



V-LOK™ Tool Joint Lock

Volant's V-LOK™ tool joint lock is installed over tool joint connections to prevent unintentional connection back-off during drilling and casing running operations and to prevent incremental thread make-up during an over torquing incident. The tool joint lock consists of four segments for an easy and lighter manual rig-up and is designed to handle mismatched tool joint diameters.

Compatible tools¹: CRTi4-7.0, all standard CRTi2-8.63 models and all ActiveSET™ CRTi2-8.63 models.

Base Tool Characteristics²

Configuration Options	Axial Length in. (mm)	Span Length ³ in. (mm)	Tool Weight lbs (kg)	Die Length ⁴ in. (mm)
5 x 5	10.13 (257.3)	1.89 (48.0)	151 (68.5)	3.5 (88.9)
5 x 8	13.13 (333.5)	4.89 (124.2)	176 (79.8)	3.5 (88.9)

5 x 5 Configuration



5 x 8 Configuration



Connection Characteristics

Recommended Bolt Torques

Die Size	Minimum Tool Joint OD	Maximum Tool Joint OD	ft.lbs (N.m)	ft.lbs (N.m)	ft.lbs (N.m)	ft.lbs (N.m)	ft.lbs (N.m)
1-1/4 (31.75)	7.5 (190.5)	8.0 (203.2)	100 (135)	200 (270)	250 (340)	300 (410)	350 (475)

Expected Torque Boost^{5,6}

Die Size	Minimum Tool Joint OD	Maximum Tool Joint OD	ft.lbs (N.m)	ft.lbs (N.m)	ft.lbs (N.m)	ft.lbs (N.m)	ft.lbs (N.m)
1-1/4 (31.75)	7.5 (190.5)	8.0 (203.2)	35,000 (47,454)	65,000 (88,128)	75,000 (101,686)	85,000 (115,245)	95,000 (128,803)
15/16 (23.81)	7.875 (200.0)	8.875 (225.4)	25,000 (33,895)	55,000 (74,570)	65,000 (88,128)	80,000 (108,465)	90,000 (122,024)
9/16 (14.29)	8.75 (222.3)	9.625 (244.5)	35,000 (47,454)	55,000 (74,570)	70,000 (94,907)	90,000 (122,024)	N/A ⁷

- 9/16 die size required when running tools listed.
- TJL1-7.50 tool only accommodates from 7.50 in. O.D. to a maximum O.D. of 9.63 in. For availability on a larger or smaller range, contact Volant sales at +1 780.784.7099.
- Span length is defined as the distance between inner die faces. Contact Volant sales to confirm which configuration is needed for your application.
- For more information on die specifications, contact Volant sales.
- Dependent on connection size, die size, and bolt makeup torque. Value is the expected torque boost at recommended bolt torques when tested in a controlled environment.
- Proper bolting sequence and lubrication on the bolt head and threads are required to maintain consistent performance. Bolts were lubricated using Kopr-Kote® for testing.
- Volant does not recommend to torque bolts above 300 ft-lbs (410 N.m) when using the 9/16 in. die size.

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