The Whitney 3400 XP

Punch/Plasma Fabricating Center

From The Leader in Plate Technology





The Leader in Plate Technology

Use Tooling for Profit!

Take advantage of the tooling and machine expertise found only at Whitney.

Whitney Punch/Plasma Machines offer you more than just an economical way to produce fabricated parts—they offer the flexibility to complete your parts in a single operation.

Tools do more than punch holes in metal. Easily create features such as countersinks, louvers, treadplate, dimples, beads, and part markings without secondary operations. Let us show you how your need is an opportunity to make more profit.

When your applications demand holes in metal, the fastest, most economical production method is with punches and dies. Add Whitney tooling to your competitive weaponry for the lowest cost process for your fabricated parts.



Lean manufacturing techniques streamline the punch and die ordering and production processes. Whitney's Online Configurator helps you identify the right tooling for your applications. Online Ordering System, kanban stocking of punch and die blanks, and continually updated manufacturing processes deliver your tooling faster than you can imagine. The tooling and machine expertise found only at Whitney combine to offer you solutions not available from any other manufacturer.

Simplicity of operation from Whitney's 36TC™ Tooling System:

- Spring clips hold tools for easy set-up
- Clear markings identify each tool
- Standard pin locations at 0 and 90 degrees—eliminate special set-up devices
- Only seconds needed for loading



TuffSkin[™] Premium Tooling

Punch up to three times or more holes than a standard tool in normal applications; and up to ten times more in tough applications. Use TuffSkin[™] Tooling for extended tooling life, lower cost per hole, to eliminate galling, and to reduce inspection and resharpening costs.



Need More Tools? The Tool Caddy expands your available tools from nine to 30. Unique software tracks each tool by tool number, not station number, so you never need to move tools again. An economical way to minimize tool preparation time.

Standard Features

RAMPAGE![™] Plasma Cutting • Hydraulic Punching • Easy Tooling Setup • Automatic Part Removal



Enough punching power for the most demanding applications. Hydraulic stripping keeps raw material flat, even in heavy punching applications.



RAMPAGE![™]—the industry standard for clean, accurate plasma cutting. A fast, high quality, low cost solution for your cutting needs. Optional HPR260 high definition cutting provides current high definition standards.





The 3400 *XP* provides the best of all worlds: economy for lowest cost, high quality for acceptable parts, flexibility to provide a variety of features not possible with other processes, and high throughput for maximizing your investment.

When used with automatic nesting systems, the 3400 *XP* provides the quantity of parts you need and efficient use of material.



Automatically remove small and medium size completed parts. A sensor confirms part removal and minimizes cycle time.



Quick and easy tooling set-up. Load a tooling cartridge onto the 3400 *XP* rail in a few short seconds.

There is Always Room for Automation

PartHANDLER[™]-II • PlatePARTNER[™] • PlateSTORE[™] • PartSCHEDULER[™]

Virtually no additional floor space is needed to add automation to the 3400 FLEX Fabricating Cells. The PartHANDLER[™]-II adds automatic material loading and part unloading; the Skeleton Drop Table automatically removes completed skeletons!



The PartHANDLER-II Automation System loads raw material directly into the 3400 *XP* work clamps. Large, completed parts are individually removed from the skeleton and sorted or stacked according to your requirements. With this Automation System the 3400 *XP* can be used in semi-attended or unattended applications, adding to the economic benefits of your Punch/Plasma Fabricating Cell.

The Skeleton Drop Table quickly and automatically removes finished skeletons in a few short seconds. Your Fabricating Center spends time on value added functions, not material handling. The Skeleton Drop Table doubles as the right hand side material support table so no additional floor space is needed. Skeletons are stacked beneath the table. This option is standard with the PartHANDLER-II Automation System, and available as a stand-alone option.





The PlatePARTNER a semi-automatic, economical alternative to the PartHANDLER-II, loads raw material onto the infeed table of the 3400 XP.



The PlateSTORE[™], Storage and Retrieval System stores your raw material. Separate input and output areas save you time and space while making your 3400 *XP* more productive. Material delivery is easily controlled using the 3400 *XP* CNC no external cell management computers required.



PartSCHEDULER[™] software manages your automation:

- · Selecting the right program from your network,
- Running it the correct number of times,
- Coordinating the material delivery from the PlateSTORE[™]
- Managing your CNC memory, and
- Initiating the "cycle start" command in fully automated systems.

High Quality Parts

Low cost per part • Repeatability • Consistency • Large working area

Truck Accessories



Manufacturers of truck and car accessories know that proper fit and appearance is necessary for their products. Whitney's punch/plasma machines are a perfect fit for producing parts for products such as brush guards and towing accessories whether aftermarket or OEM equipment.

Whether made from carbon or stainless steel or aluminum, the lowest per part cost and lowest cost of operation helps truck and car accessory manufacturers succeed in the highly competitive market.

Construction Equipment



Large hole-intensive panels are frequently found in construction equipment. The Roll Over Protection Structure (ROPS) pictured here is part of a skid steer loader. The panel is made from .135" (3.5 mm) thick steel and requires 200 holes. The panel remains flat even with a mere .375" (10 mm) of web between the holes.

In addition to quality and repeatability, the large working area of Whitney's punch/plasma machines makes it the perfect manufacturing choice.

Tread Plate



Mobile equipment and outdoor walkways are two typical treadplate applications. The treadplate shown here has an aggressive pattern of punched treads to provide positive traction.

Each of the 422 treads was produced in a single stroke by a Whitney punch/plasma. In addition to consistency and quality for the punched features, the part flatness was maintained.

Fan "Spider"



Hubs for automotive or truck fans are typically produced from materials ranging from 14 gauge to 1/4" (2 to 6 mm) thick. Although suppliers may need very large quantities, small to medium lot sizes are often required for aftermarket production.

Whitney's punch/plasma machines provide the critical high quality and the necessary repeatability.

Economic Focus of Punch/Plasma

Low labor, operating and fixed costs • Speed • Efficiency • High Quality

Focus: Cost

Punch/plasma machines have the lowest cost of ownership of all fabricating processes in the industry. That means high profits for you.

- Low Labor Costs—more parts per hour than any other process. Your labor is amortized over many more parts.
- Low Operating Costs—long consumable life since internal holes are punched with inexpensive tooling.
- Low Fixed Costs—with more parts per hour, your monthly payments are amortized over many more parts than when cutting by laser or precision plasma.

Focus: Capacity

Out-produce laser cutting machines by as much as three to one with one punch/plasma machine. Punch/plasma machines use the most time-efficient processes for fastest floor-to-floor time.

- Punching is the fastest way to produce internal features.
- RAMPAGE![™] plasma cutting benefits—no process tinkering, wide open process window, FAST cutting speeds.
- Immediately remove each completed part—no waiting for the entire nest to be finished.
- Forming capabilities for features such as countersinks and treadplate complete more processes for more parts in one operation.

Focus: Quality

Punch/plasma machines produce high quality parts.

- · High quality at a lower cost.
- Perfect size and shape punched internal holes. Not subject to piercing and contouring each hole.
- Precise hole-to-hole accuracy using AC Digital Servos and precision ground ball screws.
- Maximum precision, clean cuts with Whitney's RAMPAGE!™ Plasma Cutting Process.











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Production Comparison