

# Operating Instructions for 7000 Series Auto Cycle Belt Splicer

## Specifications

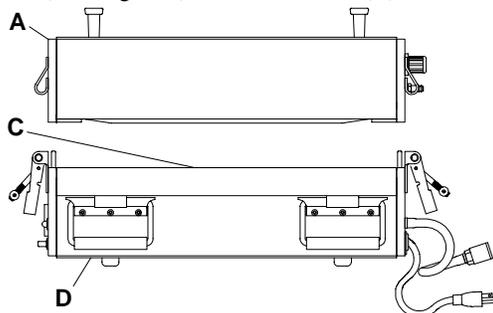
Model	7012	7024	7040
<b>Overall Dimensions</b>			
Length x Width x Height in " (mm)	23 x 11 x 13 (584) x (279) x (330)	35 x 11 x 13 (889) x (279) x (330)	51 x 11 x 13 (1295) x (279) x (330)
<b>Weight in pounds (kilograms)</b>			
Upper Half	31 (14)	44 (20)	61 (28)
Lower Half	45 (20)	62 (28)	85 (39)
Total (Includes Clamping Bars)	86 (39)	120 (54)	166 (75)
<b>Overload Protection</b>			
Electrical	External 15 amp Fuse		
Thermal	Internal Heat Overload		
Pneumatic	35 psi ASME Rated Relief Valve		
<b>Performance Data</b>			
Splice Width Range in " (mm)	0 to 12 (0 to 305)	0 to 24 (0 to 610)	0 to 40 (1016)
Bonding Temperature Range	80 to 400 ° F (27 to 204 ° C)		
Bladder Pressure	0 to 30 PSIG (0 to 210 kPa) Regulated		
Maximum Bladder Force in lb (kg)	3,500 (1,586)	6,500 (2,947)	11,000 (4,987)
Average Cycle Time☆	20 minutes	25 minutes	30 minutes
<b>Input Requirements</b>			
Electrical	110 to 120 volts A.C., 15 Amperes Single Phase, 50/60 Hz, Ground Fault Interrupting Circuit (GFI)		
Pneumatic	75 to 125 PSIG (525 to 875) kPa & 4.5 SCFM (1.9 Liters/Second)◇		

☆ - Average cycle based on 70 to 325° F (21 to 163° C) heat cycle, 120 volts A.C.

◇ - During cooling cycle.

## Operation

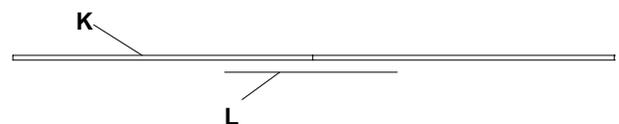
- Remove upper half of heat press (A of Figure 1) and both clamping bars (B of Figures 4 & 5). Wipe off white laminate plate (C of Figure 1) on the lower half (D) of the heat press.



**Figure 1: Side View of Heat Press**

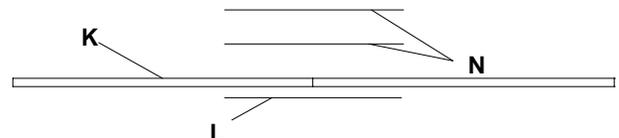
- Place one of the two pieces of #891-020, textured teflon release fabric (E of Figure 4) (which was furnished with the heat press), centered horizontally and vertically, on the white laminate plate (C). For splicing belts other than woven polyester or black anti-static, skip to step 4.
- For woven polyester or black anti-static belts only:**

- If splicing a woven polyester belt (K of Figure 2), cut an appropriate length (I of Figure 4) [to match belt width plus a 2" (51 mm) overlap on both sides] of clear urethane splicing foil (film) (L of Figure 2) #815-011 (sold separately). Be sure to remove the white paper backing, before installation. When installed, foil will be below belt as shown.



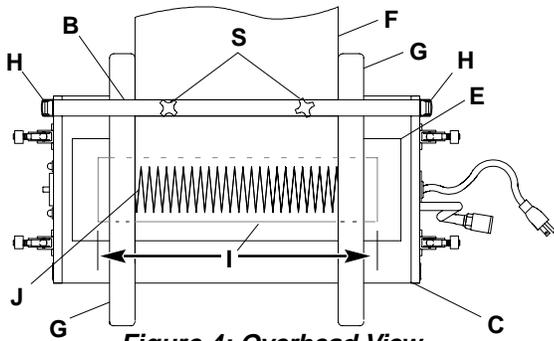
**Figure 2: Film Placement for Woven Polyester Belt**

- If splicing a black anti-static belt (K of Figure 3), cut an appropriate length (I of Figure 4) [to match belt width plus a 2" (51 mm) overlap on both sides] of black urethane splicing foil (film) (L of Figure 3) #815-016 (sold separately). When installed, foil will be below belt as shown.



**Figure 3: Film Placement for Black Anti-static Belt**

# Instructions For Splicing Dorner Conveyor Belting

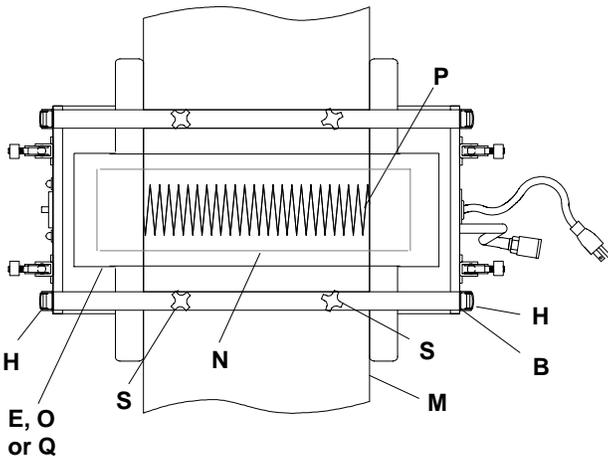


**Figure 4: Overhead View  
(Shown with Upper Press Half Removed)**

4. Place the one end of the belt (F of Figure 4) onto the teflon release fabric (E) so that the splice fingers (J) are horizontally and vertically centered as shown. Next, lay the appropriate thickness (see Table 1) shims (G) against the belt, with equal amounts extending beyond each side of the press as shown. Then, attach the clamping bar (B) by engaging the latches (H). Be sure that the shims are tight against the sides of the belt before tightening the clamping bar knobs (S).

## IMPORTANT:

Tighten knobs (S of Figure 4) only enough to secure shims and belt from moving. Recheck belt fingers (P), to make sure they have not moved apart.



**Figure 5: Overhead View  
(Shown with Upper Press Half Removed)**

5. Place the other end of the belt (M of Figure 5) onto the teflon release fabric (E of Figure 4) so that the splice fingers (P of Figure 5) are horizontally and vertically aligned, and between and against the shims installed in step 4. Next, proceed to push the fingers, on both ends of the belt, together to create a zig-zag pattern while making sure not to exceed 1/32" (1 mm), at the tips of the fingers (P). Then, attach the other clamping bar (B) by engaging the latches (H). Again, be sure that the shims are completely against the sides of the belt before tightening the clamping bar knobs (S).

## IMPORTANT:

Inspect belt to be sure that it is straight and not twisted throughout its length.

6. As appropriate, install the following:
  - a. If splicing a woven polyester belt, place the second piece of the #891-020, textured teflon release fabric (E of Figure 5) (which was furnished with the heat press), centered horizontally and vertically, over the splice.
  - b. If splicing a black anti-static belt, cut two (2) pieces of the appropriate length [to match belt width plus a 2" (51 mm) overlap] of black urethane splicing foil (N of Figure 3) (film) #815-016 (sold separately). Center the pieces of foil horizontally and vertically over the splice. Then, place the second piece of the #891-020, textured teflon release fabric (E of Figure 5) (which was furnished with the heat press), centered horizontally and vertically, over the splice.
  - c. If splicing a gray friction belt, place the one piece of the #1U482, silicone impression mat (O of Figure 5) (which was furnished with the heat press), centered horizontally and vertically, over the splice. Make sure that the mat is clean and free of dirt and oil.
  - d. For all other smooth surfaced belts, place the one piece of the #891-019, smooth teflon release fabric (Q of Figure 5) (which was furnished with the heat press), centered horizontally and vertically, over the splice.
7. While exercising appropriate caution, install and secure the upper half of the heat press.

	CAUTION	
<p><b>Upper half of press is heavy and may require two people to lift it. Make sure temperature controller and pressure gauge are on the same end. Lock down the two main tension latches (T of Figure 6), on each end. Latches should be snug but not tight. If latches are too tight or too loose adjust barrel nut (U), on each latch, until a slight amount of resistance is felt while being locked.</b></p>		

## IMPORTANT:

Supply air pressure to the heat press must be clean and dry. There must be no in-line oiler.

8. Connect gray bladder air hose (V of Figure 6), attached to bottom half of heat press, to fitting (W) on top half. Apply 75–125 PSI (525 to 875 kPa) supply air pressure to air inlet fitting (X) on lower press half [gauge (Y) on front should read 15 psi]. If necessary, adjust regulator (Z) on back of press.

## NOTE:

If pressure, in top bladder, exceeds 35 PSI (245 kPa) internal relief valve will "POP" and thus remove excess pressure.

9. Plug cord (AA) into a 15 ampere, 115 volt A.C. single phase "Ground Fault Interrupt (GFI) circuit. Green cycle indicator (AB) should be lit.

# Instructions For Splicing Dorner Conveyor Belting

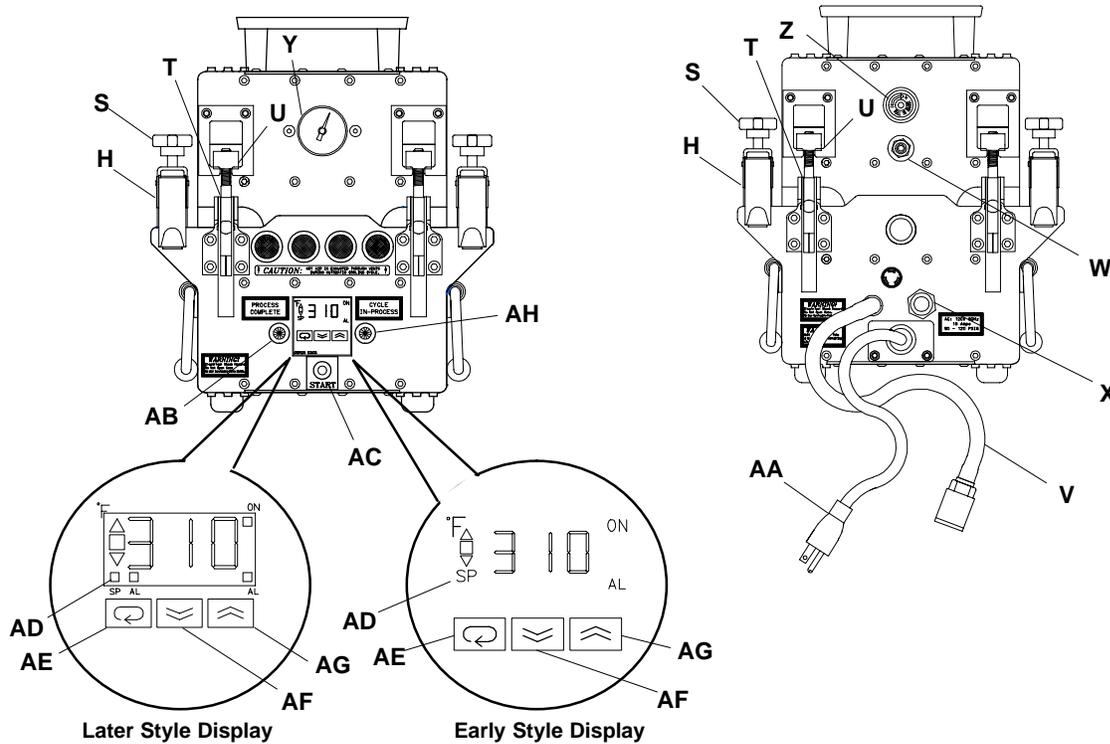


Figure 6: Heat Press - Front Side View (left) & Back Side View (right)

## IMPORTANT:

Do not depress the start button (AC) without both the upper and lower halves correctly and securely locked in place.

10. Adjust the required set point temperature (listed in Table 1) on temperature controller. The set point temperature is displayed when the green (later style) or red (early style) "SP" indicator (AD of Figure 6) is lit on the display. The  key (AE) will toggle the display between the present and set point temperature. Adjust the set point temperature by depressing the  (AF) and  (AG) keys.
11. Depress the start button (AC). The green (AB) process "complete" indicator will go out and the red (AH) "cycle in-process" indicator will light. This will start the automatic heating and cooling cycle of the press of approximately 20 to 30 minutes.
12. During the cooling cycle, a hissing sound is emitted as cooling air is drawn through the press.
13. When the cooling cycle is completed, the air will shut off and

the green (AB) "cycle complete" indicator will light. This indicates the splice is complete.

 **WARNING** 

Do not attempt to remove the belt until the cooling cycle is completed. The material could be in a molten state before that time. In addition, be aware that the air exiting the press (above the temperature controller), at the start of the cooling cycle, will feel hot and may startle you.

14. To remove belt from press, disconnect gray air hose (V) from the fitting (W) on the top half of the press, unlock 2 main tension latches (T) at each end of the press, and remove upper half of press. Remove both clamping bars (B of Figure 4 & 5) by unscrewing knobs (S) until they turn freely, and unlocking latches (H). Peel away both pieces of teflon fabric (or the silicone impression mat) and shims from both sides.
15. With belt removed from press, trim off excess urethane foil from both edges of the belt and stainless steel shims with a utility knife. The belt is now ready to use.

Table 1: Heat Settings & Shim Sizes

Belt Type Number	Belt Description	Shim Thickness	Part Number	Set Point Temperature in ° F (° C)
1	Accumulator Top FDA Approved	0.060" (16 ga)	660138	310 (154)
2	Standard Urethane	0.075" (14 ga)	665081	320 (160)
3	Soft Top FDA Approved	0.060" (16 ga)	660138	310 (154)
4	Gray Friction	0.075" (14 ga)	665081	330 (166)
5	Woven Polyester (Double Carcass)	0.048" (18 ga)	662155	340 (171)
6	Black Anti-Static	0.060" (16 ga)	660138	325 (163)

# Troubleshooting Guide

Problem	Possible Cause	Solution
Press does not heat.	No power to press. (Temperature display OFF)	Check input circuit and cord connections.
	Electrical overload. (Temperature display OFF)	Replace 15 amp fuse on back end.
	Thermal overload. (Temperature display OFF)	Contact Dorner customer service.
	Control malfunction. (Temperature display ON or OFF)	Contact Dorner customer service.
	Thermocouple broken. (Temperature display blinks "FFF")	Contact Dorner customer service.
Splice not fully melted through	Temperature controller set point too low.	See step 10 of the instructions on page 3.
	Bladder pressure regulator setting too low.	Adjust regulator so gauge reads 15 - 20 PSIG (105 to 140 kPa).
	Pneumatic fittings not connected properly.	See step 8 of the instructions on page 2.
	Control malfunction.	Contact Dorner customer service.
Splice overheated. (discolored, excessively melted or urethane on backside)	Temperature controller set point too high.	See step 10 of the instructions on page 3.
	Insufficient cooling air volume.	Insure air input is 4 scfm @ 75 PSI/min (1.9 liter/second @ 525 kPa).
	Control malfunction.	Contact Dorner customer service.
Splice fingers separated.	Bladder pressure regulator setting too high.	Adjust regulator so gauge reads 15 to 20 PSIG (105 to 140 kPa)
	Belt not properly held in place.	See step 5 of the instructions on page 2.
	Belt improperly cut.	Insure belt fingers fit tightly together.
Red <b>PROCESS IN-CYCLE</b> light lit when first plugged-in.	Control malfunction.	Contact Dorner customer service.

## Accessories

Black Urethane Foil for Anti-Static Belts 815-018 Ordered in Feet  
 Clear Urethane Foil for Woven Polyester Belts  815-017 Ordered in Feet

Silicone Impression Mat for Gray Friction Belts 1U482 Ordered in Feet  
 Textured Teflon Release Fabric  891-020 Ordered in Feet  
 Smooth Teflon Release Fabric  891-019 Ordered in Feet

18 ga (0.048") Edge Shims for Belts 0.040" – 0.055"  662155 (2 Required)  
 16 ga (0.060") Edge Shims for Belts 0.055" – 0.070"  660138 (2 Required)  
 14 ga (0.075") Edge Shims for Belts 0.070" – 0.085"  665081 (2 Required)

- Included with Belt Splicer Accessory Kit.

Dorner Belt Splicing Equipment is covered by patents 5,499,565 and 5,562,796



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