Fully Automatic Horizontal Bead Apex Applying Machine

Applies an extruded triangular rubber apex to hexagonal steel bead cores, producing bead-apex assemblies for tire building.



Process and operator scope

1. Extrude and transfer
Triangular apex exits the extruder die and moves on a take-away conveyor.

2. Shrink and cool
A free-shrink roller table, cooling drum and accumulator feed the applying station.

3. Apply and splice
The machine automatically loads and clamps each bead core, applies the apex and makes the lap splice.

4. Take off
Finished bead-apex assemblies are transferred to the storage station.

Operator tasks: replenish the extruder, load bead supply stations and transfer finished racks. The line is installed between bead winding and tire building.

Published model specifications

Item	Published value
Bead diameter	12-20 in standard; 16-24 in large-size model
Bead cross-section	Hexagonal
Apex height / base thickness	15-60 mm / 4.5-10 mm
Bead-apex concentricity	<= 0.5 mm
Lap-splice overlap	0-2 mm
Full-circle error after applying	<= 1 mm
Cycle time at 16 in bead, 35 mm apex	8 seconds per bead
Published output at same condition	750 beads over 2 hours
Published staffing	1 operator; assigned tasks listed above

Published model values are supplier information, not a universal production guarantee. Confirm the bead drawing, rubber compound, test duration, staffing and acceptance criteria in the project specification and factory acceptance test.

Semi-Automatic Horizontal Bead Apex Applying Machine

Uses the same extrusion, free-shrink, cooling and accumulator process. At the applying station, an operator places and removes each bead; apex splicing runs automatically.



Factory footage from the line extrusion process.

What is automated

Apex feeding, applying cycle and lap splicing. A foot switch starts the applying cycle after the operator places the bead.

What the operator does

Place each bead core at the applying station and remove the finished bead-apex assembly after the cycle. The operator also replenishes extrusion materials.

Published model figures

At a 16 in bead with 35 mm apex: 7 seconds per bead; 800 beads over 2 hours. One operator is listed. These figures are supplier-published and must be confirmed against the buyer's material and acceptance conditions.

Shared published specification range

Shared published range: 12-20 in standard bead diameter (16-24 in large-size model); hexagonal bead cross-section; apex height 15-60 mm; base thickness 4.5-10 mm. Published accuracy figures include bead-apex concentricity <= 0.5 mm, lap-splice overlap 0-2 mm and full-circle error <= 1 mm. The common line specification lists a 90 mm cold-feed pin extruder (30 kW), D1200 mm cooling drum with 25 m cooling length, 100 kW installed power and 0.4-0.6 MPa compressed air. Confirm model scope and site utility requirements in the quotation.

Choosing a configuration

Choose fully automatic when automatic individual bead loading and take-off fit your line and staffing plan. Choose semi-automatic when operator placement and removal are acceptable. Request quotations using the same bead drawings, apex profile, target output, compound and acceptance-test conditions.

Request a configuration review

Jiangyin Pinshun New Energy Technology Co., Ltd.
No. 98 Xinzhuang Road, Zhutang Town, Jiangyin City, Jiangsu, China
Email: admin@pinshunmachinery.com | Phone / WhatsApp: +86 152 5155 3378
Website: https://en.pinshunmachinery.com/
To quote, provide bead diameter, bead cross-section drawing, apex height and base thickness, required output and plant layout.

Product references and factory videos

Automatic machine specifications | Semi-automatic machine specifications
Automatic line video | Semi-automatic applying-station video
Specification source: Pinshun product pages and the company-published technical agreement dated 29 May 2026. Figures can vary by confirmed configuration. No price, certification, customer reference or local service promise is implied by this catalog.