Roll Covering System - Automatic Strip Winding Machine

Technical data

Rolls to be covered
Diameter: 50 to 2.500 mm
Length: depending on Roll support length
Weight: depending on Roll support

Covering thickness
Single working cycle: 2 - 50 mm
Multi working cycle: >100 mm
Depending on Roll diameter and Compound viscosity

Covering mode
Flat covering: two covering directions
Angle covering: one covering direction
(Right to left)
Covering material
Rubber compound: 40-120 mooney
Silicon compound
Cover strip thickness: >1 mm - 7 mm
Cover strip width: 20 mm - 80 mm

Cold Feed Pin type Extruder
D / L: 90mm x12D Long
Drive: P = 58kW
Screw Speed N = 60rpm
Output up to 450Kg/h
Heating / cooling 4 zones

Straight extrusion head included:
Temperature measuring: 0° - 150°C
Pressure measuring: 0 - 350bar
Nitrided Strainer plate
Adapter ring
3 different final dies

Temperature control unit
2 Zones: 30° to 120°C adjustable
Hot water circulation system (incl. piping)

Covering unit included:
Dancer control system: Speed control of screw speed / roll support speed
Angle adjustment automatically / motorized
Strip thickness measurement: Laser system
Pressure adjustment cross and length pressure by I/P control system (cross pressure with brake)
Strip guiding roll adjustable by spindle drive.
Thickness / diameter control by Encoder
Roll diameter Adjustment by Spindle drive
Covering roll air cooled
Working place light

Movable base plate
Width: 2.500 mm
Length: 3.000 mm
Drive: Servo Gear motor P = 1,5kW direct coupled
Wheels D = 250mm nitrided flat design with guiding flange

Electrical switch cabinet
Complete electrical control
Consisting of:
Switch cabinet 1.800x1.900x 500mm
Control Siemens S7 300
CPU Siemens 315-2 DP incl. Memory card
Extruder Drive Siemens
Base plate Drive Control Techniques
Service module TELE modern Siemens
Installed on the movable base plate incl.

Operator panel
VIP 6000 560 x 600 x 250 mm
Mounted: on supporting arm
Terminal ET200S
Panel Siemens MP 377 Touch screen 15" TFT
Recipe control >1.000 Recipes can be stored
Including all necessary buttons and switches for easy operation

Pre Installation
Installation of Extruder, Covering unit, TCU’s, Switch cabinet and operator panel onto the movable base plate.
Including wiring, piping and dry test.

Wrapping device
Integrated into the frame of the covering unit
Wrapping Material: Cotton, Nylon, Polyester etc
Material Diameter: max. 750mm
Material width 20 - 200mm
Supporting shaft 70 mm (expansion shaft)
Wrapping tension 50 - 1.500N

Options and accessories

Additional costs
Cold Feed Extruder Flat barrel (minus)
D / L: 90mm x12D Long
Drive: P = 58kW
Screw Speed N = 60rpm
Output up to 350Kg/h
Heating / cooling 4 zones

Cold Feed Extruder Pin convert type
D / L: 90mm x12D Long
Drive: P = 58kW
Screw Speed N = 60rpm
Output up to 350Kg/h
Heating / cooling 4 zones

Hot water temperature controlled
Extrusion head
Instead of electrical heated head
Incl. Temperature control unit and piping

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Automatic wrapping control
To control the tension and lead automatically during the wrapping process
Tension control by automatic pressure valve
Special wrapping software

Full automatic package
Strip width and position detection by CCD system.
Strip guiding by servo geramotor
Software improvement

Data transfer system
To transfer the recipe and process Data to an office PC for storing and data saving

Air conditioning system
For the switch cabinet
Rails incl. mounting material
One set 10m long
+ Additional meters

Spare part package
For 2 Years operation without barrel and screw

Cable track
Plastic type, approx 6m long for 10m rails
Incl. fixing elements
Price per additional Meter

Installation material
All necessary cables and hoses (water / air)
Cable track length plus 10m
For connecting the machine with the customers energy supply points

Commissioning and Training
1 software engineer for approx 5 days
1 process engineer for approx 5 days
Cost for 1 engineer per day
Incl. daily allowance and hotel accommodation
Travel costs on expense