

Specifications For D-Lock Manual lock out/tag out

Definition

DynaTorque D-Locks are suited for applications where powered equipment such as pneumatic, hydraulic, or electric actuators must be locked in either the full clockwise or counter clockwise positions. This product provides Lockout capabilities for all types of valve and other rotational devices where the function of the device **requires the prevention of rotation** (i.e., such as torque seated butterfly valves).

Application torque requirements must be accurately calculated for correct D-Lock sizing (if unsure contact the factory, see below) D-Locks are totally enclosed, weatherproof, and permanently lubricated. The D-Lock is designed to mount between the valve and its primary driving mechanism.

Construction

Unit housing and covers are cast iron, worms are heat-treated carbon steel, worm wheels are cast ductile iron, input shafts are stainless steel, shaft and worm wheel seals are Buna-N rubber, housing to cover seals are Loctite 51580, bushings are oil impregnated copper nickel steel alloy, all D-Locks have one shop coat black epoxy paint. (Pad-locks are not supplied as part of this mechanism). Drive couplings and drive coupling key connections are made of 1018 steel.

Model	Unit Wgt. Lbs.	Output Torque Lbs.-in	Gear Ratio	Turns For 90 Deg.	Std. Output Bore	Std. Keyway Size	Std. Mounting Pattern	
							Qty. & Size	BCD
D12D-Lock	43	12,000	57:1	14.25	2.000"	.375 sq.	(4) 1/2-13	4.921
D21D-Lock	61	21,000	44:1	11	2.500"	.500 sq.	(4) 5/8-11	5.512
D36D-Lock	126	63,000	53:1	13.25	3.250"	.750 sq.	(4) 3/4-10	6.496
D60D-Lock	149	140,000	60:1	15	4.000"	1.000sq.	(8) 5/8-11	10.000
D260D-Lock	681	260,000	100:1	25	6.250"	1.50x1.00	(8) 1 1/8-8	14.016

Notes:

1. Mechanical advantage is not required since the lockout position of the valve is reached using the powered device. The gears in the D-Lock move it's output to the lock position under no-load conditions.
2. The D-Lock can be operated with a standard 3/4" socket, box end or adjustable wrench. (These tools are not supplied as part of this lockout package).
3. The D-Lock is not a field adjustable device. This device must be ordered as "lock clockwise" or "lock counter-clockwise". Provisions must be made to prevent each component in the valve automation package from rotation independently. It is strongly suggested that all components be pinned together at assembly to prevent inadvertent rotation.
4. Note that option factory installed switches are available such that output drive position can be sensed. In Lockout mode, this sensor would send a signal to a remote location indicating the D-Lock position.