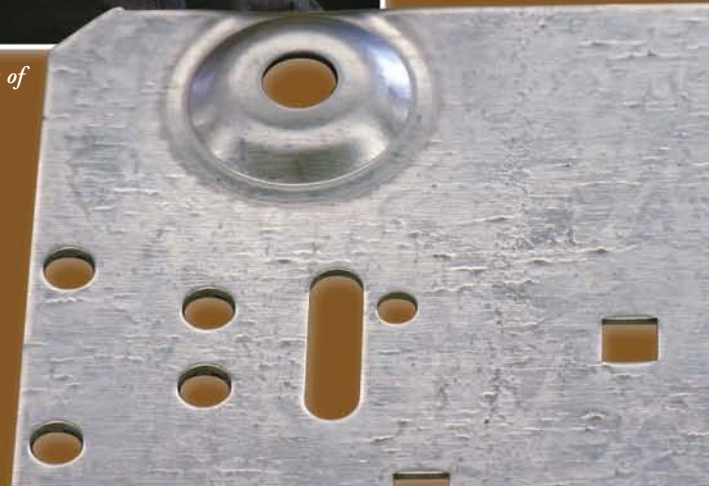


# Finn-Power Turret Punch Press Opens Door to Productivity at Tecnoamérica



*Flávio Jarzinski, Tecnoamérica's Production Manager (right) discusses the forming capabilities of the A5 turret punch press with Finn-Power Brazilian dealer Antonio Roberto Pereira from Asamaq Máquinas e Ferramentas Ltda.*

*“This generation of the turret punch press is an undeniable symbol of high productivity and reliability, which ensure us components with perfect and accurate finishes.”*



# Tecnoamérica

Tecnoamérica Ind. a Comércio Ltda., Taubéte, São Paulo, Brazil, is a division of Fermator, a Spanish company that produces automatic doors for lifts for most of the major elevator manufacturers throughout the world. Founded in Reus, Spain in 1977, the company has earned a well-deserved reputation for high technology, quality, and innovation. The company has experienced steady growth and most recently opened new factories in China, Greece, India, Brazil, and Spain. Fermator is a global leader with its elevator doors now sold in 76 countries throughout the world.

Recently, Tecnoamérica needed to globally increase its sheet metal fabrication capacity. The company chose Finn-Power as its fabrication partner and purchased a total of seven A5 hydraulic turret punch presses, five presses for the Spain facility, one unit for China, and one for its plant in Taubéte, São Paulo. In addition, the company also has two Finn-Power A5 Express Flexible Manufacturing Units (FMU) and two Shear Genius Flexible Manufacturing Cells.

The Tecnoamérica factory in Taubéte, São Paulo began operation in October 2003. The 4200 m<sup>2</sup> facility is responsible for supplying elevator doors to customers throughout South America. In addition to the Finn-Power A5 turret punch press, other equipment at this facility includes two press brakes, one shear, a welding line, and a small stamping press. According to Flávio Jarzinski, Production Manager, Tecnoamérica's objective is to provide smart solutions and short delivery times to its growing list of elevator customers.

The heart of the company's sheet metal fabrication equipment is the Finn-Power A5 hydraulic turret punch press. The A5 turret punch press will accommodate sheets up to 1270 mm x 2530 mm. The A5 provides 23 tons of punching force available throughout the stroke, providing greater capabilities in material thickness and hole size. Finn-Power's hydraulic system provides flexibility with speed and control in punching applications. The hydraulic system offers nine different CNC programmable ram punching speeds which can be changed at any point in the part program, allowing full control over position of the sheet at any time.

Fabrication flexibility is very important to Tecnoamérica. "There are approximately 15 different doors that we produce at this facility," explains Jarzinski. "But each door has many sizes and specifications resulting in thousands of different parts. Approximately 70% of our products are standard and 30% are special products."

The A5 has helped Tecnoamérica maintain high productivity and meet its customers stringent lead times. The flexible design of the Finn-Power turret allows users to select a variety of different tool station sizes and styles that best fit their needs. Specific tool holders are not machined into the turret like other designs. Finn-Power incorporates an individual tool holder concept that allows users to design their own turret layouts. Up to 10 auto-index, forming, and Multi-Tool® holders may be installed in a Finn-Power turret.

Finn-Power's approach to auto-index is completely different than that of any other builder. The system precisely rotates the punch and die in their tool holders using a single A.C. servo-motor system. The system does not need to match different servo-motors as in other machines. Rotation in .001 degree programmable increments gives the machine the ability to rotate infinitely beyond 360 degrees...thus allowing the system to automatically select the shortest path to rotate to a programmed angle input into the NC programs with simplicity, speed and reliability. Tecnoamérica purchased the A5 with four auto-index stations.

Finn-Power's auto-index system is built rigidly into the upper and lower frame of the press and engages the auto-index tool holders for tool rotation. This system allows you to add



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*The NC Express CNC programming system is a user friendly, integrated, and automated tool for managing Finn-Power equipment in the most efficient manner.*



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or change the index stations or Multi-Tool® stations at anytime. In addition, the Finn-Power turret can run any new wheel technology and marking tools available from Mate Precision Tooling or Wilson Tool International. There are no additional options (i.e. holders or software) to run these technologies.

Other features of the A Series turret punch press include:

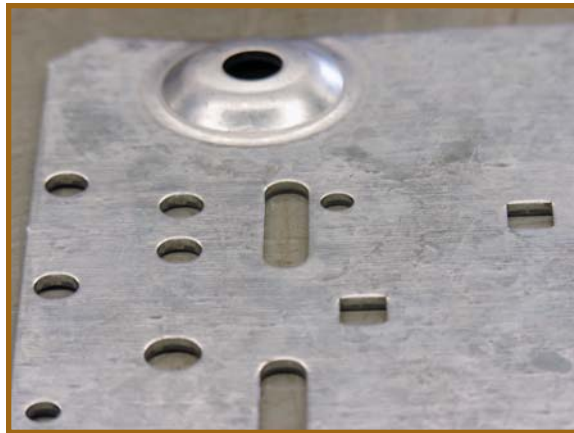
- Programmable Clamp Settings (PCS) is a Finn-Power patented feature that controls the central locking system of the sheet clamp system. PCS provides automatic positioning of the work clamp according to the NC program. By setting PCS at the beginning of an NC program, the CNC control positions the clamps, automatically keeping them from traversing to an unwanted position.
- A third sheet clamp together with PCS enables a clamp to be moved during the program. This feature eliminates dead zones and allows 100% of the material to be utilized.



*Automated doors that are produced at Tecnoamérica are put through rigorous testing to ensure the highest quality and safety.*



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*The A5 provides 23 tons of punching force available throughout the stroke, providing greater capabilities in material thickness and hole size.*



*Tecnoamérica's Brazil facility products thousands of different parts for elevator manufacturers throughout South America.*

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Tecnoamérica fabricates about 70% carbon steel (1.2 mm - 2.7 mm) and 30% stainless steel (.6 mm - 1.2 mm). During the first year of operation, Tecnoamérica produced 2,500 doors. Next year the goal is 8,000 - 8,500 doors. And in three years, the goal is to produce 25,000 doors for use in Brazil and export to other South American countries.

In Addition to the auto-index system, Jarzinski identifies the following positive features of the Finn-Power A5 turret punch press:

- Tool life is better with A5 than previous turret punch presses he has used
- Faster tool change, which translates to shorter setup times
- Accuracy is good in our product
- Easy to operate, fast, and flexible to make parts

"This generation of the turret punch press is an undeniable symbol of high productivity and reliability, which ensure us components with perfect and accurate finishes," concludes Jarzinski.

Another area of satisfaction for Tecnoamérica is with the Finn-Power operating software. The NC Express CNC programming system is a user friendly, integrated, and automated tool for managing Finn-Power equipment in the most efficient manner. NC Express is a tooling, nesting, and optimizing software package designed to easily integrate into an existing manufacturing environment, taking full advantage of the CAD design database and the Finn-Power machine tool product line. "The Finn-Power NC Express is simple to use and provides consistently perfect results," explains Luis Gustavo de Oliveira, Engenheiro de Processo.

*The A5 has helped Tecnoamérica maintain high productivity and meet its customers stringent lead times.*

**FINN-POWER®**

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**Compact Express, com sistema simultâneo de carga e descarga durante o processo, é muito mais veloz.**

A **C5 Compact Express** da Finn-Power é o ingresso para sua empresa acelerar a produtividade. Com automação de carga/descarga altamente compacta, ela acrescenta versatilidade e operações automatizadas à puncionadeira C5. A C5

Algumas características que distingue a C5 da Finn-Power das demais:

- **Puncionamento Servo-Hidráulico Super Rápido** - velocidade de picote (*nibbling*) de até 1100 golpes/min. Servo-controle do martelo, da velocidade de golpes e de posição que são total e individualmente ajustáveis em ambas direções.
- **Up-Forming Indexável** - Só nas puncionadeiras Finn-Power, operações complexas de conformação podem ser fácil e rapidamente realizadas, utilizando uma única ferramenta de conformação.
- **Fácil Alimentação** - Quatro pontos otimizados de pinos de posicionamento para facilitar a carga de blanks ou

chapas inteiras. A alimentação é realizada num empuxo simples e perto da borda da mesa. A chapa mantém-se elevada à mesa para permitir posicionamento fácil de material pesado.

- **Descarga Eficiente** - A C5 distribui componentes processados para uma posição livremente programável na mesa, melhorando, assim, a eficiência do operador.
- **Work Chute de Captura e Transporte** - Permite a recepção de diversos componentes até 500mm x 500mm.

A **Puncionadeira Hidráulica de Torreta C5**, de 20 estações, 30 t (33 US tons), aceita chapa num máximo de 1270mm x 2500mm sem reposicionamento, e é disponível tanto com controles Siemens como Fanuc.



**Up Forming Indexável**



**Fácil Alimentação**



**Fácil Descarga**



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