Product Guide
Total Dairy Solutions

Fresh Thinking...
Better Milking...

www.pearson-international.com
Pearsons have been developing milking systems since 1948

**History**

**At the Beginning:**

Founded by Eric Pearson in 1948 in Ireland, the company started supplying bucket milking plants to Irish dairy farmers. Once herds started to increase, Pearson introduced herringbone parlours with master pulsation.

**1970’s** Pearson increased milking speed and reduced maintenance by designing a large bore high capacity pulsator. This innovation prompted exports into the European market.

**1980’s** The early 80s saw the introduction of Pearson milking parlours into the Middle East and onto farms milking in excess of 2500 cows.

Pearson expanded their product range by manufacturing In-Parlour Feed Systems to meet the demands of the Irish and UK dairy farmer.

**1990’s** In the 90s relations started with a Dutch electronics company to produce complete farm management systems for milk meters and cow identification.

**2008** The introduction of the Galaxy Starline milking Robot to the Market.

**2009** Pearson Manufacture their new rotary parlour design incorporating nylon rollers into their decks.

**2011** The Apollo milk meter is created to increase milking Performance and reduce the amount of wash water on larger milking plants.

**2014** The New ProFarm Management Platform is launched to give total control to the farmer of as many aspects of their dairy farm as possible.

This completed the package giving Pearson the range to provide dairy farmers with the most suitable solutions and efficient products for all types of dairy farming today.
Welcome

Pearson Milking Technology

Over the decades, since its formation, Pearson has been helping the dairy farmer pursue greater and more efficient milk yields. The practical use of modern materials and state of the art electronic systems have lead to a durable and innovative product range designed and manufactured in Ireland and sold throughout the world. These long years of experience work to the advantage of the dairy farmer, as the high standard of quality and reliability in Pearson Milking Technology, keeps running costs to a minimum and performance to a maximum.

Whether you want technological perfection or the simplest and most economical solution, Pearson can satisfy your needs with equipment that has built-in reliability.

www.Pearson-International.com
Designing Systems to suit your needs...
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Planning your Dairy project ....
What system suits me, my cows and my farm?

Style of dairy farming

Depending on the type of dairy you are managing can influence the machine and equipment being purchased. Spring calving outdoor herds can require different equipment than indoor winter herds.

Present and future herd size

When planning the parlour size, taking into account the future size of the dairy is very important. Leaving extra stallwork at the end of a parlour for when numbers increase can take the stress and large cost out of future development.

Cow flow

Once parlour and herd sizes increase, it is important to have smooth stress free cow flow to the collecting yard, through the parlour and out of the dairy through the selection system. Efficient cow flow can save time in the total milking process.

Milking time

Time in the parlour and collecting yard for your cows should be kept to a minimum, the less time spent in the milking routine, the more time the cows are producing milk.

Labour and milking routine

Labour on the farm can also determine the milking system. Herringbone, rotary and robotic milking systems all have advantages and disadvantage in milking routine and labour per unit.

Electric requirements

Depending on the system installed, the electric usage may be higher than the previous milking machine. Before deciding on a machine, check there is enough electricity and whether single or three phase electricity is needed. This is one of the first steps in planning your new dairy.

Notes:

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Robotic Milking Systems

Robotic Milking

Advanced Milking Technology keeping milking simple and natural… like you have always known..
For many years, after successful application in industry, the new ASTREA 20.20 concept is now proving its clear competitive edge. The tried and trusted industrial robot technology provides exceptional levels of reliability. During the milking process, there is no technology present under the cow giving lower stress levels, but also reducing the risk of injury to the cow and faults in the equipment. This means that the ASTREA 20.20 technology is indisputably unique. The special new generation 20.20 laser and scanning technology also guarantees quick and reliable attachment to the milk teats.
ASTREA 20.20

Milking like you have always known

The ASTREA milks in a natural manner. The milking process can be sub-divided into 4 phases:

1) The pre-stimulation and cleaning phase of the udder.
2) The milking phase, with the option of animal-specific milking settings.
3) The removal phase, whereby the current milk flow determines whether removal can take place for each udder part.
4) The Milk pumping phase, whereby the milk is separated or transferred to the central milk cooling tank depending on its quality.

Robust construction

ASTREA 20.20 is in a class of its own, thanks to its robust construction in combination with the use of durable materials, such as easy-to-clean stainless steel. The robotic arm is without a doubt the most reliable product of its kind on the market. The advanced and modern technology constitutes a sound basis the dairy farmer can fully rely on.

In addition, as part of the ASTREA milking robot, the robotic arm comes with an exceptionally long 3-year warranty.

Cow feeding and milking unit

The spacious cow feeding unit with its soft rubber floor guarantees maximum cow comfort without any force leaving no stress in this spacious box. The feed station can be made for three types of concentrates. The feed station is also quick and easy to install and assemble. The standard sensors, the cow-friendly control gates and the open structure (visibility lines) of the cow feeding and milking unit, ensures a convenient and practical arrangement for both the cows and the dairy farmer.

Steam cleaning system

The ASTREA steam cleaning system kills any bacteria, without the need for a cleaning agent, and as such ensures optimum safety in respect of udder health, food safety and less environmental impact. After every milking, the teat cups are cleaned immediately using hot steam provided by the steam cleaning system. Steam cleaning also brings about savings in the use of cleaning agents, plus a cleaner environment.
Conductivity and SENSE©

For detecting and separating milk containing blood or non-standard milk, this ultramodern system checks the colour of the milk. Conductivity is measured for each part of the udder to guarantee the most reliable inspection of the milk quality and all-important udder health. Both sensors, apart from measuring the amount of milk using an ICAR-approved milk meter, are linked to the fully integrated SATURNUS Management System.

Smart Collect© and SENSE©

ASTREA 20.20 gives you a choice of options to separate the milk. Using the new SATURNUS management programme, any milk that fails to meet the required grade can be collected in one of the three milk containers. Dairy farmers may also separate the milk on an individual basis, of course. The Smart Collect system can be installed independently from the milking robot.

What you can expect from the Astrea 20:20 Milking Robot.

- Proven robot technology
- Robust construction, hygiene and security
- Steam cleaning system
- Milking like you have always known it
- Smart Collect© and SENSE©
- Conductivity and SENSE©
- Cow feeding and milking unit
- Reliable operation
- Low maintenance costs
- Low water consumption
- Low energy consumption
- Free cow traffic, focus on animal welfare
- Natural pre-milking stimulation
- Saving labour
- Reliable technology
- Flexible operational management
- More time to spare
- The cow takes centre stage
- Increased milk production
- A “plug and play” concept
- Low operating costs
- Durable materials
- Easy installation and Assembly

Low maintenance costs

Maintenance has never been easier. The central machine unit also allows for maintenance to be carried out while in operation. All components are smart and easily accessible.

Low water consumption

The new central milk unit makes a direct contribution to the very efficient internal cleaning. This results in lower water consumption.

Low power and energy consumption

The ASTREA 20.20 makes use of one central pneumatic energy supply. The robotic arm has been fitted with the latest electric motors, giving an energy-saving of approximately 35%. Thanks to the unique ASTREA 20.20 concept, this arm is able to control two cow feeding and milking units at once.
Rotary Milking Parlours

Rotary Parlours
Comfort for the Cow, Speed for the Operator.

To handle milking on large herd dairies, rotary milking parlours are an efficient use of space, labour and time. To create the most comfortable milking experience for the cow while on the rotary platform, each cow has their own bail area and feed trough, thus preventing bullying and creating a more relaxed environment for the cow.

With almost constant cluster application and less operator movement, the rotary parlour proves to be one of the fastest ways to milk cows. Incorporating Milk Metering with Pearson’s ProFarm Management System gives total control over the dairy herd.
**Orbitor Rotary Deck**

One of the most advanced and durable decks on the market today.

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**Industrial Roller System**

The deck running gear is a double I beam nylon roller system. Both heavy gauge 180 x 75 I beams are fully galvanised, the bottom I beam is mounted on galvanised feet (one per unit) to give maximum strength and support. The specially formulated nylon rollers are placed on the bottom I beam and connected with a carriage system. The top I beam is then positioned on the nylon rollers. This will be the moving beam. There are no bearings incorporated in any of the nylon rollers, giving one of the most industrial, long lasting roller systems on the market.

**Deck Design**

The concrete Deck is forward sloping, this ensures all wash water runs forward into the drains and not back onto the operator.

The Rotary Deck is constructed from inner and outer structural nibs. A galvanised pan system is placed at the base of the deck for ease of concreting.

The table is then reinforced with 10mm mesh and fibre concrete is poured to give maximum strength and long life to the rotary deck. The concrete table provides a quiet, strong platform for the animals to enter and exit comfortably.

**Rotary Gland**

The Pearson Rotary gland is constructed from the highest grade materials. It is manufactured from stainless steel with special nylon rings to minimise wearing.

They can range from a 4 port gland supplying vacuum and milk, up to a 16 port gland for supplying teat spray, water and compressed air. The gland also supplies electrical power to the inside of the rotary allowing 11 separate connections.
Hydraulic Drive System

The hydraulic drive system which moves the rotary platform consists of a hydraulic power unit with electronic changeover valves operated by a hydraulic actuator valve to give smooth starting to the turn table. Mounted under the table are the hydraulic pumps and gear boxes with a large drive wheel attached to move the table. If a power failure should occur, quick couplings are provided to connect to a tractor to rotate the table allowing the cows exit the platform.

What you can expect from the Pearson Rotary Deck.

- Industrial Grade Steel.
- Robust construction.
- Galvanised Double Heavy Gauge I Beams.
- Deck reinforcing mesh included.
- Nylon Roller System (no bearings).
- One roller positioned every 600mm.
- Hydraulic or electric drive system.
- Reliable operation.
- Low maintenance costs.
- Forward sloping deck.
- Concrete deck construction.
- Very quiet for animal comfort.

- Industrial rotary gland assembly.
- Up to 16 way gland available.
- Two options of bail dividers.
- 2 different deck measurements (Jersey, Holstein).
- Safety Paddles at entrance and exit points.
- Operator friendly control unit.
- Extensive safety and emergency stop features.
- Kit Form for fast installation.
- Durable materials.
- Supporting I Beam foot per milking unit.

Rotary Control Panel

The control panel activates the forward, stop and reverse functions, the table is equipped with a number of safety sensors to pause and start the table depending on cow movement at the exit and entrance points.

Control Separate Systems

Whether there are Auto teat sprayers, Crowd gates, Cluster washers, Hydraulic power packs or even a radio installed on the system, the control unit has the ability to activate these individual equipment at the start of milking and deactivate at the end ensuring nothing is left switched on between milkings.

Free Stall

When the Pearson Rotary control unit is installed with a PACE entrance system there is total control of cow flow, entrance automation and deck movement. With all these options installed the Pearson Free Stall option can be activated, the rotary deck is automatically stopped once a free stall is open at the entrance. When the cow enters, the table automatically starts again. A very useful option for a one man milking operation.
Space Saving, Simple Design

TP195 Stall Divider

Construction & Design

The bail is constructed of heavy duty black steel pipe and is then hot dipped galvanised giving a very durable robust bail unit. There is a stainless steel front cover mounted to the bail unit that holds the control unit or indicator display in place. The bail dividers are constructed from two heavy gauge box sections, the bottom one of the two houses the stainless steel manifold for milk and pulsation pipes. Using these materials reduces the amount of rubber ware per unit and greatly reduces yearly service costs. It is a narrow bail design to allow more units within the space available.

The jetter cups are incorporated into the bail for easy and fast attachment and detachment.

Comfort

The Bail unit has been designed with round and curved lines to allow comfort to the cows entering and exiting the units. The low height of the bail allows a more comfortable, easier entry onto the deck and gives a faster more relaxed exit off the rotary allowing the cow lift her head over the bail while reversing.

If feeding on the rotary, the head dividers prevent cows poaching and the stall dividers prevent pushing and bullying, this creates a comfortable environment for both the cow and operator.

Technology

All Pearson Rotary Bail units can be installed with a basic cluster remover and upgrade through the years to the Pro Farm Global LED system for total farm and parlour management.
Fresh Thinking...

Better Milking...
Industrial - working 24 / 7

Enduro Cabinet Bail

Construction & Design

The Cabinet is constructed entirely of Heavy Gauge stainless steel and incorporates a stainless steel Jetter door assembly, this gives a long life against hash environments and chemical usage used around modern rotary parlours. eg cluster flushing.

The Enduro Bail has been designed for industrial use for large herd dairy's. The strong durable cabinets are built with smooth easy to clean surfaces to keep hygiene at its maximum.

The bail dividers are constructed from two heavy gauge box sections, the bottom one of the two houses the stainless steel manifold for milk and pulsation pipes. Using these materials reduces the amount of rubber ware per unit and greatly reduces yearly service costs.

Comfort

The Enduro Bail unit has been designed with curved folds on the stainless steel to allow comfort to the cows entering and exiting the units. The low bail allows a more comfortable, easier entry onto the deck and gives a faster more relaxed exit off the rotary deck allowing the cow lift her head over the bail while reversing.

If feeding on the rotary, the head dividers prevent cows poaching and the stall dividers prevent pushing and bullying, this creates a comfortable environment for both the cow and operator.

Technology

While the Enduro bail can easily be set up with a standard cluster remover and upgraded over time, it is designed for the Pearson Pro Farm Global LED package. Installing the Pro Farm Global LED system leaves the cabinets free of electronics preventing maintenance cost and unit downtime. Combining this electronic platform and the Enduro rotary bail results in a state of the art, industrial, low maintenance rotary parlour.
Performance
The Pearson Retention bar system ensures maximum performance from your rotary table, the retention bar drops once the cluster is attached to the cow. If the cow is a slow milker the retention bar prevents the cow exiting at the exit point. Once the cow has finished milking the retention bar lifts and the cow exits the platform when the exit point comes around again.

Durability and control
Pearson Retention bars are constructed and manufactured from industrial nylon and stainless steel to allow long life against corrosion. They may be controlled by vacuum or compressed air.

Intelligent Retention
The Pearson Retention system may be controlled by the ProFarm System. This intelligent control system monitors the cows milk flow, quantity and health on the rotary table. If any deviations are detected the retention bar drops just before the exit point of the rotary, bringing the cow back to the operator to be checked for any problems.

Comfort
To offer comfort to the operator and comfort for the cow install a Pearson Swing over arm onto the rotary unit. The swing arm ensures the weight of the milking tubes are supported while the cow is milking and also positions the cluster more comfortably on the cow. When the cluster is being removed from the cow the take off cord is guided through the end of the arm giving a more direct and comfortable take off for the cow.

Material
All Pearson Swing over arms are constructed from heavy duty stainless steel with self lubricating nylon bushes at the hinge points.
To ensure continued cow flow onto the rotary parlour, it is important that the cows finished milking know when to get off. The Pearson Expell cow remover system uses both compressed air and water. If the cow is still on the deck two positions after the exit point a slug of water is built up and then sprayed onto the cows head to encourage her to leave the platform.

**Options**

This system may be controlled by three options:

- **Automatic**: the system sprays every cow going past it.
- **Manual**: the spray may be controlled by the operator.
- **Intelligent**: automatically spray every cow that is to be off the table but not spray a cow going around twice for a second milking turn. (only available with the ProFarm system).

Expell Cow Remover  

Rota Clean Water System

**Speed**

Keeping a rotary clean during milking can be a very difficult task. The deck and cluster are two main areas that need to be kept clean as they are in contact or close to the cows teats.

**Deck Wash system**

A high powered spray nozzle is positioned at the exit point of the rotary deck, this nozzle cleans the deck of any dung or waste milk on the table, giving a clean inviting area for the next cow. The spray nozzle will only activate when the rotary is in a forward milking rotation to reduce the amount of water used.

**Cluster Wash system**

A gentle spray is positioned at the entrance point of the rotary deck, this nozzle cleans the cluster of any dung or dirt, this provides the operator with a clean cluster for the next cow. The spray nozzle will only activate when the rotary is in a forward milking rotation to reduce the amount of water used.

**Milk Quality**

Rota Clean
AutoMatic Teat Sprayer

Operation
The Pearson Automatic Teat Sprayer is a useful tool on any rotary platform. The teat spray unit is positioned at the exit or entrance of the platform and sprays the cow with either pre spray or post spray.

The intelligence system incorporated into the unit can determine if there is a cow in the bail, whether she has finished milking (only if retention bars are present) and the best moment to spray on the table position.

Material
The Teat spray unit is manufactured from stainless steel to cope with the harsh environment at the exit of the rotary. The flexible nozzle assembly constructed from nylon allows flexibility should it come across a cows leg. All materials are easily washable and very durable.

Reliable
It is powered by compressed air and also has a manual teat spray gun attachment if there is labour available or a breakdown occurs.

Leg Divider System

Comfort
The Pearson leg Divider unit is installed onto the rotary deck. Once the cow enters the unit, her back legs are positioned either side of the divider creating an open and inviting area for the operator to attach the cluster to the udder.

The divider unit also provides the Automatic teat sprayer an open area between the legs to give better spray cover and allowing more accurate spraying.

Material
All Pearson Leg Divider units are constructed from a special mix of plastics to ensure a durable and long life product. The unit is fixed to the deck with stainless steel fixing screws.
PACE Entrance System

The PACE Entrance System is positioned at the entrance of the rotary platform. The cows must pass through this to enter the rotary deck.

Once the position of the rotary is ready for a new cow the Texas gates at the start of the PACE System open allowing a cow enter onto the rotary deck. If a cow is doing a second turn in the table the PACE Systems intelligence sees this cow and does not open the Texas gates, this prevents cows pushing in on other cows or two cows pushing into one bail unit.

When one operator is applying the milking clusters on a rotary parlour, the PACE system and Rotary control panel are a huge help in controlling cow flow onto and off of the rotary platform. The PACE system manages the speed and rate of cows entering the parlour. The Rotary control panel manages all other operator functions.

Free Stall Option

The free Stall option allows the PACE System minor control of the rotary deck. If a cow is slow to enter or a stall is free and a cow has not entered it, the PACE System can pause the deck movement and once a cow has entered that free stall it automatically turns on the deck again.

EasyMilk Line

The EasyMilk line is a great addition to any rotary parlour. It is used for separating an individual cows milk whether it is due to beastings or antibiotics. With quick attachment and easy cleaning it is a fast and a cost effective solution for milk separation.

Components

Pearson EasyMilk line is comprised of a ring vacuum line around the external of the rotary platform. Near the operator there are a number of milk bucket assemblies incorporating a pulsator and milking cluster.

Operation

Once a cow enters the platform and their milk is to be separated for example for beastings. The bucket is attached to the hooks under the rotary table and a tube connected onto the ring vacuum line to supply vacuum. Once the cluster is attached the operator can start the rotary deck again and the bucket assembly will move with the rotary table.
Herringbone Parlours
Herringbone Milking Systems

Cow Positioning
The Herringbone rump rail construction and height over the cow stand allows fast cluster application due to clearer access to the udder. The straight rail design gives fast cow entry and is more comfortable for different cow sizes.

Comfort
The tapered rump rail of the herringbone parlour overhangs the pit edge reducing the reach of the operator for cluster attachment. With the cows legs close to the pit edge, the Pearson folded kerb rail gives a strong barrier, preventing cows putting their hoofs into the pit. creating a comfortable environment for cow and operator.
Start With Quality

Choosing to install a MidLine milking system is the base equipment for excellent milking. All Pearson parlours are fitted with high performance milking clusters, reliable pulsation systems and strong heavy duty stall work.

Expandable

All Pearson parlours are easily upgradable, whether it is the number of units or level of technology.

MidLine Milking Parlour

Features:
- Low installation cost.
- Durable heavy duty construction.
- Minimal maintenance.
- High throughput.
- Ability to easily add on extra equipment.

SwingOver Milking Parlour

Comfort

The Pearson Stainless steel Swing Over parlour ensures a comfortable cluster position for the cow. The swing arm supports the milk and pulsation tubes giving the best milking position for the cluster while on the cows udder. The Swing Over Arm also gives comfort to the operator ensuring an open clear milking pit to work in.

True Efficiency

Once milking starts, clusters are applied to the first row of cows, the opposite row can be loaded before the first clusters come off the first row. As the clusters are removed from the first row they are swung across to the next side. This minimises down time of the cluster and keeps all milking units busy during the total milking process. This routine gives maximum output during the milking process.

Features:
- Cluster support for comfortable milking.
- Durable heavy duty construction.
- Stainless steel swing arm.
- High throughput.
- Ability to easily add on extra features.
- Capital equipment minimal for maximum throughput.
Minimum Space with Maximum Performance

To create maximum output within a minimum space, double up parlours are a great option.

There is one milking unit per cow. The units are positioned at either side of the milking pit.

Pit lengths are considerably shorter with double up parlours than with swingover parlours allowing fast loading and unloading of cows and shorter walking distances for operators.

Features:

- Cluster support for comfortable milking.
- Durable heavy duty construction.
- Stainless steel cabinet option.
- High throughput.
- Ability to add on extra features easily.
- Install more units when restricted with space.
- Less operator walking.

50 degree milking

Cow flow

A 50 degree milking position provides a fast cow flow due to the cow only having to turn 50 degrees into position. This speeds up cow entry and exit from the manger system on exit.

Comfort

Cows position themselves in a head on belly position in a herringbone fashion, with this when the cows increase in size (eg in calf) they fit more uniform and comfortably into the total length of the parlour.

Operator

A 50 degree parlour allows the operator attach the clusters through the rear legs of the cow.

85 degree milking

Comfort

85 degree milking position with the Pearson's sequential bailing or yoking system provides total comfort for the cow. Once locked into position there is no poaching or bulling occurring during the milking process.

Cow flow

85 degree milking with Pearson's Sequential bail system allows fast entry and exit of the cows through the parlour.

Operator comfort

In the 85 degree milking position the cow is at its closest to the operator allowing comfortable udder preparation and fast cluster attachment.
Design your parlour
to maximise cow flow

Adding automation to the entrance and exit gates increases cow flow through the parlour, while giving comfort and a relaxed environment to the operator.

**Entry Gates - 50 Degree**
The Auto Wrap Around Entry Gates are made from heavy duty black steel and hot dipped galvanised. The gate is built into a guide rail system to allow single entry into the parlour. The gate wraps around the last cow pulling her into position.

**Entry Gates - 85 Degree**
The entry gates are made from heavy duty black steel and hot dipped galvanised. The gate is built into a guide rail system to allow single entry into the parlour.

**Auto Gate Control**
Pearson's Gate control system has four buttons, two for the entry gates and two for exit gates. Each button has an indicator light showing if the gate is open or closed. If there are multiple controls in the milking pit the boxes communicate to each other so a button may be pressed at any location to open and close gates.

**Exit Gates - Automatic**
To close the exit gate, press any one of the control buttons mounted in the pit. The gate will automatically close and lock in the closed position. This simple device speeds up the overall milking time and reduces operator movement.

**Scissors Gates - Manual**
Pearson Scissors gates allow maximum cow flow through the parlour. These gates are manually operated from the milking pit giving full control to opening and closing with speed and accuracy. They are fabricated from heavy duty black steel and hot dipped galvanised to give a long life.

**Exit Gates - Automatic**
The automatic Guillotine gate lifts vertically to let cows exit the parlour. To close the exit gate, press any one of the control buttons mounted in the pit. The gate will automatically drop and lock in the closed position. This simple device speeds up the overall milking time and reduces operator movement.
Herringbone accessories

All Pearson Herringbone Rump Rail and Stallwork designs are made from heavy duty black steel and hot dipped in galvanise providing long life against corrosion.

Herringbone Truss Supports and front guide rails
Stall work is supplied with overhead support trusses to hang the rump rails from. Manufactured from black steel and hot dipped galvanised gives durable long life support to your machine.

Entry Guide Rails
Created to form a V shape at the entrance to the parlour, cows bunch into groups allowing faster cow flow into the parlour.

Tapered Straight Rump Rail
The most popular and cow friendly rump rail, allowing comfortable positioning along the rail for variable sized cows. The tapered rails allow the cow to come closer to the operator thus giving fast and safer cluster attachment.

Cranked rump rail
Long herringbone parlours with straight troughs avail of this option. The cows enter into the cranked position along the rump rail and cannot move backward.

Sheeted Rump rails
Stainless steel or galvanised sheeting can be constructed onto the rump rail design to keep the pit and operator safe from dung while in the milking pit.

Butt Pans
The Stainless steel constructed butt pan keeps the milking pit clean and catches any dung before it hits the ground and flushes it to one end of the milking pit to a drain.
**Parlour chariot**

If extra labour is available in a swing over milking system, the parlour chariot can get more jobs done in the pit other than milking!

Standing in the carriage, positions the operator at the perfect height to tail paint, condition score, AI and even scan your herd. Once one cow is completed, simply slide the carriage along a rail system up the parlour giving perfect access to all your cows.

**Volume Wash System**

A pressurised water system may be supplied into the parlour. This allows instant cleaning during milking, keeping the pit area cleaner and more hygienic.

**Wall mounted kerb rail**

A galvanised or stainless steel folded kerbing is bolted to the side of the pit wall to ensure the animals hoofs do not enter the pit. This encourages the cow closer to the pit edge and gives the operator easier access to the udder.

**Shuttered kerb rail**

A galvanised or stainless steel folded kerbing is similar to the wall mounted only has extra steel underneath that is bolted to the top of the pit wall. It is installed during construction acting as the shuttering to create the overhang in the milking pit.

**Pit Steps**

Stainless steel construction, easily cleaned with checker plated surface for maximum grip.

**Angle Drains**

galvanised drains for parlour floors, installed during construction where animals or operators may be walking.

**Stainless steel floor drains**

Stainless steel constructed drain areas for bulk tanks or the inside of rotary parlours.
Stallwork Systems
Durability, **Strength**, Design

All Pearson Stallwork is made from black heavy gauge steel and end up as a fully galvanised construction, engineered for fast efficient installation, and designed to give maximum comfort to both the cow and the operator.
Manger Systems

Experience gained with feeding routines in the parlour has strongly influenced this complex design of manger partition and trough. The manger trough has an angled front face for cows to lick against which ensures a quicker feed intake resulting in improved performance.

The angled panel helps align cows into their correct milking position. The longer bend on the front of the manger panel allows the cows to lift their heads and turn unobstructed, creating a faster exit when finished milking.

With the “zig zag” shape of the manger system, cows front legs fit more comfortably. The manger panel positioned either side of the cow helps prevent against poaching by other cows. These in turn gives a more comfortable, stress-free environment in the milking parlour.

The cleaning of the cow stand areas can be done more efficiently due to the manger system being wall mounted. Drains can be created under the mangers and away from the cows front hoofs.

Breast Rail Systems

The Pearson Double straight rail breast rail consists of two rails. The top rail holds the cow in the correct position and the lower rail prevents the cow dropping her head and moving forward away from the operator.
Rapid Exit Manger System

This system is ergonomically designed to speed up cow movement, give cow comfort, maximise feed intake, eliminate poaching of feed by other cows, reduce cow stress and assist in aligning the cows so as to have the best possible udder presentation for ease of milking. The mangers are powered by either compressed air or hydraulics and are activated from any position within the operator’s pit. The Rapid Exit Steel Manger System is unique in its design and collapsibility. Cows are encouraged to walk both into and out of the milking parlour more quickly, thus speeding the loading and unloading of cows.

Staggered Rail System

The Pearson Staggered Breast rail follows the contours of the cows standing in the herringbone 50 degree position to give maximum comfort. This Rail system may be controlled by pneumatics to fold away from the cow to allow faster exiting out of the parlour.
Sequentail Bailing System

Construction
A fully galvanised construction manufactured to last against the everyday handling of dairy cows, suitable for 2'4", 2'3", 2'2" cow stands, driven by compressed air rams to give smooth operation. Rams are equipped with safety valves for when the bailing system is in the UP (Cow exit) position.

Comfort
To increase cow speed into the parlour, feed systems can be added with a stainless steel individual trough. The bailing system is equipped with steel dividers to prevent poaching or bullying, providing a more stress-free environment for all the cows in the parlour.

Durability
Once the cows are milked, the bailing system lifts up to allow cows to exit the parlour without obstructions. All rollers are made from a nylon material. This material is designed to be durable, self-lubricating and long lasting for increased lifetime performance.

Yoking Systems
Pearson Yoking system is a way to have total control of your cows during milking. The cows enter the parlour and put their head into the head locking system. Once all cows have entered the parlour a pneumatic ram closes the head locking rails to hold the cows into position.

Once locked into the system the cow cannot poach or bully any neighbouring cow for feed.

Breast Rail Systems
The Pearson Double straight rail breast rail consists of two rails. The top rail holds the cow in the correct position and the lower rail prevents the cow dropping her head and moving forward away from the operator.
Sequentail Bailing System

This system is ergonomically designed to speed up cow movement, give cow comfort, maximize feed intake, eliminate poaching of feed by other cows, reduce cow stress and assist in aligning the cows so as to have the best possible udder presentation for ease of milking.
The Pearson RED system has been designed to create maximum speed through a herringbone parlour with Inparlour feeding. The RED System incorporates fast entry and fast exit into one complete unit.

Fast entry into the parlour occurs from the sequential bailing paddles preventing cows entering a unit half way up the parlour. The cows must go to the first or next available stall to enter a unit. This leads to a fast loading time for each row.

The Fast exit speed comes from the feeding trough system in front of the cows lifting up allowing the cows walk straight out in front, clearing the milking platform in a matter of seconds.

One of the features of the RED System is the sequential bailing paddles don’t lift up with the trough system. This allows two advantages:

1. the cows walk out much straighter when exiting the milking platform and do not turn left or right onto the cow stand area.
2. the entrance gate may be opened to let in the next row of cows as the trough is lowering into its closed position.

Construction

A fully galvanised construction manufactured to last against the every day handling of dairy cows. The rapid exit systems is fabricated from heavy gauge black steel and is then hot dipped galvanised. The trough in front of the cows may be supplied with either moulded plastic or stainless steel.

Comfort

The sequential paddle system incorporated into the rapid exit system creates an individual unit for the cow once she is loaded. This is a benefit in any feeding parlour to prevent pushing or bullying and creates excellent cow control giving a comfortable environment for the cow and the operator.

Speed

Once the cows are milked, the manger system lifts up to allow cows to exit the parlour without obstructions. The sequential paddles close behind them allowing the next row to enter. Once the cows have cleared the manger system it is lowered into its closed position and a new row starts to enter.
RED System - Rapid Exit Dispatch

The Pearson RED system has been designed to create maximum speed through a herringbone parlour with inparlour feeding. The RED System incorporates fast entry and fast exit into one complete unit.
With any Milking Equipment designed and manufactured by Pearson, comfort for the cow and comfort for the operator are key factors. Providing reliable milking systems and a comfortable milking environment, Pearson aim to have less stress on the cow leading to better milk production.
Pearson Milking Liners

The Pearson liner family comprises of 4 liner types, the 255050, RL4, RL3 and the 255055, Pearson have been designing liners for over 40 years and put all this experience into its latest liner designs.

Performance
Pearson selection of large bore tapered barrel liners ensure fast milk out times, low slippage levels and maximum comfort.

Durability
All Pearson Liners are moulded from a specific rubber compound to give maximum lasting within the shell and at the claw piece.

Comfort
Pearson’s flared shell accompanies Pearson’s liner range giving maximum comfort to the teat when in operation. The flared shell also holds the liner in place on the shell preventing the hood of the liner from slipping off the shell. This stops liners accidentally twisting in the shells preventing down time for the operator readjusting liner positions.
Pulsation Systems

Pearson pulsators have been tested not only with the most advanced technology but also with the rigors of time. Manufacturing pulsation systems since the early 70s, the knowledge built up has lead to the creation of a low maintenance, high performance pulsator which is second to none on the market today.

Reduced Vacuum Consumption

Cascading pulsation systems activate each relay a fraction of a second after the last one, thereby creating an even flow of vacuum throughout the milking plant. With large capacity pulsators, two milking units may be run off one relay to minimise costs without losing performance.

Hygienic

Each system is fitted with a filtered fresh air line providing clean air to each individual pulsator. The pulsators may also be flushed out with water during a machine service.

SmartPuls System

Increase Milking Speed

Installing one Pulsator per cow maximises air flow to the teat cup chamber, allowing an increased response time in the A phase (opening the liner) of the pulsation cycle. This in turn maximises the B phase, speeding up the milking of the cow.

Stimulation pulsation increases the pulsation rate, massages the teat at the start of the milking and encourages faster milk let down.

Reduced Maintenance

When the milking unit is started the pulsator starts working and the liners start milking, when the unit is removed from the cow the pulsator stops and the liners stop moving, this in turn reduces wear on pulsator items such as coils and diaphragms and keeps the liner elasticity in the shell stronger up to the changing date.
**Tru - Flo Cluster Assembly**

**Performance**
A 350 ml capacity claw piece enables this cluster to handle the fastest milking cows with no danger of flooding whether on 4 x 1 or 2 x 2 pulsation. The 19mm milk nipple allows maximum flow of milk and vacuum through the milk tube.

**Durability**
To prevent down time during milking due to a broken cluster, Pearson manufactures the Tru-Flo Assembly to the highest standards. The shells, pulse block and claw bowl are manufactured from stainless steel keeping replacement parts to a minimum. The clear claw bowl allows visibility into the claw and is protected with a red rubber buffer.

**Comfort**
The Tru-Flo Shell and liners are designed for comfort and speed. The shell has a flared end to mimic a calf’s mouth on the teat and any one of the Pearson family of liners have a uniquely mixed rubber compound to create a more comfortable milking experience for the cow.

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**Flared Shell**
The flared shell Mimics the front of a calf’s mouth creating a more comfortable experience for the cow.

The liner is also indented to prevent the liner head pulling away from the shell when removing from the jetter cup after washing.

**Large bore outlet**
The large bore 19mm outlet ensures fast milk flow and vacuum stability to and from the claw piece.

**Extensive research in liner hood design minimises liner slip.**

**Shut off point in the liner creates minimum vacuum leak at cluster attachment allowing faster and more comfortable cluster attachment.**

**Red Buffer** to help prevent breakages.

**manufactured from stainless steel for long life**

60 degree milk entry’s allows faster direct flow of milk to the claw from the liner.
Vacuum Systems

All Pearson vacuum pump systems can be equipped with the well proven VDrive system. up to 2/3 of electricity powering the electric motors may be saved during the milking process.
All Pearson vacuum pumps are robustly constructed, highly efficient and are manufactured to the most stringent quality controls. The drive shafts are robust and are cast into the rotor. Large bearings are fitted ensuring a long trouble free operating life. Each vacuum pump has a double oil reservoir unit supplying fresh oil lubrication that guarantees minimum wear. Should the primary translucent oil bottle indicate empty, then there is enough oil in the secondary oil reservoir to maintain the vacuum pump for a further time period.

Pearson offer a range of vacuum pump units depending on the requirements for the milking plant. The EPM 60, B4 and B5 pumps make up the family. All vacuum pumps may be controlled by the VDrive system.

All Pearson Machines are supplied with Stainless steel vacuum tanks to ensure long life and durability.

VDrive Vacuum Saver System

The Pearson VDrive System is a frequency controlled vacuum pump system developed to only give the required vacuum needed to run the units in operation. While milking, the machine needs much less vacuum, than when the machine is washing due to air loss.

Installing the VDrive unit will manage the required vacuum needed by the machine. Coupled with Pearson’s individual smart pulsation control on their ACR and Electronic Meter systems, savings of up to 75% power usage may be made on the electric motors running the vacuum pumps, leading to great savings on the environment and great savings in your pocket.

The VDrive system is available in three phase and single phase power supplies.
With the Milk Separation System, an individual cow’s milk can be separated and redirected into another milk line; therefore cows do not have to be in separate batches coming into the parlour. This saves time and labour during milking.

- Simple and easy to operate.
- Reliable and long lasting.
- Can be fitted to any milking parlour.
- Available in different pipe sizes.
- Reduces workload in the parlour.
- Decreases overall milking time.
- Milk can be diverted to calf feeding house.

Electronic - Automatic
An electronic milk separation control button is incorporated into the p25, p50, p100 and i100 electronic control units. Once the button is pressed the operator is notified with either lights burning red or visual text on screen to show milk separation mode. Once the cow has finished milking the cluster remover removes the unit from the udder. The control unit will wait for the operator to press the stop button to acknowledge that the cow is finished, this then automatically switches back to the good milk line.

Once the machine is in wash mode the separation line is washed automatically with a special alternating washing programme designed to minimise the amount of water to wash both milk lines.

If Auto identification is installed on the milking parlour, once the cow has entered the parlour the operator is notified on the control panel (i100) and only the Milk Separation button is active to press, this eliminates different operators in the milking pit from missing a milk separation cow.

Toggle switch - Manual
Each unit is supplied with a vacuum toggle switch. Before cluster attachment the toggle switch is moved to select separation line. Once the cluster has been removed from the cow the toggle switch must be manually selected back to good milk line.
Milk Separation at the touch of a button.
Milk Receiving, Delivery & Cooling.
Providing the Range to suit all dairies.

Pearson’s milk delivery system have been designed to cope with the demands of today’s cows and quantity of milk being produced. Mixing technology and industrial milk cooling systems allow milk to be chilled to 4 degrees.

Pearson’s range of milk pumps, milk filtration and plate cooling systems enable the farmer to maximise their milk quality, minimise energy and increase profit.
**Hi-Flo System**

**Performance**
The Pearson Hi-Flo system moves milk through the delivery line using centrifugal force. An impellor inside the head of the pump rotates and moves milk through the line to the milk tank.

**Durability**
The Hi-Flo Milk pump comprises of a stainless steel pump head and a stainless steel impellor inside. These stainless steel components allow for maximum life and hygiene within the pump head.

**Milk Cooling**
When the Pearson Hi-Flo System is joined with the MDrive variable speed system the pump can be slowed down to reduce milk flow through the plate cooler resulting in cooler milk at the bulk tank and reduces energy consumption of the tank compressors.

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**Posi-Flo System**

**Performance**
The Pearson Posi-Flo system is a perfect milk pump for cooling and removing froth from the receiving vessel in the milking pit. The pump moves milk through the delivery line through positive displacement. A flexible impellor inside the head of the pump rotates and moves milk through the line to the milk tank.

**Milk Quality**
The Posi-Flo Milk pump sucks the milk from the receiving vessel and pushes it up the delivery line to the milk tank, this action minimises the breaking down of the solids within the milk and increases the milk quality leaving higher protein and fat content.

**Milk Cooling**
When the Posi-Flo system is joined with the MDrive variable speed system the pump can be slowed down considerably to reduce milk flow through the plate cooler resulting in cooler milk at the bulk tank and reduces energy consumption of the tank compressors.
The MDrive System is designed to minimise milk flow through plate heat exchangers by slowing down the flow rate of the pump during the milking procedure. Pearson’s Cooling software programmed within the drive unit has special speed algorithms to work out the best flow rate and speed to drive the pump to get the maximum performance from your plate cooler and milk pump.

Options
Pearson MDrive Systems can be installed on any size milk pump and can be installed to suit single phase or three phase power supplies.

Washing
During the washing of the milking machine the MDrive System increases speed to return water back to the wash vessels for increased washing performance.

Safety
All Pearson MDrive Systems have industrial grade H1 Filters preinstalled in them to stop harmonic Voltage from the drive units.

The Pearson AirForce Injector System blows the milk from the milk pump to the milk tank using compressed air. This minimises the milk left in the delivery line after the milking has finished. The compressed air used for pumping out the milk runs through a triple filtration system leaving food quality air and having milk at the highest quality.

For full automatic control of the AirForce System it may be joined to the Pearson Ocean washer. The washer tells the injectors when to activate to get the best performance from both systems.

How much milk may be left in your milk delivery line. Calculate it yourself:

\[ 3.14 \times \text{radius}^2 \times \text{length of pipe} = \text{litres left in the pipe} \]

Example.

40 mm Milk delivery line, 4 meters high from your milk pump.

\[ 3.14 \times (20 \text{mm} \times 20 \text{mm}) \times 4 \text{ meters} \]
\[ (3.14 \times 400) \times 4 \text{ meters} \]
\[ 1256 \times 4 \text{ meters} \]
\[ = 5.24 \text{ litres} \text{, at a cost of 35 cent a litre} \]
\[ = 1.75 \text{ euros} \times \text{twice a day milking} \]
\[ = 3.51 \text{ Euros per day} \].
Milk Filtration & Cooling

Stainless steel inline sock filters are used to filter the milk before the plate cooler or bulk tank. Double stitched socks are placed over a stainless steel coil spring and inserted to the stainless steel housing. Pearson supply a full range of filter sizes to suit all pump flow rates.

Plate cooling

By using an average ratio of two and a half parts water to one part milk, it is possible to reduce the temperature of the milk to within 2 degrees centigrade of the water-input temperature.

**Single Stage** - The single stage plate cooler passes well or mains water through the cooling plates.

**Double Stage** - The double stage plate cooler passes well or mains water through the first half of the cooler and chilled ice water through the second half. Using the Pearson MDrive system with a double stage cooler can bring milk to 4 degrees before the bulk milk tank.

Save Water

Adding a water solenoid on the water input side of the plate cooler unit allows the water to be automatically turned off a short time after the milk pump stops, this reduces the amount of water going to a holding tank or to waste.

Milk Receiving Vessels

**Strength**

A stainless steel receiving vessel and moisture tank provide maximum capacity for milking in any size parlour.

**Udder Health**

Having a large capacity moisture tank so close to the machine allows a large vacuum buffer directly at the parlour, this reduces vacuum fluctuations and provides a more stable vacuum for udder health.

**Hygiene**

Both tanks have see through end caps for easy viewing to make sure both tanks are cleaning correctly. The barrel shape of the tanks allows the Pearson Daytona wash system to roll the water giving exceptional cleaning to the receiving outfit.
Smooth constant filtered milk flow

Milk Quality
An automatic cluster remover is one of the most useful systems that a modern dairy farmer can install. It relieves the pressure on the operator of having to be there to remove the clusters at the end of milking, thus eliminating over milking, which alone, depressed milk yield and slows down the milking time of each cow.

P 10 Cluster Remover

An Automatic Cluster remover designed to provide essential functions for comfortable milking for the operator and the cows. The P10 is a cluster remover with a large push button and indicator Light for simple and easy control.

- Automatic cluster remover
- Auto lift start
- Smart Puls - Pulsation control
- Stimulation Pulsation.
- Smart Comm - communication control

*An automatic cluster remover is one of the most useful systems that a modern dairy farmer can install. It relieves the pressure on the operator of having to be there to remove the clusters at the end of milking, thus eliminating over milking, which alone, depresses milk yield and slows down the milking time of each cow.
The P25 includes all the functions of the P10 but incorporates it into a control unit allowing additional functionality and visual display.

- Automatic cluster remover
- Auto lift start
- Smart Puls - Pulsation control
- Stimulation Pulsation
- Milk Diversion control
- Visual alarm display
- Smart Comm - communication control
- Cluster Flush control

A great milking companion in the pit. Giving feeding controls, gate controls and alarm display, it is a perfect unit to give maximum milking pit efficiency.

- Automatic cluster remover
- Auto lift start
- Smart Puls - Pulsation control
- Stimulation Pulsation
- Milk Diversion control
- Visual alarm display
- Milking time display
- Upgradable to Milk yield display (P100)
- Feed unit control
- Gate control
- Smart Comm - communication control
- Cluster Flush control
Maximise milking speed - each cow is monitored closely by the milk sensor to ensure it removes the cluster from the cow at the best possible time.
The automatic remover cylinder is positioned on the swingover arm on a swingover machine, this is done to minimise the distance between the end of the ram and the cows udder. With the take off distance being at its minimum the rope does not have much slack to take up, this then creates a more gentle stress free cluster remover take off.

The same concept is taken on a double up parlour, the cylinder is positioned vertical above the rump of the cow for a smooth stress free cluster removal.

- Stainless Steel Cylinder
- Auto lift start
- Double acting ram assembly
- Durable internal vacuum seals

The automatic cluster remover milk sensor measures the flow rate for milk passing through the valve, once the flow rate has dropped the control unit removes the cluster from the cow.

The double diaphragm design in the vacuum valve allows increased and more stable vacuum to the milking cluster.

The milk sensor valve comes with the possibility to expand to milk diversion line, conductivity and milk temperature depending on the equipment installed.

To start the unit, the cluster just has to be lifted. This turns on vacuum to the unit and starts the pulsation. This increases speed and work flow through the parlour for the operator.
Milk Recording

Milk Recording
The future for professional farm management

The modular principal of its design enables other features and components to be added as finance or as circumstances require, developing the milking plant into the highest specification parlour that can be produced.
Apollo Milk Meter

Pearsons Milk meter is an extremely useful tool for managing your cows in the parlour. The control unit includes all the features of Pearson’s renowned automatic cluster remover plus some extra control functions. The milk meter has the ability to measure milk flow. This enables the operator to view the milk yield of the cow which helps make decisions on feed amount, illness and dry off dates.

Proformance

The measuring device connected to the Control unit is the Apollo milk meter. This meter system offers precise milk measurement with unrivaled milking performance on high yielding free flowing cows.

Material

All Pearson’s Milk Meters are injection moulded from the highest grade food quality plastics. The plastics can withstand nitric acid and any other chemical detergents used in the modern milking systems.

Valve diaphragms are all moulded in silicone and high grade rubber to ensure the longest possible working life of all components.

Hygienic

One of the most important features for the Apollo Milk meter flask is the washing. Water enters the meter at a fast rate and creates turbulence within the meter washing every surface.
P100 Control Unit

A great milking companion in the pit. Giving milk yield display, feeding controls, gate controls and alarm display, it is a perfect unit to give maximum milking pit efficiency.

- Automatic cluster remover
- Auto lift start
- Smartpuls - Pulsation control
- Stimulation Pulsation
- Milk Diversion control
- Visual alarm display
- Milking yield display
- Feed unit control
- Gate control
- Cluster Flush control
- Smart Comm - communication control

i100 Control Unit

For total control of information in the milking parlour the Pearson i100 milk control unit is the ideal partner.

- Automatic cluster remover
- Auto lift start
- Smart Puls - Pulsation control
- Stimulation Pulsation
- Milk Diversion control
- Conductivity indicator
- Visual alarm display
- Milking time display
- LCD display
- Gate control
- Milk Yield display / alarms
- Auto Identification , ear / leg / neck tag
- MRS Heat Detection display
- Feed to Yield functionality
- Pro Farm system compatible
- Calendar alarm display
- Individual animal control settings
- Smart Comm - communication control
Management Systems

Milking
Milk Separation
Alarm
View your herd through the eyes of technology.

ProFarm Management System
Think Industrial - Go Global

Part of Pearson's range of industrial diary systems is their state of the art LED Control units. Integrated into the ProFarm system it allows the simplest visual display and control to the operator with all the animal information displayed and available at the Global MPM Parlour Monitor.

Global MPM Monitor

A great milking companion in the pit. Giving milk yield display, alarm display and many more options, it is a perfect unit to give maximum milking pit efficiency.

Some Features include:
- Animal Identification
- Milk yield in real time
- Separation milk Display
- Heat detection Alarm
- Cow Calendar information

LED Control Unit

For industrial milking units that do not require electronics or animal information at every milking point, Pearson’s LED control unit is a sensible option.

The smart one button control allows options depending on the pressing of the button. Once the cow enters the parlour and her ID tag is read the LED indicator light burns in different colours depending on the circumstance.

ViewCam

Up to 4 cameras may be positioned around the milking parlour to view areas not easily visible to the operator. This is displayed on the Global MPM Monitor in the milking pit.

VoiceAlarm

For voice output of information in the milking parlour the Pearson Voice Speaker alarm system keeps you alert to oncoming cows entering the milking parlour.
ADVANCED SIMPLICITY

A perfect example of how Pearson can incorporate the most complicated advanced milking technology and control it through user friendly simple controls.
Ceres Herd management

The management software system “Ceres” distinguishes itself through its very user-friendly operation and well-organized grouped information. It is extremely simple to enter and retrieve information or change cow specific settings, characterise the user-friendliness of this management program which is completely Windows-related.

Ceres herd management software

Once an animal’s information is entered into CERES herd manager software, technology starts building up a history of the animal to more efficiently help you make decisions to get the best results from that animal. Keeping a record of any illness, medical treatment and future illness is just part of CERES to continually monitor the health of each animal in your herd. Information collected can be displayed on any aspect of that animal from milk yield to pregnancy dates through easy to read graphs and reports.

Parlour management

Communication from CERES to the milking parlour during milking can provide the operator with pregnancy date, heat dates and much more from the CERES cow calendar. Depending on the animal, cluster removal times, pulsation speeds and ratios may be adjusted for individual cows.

Any changes made to the cows information in the parlour is updated onto CERES automatically once the cow has finished milking.

Feeding control

Accurate feed curves according to the cow’s lactation stage or feeding to yield may be set up very easily with Ceres. Up to 4 different feed augers may be controlled from the software. In parlour feeding and out of parlour feeding may be managed from CERES giving total control to the farm manager.
Animal Identification

Information
The Pearson Auto identification system allows the operator in the milking pit to make decisions quickly and accurately on cow behaviour or cow calendar information.

Feeding
Feeding cows in the parlour can be a slow process depending on the length of the parlour or the feeding practice on the farm. Once the cow get identified the feeding commences freeing up the operator to check and monitor cows correctly while they enter the parlour.

Options
EID Ear Tag - Standard identification
Smarttag leg - Identification, high activity, health monitoring
Smarttag Neck - Identification, high activity, health monitoring

*Minimise work load on the operator and make accurate decisions by viewing total cow history at the touch of a button.

Parlour Identification

Entrance ID
This type of identification has the id aerials positioned at the entrance to the milking parlour, either vertical aerial boards or stainless steel floor aerials are installed depending on the positioning of the tag on the cow. A short race ensures smooth individual cow flow into the parlour and delivers a very reliable cost effective solution for any auto identification parlour.

Stall ID
Stall ID is having an aerial installed a every animal position. The cow is identified once at her stall or manger, slightly more accurate than the entrance id system but a more expensive option. All Install Ariel's are made from Stainless steel.
Herd Management Software / Devices

Herd Management Software

Pearson’s Ceres Management Software gives a total view of the herd through technology. Ceres communicates animal data to and from the parlour during milking such as milk yield, conductivity, milking time, feed quantities and cow calendar information. This information is built up to create an animal’s history and is easily displayed to view any existing or oncoming issues with the animal through the Ceres Report Generator. Ceres Herd Management software also communicates directly with other hardware on the farm to increase efficiency and reduce labour. These include; Out of Parlour Feed Stations, MRS activity, ProSelect Selection System and Parlour Management.

Feeding and Nutrition

Accurate feed curves according to the cow’s lactation stage or feeding to yield may be set up very easily with the Ceres Software. Up to 4 different feed augers may be controlled from the software. In parlour feeding and out of parlour feeding may be managed from CERES giving total control to the farm manager.

Reproduction

MRS Activity.

Recording every minute of the cow’s movement gives the most accurate data allowing the user to see the peak time in which the cow was active. This gives the user the best information to determine when to AI the animal.

Animal Management

Selection System

Selecting cows into different barn groups for feeding is very easy with the Ceres herd management software; it can select an individual cow or group for attention. With options of 2 - 5 way drafting the ProSelect System can suit all farm types.
Communication from CERES to the milking parlour during milking can provide the operator with pregnancy date, heat dates and much more from the CERES cow calendar. Depending on the animal, cluster removal times, pulsation speeds and ratios may be adjusted for individual cows.

Parlour keyboards
- Milk yield display
- Cow calendar information
- Milk alarms

Milk Meters
- Milk Recording
- Milk Sampling
- Conductivity sensing

Parlour Monitor
Visual display of all milking points and information relative to the animal.

Auto Identification
- Ear Tag
- Leg tag
- Neck collar

Animal Health
- Monitor eating time and number of meals per day.
- Low activity monitoring
- Low feed intake monitoring
- High conductivity monitoring
Animal Health & Heat Detection
Prevention is better than cure...

Whether it is an effective pre or post milking routine or just having the correct equipment installed to keep bacteria and cross contamination at a minimum. Preventing the problem before it starts keeps stress, work load and cost to a minimum.
Pre spraying or post spraying cow can be done very simply with a Pearson Teat spray unit. Connected to the vacuum line, a small valve system pumps teat dip to a hand held lance in the pit allowing fast and accurate spraying of the cow’s teats.

For larger herds, automatic teat sprayers may be used. The system is powered by compressed air and teats are sprayed exiting the parlour or rotary deck.

Washing cows in the milking parlour does not have to be a big job. Installing an udder washing system is a great way to quickly and efficiently clean cows with warm water.

Pearson have been manufacturing udder washing systems for over 30 years, manufacturing a heater with a low operating cost and stainless steel interior has lead to a product which will last for generations.

Incorporating an indirect water heating system prevents water scaling on the heating elements giving them a longer life in lime scale areas.
AirStream Cluster Flushing

Prevent mastitis on your farm spreading during milking in the parlour.

The spreading of mastitis can occur from high amounts of Staph Aureus Bacteria remaining in the liner after milking an infected cow. These bacteria can be spread to the next 4 cows during the milking process unless properly cleaned, this is known as cross contamination.

Pearson’s Cluster Flush System back-flushes the cluster either after every cow or just the infected cow, depending on the system installed.

The cluster is flushed with a parasitic acid and injected with compressed air to give a maximum washing and drying routine.

The Pearson Cluster Flush System can fit onto almost any parlour without any alteration to the existing milking equipment.

Lower the spread of infection

When a cow has been milked in the milking parlour a spreadable infection such as StaphAureus bacteria can be carried in the cluster to between 6 – 8 cows, the three areas of the cluster that must be cleaned before applying the unit to the next cow are the :

1. Liner Head – after milking an infected cow a large quantity of contaminated milk is held in the liner head, once applied to the next cow the milk has access to enter the teat canal once opened.

2. Claw Piece - when applying the cluster to a cow the shells are put on one at a time, once a liner has been connected the teat canal has opened, while lifting the other shells air is let into the claw piece which may force milk up the connected shell to the open teat.

2. long milk tube – the long milk tube must be cleaned to prevent contaminated milk returning to the claw piece, washing the long milk tube gives a total clean to the milking unit.
Heat Detection with Health Monitoring:

Know exactly when to take action.
**MRS Heat & Health Monitoring**

**MRS Smarttag Leg**

with High Activity with Low Movement monitoring

**Performance**

The Activity System built into the tag is a highly accurate piece of technology recording every step the cow takes. As it is positioned on the leg of the animal it does not record head movement, for example while the cow is eating at the feed rail thus only giving accurate and reliable information to the activity system.

**Durability**

All Pearson smarttags have a 10 year battery installed and have a 3 year warranty. The tag is a moulded hardened plastic allowing maximum protection to the electronics against the harsh environments of modern dairy farms and weather conditions.

**Comfort**

The tag is positioned on the leg of the cow above the hoof. This position saves the tags being broken in feed rails, head locking devices and prevents any banging noise in the parlour against the troughs.

**Health - low activity**

The tag not only monitors excessive movement to alarm high activity but also monitors low movement levels to alarm animal health issues such as feet problems or an oncoming illness.

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**MRS Smarttag neck**

with High Activity with Feed Monitoring

**Performance**

The smarttag neck uses the most advanced G sensing accelerometers on the market today, these sensors allow the tag to monitor every movement of the cows neck. This results in being able to detect high activity and feeding behaviour of the individual cow.

**Durability**

All Pearson Smarttags have a 10 year battery installed and have a 3 year warranty. The tag is a moulded hardened plastic allowing maximum protection to the electronics against the harsh environments of modern dairy farms and weather conditions.

**Comfort**

The tag is positioned on the neck of the cow under the chin. This prevents the need for weights and also keeps the tag protected while at head locking feed barriers.

**Health - feeding monitor**

The smarttag measures the total time per day that an animal spends eating, it also issues an alert when a cow has not eaten for a specific period of time. Cows with acute problems like mastitis and ketosis or acute udder infections stop eating. “Not Eaten” alerts or deviations in feeding behaviour are early warnings of possible health problems.

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1 - 1 attention, no matter how many animals you have.
The Low Line Jetter Wash System is mounted on the wash line. The candle stick ensures fast accurate placement of the cluster on the jetter plate with minimum bending. With the unique jetter cup, the face of the Liner gets fully washed.

Features:
- Polyurethane candle sticks
- Liner head gets fully cleaned
- Stainless Steel mounting plate
- Allows Automatic Cluster Removal

With the unique jetter cup assembly, the face of the liner is fully washed.
Daytona Wash System

To be able to wash large milk lines correctly using the minimum amount of water is in itself an achievement.

The secret is in being able to cover the total inside surface area of a large bore milk-line using a smaller bore wash line.

By creating a slug of water within the stainless steel Daytona Washer and then injecting this slug of water down the pipeline at high speed many times a minute, allows perfect cleaning of the internal diameter of large milk lines.

Wash Troughs

- Totally manufactured from stainless steel.
- Can be sized to suit parlour needs.
- Long-life product.
- No chains or plugs needed.
- Wall mounted for ease of cleaning underneath.
- Eliminates the need to put hands into chemicals.
- Can be floor mounted, if required.
- Has insulation between each trough, eliminating heat transfer between troughs.
- Hygienic appearance.
- Can be supplied in single or double units.
- Available in closed and open models.

* One of the most important features of your milking plant is the washing equipment and washing routine. Give your milking systems a total clean with Pearson’s range of CIP options.
Ocean Automatic Wash System

Pearson boasts in having one of the most advanced machine washing units on the market. Some of the features incorporated in the ocean washer are:

- Large selection of wash programmes
- Vacuum pump control
- Milk pump control
- Slug wash control
- Air injector control
- Suck up valve control
- Chemical dosing units
- Tank safety switches
- Rotary tank valve control
- Water heater control
- Temperature sensors

Safety
Just one of the many safety features incorporated in the Ocean Auto Washer is a sensor placed at the milk delivery line to monitor whether the bulk tank is connected. The washer will not start the milking routine if this is not connected.

Water temperature
During a main wash cycle it is important to have the machine's lines hot to get the best wash possible. Sensors are placed on the line to measure water temperature. If the temperature is low during the wash cycle, an alarm is activated for the user's attention.

User Friendly
Using visual graphics to indicate different rinses, washes and hardware items prevents confusion using the wash keyboard.
With easy to use menus for programmes and settings, helpful alarms indicating low chemical, service and connection points. The Ocean washer is one of the most user friendly washers in the market place.

Performance
Equipped with up to seven wash programmes which include rinses, detergent, and acid cycles, the ocean washer has the flexibility to suit any machine. Included are three farm programmes that can be individually set to suit the user’s needs.

Efficiency
With the Pearson innovative suck up valve, the wash cycle takes less time to complete which in turn shortens the milking machine’s running time.

Environmental
During milking, less vacuum capacity is needed from the vacuum pumps than during washing. Depending on the mode selected (milk or wash), the Ocean Washer is capable of automatically selecting the number of pumps needed to give the required vacuum. Example: One pump may only be needed to run during milking (may take one hour) and two pumps will be needed to run during washing (may take 20 min).
Valve Unit and Wash Trough

Pearson's Valve box and wash trough are constructed from stainless steel. All control and water valves are within the valve box, with an easy open lid for service requirements.

The Control panel may be detached depending on the installation, allowing all water items in a separate wash room, eg. Wash trough, water heaters, etc.

Pumping units suck the chemical required from the drums and pump it directly into the wash trough.

* With a detachable control panel, the wash trough, chemicals and valve box may be installed in a separate room with the control unit positioned in the dairy for easy access and tidiness.

Water Boiler Systems

Dairy water boilers are manufactured by Pearson especially for dairy farms. It has a stainless steel internal tank and automatic header tank for long life and water efficiency.

The Pearson Water boiler empties all its hot water before refilling with cold water so the maximum temperature of water circulates the milking plant at all times.

- All stainless steel water containers.
- Stainless steel header tank.
- Adjustable water quantities delivered.
- No hot / cold mixing during water draw off.
- Stainless steel exterior (optional).
- Available in varying sizes.
- Especially designed to wash milking machines.
- Heats water up to 100 degrees centigrade.

CIP Systems

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Element Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 Gallon</td>
<td>- 1 x 3 kw element</td>
</tr>
<tr>
<td>50 Gallon</td>
<td>- 1 x 4 kw element</td>
</tr>
<tr>
<td>75 Gallon</td>
<td>- 2 x 3 kw elements</td>
</tr>
<tr>
<td>120 Gallon</td>
<td>- 3 x 3 kw elements</td>
</tr>
</tbody>
</table>
Feeding Systems
Time taken to feed cows in a parlour can be utilized to give precisely controlled quantities of meal. In the case of high yielding cows this may take the form of a supplement in Out-Of-Parlour feeding. Whatever the system, the price of meal demands that feeding must be carried out with the utmost accuracy.

Pearson offers a range of feeding systems from low level, easily fitted manually operated systems, to fully automatic, electronically controlled systems.
The Pearson Tru-Feed In Parlour feed systems come in two options
1. Tru-feed - electric auger driven.
2. Tru-feed Air - compressed air operated.

Rugged construction
The Pearson Tru-Feed systems are constructed of a large plastic blow molded feed hopper and a stainless steel drive unit for reliable long life operation.

Extremely accurate
Tru-feed system - portion accurate to 100g
Tru-feed Air system - portion accurate to 500g

Vermin and splash proof.
All Pearson Tru feed hoppers have vermin proof and splash proof feed lids to ensure the feed inside the hopper is kept dry and in good condition.

Delivery chutes
All delivery shoots are available in variable lengths and materials. Heavy duty PVC or stainless steel options are available.

Different dairy farms require different feeding controls in the milking pit. Whether it’s an all year round calving platform or single calving platform Pearson offer controls to suit your herd.

Master feed control
The Master feed control unit allows feed amounts to be entered from a single box in the milking pit. Individual Feed amounts may be entered into the unit as the cows enter the parlour.

The master feed control unit may also be used for batch feeding with a top up option for individual cows.

Batch and top up control
For single calving herd platforms batch controls and individual unit controls may be installed, once the cows have entered the parlour at batch amount is given to the row of cows, while at the unit before cluster application the cow may be toped up.

Automatic Feed to yield
If Pearsons milk meters, Herd management and auto identification system is installed on the milking parlour, feeding to yield may be used. Cows may be set on a feed curve following the cows lactation, milk yield or calving time.
The Pearson out of parlour feed system can offer total control for feeding dairy cows. To get the best performance from your herd, Pearson allow a maximum of four different feed types to be mixed and dispensed to the cow. A liquid additive within each feed station may be installed.

**Smart Operation**

The feed falls into the feed trough at the same time from the synthetic hopper. Once the feed has been dispensed the anti-spill valve automatically closes the auger of the feeder. This stops any feed falling into the trough, preventing animals bumping the feeder to release more meal.

**Electronics**

The parlour electronics are thoroughly tested during and after the production process, and are mounted in the actual feeding stations. This guarantees simple and quick installation, and results in reliable, low maintenance operation of the feeding station and its electronics.
Herd Management

Herd Management
Maximise **Cow Flow**, Minimise Labour.

With increasing cow numbers on farm and larger parlours being installed cow flow has become a huge factor in milking time and labour units. Installing equipment to increase cow flow enables fewer operators manage larger numbers of cows.
The PEARSON Commander Crowd Gate is a combination of a backing gate and scraping system. The gate moves the cows forward towards the parlour entrance in a smooth motion. Once the gate reaches its maximum point, it changes over. On the return back to its parking position, it scrapes the collecting yard, leaving it clean for the next milking.

Hydraulic Rail System
For slow, steady movement towards the parlour and strength when needed, a hydraulic system is used to drive the backing gate. Connected to double notched, heavy duty channel rails it can move the most stubborn cows. On larger gates, up to 3 rails may be needed.

Gate Construction
To ensure long life, the gate is manufactured from heavy duty steel and is then fully galvanised. A strong hock rail at the front of the backing gate is to ensure good cow movement towards the parlour.

Control
A control unit is situated at the back of the milking parlour to activate the backing gate. A timed forward motion brings the cows up to the parlour and a Home button brings the gate back to the ram box position.
Extra switches may be installed on the parlour entrance gates to automatically activate the backing gate once open.

The Pearson Revolve Crowd gate consists of two gate units, the first is an idle gate to guide the cows into the parlour and the second is the moving gate which rotates around the yard behind the cows keeping them up to the parlour entrance.

Drive System
The Revolve crowd gate is powered by compressed air, an industrial pneumatic motor is connected to the drive system to move the gate.

Durability
Both gate structures are manufactured from heavy duty black steel and hot dipped galvanised to last for many years.

Groups
The Revolve crowd gate is able to do groups of cows. Once the first group is finished the idle gate may be moved to the other side of the parlour entrance and then the moving gate rotates the opposite way.

Safty
There are no electric motors or electronic controls on the gate preventing any stray voltage or electric failures in the outdoor environment.
Voyager Crowd Gate

With the Pearson Voyager Crowd Gate, cows can easily be brought towards the parlour in groups. Once one group has been brought through the parlour, the gate lifts up and travels over the cows to the back of the collection yard and brings up the next group of cows. This is suitable for farms that have herds larger than the collection area behind the parlour.

Drive System

Pearson’s Voyager crowd gate is driven by a compressed air motor and pneumatic rams. This ensures a long life product for indoor and outdoor use and no risk of stray voltage or electronic failures on the gate.

Groups

The Pearson Voyager crowd gate is ideal for bringing groups to the parlour. Once the first group has been filled into the collecting yard, the gate is lowered and the second group can be loaded and follow up towards the parlour. Once ready for the second group, the gate lifts up and over the group and brings them towards the parlour.

Yard Cleaning

Add a scraper unit to the gate and get another job done. As the gate moves forward or backwards depending on the slurry channel, the scraper cleans the collecting yard.

ProSelect Drafting

Whether it’s a large herd dairy or a family farm with one operator, Pearson’s ProSelect drafting systems is an essential tool for the day to day running on the farm. The ProSelect system can offer two way to five way drafting, with easy to use controls and a calendar system on the more advanced options.

The drafting units use red eye sensors to monitor cow movement and flow through the selection crate. This enables the control system to know when to close and open the gate to get the best selection possible.

V – Tag Systems

The PEARSON stand alone V-TAG system offers an effective low cost solution to drafting cows. A tag is applied to the cow while in the milking parlour and is then selected when exiting the parlour. The tag is then retrieved after the cow has been seen to.

E- Tag Systems

Selecting cows in batches for barns or individual selection for illness, A.I. Activity, etc can be automatically done from the parlour with the ProSelect E-Tag System. Up to three way drafting may be controlled from this system. “Once only” or “always” options may be selected.
Milk Bulk Tanks

Maximum Storage With Minimum Space

With an ever increasing demand for high volume on-farm milk cooling and storage, the Pearson Milk Silo provides the perfect solution where it is often impossible and uneconomical to extend existing or to build new premises to accommodate conventional milk tanks.

Features

- Laser-welded Base Cooling Evaporator
- Option of Side-Wall Cooling Evaporator
- Conical Base
- Hygienic milk-sampling system
- Stainless Steel Alcove installed through wall to Dairy incorporating
  - Wash & Cooling Controls
  - Bottom Access Manway
  - Non-Return Valve for bottom filling
  - CIP Milk Line Connection
- High Density Insulation
- Stainless Steel Access Ladder with safety cage
- Self cleaning all Stainless Steel exterior
- Available in Ice Bank and Direct Expansion
Milk is cooled directly by a Condensing Unit circulating refrigerant through the laser-welded evaporator plates of the milk tank, against which the milk is gently agitated.

Features

- Elliptical shaped milk vessel for maximum cooling efficiency
- Compact and attractive appearance
- High density polyurethane foam insulation
- Conventional cooling regulation
- Condensing Units carefully selected to suit cooling requirements
- Service friendly easy to use control systems
- Automatic Wash system with:
  - Adjustable programmer to suit varying on-farm conditions
  - Stainless Steel Detergent Bowl
  - Optional Automatic Dosing with adjustable flow-control peristaltic pumps
- Stainless Steel Water Deflector Plate that has no wearing parts and is blockage proof
- Water intake separate from Agitator preventing damage to Motor
- Stainless Steel Washed Outlet
- Quick Wash facility

By using a Pearson Ice Builder to produce and store large quantities of ice, chilled water will allow instant cooling of milk, reduce the risk of bacterial growth and when used to take advantage of “off peak” electricity it will drastically reduce running costs.

Features

- All Stainless Steel slim-line compact design
- High Density Insulation
- Dual-setting Ice Controller for maximum/minimum production
- Condensing Unit(s) attached or remote
- Two Chilled Water Pumps
- Air assisted agitation on larger models

Classic Milk Tank

Chiller Ice Builder
Pearson provides a complete range of milk cooling systems for today's modern dairy farms. All our milk storage tanks are made with simplicity of design in mind and a focus on putting you in control whilst at the same time ensuring that milk is cooled with optimum efficiency and maximum reliability.

Maximum Storage With Minimum Space
Cooling Systems

An electronic milk thermostat controls the milk temperature and agitation functions. This can be connected to audible or visual alarms if required. The deep cool option maximizes the use of lower rate electricity charges and ensure milk is at its required temperature sooner.

**Cooling Equipment**
Compressors on the DX tanks are equipped with "Pump Down" systems to protect evaporator plates from possible damage from hot washing.

**Insulation**
Environmentally friendly high density polyetherane foam insulation is positioned between the inner and outer vessels creating high rigidity and excellent insulation. With this material composition there is minimum heat loss and reduce running costs.

**Evaporator Plates**
Pearson use double laser welded evaporator plates to withstand high pressures and ensure lifetime durability.

Tanks that are equipped with two cooling units are manufactured with a side by side dual plate arrangement for maximum cooling.

**IMT System - Optional**
Pearson's IMT (Independent Tank Monitoring) system can be installed to send daily temperature reports, power failures and much more by SMS, email and phone call.

Washing Systems

Washing is made simple with easy to use controls, the wash unit can easily be to cater for variable on farm conditions, ensuring perfect washing every time.

The standard wash programme consists of 4 wash cycles of fixed duration depending on tank size. The tank may also be equipped with a quick wash facility for robotic milking.

**Wash Spray unit**
This stainless steel centrally located wash device gives a total clean and even spray within the tank. The extensively designed device is impervious to blockages and has been developed to have no wearing or moving parts which in turn means no maintenance.

**Chemical Dosing**
Pearson Tanks come with a choice of two chemical dosing units,

1. A stainless steel detergent bowl
2. Automatic dosing pumps with adjustable flow control.
Express-Fit

Express Fit
Pearson herringbone parlours can be delivered as an *Express-Fit* package. The relevant stallwork is assembled and all equipment ordered on the parlour is fitted, wired and tested by experienced technicians in the Pearson factory.

The parlour is then delivered by an articulated truck to the farm where it is installed into the milking shed within hours.

Installation technicians then proceed to install other features of the machine depending on the items purchased. Parlours may be installed into new sheds in a matter of days or if the new parlour is being placed where the existing parlour is sited, a one day change over may be requested.
Pearson

Total Dairy Solutions

Head Office:
Pearson International
Athy,
Co. Kildare,
Ireland
Tel: 00353 59 8631842
info@pearson-international.com

Notes:

WWW.PEARSON-INTERNATIONAL.COM