

IMPORTANT!

EMBEDMENT DEPTH

WEDGE (EXPANSION) ANCHORS

DEWALT®

ANCHORS & FASTENERS

Design Embedment (h_{ef}) vs Nominal Embedment (h_{nom})

When using of Post-Installed Anchor Design per ACI 318, two very important anchor embedment depths were defined – Effective Embedment Depth (h_{ef}) and Nominal Embedment Depth (h_{nom}).

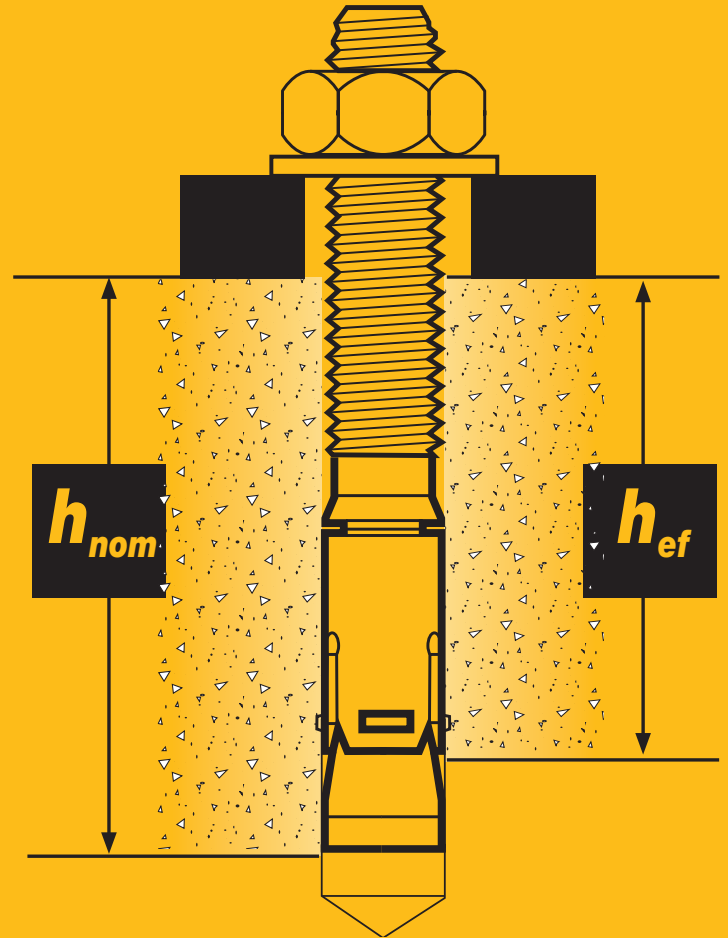
- h_{ef} is the design embedment depth measured from the surface of the base material (e.g. concrete) to the point on the anchor's expansion clip where the clip engages the base material. This value is used to calculate the anchor shear and tension capacities per ACI 318.
- h_{nom} is the minimum installation embedment depth, as measured from the surface of the base material to the embedded end of the anchor body. This installation depth is required to ensure the bottom of the anchor clip is embedded to h_{ef} (depth used in calculations to determine the anchor's capacity).

We have observed many cases where design professionals have incorrectly been using h_{ef} as the expansion anchor's installation (call-out) depth in their plans (anchor details or general notes).

- **Calling out and using h_{ef} as the installation embedment depth results in capacities significantly less than the calculated values and can result in anchors not being installed in accordance with the minimum requirements necessary for Cracked Concrete or Seismic Qualification.**

The correct installation depth for qualified mechanical expansion anchors (e.g. drilled-in wedge anchors) in concrete is h_{nom} .

We strongly suggest reviewing post-installed mechanical anchor details and general notes to ensure you are specifying the appropriate installation embedment depth for your specified anchors.



For more information on DEWALT anchors and fastening solutions, including technical documentation and product approvals, please visit www.anchors.DEWALT.com