

# Safe, comfortable, efficient DeLaval parallel parlour P2100



## Safety and comfort in your milking parlour



When you spend hours every day milking cows, you need a parlour designed to minimize fatigue and provide operator comfort and safety – and then you gain greater efficiency and productivity. DeLaval P2100 is a very efficient milking system, safe and comfortable.

### High throughput

Expertly planned for short walking distances and very good cow positioning, DeLaval parallel parlour P2100 enables high throughput with fast milking processes and quick changes from one group to the next. It provides exactly what you need for an efficient and profitable milking system.

### Cost-efficient design

The very functional DeLaval P2100 is designed for professional milking for up to 12 hours per day, in a modern working environment with comfortable cows. The compact design helps to keep building costs under control. It offers a cost-efficient investment, a durable high performance parlour.

### Premium choice

If you want to go beyond the basics you can choose to install the optional fitted cabinets with integrated automation, designed for the top of the line DeLaval P2100 parlour. This has well lit smooth surfaces that flow from upper cabinets to curb cabinets, from light cabinets to pit edges. Vital working parts are safely concealed underneath the gleaming cabinets, which enables speedy cleaning – saving time, labour, and costs.

### Real milker and cow comfort

This parlour is designed for comfort for both milkers and cows. Safety features include a gutter for kick protection, butt pan, and sensible pit edge design. Cows have easy entry to the milking place and a comfortable, natural position during milking. Air controlled indexing systems smoothly control milking parlour entry and exit.

DeLaval P2100 – always high cow comfort



Easy reach for milker comfort

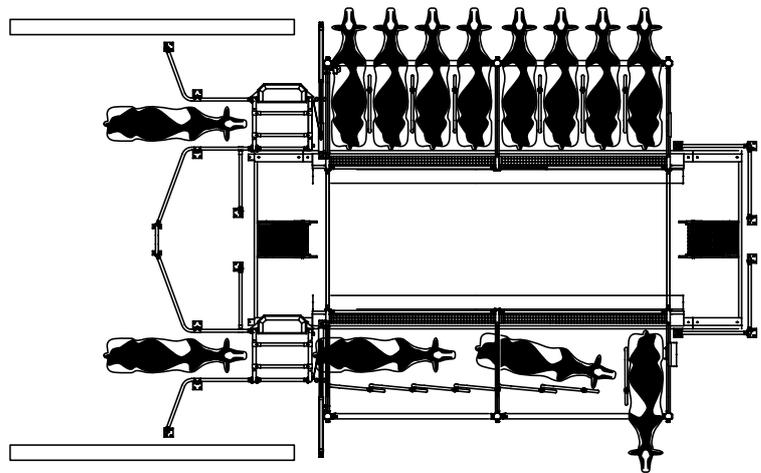


### Automation options

You can select from a range of automation solutions to suit your milking needs and your budget; and other options include a carrier rail, an adjustable floor and udder spotlights.

### Robust design

The durable, robust framework is designed for a long life, and the air controlled parlour system is reliable and easy to service. Bolted construction provides a secure stall, and extra thick metal is used for rump rails and pit edge. Stainless steel is standard for the butt pan and gutter, and is an option for other basic components like the pit edge. The optional upper, curb and light cabinets are made in stainless steel.



## Real cow comfort

Sliding entrance gate and wide entrance lane



Plenty of space to turn at the sequence gate



We care for your cows, so DeLaval P2100 is designed for cow comfort and fast milking. Cows enter their milking place in a natural position, stand comfortably during milking, and can exit easily.

### Easy parlour access

When the sliding entrance gate is opened cows move forward, straight in. This low maintenance gate takes very little space, and when it closes it pushes the last cow gently into position.

### Wide entrance lane

Cows are comfortable in the good entry space and wide walking lane. The well designed front exit creates generous space from the rump rail to the sequence gates. This makes it easy for cows to turn into their milking place.

### Cow friendly air controlled parlour

The efficient indexing system moves and positions cows well, without too much pressure.

Indexing pushes the cows gently towards the milker pit after they have entered their milking point. The milking position is close to the milker, so it is easy for the milker to reach the udder. When a group has been milked the cows are released via air controlled front exits.

You can set air pressure levels to:

- medium pressure for the entrance gate, to move cows in without squeezing them;
- low pressure for indexing, keeping it gentle and slow;
- higher pressure for quick release through the front exit.

### Easy to enter milking place

Each cow enters the milking place in a natural position, with head high or low. The cow does not have to lift her head above a bar or into a frame.

This means fast loading – and higher throughput.

Natural position during milking



Fast release of the entire batch



### Cow comfort during milking

Cows have a comfortable, natural position during milking. Each cow can move their head up and down with no restrictions. They are so relaxed in this natural position that you can often see cows ruminating while being milked in DeLaval P2100.

### Fast batch exit

The natural position continues through the exit. There is no need for any cow to lift their head above a barrier while exiting. This makes for fast exiting and high throughput.

### Adjustable neck rail

The neck rail position is adjustable, for comfortable cow fit. You can adapt the space between the rail and the pit edge to the average length of the cows in your herd.

### Protective butt pan

The straight wide gutter, always with the tail guard, works well: cows stand close to the milker but the well positioned butt pan helps keep the parlour and the milker clean. The gutter and pit edge also prevent cows kicking milkers or stepping into the pit.



Entrance gate pushes last cow gently into milking position



Butt pan adapted to the natural shape of the cow



Duplex cylinder for front exit and indexing



Adjustable neck rail position

## Options for real milker comfort

Comfort Start for fast cluster attachment



Foldable cluster cleaner at the correct height



Your comfort and safety is very important, so DeLaval P2100 is a superb choice for safe efficient milking. It is designed to protect the milker from manure and being kicked, while giving easy access to the udder and milking units.

### A fast start

You can speed up cluster attachment with DeLaval ComfortStart – just lift the cluster and attach it: no need to push any buttons. DeLaval ComfortStart provides for a fast start, comfortable and easy cluster attachment, and smooth retraction after the cow is milked out. It works with any type of vacuum controlled take off.

### Streamlined upper cabinets

Automation options such as DeLaval milking point MPC580 or MPC680 can be integrated into gleaming stainless steel cabinets. Individual combinations of MPC580 and 680 are possible.

The milking points have standard vacuum take offs. Other options which may be integrated in the upper cabinet include balanced and sliding hose support.

### Good cluster alignment

Counter balance or sliding hose supports facilitate good positioning of the milking unit, an important factor for complete milk extraction.

Counter balance hose supports mean that the milk hoses are held in the right position to support correct cluster alignment.

Sliding hose supports can be fitted underneath the butt pan. They can slide along easily from one cow to another.

### Curb cabinet

This stainless steel cabinet protects equipment below the cows, such as sensors, milk meters and cluster cleaners. It holds the cluster cleaner at the correct height for the milker.

Flexible installation means that the curb cabinet can always be added to the stainless steel P2100 pit edge. Milk hoses and pulse tubes will come from underneath the pit edge for most automation combinations.

DeLaval P2100 with stand-alone milking units



Milking points attached neatly to the stalling



### Clear view

When milk and pulse tubes come from below the pit edge the milker has very clear sight lines and a good overview of the work place. Pulse tubes are no longer in the way of the milker. Nothing gets in the way while the milker prepares the cows for milking.

### Well lit work space

Light cabinets integrate indirect lighting at the work face. Compact stainless steel cabinets hold standard fluorescent light fittings. Light shines from one side of the parlour to the other to brighten up milking sessions.

LED udder spotlights shine light directly on the working area. The lights are placed between butt pan and upper cabinet, and slightly tilted to light up the udder area.



Udder lights highlight the action area

## Automation options



### The practical DeLaval MPC150

Cluster retraction is easy with DeLaval MPC150. It has one push button plus LED with different signal colours for different applications. DeLaval MPC150 is protected in durable, corrosion resistant casing for a hard working life. It looks simple but its many functions include pre-milking stimulation options and individual pulsation control. It allows Duovac™, ComfortStart, remote cleaning/milking operation, claw drop and individual cleaning preparation

### ALPRO™ milking units – the link to your herd management

DeLaval milking point controller MPC580 offers efficient, fast milking operation as a stand-alone ACR. It monitors milk yield and indicates abnormal air entry into the cluster when combined with DeLaval FI5. DeLaval MPC680 offers all the functionality of DeLaval MPC580, controlling the milking point for smooth milking and recording milk yield, and much more.

### DeLaval MPC580

When connected to ALPRO™ and DeLaval MM27BC, it does far more than it does as a stand-alone MPC. It:

- detects traces of blood and abnormal milk-out
- provides ICAR approved yield measurement and milk conductivity level
- records data in the herd management software
- shows clearly: Don't milk / Dump milk / Block / Slip
- enables sorting of a cow from any milking point.

### DeLaval MPC680

The premium milker interface with ALPRO™. It:

- gives you full remote control of all MPC580 milking points
- helps you to maximize production with a consistent, efficient milking routine
- delivers more information and clearer alerts, e.g. feed alarm and ration or cow treatments
- enables many inputs.

These MPC units are the link to all sensors and milk meters; and they have individual, per place, controlled pulsation and flow-controlled stimulation as standard.

DeLaval MM27BC – the actual milk yield is always visible.

DeLaval MM27BC – high accuracy with near infrared measuring principle



#### **ALPRO™ milking units – with full cabinet integration**

Horizontal stainless steel cabinets protect all the integrated components in a constant clean environment. Service access is easy. Just touch a fingertip on a smart latch to open and close the cabinets.

#### **Milk flow sensors**

Choose compact DeLaval flow sensor HFC with no internal moving parts, or the well proven DeLaval flow indicator FI2 with float switch.

#### **Milk yield indicators**

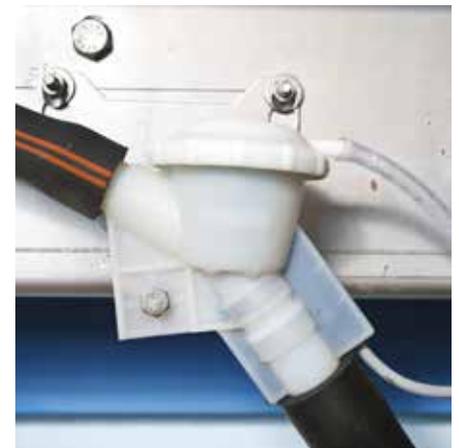
DeLaval yield indicator FI5 provides a digital display of milk yield. It gives a good constant indication of yield and actual milk flow with an alternating display which switches from one value to the other. It has no moving parts. It can be installed in a curb cabinet with cut out for display.

#### **DeLaval MM27BC**

This highly accurate ICAR approved milk meter also monitors blood traces in the milk, conductivity, kick-off and air entry in the liners. It offers fast milk yield monitoring and better control of cow health. Combine MM27BC with ALPRO™ and profit from better information for efficient herd management.

#### **DeLaval multireader – walk-by identification system**

Highly accurate cow identification is provided by DeLaval multireader. Using this multireader identification system gives more flexibility for planning entrance widths. Alternatively the proven blue portal ID can be used.



DeLaval HFC flow sensor has no moving parts inside

## DeLaval P2100 - your parlour can do more

DeLaval P2100 – extra strong components



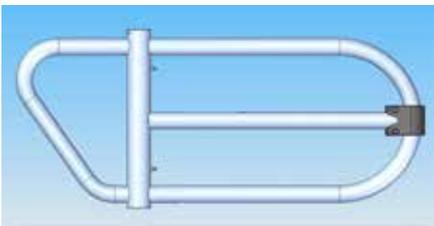
Deck flush nozzles for a clean working place

### Save installation time and costs

DeLaval P2100 is designed for simple, quick installation. The bolted construction means that components are easy to ship, easy to handle on site, and fast and easy to install. This all reduces installation time and costs. There are only a few parts, such as the butt pan, which require welding. The sensible design also allows for future expansion, or for adding components not included in the first installation.

### Adjustable floor

Convenient and easy to operate, this floor system provides maximum comfort and safety for milkers. The non-slip surface of DeLaval adjustable floor is easy to keep clean and because it flexes slightly it is much less tiring for milkers to stand on. The hydraulic version adjusts – at the push of a button – for different milker heights. Of course a fixed floor can be installed if an adjustable floor is not needed



### Deck flush

Deck flush nozzles squirt jets of water to clean the cow platform. One nozzle per cow stall can be integrated in the vertical part of the pit edge. Cows can't step on the nozzles, and the nozzles are not seen from the pit.

### Extra strong material for extra safety

Extra strong frames and front exit posts provide durability and safety: such as the 3 mm thick metal sheets for butt pan and pit edges. The butt pan is always supplied in stainless steel, while pit edges are available in stainless steel as an option. The steel fittings keep their shape over a long life span.

The sequence gate has a critical role in cow traffic performance, so it has just been updated to work even better than before.

### Installers like the real pit edge overhang

You'll appreciate it too, as it saves time and costs. It needs no local shuttering, makes it easy to align the pit edge during installation – and adds to the streamlined look of the parlour.

DeLaval P2100 – bolted construction for fast installation



#### **Carrier rail**

The carrier rail is another option to ease the workload. It makes it possible to keep the pit floor clear, by holding buckets, cans and papers off the floor. Fingertip control is all that is needed to keep supplies close by. After milking, buckets can be pushed to the machine or milk room to dispose of waste and be refilled with teat dips and udder towels.

#### **Open pit – Breezeway**

With the Breezeway flat floor, milkers walk straight into the parlour – no steps to climb down. This supports faster milking. It allows for the receiver to be placed outside the parlour pit, for less equipment in the parlour, less contact with moisture, and a cleaner working environment.



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#### P2100 standard features

- Sizes available: 2 x 10 to 2 x 40
- Distance cow-to-cow: 711 mm (28")
- Gangs of 3 or 4 cows
- Bolted and hot dip galvanized frame construction
- Designed for up to 12 hours per day milking time
- Smooth surfaces for professional look of entire parlour
- Sliding entrance gates
- Wide cow walkways from entrance to milking place
- Galvanized sequence gates
- Internal return springs in sequence gates
- Large radius at sequence gates allows easy 90° turn
- Strong front exit segments designed with open space
  - cows enter milking place in natural position
  - cows stand comfortably during milking
  - cows can easily exit the parlour
- Entire parlour controlled by compressed air
- Air pressure levels for front exit, indexing, entrance gate can be set independently from each other
- All Exit: all cows on one side are released at the same time
- All Indexing: all cows on one side are pushed to the milker pit at the same time
- Vertical butt pan with extra wide gutter, tail guard, kick protection
- 3mm thick stainless steel metal sheets for long life span
- 3mm thick pit edge design (standard: galvanized)
  - always with real overhang for easier installation
  - makes it possible for deck flush nozzles to be installed later
  - makes it possible for curb cabinet to be installed later
- Cluster cleaner position presented at correct height for milker
- Special bracket system underneath pit edge for easy installation of automation equipment, for installations without curb cabinet

#### General parlour options

- DeLaval adjustable floor
- Carrier rail
- Open pit / Breezeway installation

#### P2100 optional features

- Gang Exit: cows are released in sub groups of 3 to 4 cows per side
- Gang Indexing: cows are pushed towards milker pit in sub groups of 3 to 4 cows per side
- Pit edge in stainless steel (3 mm sheets are standard)
- Stainless steel skirting from underneath pit edge down to floor
- Deck flush nozzles
- Upper cabinet (automation) in stainless steel
  - automatic cluster take off by vacuum
  - balance hose supports (in upper cabinet or 'stand alone')
  - stall numbers for every milking point included
- Sliding hose supports
- Udder LED spotlights at each cow place
- Horizontal light cabinet in stainless steel (above upper cabinet)
- Curb cabinet (automation) in stainless steel
- Pit end rails and steps or ladders

#### Automation options

- MPC150 with or without cabinet
- MPC150 mounted at butt pan or underneath pit edge
- MPC580 / MPC680 with or without cabinet
- The number and combinations of MPC580 / 680 can be chosen to suit farm needs
- Flexible combinations with milk flow sensors and meters:
- MPC150: HFC, FI2, FI5
- MPC580 / 680: FI2, FI5, MM27BC
- ComfortStart but also Remote Start button
- Milk and pulse tubes from underneath the pit edge for many automation combinations
- Foldable cluster cleaner