

# MONITOR MINE ROOF LOAD

with

## THE ROOFMINDER™ SYSTEM

Use our **Roofminder™ System** to monitor the change in mine roof load. Increasing load on the indicator is a warning of impending danger and a signal to pull out equipment & personnel from the area.



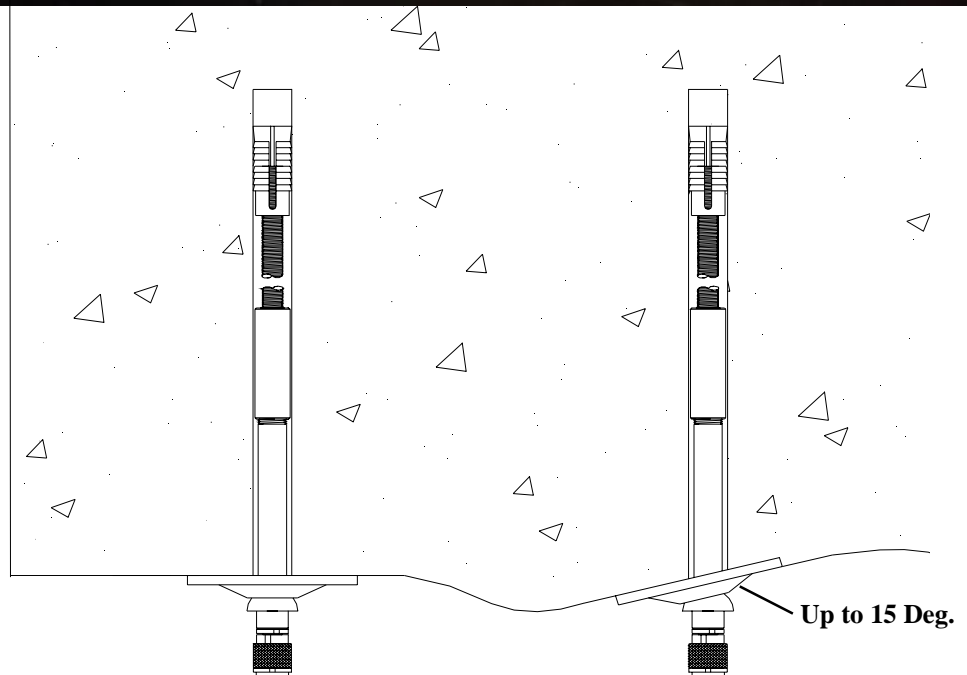
### Maxbolt™

used in the Roofminder™ system is in use in several critical and diverse applications, including pedestal and portal cranes, underwater rigs, by the United States Navy, pumps, Ball & Sag Mills and by several other industries

## ROOFMINDER™

CAN TOLERATE  
CONSIDERABLE VARIATION IN  
ROOF GEOMETRY

Because of the Roofminder™ system's spherical geometry, plate angles up to 15 degrees with the bolt axis will not bend the bolt nor interfere with the strain indicator.



# THE ROOFMINDER™ SYSTEM

## HOW IT WORKS

The Roofminder™ System is designed for installation in mine roofs at various locations, in the midst of regular roof supports. With this installation, the system is in place to provide continuous monitoring of roof load that adjacent conventional roof bolts are experiencing. When the roof begins to sag, the Maxbolt™'s visual mechanical dial moves toward 100 indicating danger. An increase in bolt load is read on the indicator dial as a percentage of maximum load, with 100% representing the load in pounds force requested by the user.

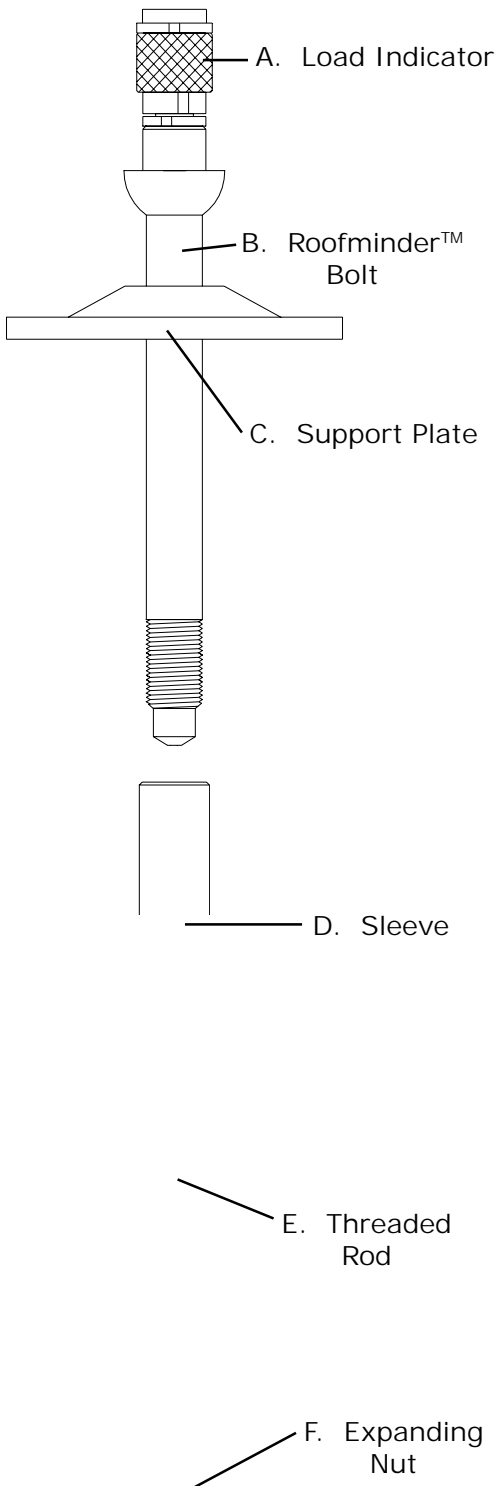
### The system comprises

- A. Maxbolt™ mechanical tension load indicator.
- B. Screwed into a Roofminder™ bolt.
- C. A standard roof support plate with the spherical load seat.
- D. An adapter threaded sleeve.
- E. For mechanical bolt styles a section of threaded rod can be coupled
- F. To the Expanded nut and Sleeve

The basic elements can be adapted to different styles of roof supports to measure changes in roof load. Load indicator is designed with a knurled body to easily screw in and out of the Roofminder™ assembly. All indicators can be easily unscrewed by hand, checked for correct functioning and reinserted to their original positions. Load indicators with similar load ratings are interchangeable.

### Assembly and installation of the Roofminder™ System:

1. Insert the Roofminder™ bolt through the plate and screw the sleeve to the bolt. (Both right or left hand hardware can be used)
2. Attach the expanding nut to one end of the threaded rod. (The threaded rod can make up the length required for a particular application)
3. Thread Sleeve with Roofminder™ to other end of the threaded rod.
4. Install the assembly into the roof, but leave final tightening for following step.
5. Screw load indicator into the Roofminder™, at this stage the load indicator dial should read zero.
6. Hand tighten Roofminder™ bolt with a wrench, until the indicator needle just comes off zero. It is now ready to read changes in roof load.



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