# -FASTENING TIPS Using the Proper Tools for Installing BLAZER<sup>®</sup>, CONCEALOR<sup>®</sup> and PANEL-TITE<sup>®</sup> Screws

# WARNING!

Using impact tools to install self-drilling and self-tapping screws can cause failure to screw, paint, and sealing washer!



This is an example of how an impact tool works. It "hammers" the screw in a rotating fashion during installation.

Impact tools are designed to provide extremely high rotational force (torque) during installation. This force is similar to using a hammer on the end of a wrench when tightening the screw.



### How can an impact tool break self-drilling and tapping fasteners?

A typical impact tool can generate up to 1,800 in-lb of torsional force! This amount greatly exceeds the amount of force it takes to drill, tap, and tighten a tapping screw; and also exceeds the torsional strength of the screw.

#### **Over-driving a tapping screw can also cause the following problems; STRIP-OUT**

This condition can cause failure of the joint by reducing clamping load, pullout, and causing loosening.

(For example, a #12-14 BLAZER-3 self-drilling screw when installed in 14ga will strip-out at approximately 75 in-lb)

#### **BROKEN SCREWS**

Impact tools generate much greater torsional force than a tapping screw is designed to handle.

For example, a #10-13 CONCEALOR has a minimum torsional strength of 60 in-lb. An impact tool can generate 1,800 in-lb and fracture the screw.

#### DAMAGE WASHER OR PAINT

Torque generated by impact tools can over-drive screws with sealing washers causing leaks. It can also damage paint on the head of the screw leading to premature corrosion.

#### Impact tools generate up to 1,800 In-Lb of torsional force exceeding the strength of the screw!

30	engi		301	CVV:
	Fas	tener	То	rsiona

Fastener Diameter & Material	Torsional Strength (In-Lb)
#10-9 / Carbon	60
#10-13 / Carbon	60
#10-13 / 302SS	45
#10-16 / Carbon	61
#10-16 / 410SS	92
#12-11 / Carbon	95
#12-14 / Carbon	100
#12-14 / 302SS	85
#12-24 / Carbon	110
1/4-14 / Carbon	150
#14-13 / Carbon	115

Examples of how an impact tool an break a screw and overdrive a washer



# WARNING! DO NOT USE IMPACT TOOLS FOR INSTALLATI

# SCREW-GUN SELECTION

For the best performance, we recommend the following RPM and DeWalt screw-guns.

	8	ewgun	Cordless Tools DeWalt 20V Versaclutch DCF622M2		
Screw Size	Max RPM	Model	DIWAL		
#6, #8, #10, #12, #14	2,500	DW268	and an		
1/4", 5/16", all BLAZER-5	2,000	DW267	Screw Size	Max RPM	Model
304SS Tapping Screws	1,000	DW269	All Screws	0 - 2,000	DC668KA

Using the proper tooling is important for producing consistent installation. It also reduces the chance for screw or application failure caused by over-driven and under-driven fasteners.

Disclaimer: Hardware should always be installed by a competent professional with a good understanding of interior wall types and mounting fasteners. Please do not attempt to install any hardware unless you know how to safely operate the necessary tools, and have a good understanding of what you are doing. The following instructions are basic guidelines for qualified installers, and should be read through completely before starting your job.

#### TRIANGLE FASTENER CORPORATION

800.486.1832 | www.trianglefastener.com

Visit our website for the most up-to-date product and technical information!