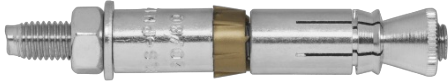


Liebig Superplus BLS-P M12-20/150/30 ZP

SORMAT CODE 9651150030



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: 40 / pallet: 2240
Weight	363.0 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

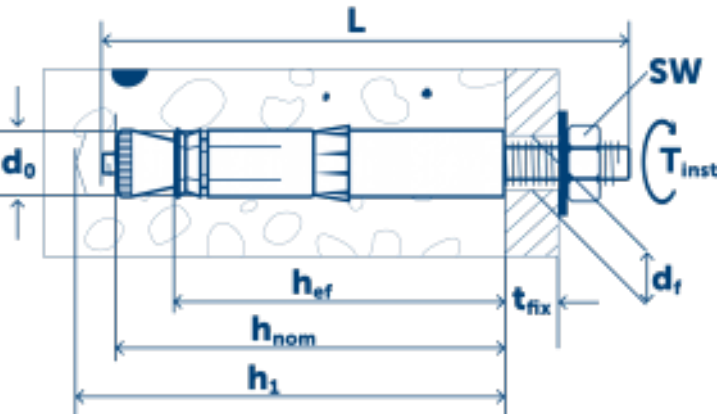


Seismic resistance (ETA-01/0011)

Technical data

INSTALLATION DETAILS

Size	M12
Length (L)	220
Width across flats (SW)	19
Max. fixture thickness (T _{fix})	30



INSTALLATION DETAILS

Hole in fixture (D _f)	14
Drill hole diameter (d ₀) ∅	20
Minimum drill hole depth	175
Drill hole depth (h ₁)	175
Nominal setting depth (H _{nom})	166
Effective setting depth (H _{ef})	150
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}	166 mm		32.1 kN
Non-cracked concrete C20/25	V_{Rec}	166 mm		19.3 kN
Cracked concrete C20/25	N_{Rec}	166 mm		19.0 kN
Cracked concrete C20/25	V_{Rec}	166 mm		19.3 kN

Installation

