



VIMAL HI-TECH PVT. LTD.

Mfrs. of : Self Adhesive Tapes (BRN/TRN/COLOURED & PRINTED)

AN ISO 9001:2008 COMPANY



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Paper Bundle Shrink Wrapping Machine

Main Sealing Section

The operator manually places the paper ream bundles on to the in feed conveyor. The conveyor moves forward, moving the bundle through the film curtain. As the product sensor senses that the product has crossed the sealing jaw completely, the sealing jaw actuates; sealing and cutting the film to create a sleeve around the bundle. The bundle then is carried forward by the out feed conveyor into the in feed of the Side-Sealing Unit.

The Sleeve Wrapper uses two rolls of single wound film. The film unwinding is by motorized with dancing bar arrangement. Wider stainless steel rollers are combined and driven by single motor

Side Sealing Section

The sleeved bundle will move forward to the side sealing station by the out feed conveyor of the Main Sealing section. Once the products reach the side sealing station, the film clamp holds the film and the sealing jaw seals the film. The sealed product then advances to the Shrink Tunnel. As the side sealing is happening, the operator can load the next paper ream on to in feed conveyor.

Film Trimming with Gripper Unit (Optional)

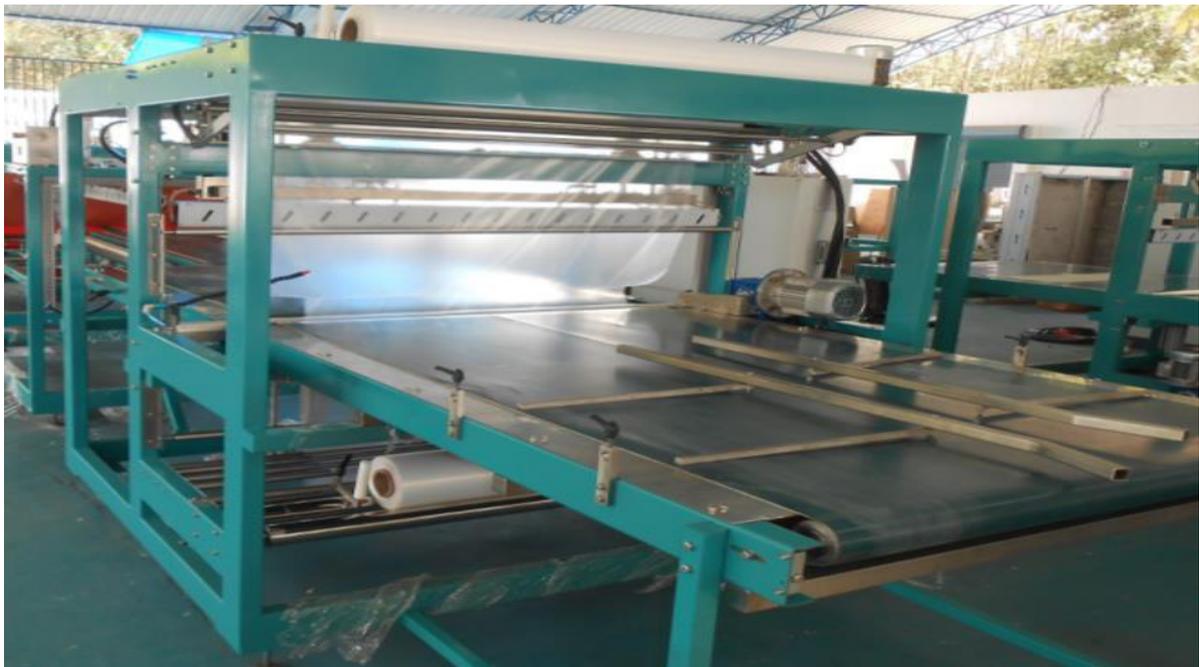
In case the additional film on the sides need to be removed, the Film trimming and disposal unit can be used. The trimmed film will be held by the gripper and dropped into the collection bin.

Shrink Tunnel

The shrink tunnel is used to circulate hot air around the pack as it moves on the conveyor by the four powerful blower fans. The air from inside of the tunnel is sucked and blown on the heater (finned type). This re-circulated air comes on the pack from all sides, top bottom thereby giving a uniform shrink to the pack. During the first quarter of the tunnel, the film gets hot air only from the bottom and then from all sides. This helps in shrinking PE film well and helps to pull the seal to bottom of unit. Once the unit moves out of the hot chamber, then cool air is thrown on the unit to achieve a tight cling on the unit and it cools the unit. Stainless steel runners are supporting the belt for better wear resistant

Exit Gravity Roller Conveyor

The shrink wrapped bundle exits the tunnel and moves onto the Exit Gravity Roller Conveyor. Air curtain is provided on this unit for uniform shrinking of the film and cooling of the bundle. This helps in obtaining a fine finish and pack strength for the shrink wrapped bundle.





3. FEATURES OF THE PROPOSED SYSTEM

Automatic Three Side Sealing Sleeve Wrapping Machine: SLW161

Standard Features:

- Hot knife sealing systems eliminates wire replacement thus giving strong consistent seals.
- Close pitch Roller bed for product arrangement.
- PU belt out feed conveyor.
- Pneumatic seal jaw operation for constant seal pressure.
- Film Cradle with power unwind roll Holder ensures steady flow of film with uniform tension.
- PLC Controlled
- Mild Steel Construction with Powder Coated finish
- Digital Temperature Control

SPECIFICATIONS

- Width of the infeed conveyor: 1200 mm
- Material of roller : Nylon/ PE
- Number of sealing : 3
- Main Seal/Cut Width : 1500mm
- Side Seal Width : 1500mm
- Max. Package Height : 300mm
- Max. Film width : 1400mm
- Power Requirement : 430V, 3 phase, 50Hz,
- Working Height : 850mm + 50mm
- Power Requirement : 430V, 3 phase, 50Hz,
- Compressed Air : 6 bar
- Air consumption : 280 L / Min
- Power consumption : 37 kW
- Packing Speed : 3 packs/min
- Variable Speed out feed Conveyor
- Material: PE shrink film*2 reels
- Film pulling motor: 0.18kW*2pcs
- Machine: From ground to conveyor surface is about 850mmH±50mmH

Shrink Tunnel ST 160

- Tunnel conveyor: Chain Driven Roller Conveyor
- Tunnel heater: W fin heater
- Inner tunnel size: 2400mmL*1350mmW*350mmH
- Circulation Fan: Inside shrink tunnel to ensure even heat distribution.
- Number of blower : 4
- Cooler : At exit of shrink tunnel with Air curtain
- The shrink tunnel is insulated with 50mm Ceramic fiber blanket.
- The conveyor is driven by inverter controlled Variable speed Motor
- Silicon fabric is used as tunnel curtain and W fin heater for fast heat transfer
- Indirect heating system for shrinking

Tunnel Technical Requirements:

- Power : 3 Phase 415 Volts AC
- Blower Motor : 1hp, 3 phase
- Heater : Finned Heater
- Cooling Motor : Single Phase 240VAC

Exit Gravity Roller Conveyor

- Mild steel construction
- 1200mm wide conveyor
- 2000mm long conveyor
- 32mm diameter of roller
- 60mm pitch of roller

4. STANDARD EQUIPMENT FEATURES

CONSTRUCTION

- Heavy gauge Mild steel main frame with powder coated finish
- Designed for simplicity of operation with ease of access and maintenance
- Adjustable leveling legs, +/- 2" (+/-50mm)

SAFETY

- Automatic "rebound" seal bar safety
- Mushroom emergency stop
- Seal bar temperature indicator
- Tunnel temperature indicator

INFEED

- The infeed will be a PU belt conveyor.

FILM FEED

- Easy Film Threading:** The center mounted film supply, located low, over the infeed conveyor is fed through an easy threading motorized dancer bar assembly, which self regulates for low and high product profiles.
- Motor driven rollers:** Assure smooth film advancement.
- A dancer bar assembly:** Provides tension free, accurate product controlled film dispensing

ELECTRICAL / PNEUMATICS

- IP55 control panel
- PLC Controlled
- 440 volts - 3 phase, 50 or 60 Hz.
- Pneumatic controls require (6 bars) @ 8-10 c.f.m.