



## Double Bit Axe

Used to cut small trees, trim logs and tops. Its two cutting edges should not be left in a vertical position because of the safety hazard. The 36 inch handle is oval and straight.



## Hand Axe

Used for sharpening stakes, cutting small limbs or brush. Also used to drive in small stakes, grade stakes, and corner stakes. The hand axe is similar to the single bit axe but smaller. The handle is 16 to 18 inches long.



## Shingler's Hatchet

It has a gauge that can be adjusted for the desired shingle exposure and has a nail pulling slot in the back and above the cutting edge.



## Single Bit Axe

Used for building fences, cutting small trees and construction work. This very versatile tool should not be used as a sledge hammer on wedges or iron stakes. Handles are usually of hickory, 36 inches long, oval in cross section and shaped for good balance.





## Crow Bar

It is normally four or five feet long with one end tapered round and the other end with a chisel point.



## Nail Puller

A pair of jaws is driven into the wood below the nail head by impact action of the handle.



## Pry or Fitting Bar

It has a long round taper at one end and a curved pry hook at the other.



## Flat Pry Bar

Contoured flat bar, with beveled nail slots at each end.  
Also called a Wonder Bar (Stanley brand name).





## Ripping Bar

Usually it is of octagon tempered steel. Used for demolition and pulling large nails. Also called a Wrecking Bar.



Auger Bit

The straight round shank adapted for power drills.



## Masonry Bit

Used to drill in brick, block, and concrete. The tip is treated with tungsten carbide to resist heat and wear.



## Chuck

Used to hold a drill in a drill press or drill motor. May portable drill motors are using keyless chucks that are tightened by hand.





Chuck Key

Used in keyed chuck to tighten or loosen the chuck



## Countersink

The shank is 1/4 inch in diameter and can be used in hand or power drills.



## Drill Drift

Used for removing Morse taper sleeves and tapered shank twist drills from a drill press. Also called a Center Key.



## Expansive Bit

The shank is a square taper, adapted for the bit brace.





## Hole Saw

Hole saws come in sizes from  $\frac{3}{4}$  to 2 1/2 inches and one mandrel fits all.



## Morse Taper Sleeve

Used as an adaptor to insert different number taper shank twist drills into the drill press.



## Spade Bit

A wood boring bit with a hex shaft to be used in a power hand drill or drill press.



## Reduced Shank Drills

The shank of the drill comes in three sizes, 1/4, 1/2, and 3/4 inch.





## Star Drill

It is operated by striking with a hammer while rotating by hand.



## Straight Shank Twist Drill

If used on hard steel and at high speeds, it should be made of high speed steel.



Tapered Shank Twist Drill

It should never be used in a chuck.



Bench Brush

The overall length is 16 inches.





## Paint Brush

Natural bristle brushes are used for oil based paints. Polyester and nylon brushes are used with water based paints. Sizes are commonly found from 1" to 6" widths. Clean immediately after using with solvent appropriate for the type of paint used.



## Parts Brush

Metal handle is usually sealed at both ends to enable brush to float in solvent to prevent losing brush in solvent tank.



## Push Broom

Handles are  $\frac{7}{8}$  inch in diameter 4 to 5 feet long and are threaded into broom body or bolted on.



## Wire Brush

Used for cleaning metal parts to be welded, cleaning machinery parts and removing slag and rust.





**GOLDBLATT**

01 324 2 1/2" McLean's Chisel  
MADE IN U.S.A.

Brick Chisel

Blade is 3 1/2 inches wide, overall length is 7 inches.



Cold Chisel

Size is determined by the width of the cutting edge.



ARMSTRONG USA

## Round Nose Chisel

The sides of the shank are flattened and the width at the cutting edge determines the size.



## Wood Chisel

It is sharpened only on one side to a 25 or 30 degree angle and may be used with or across the grain.





## "C" Clamp

The screw has a sliding bar or a thumb screw at one end and usually a ball and socket pad at the other. Sizes range from 2 to 12 inches.



## Bar Clamp

Bar type clamp has quick non-slip adjustment to approximate size; then screws tight to apply pressure.



## Corner Clamp

Jaws are at 90 degree angles. Used to clamp items like cabinet frames.



## Hand Screw Clamp

The wooden handles are mounted on opposite sides of the jaws.





## Spring Clamp

Jaws are specially formed to hold flat or round objects.



## Strap Clamp

Uses a fabric strap that tightens around large or irregular projects.



## "C" Clamp Locking Pliers

Used for clamping irregular shapes quickly and firmly when welding or fastening.



## Locking Welding Clamp

Works well when clamping two pieces adjacent to each other or at 90 degree angles.





Die Stock

Used as a handle for dies.



File Card

The card is a small fine wire brush.



## Round File

It is available 4 to 16 inches long and  $\frac{3}{16}$  to  $\frac{3}{4}$  inches in diameter.



SAE Dies

Used to cut Society of Automotive Engineers of National  
Fine (NF) Threads on bolts.





SAE Tap

Used to cut Society of Automotive Engineers or National  
Fine threads in bored holes and nuts.



## Single Cut File

It has a single series of teeth and is made in bastard cut, second cut and smooth type teeth.



## Metal File

Common Shapes: flat, mill, square, half round, round and three square (triangular). Common Coarseness Cuts (rough to smooth): bastard, second cut, smooth. Kinds of Teeth: Single Cut and Double Cut.



"T" Tap Wrench

"T" type tap wrenches have an adjustable chuck.





HANSON

1/4-20 NC

USA

## USS Die

The die cuts the male thread of a bolt or rod. USS also called National Course (NC) thread.



## USS Tap

Used to cut United States Standard or National Coarse threads in drilled holes or nuts.



Whet Stone

Used for sharpening tools such as wood chisels and other tools to a fine edge.



Wood Rasp

Other rasps are 4-in-hand and horse rasps.





STANLEY Rubber Mallet

## Ball Peen Hammer

This hammer is constructed with a ball at one end and a round crowned hammering face at the other. Also called a Machinist's Hammer



STANLEY  
BLACKSMITH

HICKORY

## Blacksmith's Hammer

The hammering surface is crowned. Designed for use in forming hot metal.



STANLEY  
BRICK 24  
CLASSIC DESIGN

STANLEY  
24-1000

Brick Hammer  
Heavy Duty 24-1000

## Brick Layer's Hammer

The wedge shaped end is for scoring and cutting brick, and the other end is for tapping bricks into place when leveling.



**GRAPHITE**

**STANLEY**

## Curved Claw Hammer

Used for driving and pulling nails. Face is commonly rounded for finish work. Weight 13-16 oz.





## Dead Blow Hammer

It does not absorb liquids or produce sparks when striking steel objects. Some models are weighted with lead shot.



STANLEY  
ENGINEERING  
56-801 4 LB.

HICKORY

## Engineer's Hammer

Sizes are from 2 1/2 to 4 pound with handle length of 16 inches.



**STANLEY**

HAND DRILLING  
56-704 4 LB.

**HICKORY**

## Hand Drilling Hammer

The head is made in three different sizes, 2, 3, and 4 pound. It has a short handle and can be used in tight places to drive punches and chisels.



## Mallet

Heads are made of wood, plastic, rawhide and rubber. Also called a Soft Headed Hammer.





## Sledge Hammer

Looks like engineers hammer but much larger. 6-12 pounds in weight.



STANLEY 162-087 55-345 mm

## Straight Claw Hammer

The hammer head is the same as a curved claw hammer, but the claw is nearly straight. Weight 16-28 oz. Head may be smooth or serrated. Also called a Ripping hammer.



## Tack Hammer

One side of the head is magnetic and used for starting short tacks.



## Tinner's Hammer

The hammer head is beveled on one end and has a square face on the other.





Anvil

Sizes range in weight from 20 to 200 pounds. Used to shape cold and hot metal.



## Bolt Cutter

The toggle and lever joints develop great mechanical advantage. Commonly used to cut bolts, chain, and reinforcing bar.



## Hog Ringer

It is some what like a pair of pliers except the jaws of the ringer has special slots for holding the ring.



Safety Goggles

Eye protection that covers eye glasses.





## Screw Extractor

A hole is drilled in the center of the broken stud, and the extractor screwed into the hole in a counter clockwise direction. Also called an easy out.



## Hammer Tacker

A stapler that operates like a hammer. Used to install insulation, builder's paper, roofing felt, etc.



## Staple Gun

Heavy duty and light utility models are available driving 3/16 to 1/2 inch staples.



Turn Buckle

Turning the body tightens or loosens both at the same time.





## Block Plane

Sizes range from 5 1/2 to 7 inches long and 1 3/8 to 1 5/8 inches wide. Used to plane the end of a board.



## Jack Plane

Planing should be done with the grain of the wood. Note tail behind the handle.



## Smooth Plane

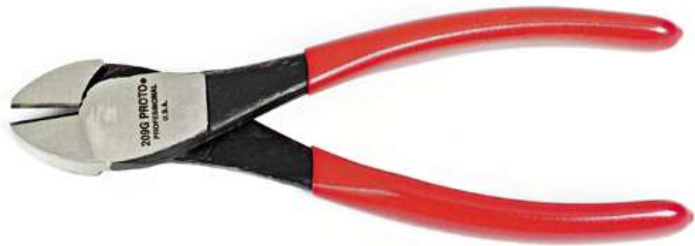
Sizes range from 5 1/2 to 10 inches long and 1 1/4 to 2 3/8 inches wide.



## Battery Pliers

Used for removing battery terminals. The end clearance prevents cell-cover damage.





## Diagonal Cutting Pliers

It has curved handles, lap joined; and diagonal cutting jaws.



## Fence Pliers

Grips between the handles hold the wire tightly while leverage is exerted against the fence post to stretch the wire fairly tight.



## Slip Joint Combination Pliers

Used for general purpose work, for holding flat or round stock, and for cutting soft wires.



Water Pump Pliers

The jaws are adjustable to 2 inches.





## Locking Pliers

Locks with a toggle action that holds until the lever is opened. Commonly called Vise-Grip pliers.



Center Punch

It is manufactured in various sizes and lengths.



Drift Punch

The shank is tapered.



Nail Set

The point has a slight hollow at the end.





## Pin Punch

This punch has a long, straight shank, the diameter of which designates the size. Used to remove bolts and pins.



Prick Punch

The punch should be sharp and ground to 30 degrees.



## Leather Punch

The handles are similar to pliers. Used to punch holes in soft materials like leather and rubber.



STANLEY

HARD TOOTH SAW

LEN. 9 3/8"  
12 POINTS PER INCH  
MADE IN U.S.A.  
STANLEY TOOL COMPANY

## Back Saw

This saw should be used in a horizontal position.





## Coping Saw

The blade is installed to cut on the pull stroke.



Hack Saw

The handle normally has a pistol type grip.



STANLEY

*Traditional*

The original hand saw, designed for the professional carpenter. It is made of the finest materials and is built to last. It is the only hand saw that has been made in the U.S.A. since 1843.

© 1977 STANLEY 8234

Hand Cross Cut Saw

The standard length is 26 inches. Typically 8-12 teeth/inch.



## Hand Rip Saw

The edges of the teeth are not beveled, but are shaped like chisels. Typically 4-7 teeth/inch.





## Keyhole or Compass Saw

Used for sawing curves, especially where the cut must be started from a hole bored with an auger bit.



## Clutch Driver

This is a specialty drive that fits screws used in mobile homes, boats, recreational vehicles, and electric motors.



## Nut Driver

This is a very popular tool in the electrical and sheet metal industry.



## Offset Screwdriver

Used where it is difficult to reach the screw head with a common or standard screwdriver.





Phillips Screwdriver

Always select the correct size for the correct application.



## Screwdriver Bit

Available in slotted, Phillips, square, and torx drives for power screwdrivers. Shank is hexagonal.



Slotted Screwdriver

Used mostly in woodworking applications.



Square Recess Screwdriver

Each screwdriver is color coded for easy size identification.





## Stubby Screwdriver

It comes in slotted and Phillips, and has a blade length of 1 1/4 to 1 1/2 inches long.



Torx Head Screwdriver

Also used on appliances, lawn and garden, and electronic equipment.



## Drill Press Vise

Drilling is safe and more accurate when a vise is used, and fewer drill bits are broken.



## Machinist's Vice

A bench mounted vise for metal with a swivel base and replaceable jaws. It should not be used for hammering or bending metal. Also called a Bench Vice.





## Woodworker's Vise

The flat smooth jaws open up to 12 inches. Jaws may be lined with wood.



Adjustable Wrench

Size is designated by inches in length.



## Hex Key

This wrench is made of hexagon stock with one end bent to a 90 degree angle.



Box End Wrench

Wrench is available in 12 and 6 point ends.





## Chain Wrench

It is made in several sizes ranging from 13  $\frac{3}{4}$  to 87 inches long, and will handle pipe from  $\frac{1}{8}$  to 18 inches in diameter.



## Combination End Wrench

The reason for the popularity of this wrench is that it has the advantage of having both open and box ends.



## Deep Socket

The deep socket is made in standard, thin, and extra thin walls, with 6 or 12 point openings and with  $\frac{3}{8}$ ,  $\frac{1}{2}$  or  $\frac{3}{4}$  inch drive.



## Eight Point Socket

Has 8 points and is used on square nuts found on farm machinery.





## Extension Bar

Used to connect, the socket wrench to the ratchet handle to give working clearance, and are 3 to 20 inches long.



## Flex Handle

The end that fits into the socket is swivel hinged, and the other end has a hole with a sliding cross bar to permit use of the wrench at an angle.



Flex Socket

This permits working at various angles.



1-1/4 PROTON U.S.A. 7-7/16

Open End Wrench

Both ends of the wrench are open but are of different sizes.





## Ratchet Handle

The ratchet speeds up the work. Common drive sizes 1/4"-3/4".



## Six Point Socket

The socket has 6 points inside to fit over hexagonal nuts.



## Slide Bar Handle

Used as a "T" or "L" handle and is normally used with the extension.



## Socket Adaptor

Allows the use of larger drive sockets with smaller socket drives; i.e., 1/2 inch drive socket and 3/8 inch drive ratchet.





## Speed Handle

Used to rapidly remove a nut or bolt. Common drive sizes  
1-4"-3/4".



## Tubing Wrench

The box at each end of the wrench is 6 point only. Also called a flare nut wrench.



Twelve Point Socket

The socket has thin walls to fit in tight places.



## Universal Joint

It makes work possible in restricted places where the wrench cannot be aligned with the bolt.





## Brick Jointer

The jointer is bent at each end at about 20 degrees to allow the mason to use one end as a handle and the other as a jointer. The tool is used to finish the joints between bricks.



Brick Trowel

It is pointed and measures 4  $\frac{3}{4}$  inches by 11 inches.



## Concrete Edger

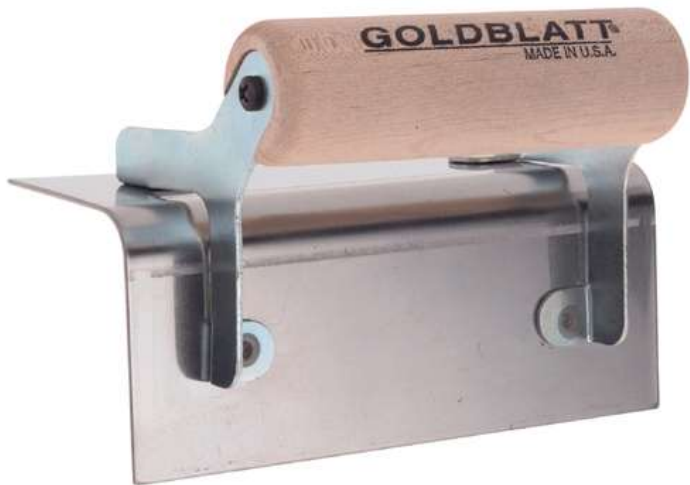
The ends may be curved up slightly. Used to finish the edges of concrete.



## Concrete Tamper

A tubular steel frame handle is attached to the top which allows a person to operate the tamper while walking in the concrete. Also called a Jitterbug.





## Corner Trowel

Size is 2 1/2 by 2 1/2 wide and 6 inches long. Used to finish corner in curbs, steps, etc. The handle placement determines if the trowel is outside or inside. Outside corner trowel is also called a step trowel.



## Finishing Trowel

The finishing trowel is made of steel and is 4 inches wide by 14 inches long.



Fresno Trowel

This large finish trowel also has a long detachable handle.



## Groover

It is  $2 \frac{7}{8}$  inches wide and 6 inches long with the ridge being  $\frac{1}{2}$  inch deep and  $\frac{1}{2}$  inch wide. Use to place grooves in concrete slabs.





GOLDBLATT  
MADE IN U.S.A.

## Hand Float

It is 4 to 5 inches wide and 13 inches long. Floats are used for rough finishing.



Hawks

The size is 13 x 13 inches square. Use to carry mortar.



## Mortar Hoe

It also has a 5 1/2 foot handle and holes in the hoe to aid mixing.



**Mud Pan**

Used mostly with small trowels or putty knives.





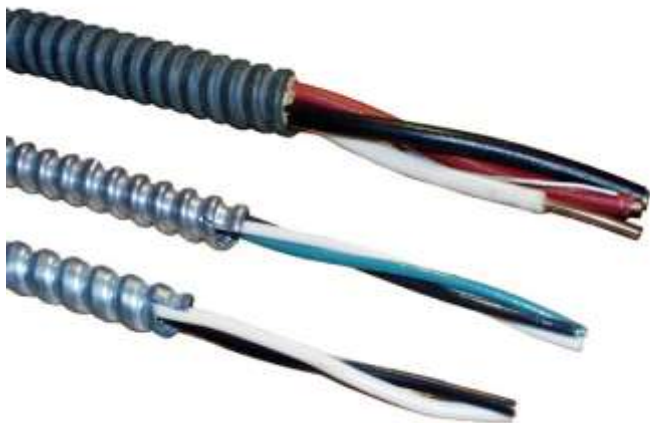
## Reinforcing Bar

Available in 20, 30, and 40 foot lengths. Common sizes (diameter) of 3/8" to 1" are use in small construction projects.



## Sponge Rubber Float

Must be dipped continuously in water when working plaster to keep the plaster from adhering to the rubber.



## Armored Cable

This cable must run from box to box without splices.



GOULD  
Type D  
Time Delay  
Temporisé

RN20amp

## Cartridge Fuse

It is a cylinder shaped like a cartridge case and has metal ferrules at each end and a soft fusible element inside.





Circuit Breaker

Used to protect the wire in a circuit. Rated in amps.



## Conduit Straps

Conduit is placed in the curved portion and strap is secured by nails or screws. Single foot and double foot styles. Sized for EMT and rigid/PVC conduit.



Lampholder

A plastic or porcelain device that holds a lamp.



MARK OF QUALITY



2123019

304/40

ALLOY

CONTAINS  
NON-CORROSIVE  
PLUS

80/40

Mesh Size 22-25-10 PLUS

TENSILE

Dia.

0.26 LB

1.2 mm.

**ULTRACORE**

ISO 9001:2000, 14001:2004 CERTIFIED

## Core Solder

It is available in spools. Rosin core is used to solder wires and acid core to solder sheet metal.





## Duplex Receptacle

Receptacles may be installed in outlet boxes flush with the wall or in surface mounted boxes or junction boxes.



## EMT Connector

Used to connect EMT conduit to a box, panel, or other threaded fitting.



## EMT Coupling

A compression fitting used to join EMT conduit.



## EMT Sweep

The difference being, it is made of thin wall conduit and has no threads.





## Electrical Metallic Tubing

A thin walled conduit. Commonly abbreviated as EMT. It is coupled with special fittings and is smooth inside.

Manufactured in 10 foot lengths. Common sizes 1/2"-2".

Approved for indoor use.



## Flexible Conduit

It consists of a heavily zinc coated steel strip wound spiraling, with interlocked construction permitting greater flexibility.



## Friction Tape

Used over rubber insulating tape on wire Splices and is used to replace the outer braid.



**LISTED**  
**16SB**  
**E211717**

## Ground Rod

It is connected to the electrical service box or meter can by a shielded ground wire and a ground clamp.





## Ground Rod Clamp

Connects a ground wire to a grounding rod, reinforcing bar, or metal water pipe. This provides for a good ground in the event of a power spike or lightning strike.



## Cord Cap

It is some times called a male plug. Used on extension cords and power tool cords.



## Cord Connectors

This connecting body is designed to accommodate the cord cap and is sometimes called a female plug.



## Insulated Staple

Commonly used for low voltage wire used in applications such as door bells or sprinkler controllers. It should not be used 120-volt lines.





## Junction Box

Usually made of metal in square or octagon shaped boxes. Boxes must be covered either with a cover or a fixture.



## Knife Fuse

The knife fuse is made in several sizes for service of 60 to 600 amps and is not interchangeable with cartridge fuses or knife fuses of different capacities.



## Non-Metallic Cable

A cable with a plastic cover used for residential indoor wiring. Commonly found with 3 and 4 conductor in sizes 14-6. For example "14-2 w/ ground" will have 3 14 gauge conductors, 1 black, one white, and one bare.



## Non-Metallic Clamp

The cable is secured by means of a bracket tightened with screws. Used to secure a NM cable to a box.





Plastic Tape

It is used alone without friction tape.



## PVC Conduit

PVC conduit is used inside, outside or underground. Gray in color. Glued connections make it waterproof.



## PVC Conduit Coupling

Used to connect PVC conduit, must be glued and once connected cannot be removed.



PVC Elbow or Sweep

It has a long radius and is connected by gluing couplings on elbow and pipe.





## PVC Conduit Male Adaptor

Adapts PVC conduit to a threaded fitting for connecting to a box, panel , etc.



## PVC Pull Elbow

Used to make 90 degree bends and has removable cap for splicing or pulling wire. Glues to PVC conduit. Types denote the location of the cover (e.g. LB, LR)



## Raintite Hub

Made of cast aluminum and has a flange with pre-drilled holes for mounting to panel, and threaded inlet for conduit.



## Ridged Conduit

It is available in galvanized and enamel finishes.





Ridged Coupling

Made of galvanized steel.



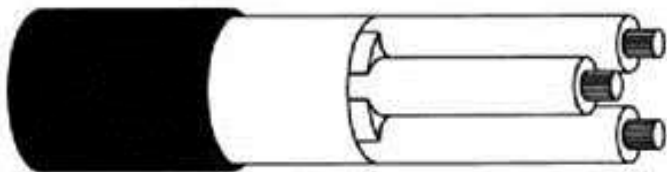
Ridged Elbow or Sweep

Sizes range from 1/2 to 2 inch. Threaded on both ends.



## Ridged Entrance Ell

Has female thread on each end and has removable cap for access to wire for splicing or pulling.



## Electric Cord

A flexible cable used for extension cords and connecting power tools. May be plastic (e.g. Type xx) or rubber covered (e.g.. Type SJ)





## Rubber Tape

Used on high voltage connections. It is covered with friction tape or plastic tape.



Service Entrance Cap

Made of cast aluminum or PVC.



## Solderless Connector

Used where a permanent connection is desired.

Connectors can be insulated or un-insulated. Commonly used for wiring on mobile equipment.



## Conduit Drive Strap

Made of die cast zinc, it is driven into wood with a hammer with conduit resting in curved end.





## Switch Box

Comes with knockouts for non-metallic sheathed cable or electrical metallic tubing. Boxes must be covered either with a cover or a fixture.



## Single Conductor

A single conductor with thermal plastic insulation. Wire may be solid or stranded. Typical types are TW and THHN. Common sizes 14-0



### Three-Way Toggle Switch

Traveler or go between wires connect to lighter colored brass screws; hot wire is connected to the darker colored brass screw.



## Toggle Switch

When the toggle switch is pushed up the service is on and off when pushed down.





## UF Cable

A solid plastic covering is used on this cable making it suitable for direct burial of the cable. UF cable is sized like NM cable.



Wire Nut

Used to connect AC wires. Color coded to denote capacity.



## Conduit Bender

This enables an electrician to make accurate 45 and 90 degree bends. Bender may be designated for EMT or rigid conduit.



Hickey

The Hickey or bender is used for short radius bends.





## Electric Soldering Iron

It has a replaceable copper tip. Soldering irons are sized from very light duty for soldering fine wires to heavy duty for soldering sheet metal.



Fish Tape

Fish tapes come in 25, 50 and 100 foot lengths.



## Fuse Puller

Made of plastic to prevent electrician from being shocked while installing or removing fuses.



## Knockout Punch

Sizes range from 1/2 to 2 1/2 inches. Used to create a hole in panel for connecting conduit.





## Lineman's Pliers

They are used on both bare and insulated wire. Note:  
These tools are also used for fence work and tying  
concrete rebar.



## Long Nose Pliers

Also used for stripping wire, making eyes in wire and holding wire in place while inserting screws.



## Multi-Tester or Volt-Ohm Meter

An analog or digital meter that commonly will measure AC volts, DC volts, Ohms, and milli-amps.



Non-Metallic Cable Ripper

Made of a thin "U" shaped metal piece.





## Soldering Gun

It is fitted with a replaceable tip and operates on 115-volt AC. Used primarily for soldering wires.



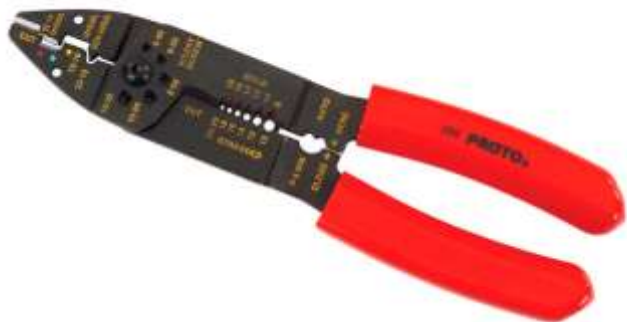
## Voltage Tester

Used for testing voltage on electrical outlets, fuse clips, and circuit breakers will test voltage from 120 to 600 volts.



## Wire Stripper

Used to strip plastic coating from solid electrical wires without damaging the wire .Can be adjusted to be used on various wire sizes.



## Wire Stripper And Crimping Tool

Used for stripping wire, cutting wire and crimping wire terminals on stripped wire ends.





## Cap Screw

It resembles a short bolt with a hexagon head with either coarse, fine, or metric thread. Term describes machine bolts and machine screws.



Carriage Bolt

Never use a washer under the head. Use to bolt wood.



## Eye Bolt

It has an eye on one end and coarse or fine threads on the other.



## Grade 8 Bolt

Hardened bolt used where high tensile strength is required.  
6 markings on the head.





## Grade 2 Bolt

Soft bolt commonly used for landscape applications and other applications where strength is not important.



## Grade 5 Bolt

Mildly hardened bolt used commonly in machinery and equipment applications. Three markings on the head.



## Lag Bolt

The bolt has a square or hex head with a tapered wood screw on the other end. Common sizes 1/4 to 1/2 in diameter, 2" to 12" long. Also called a Lag Screw.



**Machine Bolt**

The head and nut may be square or hexagon shaped.





Plow Bolt

No wrench is necessary to hold the bolt head.



## Screw Hook

Can be screw into wood walls or concrete or masonry when pre-drilled and a plastic or lead anchor is used.



## Machine Screw

The head is slotted for a screwdriver and may be either round or flat. Typical sizes 4-12.



Toggle Bolt

When the screw is tightened a firm anchorage is made.





## Corrugated Fastener

The size is 1/4 to 1 inch in depth and 2 to 7 corrugations.  
Used to fasten wood.



Cotter Pin

This prevents the nut from working loose. Also called a Cotter Key.



## Aluminum Roofing Nails

Sizes range from 1 to 1 1/2 inches long. Used to apply aluminum roofing.



Blue Plaster Board Nail

The range in size is 1 to 1 1/2 inches.





## Box Nail

Roughly speaking,  $d$  equals  $1/4$  inch in length, but this is not constant. The shank is smaller in diameter than the common nail to prevent splitting of the wood. Common sizes  $2d$  to  $16d$



## Cement Coated Nails

Sizes range from 2d to 16d. Commonly found in a green coating in 8d and 16d ("sinkers").



## Common Nail

Roughly speaking,  $d$  equals  $1/4$  inch in length, but this is not constant. The shank is larger in diameter than the box nail making the nail less likely to bend. Common sizes 2d – 20d. Sizes larger than 20d are often called spikes.



## Duplex-Head Nail

The point is sharp, and there are two heads, one above the other, to make removal easy. Common sizes 6d, 8d, 16d.





## Finish Nail

The sizes range from 2d to 20d. The nail is designed to be counter sunk and the hole filled.



## Furring Nail

This allows the wire to become a reinforcing agent and the nails hold the plaster to the wall.



## Galvanized Nail

Common, box, and finish nails are available for exterior use with a galvanized coating. The coating may be hot dipped (thicker) or electro-plated (EG).



## Galvanized Roofing Nail

The head is about  $\frac{1}{2}$  inch in diameter, and the length ranges from  $\frac{3}{4}$  to 2 inches.





Galvanized Shingle Nail

The 3d is generally used for shingling.



## Lead-Head Nails

Lead washer is to prevent oxidation between the head of the nail and the galvanized roofing and also prevents leakage.



## Spiral Shank Nails

Designed for the construction and repair of wood pallets. These spiral shank nails are also good for re-nailing wagon beds, trailers.



Wire Brad

The size is expressed in wire gauge and ranges from 1/4 to 1 1/2 inches long.





## Castellated Hex Nut

Used with a cotter pin to prevent loosening or tightening.  
Top of the nut is smaller in diameter than the base.



Hex Nut

It may have NC, NF, or metric threads.



## Self-Locking Nut

When tightened on a bolt the scored threads bite into the threads of the bolt preventing it from backing off.



## Slotted Hex Nut

It differs from the castellated nut in that there is no stepped-in castle-like top.





## Square Nut

Used on farm implements with carriage bolts, machine bolts, stove bolts and plow bolts.



## Wing Nut

Used where hand tightening (no wrench) is desired such as inspection covers.



Pop Rivet

A pop rivet tool is required to set the rivet.



## Pop Rivet Tool

Tool is adjustable to use the various sizes (diameter) of rivets available.





## Rivet Set

A rivet set is a small bar of steel with a hole drilled in the end to receive the rivet, and with a cup-like depression for forming a round head on the rivet.



**PAN HEAD**



**FLAT HEAD  
COUNTERSUNK**



**BUTTON HEAD**



**FLAT HEAD**



**TRUSS HEAD**



**TINNERS'**

Soft Iron Rivet

The size is based on length and diameter.



## Drywall Screws

All Are Phillips Except the Hex Wafer Head. Used to fasten drywall. Bugle shaped flat head.



## Wood Screws

A tapered screw with a round, oval, or flat head. The threaded portion of the screw is tapered with a very coarse thread and cuts its own thread as it is turned into the wood. Shown L-R oval head, round head, flat head Phillips, and flat head slotted.





## Screw Eye

It may be described as a screw with an eye or ring head.



## Self Drilling Screws

No pre-drilling is necessary when using a self drilling screw.



## Self Tapping Screws

Screw has a sharp point with coarse threads that make their own threads when screwed into a pre-drilled hole that is smaller than the diameter of the screw.



## Set Screw

When screwed into a set collar the cup point makes an indentation in the shaft preventing the collar from vibrating loose.





## Sheet Metal Screws

Head types are flat, round, pan, oval and binding.



## Torx Head Screws

The head is similar to the Phillips but having a six point star shaped opening in the center of the head rather than a four point star.



## Fender Washers

The large holes are used for aligning or adjusting for proper fit.



## Finishing Washer

This is a chrome plated countersunk washer used with oval head wood or metal screws.





## Flat Washer

Used to prevent the nut from rubbing and becoming imbedded in the bolted material. Also called a Cut Washer.



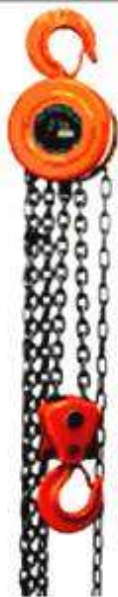
Lock Washer

It should not be used on wood.



## Malleable Iron Washer

Used where excess pressure or stress is exerted on wooden structures.



Chain Hoist

Sizes are available from 1/2 to 5 ton capacity.





## Clevis or Shackle

Used for fastening an implement to a draw bar for pulling, fastening a tow cable, and for purposes requiring the fastening or securing of machines or materials.



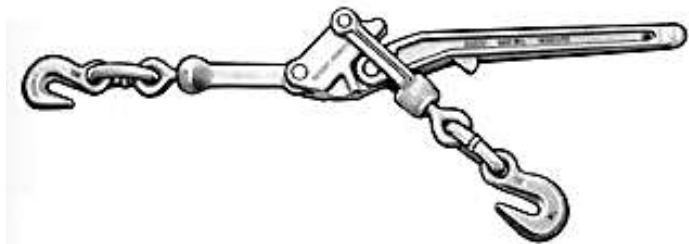
## Grab Hook

Grab hooks are designed to hook over a chain link and will hold fast when the chain is tightened.



## Lashing Strap

Used for securing loads. Not used for securing heavy equipment. Typical polyester or nylon strap strength is 10,000-20,000 pounds. Smaller straps are available with a built-in winch. Larger straps are designed to be used with winches mounted on the truck bed.



## Load or Chain Binder

This device consists of a handle, two offset links and grab hooks which, when connected to a section of the load-binding chain and the handle pulled, tightens the chain.





## Proof Coil Chain

A welded link chain. Chain size is designated by the diameter of the steel used in making the links (e.g., 3/16"-3/4"). Made from low carbon steel, proof coil is a general utility chain for such uses as tie-down, log chain and assembly tow and switch chain. Available in plain, hot galvanized, and bright zinc finishes.



## Repair Link

Used to repair a broken chain and for attaching rings and hooks. Also called a Lap Link



## Sash Chain

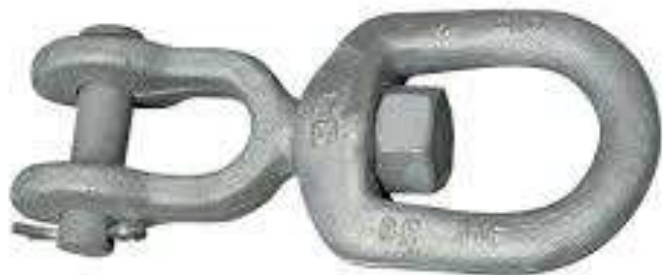
Sash Chain is sold by the foot. Used to hang light fixtures, etc.



## Slip Hook

A round hook used on one end of a log chain to permit it to slip along the chain.





Swivel

It consists of two chain links connected by a riveted pin.



## Twist Link Chain

Used where the chain must travel easily over something (links don't get caught).



## Double Loop Chain

Used for tether chains, swings and hammocks and wherever a light inexpensive chain is needed.



Barbed Wire

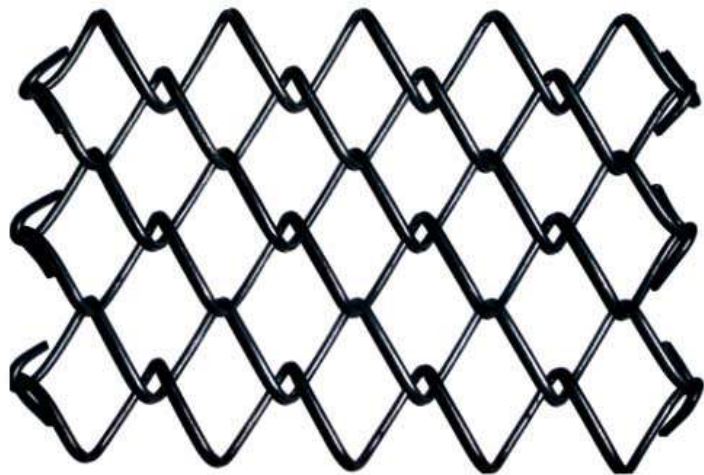
A spool of wire is 80 rods long.





## Come-A-Long

By working the ratchet handle the cable is tightened and moves the sheave block closer to the ratchet spool.



## Chain Link Fencing

Comes in 36 to 60 inch widths and 50 to 100 foot lengths.  
Also called Diamond Mesh.



## Electric Fence Gate Handle

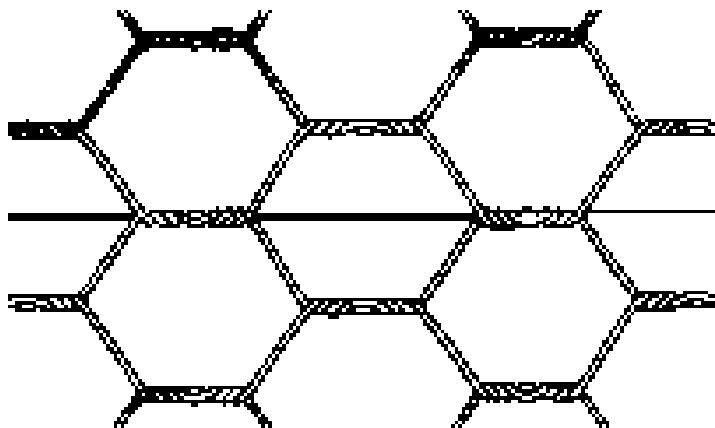
By pulling on the handle, tension can be released on the fence and it can be disconnected allowing entry.



## Nail On Electric Fence Insulator

Commonly a plastic insulator that nails to a wood post.  
Insulators hold electric fence conductors about 1" from the post.





## Poultry Wire Netting

The rolls are 50 to 150 feet long and from 1 1/4 to 4 feet wide.



## Smooth Galvanized Wire

It is made of smooth galvanized steel and is available in a variety of gauges.



Fence Staple

The length is stated in inches and fractions.



## Steel Fence Posts

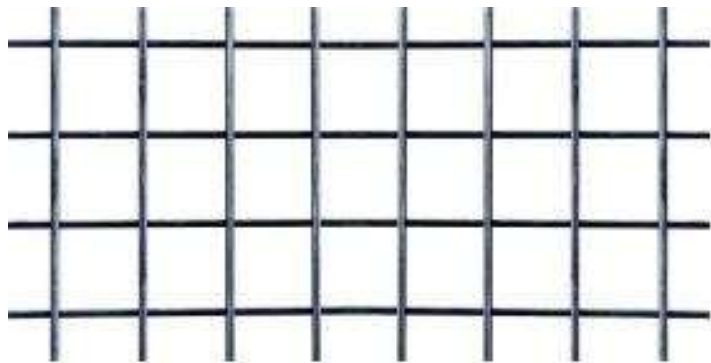
Round steel post with an anchor plate 12 inches from the bottom and comes in 3 to 6 foot lengths.





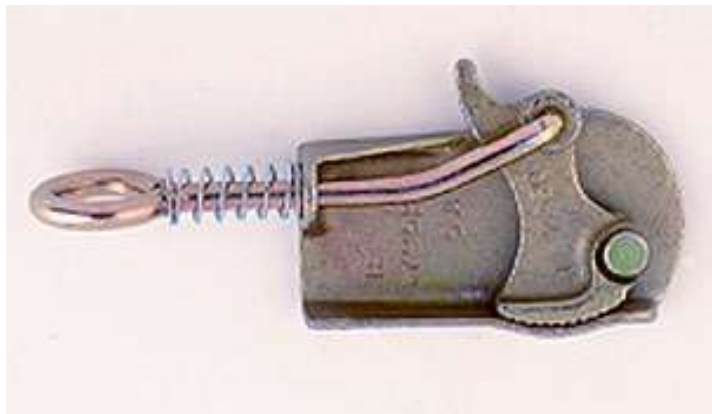
## T-Post Insulator

The insulator is clipped to the steel post and the wire inserted into the plastic clip, thus preventing grounding of the electrical system.



## Welded Wire Fence

Consists of 16 gauge galvanized wire spot welded rather than woven, and has 2 inch by 3 inch mesh.



## Wire Grip

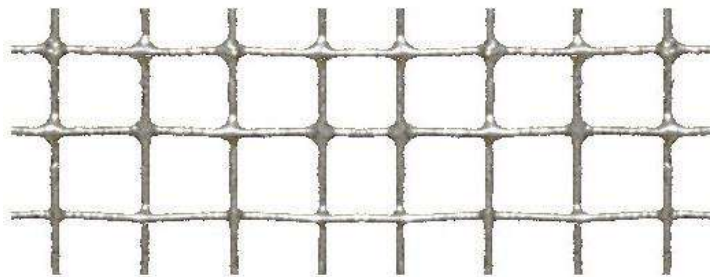
Made of steel or malleable iron. Used to grip fencing wire when tightening



## Wire Stretcher

It consists of two double sheave blocks specifically designed with hooks, holding lock, wire clamp and a rope.





## Woven Wire Fencing

The roll contains 20 rods of wire ranging from 32 to 47 inches wide.



## "T" Hinge

Size is measured from hinge pin to the end of the strap.  
Commonly use for gates ("T" fastens to post).



## Barrel Bolt

The other end, a separate piece is an eye which the bolt slides into when locking.



## Butt Hinge

This hinge is available with fast pin or loose pin and is plain brass or steel or primed with paint.





## Continuous Hinge

Same as the butt hinge except it comes in 8" to 8' lengths and is cut to length with a hacksaw. Also called a Piano hinge



## Gate Latch

The hook is inserted into the eye screw to latch.



## Hinge Hasp

One end is like a strap hinge with a slot which folds over an eye or staple to accommodate a padlock.



## Strap Hinge

The size is measured from the hinge pin to the end of one strap.





## Cotton Rope

Cotton ropes are soft but the weakest of the natural fiber ropes.



## Manila Rope

This is a laid (twisted) and comes in three and four strands. A natural fiber, manila is stronger than cotton, but weaker than the synthetic ropes.



## Nylon Rope

Maybe manufactured as a laid (twisted) rope or a braided rope. Stronger and more expensive than poly rope.

Braided rope does not have individual strands therefore it is not suited for hand braiding.



## Twisted Polypropylene Rope

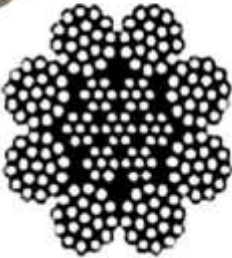
Keep away from flames and hot metal, it will melt or solidify and break easily. Also called trucker's rope which is generally black with an orange stripe.





Rope Thimble

Used to protect the eye in a rope or cable.



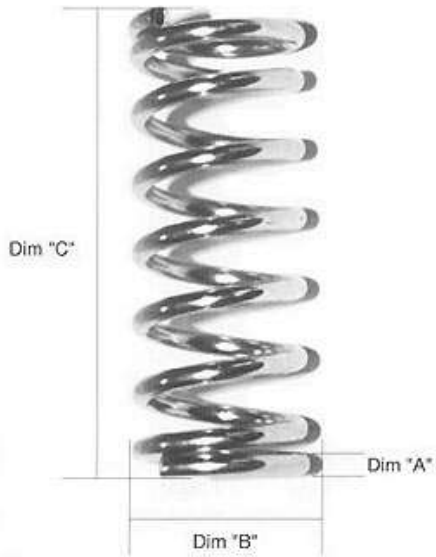
Wire Rope

To coil or uncoil, roll the rope like a steel hoop.



## Wire Rope Clamps

There are two types, the "U" bolt with cleat and the bolt clamp.



## Compression Spring

A compression spring is one that exerts pressure when it is compressed.





## Tension Spring

This spring can be extended, but exerts force by extending to pull back to its original length.



Torsion Spring

When the spring is wound up it exerts a twisting force.



## Clay Picks

The handles for all picks are 32 inches long and are larger at the head or blade end.



## Cutter Mattocks

The blades ends are rotated 90 degrees and oval hole is in the center for the handle which is sold separate.





## Pick Mattocks

Similar to the cutter mattocks except one end of the blade comes to a sharp point for breaking or digging in hardpan or very hard soil.



Posthole Auger

It is operated by rotating the handle.



## Posthole Digger

It is operated by thrusting the points into the soil and spreading the handles to remove the soil. Also called a Clam Shell.



## Bow Rake

Has 15, 2 1/2 inch pointed teeth attached at 90 degrees to a 5 foot ferruled handle.





## Irrigating Shovel

The same as the round point except the blade is almost straight with the handle.



## Round Point Shovel

A shovel used for digging. Typical handle length approximately 50 inches.



## Scoop Shovel

The handle can be a short capped ferrule "0" type or 54 inch long handle.



## Square Point Shovel

Used for scooping materials such as sand and gravel.  
Typically the handle about 50 inches long.





## Contractors Wheelbarrow

Used widely in the construction industry. Typical capacity 1/5 cubic yard. Wheel is pneumatic.



Aluminum

It is sold by the square foot, by the piece or by the pound.



## Angle Iron

It is sold by the pound. Sized by the length of the legs and thickness. Ex. 2"x2"x1/4".



## Brass

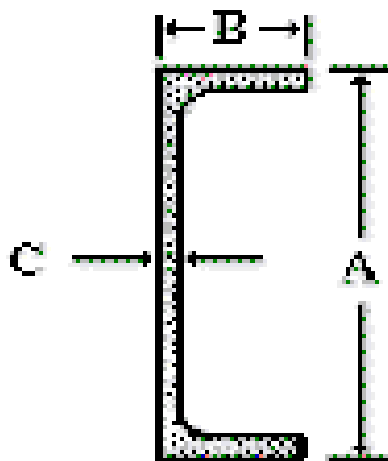
An alloy of copper and zinc. It is sold by the piece or by the pound.





## Cast Iron

Used to make castings for cylinder blocks, plow bottoms, housings for tractor differentials, transmission cases, sprockets wheels, pulleys, pipe fittings and gears.



## Channel Iron

The common sizes range from 1/2" X 1 inch to 4 X 12 inches.



## Cold Rolled Steel

It is commonly used for making bolts and shafting.  
Shaped cold the metal is bright and shiny.



Copper

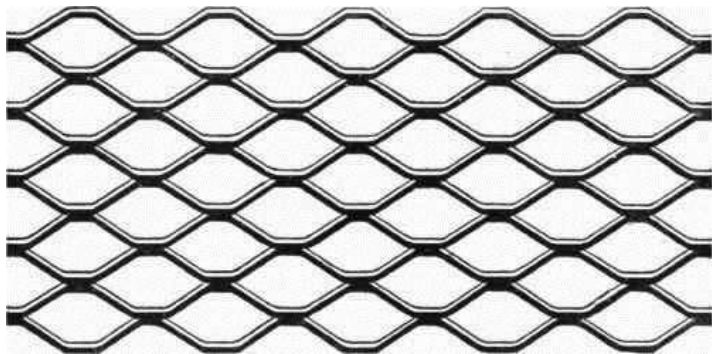
It is sold by the piece, running foot or pound.





## Diamond Plate

Sizes range from 1/8 to 1/4 inch thick, 4 to 5 feet in width and 8 to 12 feet in length.



## Expanded Metal

Come in gauge thickness and usually 4 to 5 foot width and 8 to 12 foot lengths.



Flat Bar

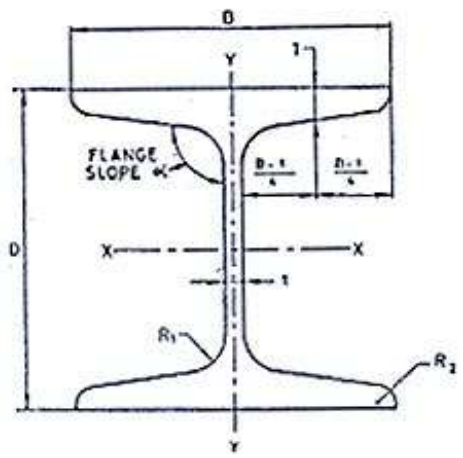
Size is  $\frac{3}{16}$  inch thick and greater and comes in a variety of widths.



## Galvanized Steel

The coating varies from 0.0002 inch for the lightest coating to 0.002 inch for water pipe.





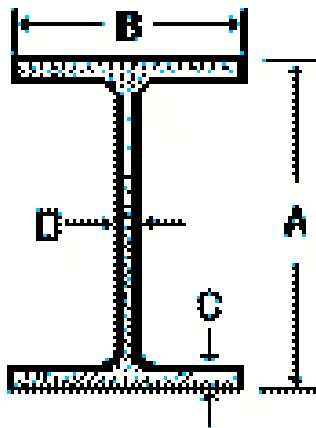
H Beam

A 4 inch H beam is 4 inches wide and 4 inches high.



## Hot Rolled Steel

Available in many shapes. Formed hot the finish is rough and dark.



## I Beam

Used to support structures (placed horizontally). Typical lengths 20-40 feet.



## Square Tubing

Wall thickness varies from very light ( ex. .080") to thick in larger sizes (ex. 1/2"). Heavier wall tubing is excellent for cultivator tool bars because of its smooth exterior finish and ability to with stand heavy loads.





Square Bar

Ranges in size from 1/8 inch and greater.



## Strip Iron

It is 1/8 inch or less in thickness and comes in various widths.



Tool Steel

It can be tempered to various degrees of hardness.



Cedar

Known for its resistance to decay. Used for fencing.





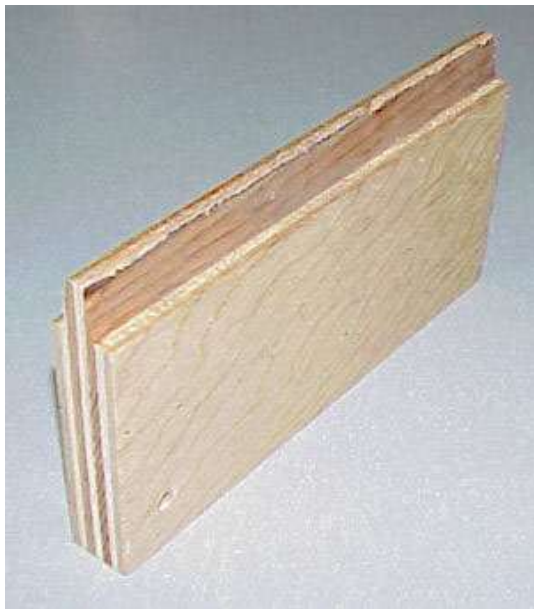
## Oriented Strand Board (OSB)

Primarily made from wood chips. Used for shear walls and roof sheathing



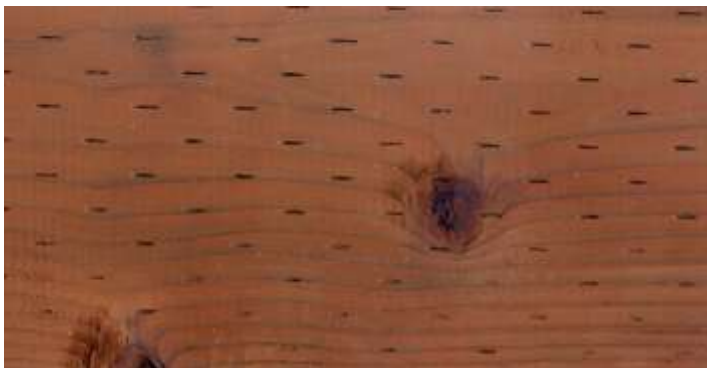
## Particle Board

Primarily made from sawdust. Used for subfloor where shear strength is not needed.



## Plywood

Composed of layers of wood sheets with the grain of each sheet glued at right angles. Very strong. Used for flooring, roof sheathing, and shear walls. Comes in various grades denoted by letters. A=best, D=worst. For example AC would be A on one side and C on the other. Plywood can be designated as interior or exterior depending on the type of glue used in its manufacture.



## Pressure Treated Lumber

Generally fir species that is treated to resist decay. Green in color.





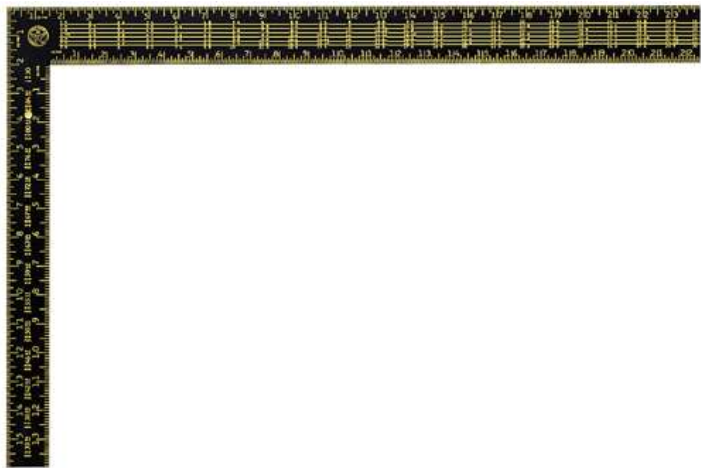
## Redwood

Known for its resistance to decay. Used for landscaping, decking, etc.



## Carpenter's Level

Used for marking level lines and for checking surfaces for level and plumb. Typical length 24-48 inches. Longer levels are often called masonry levels since they are commonly used to lay brick.



## Framing Square

Rafter framing squares are marked in 12ths of an inch on the back side. Also called a Carpenter's or steel square. Many of these squares are inscribed with rafter tables.



## Chalk Line

A special container contains the chalk powder and line which is on a winding spool.





## Combination Square

A level and a scribe are contained in the beam.



## Dividers

Used for marking out circles or parts of circles, for transferring or duplicating short measurements, and for dividing distances into a number of equal parts.



## Fiberglass Tape

Lengths of 50', 100', 200, and 300' common. Tape maybe graduated in feet and inches, feet and 1/100', or metric.



## Hand Level

The hand level is held in the hand thus providing little accuracy.





## Line Level

It consists of a bubble tube housed in a metal or plastic case which has hooks for attaching to the line.



## Marking Gauge

It is marked in 8ths and 16ths of an inch and is 8 inches long.



## Measuring Wheel

Used to measure long distances such as field boundaries or road length where high accuracy is not required.



## Plumb Bob

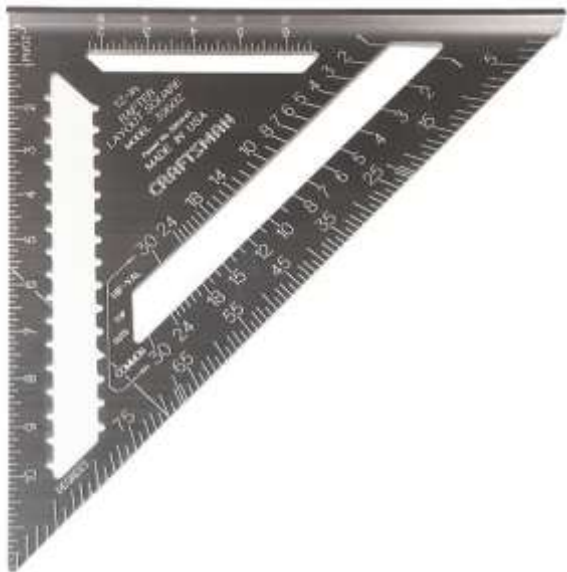
It can also be used to establish a plumb line in laying brick or concrete blocks. Also used to establish a survey instrument (like a transit) above a specific point.





Protractor

It is graduated from 0 to 180 degrees.



## Rafter Square

An aluminum square marked for cutting rafters and angles. Also can be used as a guide for cross cutting with a circular saw. Small size will fit in a nail pouch.



## Scratch Awl

Also used as a punch for making small holes in light gauge sheet metal for the insertion of sheet metal screws.



Scribe

The tip is brittle and will snap off if dropped on the point or used as center punch.





Sliding "T" Bevel

After it is set at the correct angle, it is much the same as a square.



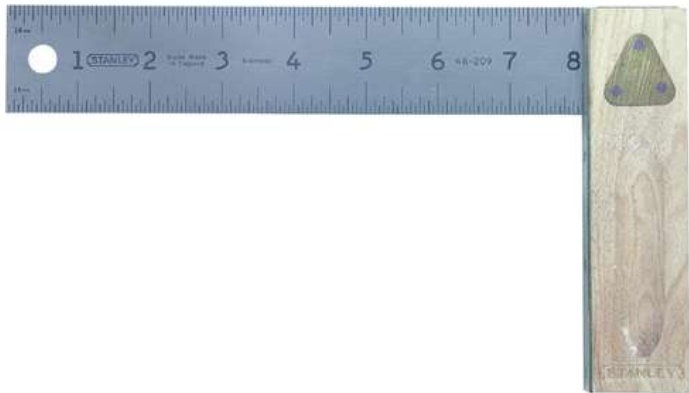
## Soapstone

Unlike chalk, it is hard enough not to mark hands or clothing and can be used in holders that resemble pencils.



Steel Tape

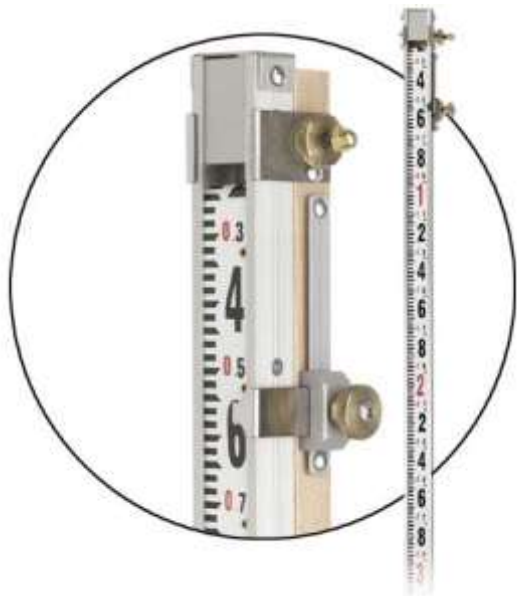
It should be cleaned after using and kept free from rust.



Try Square

It is marked in 8ths and 16ths of an inch.





## Direct Elevation Rod

Rod reads elevations directly (without subtraction from the HI) by used a sliding tape. Some rods have a cut/fill scale for use in grading.



## Builder's Level

A telescope instrument used to check level of forms or field grades. Builders' levels are designed to be used for short distances. Farm or dumpy levels are similar to builder's levels, but have more powerful telescopes. Farm levels are used for longer distances. Both instruments are leveled manually using adjusting screws. An "auto" level requires less manual leveling and has only three leveling screws.



## Global Position System Receiver

Commonly called GPS receivers, they used satellites to establish the user's position (e.g., latitude and longitude).

Recreational receivers have an accuracy of 13 m and survey grade receivers have an accuracy of 2 cm.

Differential GPS receivers (accuracy 2cm – 1 m) are commonly used in agriculture to map field boundaries, scout fields, and provide tractor guidance.



## Laser Level

A level that used a rotating laser beam to establish a level plane. Leveling can be done with a single person.





## Laser Level Receiver

The receiver that detects the laser beam of the laser level.  
Can be fitted to a Philadelphia or Direct Elevation rod.



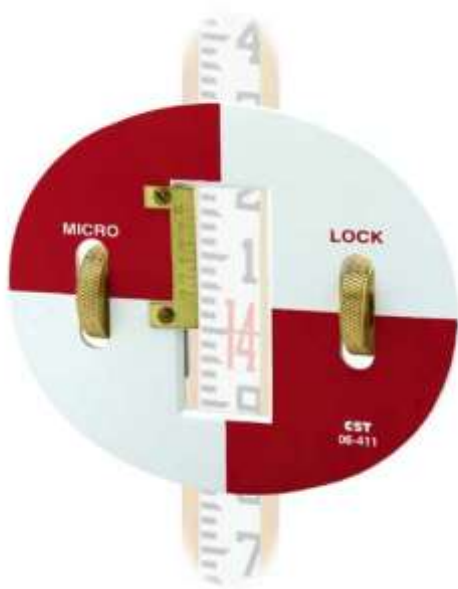
## Philadelphia Rod

Reads like a tape measure. An adjustable target is available to allow readings up to 700 feet in distance.



Range pole

A simple pole used in lieu of a rod where elevation measurement is not needed.



## Rod Target

Used with the surveyor's rod to allow readings at a greater distance.





## Surveying Tripod

Used to hold a level or other survey instrument. To protect threads, keep cap on when not in use.



Style C

Style S

Style T

## Surveyor's Steel Tape

Quite often called a "chain". These may be stored on a reel or coiled.



## Surveyor's Arrows

Sizes range from 10 to 14 inches in length. Used to mark distances when "chaining" or measuring distance.



## Transit

Similar to a level, but a transit telescope can be tilted vertically to measure vertical angles. Surveyor's have generally replaced these with "Total Stations", but transits are still used to measure vertical angles in construction.





## Airless Paint Sprayer

No thinning is required and very little over-spray is developed. Uses a positive displacement pump to pump the paint at high pressure.



## Caulking Gun

One to two pound cartridge refills are available in various colors.

The ACE logo consists of the letters 'ACE' in a bold, red, sans-serif font. The 'A' is slightly larger and more prominent than the 'C' and 'E'.

## Canvas Dropcloth

8 oz.

Heavy duty canvas for protecting furniture and floors and for trapping dust and debris

Washable/reusable

Very absorbent



## Protector de Lona

226 g

Lona resistente para proteger muebles, pisos y para atrapar polvo

Lavables y se puede reutilizar

Muy absorbente

9 ft. x 12 ft. cut size

9.5 ft. x 12.5 ft. finished size



PREMIUM

## Drop Cloth

Disposable cloths are made of paper or plastic and permanent cloths are made of canvas or soft cotton cloth.



Dust Mask

This mask is disposable and should not be reused.





## Filter

Used to filter foreign material from paints, particularly those used in paint guns.



## Glass Cutter

Pressure applied on the glass from beneath the scratch or tapping gently will cause it to break cleanly along the cutter line.



## Glazier Points

The glazier points, triangular pieces of zinc coated metal, are driven into the sash about 6 inches apart to hold the glass in place.



## High Volume Low Pressure Sprayer

Similar in design to an compressed air sprayer, but low pressure produces less fine spray, causes less drift, and air pollution.





## Masking Tape

It will adhere to paper, glass, walls and metal and is easily removed.



## Mixing Paddle

Used in an electric drill to stir paint and other liquids.



Paint Roller And Pan

Special rollers are available for painting corners and trim.



## Putty Knife

Sizes range from 1 inch to 12 inches. Used to apply putty to the window sash to seal the glass. A flexible bladed knife for applying putty and spackle. Stiffer knives can be used for scraping





Respirator

This filter system is far superior to the dust mask.

**3M**

LASTS UP TO  
**3X**  
LONGER\* vs.

FRACTION CONTROL BAGGING  
EXCEEDS CONVENTIONAL BAGGING



**100**  
MEDIUM  
MEDIANO

CONT. 5 SHEETS/BAGS  
8 1/2" X 11" BAGS  
(220 mm x 279 mm)

**5**  
Bags/10

Sandpaper

Comes in various grits from very fine to very coarse.



## Spray Gun

Should be used in a closed area with proper ventilation and good air filtration. Uses compressed air to spray the paint.



## Steel Wool

Comes in pads or rolls and size is designated by 4/0, 3/0, 2/0, 1/0, 0, 1, 2, 3, 4, with 4/0 being the finest and 4 being very coarse.





## Adaptor-Spigot X Female Pipe

Used to connect female ABS pipe fitting to male pipe thread. Often used for cleanouts.



## Double Wye Hub

Used for connecting two lines at a 45 degree angle to a straight ABS pipe.



Douglas Fir

Used primarily for structural framing. Very strong.



Female Adaptor-Hub X Female

Used to connect ABS pipe to threaded pipe.





ELECTRICAL  
1/2" x 1/2" x 1/2"  
MADE IN U.S.A.

## Long Sweep 1/4 Bend Hub

Used to connect ABS pipe at a 90 degree angle and allows for easy clean out when using a drain auger or plumbers snake to clean out lines.



**Male Adaptor-Hub X Male Pipe**

Used to connect ABS pipe to female pipe threads.



## P Trap Hub With Union

Liquid is held in the base of the P Trap to prevent the passage of air or gasses.



Wye Hub

Used for attaching a line at a 45 degree angle to a straight line.





C Cap

Used to stop the flow of liquid or gas in a copper pipe.



CxC Coupling

Used to connect two copper pipes together.



CxC Elbow

Comes in 45 and 90 degree angles.



CxC Reducing Coupling

Used to connect copper pipes of different diameters.





## CxC Union

Used to connect two copper pipes together when neither can be moved.



CxCxC Tee

Used to connect three pieces of copper pipe together.



CxCxT Tee

Used to connect two copper pipes to a threaded pipe.



CxT Adaptor or Male Adapter

Used to connect copper pipe to threaded pipe.





CxT Female Adapter

Used to adapt to female threads



## Drain Auger

By rotating the auger while feeding it into the line the auger bit tip cuts away the obstruction in the line.



## 45 Degree Elbow

A elbow that changes direction by 45 degrees. Both ends are female threads.



## 90 Degree Elbow

A elbow that changes direction by 90 degrees. Both ends are female threads.





## Black Pipe

Pipe lines may be constructed with threaded fittings or may be welded. Used for natural gas not water.



## Bushing

Used to reduce pipe size. One end is hex shaped to receive a wrench.



## Cap

Used to screw over the threaded end of a pipe to seal the opening.



Close Nipple

A nipple that is as short as possible (threads touch).





## Coupling

It is used to connect two pieces of pipe in a straight line.



## Cross

It is shaped like a cross and is threaded inside at the four ends.



## Floor Flange

It is a steel flange with female threads in the center and holes drilled on the edge of the flange for bolts or screws.



## Galvanized Pipe

Steel pipe with a galvanized coating to prevent corrosion.  
It Should Not Be Used In Hydraulic Systems.





## Union

A three piece fitting. The center piece is hex shaped to accommodate a wrench and tighten the two outer pieces. Used to join two pipes so they can be easily disconnected or join threaded pipe in the middle of a piping run.



## Hose Bib

It has standard pipe threads on one end and hose coupling threads on the other.



## Hose Clamp

Used with rubber hose and polyethylene pipe. It consists of a circular steel collar with a tightening screw to secure the hose in place on a barbed fitting.



## Nipple

Short pieces of threaded pipe, nipples are classified as close, short and medium, or are measured in inches of length.





## Pipe Clamp

For 1/2 to 2 inch pipe. Used for repairing small leaks in steel pipe.



Pipe Plug

The end is square to accommodate a wrench.



Bell Reducer

Similar to a coupling, but changes pipe sizes.



## Street Ell

An elbow with male thread on one end and female threads on the other. Available in 90 and 45 degree angles.





Tee

Used to connect lateral branches of a pipe.



## Acid Brush

Used for applying pipe joint compound on threaded pipe and thinner's fluid (acid) or flux on copper pipe for soldering. The handle is tubular sheet metal  $\frac{3}{8}$  inch in diameter and 6 inches long.



## Bottoming Tap

Widely used in machine operations to complete a thread in a bottom of a hole.



Flaring Tool

Used to make flared ends for soft tempered tubing.





## Pipe Cutter

Too much pressure on the handle may cause the cutting wheel to break.



Pipe Die

Pipe dies should not be used for bolt threading as they are tapered.



Pipe Die Stock

Operates as a ratchet in both directions. Hold the pipe die.



NSE



HERCULES®

PREPARED NON-SETTLING

pipe joint compound

NET: 16 FL. OZ. (1PT.) (473 mL)

STICKING  
STOP

## Pipe Joint Compound

Used to seal threaded fittings. May be formulated for use with plastic pipe or steel pipe only.





## Pipe or Burring Reamer

This type of reamer is made with bit brace shank, round shank, or "T" handle.



Pipe Tap

Used to cut internal threads in pipe fittings.



Pipe Vise

Used for holding pipe while cutting and threading.



## Pipe Wrench

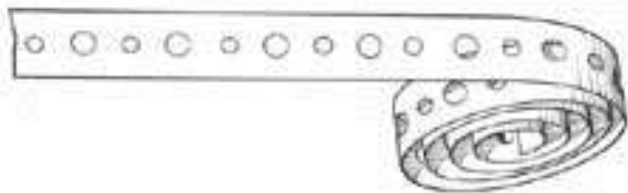
Adjustable and is used to turn pipe or conduit or round stock. Sizes 6" -18" in length are common, but can be much larger.





Plug Tap

Used to cut threads in machine operations.



## Plumbers Tape

A galvanized flexible steel tape with holes for screws or nails used to secure plumbing. It is cut to length on the job, wrapped around the pipe and secured with a nail or screw.



## Propane Torch

A propane/air torch that develops temperatures suitable for soldering.



## PVC Pipe Cutter

This cutter makes smooth clean cuts on small diameter PVC pipe. Also used with polyethylene (PEX) tubing.





## Solid Solder

It is available in 1 or 5 pound spools. Lead free solder is used for plumbing of domestic copper pipe.



Taper Tap

Also used to start threads in a blind hole.



Teflon Tape

Used for sealing threads on metal and PVC pipe and on valves.



Tubing Cutter

Used to cut copper and aluminum tubing.





## Copper Fitting Brush

Used to clean metal parts to be soldered or welded and for cleaning pipe threads.



## Compression Coupling

Can be used on steel or PVC pipe. Usually used for repair or temporary connections. Seals with a neoprene gasket.



## Female Adaptor

Used to connect PVC pipe to threaded pipe, has female ends.



Male Adaptor

The PVC slip end is female and the threaded end is male thread.



**WELD-ON**

IPS CORPORATION

**717™ PVC**

**CLEAR - TRANSPARENT**

**HEAVY BODIED • MEDIUM SETTING  
PVC PLASTIC PIPE CEMENT  
VISCOSIDAD GRUESA • SECADO MEDIANO  
PEGAMENTO PARA TUBOS DE PVC**

- Quality cement for plumbing, industrial pipe, irrigation and electrical conduit. For all PVC pipe including 80, 80 1/2 and 12" diameter interference fit.
- Pegamento de calidad para plomería, industria, tubería riego y conducto eléctrico. Para tubería de PVC incluyendo Gel 80 de referencia hasta 315 mm de diámetro.

**DANGER/PELIGRO: EXTREMELY FLAMMABLE. VAPOR HARMFUL. MAY BE HARMFUL IF SWALLOWED. MAY IRRITATE SKIN OR EYES. READ CAUTIONS CAREFULLY ON LEFT PANEL.**  
**EXTREMAMENTE INFLAMABLE. VAPOR PELIGROSO. PUEDE SER PELIGROSO SI SE INGIERE. PUEDE IRRITAR LA PIEL Y LOS OJOS. LEA LAS PRECAUCIONES A LA IZQUIERDA.**

**LOW VOC**

**IPS**  
CORPORATION

## PVC Glue

When gluing, apply glue to both the fitting and the pipe, slide the two pieces together and rotate 1/4 turn for good adhesion. Glue comes in a variety of thicknesses, set times, and colors.



## PVC Pipe

Used for cold water purposes, sizes range from 1/2 to 2 inch and it comes in 20 foot lengths.



## S Cap

Used to stop the flow on PVC pipe. Slip cap is shown, but can be threaded.



## SxS Coupling

Used to connect two pieces of pipe together in a straight line.





SxS Elbow

Comes in 45 and 90 degree angles.



SxS Reducer Bushing

Used to connect PVC pipes of different diameters.



SxS Street Ell

Used to connect two pieces of PVC pipe at an 90 degree angle. One end is male and other is female.



## SxSxS Tee

Used to connect three pieces of PVC pipe together. Outlet is commonly smaller than the ends. A typical designation is 1" x 1" x 1/2 SSS Tee. If the outlet is threaded then the designation would be SST.





## SxSxT Tee

Used to connect a straight length of PVC pipe to a threaded pipe at an intersection. Sizes are given as end, end, middle such as 3/4" x 3/4" x 1/2" SST.



## SxT Elbow

Used to connect PVC pipe to threaded pipe at a 45 or 90 degree angle. May change sizes. Such as 3/4" x 1/2" ST Elbow.



## SxT Reducer Bushing

Used to connect PVC pipe to a smaller diameter threaded pipe.



SxT Street Ell.

Used to connect PVC pipe to threaded pipe at an angle.  
May be threaded on both ends, slip on both ends, or slip-thread.





Threaded Cap

Used to stop the flow on threaded pipe.



## Ball Valve

By rotating the ball with the handle the valve closes or opens.



## Check Valve

Once liquid has passed through the valve it cannot flow back.



## Cock Valve

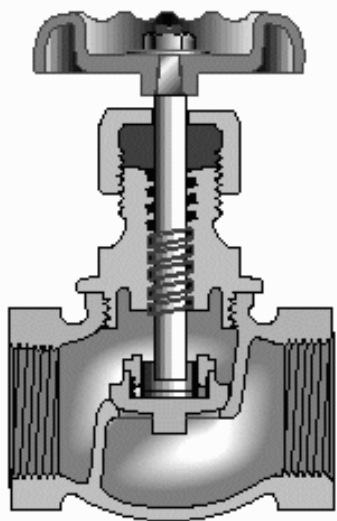
Used to stop the flow of liquid or gas through a pipe. Also called a Stop Cock





## Gate Valve

The flow is stopped when the wedge or gate is lowered into the seat.



## Globe Valve

The flow is stopped when the handle is screwed in, forcing the disk over the vent.



Air Pressure Type Grease Gun

It is portable but must be attached to an air line.



Lever Type Grease Gun

It is filled by hand, cartridge, or from an air pressure gun.





## Zerk Grease Fitting

This fitting will withstand high pressure. The grease gun "snaps on" to the fitting.



Compression Gauge

Ranges from 0 to 300 pounds.



Depth Gauge

Usually graduated in 32nds and 64ths.



Dial Caliper

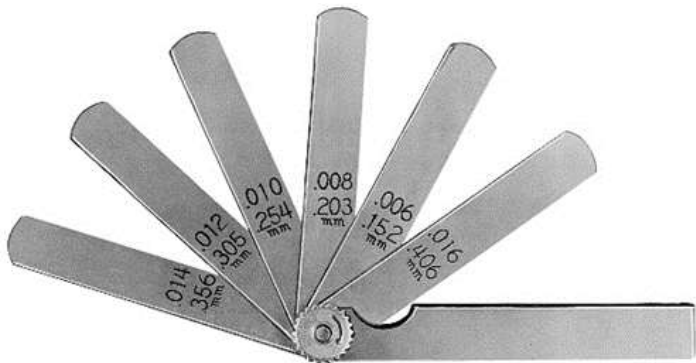
Capacity is from 0 to 6 inches.





## Expansion or Adjustable Reamer

Used for reaming piston pin holes, king pin holes, holes for water pump bushings, valve stem guides and other precision reaming jobs.



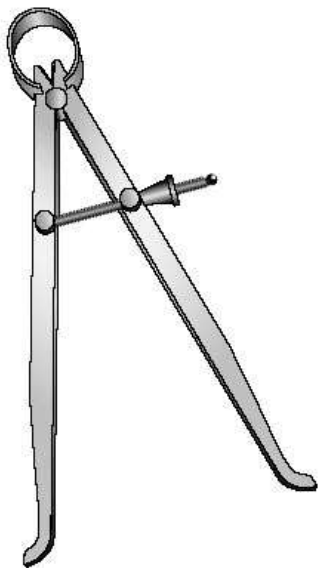
## Feeler Gauge

Used for gauging the clearance or spacing of valve tappets and other jobs where accurate measurements of .001 to .032 may be desired.



## Fractional Vernier Caliper

Direct reading of 16ths and 32nds of an inch on the handle, and vernier readings of  $1/128$  inch.



## Inside Calipers

The calipers are adjusted to the diameter of the object and then laid on a rule where the reading is taken.





Micrometer

Sizes range from 0 to 1 inch up to 12 inches.



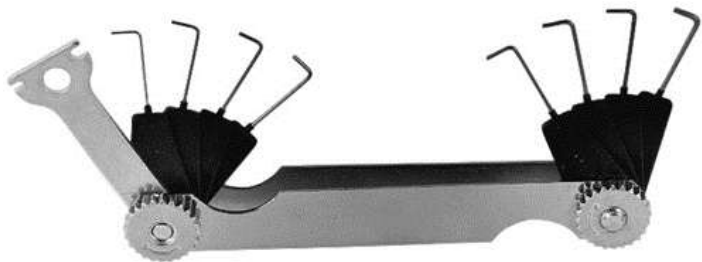
## Outside Calipers

The calipers are adjusted to the outside diameter of the object and then laid on a rule where the reading is taken.



## Power Timing Light

Operates on 6 or 12 volt DC producing a blue-white flash for reading of timing mark.



Spark Plug Gauge Set

Usually ranges from .020 to .040 thick wire sizes.





Tachometer

Useful for checking speed on tools, machines, and engines.



## Taper Reamer

Used to ream holes for tapered pins used on farm machinery and equipment.



Torque Wrench

Comes in 1/4, 3/8, 1/2, and 3/4 inch drives.



## Belt Sander

Sands or cuts using a sanding belt. Used for course sanding of large surfaces.





## Chain Saw

Most chain saws are gasoline powered, but smaller pruning saws can be electric or hydraulically powered.



## Circular Saw

Primarily used for cutting wood, however many blades types are available for cutting sheet metal, metal, stone, and various other products. Available as a direct drive or worm drive.

**DEWALT**

SERIES 30™

**FINISHING  
BLADE**

7 1/8" (184mm)

Academy  
Fluxion



**36** CARBIDE  
TEETH

1/2" (12.7mm) arbor hole  
with

DW3175  
DW3278 (bore)



**WARNING** ALWAYS USE EYE  
PROTECTION. Not for use in masonry,  
concrete, or metal. Max RPM 7000

The yellow die is a trademark of the  
DeWalt Industrial Tool Company

Circular Saw Blade

The size is determined by the diameter of the blade.



## Air Compressor

Used for supplying compressed air for spray painting and for operating air tools at low pressures (less than 100 psi).





## Cut Off Saw

Cutting wheels may be disposable or with teeth. Used for cutting steel bar and pipe.



## Angle Grinder

Available in sizes from 2 to 9 inch. May be used with a grinding, sanding, or wire brush wheel.



Electric Drill

Many models are variable speed.



Finishing Sander

Sands by a vibrating action.





## Impact Wrenches

Available in 3/8, 1/2 and 3/4 inch drive.



## Jig Saw

Many variations of blades are available for cutting wood, plastics, and other soft materials. Also called a Saber Saw



## Power Miter Saw

The saw pivots on the miter box for various angles.



## Nail Gun

Nails are fed automatically from a loading chamber and are dispensed by pulling the trigger.





## Planer

Used for planing wood surfaces. A portable power version of a hand plane.



## Reciprocating Saw

Similar to the jig saw but much larger and used for heavy duty work.



## Rotary Hammer

Used for drilling holes in concrete and with chisel attachments. Special carbide tipped bits must be used with this unit.



## Router

Depth of cut is adjustable. Used to shape wood (ex. round the edge of a board).





## Power Screwdriver

Comes in many shapes and sizes. These power tools are battery or AC powered, reversible, and variable speed. They are commonly used for dry wall or decking installation. Many models also have a high speed range for drilling.



Shear

A powered hand tool used for cutting sheet metal up to 12 gauge.



## Adjustable Trammel Points

The trammel points can be adjusted to any point on the bar.



## Aviation Snips

Available in straight, left, or right. Compound action makes cutting easier and the jaws are usually serrated. Also called Compound snips.





Flat Leg Pattern Dividers

Used For Precision Transferring Of Segments From  
Pattern To Pattern.



Sheet Metal Layout Rule

It also has circumference measurements on the back side.



## Tin Snip

There are four types available; regular straight snip, curved (left and right) snip, and duckbill snip.



## Wing Dividers

Divider Tips Are Adjustable By Loosening A Set Screw And Spreading The Tips Apart.





Band Saw

Used for making curved cuts in wood or metal.



Brake

Used for bending sheet metal.



Drill Press

A stationary drill.



## Hydraulic Shear

Powered by a hydraulic pump and cylinder these shears commonly can cut flat stock, angle iron, and punch holes.





## Radial Arm Saw

A saw designed to cross cut and rip with the ability to cut compound angles.



## Bench Grinder

Used for sharpening and removing material. Stones are classified by diameter, width, and coarseness (i.e. 1" x 6" 80 grit).



Sheet Metal Shear  
Foot operated shear



## Table Saw

A stationary saw used primarily for ripping lumber and sheet materials.





## Arc Welder Power Supply

Converts AC power to welding current. SMAW and GTAW processes use constant current power supplies and GMAW processes use constant voltage power supplies.



## SMAW Electrode

Electrode used in the SMAW process for example E-6010.  
E meaning it is an electrode, 60 means it has a tensile strength of 60,000 PSI, 1 indicates welding in all positions, 0 indicates the coating to be cellulose sodium and the welding current is DCEP or direct current electrode positive



## Electrode Holder

Connected to the welding cable and holds the electrode for SMAW process welding.



## Gas Flow Regulator

Used with GMAW and GTAW to control the flow of shielding gas.





## MIG Gun

Used with a constant voltage power supply and a gas source (e.g. carbon dioxide, argon) for GMAW process.



## Ground Clamp

Used to connect one of the cable leads from the welding machine to the welding table or the material being welded so as to make a complete circuit.



## GTAW Torch

Holds a non-consumable electrode and directs shielding gas to the weld.



## Hard Facing Electrode

Hard facing rod is not classified by a numbering system. Each manufacturer has their own nomenclature for their particular rod.





## Leather Gloves

Gauntlet style gloves are recommended.



## Plasma Cutter

Uses an arc and compressed gas to create a plasma stream for cutting and gouging of ferrous and non-ferrous metals.



## Chipping Hammer

One end of the head is shaped with a blunt point, and the other end is shaped like a cold chisel. Also called Slag hammer,



## Solid Welding Wire Electrode

Identified in a similar manner as SMAW rod . For example ER-70S-4. Solid wire is classified in a ER means it is an electrode, 70 is tensile strength, S means it is solid wire, 4 is type of shielding gas. Shield Gases: 2. C02A-O,A-C02, 3. C02A-O,A-C02, 4. CO2, 5. CO2, 6. C02A-O, 7. C02A-O,A-C02 and C02=Carbon Dioxide, C02A-O=Carbon Dioxide, Argon and Oxygen, A-CO2 = Argon and CO2





## Tubular Wire Electrode

Tubular electrode (e.g. E-70T-L) is flux cored., and the last number is position and usability capabilities, as no gas is required for tubular flux cored rod. See Solid Welding Wire Electrode. Also called innershield wire since the shielding flux is "inside".



Tungsten Electrode

Non-consumable electrode used for GTAW process welding.



## Welding Helmet

A colored lens filters out harmful light rays. Lens shades typically 10-12



Spot Welder

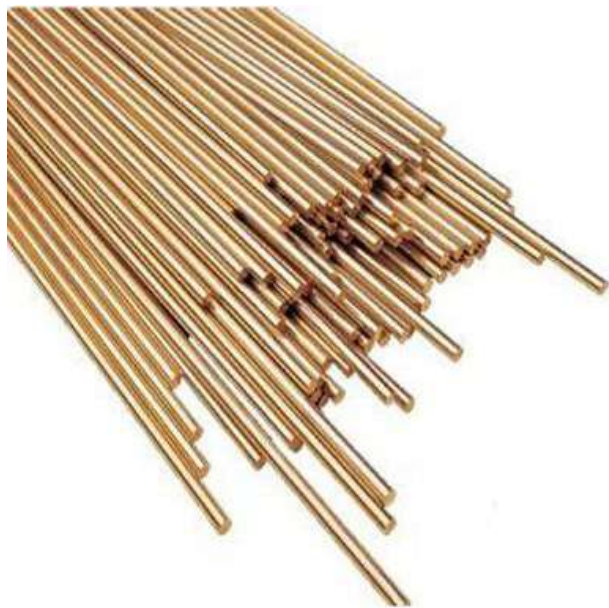
Used for welding sheet metal.





Acetylene Regulator

The threads on the hose connector are left hand.



## Brazing Rod

Available in 1/16 to 3/16 inch diameter and 36 inches long.



Copper Coated Mild Steel

Available in 1/16 to 3/16 inch diameter and 36 inches long.



## Cutting Tip

The larger center hole is for pure oxygen to oxidize or cut the metal.





## Cutting Torch

It consists of valves for mixing oxygen and acetylene, and a valve lever attached to the torch handle to release oxygen which does the cutting.



Flux Coated Brazing Rod

Generally available in 1/8 inch diameter rod.



## Oxygen Regulator

The threads on the hose connector are right hand.  
Commonly a two stage regulator.



WYPO Tip Cleaners

ALAN T. LYNN, INC.  
LOUISIANA, MO. 573.324.3363

## Tip Cleaner

It consists of several needle-like round files of different sizes.





Torch Handle

Quite often called a torch butt.



## Welding Goggles

Used to protect the eyes from harmful rays and from spatter when using the welding torch.



Welding Tip

The tips come in various sizes.



## Bull Float

A large float with a long detachable handle. Made from wood or magnesium. Common sizes are 8 inches wide by 36 or 48 inches long.





Cat's Paw

A tool used to pull nails



## Diamond Chisel

Use for cutting keyways and grooves. Useful for tight places where a cold chisel is too large. Sized by the width of the cutting edge.



## Cape Chisel

Use for cutting keyways and grooves. Useful for tight places where a cold chisel is too large. Sized by the width of the cutting edge.



## Face Shield

Eye protection that covers the entire face. Often used with safety glasses when full protection of the face is required.





## Safety Glasses

Eye protection that covers eyes only. Safety glasses have side shields. The California State Educational Code states that all students, teachers, and visitors in a school shop must wear eye protection.



## Hole Punch

These punches are used to make holes in gaskets and other materials. Also called a belt punch.



## Strap Wrench

The adjustable strap is useful in rotating large diameter objects like filters.



## Retaining Ring Pliers

User for remove and install internal and external retaining (snap) rings.





## Non-metallic Cable Staples

Staples used to secure type NM cable to wood.



## Service Entrance Panel (SEP)

Used to distribute power in a building. Contains a main disconnect and circuit breakers.



## Deck Screws

A straight shank wood screw with a bugle head. Commonly made with a Phillips or square drive 2 1/2" or longer. Coated to prevent rusting.



## T Post

A steel post with an attached plate to help anchor the post. Commonly 5'-8' long.





## Rectangular Tubing

Unequal dimensions (ex. 2"x4") steel tubing. Wall thickness varies from very light ( ex. .080") to thick in larger sizes (ex. 1/2"). Also see square tubing.



## Stainless Steel

An alloy steel that resists oxidation. Commonly a chrome or nickel alloy of iron.



## Non-woven Abrasive Pads

A plastic abrasive pad. Non-rusting and washable.  
Commonly called Scotch-Brite pads (3M brand name).



## Copper Pipe

Rigid pipe used for water supply plumbing. Sizes commonly 1/2" - 2". Connections are soldered. Copper pipe is available in three basic types: Type M is thin-walled, Type L is medium-walled and Type K is thick-walled.





## Copper Tubing

Flexible tubing used for water applications. Sizes commonly 1/4"-2" O.D. Connections are soldered, flared, or compression type.

Genova Professional

**PURPLE PRIMER**

FOR PRIMING PVC PIPE AND FITTINGS  
WHEN REQUIRED BY CODE.

**DANGER**

HAZARDOUS SUBSTANCE • EXTREMELY  
FLAMMABLE • VAPOR HARMFUL • ABSORBED  
THROUGH SKIN • HARMFUL IF SWALLOWED •

KEEP OUT OF REACH OF CHILDREN •  
PRIMARY IRRITANT TO EYES • TOXIC • PLEASE  
REFER TO BACK OF CAN

NET 4 FL. OZS / 118 ml

ASTM  
F 656

PART NO. 1171

## PVC Primer

User to clean and soften PVC pipe before applying cement. Generally recommended for pipe 1" and larger.



## Heating Tip

A tip with multiple orifices used to for heating metal usually for bending. Also called a rosebud.



## Surform Tool

A tool like a wood rasp with a replaceable cutter. Available in flat, round, and half round shapes.





Pipe Clamp

A clamp made with a steel pipe.



NM Cable Cutter

A cutter for cutting Type NM cable.



## Drywall Saw

A tapered hand saw for cutting drywall.



GOLDBLATT  
MADE IN GERMANY

GOLDBLATT

05252

## Drywall Trowel

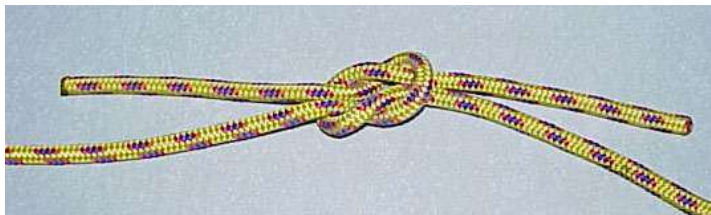
A flexible trowel for applying drywall compound and tapping.





## Utility Knife

A sharp knife for cutting drywall, roofing felt, etc.



Square Knot

A common knot for joining two ropes



Sheet Bend

A knot for joining ropes of different diameters



Bowline

A knot for making a loop





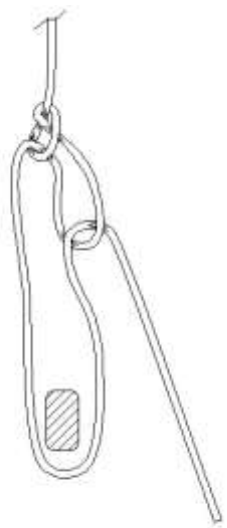
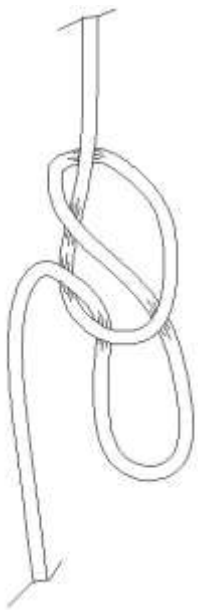
Eye Splice

Used to make a permanent loop in a laid (twisted) rope.



Clove Hitch

A hitch used to secure a rope to a hook.



Trucker's Hitch

A hitch used for securing a load



Winch

A ratcheting device used to tighten a rope or lashing strap.





## Cap Nut

A nut closed on one side to cover an exposed bolt.



## Continuity Tester

A device used to the continuity of a circuit.



## Oak

A hardwood used for cabinets and similar applications.

The grain is very distinctive. May be used as a solid wood or as a veneer on plywood or particle board.



## Birch

A hardwood used for cabinets, door veneer, and similar applications. May be used as a solid wood or as a veneer on plywood or particle board.





Disc Sander

A stationary power tool with a 6-12 inch sanding disc.



## Forstner Bit

A power bit for drilling flat bottomed holes in wood.  
Commonly found in sizes 3/8-2 inch.



## CxC Street Ell

A street elbow for use the copper fittings. Often used with a C x C Ell to make a odd angle.



620 950000 100 MILLI BAR COAG 0WV SCH 40 S.S.L. 1B 12 04 92

ONE

## ABS Pipe

Acrylonitrile-Butadiene-Styrene (ABS) pipe used for sewer applications. Pipe is black plastic. ABS fittings are glued like other plastic pipe systems. Male and female ends are designated as "spigot" and "hub" respectively. Elbows are not designated by degrees, but rather by the part of the circle (ex. 1/4 bend = 90 degrees). Pipe commonly is found in sizes from 1 1/4" to 6" and 20 foot lengths.





## PEX Cinch Tool

Use to close the cinch fasteners that hold PEX pipe to fittings. There are a number of other systems in use.



PEX Coupling

Couples PEX pipe.



## PEX Crimp Ring

Used to hold the PEX pipe on the barbed fitting. Used with a crimp tool. Commonly made of copper.



## PEX Crimp Tool

Use to close the crimp fasteners that hold PEX pipe to fittings. There are a number of other systems in use.





PEX Elbow

A 90 degree barbed elbow used with PEX systems



## PEX Female Adapter

An adapter from the PEX barbed system to female iron pipe threads.



## PEX Male Adapter

An adapter from the PEX barbed system to male iron pipe threads.



## PEX Pinch Clamp

Use to fasten PEX pipe to barbed fittings. Used with a cinch tool. Made of stainless steel.





## PEX Pipe

Cross-linked polyethylene plastic pipe (tubing) is used for hot and cold water. It is easily worked and used with barbed fittings.



## PEX Stubout

An adapter to copper pipe. Commonly used to with shutoff valves with compression fittings for water supply lines.



## PEX Tee

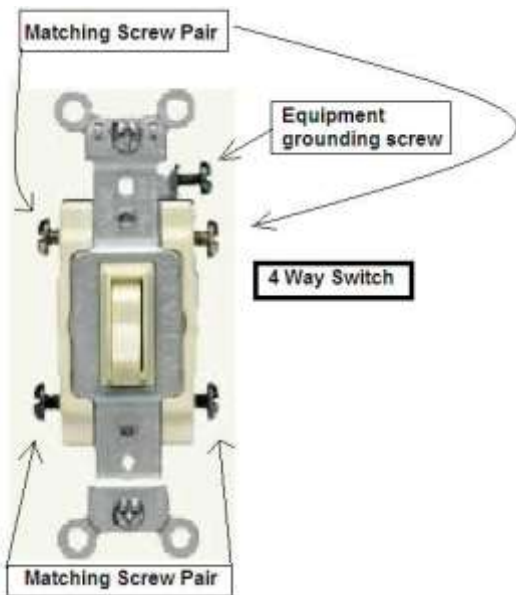
A barbed tee fitting used with PEX pipe systems. Commonly described by the size of each opening such as 1/2" x 1/2" x 3/4" (end, end, middle).



## Hammer Drill

A power drill (corded or cordless) that creates a hammering action on the drill bit. Commonly used for concrete drilling with masonry bits.





## 4 way switch

A toggle switch that is used between three way switches. More than one 4 way switch may be used between 3 way switches to control a load (lights) at multiple locations.



## Plastic Box

Commonly constructed of PVC plastic and used with NM cable. May be attached with nails (shown) or screws. Comes in 1 -4 gang sizes and varying depths.



LJ  
GUN

BACO

## Plaster Ring

Used with 4" junction boxes to adapt the box to a specific device where the box will be behind drywall or stucco. In this used for a switch or DR, but they come in many configurations and in different depths. Also called a mud ring



## Surface Cover

Used with 4" junction boxes to adapt the box to a specific device when the box is mounted on the surface of a wall. In this case a switch and DR, but they come in many configurations. Blank (flat) covers are also used when no device is mounted in the box.





## Box Cover

Used to cover a device such as a switch or DR. May configurations are available.



## Plate

Sizes thicker than 1/8". Commonly hot rolled in 4'x8' sheets.



## Sheet Metal

Sizes thinner than 1/8". Commonly hot rolled steel in 2', 3', and 4' widths and 8', 10', and 12' lengths. Steel may be plain or galvanized. Thickness in wire gauge sizes.



## Bronze

An alloy of copper and tin. It is less malleable than brass. It is sold by the piece or by the pound.



World Class Performance  
Worldwide Service

**Q**  
**SET**

Formulated  
for Performance  
and Value

# PORTLAND CEMENT

## Type 1

**For Setting Concrete, Masonry,  
Cursors and Quarry Tiles**

- For Versatility Use
- Mix with Water or Admixture
- Easy Clean Up with Water
- Available in White or Gray

**Para la Colocación de Concreto,  
Mamparas, Acabados y Losetas de  
Carrizosa**

- Para Uso de Versátiles Extensos
- Mezcla con Agua y Aditivo
- Fácil Limpieza con Agua
- Disponible en Blanco o Gris



## Portland Cement

Fine powder made from limestone. Used to make concrete and mortar. Commonly sold in 94 lb. bags (1 cubic foot).

**MORTAR MIX**  
Mezcla de Mortero

**QUIKRETE**

**Just Add Water!**

- Use for construction and repair of brick, block and stone.
- Barbecues • Walls
  - Planters • Pillars
  - Tuck Pointing Mortar Joints



**WARNING: THIS MIXTURE IS EXTREMELY HARMFUL TO SKIN AND EYES. In addition, it is highly caustic to the skin and eyes.**

**ADVERTENCIA: PUEDE CAUSAR LESIONES GRAVES A LA PIEL Y A LOS OJOS. Además, es altamente cáustico para la piel y los ojos.**

**NET WT. 60 LB (27.2kg)**

QUIKRETE  
MORTAR MIX  
Mezcla de Mortero

## Mortar

A mix of cement, lime, and sand used to lay bricks or concrete blocks.



Sand

Fine aggregate less than 1/4" in size.



Gravel

Course Aggregate greater than 1/4" and commonly less than 1 1/2" in size.



Rev. 1/07

**Ready-To-Use**  
**CONCRETE MIX**  
*Mezcla de Concreto Lista Para Su Uso*

# QUIKRETE

**Just Add Water!**

- QUICKRETE is a ready-to-use, premixed concrete mix for use in a wide variety of applications.
- Siding • Posts • Steps • Patios
  - Sidewalks • Floors • Perimeter
- For more information, visit us online at [quikrete.com](http://quikrete.com)



WARNING: CAN CAUSE SERIOUS ALLERGY TO SKIN AND EYES. See [quikrete.com](http://quikrete.com) for more information.

MANUFACTURED BY QUIKRETE CONCRETE PRODUCTS COMPANY, A LA BREA COMPANY  
MADE IN CANADA (MIXTURE COMPOSITIONS VARY BY REGION)

**NET WT. 80 LB (36.3kg)**

QUIKRETE

## Concrete

A mix of cement, sand, and gravel. Typically in a ratio of 1:2:3 or 1:2:4. Used for building pads, sidewalks, and equipment pads.



Pine

A softwood used for small projects and mouldings.



**Rotey**<sup>®</sup>

**NO. 5 LEAD FREE  
SOLDER PASTE**  
CLEANS & FLUXES

**WARNING:** Harmful if swallowed. Vapor May be  
Harmful. May Cause Irritation to Eyes or Skin On  
Contact. Read Cautionary Statement on Back.

## Paste Flux

Flux is used in soldering to clean pipe allowing solder to flow easily.



Tap Wrench

Used to hold the tap when threading.





## GMAW Welder

A constant voltage power supply with a wire electrode feed. May be used with solid or flux core wire.

Commonly used with a shielding gas (required for solid wire electrode). Common shielding gasses are carbon dioxide and argon.



## ABS Cement

Used to connect ABS Plastic pipe and fitting. Black in color. Not compatible with PVC Pipe.



## Copper Tube Cleaning Brush

A wire brush used to clean copper pipe or tubing for soldering. Comes in sizes 1/2" to 1".