

TECHNICAL BULLETIN

Red Head 3/8" LDT Anchors

The ITW Red Head LDT Anchor is a unique concrete fastening device designed to provide the user with the following features:

- | | |
|---------------------|------------------------|
| Fast Installation | Close Edge Performance |
| Finished Head Style | Fully Removable Anchor |

The combination of these features in a single, one-piece fastener is possible due to the fact that this anchor is a Screw-Type Anchor.

Screw anchors are installed in a pre-drilled hole that is slightly smaller than the thread size of the anchor with the use of an electric impact wrench (fast installation/finished head style). They derive their performance characteristics from the undercutting of the concrete base material by the hardened threads of the fastener. Thread engagement with the concrete occurs over the entire embedment depth, and very little stress is induced in the concrete (close edge performance). Lastly, like any hex head screw, the LDT Anchor is fully removable.

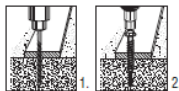
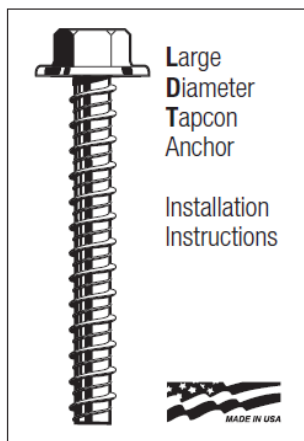
The key to the LDT Anchors is their ability to cut threads into the concrete. This is accomplished by heat treating the anchors in a process called case hardening. This process makes the surface of the threads durable enough to cut into the concrete, yet provides the core of the anchor with sufficient strength and ductility.

During Installation, it is important to consider the type of concrete that the anchors will be installed in. Observe torque values particularly when installing anchor in higher compressive strength concrete with an impact wrench. Over-torquing may result in lower tension and/or shear performance of the anchor. Per the ICC-ES guidelines we are listing maximum installation torque and maximum impact wrench torque rating for the 3/8" diameter, see the new instructions below.



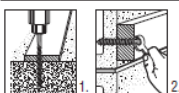
RED HEAD

LDT Anchor



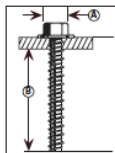
Installation Steps for Concrete, Lightweight Concrete and Metal Deck

- Using a 5/16" carbide drill bit (for 3/8" LDT), drill a hole at least 1" deeper than anchor embedment.
- Using an impact wrench or manual socket wrench, insert anchor into hole and tighten anchor until fully seated. If installation torque exceeds 50 ft lbs using an impact wrench, remove anchor from hole¹. Reinstall new 3/8" LDT anchor using a manual socket wrench.



Installation Steps for Hollow or Grout-Filled CMU

- Using a 5/16" carbide drill bit (for 3/8" LDT), drill a hole at least 1" deeper than anchor embedment.
- Using a manual socket wrench, insert anchor into hole and tighten anchor until fully seated. Do not use an impact wrench for installations in hollow or grout-filled CMU.



LDT 3/8 AND LDT 3/8 X FOR USE IN:

	CMU	
Concrete	Hollow	Grout-filled
	YES	YES

LDT SIZE*	ANSI STANDARD DRILL BIT DIAMETER	ANCHOR HEAD (SOCKET SIZE) DIAMETER	WASHER DIAMETER	MAX INSTALLATION TORQUE	MAX IMPACT WRENCH TORQUE RATING	MINIMUM EMBEDMENT	MINIMUM HOLE DEPTH
LDT 3/8	5/16"	9/16"	13/16"	50 FT LBS	150 FT LBS	1-1/2"	2-1/2"
LDT 3/8 X	5/16"	9/16"	13/16"	50 FT LBS	150 FT LBS	1-1/2"	2-1/2"

* See catalog for effective lengths and length indication codes. LDT(X) available with corrosion resistant Envirex™ coating.

WARNING! Always wear safety glasses and other necessary protective devices or apparel when installing or working with anchors.

CAUTION! Observe torque values particularly when installing anchor in higher compressive strength concrete with an impact wrench. Over-torquing may result in lower tension and/or shear performance of the anchor.

Use of core drills is not recommended to drill holes for use with this anchor.

Not recommended for use in new concrete which has not had sufficient time to cure.

The use of carbide drill bits manufactured within ANSI B212.15 drill bit diameter requirements is recommended for installation of this anchor.

Anchor spacing and edge distance requirements (anchor installation locations) are the responsibility of the engineer of record. Call tech service for values.

ITW Red Head

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