



A new scientific drilling infrastructure in Sweden

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A new scientific drilling infrastructure is currently under commissioning at Lund University in southern Sweden and is intended primarily for Swedish scientific drilling projects. However, it will be available to the scientific community and even industry when not occupied.

The drill rig, a crawler mounted Atlas Copco CT20, was funded by the Swedish Research Council (VR) after an application by the Swedish scientific drilling community under the lead of Prof. Leif Bjelm, Lund University. As a national resource it is, together with support of the Swedish Deep Drilling Program (SDDP) and the Swedish membership in ICDP, part of VR's commitment to scientific drilling.

The Atlas Copco CT20 is a top modern, versatile diamond wireline core-drilling rig which can handle P, H and N sizes. It can operate on very small drill sites (500-800 m²) and, thus, leaves a minimal environmental footprint. The crawler makes the rig ideal for operations in remote locations. A total of only 3-4 truckloads is necessary for mobilization of the basic drilling equipment.

Main technical specifications are:

Depth capacity coring, based on vertical water filled hole:

P-size to around 1050 m, hole size 123 mm and core size 85 mm.

H-size to around 1600 m, hole size 96 mm and core size 63 mm.

N-size to around 2500 m, hole size 76 mm and core size 48 mm.

Weight: Complete rig including crawler, wet - 23500 kg

Dimensions in (length, width, height) transport position: 11560 x 2500 x 3750 mm.

Available in-hole equipment:

Complete core retrieval system for PQ, HQ and NQ-sizes, including PHD, HRQ (V-Wall) and NRQ (V-Wall) drill rods covering the maximum drilling depth for each size (see rig depth capacity above). Both dual and triple tube for HQ and NQ-sizes. Casing advancers (PW, HW, NW and BW). Casing PWT, HWT, NW and BW. Bits and reamers.

Additional equipment:

Mud cleaning and mixing system. MWD-system (Measurements While Drilling). Cementing equipment. Fishing tools (Bowen Spear). Blow Out Preventer (BOP). Deviation tools. Wireline packers. And more.