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Lauren Tri-Circle® Silicone Liner
Installation Guide

Preinstall Checklist

A proper operating system is required to ensure correct installation and optimum liner performance. The milking system must be evaluated under load and adjustments made accordingly.

☐ Check Pulsation

DO NOT install Lauren Tri-Circle Liners with c-phase averages below 120 ms. If c-phase needs adjustment, a CR 30, CR 45 or CR 60 Pulsation Enhancer must be installed.

Questions?
Visit us at LaurenAgriSystems.com

☐ Check CIP Units

Lauren Liners fit a standard 51mm size jetter/wash cup. If using a larger 57mm liner, you will need new jetters/wash cups or CIP/jetter tray adapter.

Wash Cup
Item #10161

CIP Insert
Item #10160

Jetter Cup
Item #10162

☐ Check Claws

Make certain that claw inlet nipples are not sharp. Silicone cuts easier than rubber. All sharp edges need filed or grounded to a rounded edge.

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Installation Steps and Sets

Following proper installation guidelines for the Lauren Liner will result in healthy teat ends, fast milking and fewer squawks, falloffs and kickoffs.

1 Setting Vacuum

Set system vacuum to average claw vacuum at peak flow of 12 inHg to 13 inHG with less than 3 inHG fluctuation. System vacuum is normally set between 14.0 inHG to 14.4 inHG for low-line parlors.

Check claw vacuum after 90 seconds but before two minutes into milking. At this point, record the minimum, maximum and average vacuum over 15 to 20 seconds.

Measure peak flow by using a 1.5-inch 16-gauge needle inserted into a short milk tube, roughly 1.5 inches below the liner vent. Randomly check five to 10 cows.

Vacuum Max	Average	Minimum
13.8 inHg	12.8 inHg	12.1 inHg

TIP

Keep an eye on teat color within 10 seconds after removing the unit. It should be white or pink. Any purple or blue is a sign of inadequate compression and may require higher vacuum settings.

2 Setting Pulsation

2.1

Set pulsation with the unit under the vacuum and the teat plugs in place.

2.2

Optimum phases for Lauren Liners should be:

a-phase: 100-150 ms
b-phase: 460-520 ms
c-phase: 130-160 ms
d-phase: 180-220 ms

2.3

Install CR 30, CR45 or CR 60 Pulsation Enhancers; follow instruction manual provided with CRs.

3 Setting Detachers

ALWAYS check detach settings and adjust to the recommended settings:

For 2X: 0.75 to 1.4 lbs/minute

For 3X: 1.25 to 1.75 lbs/minute

Going dryer than current setting at install is usually recommended.

TIP

Detachers need to be adjusted and in good repair so the milking unit won't fall onto the parlor deck. Faulty detachers are the leading cause of liner tears.

REMEMBER: Severe hyperkeratosis over time has been linked to increased clinical mastitis. Cows are creatures of habit, so changes can cause higher stress levels that lead to higher SCC or mastitis for two to three weeks.

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Setting Vacuum Additional Information

Milk efficiently, comfortably and profitably with Lauren AgriSystems Tri-Circle® silicone liner. Pulsation and vacuum are key components to milking and should be adjusted to your parlor's unique setup.

Liner Vacuum at Peak Milk Flow

Low flowing cows (4.0–7.0 lbs/min)

Average claw vacuum of 12.2–12.6 inHg or 41.3–43.3 kPa

Minimum claw vacuum not to drop below 10.5 inHg (35.5 kPa)

Medium flowing cows (8.0–2.0 lbs/min)

Average claw vacuum 11.8–12.4 inHg (40.0–42.0 kPa)

Minimum claw vacuum not to drop below 10.0 inHg (33.8 kPa)

High flowing cows (13.0 lbs/min or greater)

Average claw vacuum 11.5–12.2 inHg (39–41 kPa)

Minimum claw vacuum not to drop below 9.6 inHg (32.4 kPa)

These are optimum ranges; +/- .2inHg and +/- 2 lbs/min of these ranges are acceptable.

System or Milkline Vacuum Details

- For vented liners, vacuum will normally be 13.8 to 14.4 inHg (47 to 48 kPa)
- For nonvented liners, vacuum will normally be 13.2 to 13.8 inHg (45 to 47 kPa)

Milkline vacuum outside of these ranges is possible but should occur only if the liner vacuum at peak flow is within tolerance (if system is in good working order).

Troubleshooting Guide

Issue	Possible Causes	Suggested Solutions
Cows not milking out	1) Detacher setting too wet 2) b-phase too short 3) Claw vacuum too low	1) Adjust detach settings dryer (less milk flow) 2) Adjust pulsation ratio wider 3) Check peak flow vacuum, or check for milk flow restrictions: small volume claw, sensor or milk hose, or increase system vacuum
Teats are purple/blue	1) Claw vacuum too low	1) Increase system vacuum
Liners squawking	1) Claw vacuum too low 2) a-phase too long 3) Claw air vent open	1) Increase system vacuum or check for milk restrictions in small volume claw, sensor or milk hose 2) Shorten twin pulsation tube as short as possible, or service and clean pulsator 3) Close claw vent
Short milk tube cuts	1) Claw inlet nipples too sharp 2) Detachers not working or retracting properly	1) File inlet nipples to eliminate sharp edges 2) Adjust detachers so unit does not fall onto the deck
Slow milking	1) Claw vacuum too low 2) b-phase too short 3) c-phase too short	1) Increase system vacuum, or check for milk restrictions in small volume claw, sensor or milk hose 2) Increase pulsation ratio wider (more milking %) 3) Install CR 160

For additional help, please call our customer service line at 866-851-0252.

Installing Lauren Liners in Shells

The liner and shell have locking features that prevent the liners from rotating inside the shell. You can find the locking mechanisms at the top and bottom of the liner and shell.

To install

1. Line up the yellow vent and the air tube nipple.

2. On the opposite end, line up the arrow on the shell and the arrow on the liner.