

Cost Effective Milking Facilities

by Larry Tranel, Dairy Field Specialist, ISU Extension

What are your goals for your milking facility? Typically, it is to get the most amount of high quality milk with the least amount of time and physical or mental stress.

There are some cost effective methods to accomplish this goal? It is impressive to watch dairy producers put their creativity rather than money toward accomplishing the above goal as they remodeled or retrofit their existing stall barns into an efficient milking center.

The benefits have been more labor efficient milking, improved health, quality of life and profit. "I can't believe how much faster milking is and how much easier it is on my knees and back," commented several producers after putting in their parlors. "And, I spent less than \$1,000 per stall to do it."

Iowa State University Extension held a series of low-cost parlor tours last December. "People told us we wouldn't want to milk in these low-cost "New Zealand" style parlors, but we love the openness and milker comfort. They're simple and not much can go wrong with it", commented a host producer.

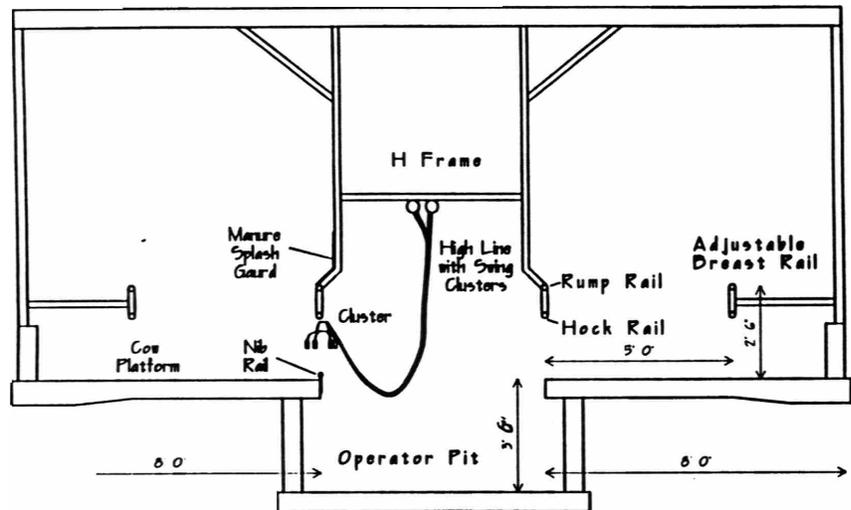
People often say it is impossible to build a low-cost parlor, or that retrofit parlors just do not work well, or that retrofits are not something they would want to milk in. But, the low-cost parlor track record speaks for itself in the producers who have built them.

Be assured it is possible to build a low-cost parlor to milk cows as efficiently as brand new parlors. Estimates of \$15,000 per stall are reasonable for a new parlor. Thus, a new double-8 parlor could cost \$240,000 or \$36,000 annually with a 15% capital recovery charge (9%

interest, 6% depreciation). Instead, a producer could decide to retrofit an existing barn to a pit parlor and holding area for \$15,000-\$20,000 **total cost** (a mere half of the previous example's **annual cost** and 6% of its total cost).

What type of parlor is most cost effective for you? That decision is yours but, yes, labor efficient parlors have been built for less than \$1,000 per stall inside an existing building using existing milk rooms and milking equipment.

After one farm visit I received a call from an Iowa producer saying that he thought the low cost parlor we designed was a crazy idea. However, he proceeded to talk with producers who had built them based on ISU Extension's advice and then he milked in one. He and his father were so impressed by the parlor's simplicity and cow movement he decided to build one. Below is a cross-section view of a cost-effective parlor design. It is usually mounted to ceiling beams in an "H" style (pictured below) or an "A" style but does not need to be, depending on existing beam locations in a barn.



The low cost parlor design can utilize either swing units or a doubled up design. Thus, if building a swing 8, one can use 2" line double-looped (4 units per slope) and approximately 7.5 hp vacuum pump. Parlors should be designed to go to a doubled up design if so chosen at a later date. The cows are parked at about a 70 degree angle needing about 30" of space per cow. A swing or double 10 parlor needs 27' of length (plus 5' to exit) and 19'-22' of width depending on width of the pit.

A swing 10 parlor averages about 70 cows per person per hour depending on cow preparation, production level and milker speed. If you are considering going from a stall barn to parlor, consider the low-cost route to reduce financial risk. *For more information on Cost Effective Parlor Design consult "Remodeled Parlors" by Dr. David Kammel, Extension Engineer, University of Wisconsin-Extension.*