

Industrial bolting company helps connect Manhattan, Long Island

HYTORC Industrial Bolting Systems

Nearly 16 stories below the streets of New York City a massive public works project is underway to connect Long Island to Manhattan's East Side. Deep underground, rail tunnels are extending from Sunnyside, Queens, to a new Long Island Rail Road terminal being excavated beneath Grand Central Terminal. This is an astoundingly large project with a budget of more than \$8 billion and an estimated completion date of 2019. Nearly 1,000 employees have been working beneath some of the busiest streets in the world 24 hours a day, five days a week since March 2007 to get it finished on time.

One of the most complicated parts of the project is the tunnel beneath Northern Blvd., one of the busiest roads in Queens. While the area was too soft to use a traditional tunnel boring machine, the subway, roadway and elevated subway above had to be supported during construction. Supporting a building is one thing but supporting a roadway and subway line from underground is another. As the ground was excavated, supports were put into place to hold the tracks and roads above. The supports had to be bolted together with precise load, and it had to be done safely and quickly.

The contractor, Schiavone, chose HYTORC for the bolting systems on the job after having shared success on Manhattan's other tunnels including the new water tunnel system hundreds of feet underground. After evaluating the job at hand, HYTORC representative, Reid Hensen, recommended HYTORC's air powered bolting system — the Torque Gun. "The Torque Gun system runs off of a standard air compressor and is able to deliver consistent bolt load, quickly and accurately," he said. "The speed and low weight of the gun were big factors in the decision."

Working underground in confined conditions is challenging enough but of the thousands of nuts that needed to be tightened, nearly half of them were in elevated areas that required operators to work from

scaffolding. In these conditions, the patented safety systems on the Torque Gun were essential. All air powered torque multipliers use a reaction arm to abut against another nut or a nearby support to prevent the tool from moving. If an operator has his fingers in the way, the force of

the reaction arm can cause serious injuries.

The Torque Gun has a patented safety paddle that prevents movement of the reaction arm unless the paddle on the back is depressed while the trigger is pulled. This forces operators to keep both hands in safe places while the tool is in use, pre-

venting one of the most common bolting-related injuries.

For more information regarding HYTORC Industrial Bolting Systems or to set up a free demonstration, please contact info@hytorc.com or call (800) FOR-HYTORC [367-4986]. ●

Find out more at
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CONSTRUCTION OF NEW TUNNELS
HUNDREDS OF FEET BELOW STREET LEVEL,

THEY CHOSE **HYTORC**[®]
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THE WORLD'S MOST TRUSTED
INDUSTRIAL BOLTING SYSTEMS



The 3,100-foot pound Torque Gun J-3.



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