

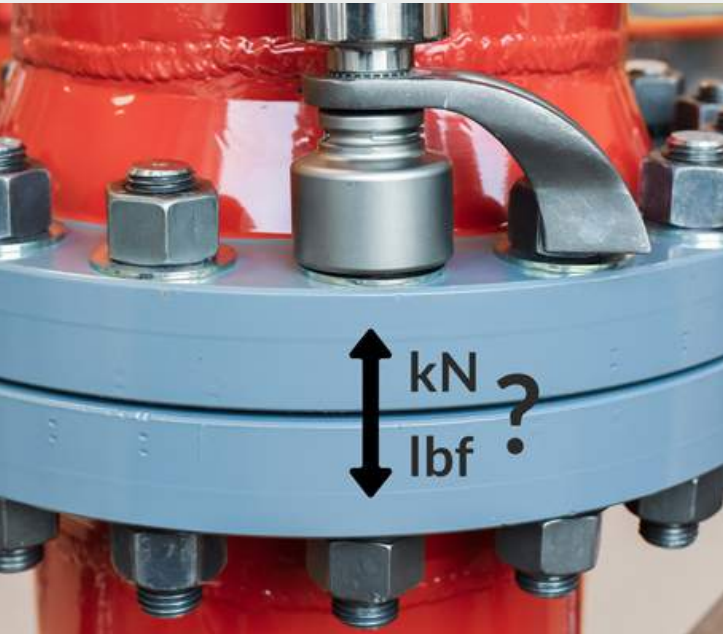
Bolt Safe

Load Measuring Systems

Brochure



Why choose BoltSafe?



The problem

There has always been a problem with bolted connections: how can you be sure that your assembly has achieved or kept the required bolt load?

Not knowing the right tool setting or bolt load, can cause serious problems such as bolts breaking or coming loose. Maintenance costs will rise and result in expensive check-ups and re-tightening procedures. The challenge BoltSafe took up is to prevent these check-ups and make sure that no re-tightening is necessary.

The solution

For this problem, BoltSafe has come up with a solution. With our compact load sensor, the bolt load during and after assembly can be measured, visualized and monitored over time. This same test will also determine the exact tool settings to reach the desired bolt load.

This knowledge enhances safety, makes joints more dependable and results in better control over the bolted construction. It also lowers the costs for maintenance during installation and throughout the joint's service life. Bolting-related failures have never been so easily avoided!



BoltSafe products



Bolt load cells

BoltSafe bolt load cells are specially designed load sensors that monitor the residual bolt load in bolted joints. Knowing this information enhances safety, makes joints more dependable and results in better control over bolted constructions.

Readout methods

BoltSafe bolt load cells can send their data to different readout methods. We offer the following: the Handheld Reader, Network with PDI, Network with PDI-NT, RS-232 and Analog Converter and the IoT-node.

Industries

BoltSafe bolt load cells can be used in various industries, where they can enhance safety in critical bolted connections.



Wind industry



Mining



Mechanical engineering



Civil engineering



Petrochemical industry



Power generation



Methods to visualize bolt load



Handheld reader

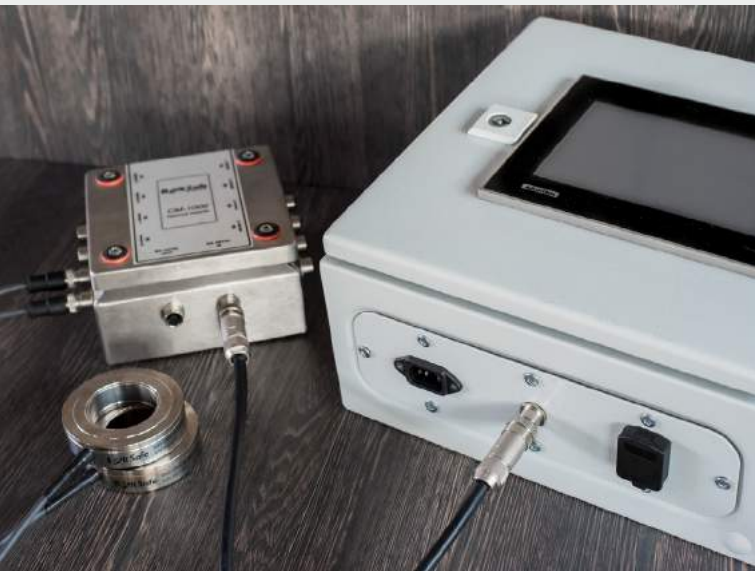
- One PMS or CMS bolt load sensor can be read out at once
- Wireless reading of the PMS sensor with a probe
- The CMS sensor is read out directly using the cable from the sensor
- It has a display to check the live bolt load data
- The handheld reader is plug & play and directly ready to use
- Acquired data can be transferred to a computer for further analysis



Network with PDI

- The CM-1000 network box can connect 8 CMS sensors at once
- Can be linked to a maximum of 32 network boxes which means a total of 256 CMS load sensors can be read out
- Can be used to log bolt load data and send it to a PC
- Data can be read out remotely on a PC
- Optionally delivered in a portable case
- Cellular (4G) connection is optional





Network with PDI - NT

- The CM-1000 network box can connect 8 CMS sensors at once
- Can be linked to a maximum of 32 network boxes which means a total of 256 CMS load sensors can be read out
- A standalone system that works remotely
- Optional generation of analog outputs
- Optionally delivered in a portable case
- Cellular (4G) connection is optional
- Receive notifications while measuring

RS-232 and Analog Converter

- One CMS bolt load sensor can be read out at once
- It generates an analog output to connect the sensor to DAQ systems
- Has a programmable relay
- Monitoring and logging the bolt load data with PC software
- Cost effective when monitoring a maximum of 5 CMS sensors
- Can be used for setting alarms/warnings
- Receive notifications while measuring



IoT-node

- One CMS bolt load sensor can be connected at once
- Is connected to the Internet of Things through LoRaWAN
- A wireless system with its own power supply
- Standalone system that works remotely
- Has a really long battery life (10 years)
- Access data through a web-based application dashboard
- Receive notifications while measuring



About BoltSafe

We guarantee peace of mind with solutions that secure safe connections.

We aim to achieve utmost care and excellent production. We do this through our in-house production and R&D department that combines reliability and innovation. The quest for innovation never stops! Because we have technical expertise and twenty years of experience, we are able to provide trustworthy advice in every customer's situation.

BoltSafe offers measuring solutions to visualize bolt load for various industries using compact sensors. These bolt load sensors have been developed using a unique technology, are easy to use and provide accurate measurements.





BoltSafe brochure

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