

LABOR EFFICIENCY BY DESIGN

# Layout Design Directly Impacts Labor Efficiency



MONTESTRUCTURA

Well-planned layouts reduce unnecessary movements, improve workflow and create a safer, more productive environment for your team.

Labor Efficiency is not only a staffing issue – it is a design decision.



DESIGN IS A FORCE MULTIPLIER

Better layouts reduce walking distances, eliminate crossings and create logical flows – saving time every day.

## Sources

Haynes, B.P. (2008) The impact of workplaces layouts on productivity. Sheffield Hallam University

Perillo Construction (2019). The ROI of ergonomics

Microsoft (2019). The science of Workplace Productivity.

Allen, T.J., B. Golden. T.D (2015). Spatial context and performance: How the office workspace affects individual performance. Harvard Business School Working Paper 16-147

✘ **INEFFICIENT LAYOUT**

Long distances, crossings and scattered functions waste time and increase labor demand.

<b>Longer Walking Distance</b> More steps, more time lost every day	<b>Crossing Flows</b> Higher risk of errors, stress and contamination	<b>Waiting &amp; Bottlenecks</b> Congestion at key areas reduces throughput	<b>Higher Labor Need</b> Up to 15-25% more labor time required
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<b>TYPICAL IMPACT*</b>	<b>+15-25%</b> Labor Time per Day	<b>+10-20%</b> Walking Distance per Worker	<b>+5-15%</b> Cycle Time Increase	<b>Higher</b> Fatigue & Error Rate
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✔ **OPTIMIZED LAYOUT**

Short distances, logical flow and clear separation save time and increase efficiency.

<b>Shorter Distances</b> Less walking, more productive time	<b>Structured Flow</b> One-way movement reduces conflicts	<b>Smooth Operations</b> Less waiting, higher throughput	<b>Lower Labor Need</b> Up to 10-20% less labor required
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<b>TYPICAL IMPACT*</b>	<b>-10-20%</b> Labor Time per Day	<b>-10-20%</b> Walking Distance per Worker	<b>-5-10%</b> Cycle Time Decrease	<b>Lower</b> Fatigue & Error Rate
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**THE IMPACT ON YOUR FARM**

- Lower Labor Cost**  
Save 10-20% on daily labor hours
- Higher Productivity**  
More cows milked with the same team
- Better Cow Flow**  
Less stress, more animal comfort and performance
- Safer Workplace**  
Clear zones and fewer crossings reduce risk

**DESIGN PRINCIPLES**

- 1 Minimize walking distances
- 2 Create one-way cow and material flows
- 3 Separate people, cows, feed and manure
- 4 Place high-use areas in central positions
- 5 Design for clarity, safety and simplicity

**WHAT RESEARCH SHOWS**

**15-20%**  
Improvement in productivity through better workplace layout and reduced movement.  
Haynes, B. P. (2008) Workplace Layout and Productivity (Sheffield Hallam University)

**17%**  
Average productivity increase from ergonomic and layout improvements.  
Perillo Construction (2019) The ROI of Ergonomics

**18%**  
Higher productivity in teams with high engagement and positive work environment.  
Microsoft (2019) The Science of Workplace Productivity

**Up to 15%**  
Performance improvement when workers are optimally placed in space.  
Allen, T. J., et al. (2015) Harvard Business School Working Paper 16-147

**Design today. Save every day.**

Efficient layouts reduce costs, improve performance and strengthen your operation for the long term.

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