

HIGH SPEED WIRE BRAIDER

With Take-Up & Let-Off System

PENGUIN

Best suited for "Suraksha"
LPG hoses



Penguin high speed braider is a versatile maypole braider. It can be used for wire braiding as well as textile braiding. This machine can be used as a Novel 3 over 3 braiding as well as the conventional 2 over 2 braiding.

The conventional braiding of 2 over 2 is widely used for braiding high pressure hoses. The structure causes the strands of wire to be flexed more aggressively and hence during the pressurisation process, the abrasion between the layers of wires is more intense.

In 3 over 3 braiding, the flexing of the wire strands perpendicular to the direction of lay is minimum. This ensures higher strength against the bursting forces. Also, the longitudinal changes in length of the hose is also minimised. Thus 3 over 3 braiding puts lesser kink on the wire compared to 2 over 2 braiding.

Most opt machine for producing hoses of

- ▶ SAE 100 R1 Type AT
- ▶ SAE 100 R1A
- ▶ SAE 100 R6 (With textile carriers)
- ▶ Suraksha LPG Hoses
- ▶ Electrical Cables

- * 66 Dia. X 170mm traverse - Wire bobbin
- * 74 Dia. X 200mm traverse - Yarn bobbin
- * 500 cc volume; 3kg wire capacity
- * 1kg to 5 kg wire tension in carriers

★ *Electronic pitch control
- No change gears*

The "Penguin 3 over 3 Braider" adopts this latest technology in braiding and ensures 50% higher productivity for the same horn gear speeds.



3 Over 3 Braiding Speeds

- ✓ 30 Carrier RPM for 18 carrier machine
 - ✓ 25 Carrier RPM for 24 carrier machine
- #### 2 Over 2 Braiding Speeds
- ✓ 30 Carrier RPM for 12 carrier machine
 - ✓ 25 Carrier RPM for 16 carrier machine

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SPECIFICATIONS

Wire Braider

Wire tension	1 kg to 5 kg	
Number of carriers	18	24
Horn gear diameter	210 mm	
Horn gear speed (max.)	200 RPM	
Pitch	Upto 75 mm (Infinitely variable)	
Carrier	Wire carrier (Optional textile carriers)	
Carrier speed	30 RPM	25 RPM
Production / min. (Depending on pitch)	2 to 3 m	1.5 to 2.5 m
Bobbin		
Diameter	66 mm	
Traverse	170 mm	
Volume	500 cc	
Weight of wire	3 kg	
Voltage	415 V, 3 Phase	
Total power	2.75 HP	3.75 HP

FEATURES

- * 3 over 3 braiding as well as 2 over 2 braiding
- * Designed for vibration free operation
- * Single wire cut sensor
- * Automatic continuous oil lubrication
- * Ergonomically designed doors and access openings, so that the bobbins can be easily replaced
- * Sound proof acoustic enclosure
- * Wire as well as textile braiding

ADVANTAGES

- * More flexible
- * Half bend radius hose
- * Higher pressure
- * Better performance
- * Less cross points
- * Higher coverage
- * Increase of wire flatness
- * Less problems pin hole; nipling
- * Equal force to single wire ends
- * 50% Higher speed
- * Better impulse performance
- * Less wire consumption

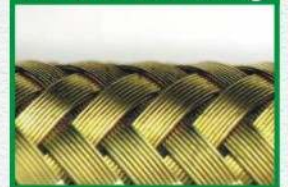
Take-Up / Let-Off Units

Drum diameter	: 800 mm
Drum width	: 450 mm
Weight of filled drum	: 160 kg
Traverse drive	: Roll ring
Lifting of drum	: Manual (With easy lifting arrangement)
Line speed (Variable)	: 5.75 m/min. (max.) (Can be supplied with your drum size)

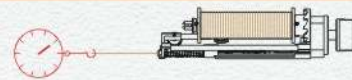
3 Over 3 Braiding



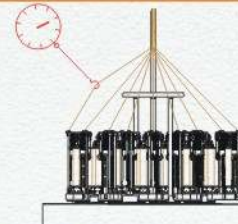
2 Over 2 Braiding



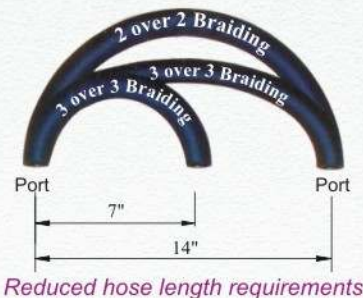
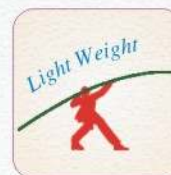
WIRE TENSION MEASUREMENT



Wire tension - Upto 5kg
(In this method of measurement)



Wire tension - Upto 10kg
(In this method of measurement)



Manufactured by

Penguin Engineers

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