

COW FLOW BY DESIGN

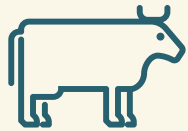
# Simple Flow. Calm Cows. Better Performance.



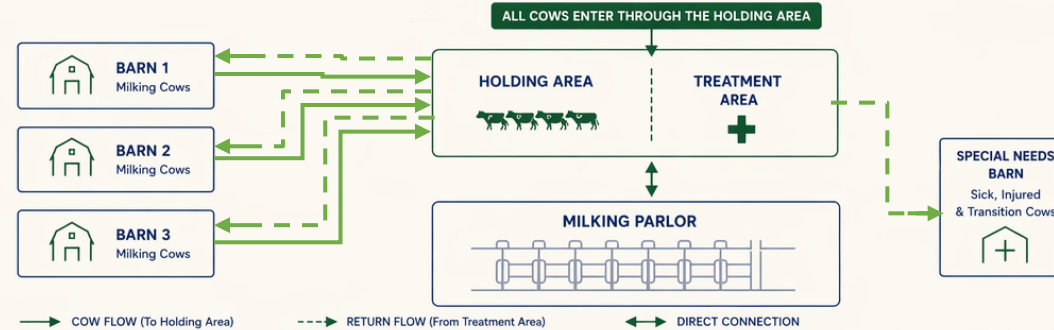
MONTESTRUCTURA

A clean, connected layout with smart cow flow reduces stress, improves milking efficiency and delivers better results.

## COW FLOW MATTERS



Cows that move easily and calmly spend less energy, experience less stress and deliver more milk.



### THE IMPACT ON YOUR FARM

- Higher Profitability**  
Better efficiency lowers costs and increases margins.
- More Milk, Better Quality**  
Less stress and smoother flow improve production and quality.
- Healthier Cows**  
Reduced stress and fewer injuries lead to healthier, longer-lasting cows.
- Happier Team**  
Easier work, less frustration and more job satisfaction.

**A WELL-DESIGNED TRAFFIC AREA IS THE KEY.** A well-executed cow group management can then avoid unnecessary conflicts between the groups.

### INEFFICIENT FLOW (Typical Layout)

Multiple crossings, backtracking and long paths create stress, waste time and reduce efficiency.

<b>Crossings</b> Increase stress and risk of injury	<b>Crowded Areas</b> Cause pushing, waiting and stress	<b>Longer Time</b> More delays, lower throughput	<b>Lower Performance</b> Less milk, more health issues	<b>More Labor</b> More time, more cost
<b>TYPICAL IMPACT*</b>	<b>+10-20%</b> Longer Milking Time	<b>+15-25%</b> More Cow Stress	<b>-5-15%</b> Lower Milk Production	<b>+10-20%</b> More Labor Required
				<b>Higher</b> Risk of Injury & Health Issues

### OPTIMIZED FLOW (This Layout)

Direct connection and one-way flow create calm cows, faster milking and higher efficiency.

<b>One-Way Flow</b> Cows move forward without backtracking	<b>Less Stress</b> Calm cows, better behavior	<b>Faster Milking</b> Less waiting, higher throughput	<b>Higher Production</b> Better comfort, more milk	<b>Less Labor</b> Less time, more efficiency
<b>TYPICAL IMPACT*</b>	<b>-10-20%</b> Milking Time Reduction	<b>-15-25%</b> Lower Cow Stress	<b>+5-15%</b> Milk Production Increase	<b>-10-20%</b> Labor Time Reduction
				<b>Lower</b> Injury & Health Risk

- ### COW FLOW DESIGN PRINCIPLES
- 1 Create a clear, one-way flow from entry to exit.
  - 2 Provide enough space for natural movement.
  - 3 Avoid crossings between cow groups.
  - 4 Keep holding area directly connected to the milking parlor.
  - 5 Design traffic alleys behind the holding area to connect all barns.
  - 6 Provide a separate space for special needs cows.

## Sources

Grant, R.J., Albright, J.L. & Arave, C.W. (2008) The effect of facility design on milking performance, *Journal of Dairy Science*.

Von Keyserlingk, M.A.G., Weary, D.M., & Pajor, E.A. (2009) Cattle respond differently to handling depending on previous experience with humans. *Applied Animal Behavior Science*.

Hertl, J.A., Smith, J.L., & Hagen, M. (2020) Association between cow flow and milk production on commercial dairy farms. *Journal of Dairy Science*

Bewley, Dairyfarm efficiency: Impacting profit and throughput, *Journal of Dairy Science*

### WHAT RESEARCH SHOWS

- 17%** Better facility flow reduced milking time by 17%.  
Grant, R. J., et al. (2008) *Journal of Dairy Science* 91: 2085-2092
- 23%** Improved cow flow and handling reduced stress by 23%.  
von Keyserlingk, M. A. G., et al. (2009) *Applied Animal Behaviour Science* 116: 1-6
- +8-12%** Better cow flow is associated with 8-12% higher milk yield.  
Hertl, J. A., et al. (2020) *Journal of Dairy Science* 103: 4986-4998
- 10-20%** Well-designed layouts reduce labor time by 10-20%.  
Bewley, J. M. (2012) *Journal of Dairy Science* 95: 6962-6972

### Design today. Deliver tomorrow.

Smart cow flow design improves cow comfort, increases efficiency and drives your farm forward.

\* Typical ranges based on industry standards and practical experience.