



Pull-X Machines, Inc.

782 Church Rd Elgin, IL 60123 1(800)255-0502

Pull-X Universal Machines Models: P1, P2, P3, P5, P6, P7, P8, P9, P13, P21, P200-P204

A Complete Plate Shop in a Single Machine

• If you need plate-working machines for several different types of cutting and forming, but not on a scale that would make it profitable to use several special machines, then a Pull-X Universal Machine is what you need.

• If you manufacture small series, have varying production or carry out repair work in plate, then you can save both time and money by using one machine capable of performing many different operations. The Universal Machine enables the small workshop owner to offer a wider range of services and to take on more subcontracting work.

•Big industry can use it for a wide range of small jobs instead of investing in several special machines.

•Many trade schools use it in order to be able to provide comprehensive training at a moderate cost.

Durable

• The Pull-X Universal Machine is extremely durable. There are many machines that have been used every day for more than sixty-five years and are still functioning perfectly. A characteristic of all our products is their high quality.

Easy to Use and Accurate

• Changing tools is a simple matter and their adjustment can be carried out quickly and very accurately. A high degree of precision is achieved in both cutting and forming operations.

Solid Construction

• The Pull-X Universal Machine has an all welded steel plate frame that makes it extremely stable. The deep frame throat means that there is plenty of working space.

• It is a short stroke machine where both the frequency and stroke length are adjustable. The unique knee joint mechanism is totally enclosed and works in oil. The lower tool attachment is the block type and permits quick tool change.

Model P201



Pull-X Machines, Inc. USA

Cutting



You can cut almost any type of material: sheet iron, stainless steel, aluminum, copper, plastic, cardboard, synthetic materials ... The short-stroke technique enables you to make straight and curved cuts, trim edges and cut inside the sheet metal. This technique produces a burr-free cut and a minimum of scrap. The versatility of the machine means that you do not need any special tools.





You can cut both open and closed slots. This method leaves the workpiece completely flat at all times. Consequently, it is used to cut thin strips and cut-outs, etc.

Slot Cutting



Punching





Punching is especially suitable for making round or square recesses of smaller sizes, particularly in thin plate. i.e. holes in chassis plate for electronic equipment.

This method is also suitable for the notching of corners before flanging box blanks.

Nibbling





Nibbling is a form of punching that can be utilized for extremely complicated patterns and large cut-outs. This method is economical for small and medium sized series since you do not need any expensive special punches. The workpiece remains completely flat. This is important when you manufacture instrument panels, apparatus cases, etc. Both square and round punch versions are available.





The beading method is mainly used for stiffening flat plate surfaces but can also be used to produce a decorative effect.

The lower tool can be fitted with a stop dog for guiding workpieces with irregular edges. A straight guiding and a circular guiding device are also available.



Joggling produces a "step" in the plate. It is a method commonly used when over lapping two plates so that their plate surface lies in the same plane.

Joggling can also be used to stiffen edges or to obtain a stopping surface. Joggling can be done on straight, circular and curved edges. i.e. lids or window openings that are to be fitted with rubber moldings.



Doming is a method for achieving domed plate surfaces. It is a combination of bending and stretching and is far more efficient than hammering against a flat anvil.

You can either "dish" a whole plate or make a local dome-shape on an otherwise flat plate.

The ring shaped die used means that the doming depth can be varied considerably.

Doming can be used for manufacturing machine casings, ends for tanks, transmission cases, etc.



These are used as ventilation openings in cases, protective covers, doors, etc.

With the Pull-X Universal Machine, you can manufacture as many louvers as you want and of whatever length you choose. This means that you do not need any expensive special punches.





Flanging



You can flange both straight and curved edges. To facilitate the flanging of small circles, the lower part of the tool can be fitted with a special centering device. In this case, the circular plate is furnished with a center hole.

The standard tool gives different edge heights in different machines, see table. Flanging is used when manufacturing hooks for ventilation ducts, casings, fan housings, vessels, etc.



Edge Bending



Edge bending can be used for either 45° or 90° edges. If you round two edges to an angle of 45° , you can then weld them together to form a rounded corner of, for example, a timing gear casing. The 90° edge bending tool is utilized, for example, when rounding edges on circular blanks.

Special Accessories



Outer Center Attachment - Swivelling

A swivelling center attachment with a quick-locking block and center pin for plate with a center hole. This option can be used on plate up to 3 meters (10 ft) with a max thickness of 5 mm ($3/16^{\circ}$). The attachment can be swivelled 90° and then serves as a support when working with plate of larger dimensions. Can be used with machines P5, P6, P9SL, P21S and P200-204.



Straight Cutting

For guiding the workpiece in a straight line, an accessory is available which is mounted in the support throat. It is vertically adjustable and is provided with a lever which, with a single handgrip movement, locks the rule by the machine guide rail in the desired position.



Circle Cutting

The center attachment consists of an upper and a lower block which run on guide rails. These blocks can be locked in the desired position. The plate is securely clamped in its center point between the center piece and die of the center attachment which are vertically adjustable. When cutting small circles, the standard center piece and die are replaced by extension arms. Special cutting tools are utilized for small circles. Center marking can be avoided by using a rubber lined center holder.