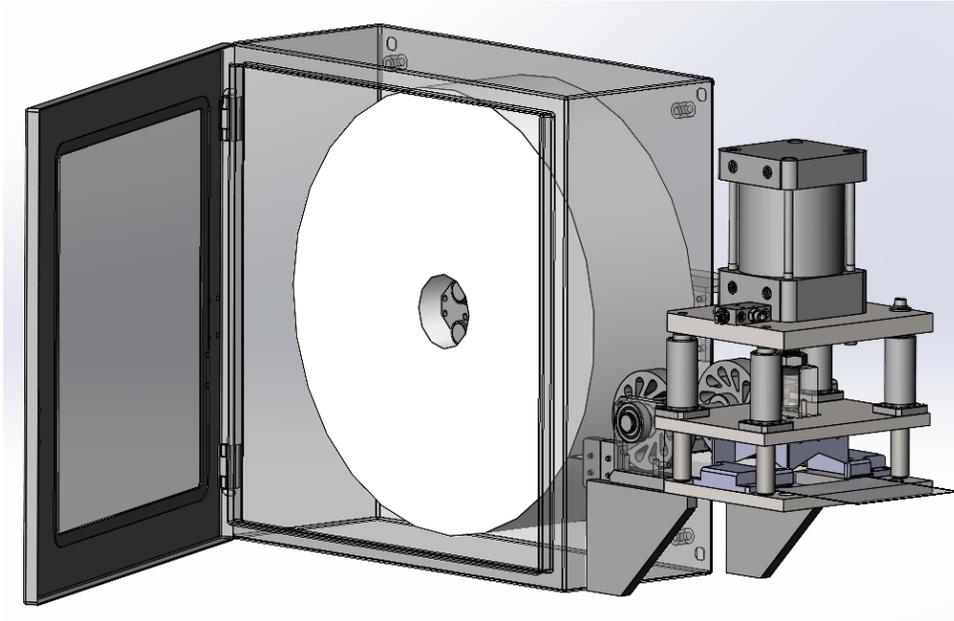


WSD 3000 Automated PunchPress

Automated Fabrication of 125mm Punched Rounds from Continuous Roll



Description: WSD 3000

This machine is designed to punch 125mm round disks of plastic from a 500ft long supply roll in either a Semi-Automatic or Fully-Automatic operation. These round disks of thin plastic (125mm diameter x .75mm thick) are intended to be used in a BioStar (or MiniStar) thermoforming machine for making dental appliances.

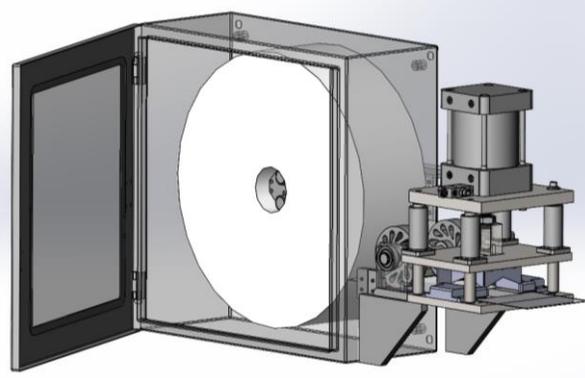
The basic architecture of this machine:

- 1) custom, pneumatically actuated punch press,
- 2) film feed, resistance roller mechanism, and
- 3) a heavy housing that protects/stores the supply roll of plastic.

Basic Operation:

- Semi-Automatic: Foot switch for initiating a single punch operation,
- Full-Automatic: Button press for starting continuous punch feed/operation.

Roll Management – Film Feed Mechanism – Punch/Cutter



Theory of Operation

- Roll of thermoplastic film is unwound and fed into the machine, also referred to as the String,
- Machine operated with Foot Switch or Auto Button for either Manual or Automatic mode,
- Computer controlled stepper motor indexes the film forward via resistance rollers,
- String indexes in 130mm increments to the Punch/Cutter, where parts are die cut from the String,
- 125mm diameter round parts drop out underneath the air-cylinder actuated punch,
- Punched out String scrap web is chopped/dropped as part of punch cycle,
- Manual adjustment of air pressure regulator controls speed of punch travel.

Roll Housing Environmental Control

- Standard system seals protect plastic roll from gross changes in humidity,
- This housing is suitable for being upgraded for humidity control via heater or desiccant.

MACHINE SPECIFICATIONS

Forming Rate----- 300 punched rounds/hr
 Punch/Trim Press----- Pneumatic (60psi, typical)
 Air Requirements ----- 1cfm @100 psi, 3/8in NPT hookup
 Electrical ----- 120vac@10amps
 Weight ----- 100 lbs., Approx.
 Size ----- 8in Deep x 32in Long x 20in Tall

WSD 3000 Automated Roll Fed PunchPress

- Foot Switch actuated or Full-Auto
- 1 Pneumatic Axis
- Integrated Die Cut Mechanism w/ Scrap Chopper
- Minimum thru-put in excess of 300 parts/hr