

# WEDGE ANCHOR

Wedge Anchors, also known as Expansion Anchors, are characterized by having an expansion clip. Application of torque to the anchor, expands the clip on the cone shaped bolt, resulting in pressure on the inner side of the hole. This leads to necessary friction between the expansion clip & the base material, completing the installation.

## Suitable for

- ◆ Concrete
- ◆ Dense Natural Stone

## Key Features

- ◆ Affordable and Easy installation.
- ◆ Dual embossments on each clip segment: Enables clip to undercut into the concrete thereby increasing follow-up expansion should a crack occur.
- ◆ In addition to superior fatigue resistance, a spring-steel clip offers "memory" that contributes to the anchor's performance if the hole increases in size because of a crack.
- ◆ High Resistance Values.

## INSTALLATION INSTRUCTIONS



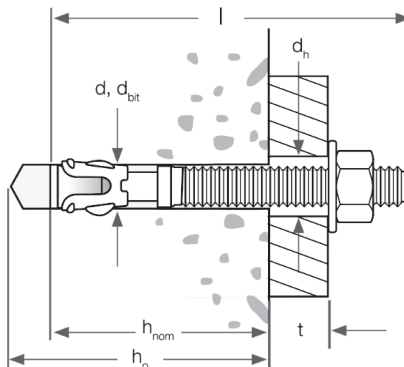
## Critical Installation Recommendations

- ◆ Ensure correct expansion of the anchor by applying recommended torque values.
- ◆ Maintain cleanliness of the hole.
- ◆ Hammer in the bolt only after aligning the nut with the taper end section on the head of the anchor body to prevent any thread damage.
- ◆ As a rule of thumb, we recommend a minimum standard of ten (10) anchor diameters for spacing between anchors and five (5) anchor diameters from an unsupported edge.

# WEDGE ANCHOR

## Material Specifications

Anchor Part	Material
Anchor Bolt	Carbon Steel (Grade 4.6)
Expansion Sleeve	Spring Steel
Nut (Hex Nut)	Carbon Steel
Washer (Plain)	Carbon Steel
Finish	Electroplated Zinc



## Suitable for: Concrete

Parameter	Legend	Unit	M8	M10	M12	M16
Drill Hole Diameter	d	(mm)	8	10	12	16
Tightening Torque	$T_{inst}$	(mm)	15	30	50	100
Cutting Diameter of Drill Bit	$d_{cut} \leq$	(mm)	8.35	10.45	12.5	16.5
Drill Hole Depth	$h_o$	(mm)	52	65	78	104
Dia of Clearance Hole in Fixture	$d_h$	(mm)	10	12	14	18
Recommended Anchorage Depth	$h_{nom}$	(mm)	40	50	60	80
Fixture Thickness	t	(mm)	0-55	0-80	0-125	0-154
Min. Base Material Thickness		(mm)	100	120	140	170

## Performance Data (For a Single Anchor)

- ◆ Concrete C 20/25
- ◆ No edge distance and spacing influence

Parameter	M8	M10	M12	M16
Ultimate Tensile Load (kN)	12.7	17.7	23.1	49.2
Ultimate Shear Load (kN)	8.8	16	21.4	48.3
Recommended Tensile Load (kN)	2.4	4.4	5.7	12.3
Recommended Shear Load (kN)	2.9	4	5.3	12.0