



Robbins LLC

A HEXPOL COMPANY

Made in the USA

Envelope Management
Maximize your investment



Robbins LLC – Muscle Shoals, AL

Proudly made in the USA

Campus

- 32 Acres
- 225,000 sq ft
- 52 associates



Parent Company

- Robbins LLC has been part of the HEXPOL Group since late 2012
- HEXPOL is publicly traded on the Nordic stock exchange (HPOLB)
- HEXPOL sales are around US\$1.5B
- HEXPOL has over 30 global facilities and over 3,000 associates
- **Fully committed to retread!**



Robbins- wide Assortment of Retread Solutions

- Outside envelopes
- Inside envelopes
- **Rubber Sealing Rings (new 2018)**
- OTR envelopes
- Hand-built envelopes
- Unitubes
- Curing tubes
- Rubber Wick pads
- Envelope repair kits
- Envelope lube
- Variety of valves



Importance of Envelopes



- Key to the precure retread process
- Besides rubber and labor, the largest expense for a typical retread facility

Envelope Management

- Keys to minimizing envelope costs include:
 - Process
 - Inventory
 - Housekeeping
 - Storage
 - Inspection



Common Problems

- Too few envelopes in circulation
- Improper cooling
- Inefficient storage
- Sharp edges on equipment
- Lack of training
- No or incorrect lubrication
- Improper repair

Envelope Management

- Lubrication
 - Use approved materials
 - Critical to keep envelopes fresh
 - Intervals, each time or visual
- Envelope rotation
 - Rotate in the spreader
 - Avoid same side always being spread



Envelope Inspection

- Inspect envelopes regularly
 - Avoid using them too long
 - Periodically inspect the envelope for blemishes
 - Cut around small tears
 - Pay particular attention to the edges of the envelope
 - Move envelopes up in size
 - Remove envelopes that have stretched too far (thin in shoulder)



Other Inspection

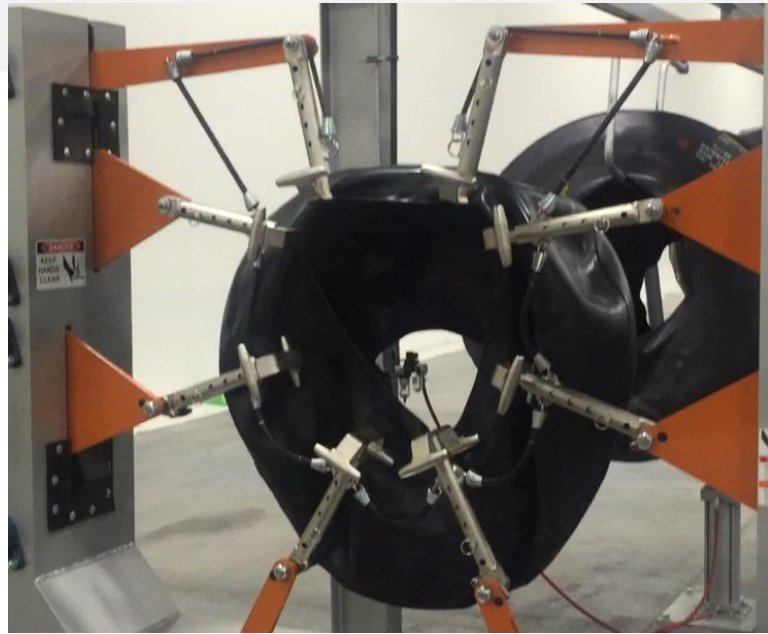
- Inspect areas and equipment which come into contact with envelopes
 - J-hooks
 - Storage bins
 - Spreaders
- Eliminate sharp edges
- Keep envelope area clean of staples

Envelope Repair

- Repair products are available to fix small injuries
 - Easy to use
 - Long-lasting
- Be sure to use dedicated repair product
 - Helps maximize envelope life
 - Avoids tire mis-cures



Envelope Installation



- Important that person on envelope station has been properly trained.
- Common problems seen:
 - Spreader out too far
 - Bottom of tire not pushed in can cause tire to pop off the j-hook



Envelope Orientation



- When the envelope has been applied:
 - Orient the valve to the right spot
 - Avoid shifting the tire once on the j-hook



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Envelope Storage

- Store envelopes where they can cool
- Put infrequently used envelopes in a cool, dark place away from light and heat.
- Avoid storing directly on the floor.
 - Use bins or storage racks.
 - Keep them as flat as possible



Best Practices



- Put envelopes on the floor after they come off the tire for initial cool-down
 - Adding fans to the area will significantly speed up the process

Things to Avoid

- Storing envelopes underneath the chamber (or other sources of heat)



Things to Avoid

- Storing envelopes in metal containers
- Folding envelopes
- Using envelopes on tires for which they are not sized (may stretch it out prematurely)
- Trying to stretch envelopes beyond their useful life (risk losing tires)

How many cures should I expect?

- Depends on many factors:
 - Cure method: steam vs. electric
 - Cure temperature & length
 - Type of sealing rings used (metal or rubber)
 - Tread pattern
 - Envelopes used
- Most shops can get a 20% improvement in envelope life with implementation of some simple techniques

Cost/Cure

- Avoid buying envelopes strictly on price
 - “penny wise – pound foolish”
- Track using any of multiple methods
 - Scanning
 - Divide envelope purchase spend by tires retreaded
- Best practice cost/cure
 - Sealing rings: <\$1.00
 - Inside/outside method: <\$1.50

What is the 1 thing I can do right away?

- Have enough envelopes in circulation
- Rule of thumb: 3 per chamber position.
 - 1 in the chamber
 - 1 on a tire waiting to go in a chamber
 - 1 cooling down waiting to go on a tire
 - So: each 23 – tire chamber should result in at least 69 envelopes (adjusted for mix)
- Buying additional envelopes is a 1-time expense with repeated payback

Some Ways that Robbins has Improved

Changes at Robbins

- Aggressive investments in tooling and press improvements.
- Increased production quality inspection and tightened standards



Teflon Coated Every Mold

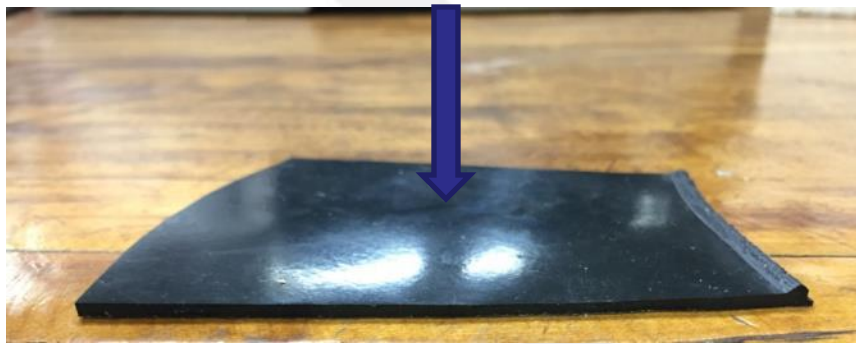


Benefits of coated mold:

- Easy release
- Rubber flows better – meaning more even thickness
- No lube used to stack envelopes (they won't stick together & easier to install sealing rings on new envelopes)

Skirt/Bead - Old vs New Design

Old Design



New design:
On average, 43% thicker with
enhanced, tapered bead



- Thicker skirt and beefed-up bead is more resistant to abrasion-created defects in shops while maintaining same great elasticity
- Robbins R molded into skirt

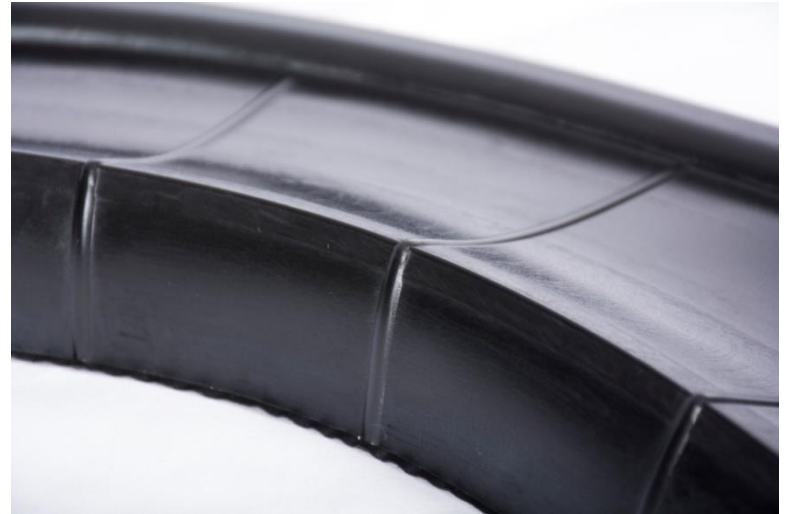


New Post-Molding Testing

- Every envelope is tested on spreaders
 - Immediate after molding – 300 degrees
- Benefit: if there is a problem with the envelope, we have a greater chance to catch it in our facility.



Inside Envelope Improvement



New flaps
Re-engineered
Tear flash



INTRODUCING from Robbins: Accu-Fit™ Rubber Sealing Rings



The next revolution in arc-seal systems

- A complete new way to do rubber sealing rings
- Consists of a separate body and insert
- Tread band insert can be replaced
- Wear indicators show replacement timing
- Premium rubber will outlast all other system

INTRODUCING from Robbins: Accu-Fit™ Rubber Sealing Rings

The next revolution in arc-seal systems

- Fits on all existing metal bands used with rubber
- Easy installation and replacement
- Reduces waste
- Results in overall reduced cost/cure
- Patent pending – made in the USA!
- Available in all sizes from 14” to 24.5”



New Web Site

The screenshot shows the Robbins LLC website homepage. At the top left is the Robbins LLC logo, featuring a stylized 'R' with an American flag motif, and the text 'Robbins LLC A HEXPOL COMPANY Made in the USA'. To the right of the logo is a 'Select Language' dropdown menu and social media icons for Facebook, LinkedIn, and Twitter. Below this is a navigation menu with links: HOME, WHY ROBBINS?, PRODUCTS, RESOURCES, DISTRIBUTORS, NEWS & EVENTS, and CONTACT. The main content area is a red banner with five columns: ENVELOPES (showing a worker with a tire), CURING TUBES (showing a globe), WHY ROBBINS? (showing a globe), ACCESSORIES (showing repair products), and RESOURCES (showing a tractor tire). Below the banner is the text 'Tire Retreading Products from Robbins LLC'. The page is divided into three columns: 'Put Robbins Envelopes and Curing Tubes to the Test' with the headline 'RAISE THE BAR with the best raw materials and production methods to LOWER THE COST per cure for your retreading business. We simultaneously raise quality while lowering your cost-per-cure.'; 'Try our Envelope Search' with the headline 'See our easy-to-use envelope search applications to help you choose the right product for your requirements.' and an 'ENVELOPE SEARCH' magnifying glass icon; and 'News & Events' with two headlines: 'Robbins LLC Introduces New Company Logo Celebrating Envelopes and Curing Tubes "Made in the USA"' and 'Successful Integration of Robbins LLC Strengthens HEXPOL's Position in the Tire Industry'. At the bottom, there is a 'Newsletter Signup' button and a footer with the text 'Contact us today for some special opportunities on Robbins products.' and speaker icons.



Robbins makes inside and outside envelopes to fit a variety of tire sizes.

These easy-to-use search tools will help you choose the Robbins products that are right for your requirements. For outside envelope search, simply select the sealing method and tire size from the pull down menus and the corresponding Robbins product number to use when ordering will appear in the column below. For inside/outside envelope search based on casing size, simply select a casing size and a list of envelopes related to tire sizes will be displayed.

Disclaimer:

The search is to be used as a "Guide" to help in selecting the proper envelope for your tire. Due to the wide variety of tire sizes and tread patterns, the actual proper fit combination may be different. We suggest trying one envelope before ordering larger quantities.

[Download Outside Envelope Size Charts as PDF](#)

Outside Envelope Search

Sealing System:

Casing Size:

[Download Inside Envelope Size Charts as PDF](#)

Inside/Outside Envelope Search

Casing Size:



Robbins is Unique

- ✓ Made in the USA
- ✓ Strong financial parent
- ✓ Largest offering of sizes
- ✓ Capacity to build for your needs
- ✓ Field representation
- ✓ ISO 9001 & ISO 14001
- ✓ Attractive pricing, great value



Why Robbins?

- **Lowest cost per cure**
 - Robbins envelopes last longer than any other
 - Stay on original tire size longer
- **Proudly Made in the USA**
 - Over 80 years of experience
- **Largest offering**
 - Envelopes, curing tubes and accessories
 - Regular highway tires and OTR tires
- **Complete inspection**
 - Hot tear testing – envelopes tested on a spreader at 300 degrees before packaging
- **Worldwide coverage**



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www.robbinsllc.com

www.hexpolcompounding.com