

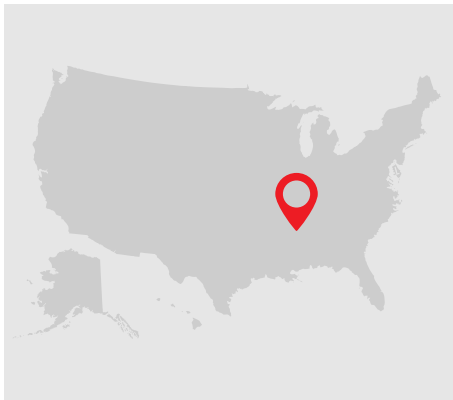


“ SmartBolts have higher uptime and lower maintenance costs, so I highly recommend them. ”

- Jerrith Barnette, OEM Trained & Authorized Busway Specialist

CASE STUDY: SMARTBOLTS: ABB'S SOLUTION FOR SAFER EFFICIENT BUSWAY INSPECTIONS

ABB has upgraded its Spectra Series and ReliaGear® busway platforms with SmartBolts, incorporating a built-in Visual Indication System that enhances safety and efficiency. This case study explores how SmartBolts reduce downtime, improve operator safety, and significantly cut maintenance costs by enabling quick and safe visual inspections of critical busway bridge joints.



LOCATION: Selmer, TN.

YEAR: 1998

APPLIC.: Spectra Series and ReliaGear® busway platforms

SOLUTION: SmartBolts

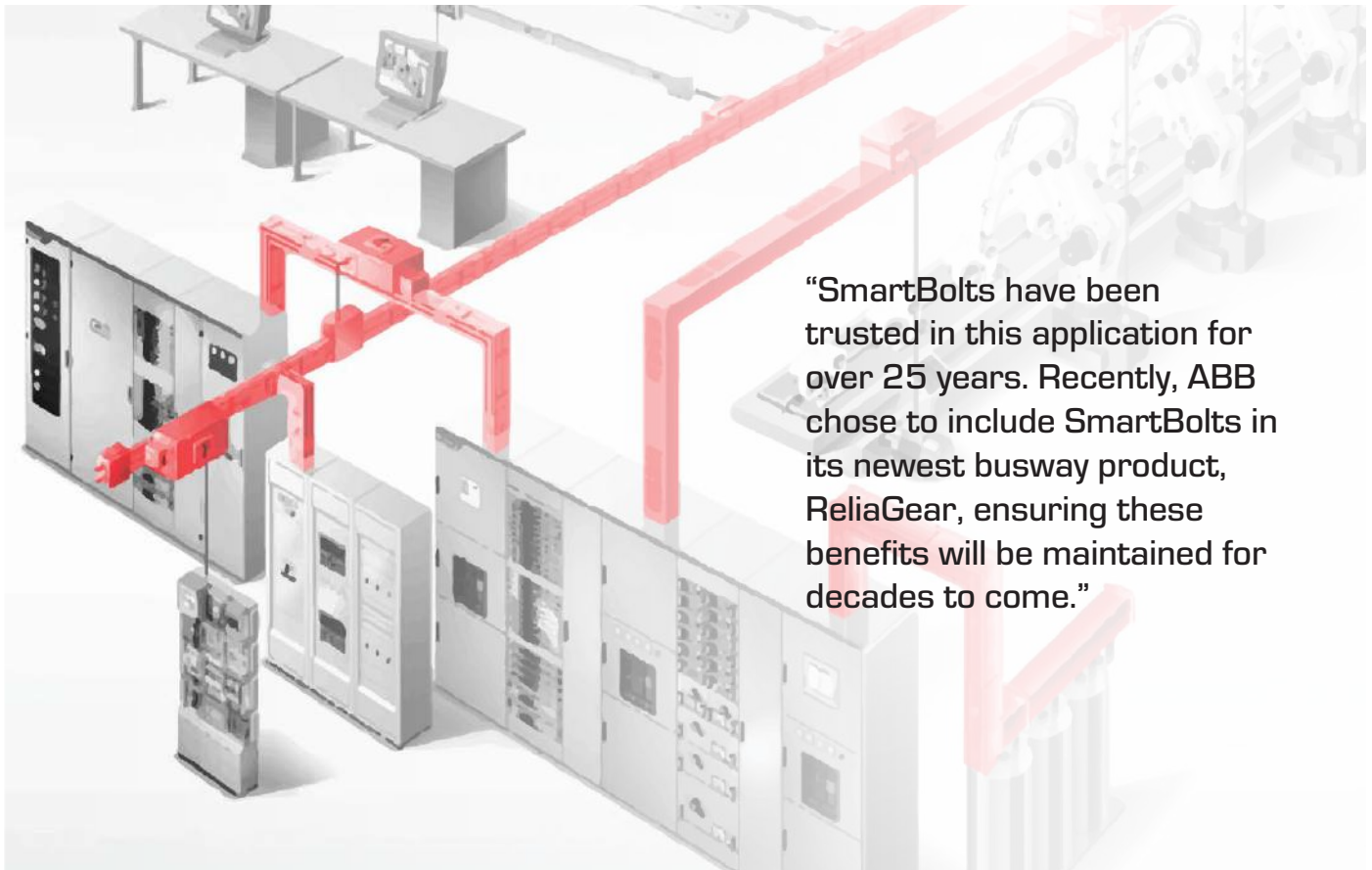
ISSUES ON SITE:

ABB busways transport electricity and connects to industrial equipment such as switchgear, panelboards, and transformers. Busways are modular system, and segments are connected via critical bridge joints that enable electrical current to flow from one busway segment to the next through copper or aluminum busbars.

Achieving proper tension in these bridge joints is critical. If the connection is too loose or too tight, it will result in a poor electrical connection, which could lead to downtime, equipment failure, or dangerous arc flash explosions.

Due to these electrical risks, the installation and maintenance of bridge joints in busways can be hazardous and costly. ABB needed a method to verify that the critical bolted connections in bridge joints are installed properly and can be inspected safely from a distance.

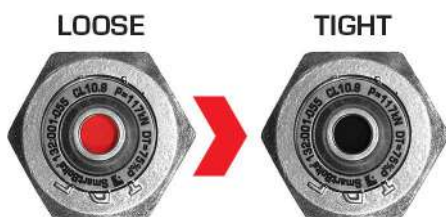




“SmartBolts have been trusted in this application for over 25 years. Recently, ABB chose to include SmartBolts in its newest busway product, ReliaGear, ensuring these benefits will be maintained for decades to come.”

SMARTBOLTS APPLICATION:

ABB uses SmartBolts to upgrade the critical bolted connections in its Spectra Series and ReliaGear® busway platforms. These innovative bolts boast a built-in Visual Indication System that reduces downtime and improves operator safety. The indicator changes color based on bolt tension: black signifies a secure bridge joint, while red alerts operators of a loose connection during inspections, enabling corrective action to be taken immediately.



“ In my 20 years with busway distribution systems, SmartBolts are the best for keeping critical bolt connections secure.

Loose connections cause downtime and can be hazardous. My team can quickly inspect SmartBolts visually without shutting down the system. ”

- Jerrith Barnette, OEM Trained & Authorized Busway Specialist

RESULTS:

The use of SmartBolts in ABB busway bridge joints delivered valuable benefits. Visual inspections with SmartBolts are safe and efficient. The visual tension indicator ensures the busway bridge joints are installed properly and allows for the rapid identification of loose bolts from a distance. And since busway systems don't need to be powered down to perform bolt inspections, SmartBolts can reduce maintenance costs by as much as 80%.

SmartBolts provide visual feedback that these critical connections are properly secured and the busway is safe to operate.