Lund, 8 October 2019
Press release

Luma Metall wins substantial order from CERN

Luma Metall AB in Kalmar, a Swedish high-tech producer of Ultra Fine Wire, has won a large order for more than 400 km wire. The company’s wire will be used for the upgrade of the ATLAS detector at CERN.

The material that Luma will supply for the ATLAS detector consists of 50 micron (= 0.05 mm) base tungsten wire to which a gold plating is added (about 0.35 micron pure gold). Gold has very good conductive qualities and provides excellent protection against corrosion. The basic tungsten wire has a very high specific weight (the same as gold) and high tensile strength.

Luma has developed into a plating specialist, especially the plating of Fine and Ultra Fine Wire in tungsten and molybdenum, two materials traditionally used for filaments in light bulbs.

The company has been working with CERN since 1985. The collaboration began with the Opal Project, and the company is constantly in contact with researchers working for CERN worldwide, often at local research institutes or universities.

From 2020, Luma will also be involved in the ESS project in Lund, Sweden, again supplying wires for detectors.

Ulrich Stöhr, Sales & Marketing at Luma Metall:
– As a supplier, we’ve consciously tried to establish close contacts with researchers all over the world, not least those in CERN’s global network. We engage in both small and large procurements – even small contracts that don’t generate much money are important for establishing relationships. By delivering a high-quality product, we’ve built up a good reputation, and we’re now CERN’s go-to supplier/single source of thin special wire.

Sven-Christian Ebenhag, Business Development at Big Science Sweden:
– We’re impressed by the cutting-edge technology that Luma Metall has developed, technology that’s made them unique in the world. The company won orders to supply wire to CERN from an early stage, and soon they’ll also be supplying to ESS. As a member company of Big Science Sweden, we can help Luma Metall broaden its market and establish contacts with other types of research facilities, such as ITER.
For more information, please contact:

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**Big Science Sweden**
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**Detector principle and Luma Metall wires**
The detector comprises two cathode boards, between which a mesh of tungsten wires is installed. This is called a thin gap chamber (TGC). The cathode boards are grounded, and high voltage is applied to the wires. This causes a field between the cathode boards, enabling the particles passing through the detector to be seen. Luma Metall wires are installed in the ATLAS detector at CERN, partly in connection with TGC Big Wheels and partly with TGC Small Wheels.