
Hans Kohler to supply SS equipments for Swiss railway tunnel

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HS Frech Hoch AG of Switzerland announced that it supplies 136 containers, made from Outokumpu stainless steel, for a Swiss railway tunnel to house electromechanical equipment under demanding environmental conditions.

The 34.6 kilometer tunnel connecting Frutigen and Raron in Switzerland through an Alpine peak was officially opened for regular traffic in December 2007, enabling high speed train travel through the Swiss Alps. In 2008, trains will travel at speeds up to 200 kilometers per hour through the tunnel, designed eventually to speed up to 250 kilometers per hour. This dual tube, single track tunnel is operated with the help of 101 transverse tunnels connecting the tubes. These connections house the tunnel's electro mechanical infrastructure, as well as serving a safety function fitted with stainless steel fire safety doors. The electro mechanical equipment is built into 136 stainless steel containers. This concept has cut down the electrical installation time by two years.

The containers have been designed to operate under extraordinary conditions inside the tunnel a constant temperature of approximately 35°C and atmospheric humidity of up to 80%. The rock conditions place further demands on the construction materials chloride containing water seeps through the rock with droplets falling onto the containers.

The tunnel designers wanted assurance from container makers of a long maintenance free service life, requesting a 10 year guarantee for the stainless material, with a lengthy list of conditions to be fulfilled. One of the bidders for the contract was FHS Frech Hoch AG, a Swiss specialist in containers for transport, who relied on their long-time supplier, stainless steel distributor Hans Kohler AG of Switzerland. Hans Kohler again relied on their long term supplier Outokumpu. Outokumpu's R&D arm was able to provide all the required extensive paperwork, as the only stainless producer within the bidding period. Outokumpu's stainless configuration for the containers, defined by the Group R&D specialists, was Outokumpu's proprietary super austenitic grade 254 SMO® for the roof, and austenitic 1.4404 (ASTM 316L) and 1.4301 (304) for the outer and inner wall structures respectively. The chain of supply foolproof, the contract went to the three companies.

Again via Hans Kohler, Outokumpu has also supplied stainless steel for the fire safety doors of the transverse tunnels: both 1.4404 and super austenitic 904L.

Mr Martin Vögeli marketing and sales manager for Hans Kohler said that "This important project was challenging in every respect. It proved that we're working with the right stainless producer as concerns technical service, reliability and quality. It was a pleasure to work with the competent and reliable customer FHS Frech Hoch."

Hans Kohler AG is a major stainless steel distributor, supplying the broadest range of products in Switzerland. Cooperation with Outokumpu group companies goes back decades. Switzerland, a country best known for its peaks, also peaks in stainless steel consumption per capita the country is second only to Japan and ahead of the EU average by 22%.

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