



Flo-Star Xtreme







Background

BouMatic's Flo-Star family

- Flo-Star Original 1988 To 2019
- Flo-Star Classic 1990 To 2019
- Flo-Star Max 2004 to Present
- Flo-Star Xtreme 2019
- The Flo-Star family has provided and will continue to provide an excellent array of features and benefits for milking cows on any farm.
- The Xtreme has been created to improve fluid dynamics to which benefits faster milking for more throughput without any compromises.



Goals and Achievements for the Flo-Star Xtreme

Higher Milk Flow rates:

 Since the late 80's, Genetics, feed education and herd management has pushed the envelope of 20lbs/min producing cows. Technology in the Flo-Star Xtreme has been proven to handle 20lbs/min cows without compromising performance.

Claw Vacuum Stability:

 The less vacuum fluctuation in the claw the more stability on teat ends. Utilizing the "snorkel" in the outlet, it stabilizes vacuum fluctuations in the claw for improved milking over the competitive claws.





Goals and Achievements for the Flo-Star Xtreme

Lighter weight claw:

 As a result of a lighter weight claw, we notice less liner slips and squawks across all milking pens (from heifers to 6-8 lactation cows).

Improved the angles of the inlets:

 As a result of angled inlets, we noticed improved unit balance and alignment. A balanced alignment will have even milkout from all quarters.





Product Development

- 2014 Concept Goal was a high flow claw that is revolutionary
- Over 5 years of research, development, fluid dynamic engineering, testing, monitoring, investments and time.





Product Development

 BouMatic Introducing the next Generation of Flo-Star, The Xtreme





Trial Farms and Results

Farm A

- 80 Stall BouMatic Rotary.
- Goal: Dairy would like to use the 5/8" outlet over the ³/₄"
 Xtreme if it does not reduce production. Reasoning is unit alignment is critical for milking for the dairy farmer.

Results:

- Over 120,000 milkings on the new claws.
- Seeing an average of 0.87# extra per day.
- Farm A additional achievements from their goal:
 - By going from the 3/4" claw outlet to a 5/8" claw outlet, the dairy plans on saving over \$1000.00 per year only on 5/8" silicone hose.
 - Improved unit alignment + faster milking + more milk + hose savings = Return on investment is extremely <u>low</u>!!!!!



Trial Farms and Results

Farm B

- 72 Stall BouMatic Rotary.
- Current claw: Flo-Star Max

Farm C

- Double 35 Parlor
- Current claw: Flo-Star Max

Results:

- Increase in milk yield/cow/milking.
- Increase milk/stall/hour
- Decrease in manual detaches.





Philosophy

BouMatic's Core Philosophy in the Xtreme Claw

Gently

- At only 9.5oz (269 grams), the Flo-Star Xtreme is one of the lightest claws on the market.
- One benefit to being lightweight is reducing operator fatigue during long milking shifts.
- Its low profile distributes the weight across the shell and liner to provide the ideal unit alignment.
- The patent-pending air inlet design improves vacuum stability at the teat ends.
- Cows will experience less vacuum fluctuation, which will improve teat end conditions.





Philosophy

BouMatic's Core Philosophy in the Xtreme Claw

Quickly

- The Flo-Star Xtreme claw is equipped with an innovative air inlet within the outlet of the claw.
- This air inlet works to both provide optimal air flow out of the claw.
- Stable vacuum and smooth optimal air exiting the claw means both a gentler and quicker milking.
- Even with high producing cows (greater than 2gal/min,7.6L/min or 17.2lbs/min, 7.8kg/min) the Xtreme claw will not flood.
- Faster milk out times means healthier teat ends.
- More throughput means more cows per hour.

More cows per ho fits.



Philosophy

BouMatic's Core Philosophy in the Xtreme Claw

Completely

- The Flo-Star Xtreme has <u>improved</u> its patented X-crossed inlet design.
- The enhancements improve the "cow fit" for improved alignment.
- Improved alignment fits wide variety of udders (wide, narrow, short and long).
- The benefit of improved unit alignment is even milk out.
 Harvesting the available milk from each quarter.
- The Xtreme design has a height of only 3 inches (7.6cm) making it the ideal claw for small breeds (Jerseys) and for low-hanging udders.





Review

Features

Low Profile

→ Does not sit on the ground when milking big bags or short legged cows. Reducing the flow restrictions.

Benefits

- Lightest Claw on the market →
- Reducing congestion on the teats which improves milkability.

 Improved inlet angles to improve milk flow. The patented inlet design improves the way the Xtreme claw is positioned under the cow for reduced milk path restrictions.

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Review

Features

"The snorkel" in the outlet = \(\frac{1}{2}\)

• Fluid dynamic design

 The Flo-Star Xtreme has <u>improved</u> its patented Xcrossed inlet design. **Benefits**

- Stable vacuum and smooth optimal air exiting the claw means both a gentler and quicker milking.
- Faster milk out times means healthier teat ends. More throughput means more cows per hour.
 - Improve alignment, fitting wide variety of udders for even milk out. Harvesting the available milk from each quarter.
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Success!

