# HobSpec DataSheet
# Drop-In Anchor

Lipped Zinc
Yellow

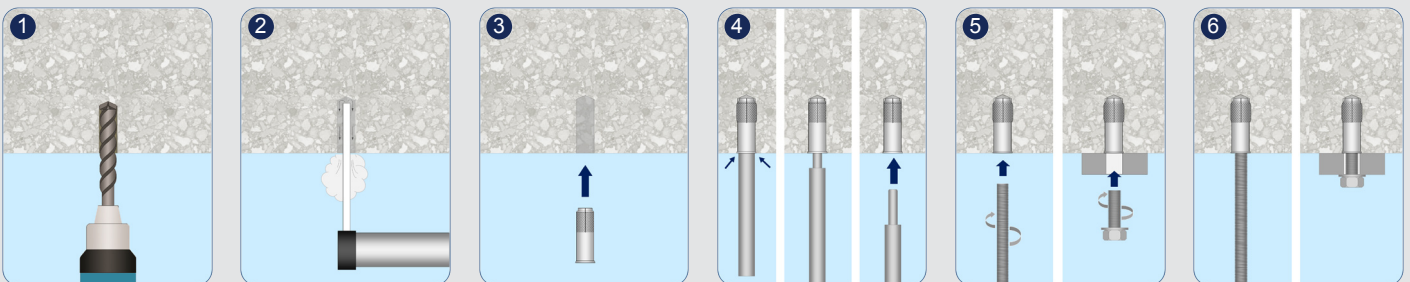Non-Lipped
Zinc Yellow

Non-Lipped
Stainless Steel

The Hobson Drop-In Anchor is a versatile medium duty anchor that delivers ample load bearing performance at shallow embedments. An expansion wedge inside the anchor is pushed towards the bottom end, thus producing expansion forces. The generated expansion force produce frictional resistance during anchor loading.

Because of the Hobson Drop-In's unique features, it can be used for many fastening applications, including but not limited to the following:

- Suitable for light to medium duty loads
- Extremely versatile
- Quick and easy to install
- Immediate loading is possible

- Hand rail fastening
- Formwork support fastening
- Mechanical, electrical and pipe bracket fastening
- Hanger systems for pipes, cable trays, ducts, ceiling frames
- and many more...

## Hobson Drop-In . Simple . Classic . Easy

## Installation Guide

| Drop-In Anchor Size | Thread size D | Hole diameter $d_h$ (mm) | Anchor Length L = $h_0$ (mm) | Maximum thread engagement $t_{e,max}$ (mm) | Guide Torque $T_{inst}$ (N-m) | Minimum concrete thickness $h_{min}$ (mm) | Minimum edge distance $c_{min}$ (mm) | Minimum anchor spacing $S_{min}$ (mm) |
|---|---|---|---|---|---|---|---|---|
| M6 x 25 | M6 | 8 | 25 | 10 | 4 | 100 | 95 | 55 |
| M8 x 30 | M8 | 10 | 30 | 12 | 8 | 100 | 95 | 60 |
| M10 x 30 | M10 | 12 | 30 | 12 | 15 | 100 | 100 | 80 |
| M10 x 40 | M10 | 12 | 40 | 15 | 15 | 120 | 135 | 100 |
| M12 x 50 | M12 | 15 | 50 | 20 | 35 | 130 | 165 | 120 |
| M16 x 65 | M16 | 20 | 65 | 25 | 60 | 160 | 200 | 150 |
| M20 x 80 | M20 | 25 | 80 | 30 | 120 | 200 | 260 | 160 |
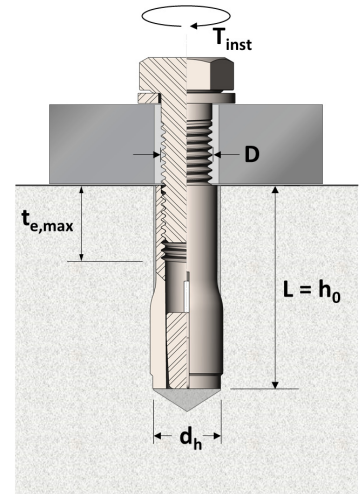
## Basic Load Performance in 32 MPa non-cracked concrete

[1] Limit State strengths are obtained by comparing the concrete and steel relevant strengths. Strength reduction of $\phi$ = 0.60 for concrete and $\phi$ = 0.80 for steel are already included.

[2] Working Loads (WLL) are obtained by comparing the concrete and steel relevant working loads. The factor of safety (FOS) used are FOS = 2.5 for steel and FOS = 3.0 for concrete.

| Drop-In Anchor Size | Depth $h_e$ (mm) | Limit State Strength[1] $\phi N$ (kN) | Working Load Limit in Tension[2] $N_{WLL}$ (kN) |
|---|---|---|---|
| M6 x 25 | 25 | 4.10 | 2.30 |
| M8 x 30 | 30 | 5.40 | 3.00 |
| M10 x 30 | 30 | 5.40 | 3.00 |
| M10 x 40 | 40 | 8.40 | 4.60 |
| M12 x 50 | 50 | 11.70 | 6.50 |
| M16 x 65 | 65 | 17.40 | 9.60 |
| M20 x 80 | 80 | 23.80 | 13.20 |

| Drop-In Anchor Size | Depth $h_e$ (mm) | Edge Distance $c_1$ (mm) | Limit State Strength[1] $\phi V$ (kN) | Working Load Limit in Shear[2] $V_{WLL}$ (kN) |
|---|---|---|---|---|
| M6 x 25 | 25 | 95 | 8.60 | 4.70 |
| | | 110 | 10.70 | 5.90 |
| | | 125 | 12.90 | 7.20 |
| M8 x 30 | 30 | 95 | 9.70 | 5.40 |
| | | 120 | 13.80 | 7.60 |
| | | 150 | 19.20 | 10.70 |
| M10 x 30 | 30 | 100 | 11.20 | 6.20 |
| | | 120 | 14.70 | 8.20 |
| | | 140 | 18.60 | 10.30 |
| M10 x 40 | 40 | 135 | 19.70 | 10.90 |
| | | 150 | 23.00 | 12.80 |
| | | 175 | 29.00 | 16.10 |
| M12 x 50 | 50 | 165 | 30.30 | 16.80 |
| | | 180 | 34.50 | 19.20 |
| | | 200 | 40.50 | 22.50 |
| M16 x 65 | 65 | 200 | 42.60 | 23.70 |
| | | 220 | 49.20 | 27.30 |
| | | 250 | 59.60 | 33.10 |
| M20 x 80 | 80 | 260 | 70.50 | 39.10 |
| | | 280 | 78.80 | 43.70 |
| | | 300 | 87.40 | 48.50 |