



Float Cushion Sub Tool

Volant’s FCT™ is designed for casing drilling or running operations with top-drive equipped rigs. During both connection make-up and CRTi® or CRTe® casing running tool engagement, the FCT supplies a portion of passively damped axial travel (float) at the beginning of its stroke, and cushioning through its remaining travel in the set-down direction.

This architecture is capable of providing full hoisting loads in combination with full torque values at all stroke positions. The FCT is fully compatible with Volant’s CRTi® internal and CRTe® external grip casing running tool.

Base Tool Characteristics¹

Tool Weight	lb. (kg)	1,190 (540)
Maximum Hoist Load ²	tn. (tonne)	660 (598)
Maximum Torque Capacity ²	ft.lb. (N.m)	85,000 (115,200)
Collapsed Tool Length ³	in. (mm)	42.1 (1,070)
Extended Tool Length ³	in. (mm)	48.2 (1,225)
Adjustable Float Stroke	in. (mm)	2.0 – 4.0 (50 – 100)
Adjustable Cushion Stroke	in. (mm)	2.0 – 4.0 (50 – 100)
Maximum Combined Stroke	in. (mm)	6.0 (150)
Maximum Tool Diameter	in. (mm)	16.0 (410)
Maximum Cushion Precharge	psi (MPa)	250 (1.7)
Maximum Circulation Pressure	psi (MPa)	7,500 (51.7)
Through Hole	in. (mm)	2.00 (50.5)
Tool Joint		6 $\frac{5}{8}$ REG



1. Data is based on FCT prototype and is subject to change during development.
2. Tool hoist and torque ratings are based on API Specification 8C, and are valid for any combination of torque and hoist. The rated capacity does account for any limitations that may result from the tool joint connection.
3. This does not include the length of the crossover or saver sub, which is recommended for use with the FCT.