

Mechanica Core Drill Ø100 and Debris Basket

In order to get access to Annulus Vent Valve and Wing Block for inspection and further repair work, Mechanica AS has developed a core drill specially designed to cut roof section on top of Byggve X-mas tree

Core Drill Tool (CDT) Ø100

The Core Drill Tool (CDT) consists of a hydraulic motor running the core barrel rotation, and one hydraulic motor mounted to a subsea worm gear for drill feeding.

Both motors are driven by hydraulics supplied from the ROV. The CDT has a dedicated ROV handle for operation with guidance from a seven (7) function manipulator.

The tool is fastened to base by activation 4 pcs magnets. Activation is executed by turning the ROV-handle approx. 110° CCW and all magnets are activated simultaneously by the gear transmission. Inside the core barrel there is a spring loaded pin that will reject the coins when core barrel penetrates the roof plate on XMT.

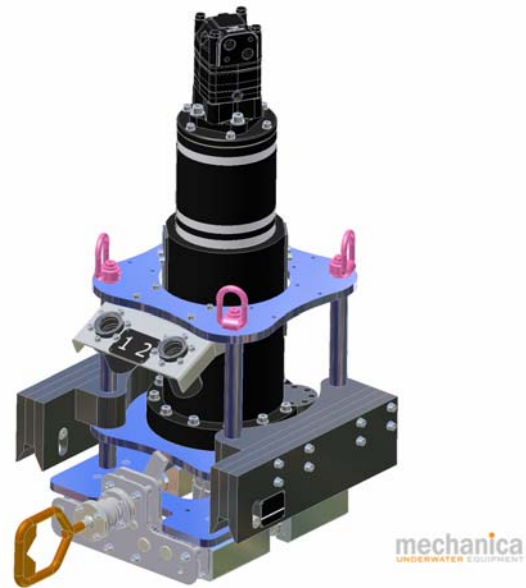


Fig. 1. Core Drill Ø100

Debris Basket

Prior to start drilling, the debris basket must be installed. Coins from the drilling operations will be collected in this basket, and as its second function it will act as a guide for the core drill tool to ensure that correct space between drilled holes is achieved.

The upper part is the guide and support, and the lower part is a drawer which can slide underneath the roof plate.

The whole arrangement can be secured to the roof plate by activating the two magnets.

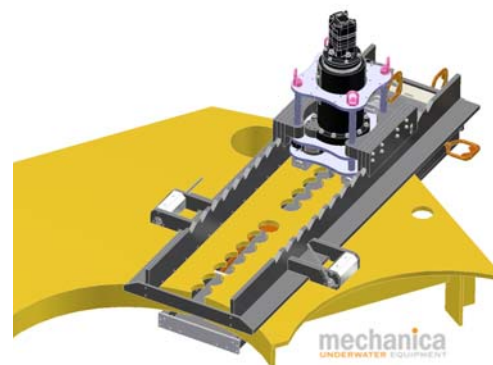


Fig. 2. Core Drill Ø100 and debris Basket in use

Technical specification, Mechanica Core Drill Ø100

Pressure, feeding & rotation	100bar	Flow, feeding	6-8 l/min	Flow, rotation	20 l/min	Weight (in water)	85 kg
Height	932 mm	Width/length	362/722 mm	Material	Aluminum/stainless steel/POM	Weight (in air)	115 kg

Technical specification, Mechanica Debris Basket

Length (installation mode)	3753 mm	Height	369 mm	Weight (in water)	10 kg		
Length (installed)	2220 mm	Width	955 mm	Material	Aluminum/stainless steel/POM	Weight (in air)	75 kg