

Post-Expansion Anchor Bolt Product Datasheet

TG-SBP-AB Series

Certification



中国认可
国际互认
检测
TESTING
CNAS L7531



Base Material

Certified for:

- Cracked and non-cracked concrete of strength classes C20/25–C50/60
- Concrete of strength class C12/15
- Dense natural stone
- Concrete of strength class C80/95

Functions and Advantages

- TG-SBP-AB series post-expansion anchor bolt is suitable for pre-insertion, through-installation, and spaced installation.
- After applying the installation torque, the anchor cone is pulled into the expansion sleeve, causing it to expand and press tightly against the hole wall.
- Installation is complete once the certified torque requirement is achieved.

Applications

Steel structures, Safety handrails, Staircases, Cable trays, Machinery, Doors, Curtain walls, Timber structures.

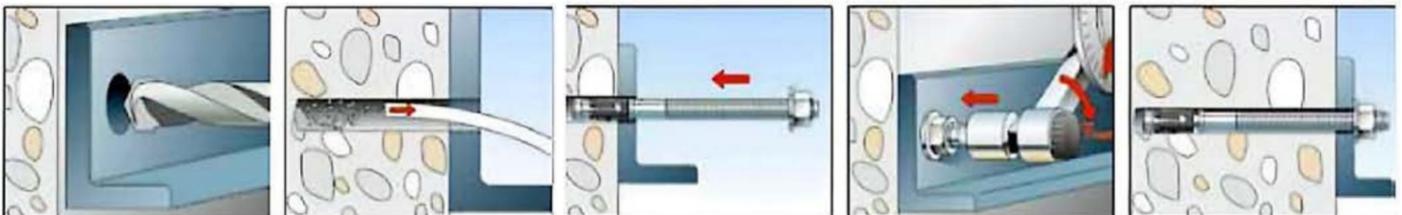


1. Instructions & Installation

Materials & Manufacturing

- Material: Premium carbon steel or stainless steel with high tensile strength and corrosion resistance. The material of Anchor Bolt is SUS316.
- Surface Treatment: Optional zinc plating, nickel plating, or Dacromet coating for enhanced corrosion protection.
- Manufacturing Process: Precision cold forging ensures dimensional accuracy and mechanical performance.

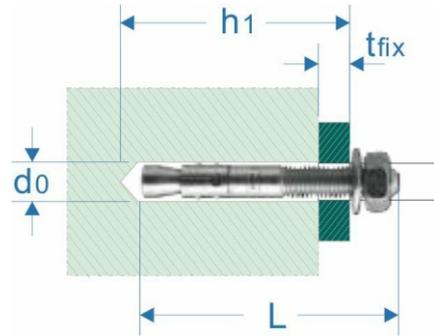
Installation



- Maintain 90° angle between drill bit and mounting surface.
- Thoroughly clean drill holes using air pump to remove dust.
- Ensure vertical alignment of anchor during installation when it is Embedded bolts or the secured object. Verify flush contact between anchor and substrate.
- Tighten with torque wrench; avoid over-tightening to prevent damage.

2. Specifications & Parameters

Specifications



#	Model	Anchor Length (L)(mm)	Drill hole Diameter (d _o)(mm)	Standard drilling depth (h ₁)(mm)	Effective anchorage depth (hef)(mm)	Maximum anchorage thickness (t _{fix})(mm)	Installation torque (T/N*M)	Wrench Size (mm)
TG-SBP-AB-M08.070	M8*70	70	8	60	45	15	30	13
TG-SBP-AB-M08.075	M8*75	75	8	60	45	20	30	13
TG-SBP-AB-M08.080	M8*80	80	8	60	45	25	30	13
TG-SBP-AB-M08.090	M8*90	90	8	60	45	35	30	13
TG-SBP-AB-M08.100	M8*100	100	8	60	45	45	30	13
TG-SBP-AB-M08.120	M8*120	120	8	60	45	65	30	13
TG-SBP-AB-M10.080	M10*80	80	10	75	60	10	50	17
TG-SBP-AB-M10.090	M10*90	90	10	75	60	20	50	17
TG-SBP-AB-M10.100	M10*100	100	10	75	60	30	50	17
TG-SBP-AB-M10.110	M10*110	110	10	75	60	40	50	17
TG-SBP-AB-M10.120	M10*120	120	10	75	60	50	50	17
TG-SBP-AB-M10.150	M10*150	150	10	75	60	80	50	17
TG-SBP-AB-M12.100	M12*100	100	12	95	70	20	50	19
TG-SBP-AB-M12.110	M12*110	110	12	95	70	30	50	19
TG-SBP-AB-M12.120	M12*120	120	12	95	70	40	50	19
TG-SBP-AB-M12.140	M12*140	140	12	95	70	60	50	19
TG-SBP-AB-M12.150	M12*150	150	12	95	70	70	50	19
TG-SBP-AB-M12.160	M12*160	160	12	95	70	80	50	19

TG-SBP-AB-M16.120	M16*120	120	16	110	90	20	100	24
TG-SBP-AB-M16.140	M16*140	140	16	110	90	40	100	24
TG-SBP-AB-M16.150	M16*150	150	16	110	90	50	100	24
TG-SBP-AB-M16.180	M16*180	180	16	110	90	80	100	24
TG-SBP-AB-M16.200	M16*200	200	16	110	90	100	100	24

Critical Note:

- Data assumes single anchors unaffected by edge/spacing constraints.
- Higher permissible loads apply to high-strength concrete (e.g., C50/60).
- Drilling methods: Hammer drill, non-cleaning drill, or wet drill.
- Effective embedment depth: Minimum and maximum values specified.
- Embedment depths < 41 mm apply only to non-structural multi-anchor systems.
- Load reduction required at minimum spacing/edge distances.

Performance parameters

All load values in this section apply to concrete strength class C25 under correct installation conditions, unaffected by edge distance and spacing.

Average Failure Load (Nu & Vu [kN])

Anchor Bolt Size				M8	M10	M12	M16	
Tension	0° Test	Nu	[kN]	TG-SBP-AB/A4/C	16	26	39	53
Shear	90° Test	Vu	[kN]	TG-SBP-AB/A4/C	21	31	43	79

Design Load (NRd & VRd [kN])

Anchor Bolt Size				M8	M10	M12	M16	
Tension	0° Test	NRd	[kN]	TG-SBP-AB/A4/C	7.5	12	18	29.0
Shear	90° Test	VRd	[kN]	TG-SBP-AB/A4/C	9.6	16	24	44

Recommended Load (Nrec & Vrec [kN])

Anchor Bolt Size					M8	M10	M12	M16
Tension	0° Test	Nrec	[kN]	TG-SBP-AB/A4/C	5	8.5	13	21
Shear	90° Test	Vrec	[kN]	TG-SBP-AB/A4/C	7	11.5	17	31.5