

SPECIFICATIONS

Standard machines are built to operate without any modifications, at any voltage between 208

and 240, single phase, 50, 60 cycles. Three phase machines are also available.

Model	T-15-9-D	T-20-9
Circuit Breaker — 1 Phase	50	60
3 Phase	30	40
Volts (Nominal)	220	220
Watts	9,200	10,500
Belt Speed	0-190 FPM	0-120 FPM
Max. Pkg. Size	14" x 8"	19" x 8"
Overall Tunnel Length	52"	52"
Overall Conveyor Length	78"	78"
Shipping Weight	620 lbs.	670 lbs.

FEATURES

1. Teflon covered woven glass mesh conveyor belt.
2. D.C. variable drive motor for conveyor belt speed.
3. Variable air speed is adjustable to give correct air velocity to any package design, using any type of shrinkable film.
4. Solid state thermistor probe gives accurate temperature control.
5. Solid state belt speed control.
6. Adjustable legs permit a work height variation of six inches, enabling unit to be aligned to any sealing machine or conveyor system. Minimum height 30", maximum height 36".

FAMILIARIZATION WITH YOUR SHRINK TUNNEL

On the lower panel at the delivery end of the tunnel, you will find the main circuit breaker (Fig. A12); two fuses: Heat Control (Fig. A13) and Conveyor Fuse (Fig. A14). Both fuses are rated at 1 amp. each. When the circuit breaker is thrown in the up position, power is applied to the main on-off switch (Fig. B44). The upper control panel has two controls (Fig. B) and a set of indicator lights.

1. On-off power switch with red light (Fig. B44).
2. Heat control potentiometer with amber indicator light (Fig. B43).

When the main circuit breaker (Fig. A12) and main power switch (Fig. B44) have been switched on the magnetic contactor light (Fig. B62) and the 115V transformer light (Fig. B63) will turn on to indicate proper operation. The amber heat indicator light will turn on and remain on until the desired temperature has been reached (approx. 15 minutes). The temperature sensor (Fig. B52) and the associated heat controller are very sensitive and will control the temperature to plus or minus 5°F; therefore, the heat indicator light will continuously switch on and off while the tunnel is working. The heat control (Fig. B33) is a solid state unit specially produced for this machine.

The input voltage to the control is 220 volts AC. The output voltage is 220 volts AC, which drives the mercury relay (Fig. B38).

The heat sensor (Fig. B52) is located inside the machine in the return air stream. Damage to the heat sensor can be determined without stripping down the machine, by measuring its resistance at the proper terminal (#6 & 7) on the terminal block #TB2 (see wiring schematic). This is located on electrical panel (Fig. B) under louvered cover (Fig. B40). Replacement of this sensor can be made by removing top cover (Fig. B53) and top side covers (Fig. 46), also top roof plate.

The low heat on this tunnel goes on as soon as the on-off switch (Fig. B44) is turned on. The low heat is independent of the heat control unit. It will maintain a fixed temperature of approximately 180°F. to 225°F., depending on model of machine. The high heat lights (Fig. B49) on the upper control panel will indicate the operational status of the heating system required for temperatures in excess of 225°F.

The conveyor belt (Fig. A6) is driven by a DC shunt wound motor (Fig. A31) and is fitted with brushes which should be checked for wear periodically. (See note on maintenance.)

The conveyor belt speed is controlled by the motor speed control knob (Fig. B42) on the lower control panel and the solid state unit (Fig. B35) located on the electrical panel (Fig. B) under the louvered cover plate (Fig. B40). The teflon coated conveyor belt (Fig. A6) is aligned and set before it leaves the factory. If adjustment is necessary, see note on adjustments.

The air velocity is controlled by turning the crank handle (Fig. A15) on the base of the machine, and it should be adjusted only when the machine is running. (See Operating Instructions.) Customers who wish to shrink very light weight packages may require lower air velocity than normal. This can be achieved by increasing the diameter of the blower pulley (Fig. A26) and installing a larger belt (Fig. A21). These may be purchased locally or can be ordered direct from factory. The recommended size would be 6" diameter, 3/4" bore for "A" section belt, and belt 45" long, usually listed as A-45.

There are two sets of tubular heaters, one on each side of the tunnel (Fig. A45). They are located at the top under the side panels at the entrance end of the tunnel (Fig. B46-61) and heater cover plate (Fig. A30). Inspection of the heaters as well as the blower unit can be made by removing the top and bottom side covers and the heater cover plate.

The curtains (Fig. B60) are arranged so that there is as little leakage of air as possible. It is well to open the discharge curtain high enough to clear the top of a package when polyethylene is being used so the curtain will not mark the soft film.

OPERATING INSTRUCTIONS

1. Turn on circuit breaker, located at the lower panel on the delivery end of your tunnel (Figure A12).
2. Turn on main power switch (Figure B44).
3. Set heat control (Figure B43) to desired temperature, depending on package and film used.
4. Set conveyor speed control (figure B42) to desired speed.
5. Adjust air velocity by turning the crank handle (Fig. A15) on base of machine below circuit breaker. Clockwise rotation will reduce the air velocity, and counter clockwise will increase it.
6. Check conveyor belt tracking (Figure A6) this belt is set at factory and should not require adjustment. If adjustment is necessary, see Adjustments, Page 10 & 11.
7. When the tunnel has reached the desired temperature, in approximately 15 minutes, the amber heat indicator light will continuously switch on and off while machine is working.
8. You may run two or three sample packages through. If the shrink is satisfactory, proceed with the use of your tunnel. If the shrink is not satisfactory, experiment with different control settings until the desired speed and shrink is obtained.