

# Inflatable Rockbolts



**New Concept Mining**  
Powered by Epiroc

After drilling support holes in the rock, rockbolts are inserted and inflated with high pressure water, expanding to the shape of the hole. This frictional resistance provides the user with immediate support and a safe working environment.

The **Hydrabolt** incorporates a non-return valve to retain the water inside the Hydrabolt under full pressure, maximizing the bond between the Hydrabolt and the rock.

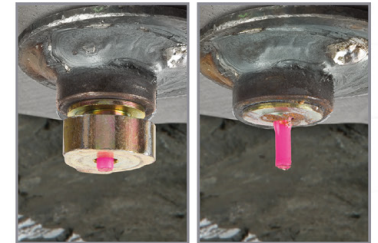
The **X-Pandabolt** releases water pressure after installation for applications demanding larger shear and bending displacement of the of the installed bolt.

The **RS-Bolt** is a modified Hydrabolt or X-Pandabolt which is bent at an angle. This allows the bolt to be installed by the "push-straighten-push" method in excavations with space restrictions.

The **Manzibolt** has been specifically developed for use in typical hydropower mines without the requirement to intensify the water pressure.

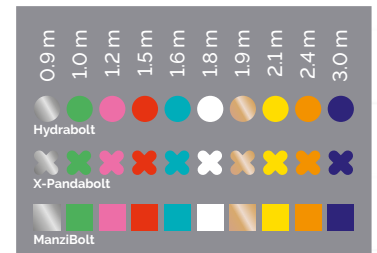
The load indicator provides a visual method of verifying correct installation. By popping forward, the load indicator confirms that the rockbolt has been correctly installed and its colour identifies the length of the installed rockbolt.

**Corrosion Protection Coating** – Inflatable Rockbolts can be supplied with a thermal zinc diffusion coating which has been proved in both laboratory and underground environments to provide significant protection from the corrosive elements typically found in underground mines.

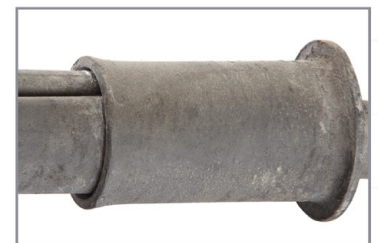


The visible load indicator shows that the Hydrabolt has been installed properly

Hydrabolt retains pressure even if the button is blasted off



The colour of the load indicator identifies the length of the rockbolt



Corrosion protection with thermal zinc diffusion coating

## BENEFITS OF THE BOLT

- Quick and easy to install
- Not affected by blasting vibrations
- Hydrabolt retains its pressure even if the button is blasted off
- Load indicator shows when pressurised
- Patented non-return valve which limits "spring-back" giving increased pull-out resistance
- Load indicator colour shows length of Rockbolt
- Safe remote installation
- Wide expansion range
- Load distributed evenly over entire length of hole
- No resin or grout required
- Single unit – no loose parts
- Not susceptible to rock strength
- Immediate support