

Pierce-All Perf-O-Mator hole punching machines



The Perf-O-Mator hydraulic system: Proven to be better.

You've probably heard plenty about our Pierce-All Perf-O-Mator machines. Their performance has been production-proved on thousands of jobs.

Perf-O-Mator machines are the fastest, most versatile hole-punching and notching machines available. But their capabilities don't begin and end with punching and notching. They can produce round holes, square holes and clusters of holes. They can produce holes with special configurations. They can pierce and extrude. They can emboss. They can form single and double knockouts. Or spot-welding contacts. They can even cut and form louvers.

And Perf-O-Mators are more than just machines. They're complete hole punching systems, available with cost-cutting Perf-O-Mate tooling, direct duplicator dialing and time-saving gaging. There's a big line of accessories, too.

There are four standard 30-ton manual Perf-O-Mator models and a newly added Digital Readout model. And, for the big jobs, the standard 50-ton manual model.

With this many models, you don't have to pay for more machine than you need. Chances are, one of the standard Perf-O-Mator models is just right for you. If not, our modular design concept makes it possible for us to tailor a Perf-O-Mator to your specific requirements without added costs for special designs.

We'll illustrate many of the outstanding features of Perf-O-Mator hydraulic machines in the following pages. They're the most versatile, most efficient hole-punching and notching machines on the market.

But don't just take our word for it. Make us prove it. Invite one of our Perf-O-Mator application engineers to visit your plant. He'll survey your short-run and medium-

run sheet metal hole-punching operations. He'll quickly prepare a proposal on a Perf-O-Mator system that fits your production requirements perfectly. And he'll prove to you that Perf-O-Mator is your best buy.

To set things up, call your nearest Pierce-All Division sales office. They're listed on the back cover of this brochure.

The Perf-O-Mator system is complete. Low cost Perf-O-Mate tooling provides punches and dies for all your requirements and specials are quickly available.

A line of accessories, matched to the Perf-O-Mator machines, extends the capability of the most versatile hole-punching system on the market. Included are Perf-O-Safe guards, for maximum safety, and the low cost Notch-O-Mator for corner, V-notching and progressive edge notching.

The Perf-O-Mator system: Design with a difference.

Perf-O-Mator machines are different from conventional piercing and notching machines. They have unique features that make them faster, more reliable, more profitable to operate. For example:

Hydraulic Operation.

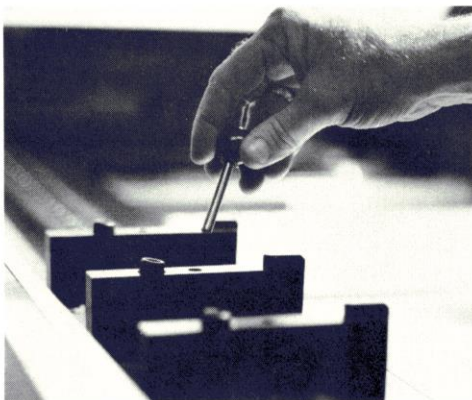
Perf-O-Mator's compact hydraulic power pack, equipped with a flywheel, gives you smooth operation with less power consumption, and a constant stroking rate at maximum capacity.

Constant Tonnage.

Because of Perf-O-Mators hydraulic operation, tonnage is constant, even at full 30-ton capacity. (On mechanical presses, tonnage is reduced by one-third on thick material.) The entire stroke— $\frac{5}{8}$ inch in 30-ton models—is a power stroke.

Constant Speed.

Thanks to constant tonnage, Perf-O-Mator cycles just as fast under full load as it does under no-load conditions. Stroke length is constant. So thick stock can be punched just as fast as thin stock. (This is not true of mechanical machines.)



FASTER SETUP is possible on Perf-O-Mator machines because precision back-gage and side-stop assemblies can be repositioned and locked in a few minutes.

Adjustable Shut Height Control.

Simple fingertip dialing control permits exact control over the penetration of the punch into the die. This compensates for punch sharpening (which shortens punches), and allows embossing and similar operations. Shimming of punches or die buttons is unnecessary, so valuable production time is gained.

Jamproof Operation.

The Perf-O-Mator cannot jam. A pressure limit switch insures that the ram returns to the up position in the event of overload. Even in the case of extreme overloads that break a punch, there's no possibility of damage to the machine.

Safety.

All Perf-O-Mator machines meet applicable OSHA safety requirements.

Quiet Machine.

The Perf-O-Mator is designed for quiet operation. For example, normal noise levels do not exceed 80.3 decibels—well below OSHA noise-limit standards. There are no hearing-loss hazards. (Source: report by CNA/insurance dated February 10, 1972. A copy of this report is available on request.)

Swing-in, Swing-out Toolholders.

Toolholders on the Perf-O-Mator machine swing out for tool changes, then swing back into position for machine operation. When the toolholder is swung out, the machine cannot operate—a safety feature. Two toolholders accommodate tooling for rounds and shapes in three ranges—0 to 1 inch, 1 to 2 inches and 2 to $3\frac{1}{2}$ inches. Tool changes take as little as 5 seconds.

Gaging System Cuts Downtime.

On Perf-O-Mator machines, precision-built back-gage and work-stop assemblies save minutes in each setup. Each stop securely locks with a single locking action. This locking action is independent of the locator bar, which is free to locate other work stops when the location pin is removed, stop errors occur, or changes are necessary. Each work stop is located independently of other stops. The back gage travels on rigid precision rollers on hardened ways for perfect alignment. Micrometer dials allow fine settings in 0.001 inch increments.

One-Piece Solid Steel Frame.

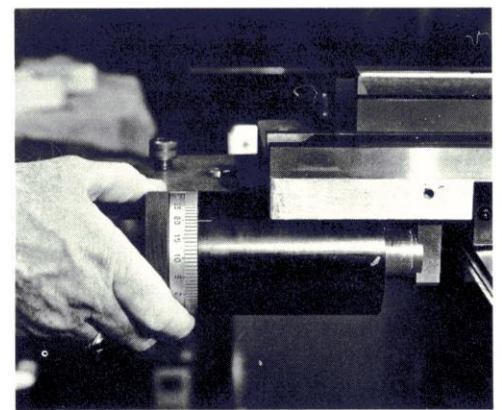
Perf-O-Mator's C-frame is of 6-inch-thick flame-cut steel, and is designed so it can sustain heavy punching loads for decades of heavy use. Deflection is almost impossible, so there's no chance of punch misalignment from this cause.

Para-flex Arm.

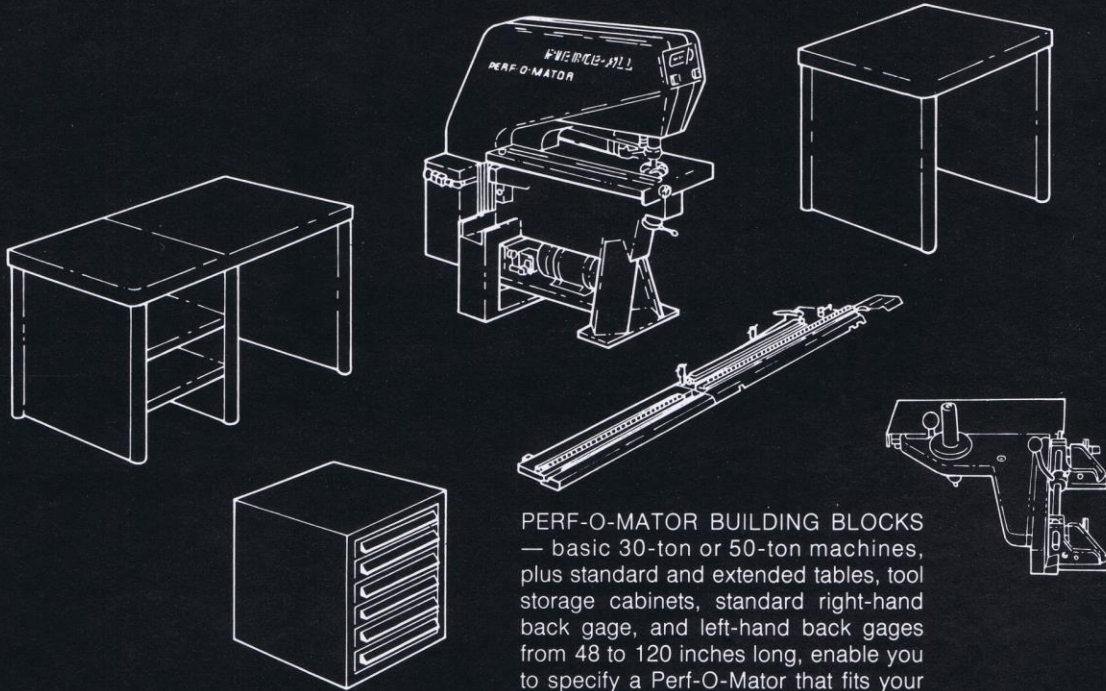
Perf-O-Mator's patented Para-flex arm flexes with each downstroke, and is firmly anchored to the machine table. It's possible to adjust the arm up or down so there's only $\frac{1}{16}$ inch of feed clearance above the material being punched—an important safety feature. The operator's fingers can't enter the danger area. And there's greater feed clearance setting—up to $\frac{3}{8}$ inch from the bottom of the stripping guide to the top of the die when punching $\frac{1}{4}$ -inch-thick material on the 30-ton model.

Direct Duplicator Dialing.

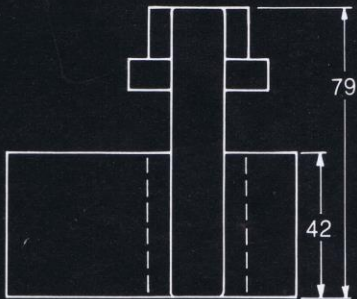
Perf-O-Mator manual machines can be equipped with a highly efficient duplicator having capacities up to 30 x 54 inches. Direct duplicator dialing allows templates to be accurately made with the duplicator. Perf-O-Mators are the only machine in its field that makes its own templates. Both X and Y coordinates are set as they are on a jig boring machine. For superfast setups, only a microdial and locking pin need be used.



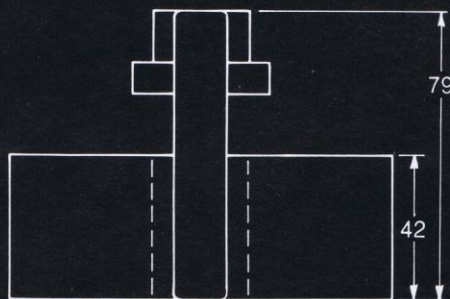
TIME-SAVING direct-duplicator dialing on Perf-O-Mator machines prevents costly errors. Duplicator capacities are up to 30 x 54 inches for optimum versatility.



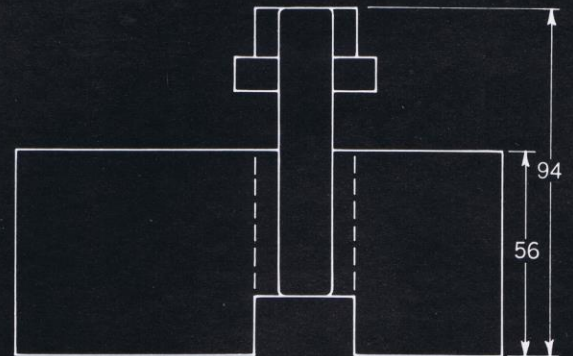
PERF-O-MATOR BUILDING BLOCKS — basic 30-ton or 50-ton machines, plus standard and extended tables, tool storage cabinets, standard right-hand back gage, and left-hand back gages from 48 to 120 inches long, enable you to specify a Perf-O-Mator that fits your precise requirements.



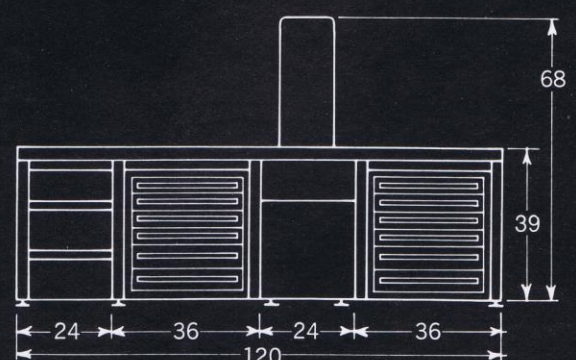
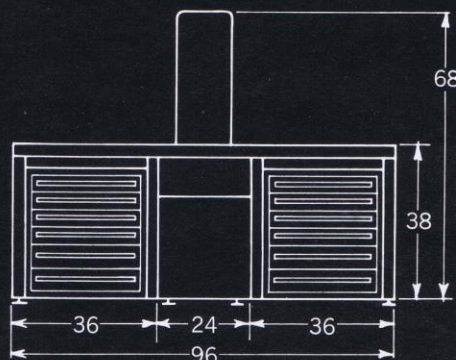
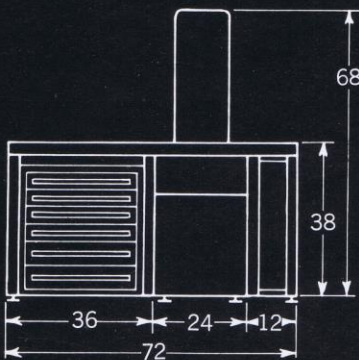
Model 3030A-4830P



Model 3030A-4830



Model 3050A-7254



BASIC FLOOR PLANS for manual Perf-O-Mator machines. The Pinto and 30-ton machines are equipped with 30 x 30-inch duplicators; the 50-ton machine has a 30 x 54-inch duplicator. Tables are always at convenient 38 and 39-inch working height.

The Perf-O-Mator system: Tailored to your needs.

Our manual Perf-O-Mator machines are all constructed from basic building blocks—the basic 30-ton or 50-ton unit plus standard and extension tables, right-hand and left-hand back gages, back-gage extension supports, duplicator attachment and tool-storage cabinets. You can see the building

blocks in the upper drawing on the facing page.

Despite their large capacity, the manual Perf-O-Mator machines are compact. They're designed to occupy minimal floor space, as you can see from the lower drawing on the facing page.

The size capability of all these machines is open-ended. To equip your Perf-O-Mator to handle larger sheet sizes, you can add extended table or back-gage assemblies right in your plant. You don't have to pay for this large capacity until you need it.

Specifications	Model	Model	Model	Model	Model
	3030A-4830P	3030A-4830	3030A-3630DR	3030A-7254	3050A-7254
Machine Tonnage	30	30	30	30	50
Max. Metal Thickness	¼"	¼"	¼"	¼"	¾"
Max. Hole Punching Cap.	3½"	3½"	3½"	3½"	5"
Throat Depth (Front of Back Gauge)	30"	30"	30"	30"	30"
Scale Gauge Length	48"	48"	48"	72"	72"
Scale Gauge Sheet Cap.	30"x48"	30"x48"	30"x48"	30"x72"	30"x72"
Duplicator Sheet Cap.	30"x30"	30"x30"	30"x30"	30"x54"	30"x54"
Non-Accumulative Accuracy	±.005	±.005	±.003	±.005	±.005
Strokes Per Minute (Idling or Full Load)	130	130	130	130	90
Power Stroke Length	⅝"	⅝"	⅝"	⅝"	⅞"
Shut Height Adjustment	0-⅛"	0-⅛"	0-⅛"	0-⅛"	0-⅛"
Standard Motor (H.P.)	5	5	5	5	7½
Overall Width	72"	96"	96"	120"	120"
Overall Length	79"	79"	79"	79"	94"
Table Height	38"	38"	38"	38"	39"
Die Height	39"	39"	39"	39"	40"
Overall Table Area	42"x72"	42"x96"	42"x96"	42"x120"	56"x120"
Decibel Sound Level	79	79	79	79	79

The Perf-O-Mator system: Fast, precise 30-ton models.

The most popular manual Perf-O-Mators are the quiet, fast, precise 30-ton manual models.

They can punch and notch 50,000 psi mild steel up to ¼ inch thick.

Their standard speed is 130 strokes per minute under full punching load.

Table area is up to 30 x 120 inches, depending on which of the various models you select. And duplicator capacity is from 30 x 30 to 30 x 54 inches.

With 30 tons of controlled hydraulic power, you can produce holes up to 3½ inches in diameter in 14 gauge material with no shear ground on the punch. (Or 4 inches in diameter with special tooling.) And, of course, you can carve out even larger openings by nibbling.

Need a smaller machine? Then take a look at our pint-sized Pinto (model 3030A-4830P) illustrated on the facing page. Despite its compact size and working area, this machine has full-sized power—the same ultrareliable 30-ton hydraulic ram as its big brothers.

Material Thickness	Max. Hole Diameter	Material Thickness	Max. Hole Diameter
14 gauge (.074)	3½"	5/32" (.156)	2¾"
12 gauge (.104)	3½"	3/16" (.187)	2"
11 gauge (.119)	3⅞"	¼" (.250)	1½"
10 gauge (.134)	2 13/16"		

Above capacity based on "NO SHEAR" on Punches and Dies and 50,000 P.S.I. Mild Steel.

Digital readout: Part of the system.

When you need extra hole-punching precision, you can get it quickly and simply with Perf-O-Mator digital readout models.

An easily-read display tells your operator the distance and direction of movement from preset zero points in both axes simultaneously.

Hole coordinates can be located to accuracies of 0.001 inch or better in 72 inches of travel. A built-in fine-tuner speeds final positioning.

The unit displays either inches or millimeters (or both) at the flick of a switch. There's no need to convert units on engineering drawings.

When your Perf-O-Mator machine is equipped with a digital display, you can prepare templates for production hole punching operations faster. With fewer mistakes.

The digital display is useful for checking accuracy of hole location in production parts, too.

And when you're making high-precision one-of-a-kind or proto-

type parts, digital display Perf-O-Mators reduce your hole punching time dramatically.

Perf-O-Mator digital display units aren't just add-on accessories. They're designed to enhance the inherent accuracy of all Perf-O-Mator machines.

You don't have to buy a new Perf-O-Mator machine to get full digital readout capability. We'll retrofit any Perf-O-Mator machine now in the field, converting it to a high-precision digital readout model in a few hours.

The Perf-O-Mator system: Powerful, accurate 50-ton models.

If your piercing and notching requirements exceed the capacity of our 30-ton Perf-O-Mators, we have models just for you—our 50-ton manual Perf-O-Mators.

The 50-ton models can punch holes in material up to $\frac{3}{8}$ -inch thick and produce holes up to 5 inches in diameter.

By adding back-gage assemblies and tables to the basic machine, we can furnish a Perf-O-Mator that's tailored to your exact requirements.

Fifty-ton Perf-O-Mators have

all of the desirable features of 30-ton models. Smooth, quiet hydraulic operations. Constant tonnage capacity regardless of material thickness at high speed. Fast (90 strokes per minute) piercing.

Swing-in, swing-out toolholders for quick, efficient tool changes. Two toolholder sizes, for 0 to 2 inch and 2 to 5 inch tools. And time-sav-

ing direct duplicator dialing.

The patented Para-flex arm that eliminates the possibility of punch and die misalignment. An exclusive gaging system that cuts downtime.

Power, speed, accuracy, reliability—these make 50-ton Perf-O-Mators your best bet for heavy work.

50-ton Perf-O-Mator Hole Punching Capacity			
Material Thickness	Max. Hole Diameter	Material Thickness	Max. Hole Diameter
14 gauge (.074)	5"	$\frac{5}{32}$ " (.156)	4"
12 gauge (.104)	5"	$\frac{3}{16}$ " (.187)	$3\frac{3}{8}$ "
11 gauge (.119)	5"	$\frac{1}{4}$ " (.250)	$2\frac{1}{2}$ "
10 gauge (.134)	$4\frac{5}{8}$ "	$\frac{3}{8}$ " (.375)	$1\frac{11}{16}$ "

Above capacity based on "NO SHEAR" on Punches and Dies and 50,000 P.S.I. Mild Steel.

The Perf-O-Mator system: Low-cost Perf-O-Mate tooling.

Perf-O-Mator's complete line of Perf-O-Mate tooling helps you get optimum results from your Perf-O-Mator machines.

Perf-O-Mate tooling is available in three standard sizes—0 to 1 inch, 1 to 2 inches and 2 to 3½ inches.

In each size range, the punch driver and stripper assembly handle all punches within that size range. This means you only have to change the punch, not the punch driver and stripper, when you're making a tool change.

And it means you don't have to purchase a punch driver and

stripper for each punch. The resulting savings in tool cost go right into your profit columns.

There are Perf-O-Mate punches and dies for all your requirements—rounds, shapes, clusters, nibblers, countersinkers, extruders. And when you need specials, Producto can furnish them promptly—we're one of the largest manufacturers of standard and special tools and tooling in the world.

You don't have to own a Perf-O-Mator machine to take advantage of the economy and high performance of Perf-O-Mate tooling. It can

easily be adapted to your present hole-punching machine. If you have a Perf-O-Mator and other hole-punching machines, you can standardize on low-cost Perf-O-Mate tooling for all machines, eliminating the need to purchase high-cost tooling for any hole-punching machine.

For both standard and special Perf-O-Mate tooling, call your local Perf-O-Mator sales office. Deliveries are fast. Accuracy and performance are guaranteed by Producto—the company that gives you more value for your machine and tooling dollars.

PERF-O-MATOR TOOLING covers total tooling requirements, allows fast changes in diameters up to 3½ inches. Specials are quickly available.

