

Valet Crowd Gate



Product

Every dairy's goal is to bring cows into the parlor quickly and calmly, and cows love consistency and predictability.

The Valet Crowd Gate is automated, intuitive and heavy duty. It will be the kindest, most reliable and dependable worker you have.

The Valet Crowd Gate knows what to do, and just does it.

Features

The features that set this crowd gate apart from the others are found in its ease of operator use, its programmed behavior, and its sound construction - all of which contribute to the most important benefit, cow comfort.

Ease of Operator Use



The Valet Crowd Gate normally operates in a fully automatic mode. You only have to press a couple of buttons to tell the gate you are finished loading the pen, then the gate will bring the entire pen of cows into the parlor without any additional human intervention.

The gate beeps to tell the cows the carriage is advancing. A green light flashes as the carriage advances. A red light flashes as the carriage reverses. The flash rate indicates how fast the carriage is moving toward either the parlor or the rear of the pen.

We provide one manual operator control station on the carriage and can provide more upon request. Each control station contains forward, stop, reverse, up and down buttons as well as an emergency stop button which will immediately cut all power to the carriage motor if needed.

If the dairy provides wifi in the holding pen area, a wifi enabled Windows PC integrated into the control enables remote support of the electronic drive system.



Valet Crowd Gate

Programmed Behavior

The crowd gate is programmed to move at a specific speed, never apply more force than desired on the cows, and go to any location in the pen on command. This design means it always starts the gate when an entrance gate opens, always advances at the same speed, always pushes with the same force, and always backs off when the cows can't move.

Length and width of the pen are programmed at install time, so the gate can calculate how many cows are displaced for each foot the gate moves towards the parlor.

Based on an algorithm, the carriage aims for its target and keeps advancing until it reaches it. If the cows stand their ground, the carriage waits with the motor gently and steadily pressing on them. As soon as the cows shift, the gate advances, encouraging them to continue moving.

If the cows can't or won't let the carriage advance, after a programmed duration, the gate backs up a few feet, giving the cows a break and a chance to reorient before advancing again.

Once it reaches its target, the carriage again moves back a few feet. This allows any cows that are crossways or backwards against the gate to shift, turn and prepare to move towards the parlor before the gate pushes them again.



No matter the size of the group of cows, Valet will crowd them up to the front of the pen, and carefully and consistently keep them moving into the parlor.

If the gate is near the rear of the pen, after it is lowered, the carriage advances from the rear of the pen until all the slack space in the pen is used up.

To prevent jamming up the front cows in the next pen, behind the gate, the carriage moves forward a bit when the Up button is pressed so the gate can lift safely. The control reserves just enough track length ahead of the gate for it to advance while lifting.

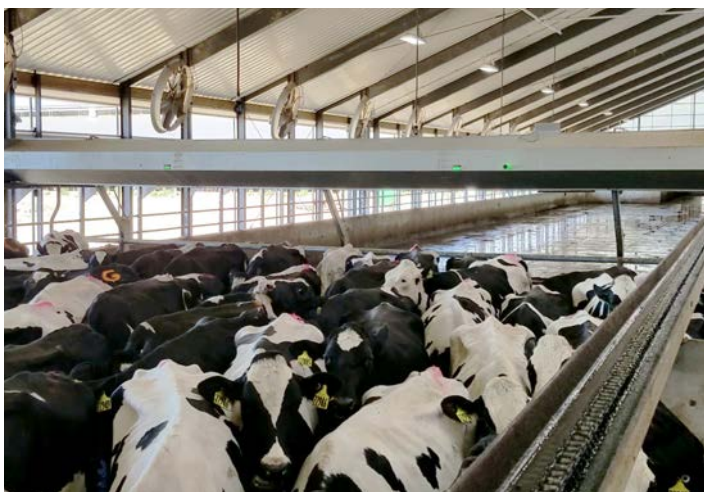
The gate will move each string of cows one after the other, automatically.

Non-rotary parlor

When a parlor entrance gate opens, the control sets a new target for the carriage based on the number of cows needed to fill the parlor. The carriage continues forward until it arrives even if the parlor entrance gate closes. If the second gate opens before the first one closes, the control automatically updates to account for the additional cows needed.

Rotary parlor

A sensor on the deck communicates the number of stalls passing the entrance bridge to the control. Target location updates every time a set amount of stalls have passed the entrance lane.



Valet Crowd Gate

Construction



Wheels

Our wheels are designed to outlast the milking center. We choose steel that is stronger and harder than those of other gates. We heat-treat it to make it even harder and stronger. Then we plate it with zinc for excellent environmental protection.

Our wheels are larger in diameter than standard gates at over 8 inches. This means they can turn slower over increased surface area which decreases wear.



Installation

The Valet crowd gate requires no onsite welding. The carriage and gate are assembled entirely with bolts. This requires less expertise on the part of the assembler and preserves the hot dipped galvanized finish of the gate's components. It also allows the entire Valet Crowd Gate to be knocked down and fit into a 20' container or custom crates for special shipping requirements.

All Weather

The electronics compartment is sealed and contains a thermostat-controlled heater for cold weather and a fan-cooled compartment for drive heatsink for hot weather.



The wheels also have a 40-tooth chain sprocket. Preventing the gate from slipping or skidding.

We use six wheels instead of the standard four. Despite the heavier design of the gate, more wheels carry a lighter load, distributing weight well on the track. At least one set of wheels is always near a set of track posts. Six wheels also result in a better track chain path over the drive shaft sprocket; more sprocket teeth are contact with the chain.

Sealed roller bearings result in lower maintenance and longer life in the challenging holding pen environment.



Valet Crowd Gate

Construction



End Stop & Chain Tensioning

Travel stops at both ends of both tracks are also bolted on and incorporate an easy-to-operate chain tightener.

Track chain slips around the back of the stop and drops right onto the anchor's angled teeth for quick and easy removal chain slack. A few quick turns with a 3/4" wrench finishes adjusting chain tension.

Tall rubber bumpers cushion the stop if the carriage gets too close to the end of the track. Our track end stops are the heaviest, most solid, easiest to install stops in the industry. All you have to do is drop the stop assembly over the track, slip the bolts under the track and tighten them.



Lift Cylinders

Air is used to lift the gate and hold it down during crowding. Industry standard Turner air cylinders lift the gate panel. They are low maintenance and easy to repair.

A high mounting position above lift arms ensures that cows cannot reach air tubing and fittings.

Oversize oil reservoirs extend intervals between refills.

Placing air cylinders every 10-12 feet of gate width results in a need for only modest air pressure to lift the gate. Low pressure extends the life of tubing, fittings and cylinders. Precise and predictable control of gate movement is achieved via an air pressure regulator on the valve controlling the cylinders and separate throttling valves for both lifting and lowering the gate.



Valet Specifications

Clearance below carriage with gate up:	7'
Minimum clearance above track:	32"
Maximum width:	60'
Maximum length:	300'

More Information

For more details on the heavy duty, fully automatic Valet Crowd gate, or for a quote to your specifications, email us at info@lyntech.us or call 844.LYNTECH. Filling out the Order Guide Worksheet will assist in the formation of a quote.

After 35 years in dairy equipment, Kevin Bouwman kept getting frustrated by solutions he needed but couldn't find in the current market. So he started designing his own products and software to meet those needs. In 2015, Kevin launched Lyntech so he could provide these solutions to farmers and dealers everywhere.



Valet Crowd Gate Order Guide Worksheet

Complete the questions below to help us create a quote for your Valet Crowd Gate.

How long does the track need to be? _____

How wide is the pen from track center to track center? _____

What voltage and phase is the supply power?

☐ 230V 1ph ☐ 230V 3ph ☐ 480V 3ph

How many manual operator stations will you require?

☐ 0 ☐ 1 ☐ 2 ☐ 3

