



TDS | 1042.1



## For multiple use non-structural applications

Concrete

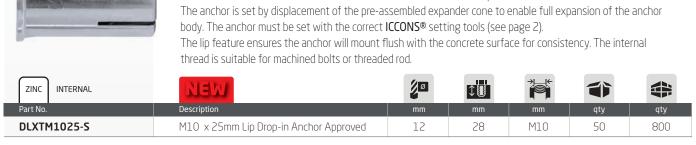
**Approved** 

**DLXTM-S DROP-IN ANCHOR** is a single piece internally threaded expansion anchor suitable for solid base material and hollow core concrete available in a carbon steel clear zinc plated finish.

Rated

**Fasteners** 

**Standards** 



21/0891

**Approved** 

Compliant





Approved for use in cracked and uncracked concrete



# Lip Drop-in Setting Tool

For use with Lip Drop-in Anchors.

Use of Setting Tool is necessary for the correct installation of Drop-in Anchors.

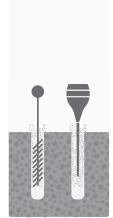
| qty |
|-----|
| 1   |

| Part No    | Description                         | qty |
|------------|-------------------------------------|-----|
| DLST1025-S | M10 x 25mm Setting Tool - Soft Grip | 1   |

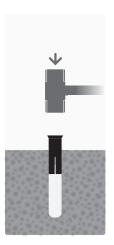
### INSTALLATION



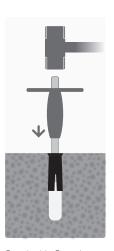
With the correct diameter drill bit, drill a hole to the correct depth.



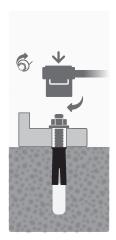
Clean dust and other material from the hole. Blow dust from the hole.



Push in Lip Drop-in by hand or by hammer blows, anchor should be flush to concrete surface.



Set the Lip Drop-in with setting tool. The Lip Drop-in is installed correctly if the setting tool pin is completely inside the anchor.



Place fixture in position and insert machined bolt and tighten until firm (do not exceed recommended torque).



For threaded rod installations wind in rod until firm, do not over tighten.

### INSTALLATION DATA DLXTM-S DROP-IN ANCHOR

|  |                | M10 x 25mm |
|--|----------------|------------|
| Nominal Drill diameter                     | d <sub>o</sub> | 12         |
| Internal Thread Diameter                   | М              | 10         |
| Depth of Drill Hole                        | h <sub>1</sub> | 28         |
| Distance b/w anchor and prestressing steel | a <sub>p</sub> | 50         |

|                             | М                 | 10 x 25mm |
|-----------------------------|-------------------|-----------|
| Effective anchor depth      | h <sub>ef</sub>   | 25        |
| Maximum thread depth        | Ls,max            | 13        |
| Minimum thread depth        | Ls,min            | 8         |
| Fixture clearance hole      | d <sub>f</sub>    | 12        |
| Maximum installation torque | T <sub>inst</sub> | 17        |





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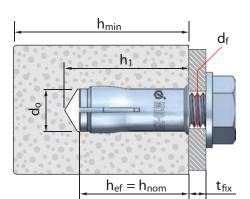
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### MATERIAL SPECIFICATIONS

| Anchor Component | Steel                                    |
|------------------|--|
| Body M10         | Carbon Steel, Zinc Plated ≥ 5µm ISO 4042 |
| Expansion Cone   | Carbon Steel, Zinc Plated ≥ 5µm ISO 4042 |
| Retaining Disc   | Paper or plastic                         |

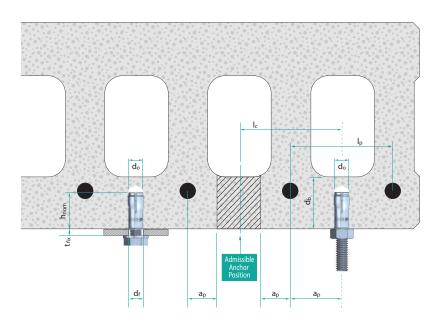
### DLXTM-S – For use in concrete C20/25 to C50/60



# DLXTM-S Drop-in h<sub>min</sub> = thickness of member h<sub>1</sub> = depth of drilled hole h<sub>ef</sub> = effective anchorage depth t<sub>fix</sub> = fixture thickness L<sub>s</sub> = length of thread inside the anchor T<sub>inst</sub> = max. installation torque

fixture clearance hole diameter

### DLXTM-S -For use in precast prestressed hollow core slabs With flange thickness ≥ 35mm and concrete C30/37 to C50/60



| DLXTM-S Dro                        | p-in |   |
|------------------------------------|------|---|
| d <sub>o</sub>                     | =    | nominal diameter of drill bit                         |
| h <sub>ef</sub> = h <sub>nom</sub> | =    | effective anchorage depth                             |
| L <sub>s</sub>                     | =    | length of thread inside the anchor                    |
| T <sub>inst</sub>                  | =    | max. installation torque                              |
| a <sub>p</sub>                     | =    | distance between anchor and prestressing steel ≥ 50mm |
| d <sub>b</sub>                     | =    | bottom flange thickness                               |
| I <sub>c</sub>                     | =    | core distance ≥ 100mm                                 |
| Ip                                 | =    | prestressing steel spacing ≥ 100mm                    |
| C <sub>min</sub>                   | =    | edge distance   |
| d <sub>f</sub>                     | =    | fixture clearance hole diameter                       |
|                                    |      |   |

 $d_f$ 

## **DLXTM-S DROP-IN ANCHOR**





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### Minimum thickness of concrete member, spacing and edge distance

| DLXTM-S Drop-in anchor      |                  |      | Size M10-25 |
|-----------------------------|------------------|------|-------------|
| Minimum thickness of member | h <sub>min</sub> | [mm] | 80          |
| Minimum spacing             | S <sub>min</sub> | [mm] | 75          |
| Minimum edge distance       | C <sub>min</sub> | [mm] | 60          |

# Minimum thickness, spacing and edge distance of precast prestressed hollow core slabs

| DLXTM-S Drop-in anchor      |                  |      | Size M10-25 |
|-----------------------------|------------------|------|-------------|
| Minimum thickness of member | h <sub>min</sub> | [mm] | 35          |
| Minimum spacing             | S <sub>min</sub> | [mm] | 200         |
| Minimum edge distance       | C <sub>min</sub> | [mm] | 150         |

### Design Data in accordance with AS 5216:2021

| DLXTM-S Drop-in anchor - Any load direction           |                              |      |          | Size M10-25 |
|---|------------------------------|------|----------|-------------|
| Characteristic resistance in concrete C20/25 - C50/60 | F <sup>o</sup> Rk            | [kN] | ≥Rod 4.6 | 4.0         |
| Installation safety factor                            | $\gamma_{inst}$              | [-}  |          | 1.2         |
| Characteristic spacing                                | S <sub>cr</sub>              | [mm] |          | 120         |
| Characteristic edge distance                          | C <sub>cr</sub>              | [mm] |          | 60          |
| Design resistance in concrete C20/25 - C50/60         | F <sup>o</sup> <sub>Rd</sub> | [kN] | ≥Rod 4.6 | 2.2(1)      |

<sup>1)</sup> Load in any direction

# Design Data for use in precast prestressed hollow core slabs with bottom flange thickness ≥ 35mm

| DLXTM-S Drop-in anchor - Any load direction           |                    |      |          | Size M10-25 |
|---|--------------------|------|----------|-------------|
| Characteristic resistance in concrete C30/37 - C50/60 | F <sub>Rk</sub>    | [kN] |          | 6.0         |
| Installation safety factor                            | $\gamma_{inst}$    | [-}  |          | 1.4         |
| Spacing   | $S_{cr} = S_{min}$ | [mm] |          | 200         |
| Edge distance   | $C_{cr} = C_{min}$ | [mm] |          | 150         |
| Design resistance in concrete C30/37 - C50/60         | F <sub>Rd</sub>    | [kN} | ≥Rod 4.6 | 2.9(1)      |

<sup>1)</sup> Load in any direction

# Characteristic values of resistance under fire exposure in any direction for use in concrete C20/25 to C50/60 (NOT for use in prestressed hollow slabs)

| DLXTM-S Drop | -in anchor - Fire resistance class |                    |      |             | Size M10-25 |
|--------------|------------------------------------|--------------------|------|-------------|-------------|
| R30          | Characteristic resistance          | F <sub>Rk,fi</sub> | [kN] | ≥ Steel 4.6 | 0.54        |
| R60          | Characteristic resistance          | F <sub>Rk,fi</sub> | [kN] | ≥ Steel 4.6 | 0.54        |
| R90          | Characteristic resistance          | F <sub>Rk,fi</sub> | [kN] | ≥ Steel 4.6 | 0.54        |
| R120         | Characteristic resistance          | F <sub>Rk,fi</sub> | [kN] | ≥ Steel 4.6 | 0.43        |

| DLXTM-S Drop-in ar<br>Spacing and edge d | nchor -<br>listance under fire exposure |                    |    | Size M10-25 |
|--|---|--------------------|----|-------------|
| R30-R120                                 | Spacing distance                        | S <sub>cr,fi</sub> | mm | 100         |
| R30-R120                                 | Edge distance                           | C <sub>cr,fi</sub> | mm | 50          |

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