PRODUCTION LINE TSP

SERVO PRESS for foil and paper containers



The new revolutionary TSP press has been designed and developed for the production of aluminium and paper food containers, dishes and trays. These products are obtained by blanking and forming of aluminum or paper which has been unwound from a coil.

Servo press is characterized by maximum flexibility, high production rates and short die changeover times. The slide motion curve of the press can be adapted to the forming process, the die and the automation.

The TSP servo press is a "C"-frame press with an equivalent standard press 50-ton capacity. It has large side frames spaced out to allow the passage of wide aluminium or paper strip. It has the possibility to use two foils at the same time with a special coil. The large working bedplate of the press is equipped with two removable supports with adjustable position to facilitate changing the tools and adapting to the different dimensions of them. This permits the press to use standard tools as well as tools designed with air cylinders below the bottom plate.

The press uses two brushless motors to feed the aluminium or paper strip allowing accurate control of step and speed. The height of the feeding system is electronically adjustable to match the strip height of the tool currently in use on the press.

There are 18 electronic cams (solenoid valves) controlled by a PLC and 12 fixed air connections with pressure regulators, providing easy tool set-up. This large number of air outlets, located on both sides of the press, permits the use of multi-cavity tools.

The TSP press is equipped with eight compressed air tanks and two vacuum outlets. The pneumatic control panel is easily accessible during operation of the press.

The press may be equipped with tools for wrinkled-wall, smooth-wall, or paper container production.

The advantages of the TSP press includes

Good accessibility and easy handling during tool loading and unloading operations. Complete visibility while the press is operating.

The ability to run medium and large size single-cavity and multi-cavity tools.

The stroke of ram is manually adjustable, and the height is manually adjustable to permit use of tools of various shapes and sizes.

The big advantages of this servo press are:

- Flexibility in the forming process
- Slide motion freely programmable
- Ability to optimize a variety of forming processes
- Production rates up to 120 Strokes/1'
- Improved maintainability due to elimination of high maintenance components such flywheel, clutch and brake.
- Energy saving

TECHNICAL SPECIFICATIONS

Press Power (tons)	Equivalent to 50 tons standard press
Engine power	Torque motor 55 Kw
Stroke rate	From 1 mm to 250 mm
Electronic PLC	Siemens
Adjustable speed	Min 1 to 120 max strokes per minute
Number of solenoid valve connections with adjustable pressure	18 (3 x 6 cavities)
Number of fixed connections with adjustable pressure	12 (2 x 6 cavities)
Number of Thermo control connections (for paper only)	6
Vaccum connections	2
Maximum independent cavities possible	6
Foil feeding	Electronically controlled with brushless motor
Feeder level adjustment	Electrically
Feeder level from the bed plate	From 125 to 250 mm
Bed plate dimensions	1570 mm x 800 mm
Ram face dimensions	1100 mm x 400 mm
Maximum mould height with ram DOWN adjustment UP	515 mm (with 150mm stroke)
RAM adjustment	70 mm by mechanical adjustment
Maximum mould dimensions	Aluminum 1 mould 1400 x 800 mm
	Paper 2 moulds 680 x 800 mm
Height from the floor to mould side	1025 mm
Maximum press dimension	2300 mm x 1760 mm height 3000 mm
Maximum width of foil passage	1200 mm
Total weight	8700 Kg

Complete production line TSP

 $(The line include the following equipments: DECOILER+Servo PressTSP+MOULD+STACKER+ASPIRATOR\\+SCRAP PRESS)$

115 A

• Air consumption (with 4 cavities mould) Max 1800 NI/min

Installed power (largest load)

• Energy consumption ~ 5Kw / h with alu foil ~ 10Kw / h with