

SCHEDULING: June 14, 2004  
 FINAL: June 28, 2004

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<b>SERVICE ADVISER:</b>	Ralph Townsend
<b>TECH. WRITER:</b>	

SHRINK-WRAP SPEC SHEET

PURCHASE ORDER NO.: 91865  
 PROPOSED COMPLETION DATE: September 17, 2004  
 PROPOSED CUSTOMER CHECKOUT DATE: N/A  
 INQUIRY NO.: I04-00028-01  
 MACHINE NAME: SR7-1233

MACHINE NUMBER: M104024  
 PROPOSAL NO.: 04-000236  
 MODEL: SR7-1233

1. SPEED REQUIRED FOR MACHINE: Maximum speed of 50 per minute. (See Item #6 for maximum machine speed for each individual product size.)

2. SIZE RANGE FOR MACHINE (Dimensions): Loose: Bundle: Tray

	Direction of Travel	Vertical	Across Machine
Minimum:	8.61	8.85	11.48
Maximum:	11.48	8.85	17.22

3. SHRINK WRAPPER CONFIGURATION:

3.1. Stand alone.....	Yes	X	No
3.2. Integrated: .....	Yes	No	X
3.2.1. With Tray Loader .....	Yes	No	X
3.2.2. With Stacker .....	Yes	No	X

4. MACHINE ORIENTATION AND CONVEYOR LENGTHS: (See Floor Plan #FP-040453 B)

4.1. Infeed height: 39" ± 1-1/2"

4.2. Discharge height: 39" ± 1-1/2"

4.3. Leg style:

4.3.1. Threaded Rod .....	Yes	X	No
4.3.2. Square tube with threaded adjustment.....	Yes		No X
4.3.3. Stainless steel adjustment screws .....	Yes		No X

5. How is product received? Single lane infeed conveyor, surge controlled.

6. SIZES AND SKETCH OF TRAY BLANK OR BUNDLE:

Description of Product: PET beverage bottles in a tray.

Product	Dir. of Travel	Vertical	Across Machine	Units\Min
20 oz 12 count	8.61	8.85	11.48	50
20 oz. 24 count	11.48	8.85	17.22	25

7. SEQUENCE OF OPERATION: Product is received on the infeed conveyor of the inline machine with the long dimension across the conveyor. The product metering system requires surge to operate. Once surge has built up, the product is metered by a servo braking belt mechanism onto the wrapper conveyor, in time with the wrapping mechanism. Film is automatically cut to the correct length and conveyed by servo controlled vacuum belts to arrive and be positioned under the product at the wrapping mechanism. The wrapping mechanism is a rotating wand that travels in an oval path wrapping film around the product and overlapping the opposite end that has been held in position under the tray. Following the wrapping section, each package is conveyed to the shrink tunnel where heat is applied to all sides of the package, including the bottom. The lap seal (bottom of package) is sealed with the heated, open web conveyor and the hot air passing through it. Controlled airflow within the tunnel ensures a uniform shrink to the film.

7.1. Sketch of Operation: SEE FP-040453 B

7.2. Orientation of machine approved by Customer ..... Yes X No

8. SHIPPING SIZE REQUIREMENTS: Douglas Machine maximum standard 95" wide x 100" high x lengths determined by machine design.

9. FILM STANDS:

- 9.1. Single Roll, Single Spindle ..... Yes No X
- 9.2. Single Roll, Double Spindle ..... Yes X No
- 9.3. Side film stands: Location determined by equipment orientation ..... Yes X No
  - 9.3.1. Splice bar ..... Yes X No

10. FILM SPECIFICATION: clear.

- 10.1. Squeeze Roller Kit ..... Yes No X

11. FILM ROLL SPECIFICATION:

- 11.1. Film Roll Diameter (maximum 20").
- 11.2. Film Roll Core Diameter: 3" inside core diameter.
- 11.3. Maximum film width capability is 30".
- 11.4. Registered film capability.

12. SHRINK WRAP TOLERANCES:

- 12.1. Film Cutoff:  $\pm 1/8$ " of total length ( $1/4$ " of total variation)
- 12.2. Film Placement in D.O.T.:  $\pm 1/4$ " placement of leading edge of film ( $1/2$ " total variation). Also stated as  $\pm 1/4$ " placement of graphics (when applicable).
- 12.3. Film Overlap: 1-1/2" minimum, or more as required by package configuration..
- 12.4. Film Overlap Alignment:  $\pm 3/8$ " as measured from the outermost edge of the film wrap (dependent upon speed, product, film type, package size, etc.).

13. MACHINE FINISH:

13.1. Machine Frame

- 13.1.1. Powder Coated Dupont 616 Gray Metallic Epoxy? (Douglas Machine standard) ..... Yes X No
- 13.1.2. Other powder coated color? Define (include paint brand #) ..... Yes No X
- 13.1.3. Other? Define: ..... Yes No X

13.2. Electrical Cabinets

- 13.2.1. Powder Coated Dupont 616 Gray Metallic Epoxy? (Douglas Machine standard) ..... Yes X No
- 13.2.2. Other powder coated color? Define (include paint brand #) ..... Yes No X
- 13.2.3. Brushed stainless steel? (SEE NEMA RATING SECTION)..... Yes No X

13.3. Perimeter Machine Guards:

13.3.1. Posts

- 13.3.1.1. Powder Coated Dupont 616 Gray Metallic Epoxy? (Douglas Machine standard) ..... Yes X No
- 13.3.1.2. Other powder coated color? Define (include paint brand #) ..... Yes No X
- 13.3.1.3. Other? Define: ..... Yes No X

13.3.2. Doors and Panels

13.3.2.1. Lower Doors and Panels

- 13.3.2.1.1. Powder Coated Dupont 616 Gray Metallic Epoxy? (Douglas Machine standard) ..... Yes X No
- 13.3.2.1.2. Other powder coated color? Define (include paint brand #)..... Yes No X
- 13.3.2.1.3. Brushed stainless steel?..... Yes No X
- 13.3.2.1.4. Other? Define: ..... Yes No X

13.3.2.2. Upper Doors and Panels

- 13.3.2.2.1. 1/4" lexan? (Douglas Machine standard).... Yes X No
- 13.3.2.2.2. 3/8" lexan? ..... Yes No X
- 13.3.2.2.3. 1/2" lexan? ..... Yes No X
- 13.3.2.2.4. 3/16" lexan? (radiused upper guard) ..... Yes No X

13.3.3. Lexan Color

- 13.3.3.1. Clear? (Douglas Machine standard)..... Yes X No
- 13.3.3.2. Tinted? ..... Yes No X

13.4. Douglas Machine Fabricated Parts

- 13.4.1. Electroless nickel plated, anodized, powder coated Dupont 616 Gray Metallic Epoxy? (Douglas Machine standard) ..... Yes X No

13.5. Powder Coating Supplier

- 13.5.1. Douglas Machine? ..... Yes X No
- 13.5.2. Customer?..... Yes No X

13.6. Miscellaneous

13.6.1.	Armoloy Thomson shafts and Thomson or THK style rails?.....	Yes	No	X
13.6.2.	Stainless steel fasteners? (does not include set screws) .....	Yes	No	X
13.6.3.	Lexan or Stainless Steel sheet metal hood for protection against product spillage and clean-up overspray on Torque Limiting Clutches and Disc Brakes. Recommended for wet environment	Yes	No	X

14. MACHINE OPERATING CONDITIONS:

- 14.1. 50°F to 100°F ambient temperature
- 14.2. Recommended 75% maximum humidity.

15. MACHINE CLEANING:

- 15.1. Machine Structure: Wipe off soiled machine components using a clean dry rag. Dry compressed air, maximum of 40 PSI, to remove accumulations from the machine such as corrugated dust. Care must be taken not to direct air pressure to sensitive areas of the machine such as the inside of electrical cabinets, electrical devices, bearing seals, hot melt applicator, etc.
- 15.2. Lexan Upper Guard Panels: Clean with a soft damp cloth. Abrasive pads may not be used.
- 15.3. NOTE: Options such as Nema 4X wiring, stainless steel fasteners, chain oilers, etc., are intended for aid in resistance to corrosion. However, commercially supplied components such as bearings, gearboxes, reducers, valves, torque limiters, clutches, hot melt applicator, etc., are typically installed with their manufacturer’s standard supplied finish (normally painted), and are not necessarily waterproof/corrosion resistant. Detergents, high-pressure water, and/or caustic solutions (alkaline/acidic), applied to this machine, may cause component malfunction and/or corrosion.

16. LANE DIVIDER REQUIRED ..... Yes No X

- 16.1. Lane Divider Brand and Model to be used:

17. LUBRICATION SYSTEM REQUIRED ..... Yes X No

17.1.	Douglas Grease Banks .....	Yes	X	No
17.1.1.	Aluminum cluster blocks with stainless steel tubing and 1/8" nylon flexible tubing.....	Yes	X	No
17.1.2.	Aluminum cluster blocks with copper clad carbon steel tubing and 1/8" nylon flexible tubing.....	Yes	No	X
17.1.3.	Other Individual lube points to perimeter of machine.....	Yes	X	No

- 17.2. Lincoln Central Lubrication..... Yes No X
  - 17.2.1. One shot (Manual)..... Yes No X
  - 17.2.2. Auto pump (PLC Controlled) with low level warning..... Yes No X
  - 17.2.3. Plated steel manifolds with stainless steel tubing and 1/8" nylon flexible tubing..... Yes No X
  - 17.2.4. Plated steel manifolds with copper clad carbon steel tubing and 1/8" nylon flexible tubing..... Yes No X
  - 17.2.5. Other ..... Yes No X
- 17.3. Other Grease System..... Yes No X

17.4. Lubrication points or types of bearings requiring lubrication:

The majority of bearings are Non-Relube minimum maintenance bearings. Grease banks (where required) are mounted on the machine frame for convenient servicing. Fittings have color disc to indicate frequency. Lines are stainless steel and flexible plastic for bearings, bushings, and linear bearings. Rod ends will have their standard fittings.

17.5. Type of Grease in System:

- 17.5.1. Non-Edible ..... Yes X No
- 17.5.2. Edible..... Yes No X
- 17.5.3. Grease provided by the customer ..... Yes No X

17.6. Type of oil in system.

- 17.6.1. Non-Edible ..... Yes X No
- 17.6.2. Edible..... Yes No X
- 17.6.3. Oil provided by the customer ..... Yes No X

NOTE: Edible oil not available in sealed gear heads, phasing gear boxes, servo gear boxes and indexers.

- 17.7. Chain Oilers: ..... Yes No X

18. BRAND OF MOTORS:

- 18.1. Douglas Choice (Reliance) ..... Yes X No

18.2. Type:

- 18.2.1. Standard..... Yes No X
- 18.2.2. Easy Clean Plus ..... Yes X No
- 18.2.3. Extra Tough ..... Yes No X
- 18.2.4. Other. (Customer Specification)..... Yes No X

19.	<u>TUNNEL MANUAL ADVANCE HANDWHEEL</u> .....	Yes	No	X
20.	<u>HARDENED SPROCKETS</u> (Includes all roller chain sprockets with 36 teeth or less other than sprockets used for adjustments.).....	Yes	X	
21.	<u>SKIP WELD</u> .....	Yes	X	No
22.	<u>ADJUSTMENT INDICATORS</u>			
	22.1. Scales in inches .....	Yes	X	No
	22.2. Elesa digital position indicators .....	Yes		No X
	22.3. Siko indicators .....	Yes		No X
	22.4. Other .....	Yes		No X
23.	<u>PLANT VOLTAGE:</u>			
	23.1. 480V-3ph-60Hz .....	Yes	X	No
	23.2. Other .....	Yes		No X
24.	<u>CONTROL VOLTAGE:</u>			
	24.1. 24V DC (Standard if PLC is used) .....	Yes	X	No
	24.2. 120V AC .....	Yes		No X
	24.3. Other .....	Yes		No X
25.	<u>NEMA RATING</u> (Electrical components) <b>NOTE – Douglas Machine Shrink-Wrap Systems are not designed to be operated in washdown environments. Under no circumstances should water, or any other liquid, be directed at any part of the wrapper or tunnel. Product spillage should be removed by wiping.</b>			
	25.1. NEMA 12.....	Yes	X	No
	25.2. NEMA 4.....	Yes		No X
	25.3. NEMA 4X. Includes stainless steel cabinets .....	Yes		No X
26.	<u>CONDUIT:</u>			
	26.1. Rigid Aluminum (Standard). Can be used for all environmental conditions offered .....	Yes	X	No
	26.2. Galvanized. Can be used for all environmental conditions offered.....	Yes		No X

27. PROGRAMMABLE LOGIC CONTROLLER:

27.1.	Allen Bradley SLC 5/04 (standard for machines without servo motion) ...	Yes	No	X
27.2.	Allen-Bradley ControlLogix (standard when servo motion is required)....	Yes	X	No
27.3.	Modem (to remotely monitor and make changes to machine PLC program from our site when trouble-shooting assistance is required. <b><u>Customer must provide a phone line to the modem at the machine site to use this feature.</u></b> This feature is standard on all machines with both PLC and Panelview).....	Yes	X	No

28. TERMINALS:

28.1.	Wago cage clamp terminals (standard).....	Yes	X	No
28.2.	Other .....	Yes	No	X

29. ELECTRICAL OPTIONS:

29.1.	Alphanumeric Display / Operator Interface			
29.1.1.	PanelView 550.....	Yes	No	X
29.1.2.	PanelView 1000.....	Yes	No	X
29.1.3.	PanelView 600.....	Yes	X	No
29.2.	Variable Frequency Drive			
29.2.1.	Allen Bradley 160 (standard) .....	Yes	No	X
29.2.2.	Allen-Bradley PowerFlex.....	Yes	X	No
29.2.3.	Other .....	Yes	No	X
29.3.	Machine Timing			
29.3.1.	Absolute Encoder (standard) .....	Yes	No	X
29.3.2.	Servo feedback .....	Yes	X	No
29.4.	Alternate Control Panel			
29.4.1.	Partial (Start/Stop, No Fault Indication).....	Yes	No	X
29.4.2.	Complete (Start/Stop, w/Fault Indication) .....	Yes	No	X
29.5.	Red Strobe for Shutdown Conditions .....	Yes	No	X
29.6.	Amber Strobe for Non-Shutdown Conditions .....	Yes	No	X

29.7. Stackable Light				
29.7.1. Red Light for Shutdown Conditions.....	Yes	X	No	
29.7.2. Amber Light for Non-Shutdown Conditions.....	Yes	X	No	
29.7.3. Green Light for Machine Running .....	Yes	X	No	
29.7.4. Other .....	Yes		No	X
29.8. Start-up Delay with Horn.....	Yes		No	X
29.9. Warning Horn for Shutdown Conditions .....	Yes		No	X
29.10. Individual guard door annunciation .....	Yes	X	No	
29.11. Separate Conduit Runs for Control and Power.....	Yes	X	No	
29.11.1. (24V DC) - (90V DC, 120-480V AC).....	Yes	X	No	
29.11.2. (120V AC) - (90V DC, 240-480V AC).....	Yes		No	X
29.11.3. Other .....	Yes		No	X
29.12. Isolation Transformer for PLC				
29.12.1. Topaz .....	Yes		No	X
29.12.2. Sola.....	Yes		No	X
29.13. Emergency Stops (2)				
29.13.1. Control Panel(s)	<b>One on control panel.</b>			
29.13.2. Remote Stop(s)	<b>One at the discharge.</b>			
29.14. Emergency Stop Pull Cords .....	Yes		No	X
29.15. Additional Disconnects				
29.15.1. Remote Safety Disconnect _ Additional .....	Yes		No	X
29.16. Flange Mounted Main Disconnect.....	Yes		No	X
29.17. Remote Mounted Electrical Enclosure .....	Yes		No	X
29.17.1. Wiring harness provided by Douglas .....	Yes		No	X
Length (from the J-box to the main electrical cabinet):				
29.18. Enclosure Light.....	Yes	X	No	
29.19. Elevated Main Control Enclosure .....	Yes		No	X
29.20. Stainless Steel Electrical Enclosures .....	Yes		No	X
29.21. UL approved panels .....	Yes		No	X

30. WARRANTY:

- 30.1. Standard twelve (12) month warranty..... Yes No X
- 30.2. Three year limited. .... Yes X No

31. PRODUCT COOLING DEVICES:

- 31.1. Product cooling fan ..... Yes X No
- 31.2. Other ..... Yes No X

32. MISCELLANEOUS:

- 32.1. Spare parts kit ..... Yes No X
- 32.2. Downstream surge control ..... Yes X No
- 32.3. Film Roll Cart ..... Yes X No
- 32.4. Air Conditioner for Main cabinet. .... Yes X No

33. TRAINING:

- 33.1. Formal/Optional..... Yes X No
  - 33.1.1. Formal operator and maintenance development. Delivery will be on a separate PO.

34. LANGUAGE:

- 34.1. Is there a language in addition to English required for the manual ..... Yes No X
  - 34.1.1. If yes, what language is required?
- 34.2. Is there a language in addition to English required for warning signs?..... Yes No X
  - 34.2.1. If yes, what language is required?

35. EXCEPTIONS TO CUSTOMER SPECIFICATIONS? If Yes, list below..... Yes No X

JOB NO.: M104024

ADDITION NO.: 2

MACHINE NAME: SR7-1233

JG

DATE: July 20, 2004

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1. The machine has changed from two sizes to three sizes. The 20 oz 12 count was eliminated. The machine will now run, the 1 liter 12 count, the 12 oz. 24 count, and the 20 oz. 24 count.

Description of Product: PET beverage bottles in a tray.

Product	Dir. of Travel	Vertical	Across Machine	Units\Min
1 liter 12 count	10.35	10.38	13.80	50
12 oz. 24 count	10.48	6.88	15.72	25
20 oz. 24count	11.48	9.00	17.22	25

2. Provide a Remote IO card for ControlLogix for the interface of the customer's equipment.