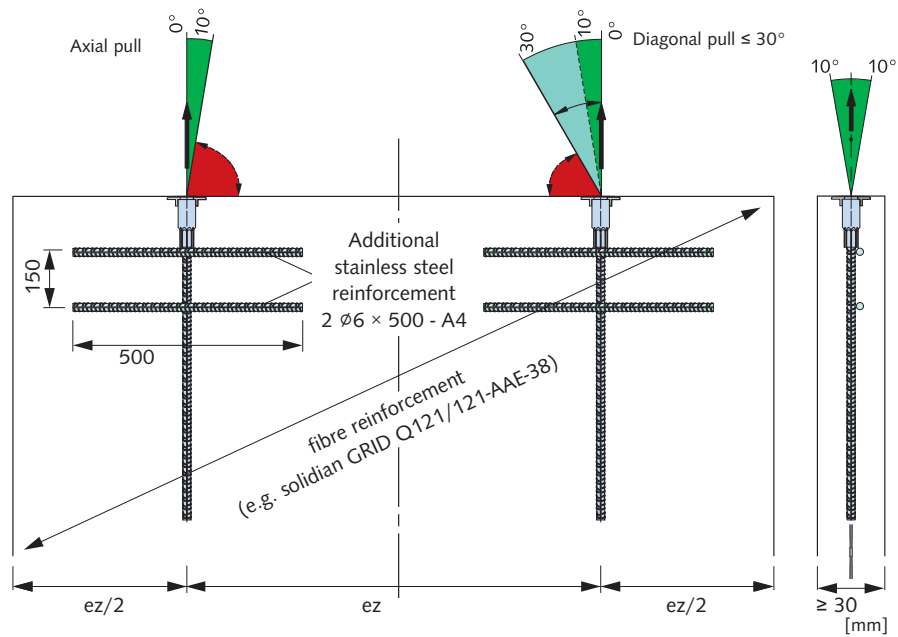
| Dimensions [mm] | | | | | | | | | |
|-----------------|----|----|----|----|----|----|----|----|----|
| Thread | L1 | S1 | S2 | A | B | D | E | F | G |
| M10 | 17 | 8 | 16 | 33 | 30 | 38 | 27 | 14 | 53 |

| Lifting link | | |
|---|--------------------|----------------|
| Load class | Article name | Article number |
| 0,8 | 6318-0,8 DSR | 0742.250-00001 |
| | 6318-0,8 DSR-C* | 0742.250-00101 |
| | 6318-0,8 DSR-C+P** | 0742.250-01001 |
| *DSR-C = Double swivel lifting link, certified | | |
| **DSR-C+P= Double swivel lifting link, tested and certified | | |



Required additional reinforcement



The glass fibre or carbon reinforcement in the middle of the panels may have to be cut out to allow for the anchors. If required, the relevant cross-section of reinforcement must be supplemented below and/or above the anchor. Two stainless steel reinforcement bars (2 $\phi 6 \times 500$ - A4) are required as additional reinforcement at each lifting anchor. One bar must be placed directly under and next to the threaded sleeve; the second is to be placed 15 cm lower.



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Load capacities for HD-SL30 Anchor with corresponding DSR Lifting link

| Load class | Article name | Minimum element thickness [mm] | Edge distance [mm] ez/2 | Load capacity, concrete compressive strength ≥ 50 N/mm ² | |
|------------|----------------------|--------------------------------|-------------------------|---|------------------------------|
| | | | | Axial pull [kN] | Diagonal pull $\le 30^\circ$ |
| 0,8 | 6350-0,8-300 SL30 A4 | 30 | 300 | 8.0 | 6.4 |

| | | |
|---|---|--|
|  <p>Liebigstr. 14 · 40764 Langenfeld · GERMANY Tel.: +49 - (0)2173 970-0 Fax: +49 - (0)2173 970-123 E-Mail: info@halfen.com www.halfen.com</p> | <p>Das Qualitätsmanagementsystem der HALFEN GmbH ist für die Standorte in Deutschland, Frankreich, Niederlande, Österreich, Polen, der Schweiz und der Tschechischen Republik zertifiziert nach ISO 9001:2015, Zertifikat-Nr. 202384-2016-AQ-GER-DAKKS.</p> <p>The HALFEN GmbH subsidiaries in Germany, France, the Netherlands, Austria, Poland, Switzerland and the Czech Republic are Quality Management certified according to ISO 9001:2015, Certificate no. 202384-2016-AQ-GER-DAKKS.</p> |  <p>QUALITY SYSTEM CERTIFICATION DNV-GL ISO 9001 www.dnvgl.com</p> |
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