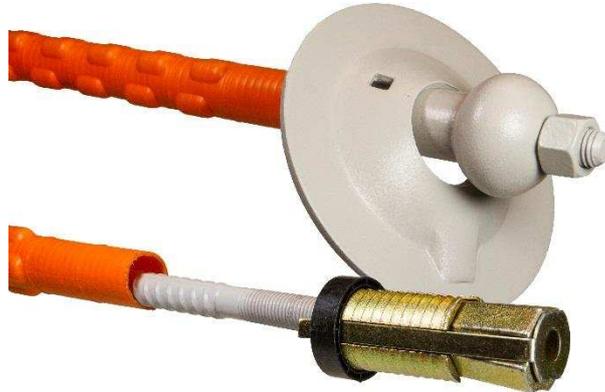


## NC-Bolt M33 Combination bolt/rock support bolt

Combination bolt designed for immediate and permanent rock support



NC-Bolt M33 Combination bolt for rock support. The bolt is used with an expansion shell for immediate work safety support. The bolt is subsequently grouted for permanent anchoring.

### Stock programme:

M33x1500	M33x2000
M33x2400	M33x3000
M33x4000	M33x5000
M33x6000	Other sizes can be produced to order

### Technical information:

Material: HRB500E in compliance with GB 1499.2-2007 or equivalent  
Rebar bolt  $\varnothing 32$ .  
Thread length: 2xM33x200mm (thread cold rolled)  
Weight: 6.43 kg/m

### Specifications:

Ref. drawing PTC-172 series

Mechanical properties:

Dimensions:	Tension area, $A_s$ Thread-stem	Yield ReH	Tensile Rm	Ductility AGT
M33x3.5	694-804 N/mm <sup>2</sup>	Min. 500 N/mm <sup>2</sup>	Min. 600 N/mm <sup>2</sup>	Min. 8%

### Minimum load capacity:

End anchored:	Yield: 347 kN	Tensile: 416 kN
Fully imbedded:	Yield: 402 kN	Tensile: 482 kN

Recommended torque: 200-300 Nm. Tests show that the specified torque area normally provides a pretension in the region of 40-60 kN, with the possibility of isolated values between 10-70 kN due to variations in friction properties.

### Corrosion protection/Pc-Coat

Hot-dip galvanization is carried out in compliance with NS-EN-ISO 1461 and epoxy powder coating in compliance with NS-EN 13438. With regard to coating thickness and further information, please see Document Q/PTC-T19A – Specification for Pc-Coat – SVV/JBV. Please also refer to the Pc-Coat Product Data Sheet and accompanying FDV documentation.

**Grouting:** Typical water/cement-ratio is 0,3-0,4. For more detailed information, please see own brochure "Grout recommendations" on [www.pretec.no](http://www.pretec.no).

### Recommended borehole:

Borehole:  $\varnothing 64-68$

Drilling depth: Bolt length + 150 mm

### Accessories:

Spherical bearing washer with hole for evacuating air, expansion shell BL-M33x64/64-68 elf. Spherical bearing washer and expansion shell mounted on bolt for insertion into the borehole.