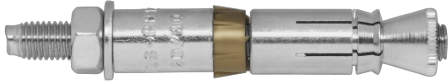


Liebig Superplus BLS-P M12-20/80/15 ZP

SORMAT CODE 9650180015



Simply the best heavy duty self-undercutting anchor in the world

- Automatically self-undercutting, unique heavy duty anchor for pre-set installations.
- Simplest, quickest and safest solution on the market.
- Economical: No special drill bits, undercut tools or setting tools.
- Minimal expansion forces allow for small spacings and edge distances.
- ZP for dry indoor and temporary outdoor use.

PRODUCT OVERVIEW

Other codes	/
Material	Steel, zinc plated
Packages	box (bag): 10 / outer carton: 50 / pallet: 2800
Weight	217.0 kg / 1000

APPLICATIONS

- Elevators
- Power plants (e.g. Nuclear)
- Safety and crash barriers
- Heavy hydraulic pipe support
- Façade elements on slim base material
- Tunnel ventilation
- Cranes and crane runways
- Steel structures
- Machines
- Base plates

BASE MATERIALS

APPROVED FOR

- Cracked concrete
- Non-cracked concrete

APPROVALS / CERTIFICATES



ETA-01/0011 + DoPs



Fire resistance (ETA-01/0011)



0809-CPR-19006295

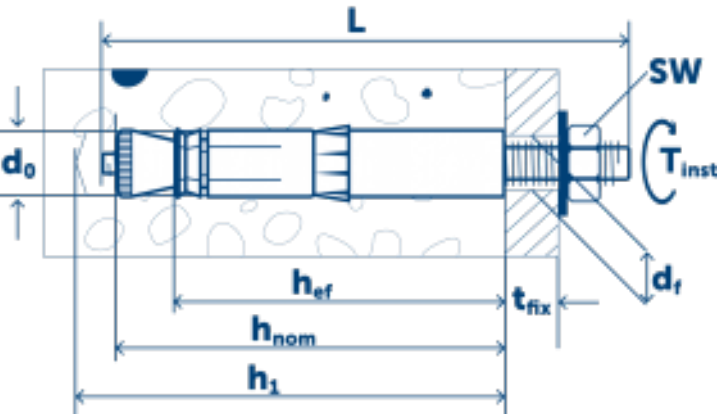


Seismic resistance (ETA-01/0011)

Technical data

INSTALLATION DETAILS

Size	M12
Length (L)	135
Width across flats (SW)	19
Max. fixture thickness (T _{fix})	15



INSTALLATION DETAILS

Hole in fixture (D_f)	14
Drill hole diameter (d_0) $\varnothing$	20
Minimum drill hole depth	105
Drill hole depth (h_1)	105
Nominal setting depth (H_{nom})	96
Effective setting depth (H_{ef})	80
Installation torque (T_{inst})	80

Performance data

Base material	Load type	Embedment depth (h_{nom})	Load direction	Load value
All				
Non-cracked concrete C20/25	N_{Rec}	96 mm		17.2 kN
Non-cracked concrete C20/25	V_{Rec}	96 mm		19.3 kN
Cracked concrete C20/25	N_{Rec}	96 mm		11.9 kN
Cracked concrete C20/25	V_{Rec}	96 mm		19.3 kN

Installation

