Open to traffic in 1930, the Jacques-Cartier Bridge spans the St. Lawrence River between Longueuil and Montreal, QC, Canada. The approach spans and the central span are mainly supported by steel beams. The original bridge deck design, approximately 3 km (1.85 miles) long, was initially cast in place, reinforced concrete.

The combined effects of aging, heavy vehicular traffic and excessive use of de-icing products created substantial deterioration which could eventually compromise the structural integrity of the structure. The owners therefore made the decision to replace the old deck. The design of the new deck consisted of high performance, concrete (HPC) panels, prefabricated and pre-stressed at the factory. Post-tensioned longitudinal and transverse reinforcement was to be used after installation of the panels.

On-site installation and tensioning of the steel cables was required to secure the 1518 prefabricated concrete units. To protect the cables from the damage of corrosion caused by exposure to de-icing salts, the engineers specified that King PT be pumped the full length of the cables through cable sheaths which surrounded the strands of cable.

The fluid properties of the King PT allowed for easy pumpability over long distances and net positive displacement ensured maximum bond between the surface of the cable and the protective grout.

The project was awarded as two separate contracts. The first, in 2001 to Acier AGF and Construction EDM, and the second, in 2002 to Forage MSE. In both cases, the work was completed on schedule and to the satisfaction of the owners.