# ADCO MODEL: 9WM-110-SS WRAPAROUND SLEEVER:

The 9WM is a heavy duty continuous motion machine designed to accept the product in a single lane into the infeed conveyor. Timing Screws group the product and transfer them onto the lugged product conveyor. When the main machine detects the product, the sleeve feeder vacuum is activated, which picks a sleeve from the horizontal powered hopper and places it on top of the product. The product and sleeve are transported to the overhead conveyor for flap folding, sealing and compression. The completed package is discharged from the main machine by a powered discharge conveyor.

- Left/Right hand operator side, looking downstream (select)
- Continuous motion with heavy-duty variable frequency drive (VFD)
- VFD automatic infeed system controlled by product supply to stop indexing system without stopping main machine
- 3-head rotary carton feeder
- Oilless vacuum pump
- Adjustable carton transfer chains
- Captured #60 overhead chains
- Powered takeaway belts
- 12' long sanitary stainless steel welded tube and sheet metal frame
- Castors for portability and leveling feet
- Metric construction consisting of all bearings, shafts and fasteners
- Screw adjustments on all axis
- Group lubrication (cluster)
- Zinc plated cold rolled steel parts
- Nema 12 electrical enclosures
- 460v/3ph/60hz electrics with 24vdc control voltage
- Main drive overload protection
- Lexan barrier guarding electrically interlocked
- Category 3 electrical safety system
- NFPA 79 compliant
- Overhead lights mounted to center guard beam
- Jog cord with pushbutton and water tight outlet
- Alarm buzzer for start/stop of machine with (3) second start delay
- PLC: A-B CompactLogix control system with Ethernet (programming software optional)
- HMI: A-B PanelView +6 1000 touchscreen with start, stop, reset and e-stop push buttons mounted in electrical enclosure door
- Ethernet convenience outlet mounted on the electrical cabinet door
- Programmed according to PackML guidelines
- Fault map of guard doors, E-stops and overload devices on the touch screen
- 4-color stack light with <u>Green</u> for machine Running, <u>Yellow</u> for machine waiting for product, armed and ready to run, <u>Red</u> for machine Stopped (safe) and <u>Blue</u> for low carton hopper supply
- Alarm buzzer for start/stop of machine with (3) second start delay
- Downstream backup detection/machine stop

- (1) hard copy of startup manual + (2) digital copies of full manual on CD
- Carton bottom to floor elevation 36"±1" (.91m)

# **CLOSING SYSTEM:**

- Nordson ProBlue 4 glue unit with 7 day programmable timer, temperature setback, (1) gun & hose, Saturn filter, mounting brackets, closing plow assembly, electricals, bottom squaring chain, pressure transducer and pattern controller
- Separate electrical disconnect for Nordson glue unit (Nordson unit will not lose power if the electrical panel is locked out)

## **REQUIRED ITEMS:**

- 6' long horizontal powered carton hopper with motorized advance
- 13' (3.96m) long product infeed conveyor with VFD drive (10' standard) (3' ext)
- 2-speed drive modifications controlled by photo eyes
- Dual servo driven timing screws
- Special modifications to extended lugged product conveyor upstream 7'. Includes relocating the product timing screws upstream by the same amount. This modification will allow for the future adoption of the product stacking robot
- BC style side compression chains with quick change profiled pushers
- Change parts to run (3) tub styles/sizes. Changeover time will likely take 15 to 30 minutes due to the (3) different sleeve designs. One tool will be required.
- Modifications to accommodate up to 6.25" tall product
- Modifications for 460v supply voltage
- Special anti-corrosion modifications, to include:
  - 316 SS for all SS parts in direct contact with the product tubs and directly below the product zone. Including, but not limited to the product guides, folding tongue, plows, compression, and overhead lugs
  - Hard anodized aluminum
  - Stainless steel sprockets
  - Stainless steel bearings with stainless steel housings
  - High strength, corrosion resistant coated chains
  - Minimal use of nickel plated components\*
  - \*NOTE: Every effort will be made to accommodate these features; however there are certain components and/or areas of the machine that do not permit their use.

# MACHINE PRICE WITH REQUIRED ITEMS

Please specify the following items: (looking downstream)

- A) Operator side:
- B) HMI location:
- C) Glue unit location:
- D) Sleeve orientation:
- E) Packaging room temperature:

#### **RECOMMENDED ITEMS:**

- Robotic product stacking system to utilize a Fanuc M2 delta robot to pick (3) tubs per cycle and place them on top of the incoming tubs. Robot to be positioned between the timing screws and the carton hopper downstream. No 1:2 lane divider or additional line length will be required to retrofit this system in the field. Includes all necessary change parts.
- Oil auto lube system with timer to for chains
- On screen Nordson glue controls
- Digital readouts on all screw adjustments, scales on all other adjustments
- Overhead beam operator HMI mount
- Lamacoid adhesive component ID tags with rotation arrows

	Product	Pattern	Sleeve Size	Product Speed	Sleeve Speed
1	"EMU" Round Tub	1 per sleeve	3.562 x 3.633 x 2.59"	60 (66)	60 (66)
2	"FCW" Square Tub	1 per sleeve	5.011 x 2.094 x 2.17"	100 (110)	100 (110)
3	Rectangular Tub	1 per sleeve	3.625 x 2.812 x 3.1"	60 (66)	60 (66)
4	"EMU" Round Tub	2/sleeve <u>Stacked</u> (future)	3.562 x 3.633 x 5.18"	60 (66)	30 (33)
5	"FCW" Square Tub	2/sleeve <u>Stacked</u> (future)	5.011 x 2.094 x 4.34"	100 (110)	50 (55)
6	Rectangular Tub	2/sleeve <u>Stacked</u> (future)	3.625 x 2.812 x 6.2"	60 (66)	30 (33)

#### **PRODUCT & CARTONS:**

## CARTON STYLE:

Flat wraparound with standard glue seam

#### **MACHINE SPEED:**

Variable up to 110 sleeves per minute maximum. Actual maximum speed may vary depending on board type, weight, density and scoring.

In order for a machine to run consistently and efficiently at this speed, with minimum down time, you must have high quality cartons that are manufactured and stored correctly. The cartons must be of quality chip board materials and include pre-broken scores. The cartons must also be packaged and stored properly to prevent warping.

## **BACK PRESSURE:**

Product supplied to the ADCO Packaging machine is the responsibility of the end user unless specified otherwise in writing. Product must be of good quality and supplied in an agreed to configuration. Conveyor speeds and back pressure should be such that it does not distort or compress the product. It is <u>end user's responsibility</u> to ensure back pressure is properly metered to the cartoner at a consistent rate. Any variance to this should be discussed and a solution mutually agreed to in writing before the onset of the project.

#### **INSTALLATION, STARTUP AND TRAINING:**

Installation, startup and training are not included in the price of the equipment unless specifically stated herein. For more information please see the Service Rate Sheet. A detailed estimate will be provided upon request.