

PRODUCT KNOWLEDGE TRAINING

Learn the common features and uses of each product.

PK DESCRIPTIONS

1. Power Drill



- Available in different chuck capacities, such as 1/4", 3/8" or 1/2". For example, 1/4" means that is the largest diameter shank that will fit the chuck. The speed of the drill also increases with the size.
- Motor load limit can be light-, medium- or heavy-duty. The higher the amp rating, the more powerful the drill. Drills rated at 2 amps are generally considered light-duty drills, while 5-amp drills are considered heavy-duty.
- Tighten the drill bit in place with a chuck. A keyed chuck uses a rotary key to tighten and loosen the chuck. A keyless chuck is operated by hand.
- Another feature on some drills is variable speed. They allow the operator to control the drill's revolutions per minute, usually by varying pressure on the trigger switch. Some models also allow the user to vary the torque. Higher torque is better for driving screws, and higher speed is better for drilling holes.
- A good quality 1/4" drill can drill through

concrete, metal, plastic and other materials. Better for high speed and not high torque. Better for sanding and buffing than 3/8" or 1/2" drill sizes.

- A 3/8" drill has more speed, but less power than a 1/2" drill. They are usually built with a double-reduction gear system. Can perform most of the drilling jobs a 1/4" drill can, and can handle a larger range of drill bits.
- A 1/2" drill has high torque and slow speed which is ideal for making large holes in metal and wood. Best drill for use with hole saws.



2. Cordless Drill

- Operates with a rechargeable battery, with sizes ranging from 9.6 volts to 24 volts.
- Most portable drill and popular among consumers and pro customers.
- Lower-voltage drills cannot handle more heavy-duty drilling jobs.
- An important feature is an adjustable clutch. This lets the user select the degree of force applied to the drill. This helps prevent the motor from stalling and overheating, which can damage the battery.

3. Hammer Drill



- Used to drill quickly through concrete, stone, block and brick.
- While the drill turns, the drill vibrates the chuck back and forth or side-to-side to help the bit chip the material while it is drilling.
- Many models have a mode selector, allowing the operator to choose rotation only, like a conventional drill, and hammer drill, which combines the drill and hammer action. Better models might offer a hammer only option for chisel and scraper attachments.
- Do not confuse with a rotary hammer, which can accommodate core bits up to 6" in diameter. These tools have unique bit drive and retention methods rather than the conventional geared chuck.
- Manufacturers will measure speed by rpm (revolutions per minute), and the hammer action by bpm (blows per minute).



4. Angle Drill

- Has an angled head designed for tight fits and close-quarter drilling.

- Available in 3/8" or 1/2" sizes.
- Some models feature an angle attachment that rotates the drill into any position, while a side handle allows one-hand operation and easy control.

5. Power Screwdriver



- A common type is a variable-speed, reversible drywall screwdriver. It is designed for driving drywall, decking and other self-drilling screws. They offer higher speeds than a power drill.
- A cordless, in-line screwdriver is handy for light-duty household applications. They have less power and speed than a power drill, but are easier to handle.

NOTE: ALWAYS CONSULT YOUR PROVINCIAL AND LOCAL CODES



OTHER TRAINING TIPS

Designed to give you confidence on the salesfloor!

This section is for retail skills training specific to this core product category.

ANATOMY OF A DRILL

The **Chuck** tightens to hold the drill bit. The **Motor Housing** is usually made from a double-insulated plastic or cast alloy, while the **Air Vents** help to keep the motor from overheating. To reverse the direction of the drill bit, use the **Reversing Switch**. To lock the **Switch** in the on position, press the **Lock-On Button**. The **Adjustable Handle** provides extra leverage for a second hand.

FAQs

Q: If I buy a cordless drill, what volt model should I buy?

A: A 12-volt model will handle the needs of most d-i-yers. For bigger projects, a 14-volt or higher model is a good choice. For lighter duty, a 9.6-volt model should be sufficient. For extended use, you should get two battery packs.

Q: What type of drill do you recommend for do-it-yourself projects?

A: Most consumers use a 3/8" model that reverses, has variable speed and has a keyless

chuck. You should get one that draws at least 3.5 amps.

UPSELLING

• When selling a drill, tell customers that gear construction is a key factor in determining quality. Less expensive drills have plastic gears. More expensive models have metal gears and will have longer life.

However, some high-end models use high-impact plastic, which is lightweight and just as durable as metal.

- Better drills have convenient features such as a built-in level or an electric brake that stops the drill as soon as the trigger is released. Some drills might have a D-handle or a pistol grip mounted on the housing to improve leverage.
- Better drills also have variable speed and a reversing action.

ADD-ON SALES

- Drill Chuck
- Drill Bits
- Extension Cord
- Stud Finder
- Extra Battery
- Ear Plugs
- Safety Glasses
- Dust Mask

SAFETY TIPS

- Always use safety glasses and ear protection when using a power drill.
- Double-insulated drills do not require a three-wire grounding cord and the user is protected in the event of an electrical short.
- Always make sure the drill bit fits tightly into the chuck before operating the drill.
- Never drill a hole that is larger than the rated capacity for the drill.
- Don't force the drill. If the drill begins to slow down, relieve the pressure so the drill bit can continue cutting smoothly. Forcing a drill can cause the motor to overheat and damage the drill bit.
- If the drill binds in the material, release the trigger immediately, unplug the drill and remove the bit from the material. Never use a "lock on" feature if you are drilling in a material you suspect could cause the bit to bind. A bound up bit can cause the entire drill to rotate instead of the bit and pose a danger to the user.
- Unplug the drill before changing bits.
- Always have firm footing when drilling. Brace and position yourself carefully when drilling on a ladder or scaffolding.
- When drilling blindly, (when you don't know what might be behind the surface you are drilling into) always check for possibility of electrical wire and water lines. Use a scanner to find out for sure.

PRO CORNER

- Tradesmen will likely want a 1/2" drill.
- Power screwdrivers are the best choice for the pro who will be hanging a lot of dry wall. This tool is lighter than a drill and a clutch on the tool prevents the user from driving a screw past the paper on the dry wall. Battery-powered models do not last long enough to be useful on large jobs.
- Pros might be looking for high-quality features such as ball and needle bearings. Other quality features include built-in fans, welded connections and encased triggers that protect the switches by sealing out dust.

MERCHANDISING

- Power tool users, especially pros, are likely to be highly brand loyal. Stock three or four brands and make them equally prominent in the display.
- Display a sample model out of the box so customers can hold it in their hands. Display the rest in security cages below.

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CANADIAN IMPERIAL AND METRIC MEASUREMENTS

Canadians generally use a mixture of measurement units.

Liquid volumes are typically based on the metric (SI) system. Temperatures and distances are commonly specified using metric terminology. Weights, depending on the type of product, use either the metric or Canadian Imperial system. Lengths and dimensions of construction products, particularly for residential use, are generally in Canadian Imperial measurements. And many of the products we use are manufactured in U.S. measurements.

Canadian building codes are written using metric units. But the construction trades, particularly those in residential construction, typically use the Canadian Imperial system.

This mixture of measurement systems frequently results in many product manufacturers providing information using both systems. Unfortunately, the approaches used in presenting the “converted” measurements are not consistent. Some information is based on “exact” conversion measurements, whereas other information is based on “rounded”

measurements.

From your perspective and in communicating with your

customer, it is important to recognize that in some instances the exact conversion

is necessary and in other instances a more “rounded” conversion is appropriate.

CONVERSION FACTORS

1 inch (in.)	=	25.4 mm	32 fluid ounces - US (oz.)	=	1 US qt.
1 foot (ft.)	=	0.3048 m	40 fluid ounces - Canadian (oz.)	=	1 Canadian qt.
1 yard (yd.)	=	0.9144 m			
1 mile (mi.)	=	1.609 km	1 fluid ounce - US (oz.)	=	29.6 mL
			1 fluid ounce - Canadian (oz.)	=	22.8 mL
1 ounce - avoirdupois (oz.)	=	28.35 g	1 cup - US (cup)	=	236mL
1 pound - avoirdupois (lb.)	=	0.454 kg	1 cup - Canadian (cup)	=	227mL
			1 quart - US (qt)	=	0.946 L
1 pound per square inch (psi)	=	6.895 kN/m ²	1 quart - Canadian (qt)	=	1.136 L
1 pound per square foot (psf)	=	0.04788 kPa	1 gallon - US (gal.)	=	3.785 L
			1 gallon - Canadian (gal.)	=	4.546 L

Celsius temperature = (Fahrenheit temperature - 32) / 1.8

SOME TYPICAL MEASUREMENTS FOR HARDWARE AND FASTENER PRODUCTS

(“rounded” conversions)

Length		Length		Length		Length		Weight	
in.	mm	in.	mm	in.	m	ft.	m	lbs	kg
$\frac{1}{32}$	0.8	$1\frac{3}{8}$	35	48	1.2	7.5	2.3	1	0.45
$\frac{1}{8}$	3.2	$1\frac{1}{2}$	38	60	1.5	10	3.0	10	4.5
$\frac{1}{4}$	6.4	2	51	72	1.8	12	3.7	50	22.7
$\frac{3}{8}$	9.5	4	102	84	2.1	18	5.5	100	45.4
$\frac{1}{2}$	12.7	12	305	90	2.3	25	7.6	750	340
$\frac{5}{8}$	15.9	18	457	120	3.0	50	15.2	1250	567
$\frac{3}{4}$	19.1	24	610	156	4.0	75	22.9	1900	862
$\frac{7}{8}$	22.2	30	762	216	5.5	100	30.5	2650	1202
1	25.4	36	914	312	7.9			5000	2268

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