



Penguin

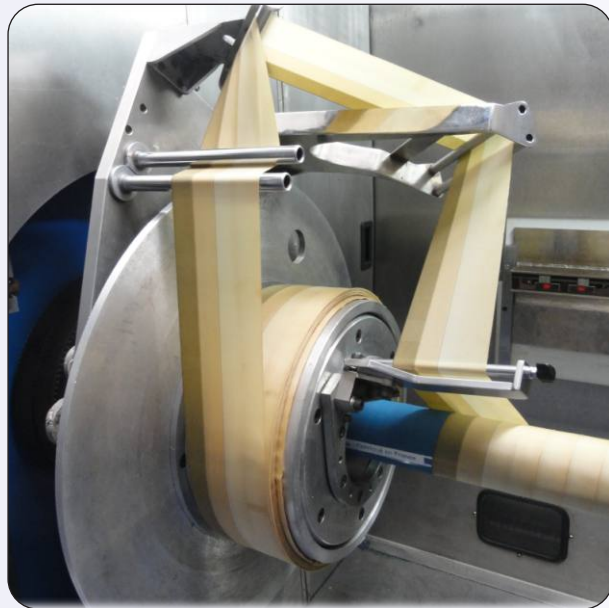
HOSE WRAP / UNWRAP SYSTEM (For Rigid Mandrels)



Model: WRAPMASTER 600RC

Penguin Wrapmaster 600RC wraps and unwraps cured tape over rigid mandrels. The machine can wrap hoses of different diameter and use range of tape widths. The operation is completely controlled from the interactive touch screen. The machine ensures that wrapping is done with minimum variation in pitch and at controlled wrap and unwrap tension. The mechanical sub systems are the wrap head, haul-off caterpillar, brand tape feeder and doors.





Wrapping head

The head has shuttle plate and tape spool mounted concentrically on a hollow pintle. The tape spool is clamped with expansion pin / bolt. The machine uses one piece ring type tape core. The center height of the head is automatically varied to suit the hose diameter using electro-hydraulic circuit with feedback.



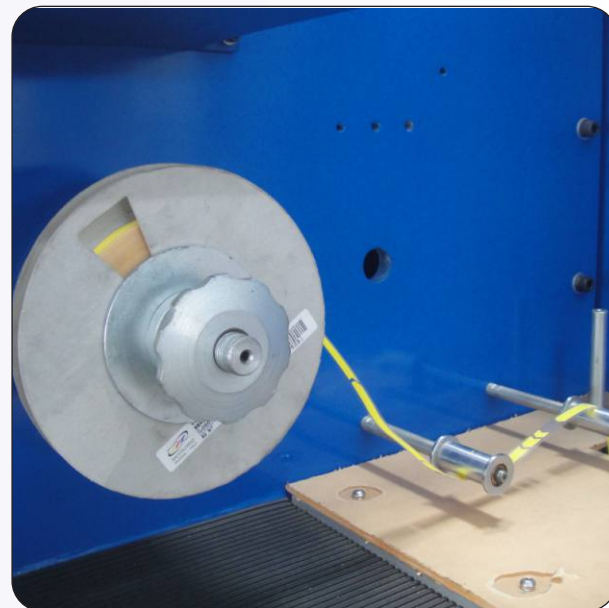
Caterpillar

The caterpillar has rubber lined positive drive belts and both the top and bottom belts are power driven. The caterpillar jaws are opened and closed pneumatically. The front side of the caterpillar is provided with a transparent access window protected by safety switch with bypass arrangement. The caterpillar can be accessed for lubrication and adjustments with conveniently located side doors.



Sliding door

The machine is provided with sliding main door. Convenient transparent window is provided on the door for the operator to monitor the progress of the operation. This stainless steel door collects the water splashing during the wrapping operation and provides for convenient drainage.



Brand tape system

The Wrapmaster 600RC has an unique brand tape feeding system. The system is driven by separate servo motor with electrical drive. This ensures trouble free feeding of brand tape even at high speeds. Short time change over from wrap to unwrap mode is possible even when the brand tape system is ON.

SPECIFICATIONS

Head drive	27 kW
Spool drive	22 kW
Caterpillar drive	7 kW
Brand tape drive	1.5 kW
Drives	Servo drives
HMI	10" MP277 Colour touch screen
Operation	Fully automatic with PLC Control
Frame	Heavy duty steel structural frame
Caterpillar	Positive drive belt with pressure distributing rollers
Compressed air	6 kg / cm ² ; 30 litres / hour
Noise level	< 75 dB

PRODUCTION DATA:

Mandrel system	Rigid mandrel
Hose / Cable length	No restriction
Type of hose	Wire / fabric reinforced
Pintle bore diameter	200 mm
Output Upto	100 m / min.

TAPE SPOOL CAPACITY:

Core	Taper core with circular section
Storage	One operational + one storage

TAPE:

Core diameter	400 mm
Maximum tape spool dia.	752 mm
Maximum tape length	1500 m
Tape width	100 mm to 200 mm
Power consumption	<30 kW
Floor space	1.6 x 3.5 M
Weight	5000 kg

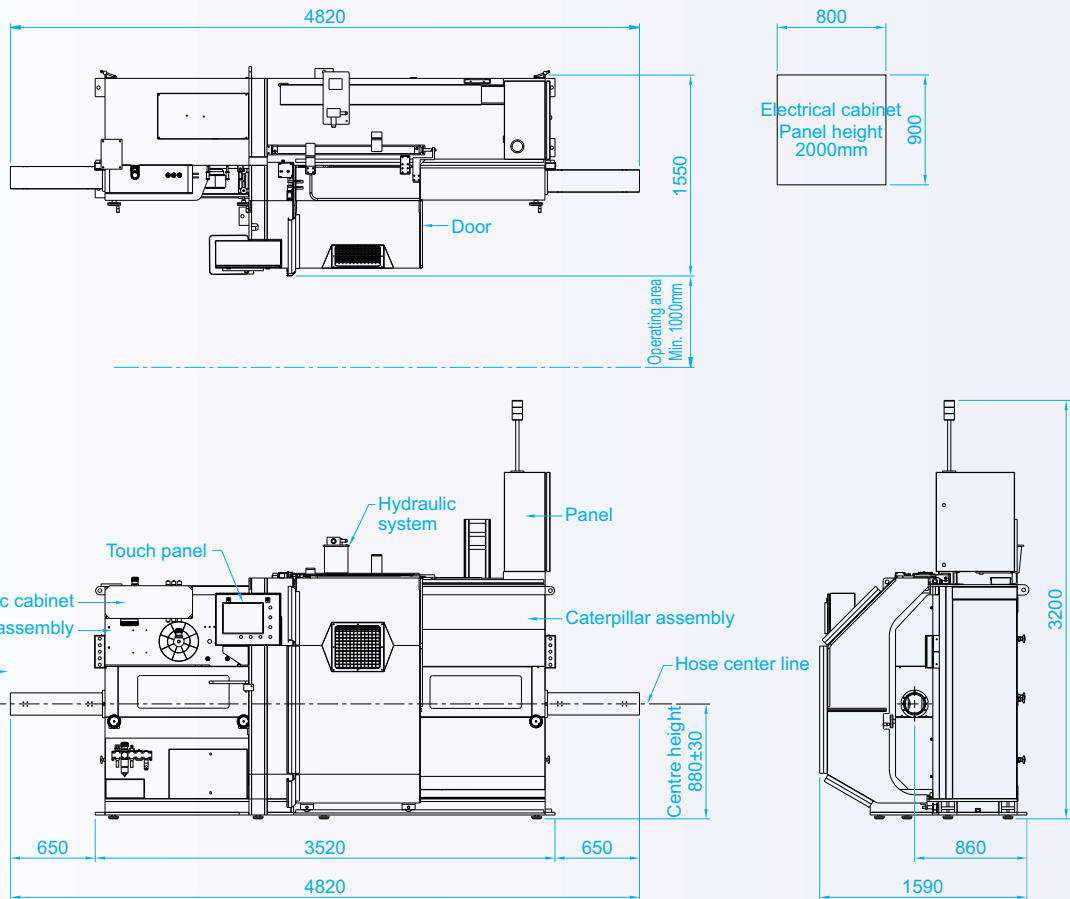
The wrapping machine is driven by four electric motors viz.

- Head drive motor
- Spool drive motor
- Caterpillar drive motor and
- Brand tape drive motor

The motors are driven by precision drives and are synchronized through the drive controllers. The synchronization between the head and caterpillar speed ensures less than $\pm 0.1\%$ (one in thousand) variation in pitch during wrapping. During unwrapping, the caterpillar responds almost instantaneously to ensure that the tape is unwrapped neatly under control of laser optic sensors.



Drives



Note: All dimensions are in mm



10" touch screen

Wrapmaster 600RC is controlled by state-of-the-art controller that communicates with the individual motor drives at high speeds. The operator controls the machine through the interactive touch screen and the push button stations provided in the machine.

The machine can be brought to rapid stop in a controlled manner without variation in pitch. The spool motor is controlled in a torque controlled mode and it responds to torque value set through the operator interface.



Manufactured by



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