

#### Pliers, Snips & Cutters Dept. 2: Tools



# Program Fact Sheet



Strategic SKU reductions and changes in materials have been made to the Ace and Projex labels that highlight the distinctions between the brand, which reduce the cost to the retailer and creates more sales opportunities. These changes also further the distinction between Ace as a professional grade product, and Projex as a quality, affordable option for the occasional home owner/user.

#### Superior Materials = Rust Resistant

Ace brand is made with chrome-moly material, improving rust resistance over the previous chrome vanadium and carbon steel materials.

### Reduced SKUs = Distinct Products

Eliminating similar SKUs between the two labels prevents duplication and creates more distinct brands. By reducing the SKU count, duplicating sizes between the Ace and Projex brands was eliminated, increasing sales opportunities

#### Materials Spread = Distinct Price Points

By incorporating a "materials spread," such as removing the soft grip option in the Projex line, more distinct price points are created between the Ace and Projex labels.

#### 10% Average Cost Reductions

An average price reduction of 10% on comparable SKU's is another benefit and byproduct of SKU reduction and materials spreading.

# Implementation

# Setting the New

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The "new" screwdriver set is approximately 4 linear feet to merchandise and includes the Ace and Projex lines. This will keep the quality story intact and allow a consumer to systematically review the presentation to locate their desired screwdriver quickly. We recommend keeping the brands together and ther organizing by tip type, handle type, and then size.

# Addressing the Ok

We recommend marking down existing inventory and moving it to a clearance area for liquidation.

# Markdowns of Closeout SKUs

In order to make buying our old (still functional) inventory a benefit to you and the end consumer, we have taken pricing action based on the component attributes. This has reduced our pricing to you by anywhere from 8-49%. With this pricing, you can put together an attractive promotion on this product, hitting key price points showing significant percentages of savings. We are interested in discussing any offer that would significantly reduce the available inventory we have on hand.

#### Checklist

- Evaluate actual inventory counts of pliers, snips, and cutters.
- Understand inventory turns on pliers, snips, and cutters.
- Contact your sales
   manager if interested
   in purchasing the
   old inventory
- Address your old inventory
- Set the new inventory









Joint Pivot point at which jaws and handle intersect

Handle Two-part pair of handles gripped by the hand that controls tension on item to be manipulated



Last revised 1 May 2013 Presented by Steve Skells, Buyer sskel@acehardware.com



For more information, please contact your Regional Sales Manager.



# Head

#### Purpose

The purpose of the head is to conform to the item being manipulated and exert as much gripping force, cutting force, or torque as necessary to complete the job at hand. The head can take on a variety of different shapes, include several functions in one tool, and generally determines the name and type of the pliers. There are two primary types of heads: a gripping head, and a cutting head.



#### Bevel

The blades of cutting pliers utilize edges that have a varying degree of a beveled edge (cutting pliers) which determines both the degree which the material can be cut flush with a surface as well as the relative cutting strength of the plier. Cutting pliers with more pronounced bevels have more cutting force and have stronger blades, while those with smaller bevels cut more precisely. The best cutting pliers utilize an induction hardened blade edge for superior edge retention. Induction hardening subjects the cutting edges to high-frequency currents, which is an extra hardening stage.









# Joint

#### Purpose

The purpose of the joint is to cause the two parts of the pliers to pivot around the joint, causing the force exerted by the hand to multiply and transfer to the jaws within the head.

#### Types

There are several kinds of joints employed by various types of cutting and gripping pliers. The type of joint used is determined by the amount of force the pliers may undergo, the cost of the item, and the function of the individual pair of pliers. All pliers use these or a variation of these joints.

Lap Joint: One side of the plier pivots around the rivet within a recess in the opposite plier's pivot area.



**Single Joint**: A portion of the material in each plier is milled out in the joint so each half can fit within the other.



**Box Joint:** This joint allows the jaws of the pliers to accept items varying greatly in size. One plier fits inside a slit in the

other, moving freely around a rivet. The inner plier has recesses that the rivet fits into, and when the rivet is placed within a recess, the pair of pliers' jaw size is locked into place.

**Slip Joint:** This joint allows the jaws of the pliers to accept a smaller size range of items than the box joint. The plier can

be adjusted so that the rivet fits into one of two different recesses, allowing for two different size accommodations.

**Locking Joint:** This joint utilizes a compound mechanism permitting the pliers to "lock" onto an item with a pre-set amount of force determined



by manipulating a screw at the bottom of one handle. This force is maintained by the mechanism even when the handles are released. An inner handle must be depressed to unlock the grip.





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## Handle

#### Purpose

The handles of pliers serve multiple purposes. Depending on the application, handles can have special features to protect the user from electrical shock when working with live wires, or an ergonomical design for comfortable use, or especially long or short arms for extra leverage or precise handling.

#### Materials

**Carbon steel** has several strength advantages over other steels, especially when used for cutting pliers. Carbon steel is harder and cheaper than stainless steel, and retains its sharpness longer. However, carbon steel tools are more vulnerable to rust and must be oiled regularly.

**Vinyl dipped** grips provide a thicker barrier between the user's hand and the tool. This barrier reduces the vibration transfer from tool to hand, and can also be molded to ergonomically compliment the hand, making vinyl dipped gripped handles easier to use for repetitive applications. **Insulation** coats the handles of tools that will be subjected to high amounts of electricity. Certified insulated tools have been tested to withstand up to 10,000 volts as required by the ASTM (American Society for Testing and Materials) and the IEC (International Electromechanical Commission).

**TPR (thermoplastic rubber)** has many of the properties of rubber, but the advantage of being manufactured like plastic. TPR coated tool handles absorb shock, prevent slippage, and have a soft and flexible texture. Different formulations of TPR will have various resistances to chemicals and extreme temperatures, however most TPR should not be used for applications that will expose the material to very high temperatures.



## **Adjustable Joint Pliers**

Pliers incorporating an adjustable joint that accommodates varying object sizes

#### **Fixed Joint Pliers**

Pliers utilizing a fixed joint to accommodate a specific range of object sizes



Last revised 1 May 2013 Presented by Steve Skells, Buyer sskel@acehardware.com



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#### **Adjustable Joint Pliers**

**Fixed Joint Pliers** 

# **Adjustable Joint Pliers**



#### Groove Joint (box joint)

#### Pliers

These pliers are a general utility tool with up to eight jaw-opening size adjustments, allowing the jaw opening to accommodate up to 4 1⁄2". Both multiple hole or tongueand-groove designs are available, as well as straight and curved jaws.

#### Slip Joint Pliers

These pliers are a general utility tool with two jaw-opening size adjustments. This type of plier is typically used to tighten and loosen nuts and bolts. Some designs have a shear-type wire cutter intended for cutting small gauge wire. Regular or thin-nose designs are available.

#### Locking Pliers

This type of adjustable pliers utilizes a locking joint which features an adjustment screw that changes the jaw size to apply the correct clamping pressure. Available in various sizes and shapes:

**Curved Jaws:** Put pressure on any style nut or bolt head.

**Curved Jaws/Wire Cutter Combo:** Allow the user to also cut wire.

**Straight Jaw**: Provide the maximum contact on flat, square, or hex work.

Long Nose: Provide easy access in hard-to-reach places.

**Large Jaw**: Used by plumbers, welders and mechanics working with large objects.

Bent Nose: For work in tight places.



Adjustable Joint Pliers

**Fixed Joint Pliers** 

# **Fixed Joint Pliers**



#### **Long-Nose Pliers**

Also called thin-nose, bent-nose, or needle-nose pliers, these pliers provide a firm grip on fine work in tight areas. Some designs also include wire cutters, and can offer smooth or serrated jaws.



#### **Diagonal Pliers**

Diagonal cutters have two cutting blades within the jaws and are set diagonally to the handle. They offer leverage when performing certain functions (i.e. pulling cotter pins) and are used by mechanics and electricians for general cutting.

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#### **End Nippers**

End cutters (nippers) have cutting blades on the on the end of the jaws and are used to make sharp, clean, or precision cuts on wires, bolts, and rivets.



#### **Carpenter's Pincer**

Carpenter's pincers have very strong jaws similar to those of end nippers, but with an exaggerated outward curve, designed to be used as a lever when pulling out nails and clips.

#### Combination

These pliers combine gripping and cutting pliers within the same head. Different combination pliers may offer more tool options depending on the job it was intended for.





Aviation Snips Snips utilizing a compound lever and specially designed blades for ease of cutting thicker sheet metal	
${ m Tin\ Snip}$ Basic heavy-duty snips utilizing a simple joint to cut sheet metal	

Bolt Cutters Heavy-duty cutters utilizing a compound lever designed for cutting bolts and chains



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Tin Snip

# **Aviation Snips**

These snips are designed to cut sheet metal with less manual effort than tin snips due to a compound lever. While all snips cut straight, some are designed to deflect material in one direction to make cutting curves easier on the user. Handles are typically color coded to indicate the variety of snip: red handles indicate left curves, green indicate right curves, and yellow indicate straight, or combination left/right curves. A spring forces the handles open for ease of use while lugs on the handles help prevent cutting the users' fingers when in use. Blades are usually serrated for heavy applications and to prevent the blades slipping on the material. Aviation snips also contain a latch that holds the snips closed when not in use.



Left Offset Snips Deflect waste material to the left of the snip.



**Right Offset Snips** Deflect waste material to the right of the snip.



Straight Snips No material deflection snips cut straight.



**Bolt Cutters** 



# **Tin Snips**

Like conventional scissors, tin snips utilize a simple variation of a lap joint (also known as an overlay joint) to function. Unlike ordinary scissors, tin snips are heavier duty and intended to cut thin gauge sheet metal, leather, and other thin materials.





## **Bolt Cutters**

Bolt cutters use a compound leveraging system to exert the most force on an object. Most often used to cut thick gauge metals, such as padlocks, bolts, or wire fencing. There are several different types and sizes of bolt cutters, including angle cut, center cut, shear cut, and clipper cut varieties.

#### Sizes

The larger the size, the more leverage exerted. Below are the standard sizes.

Inches	Centimeters
8	20.3
12	30.5
14	35.6
18	45.7
24	61
30	76.2
36	91.4
42	106.7

