AV Model 15:18 Medical Tray Heat Sealer

OVERALL STANDARD FEATURES
- Heat Sealing Area - 15 in. X 18 in. (38.1 cm x 45.7cm)
- Manually operated **DUAL** aluminum shuttles, clear anodized, on smooth 1" diameter stainless shafts w/non-lube linear ball bearings
- Two hand Banner Opti-touch safety rated sensors (not single button) per OSHA 1910.212 & 1910.144 requirement, ergonomically correct positioning
- Emergency stops, includes stationary safety shields yellow/red meet CE, UL, CSA, OSHA, ISO13850
- Heating Elements - 240v or 480v, Large mass flat 1" heat plate w/internal heaters, 3000w
- Seal Platen – precision machined flat Aluminum, Dupont Teflon Silverstone coating is included
- Electrical Requirements - 3 KW on 220v, 220/240v or 480v; 1ph or 3ph available (specify at ordering)
- Sealing Force– adjustable up to 5,000 lb-f, precision stationary surface base supports tool shuttle
- Air Dump safety valve, OSHA approved, lock out/tag out
- Floor Space – 68" X 35" (172 cm x 89cm) resulting in no wasted space compared to carrousels
- Machine mounted non-mar casters w/height adjustment & brakes
- Rigid welded 3/16" steel tubular framework w/powder coated White standard. NEMA 12 enclosures.
- Components compliant with IEC 60204-1, CE/CSA/UL as applicable to touch protection.
- Stainless steel physical operator guards on Auto Shuttle models. Guarding meets OSHA 1910 sub-part 0, 1910.145, EN415-1 & -3.
- Quick change lift off tooling shuttles to provide versatility and productivity; includes SS locator pins for positive locating of tooling nests.
- Inlet air filter (5 micron) included, ¾" NPT ready for non-regulated supply air connection
- Single exhaust port with 20 micron filter or for connection to discharge line from room. Sound level complies with OSHA 1910.95
- Sealer is ready for operation upon connection to air and electric power.
- Weight - 650 pounds (204kg); rugged, durable, not made of angle and sheet metal

STANDARD CONTROLS FEATURES

- Mitsubishi FX3u PLC
- Beijer 10"color touch screen (1) operator interface terminal (OIT-HMI); stores multiple recipes, requires ID/PW sign-in
- On-screen programmable Time and Temperature controls w/alarm limits is standard
- Individualized operator (optional), supervisor/engineer or calibration unique sign in ID/PW for assigned access levels
- Printer port for PCL5 output for UDI data, cycle data, etc.
- Odometer and resettable cycle counter.
- Powered USB ports (2) for barcode scanner (not included) entry of UDI, sign-on, etc. Manual input on screen permitted also.
- Data Logging memory of all sign-on access, recipe changes and UDI as well as process data per each cycle. Memory accessible for manual offloading only. No edits permitted.
- Capability to match recipe with barcoded tooling and barcoded device/paperwork during setup of production.
- Redundant automatic heater over temperature safety cutoff control circuit, Factory Mutual approved controller, 300F cutoff standard
- Electronic process monitoring with temperature & air pressure sensor fail-safe alarms for parameter recipe settings, PW protected.
- Short cycle alarm for press cycle interruption, requires supervisor PW acknowledgement
- Four (4) dual lead special grade thermocouples for control feedback & accurate individual temperature displays on OIT while providing signals to calibration ports for simultaneous reading, PW protected.
- Individual thermocouple calibration connectors (4). On screen calibration of each (4) thermocouples.
- Alarm screen details and alarm warning. Alarm screen history (10-20 lines).
- Low profile Banner alarm light for recipe parameter alarms.
- Pressure regulation w/precision manual adjustment & liquid filled precision gauge as well as digital readout on screen
- Pressure calibration port for easy gauge connection to pressure circuit (1). On- screen calibration of pressure circuit.
- Timer calibration connector (1) 24vdc signal.
- Eye level controls including HMI screen, reset(s) and others.
- English units of measure readouts.
- Password protection for validated recipes & calibration screen
- Air Usage - .35 CFM @ 80 PSI at 4 cycles per minute. Supply @ 100psi with 3/4"+ dia line minimum.

Owner's manual (1 copy) with operation instructions, maintenance information, recommended spares list, schematics, Atlas Vac calibration document and Atlas Vac PLC programs on USB stick. Sealer is ready for operation upon connection to air and electric power; air filter included. Any additional FAT, or other documents and procedures, may require additional charge based on scope and hours needed to complete.

Note: Precision machined tooling nests are quoted separately.

15:18 OPTIONS AND ACCESSORIES:

1. **Auto Shuttle System**; **electrically** operated for extremely smooth cycle, single speed with gentle acceleration and deceleration of shuttle. Interlocked with Banner hand sensors for safe platen operation. Includes side clear panel guards at shuttle bearing side locations. Reduces operator repetitive motion fatigue and harsh displacement of tray contents.
2. **Direct Force Sensing System** (patented) provides a digital reading of the force (lbs.-force) exerted by the tray sealer press against the tray or blister seal tool area (requires controls option a & b below, auto regulation). Results from adjustments in press air pressure can be directly read on the PLC operator screen. By knowing the lbs-f exerted across the tray sealing tool face, packaging engineers can more closely monitor design variables. Defining the desired lbs-f in a tray sealing protocol can accommodate variations in air pressure, brands or models of tray sealers, and even tooling designs. Speeds validation experiment settings with new package designs. For reference only, not a closed loop system.
3. **Infrared Thermal Vision System** (patented) sensors (2) to sense platen surface temp, calibrated at 240 degrees F nominal set point. PLC IR sensor readings individually displayed on screen, for ref only. System is in addition to standard thermocouples.
4. **Seal Tool Recognition System**; RFID electronic sensing feature for accurate program changeovers, requires Process Control System option for pre-programmed menu selections matching the tool ID, no tooling mix-ups ever again. RFID chip on the tooling verifies the use of the correct PLC recipe on every cycle.
5. **Stainless steel framework**, welded 3/16" rectangular tubing far superior to angle iron and sheet metal, includes stainless steel controls cabinet (special option)
6. **Air Reservoir**, 4.9 gallon ASME certified tank plus ASME pressure relief safety valve to provide boost where air supply and/or plumbing size is deficient.

7. **Light Curtain, Class 3, OSHA Compliant**. Requires Auto Shuttle + Auto Pressure options above. Provides angled light curtain across protected tool loading area with stationary side guards of SS and Lexan. Category 3 OSHA, ISO13849, ISO13857 compliant with separate safety circuitry and safety controller as well as correct penetration distance to any moving part. Keyence light curtain system integrated to press air supply valve and electric shuttle motion circuit for operator access safety. Any light curtain violation will require the cycle to re-home and start over. <u>Eliminates the standard Banner Optitouch hand sensors and is replaced by single green push button to initiate the entire cycle hands free</u>. Standard single channel pneumatic control press valve is replaced by dual channel Ross safety rated pneumatic control valve system. Auto Pressure regulation is still provided by standard Festo system per above.

15:18 PROCESS CONTROL & DOCUMENTATION OPTIONS:

a) Upgrade from standard manual pressure regulator**. Auto Pressure Process Control System** including additional programming to Mitsubishi PLC & Beijer touch screen operator interface, pressure transducer using I/P transmitter for <u>automatic programmed fine air pressure closed loop control with PLC controlled Festo auto regulator though OIT screen setting</u>. Always includes Atlas Vac standard digital pressure and temperature monitors with alarm system on OIT.   Provides Auto Air Pressure Control <u>settings on the screen in lieu of standard manually set regulator</u>. Stores multiple recipe programs and can utilize optional tooling ID sensor system to prevent mix-ups and operator delay or errors on changeovers (see Tool ID System).

b) **Wireless Wireless Network** connectivity for remote Atlas Vac support.tlas Vac support.

c) **Calibration Services**

d) IQ & OQ template documents

e) **Translations** of PLC Screens and Manuals

f) **CE** or **CSA** rating certification

g) **UL listing** on controls cabinet

h) **Alarm horn-buzzer**