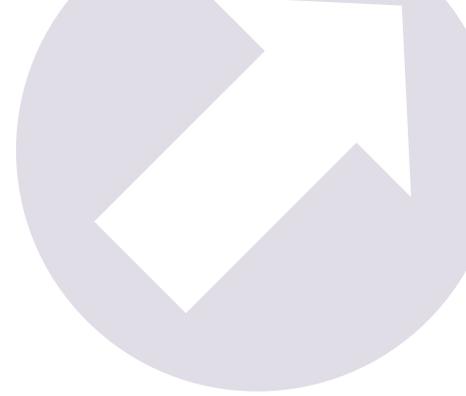


Ireland's Leading Manufacturer of Automated Slurry Handling Equipment



-  Hydraulic Ratchet Scrapers
-  Hydraulic Rope Scrapers
-  Slurry Aeration Systems

DAIRYPOWER
EQUIPMENT



Company Profile



Dairypower is a leading Irish designer and manufacturer of high quality slurry handling equipment with three main products:

- *Hydraulic Ratchet Scrapers*
- *Hydraulic Rope Scrapers*
- *Slurry Aeration Systems*

The company, based in Cork, Ireland, was founded in 1973 by its current MD John O'Donovan. It is very much a family run business, so a personal service is guaranteed from your first enquiry to post-sales support.

Dairypower was initially set up as a milking machine company, servicing clients in Cork and has since grown into a business which exports its equipment to over 25 countries Worldwide.

Since 1985, Dairypower have been designing and manufacturing automatic hydraulic yard scraper systems and is now recognized by farmers and dealers as being the leading manufacturer of hydraulic scrapers in the World.

In 2010 we expanded our scraper range and have developed a unique Rope Scraper system which is the only hydraulically operated Rope Scraper system in the market. The major advantage of being hydraulic operated is that the system can cater for the very large barn alleys built today.

Dairypower also have a unique Slurry Aeration System which is designed to maintain stored slurry in a semi-liquid, and hence pumpable state. This system has many advantages for the farmer such as 1) the slurry is always ready to spread, 2) animal welfare due to no build-up of dangerous gases in the slurry, 3) maintenance costs are minimal as no mechanical parts are in contact with the slurry, 4) large savings on fertilizer and 5) grass has a better re-growth rate after spreading.

The following factors are highly prioritised in Dairypower and contribute to it's leading position in the market today:

- *On-going Research and Development*
- *Supplier of Superior quality products*
- *Flexibility*
- *Short time of delivery*
- *Optimum service to clients*





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Hydraulic Ratchet Scraper Systems

Hydraulic Scraper System

Dairypower is the foremost European designer and manufacturer of Automatic Hydraulic Yard Scraper Systems. Our patented scraper system has many unique features that make it the safest and most trouble free system in the world. The Dairypower scraper system is hydraulically operated, which means fewer moveable parts and considerably less risk of breakdowns.

Safe operation and simple functions

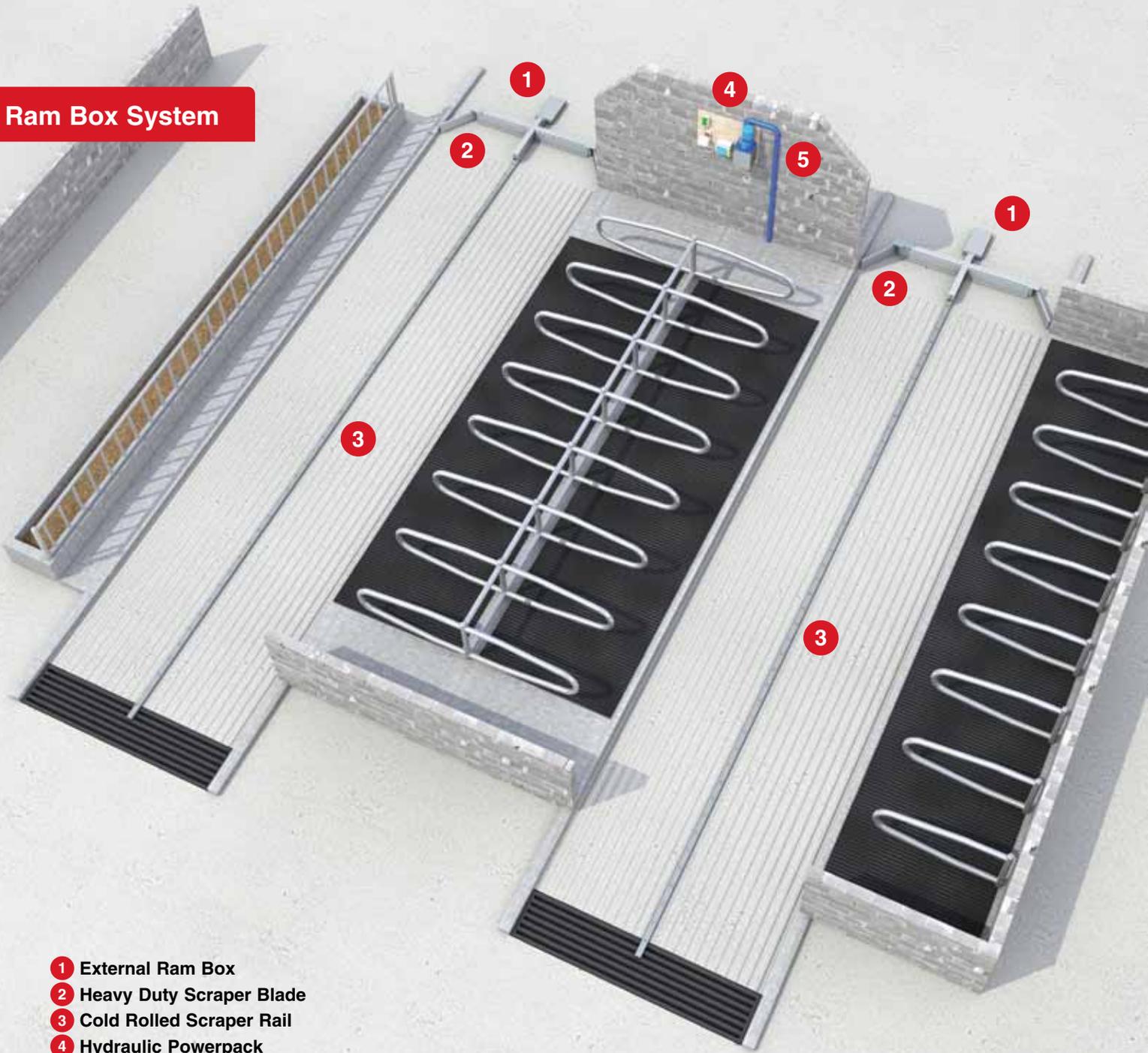
The system is operated by a low noise hydraulic power unit connected to a hydraulic cylinder for each passage. One power unit can operate up to 6 passages. The hydraulic cylinder is connected to a Rail / Track that moves back and forth, moving the scraper in steps along the passageway. The scraper moves in steps at low speed, as the scraper stops for a few seconds during the return stroke of the cylinder. The animals are not stressed, and they can easily move away or step over it.

The system is operated by a very simple user friendly control box. Each scraper has its own timer and switch. It can be programmed to run individually or as one sequence. One sensor monitors the movement of the rams for a complete system. It has a safety feature which automatically switches off a scraper where an animal becomes immobilized and will not affect the other scrapers on the system. Also the scraper can be programmed to park in any position which the farmer chooses.

Dairypower Scraper System

The Dairypower Scraper System is the only hydraulic scraper manufactured that can operate in extreme conditions such as the very cold conditions experienced in countries like Russia and Iceland to the very hot conditions experienced in countries like Israel and the U.S.A. Our unfaltering commitment to on-going research and development has seen the Hydraulic System successfully installed for cattle, sheep, pig and poultry houses. The system has also been installed in sewage treatment plants, abattoirs as well as other industrial projects. Dairypower has a patented spring loaded rail cleaning device which can cater for any extreme hot or frozen conditions. This has been the greatest breakthrough in hydraulic scrapers as all other manufacturers experience great difficulty in dry conditions.

Ram Box System



- 1 External Ram Box
- 2 Heavy Duty Scraper Blade
- 3 Cold Rolled Scraper Rail
- 4 Hydraulic Powerpack
- 5 Hydraulic Hose Conduit



Hydraulic Ratchet Scraper Systems

Powerpack Features

The Hydraulic Powerpack is designed for a long and trouble free life with low noise level. The Hydraulic Pump is protected by a suction and return filtration system, helping to extend the lifetime of all components. The smooth change-over valve means easy operation and gentle turns that do not disturb the animals. Adjustable hydraulic pressure makes it possible to optimise each plant to actual conditions. The oil level is visible and the level is monitored by a float switch.

- 1.5 – 2.2 kW Motor
- 12 Litre Group 2 Hydraulic Pump
- Oil Level Gauge
- Oil Float Switch
- Oil Suction and Return Filters
- Breather Filler Cap
- Scraper Speed 3.3 meters per min.

Control Box Features

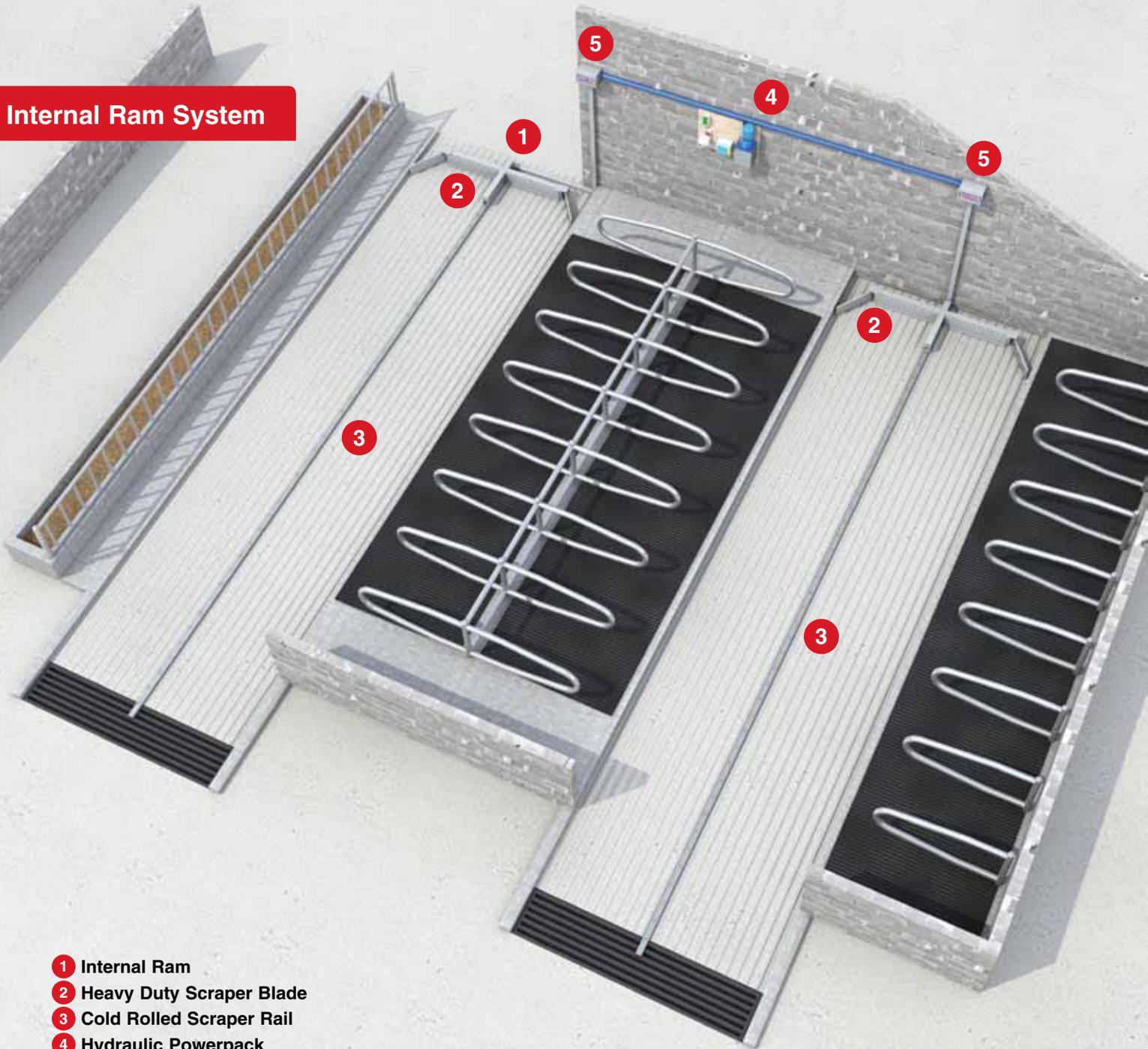
The Dairypower scraper system is controlled by a very simple user friendly electronic control box. Each scraper has its own timer and switch for flexibility and individual customisation. Passages can be programmed to run individually or as one sequence.

It has a safety feature which automatically switches off a scraper where a cow becomes immobilized and will not affect the other scrapers on the system. One sensor monitors the movement of the cylinders for a complete system. The 24V DC output voltage is protected by just one resettable 2A fuse. The control box can also be programmed to park a scraper in any position which the farmer chooses.

Rail Features

The Rail is a heavy duty cold rolled rail. This Rail has four folds which gives it double the strength of a standard two folded Rail. Its unique curved design prevents injuries on cow's hoofs. The rail is supplied in 3m lengths and has a guide bracket anchored every 1.5 meters. There is no welding in either the Rail or Guide Slides. The Rail can be installed on top of the floor or it can be recessed into the floor.

Internal Ram System



- 1 Internal Ram
- 2 Heavy Duty Scraper Blade
- 3 Cold Rolled Scraper Rail
- 4 Hydraulic Powerpack
- 5 Enclosed Solenoid Box



Hydraulic Ratchet Scraper Systems

Ram Box Features

Dairypower produce two Ram Box options, a Standard External Ram Box or a patented Internal Ram which avoids any pre-installation work. The cylinders are specially designed for manure removal in barns. The cylinders are powder painted and the hard chromed piston rod is made of special steel. Both options can be installed to push or pull the scraper blade.

Standard External Ram Box

This Ram Box consists of cushioned cylinder, a 24V DC Solenoid, a Magnetic Park Switch, a Glanded Junction Box and a Galvanized Checker Plate Cover.

Dimensions: 60 x 30 x 10 cm **Cylinder:** 45 x 25 x 500 mm

Patented Internal Ram

Dairypower has developed and patented an Internal Ram System. The cylinder is installed on the existing passage floor and is protected by a stainless steel Casing which the Rail runs on. All electrical parts are installed overhead away from the manure. This system avoids any pre-installation work.

Scraper Blade Features

The extra weight in the Dairypower heavy duty robust scraper blade is supplied hot dip galvanized. It has a low and smooth profile, designed to prevent injuries on cow's hoofs. The scraper blade is driven by a patented double tongue mechanical tripping device with the options of locking to remove heavy loads. The tongue is spring loaded which keeps the rail clean, preventing a build-up of slurry allowing the scraper to operate in very extreme hot or frozen conditions.



Hydraulic Ratchet Scraper Systems

Wide Range of Scraper Blades

There is a range of Dairypower scraper blades to suit all types of passageways:

- ✔ Standard Straight Blade Heavy Duty Scraper
- ✔ Universal Scraper (The Blades are hinged so the Scraper can clean both flat and sloping floors, with the manure running inwards. By removing 2 pins the scraper can be closed to a V to allow tractor access)
- ✔ Double Blade Scraper (for very long passageways)
- ✔ Delta 'V' Scraper Blade (for passages with large difference in width)
- ✔ Pig Scraper (special low scraper to allow pigs to walk over)
- ✔ Slat Scraper (special locked blades, with outer rubber cleaning wings)
- ✔ Silage Scraper (scraper pushes silage to head-feed and closes on return journey to allow tractor access)

Dairypower Advantages:

- ✔ Easily installed in old or new barns.
- ✔ Hydraulic installation means easier concrete / pre-installation work.
- ✔ Robust design gives extra high capacity, and a long lifetime due to the use of high quality materials.
- ✔ Animal friendly design with rounded edges.
- ✔ The system can clean passageways up to 150 meters long and 6 meters wide.
- ✔ The system is fully galvanized.
- ✔ Designed for maximum safety for the cows as well as maximum cleaning efficiency.
- ✔ Floating blades for cleaner passageways, which leads to better milk quality.
- ✔ Suitable for passageways of odd lengths.
- ✔ Passages do not have to be parallel and can be at right angles.



Hydraulic Ratchet Scraper Systems

Backing-Gate System

The scraper backing gate integrates our automatic scraper system and an advancement gate. Cleaning can be configured to clean in either forward or reverse directions. The operator can control gate advancement from anywhere in the milking pit. The gate can be programmed to operate for a fixed distance to bring the cows to the milking parlour and when the farmer is finished the gate can be returned to the parked position.

Lifting Slat

The Dairypower Lifting Slat was introduced to remove all slurry, long straw and silage from passageways. The scraper lifts the slat doors and discharges the slurry directly into the slurry tank. The scraper then returns and the slat doors automatically close. The advantage of this system is that there are no obstacles for cows or tractors in the passageway.

Clear-All System

Dairypower has developed a new Clear-All System to remove all build-up of slurry at the end of the scraper passages. This system is very animal friendly and can be installed inside the building. The Clear-All is fitted to the last section of Rail and moves forwards and backwards with the Rail. The scraper brings the slurry to the Clear-All and returns towards the park position. The Clear-All creates a slalom effect working the slurry downwards into the grid or slat preventing any build-up of slurry and keeping the passageway clean.

Hydromat System

The Dairypower Hydromat System is used to transport slurry from the cross channel to the main store. The hydraulically operated press can transport the liquid manure up to 60 meters and lift it up to 6 meters above the press. With this system large costs of a slurry tank and a pump can be eliminated.





Hydraulic Rope Scraper System

Hydraulic Rope Systems

The Dairypower Hydraulic Rope Scraper is a unique system which incorporates a hydraulic motor and winch unit to clean barn alley ways. The Dairypower Hydraulic Rope Scraper does not use a geared motor as traditionally used in Rope Scraper Systems, it instead uses a hydraulic motor which is driven with a hydraulic power pack, the same as used in our Ratchet Scraper System which has been tried and tested over the past 30+ years.

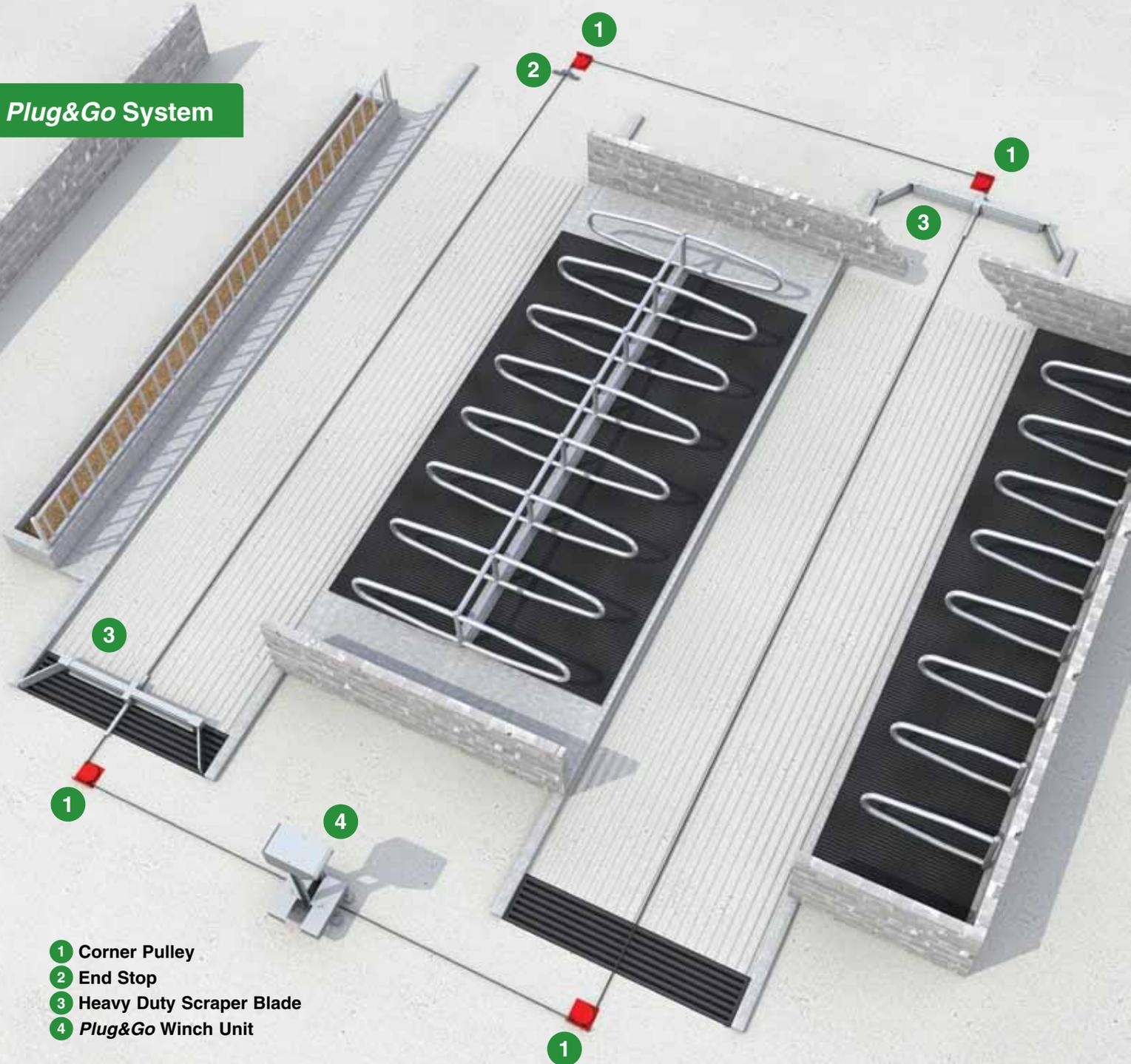
The system consists of 2 winch units working alternately. One power unit coils up the rope while the other winch unit is free-wheeling and uncoiling the rope. It is a strong and robust system with very low maintenance costs.

The hydraulic power pack is driven by a low consumption electric motor and the whole system is controlled by a user friendly electronic control panel which the farmer can easily set to operate on both Manual and Auto functions. The Auto function can be set to operate at various hourly intervals throughout the 24 hour cycle.

Main Benefits:

- ✔ Low power consumption
- ✔ Easy-to-use control panel
- ✔ Trouble free hydraulic motor vs. traditional geared motor
- ✔ Animal friendly
- ✔ All scraper equipment is hot dipped galvanized for maximum life expectancy
- ✔ No electronic components in contact with slurry
- ✔ Requires very low maintenance

Plug&Go System



- 1 Corner Pulley
- 2 End Stop
- 3 Heavy Duty Scraper Blade
- 4 Plug&Go Winch Unit



Hydraulic Rope Scraper System

Plug&Go System:

The Dairypower *Plug&Go* System is completely assembled in house and dramatically reduces installation time. With this system it is possible to have a complete installation up and running in a few hours. All hydraulic and electrical work is pre-done on the *Plug&Go* unit, so the unit just needs to be fixed in place, and then the corner wheels, scraper blades and Ropes are assembled and mounted to complete the installation.

Greener-Cleaning:

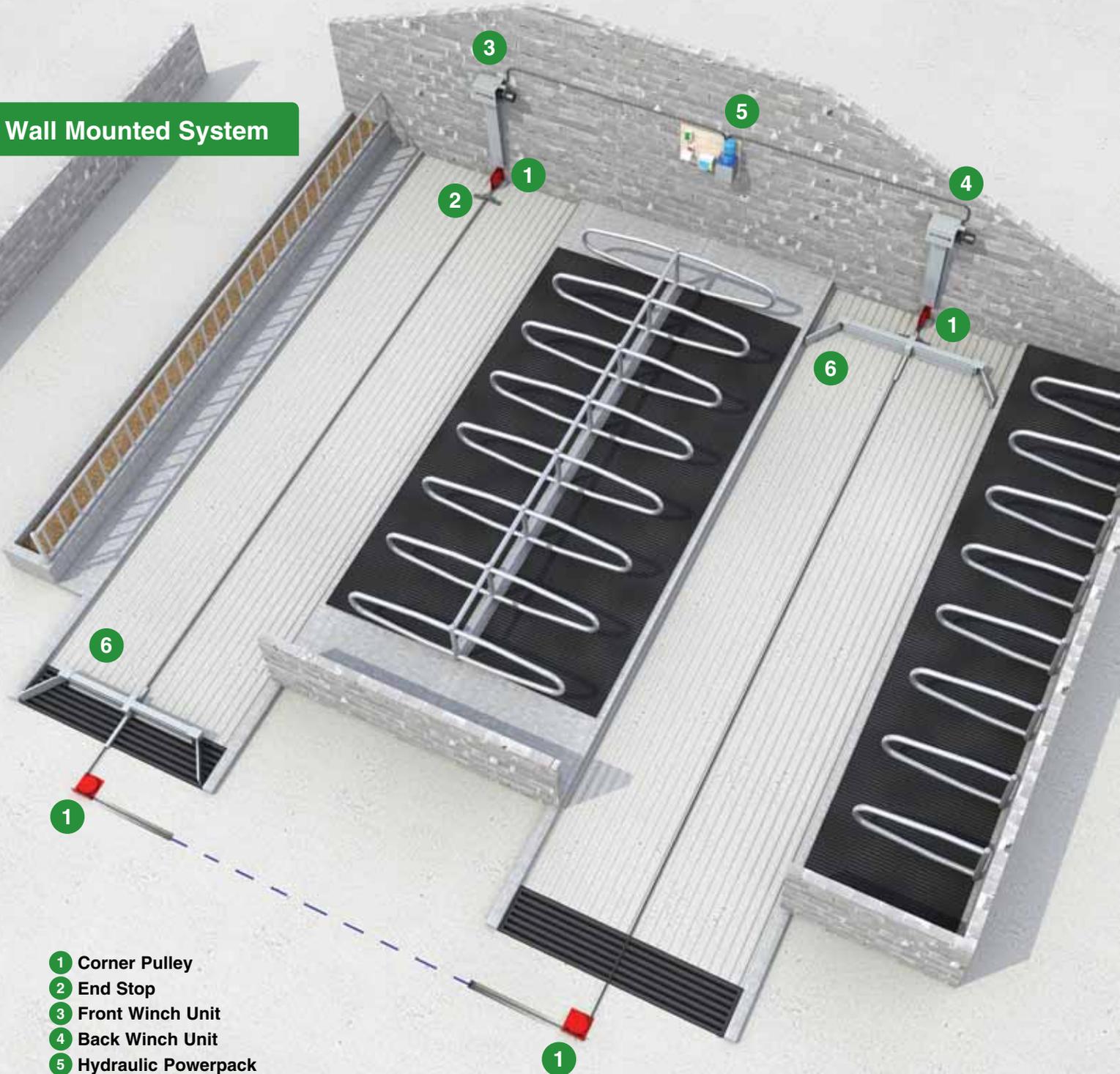
Dairypower's New Rope scraper system is engineered and designed as a market leader in Greener-cleaning. Dairypower's use of a hydraulic winch pushes the capabilities of Rope scrapers when it comes to operating speed, operating costs, and operating length to an extent that it is possible to clean alleys in excess of 150 metres long.

Being hydraulic the scraper is capable of travelling at a speed of 7 metres / minute and using electric motors ranging from 0.75 – 1.5kw (depending on the length of the barn), running costs are significantly reduced on other systems available.

The rope scraping system is a highly reliable and effective system to keep alleys clean. Cleaner alleys reduce stress and improve the health of your cows.

With the Dairypower Rope Scraper System you save labour and money as well as time that can be used for more demanding jobs.

Wall Mounted System



- 1 Corner Pulley
- 2 End Stop
- 3 Front Winch Unit
- 4 Back Winch Unit
- 5 Hydraulic Powerpack
- 6 Heavy Duty Scraper Blade



Hydraulic Rope Scraper System

Wall Mounted System:

The Wall Mounted System is very easy to mount in new as well as in existing barns. The winches are mounted on the wall and hydraulic hosing is run from the hydraulic Powerpack to the winches. Then the corner wheels, scraper blades and Ropes are assembled and mounted to complete the installation.

Hydraulic Winch Units:

The Hydraulic Winch Unit is operated by a hydraulic Powerpack which drives a unique free-running hydraulic motor. The stainless steel Drum runs on two sealed bearings which require minimum maintenance.

Corner Pulleys:

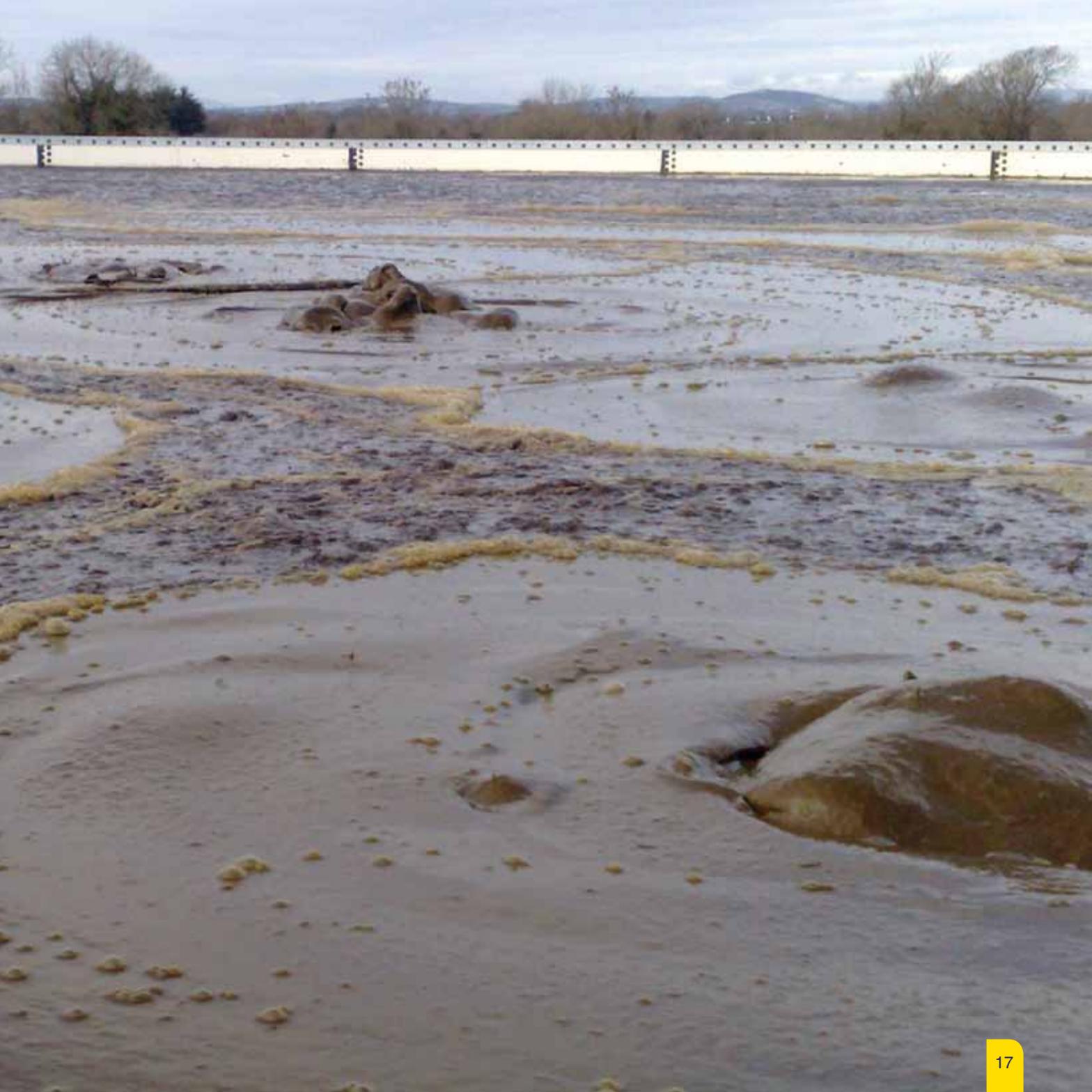
The corner pulleys are designed for maximum life expectancy. The Roller Wheels are cast with a special High Grade Oil-Lite Outer Bush and Inner Stainless Steel bush running system.

Winch Pro-Rope:

Dairypower's polyethylene (World's strongest fibre) winch rope for demanding winching operations. Its tightly braided fibres protects against abrasion, ingress of dirt, and chafing, increasing the rope's service life by several fold. This proven winch rope will last longer than any steel rope.

Scraper Blade:

We use the same Heavy Duty Hot Dipped Galvanized Scraper Blades on our Rope scraper system as we have been using on our Ratchet scraper systems for the past 30+ years.





Slurry Aeration System

Cost effective

The Dairypower Slurry Aeration System is now established as being the most cost effective and environmentally friendly method of keeping slurry in a homogenous pumpable state that is always ready to spread. The system introduced to the Irish market in 1998 is now established as a market leader in Ireland with over 400 systems in operation. The system is approved by the Irish Department of Agriculture and in 2008 we installed a system for 16 slurry tanks in the Teagasc Research Farm (Government Farm) in Johnstown Castle, Wexford. The successful performance of the system has resulted in a new installation at their farm in 2012 where we installed a system to mix a further 5 tanks.

The system was introduced to the export market in 2009, with many systems already installed in the UK, France, Czech Republic, and Cyprus. The system is relatively simple because it employs a low energy consumption electric motor and roots blower pump, electric rotary valves and self-closing neoprene non-return outlet valve. All the piping is 50mm class D uPVC which neither corrodes nor degrades.

Working on a time switch, the system is fully automatic and would typically run for 3 – 4 periods each day without any need for human intervention. Furthermore, the running costs have been shown by independent evaluation to be as low as €1 per day.

The introduction of air into the storage tank has two main effects on the slurry – that of effective mixing caused by the physical action of rising air bubbles, and that of odour reduction of the promotion of aerobic bacteria which digest toxins, fatty acids and ammonia and reduce the biological oxygen demand of the slurry.

In the event of a tank being neglected, the Slurry Aeration System installation is perfectly capable of mixing heavily crusted slurry. The Dairypower slurry aeration system can be installed in concrete tanks, slurry stores and lagoons.



Slurry Aeration System

Drive Unit Features

The electric drive unit is designed for a long and trouble free life with low noise level. The roots blower pump is protected by a suction filtration system, helping to extend the lifetime of all components. The system operates on a high volume low pressure basis (5 bar) so the smooth operation does not disturb the animals.

Adjustable air pressure makes it possible to optimize each plant to actual conditions.

- ✔ Air Roots Blower Pump with option of 100 – 240 cubic metres output per hour
- ✔ 1.5 – 4 kw Motor
- ✔ Pressure Level Gauge
- ✔ Oil Suction Filter
- ✔ Oil Level Gauge
- ✔ Pressure Relief Valve
- ✔ Silencer Housing

Control Box Features

The Dairypower slurry aeration system is controlled by a very simple user friendly electronic control box. The control box has a manual and automatic control. The automatic function is controlled by a 24 hour timer. Each rotary valve has its own on / off switch for flexibility and individual customisation.

Rotary Valve Features

Dairypower originally installed the system using electric pneumatic air valves, but has now developed and patented a very simple trouble free electric rotary valve which operates on 24 Volts. The blower pump supplies air through a manifold to the rotary valve which in turn distributes air through the 50mm uPVC piping to an outlet-branch which aerates a section of the slurry tank for a set period of time.

The rotary valve then simply rotates to distribute air to the next outlet-branch and continues in sequence until the entire tank is aerated.



Slurry Aeration System

Pipework Features

The pipe we use is 50mm class D uPVC which neither corrodes nor degrades. The pipework is fixed to the tank floor by stainless steel brackets and stainless steel bolts. Each supply pipe feeds an outlet-branch which has self-closing neoprene non-return outlet valves which open when the air is supplied from the pump.

Main Benefits

- ☉ Slurry is maintained in a homogeneous, easy-to-manage state
- ☉ Complete consistency – every load has the same uniform consistency with an even distribution of slurry nutrients.
- ☉ Improved palatability of grass
- ☉ Grass has a better regrowth rate after spreading
- ☉ Big savings on Fertilizer
- ☉ Low maintenance costs, no mechanical parts are in contact with the slurry
- ☉ Animal welfare (due to a great reduction of odour / gases during storage and spreading)
- ☉ Does not “tie up” a tractor
- ☉ Low Running Costs
- ☉ Low Capital Cost
- ☉ No risk of damage to the store

European Dealer Network





Innovation | Passion | Progress

Dairypower prides itself on quality and values your custom. From your first enquiry to post-sales support, we are always at hand to provide you with any assistance you may need, in an efficient and friendly manner.

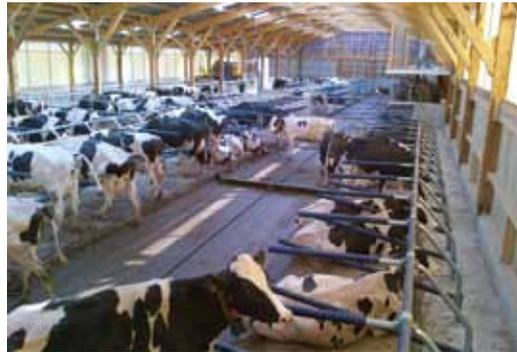
At Dairypower, we practice exceptional quality control and customer service constantly striving to exceed your expectations and delivering a service, second to none. We guarantee a quality of workmanship to comply with international regulations on every installation. With 40 years of experience and extensive know-how Dairypower produces and markets high quality products with longevity. High quality is core to the success which Dairypower has achieved over time with it's products and systems.

All of our products undergo rigorous quality control and meet the highest internationally recognised, quality standards. Our products are manufactured from the highest quality materials, ensuring that you our customers, can be reassured that when you buy Dairypower, you are buying a premium quality product that will continue to meet your requirements well into the future. We are passionate about what we do, committed to the future of today's farmer. The market is moving continuously. We at Dairypower notice this every day and are constantly looking at ways to improve and develop slurry handling equipment.

2012 saw a major development at Dairypower. In May we opened a new premises in Preston to support our UK market. In September we moved to a new state-of-the-art, purpose-built facility in Blarney (Ireland) to serve our Irish and International customers. This serves to ensure that our customers will have available the frontrunner in barn cleaning systems for today's and tomorrow's demanding market.

We attend many exhibitions in Ireland, the UK and Europe which enables us to reach our customers worldwide and to showcase our range of products. Visit our News Page on our website for the exhibitions we will be attending.

DAIRYPOWER EQUIPMENT



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