

The EMCOR EXPANBOL bolting system, for Tunnels and Gallery provides Quick fixing and anchoring, high safety, high quality level and guarantee.



"EXPANBOL" BOLTING SYSTEM

FOR TUNNELS AND GALLERY

Quick fixing and anchoring. High safety

High quality level and guarantee

EMCOR EXPANBOL

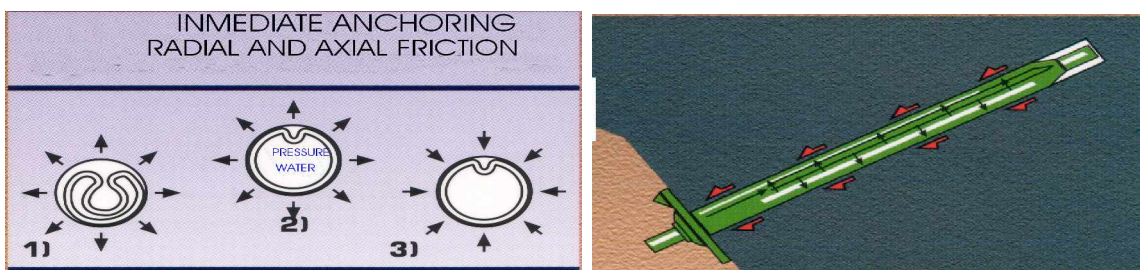


The EMCOR EXPANBOL rock bolt range features friction bolts with superior product characteristics to meet the most demanding roof support applications. The high load-bearing capacity combined with excellent elongation properties ensure safer working conditions and faster excavation cycles for low costs. Please refer to specification sheets for detailed product information



- 1 – Friction bolt with faceplate inserted, adjusted and expanded into the drill hole
- 2 – Case at the top of the friction bolt with hole to inflate the bolt with pressure water
- 3 – Full view of the friction bolt
- 4 – Face plate at the top of the friction bolt, no nuts necessary

EMCOR EXPANBOL PERFORMANCE



- 1 – Original cross-section shape of the EXPANBOL friction bolt when inserted into drill hole.
- 2 – Water is pumped into the bolt at 30 Mpa expanding the steel tube.
- 3 – The water runs out and the bolt is pressed against the rock providing high load friction capacity

EMCOR EXPANBOL BENEFITS

- Immediate full length support for faster excavation cycles and safer working conditions
- Simple and clean installation
- Adjusts to borehole irregularities
- Excellent elongation properties add to application flexibility
- Reliable installation quality
- Flexible to variations in drill hole diameter
- Versatile bolting solution for variable ground conditions
- No grouting or use of chemicals needed to avoid contamination
- Manual or mechanical installation at choice

The EMCOR EXPANBOL rock bolts effectively tie rock across fractures and fissures with its high loading capacity. The elongation properties allow for substantial rock movements without shearing the bolt.

The EMCOR EXPANBOL rock bolts are manufactured according to the ISO 9002 standards. Each batch of material and finished rock bolts are tested for ensured final quality.

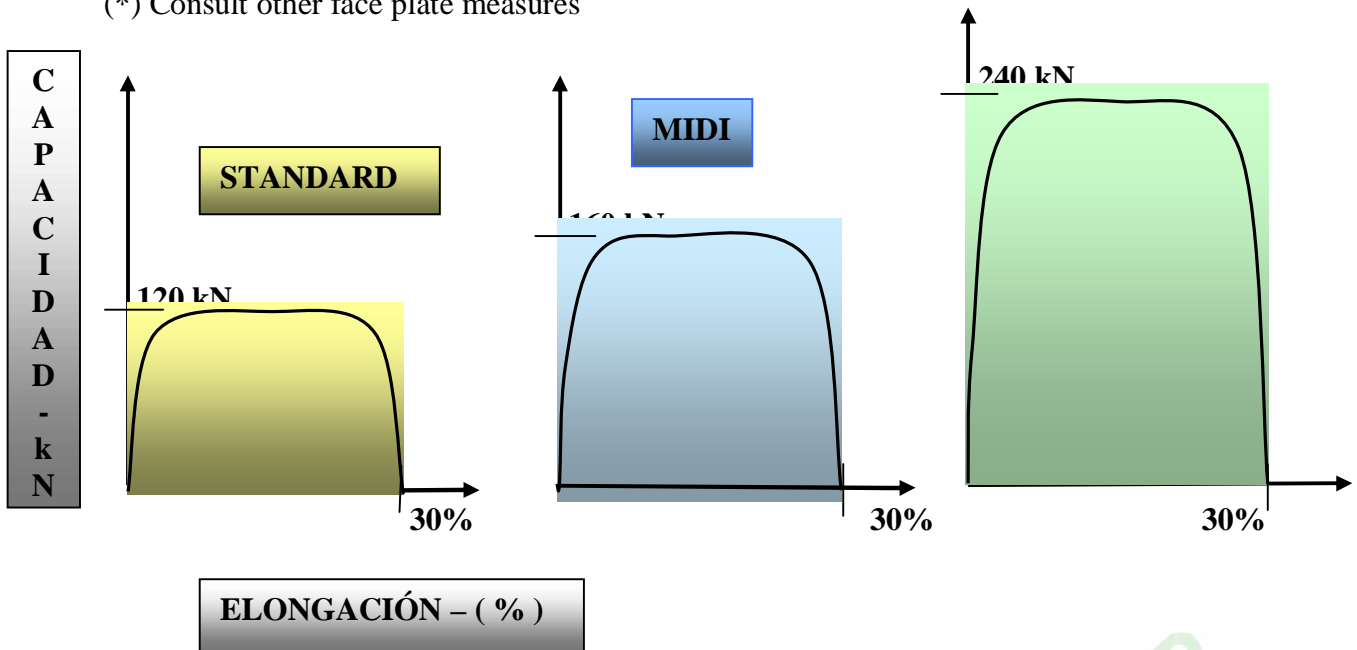
EMCOR EXPANBOL SPECIFICATIONS

The EMCOR EXPANBOL rock bolts are designed to satisfy the most demanding rock support challenges in the construction and mining industries. The high load capacity combined with excellent elongation properties provide for cost savings and safer working environment.

The EXPANBOL range consists of three products. The EXPANBOL STANDARD for lighter applications with a load capacity of 12 metric tons, EXPANBOL MIDI load capacity of 16 tons and the robust EXPANBOL SUPER with a capacity of 24 metric tons.

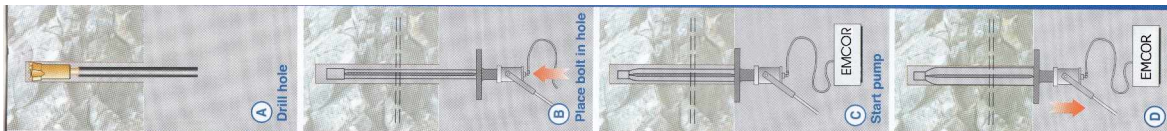
TECHNICAL SPECIFICATIONS			
TYPE	STANDARD	MIDI	SUPER
Variable length up to	8000 mm	8000 mm	8000 mm
Tube thickness	2 mm	2 mm	3 mm
Bolt diameter	26 mm	36 mm	36 mm
Original tube	41 mm	54 mm	54 mm
Hole diameter	32-39 mm	43-52 mm	43-52 mm
Optimal hole	35-38 mm	45-51 mm	45-51 mm
Breaking load	120 kN	160 kN	240 kN
Minimum elongation	20%	20%	20%
Typical elongation	30%	30%	30%
Face plate	150*150*6 (*)	200*200*6 (*)	200*00*8 (*)
Face plate hole	30 mm	40 mm	40 mm
Weight	2 kgs/m	2.80 kgs/m	3.80 kgs/m

(*). Consult other face plate measures



EMCOR EXPANBOL INSERTION SEQUENCE

- A - Drilling of a bore hole manually or by using a jumbo or a rock bolter
- B - Insertion of the EXPANBOL friction bolt into the bore hole
- C - Pumping of water into the EXPANBOL friction bolt until the water pressure reaches 30 Mpa. The bolt is now secured into place
- D - Withdrawal of the water pump from the end bushing. Bolting is now completed.



EMCOR EXPANBOL ACCESSORIES

- A full range of pneumatic and electric water pumps
- Robust face plates
- Load tester