

Mechanical Sidewall Coring Tool

Schlumberger



The standard configuration of the rotary Mechanical Sidewall Coring Tool (MSCT) recovers 50 core samples. Optional configurations for recovering 75 core or 20 core-catcher (dictated by core-catcher capacity) samples are available. Each sample is isolated for positive identification, and a summary output at surface lists all samples with the exact depth and time that each was taken.

The real-time display at the logging unit confirms proper tool operation and sample acquisition. The MSCT is run in combination with a gamma ray tool to correlate with openhole logs for accurate, real-time depth control of the coring points.

Applications

- Lithology analysis
- Secondary porosity analysis
- Porosity and permeability determination
- Confirmation of hydrocarbon shows
- Determination of clay content
- Determination of grain density
- Lithology determination
- Detection of fracture occurrence

Measurement Specifications

	MSCT
Output	Sidewall core samples [†]
Logging speed	Stationary Coring time (avg): 3 to 5 min per core
Range of measurement	Core size: 2 in. [50.8 mm] long × 0.92 in. [23.4 mm] diameter
Depth of core sample	Core length: 1.5 or 1.75 in. [38.1 or 44.4 mm]
Mud type or weight limitations	None

[†] The MCFU-AA is used for 50 cores per descent and the MCCU is used for 20 cores per descent.

Mechanical Specifications

	MSCT
Temperature rating	350°F [177°C] [†]
Pressure rating	Standard: 20,000 psi [138 MPa] High pressure: 25,000 psi [172 MPa]
Borehole size—min.	6¼ in. [15.87 cm]
Borehole size—max.	19 in. [48.26 cm]
Outer diameter	5.375 in. [13.65 cm] [‡]
Length	31.29 ft [9.54 m]
Weight	750 lbm [340 kg] [§]
Tension	22,900 lbf [101,860 N]
Compression	12,500 lbf [55,600 N]

[†] The MSCT-A can be run at 400°F [204°C] with a Dewar flask (UDFH-KF). Successful jobs have also been performed at 425°F [218°C].

[‡] With the standoffs removed, the MSCT can be stripped down to 5 in. [12.70 cm] and run in 5½-in. [14.92-cm] holes.

[§] The sonde weighs 580 lbm [263 kg].