

PRODUCT KNOWLEDGE TRAINING

Learn the common features and uses of each product.

PK Descriptions

1. Box-Joint Pliers



- General utility tool with up to eight adjustments, allowing for jaw openings up to 4-1/2".
- Either multiple hole or tongue-and-groove designs available.
- Straight and curved jaws are available.
- Most common type of box-joint (multiple slip-joint) is 10" water pump pliers.

2. Crimping Pliers



- Used for crimping sheet metal or metal duct work.
- Used in HVAC work to reduce one end of a metal pipe, gutter or duct so two pieces of the same size will fit together.
- May have a straight or angled head.

3. Cutting Pliers



- Can be side, end or diagonal types.
- Side cutters have a cutting blade on one side only and are available in long-, curved- and short-nose types.
- End cutting nippers have cutting blades on

the end and are used to make sharp, clean cuts close to the surface on wires, bolts and rivets.

- Diagonal cutters have two cutting blades set diagonally to the handle. They offer leverage when pulling cotter pins and are used by mechanics and electricians for general cutting.
- Some cutting pliers are made with a spring in the handle to open automatically after each cut.

4. Fence Pliers



- Used to pull and cut staples in fencing and other work involving wire.
- Only tool needed for work on wood posts.
- Feature flat, heavy head for hammering, staple-pulling hook, wire cutters on each side and pliers jaws to pull wire.

5. Linemen's Pliers



- Also called electrician's pliers. Used by professionals engaged in electrical, communications and construction work.
- Used for cutting, holding, shaping and twisting wire.

- Heavy-duty, side-cutting pliers designed for all regular wire-cutting needs.
- Have gripping jaws in addition to cutting edges.
- High-leverage lineman's pliers have rivet placed closer to the cutting edges to provide more leverage.
- Two head patterns are available: standard (bevel nose) and round nose, which is more streamlined.
- Sizes range from 6-1/4" to 9-1/4".

6. Locking Pliers



- Adjustable, vise-type locking pliers that can be locked on to a work piece and operate like a clamp.
- Features an adjustment screw that changes the jaw size to apply the correct clamping pressure.
- Available in various sizes and shapes: curved jaw puts pressure on any style nut or bolt head; curved jaw with wire cutter also allows user to cut wire; straight jaw provides maximum contact on flat, square or hex work; long nose provides easy access in hard-to-reach places; large jaw is used by plumbers, welders and mechanics working with large objects; and bent nose is for work in tight places.

- Some use a mechanism that allows one-handed release; others require two hands to disengage.
- Many locking pliers provide a wire-cutting function, some from a full range, others from a restricted range of jaw settings.

7. Needle-Nose Pliers



- Also called long-nose pliers, they have a pointed nose for doing work in tight places.
- Used frequently for electrical and electronics work.
- Most have side cutters for cutting wire.
- The jaws and cutting blades meet evenly.

8. Midget Pliers



- Include straight, chain, round, end-cutting, diagonal-cutting and flat-nose pliers in extra-small sizes.
- Used by professionals such as electronic technicians who work with small objects in confined areas.

9. Self-Adjusting Pliers

- Feature an adjustable pivot with handles that allow compound movement.

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- They have deep teeth and curved jaws that stay parallel as the handles are squeezed.

- Designed to provide additional leverage and gripping power.

10. Slip-Joint Pliers



- General utility pliers with two jaw-opening size adjustments.

- Used to tighten and loosen nuts and bolts.
- Some have a shear-type wire cutter to cut small-gauge wire.
- Available in regular or thin-nose design to reach into tight places

11. Thin-Nose Pliers



- Also called bent-nose pliers, since the nose is bent at about an 80-degree

angle so it can be used to grip and force wire through odd angles or reach around objects.

- Provide firm grip on fine work in tight places.
- Feature serrated jaws.

12. Tongue-and-Groove Pliers

- Feature multiple size adjustments.
- Good for gripping and applying limited torque to round, square, flat and hexagonal objects.
- Jaws may be straight, smooth or curved.



- Sizes generally range from 4-1/2" to 20-1/4" in length.

- Widely used by plumbers, electricians and other professionals.

13. Wire Strippers



- Used for general-purpose wire cutting and stripping insulation from wire.

- Feature adjustable stops to remove wire insulation without damaging conductors.
- Feature pre-cut holes to cut different wire gauges.
- Plier-style nose permits pulling and looping of wire.

Anatomy of Pliers

- The NOSE of the tool can either be regular size or thinner for reaching into tight places.
- HANDLES should be coated for better gripping and long enough to allow for proper leverage.
- JAWS should contain a number of TEETH that grab the work tightly.
- SLIP or ADJUSTMENT JOINT should not be too loose, but should adjust easily.
- BUILT-IN CUTTER is used primarily for cutting small-gauge wire.

OTHER TRAINING TIPS

Designed to give you confi-

dence on the salesfloor!

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

FAQs

Q: What type of pliers should I buy for general use?

A: A 10" pair of tongue-and-groove pliers and a 6" pair of slip-joint pliers should be adequate for general household use.

Q: I need a pair of pliers that I can use in tight quarters. What do you suggest?

A: Use a pair of needle-nose pliers, which are good for this task as well as gripping small items, precision work, cutting wire and bending wire to wrap a terminal. Curved needle-nose pliers are especially good for inserting and removing small screws stuck behind pipes.

Q: What are the advantages of locking pliers?

A: They can turn many parts that no other tool can and they are especially suited for clamping onto small parts and gripping pipe fittings. You can also use them when a nut or bolt head strips. But be careful because you can deform some parts if you over-tighten them.

Upselling Techniques

- Always remind customers that there are

many different types of and sizes of pliers because they are each designed to do a specific job. Therefore, a complete set of pliers (including slip joint, tongue and groove, needle nose and locking pliers) is probably the best buy.

- Quality pliers are judged by the type of metal the tool is constructed of, the finish and number of additional features, such as cutting features, etc.
- Higher-grade tools are generally made of fine polished, high carbon drop-forged steel.
- Material used in the handle and joint construction is another indicator of quality.

Add-On Sales

- Complete Set of Pliers or Combo Pack
- Gloves
- Safety Glasses
- Tool Pouch with Compartment for Pliers
- Nuts and Bolts
- Penetrating Lubricant for Loosening Frozen Fasteners

Safety Tips

- When using any tool, always wear safety glasses for eye protection.
- Keep in mind that slip-joint pliers are called that because they can slip during use.
- Pliers should not be used for cutting hardened wire unless specifically manufactured for this purpose.
- Never expose pliers to excessive heat. This may draw the temper and ruin the tool.

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- When using cutting pliers, always cut at right angles. Never rock from side to side or bend the wire back and forth against the cutting edges.
- Don't bend stiff wire with light pliers. Needle-nose pliers can be damaged by using the tips to bend too large a wire. Use a sturdier tool.
- Never extend the length of handles to secure greater leverage. Use a larger pair of pliers or a bolt cutter.
- Discard any plier that is cracked, broken, sprung or has nicked cutting edges.
- Pliers should not be used on nuts or bolts. A wrench will do the job better and with less risk of damage to the fastener.
- Oil pliers occasionally. A drop of oil at the hinge will lengthen tool life and assure easy operation.
- Unless specified as insulated handles, the cushion grips on pliers are not intended to give any degree protection against electric shock and should not be used on live electric circuits.

PRO Corner

- Professionals want the right kind of pliers for every job they tackle and are willing to pay for high-quality tools if the right selling features are explained to them.
- Pliers for professionals are generally constructed of tempered steel alloy with vinyl grips and are designed to be rust resistant.
- There are a wide variety of pliers designed for specific professional use. The most com-

- monly used pliers by plumbers are tongue-and-groove slip-joint pliers, which are used to loosen and tighten pipes and other plumbing connectors; also self-adjusting pliers, which are used for general plumbing work.
- Reaming pliers tighten conduit locknuts, fittings and caps and can ream both inside and outside of conduit.
- Hose-clamp pliers are designed for the installation and removal of spring-tension hose clamps.
- Pipe-wrench pliers feature multiple tongue and groove adjustments for a wide range of jaw openings.
- Utility pliers are used by plumbers, electricians and auto mechanics to grip round, flat, square and hexagonal objects.

Merchandising Tips

- Be sure to cross merchandise pliers throughout the store, especially in the electrical and plumbing departments.
- Arrange the product vertically by use and type, with the lower priced pliers below the higher-priced merchandise.
- Plier sets and combo packs should be merchandised at eye level.



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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 |

$$\text{Celsius temperature} = (\text{Fahrenheit temperature} - 32) / 1.8$$

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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