

HYTORC AND CUMULUS



Bringing Bolting Into the Internet Age

HYTORC and Cambridge, Massachusetts-based Cumulus Digital Systems, Inc. have joined forces on an innovative partnership that is bringing 21st century tech into the bolting industry in new and exciting ways. By matching HYTORC's industry-leading bolting solutions with Cumulus' award-winning Smart Torque™ System (STS), the two companies have made tooling "smart" in heavy industry and brought the archaic practice of bolting into the Internet age by creating a fully connected, end-to-end workflow management system that significantly improves safety, quality and productivity in bolting maintenance and construction.

"The partnership has been great for HYTORC and Cumulus, but it's been even better for our customers," said HYTORC's President Eric Junkers. "Cumulus provides the software; we provide the tooling. With both our companies focused on what we do best, that equates to gains and benefits for our customers in just about every aspect of their projects, and the proof is out there!"

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Cumulus has developed what they call the “Internet of Tools” – a growing collection of world-class HYTORC tooling that has been digitally enabled with Cumulus’ industry-leading software, which collects data in order to provide real-time quality assurance and progress tracking.

When paired with HYTORC bolting solutions, the fully Bluetooth®-enabled technology allows users to program bolting patterns on a tablet and transmit that information directly to a HYTORC pump. The pump then activates the rest of the connected HYTORC bolting solution to automatically tighten bolts uniformly, achieving a verifiable, even circumferential, and targeted bolt load.

The HYTORC and Cumulus partnership is in force on a current project that required all the bolting applications (30,000 flanges) to have Bluetooth® capability. HYTORC modified its Vector Pump for the job, and put its STEALTH® and AVANTI® hydraulic torque wrenches, and its LITHIUM SERIES® electric torque tools to work.

“The integrated system has implemented the ASME PCC-1 recommended Simultaneous Multibolt Tightening Pattern (referred to by HYTORC as the Parallel Joint Closure Method) with ease,” said Richard Holmes of HYTORC’s Productivity Enhancement Group. “The result has been substantially reduced torque increments and bolting time, with increased joint integrity.”

“The Internet of Tools is the combination of Cumulus’ industry-leading software with world-class connected tools,” said Cumulus CEO Matt Kleiman. “We are pleased to share the news of our new partnership with HYTORC to integrate their advanced powered bolting equipment with our Smart Torque System to expand the toolset that is supported by our end-to-end workflow management platform.”

The results have been outstanding. Joint integrity has been substantially increased and the integrated system has helped mitigate any potential overages in



Parallel Joint Closure (Simultorc)

Joint failure is the most common result of incorrect and uneven bolt load. The HYTORC Washer and Parallel Joint Closure Method provide for a more even and accurate circumferential bolt load - less bolt load scatter - thereby increasing joint integrity and decreasing the possibility of leaks and down time.

construction and maintenance costs. It is projected that applying the integrated system will ultimately reduce downtime, increase uptime and generate revenue and additional profits over the lifetime of the project’s operation.

STS is helping users realize up to 60 percent reductions in quality assurance and control costs, along with reductions in bolting time of 50 percent or more. STS has also been proven to reduce dangerous and potentially costly bolting safety incidents, and eliminate leaks.

Among the key features of the integrated HYTORC and Cumulus system is its digital documentation functionality. In line with the industry’s push to go paperless, STS logs all activity for effective record-keeping, planning and overall accountability and traceability.

