



Penguin Engineers

R. KALAIMANI B.E., M.B.A.,
Managing Director
Mobile : +91 94433 - 73640
Email : info@penguin.in



S. DAVID PRABHAKAR B.E., M.B.A.,
Vice President - Marketing
Mobile : +91 94881 - 63640
Email : sales@penguin.in

www.penguin.in

Make your

Hose the Best &

Lead the Rest

with

PENGUIN

- Rotary Braider
- Maypole Braider
- Knitting
- Wrap / Unwrap

Leader in Hose Machines

ROTARY BRAIDER

ROBiT



*Productivity & Reliability
for Hose Industry*

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ORBITAL BRAIDER



*Speed & Precision in
Every Hose we Braid !*



ROBIT - “Rotary Braider Intelligent Technology”

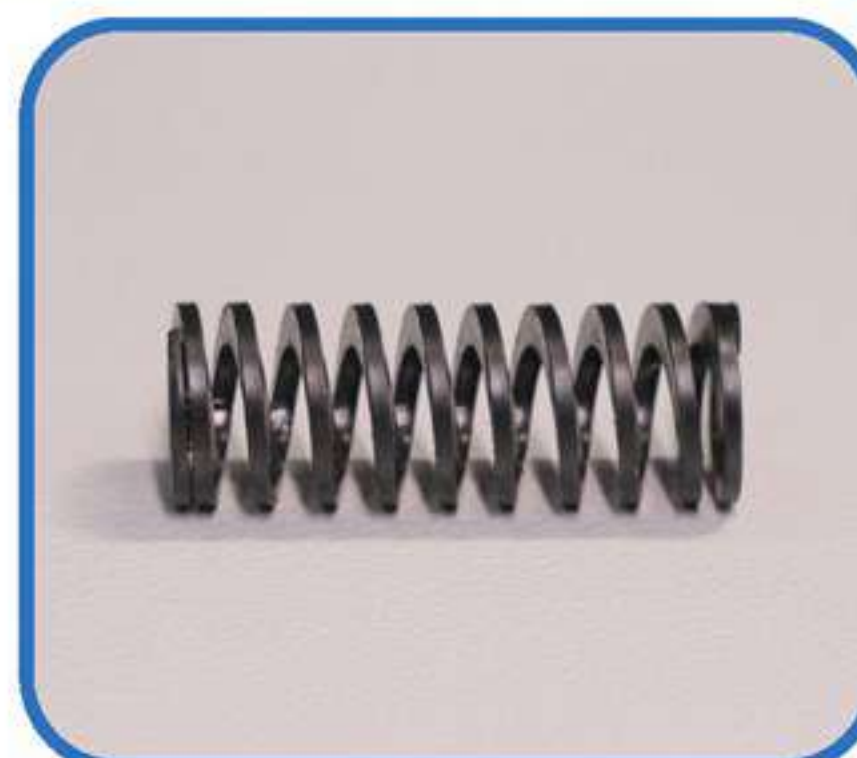
Penguin Orbital Braiders, ROBIT is Engineered and Precision built to deliver reliable performance for High speed braiding of hydraulic hoses, Cables and similar material that are to be braided with high precision. The rotary path of the carriers enable high speed operation and reliability. The contra rotating sets of carriers carry wire bobbins with precision tensioning mechanism. The strands from the outer carriers are displaced by suitable linkage mechanism. This eliminates wear of machine components. The braids formed are compacted to ensure a compact lay of braid on the hose.



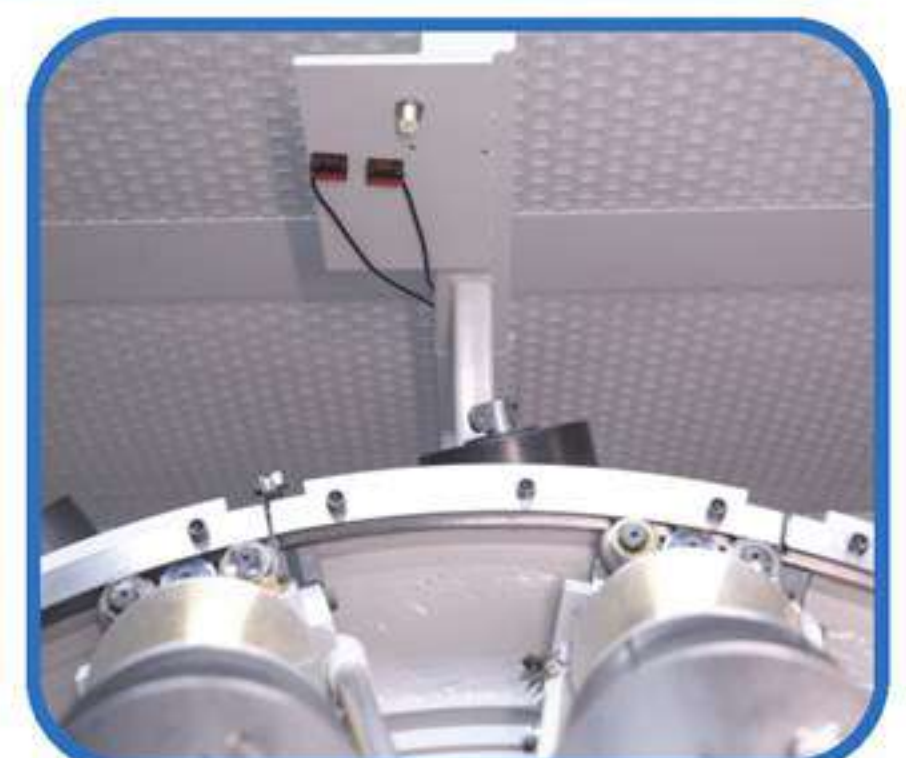
Deck with carriers



Clutch spring



Tension spring



Sensor

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Key Features

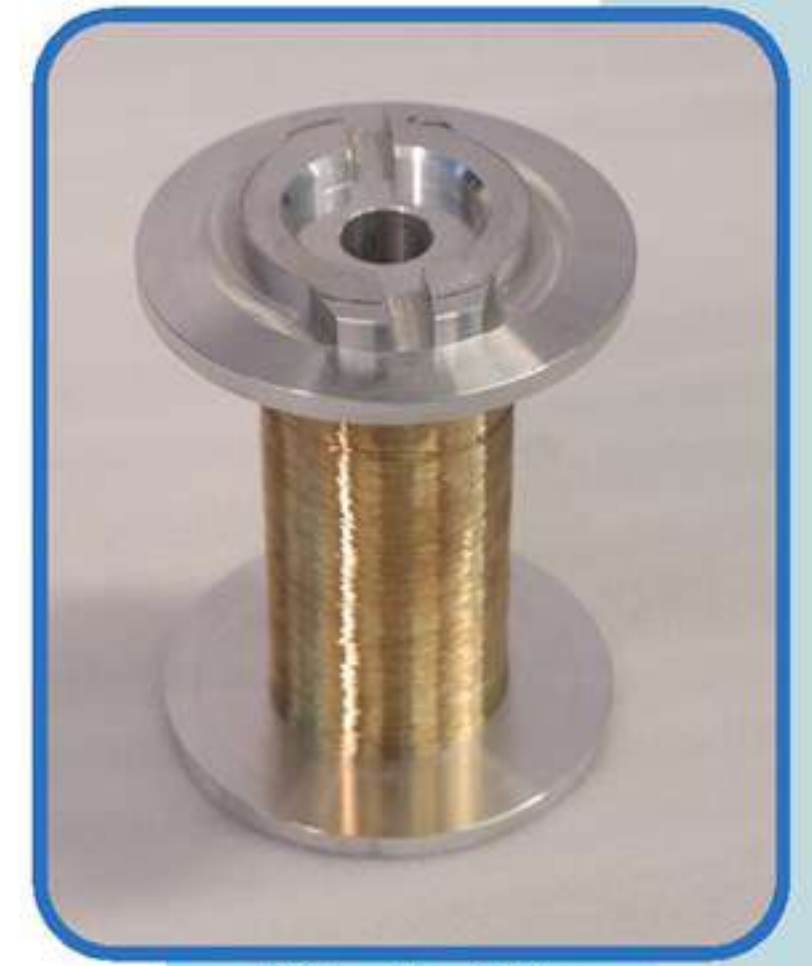
- **Higher Productivity:** Delivers nearly three times the output of a maypole braider
- **Enhanced Bobbin Capacity:** Lower inertial forces enabling heavier wire bobbins
- **Versatile Braiding Capability:** Suitable for high-tensile brass-coated steel wire, stainless steel wire, copper wire, tinned copper wire and various yarns, including polyester, nylon and aramid.
- **Larger Bobbin Capacity:** Accommodates increased material volume and hence suitable for textile braiding
- **Servo Drive System:** Ensures controlled and smooth machine startups & running.
- **Low-Maintenance Design:** Engineered for reliability and minimal routine maintenance.
- **Streamlined Data Management:** HMI (Human Machine Interface) enables easy data input, output, and standardization.
- **Haul-off:** With endless segmented track, vertically reversible type, suitable for hoses of 10mm to 100mm diameter.
- Haul-off Jaw opening 150mm (6")
- Product gripping indicator
- Digital display for pitch, deck RPM and productivity information

Carrier

- Optimal rigid design
- Bobbin made of lightweight materials for increased efficiency & enhanced productivity
- Lightweight bobbins enhance productivity.

PLC/HMI Operation

- **User-Friendly System:** Simplified operation with advanced servo control.
- **Enhanced Safety & Stability:** High-performance motion controller ensures reliable operation.
- **Smart Monitoring:** Displays machine faults and maintenance alerts.
- **Customizable Measurement Units:** Supports both metric and imperial systems.
- **Multilingual Interface:** Provides global accessibility with multiple language options.



Wire bobbin



Haul-off



Outer carrier



Control panel



Push buttons



Deck motor



Human Machine Interface

ORBITAL BRAIDER



Number of carriers		16	20	24
Carrier speed (rpm)	Wire	90	80	70
	Yarn	100	90	75
Productivity	Wire	1.6 m/min	1.8 m/min	3.1 m/min
	Yarn	1.8 m/min	2.0 m/min	3.4 m/min
	Hose ID	8 mm	10 mm	12.7 mm
Bobbin capacity	Wire	13 kg / 2200 cc		
	Yarn	1.75 kg / 2200 cc		
Carrier tension		2 to 13.5 kg (Adjustable)		
Bobbin size		Ø140 x 160mm Traverse		
Operation panel		Touch screen panel - HMI 7"		
Local panel		Push button panel		
Material		High-tensile brass-coated steel wire, Stainless steel wire, copper wire, tinned copper wire, & various yarns, including Polyester, Nylon and Aramid		
Power supply		415 v / 3 Phase		



Push button station with PLC



Rotary carrier



Exhaust Fan filter



Door safety limit switch



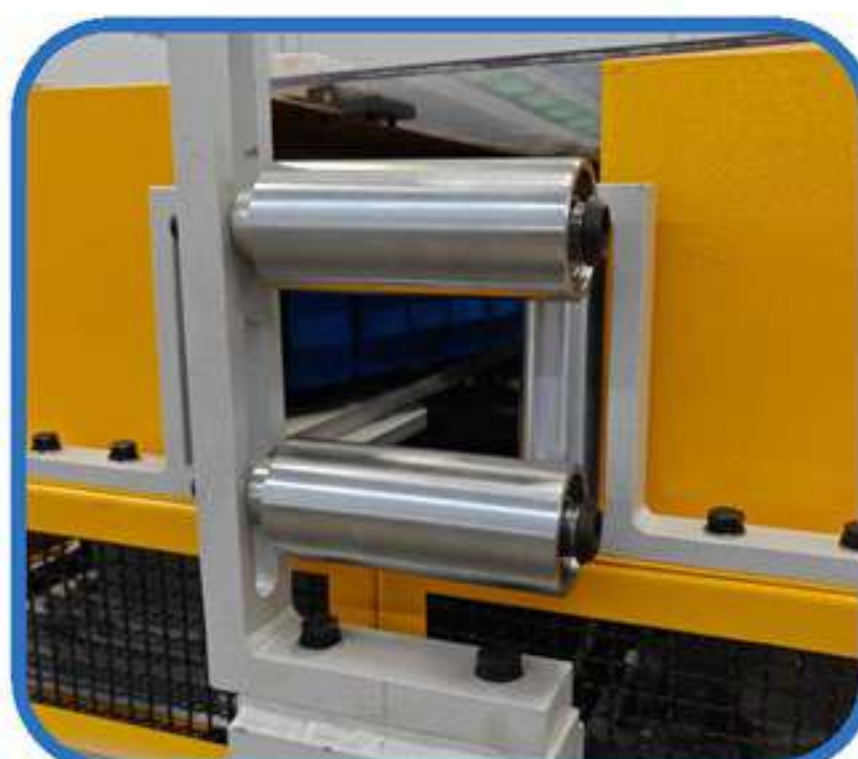
Push buttons



Inner carrier



Manual carrier loading



Haul-off entry & exit guide roller



Control panel

CUSTOMERS



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PENGUIN WORLDWIDE

Penguin Installations dot the globe spanning over 44 countries in Asia, Europe, Africa, South America, United States of America, South East Asia etc. A total of over 1500 installations are serving client needs to their satisfaction, supported by the extensive aftersales service network of the company that ensures minimum down time when the machines require service and upgrades.

The list of countries include:



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Mr. Lothar Ignatzi - Former Managing Director, Mayer Braidtech GmbH, Germany launches "ROBiT" - Orbital Braiding Machine by PENGUIN



Award for
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Highest Growth in 2019-20



Penguin Engineers (P) Ltd.



Lorandi Silos India (P) Ltd.



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Penguin Engineers

Manufactured by

Penguin Engineers

Factory:

3/184, Kondayampalayam
Vaiyampalayam Post
Coimbatore - 641 110. Tamil Nadu INDIA
Tel: +91 94436 77432 / +91 94436 77804

Office:

"The Rookery", 46-B, KRK Road
Krishnasamy Nagar II Layout, Ramanathapuram
Coimbatore - 641 045. Tamil Nadu INDIA
Tel: +91 - 422 - 231 5640 / 41 / 44



email: info@penguin.in

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