



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: CRTi2-4.5, standard CRTi2-5.5 and ActiveSET™, CRTi2-5.5HC225, standard CRTi3-7.0 and ActiveSET, CRTi3-7.0HF238, CRTi3-7.0HC350, CRTe-1.0GM5.5, CRTe-1.0GM7.75 and PVPL1-5.5.

Base Tool Characteristics²

Configuration Options	Axial Length	Span Length ³	Tool Weight	Die Length ⁴
	in. (mm)	in. (mm)	lbs (kg)	in. (mm)
3 x 3	6.0 (152.5)	0.78 (20.0)	78 (36)	2.325 (59.1)
3 x 6	8.6 (218.5)	3.33 (85.0)	92 (42)	2.325 (59.1)
6 x 6	11.1 (282.0)	5.88 (149.5)	106 (49)	2.325 (59.1)



Connection Characteristics

Die Size	Minimum Tool Joint Diameter	Maximum Tool Joint Diameter	Recommended Bolt Torques		
			ft.lbs (N.m)	ft.lbs (N.m)	ft.lbs (N.m)
			100 (135)	200 (270)	250 (335)
in. (mm)	in. (mm)	in. (mm)	Minimum Expected Torque Boost ^{5,6}		
			ft.lbs (N.m)	ft.lbs (N.m)	ft.lbs (N.m)
1-1/4 (31.75)	6.25 (159.0)	6.625 (168.3)	20,000 (27,100)	40,000 (54,200)	N/A ⁷
15/16 (23.85)	6.625 (168.3)	7.5 (190.5)	20,000 (27,100)	40,000 (54,200)	50,000 (67,700)
9/16 (14.29)	7.5 (190.5)	8.625 (219.1)	20,000 (27,100)	40,000 (54,200)	50,000 (67,700)

1. 9/16 die size required when running tools listed.
2. TJL2-6.25 tool only accommodates from 6.25 in. O.D. to a maximum O.D. of 8.63 in. For availability on a larger range, contact Volant sales at +1 780.784.7099.
3. Span length is defined as the distance between inner die faces. Contact Volant sales to confirm which configuration is needed for your application.
4. For more information on die specifications, contact Volant sales.
5. Dependant on connection size, die size, and bolt makeup torque. Value is minimum expected torque boost at recommended bolt torques.
6. 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.
7. Bolts cannot be torqued to 250 ft.lbs (335 N.m) with the 1-1/4 in. die size. 200 ft.lbs (270 N.m) is the maximum limit for this size.

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