How Does a Cordless Impact Driver Work?

The impacting mechanism of the cordless impact driver won't be activated until the torque required to continue driving rises above the torque that can be generated from the rotational power of the drill itself.

At this point, the impacting gears automatically begin working, delivering an extra boost of power that will have you quickly and easily completing tasks. A hammer attached to the motor rapidly pounds into an anvil, which is attached to the bit. These quick, powerful strikes, or impacts, supply the extra torque and give the impact driver its name.

Keep in mind that despite this hammer system, cordless impact drivers are not hammer drills. The bits of hammer drills actually move in and out, whereas the bits of impact drivers stay put. All of the work is taken care of inside the tool, which enables you to handle everything from drilling holes to driving lag bolts and installing cabinets or ducts.

Just How Powerful is a Cordless Impact Driver?

Generally, impact drivers will be able to deliver 3,000 bpm, or blows per minute, which translates to 50 blows per second. The RPMs delivered will typically be in the 2,500 range.

Cordless impact drivers can also deliver upwards of 1,000 inch-pounds of torque, and in some cases as much as 1,500, which absolutely obliterates the amount of torque you receive from conventional cordless drills. It all adds up to an extremely powerful and functional tool that can be used by just about anyone, for any purpose.

Benefits to the Cordless Impact Driver

For starters, the way the torque is transferred within the tool means that you don't have to deal with any external forces that make it hard for you to hold and control, as with a conventional drill. This makes your job easier and will also enable you to keep working for a longer time, without feeling any stress or pain in your wrists, hands or forearms.

Another benefit derived from the way that cordless impact drivers work is that your productivity level will soar. The increased torque means that you are going to be able to speed through one task to the next. When combined with the light weight of impact drivers, you'll be able to completely throw fatigue and discomfort out the window.

An added bonus is that you will enjoy a longer battery life compared to a cordless drill. Impact drivers do not drain any additional power when they call for more torque. Cordless drills eat up more battery when they require more power and torque.

IMPACT READY™ FACT SHEET

Why IMPACT READY™?

- Impact drivers have grown in popularity – DEWALT estimates that North American sales of impact drivers have seen double digit growth exceeding approximately $85 million in the past five years
- Users benefit from compact size, high levels of non-reactionary torque, faster speed of application, and a reduction in bit slippage
- Users are demanding bits that withstand the high levels of torque produced by an impact driver and reduced bit breakage
- Users want to utilize their impact drivers for a wider range of drilling and fastening applications, but bits designed specifically for high torque applications have not existed until now

Benefits of IMPACT READY™ Accessories

- IMPACT READY™ accessories are the **first** bits designed specifically to withstand the high torque produced by impact drivers, resulting in less bit breakage, longer life, and decreased replacement cost for the user
- IMPACT READY™ accessories allow users to complete more applications using impact drivers, making impact drivers relevant to a wider range of end users such as electricians, plumbers, HVAC professionals, glaziers, garage door installers and mechanical contractors

IMPACT READY™ Products

IMPACT READY™ Drill Bits – Patented one-piece, taper web design provides 5x more durability than conventional hex shank drill bits.
IMPACT READY™ Holes Saws – 2x more life than standard bi-metal hole saw when drilling 16g, steel.
IMPACT READY™ Pivot Holders and Nutsetters – locking collar for straight or angled driving, 20 degree pivot angle to complete applications in tight spaces.
IMPACT READY™ Nutsetters – locking collar for straight or angled driving, 20 degree pivot angle to complete applications in tight spaces. Patented, recessed corners distribute torque across flats and eliminate stripping. Offers best in class magnetic strength for increased bit retention with impact drivers and wrenches.
IMPACT READY™ Screw Driving Bits – includes Phillips head, square, and slotted bits, all able to withstand high levels of torque.
IMPACT READY™ Driver Sockets – thinner than wrench sockets for tough access areas.

Use Impact Drivers to Complete More Applications

- Drilling into junction boxes and medium gauge steel
- Drilling into stainless steel and aluminum
- Drilling into steel track to install doors
- Drilling holes in thick and mild gauge steel to hang elevator tracks
- Drilling into all gauges of steel wood and plastics
- Drilling ¾" to 1 ½" holes into 16 gauge steel studs and junction boxes
- Drilling ¾" to 1 ½" holes into sheet metal duct
- Drilling ¾" to 1 ½" holes into conduit or EMT

DEWALT Impact Drivers

DC827KL – 18V Cordless Impact Driver Kit

- ¼" hex shank quick release driver
- 0-2,400 rpm
- 0-2,700 bpm
- 1,330 in-lbs of torque
- 111 ft-lbs of torque
- 5-3/4" tool length
- 3.7 lbs
- Lithium Ion Battery

DC825KA – 18V Cordless Impact Driver Kit

- ¼" hex shank quick release driver
- 0-2,400 rpm
- 0-2,700 bpm
- 1,330 in-lbs of torque
- 111 ft-lbs of torque
- 5-3/4" tool length
- 4.6 lbs
- NiCd Battery