

## Casing Running Tool with Internal Grip (CRTi™)

Volant's CRTi is designed for casing drilling or running with top drive equipped rigs to makeup, breakout, reciprocate, rotate, fill, circulate, and cement casing and liner strings, reducing non-productive time and associated costs. This tool is mechanically activated in tension and both rotational directions solely by top drive control using TAWG™ (Torque Activated Wedge Grip) technology.

This patented architecture puts control in the hands of the driller, reducing the need for third party support to run casing. Simple intuitive operating steps for pipe engagement and release closely emulate the familiar make and break steps used to run drill pipe – stab, rotate to the right to engage and reverse to disengage. Similarly, rig-in and rig-out steps are simple, intuitive and efficient.

Starting from the insertion diameter of the base tool (cage OD), selectable sizes of integral jaws/dies are used to configure the CRTi to support gripping casing of increasing internal diameter.

### Tool Model: CRTi2-4.5 Specification Summary

#### Base Tool Characteristics<sup>1</sup>

CRTi Rated Load Capacity	Hoist	ton (tonne)	120 (109)
	Torque	ft.lbs (N.m)	13,000 (17,626)
Combined Load Large Hoist	Hoist	ton (tonne)	100 (91)
	Torque	ft.lbs (N.m)	6,000 (8,135)
Combined Load High Torque	Hoist	ton (tonne)	50 (45)
	Torque	ft.lbs (N.m)	10,000 (13,558)
Set-Down Load Capacity <sup>2</sup>		ton (tonne)	70 (64)
Typical Circulation Pressure Limit <sup>3</sup>		psi (MPa)	5,000 (34)
Maximum Pressure End Load		ton (tonne)	50 (45)
Base Tool Length <sup>4</sup>		in (mm)	41.1 (1,044)
Diametrical Stroke		in (mm)	0.47 (11.9)
Through Hole		in (mm)	1.0 (25.4)
Maximum Flow Rate <sup>5</sup>		gpm (m <sup>3</sup> /min)	290 (1.1)
Tool Joint			NC50
Turns to Stroke Out			1.78

#### Cage Specific Characteristics

Cage P/N	Torque Capacity ft.lbs (N.m)	OD in (mm)
81325	10,000 (13,558)	3.79 (96.3)
80939	13,000 (17,626)	3.87 (98.3)

Tool Configuration with  
Integral Slip Dies



**Give us a problem. Or just drop us a line if you want to know more.**

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