



MIXMAX

BROCHURE



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HiSpec

About

Established in 1988, HiSpec Engineering Ltd is a family owned company based in Co. Carlow, Ireland. Since the company's inception we have grown progressively and established a solid reputation as a manufacturer and supplier of high quality machinery. Our core activity is the design, manufacture and maintenance of high quality, innovative and reliable machinery for use throughout the agricultural sector.

We are proud of the dependable and honest reputation we have built and continue to grow a sustainable business benefitting the national and international farming communities.

A key ingredient to our success is the family run, hands on approach. Working with valuable staff, many of whom are with HiSpec since our establishment. We remain committed to ensuring you always receive the best quality and service from our machines. This hard work and dedication helps us to manufacture in excess of 1,000 machines per year.

Investment

HiSpec has invested heavily in our production facilities in order to provide our customers with the highest quality products. We have established a strong core dealer network throughout Ireland and the UK. We also manufacture and distribute agricultural machines to other various countries around the world.

We are focused on improving our products and are always looking to establish greater efficiencies to ensure HiSpec maintains its reputation as a market leader in manufacturing high quality products.



Mixmax | Paddle Feeder

The HiSpec Mixmax uses a unique FEED-FLO mixing action to produce a consistent feed to meet the needs of your stock. A single discharge door is fitted as standard to the left hand side.

FEED FLO MIXING

FEED-FLO Mixing uses angled paddles to ensure complete end to end mixing. The paddles are rotating at approximately 5 rpm and this ensures a gentle FEED-FLO action.

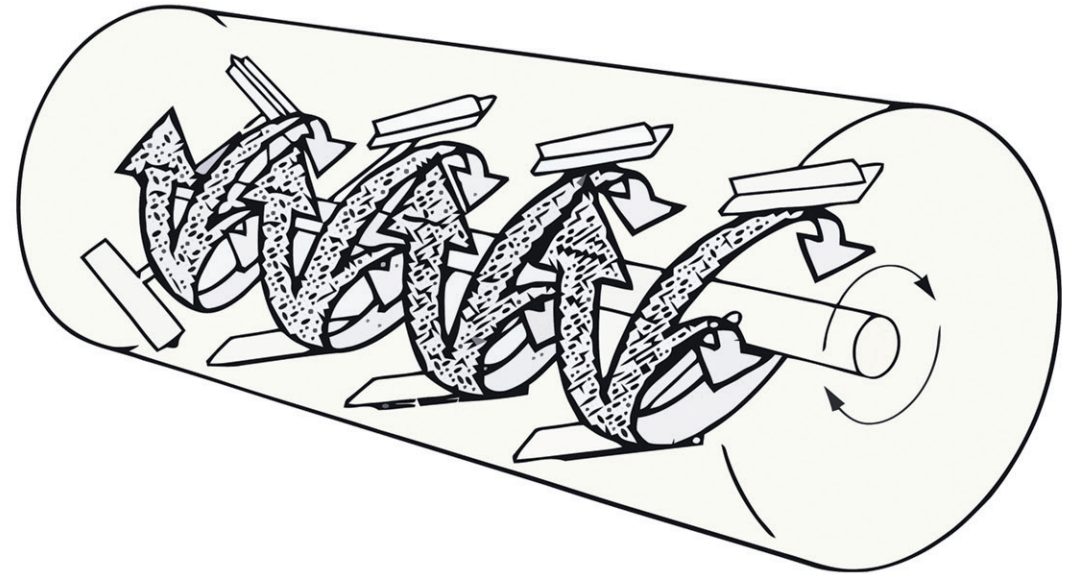
The ration is passed along the body through serrated body knives on both sides of the feeder to allow for additional cutting that may be required. For discharge, the angled paddles are designed to push the ration towards the guillotine door for consistent feeding.

BODY KNIVES

The Mixmax uses two sets of body knives to cut the feed. A set of serrated knives is placed on each side of the feeder. The paddles pass through these knives to complete the cutting. There is also an additional set of body knives on each end of the mixing chamber. These knives ensure that the feed is cut to desired length to form a consistent mix.

LOW HP REQUIREMENT

The Mixmax uses a single chain for mixing. A single chain ensures that maintenance is low. The planetary gearbox drive allows for reduced horsepower and means that Mixmax has an extremely low HP requirement combined with outstanding reliability.





Mixmax 10 - 14 | Single Axle

The Mixmax 10 and 14 are small capacity mixers best suited for small to medium scale operators. (MM10 – 70 dairy cows or 100 cattle per load) (MM14 – 100 dairy cows or 140 cattle per load) The Mixmax 10 and 14 have nine and ten mixing paddles respectively.

CHASSIS

All Mixmax models are mounted on a rigid double chassis as standard. These chassis' are separated via four weigh-cells for accurate recording on feed weights. The double chassis frame provides an extremely strong base for the feeder body. This heavy duty chassis ensures that the stresses and strains of the body are carried effortlessly to the ground.

CAPACITY

The Mixmax 10 and 14 are suited for capacities between 4.0 and 5.5 tonnes. HP requirements start from 60 HP for the Mixmax 10. The Mixmax 14 is particularly suited to medium sized farms as it allows a small tractor to complete the daily feed.





Mixmax 16 - 18 | Single Axle

The Mixmax 16 and 18 are mid capacity mixers best suited for mid to large scale operators. (MM16 – 110 dairy cows or 160 cattle per load) (MM18 – 130 dairy cows or 180 cattle per load) The Mixmax 16 and 18 have ten and eleven paddles respectively, with the MM18 complete with a longer mixing body.

ANGLED PADDLES

The angled paddles sweep along the mixing chamber and help raise the feed to the top of the mixing chamber. From the top of the chamber the feed falls gently to create our unique feed cycle. The individual paddles are angled to pass the feed along the length of the chamber and also to push the feed towards the discharge door during emptying

AXLE

The Mixmax 16 and 18 are fitted with a single axle as standard. A rocking beam axle can be fitted to improve weight distribution. The rocking beam axle is non-steering as standard for reduced maintenance. Both sides of the axle act independently of each other to allow smoother travel behind the tractor.





Mixmax 24 | Tandem Axle

The Mixmax 24 is a large capacity mixer best suited for large scale operators.

(MM24 – 170 dairy cows or 240 cattle per load)

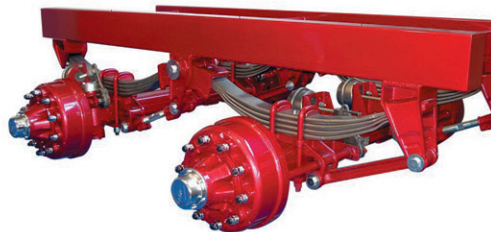
The Mixmax 24 has thirteen paddles that gently blend the feed in our unique Feed-Flo action to produce a consistent ration, whilst also maintaining the structure of the feed.

TEASER ROLLER

A hydraulic teaser roller is fitted as standard to the discharge door. The teaser roller helps to discharge feed evenly along the passage. As the feed passes the teaser roller it is teased out of the discharge door in a consistent motion. The teaser roller is spring loaded to allow it to move into position inside the feeder body once the discharge door has been opened.

TANDEM AXLE

The Mixmax 24 is fitted on a durable double chassis complete with a tandem parabolic axle. This sprung axle is fitted with rear steering to allow improved manoeuvrability around farm-yards. The suspension also improves operator comfort with larger loads during road transportation.





comer industries

HiSpec uses Comer planetary gearboxes on our Mixmax Feeder range. A robust PG reducing gearbox is provided as standard for auger rotation. The gearbox reduces the input speed of the PTO which allows the paddle to rotate at approximately 5 rpm.

PG 1602 MC **MM10 | MM14 | MM16 | MM18**

PG 1602 MC gearboxes are fitted to smaller Mixmax as standard. PG gearboxes possess strong torque characteristics to ensure that the rotor turns slowly and gently and does not damage fibre structure.

PG 2505 MC **MM21 | MM24**

Fitted as standard to large Mixmax, the PG 2502 MC provides greater torque to deal with increased payloads. Each gearbox is meticulously checked at Comer prior to delivery. HiSpec has used Comer gearboxes extensively over the years to provide an extremely reliable and trouble-free heavy duty drive for the Mixmax.

A single chain is used for paddle rotation. This single chain and sprocket means easy maintenance and reliability. An automatic oiler can be fitted to bathe the chain in oil as it passes.

**Rotor**

All Mixmax rotors are constructed from heavy duty steel tubing. This tubing is supported on both ends via steel bearings. Each paddle is strategically positioned on the rotor to motion the feed along the mixing chamber. The paddles are also angled to produce a patented FEED-FLO mix. Special rubbers are also fitted for complete cleaning.





TEASER ROLLER

All Mixmax feeders use a hydraulic teaser roller fitted as standard to the discharge door. The teaser roller helps to discharge feed evenly along the passage. As the feed passes the teaser roller it is teased out of the discharge door in a consistent motion. The teaser roller is spring loaded to allow it to move into position inside the feeder body once the discharge door has been opened.

The discharge height of the chute is set via chain-link to the guillotine door. As the guillotine door opens it pulls the chute up to the desired height.



SPOOL BANK

For tractors with limited hydraulic connections, a manual spool bank can be fitted. This allows the operator to control three functions through one spool.

ELECTRIC CONTROLS

For a larger number of hydraulic functions, an electric hand controller can be used to control all functions.



AUTO OILER

An automatic oiler can be added to provide constant lubrication to the chain. As the guillotine door closes, a pulse of oil is placed on the chain.

WIDE ANGLE PTO

For increased manoeuvrability a wide angle PTO can be fitted.

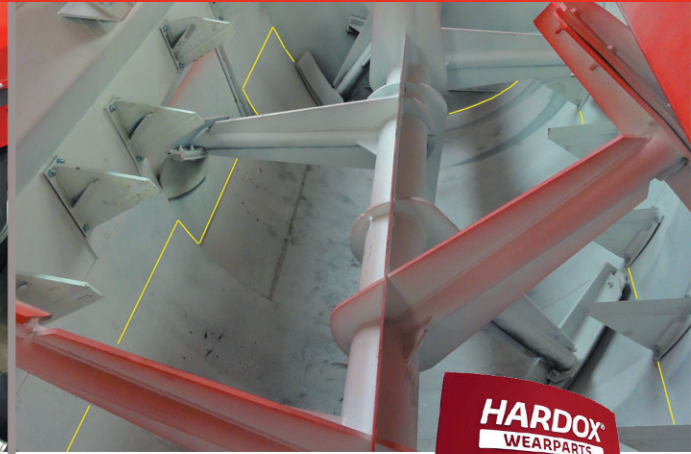


HYDRAULIC CHUTE

For independent control of the chute, a hydraulic ram can be fitted to allow improved control.

MAGNETIC CHUTE

The magnetic chute will collect metallic debris before it may be passed to stock.



HARDOX

A Hardox layer can be placed over the body sheet for longer life.

A 3mm stainless steel liner is also possible.

MINERAL CHUTE

A mineral chute can be fitted to the rear of the Mixmax for adding of minerals to the mix.

A lockable lid is also fitted.





Four Dinamica Generale weigh-cells and a DG600 display as standard provide you with an extremely accurate feed weight display.



The DG600 indicator comes with a faster micro-processor and the easy to read white back light.

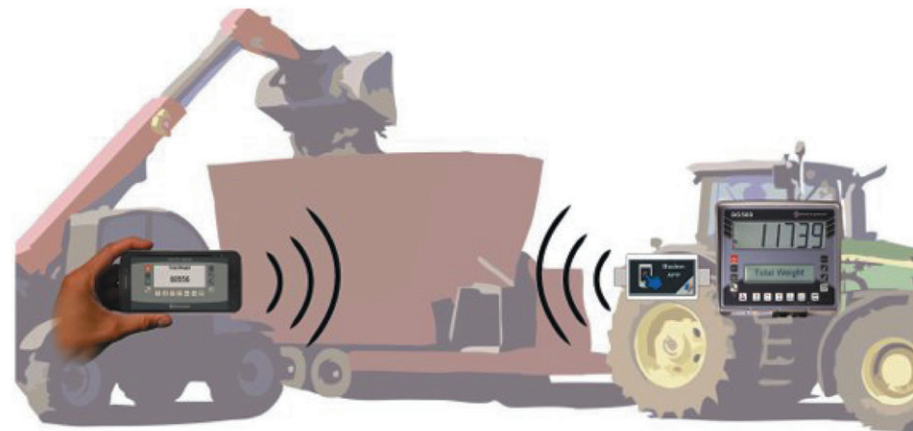
The DG600 allows you to:

- Build a number of recipes for multiple pens.
- Choose 1 ingredient with 98 pens to 98 ingredients for 1 pen, or any combination between.
- Enter ration by: animal, percentage or load
- Utilise basic recipe and batching capabilities
- Eliminate feed sheets



Dinamica Dina TEL 3 is a wireless remote control with a large display that shows information regarding all feed operations.

Dina TEL 3 is equipped with an intuitive keyboard to manage the weight indicator directly from the tractor cab.



Dina TEL 3 App

The Dina TEL 3 App is the ultimate technology developed by Dinamica Generale that brings the control of the weight indicator to your smartphone or tablet



TMR Manager is a full feature Windows based feed management system. TMR Manager also offers operators additional management tools including operator control, pen review, online feed data exchange, ingredient tracking and numerous reports.

Simply enter your feed ingredient ration, groups, and mixer information in your TMR software. Wireless or USB (memory device) is used to transfer feeding instructions to the indicator on the TMR feeder.

The indicator displays the ingredients to be loaded. During feeding the actual weights loaded and fed are saved and sent back to the PC



- Feed Cost Management
- Consistent Feeding
- Management Tools
- Promote Efficiency
- Service Support





Transport Position

FOLD DOWN ELEVATOR

HiSpec offers a variety of elevator lengths to suit your troughs. Elevator lengths between 550mm (22") and 685mm (27") can fold down for transportation.

The elevator is fitted with a chain and slat system for consistent feed delivery. Alternatively a belt can be fitted in lieu of the chain and slat for meal based mixes.

The elevator is controlled via a three bank manual spool. This reduces the amount of tractor spool valves required.



Working Position

FOLD UP ELEVATOR

For elevator lengths over 685mm (27"), the elevator will fold up for transportation. Elevators are available up to 2000mm (78") lengths.

The elevator is supported by two rams to ensure perfect operation, and the height can be easily controlled direct from the tractor.



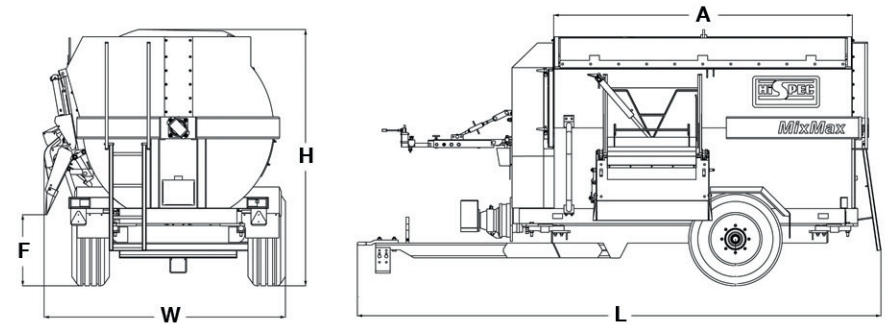
Transport Position



Working Position

Mixmax Series **Single Axle**

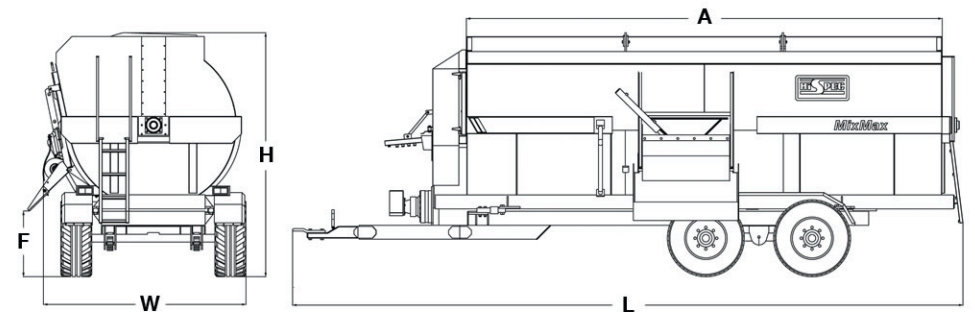
400 rpm PTO drive, heavy duty Comer planetary gearbox, 4 x Dinamica weigh-cells c/w programmable DG600 read-out display, reinforced double chassis, 5mm body thickness, serrated forage knives, hydraulic teaser roller, viewing ladder, discharge door (LHS), adjustable chute, drawbar stand, single axle, parking brake, ring hitch, hydraulic brakes, LED lights, HiSpec red paint finish



| Model | Tyres | m ³ | Axle | Height H | Width W | Length L | Feedout F | Body A | Weight | Capacity |
|--------------|---------------|------------------|--------|-------------|------------|-------------|--------------|-----------|--------|----------|
| | | | | mm | mm | mm | mm | mm | kgs | kgs |
| MM 10 | 355/50 – 22.5 | 10m ³ | single | 2630 | 2450 | 5325 | 950 | 3050 | 4720 | 4000 |
| MM 14 | 355/50 – 22.5 | 14m ³ | single | 2630 | 2450 | 6250 | 950 | 4050 | 5270 | 5500 |
| MM 16 | 385/55 – 22.5 | 16m ³ | single | 2950 | 2550 | 6280 | 950 | 4050 | 5990 | 6200 |
| MM 18 | 385/55 – 22.5 | 18m ³ | single | 2950 | 2550 | 6800 | 950 | 4560 | 6375 | 7200 |

Mixmax Series **Tandem Axle**

400 rpm PTO drive, heavy duty Comer planetary gearbox, 4 x Dinamica weigh-cells c/w programmable DG600 read-out display, reinforced double chassis, 5mm body thickness, serrated forage knives, hydraulic teaser roller, viewing ladder, discharge door (LHS), adjustable chute, drawbar stand, parabolic sprung tandem axle c/w rear steering, parking brake, ring hitch, hydraulic brakes, LED lights, HiSpec red paint finish



| Model | Tyres | m ³ | Axle | Height H | Width W | Length L | Feedout F | Body A | Weight | Capacity |
|--------------|---------------|------------------|--------|-------------|------------|-------------|--------------|-----------|--------|----------|
| | | | | mm | mm | mm | mm | mm | kgs | kgs |
| MM 24 | 385/55 – 22.5 | 24m ³ | tandem | 3100 | 2580 | 8390 | 1215 | 6025 | 9400 | 9600 |



Root Chopper

Freshly chopped roots....

The HiSpec root chopper is hydraulically driven and uses a special cleaning chain to remove soil from the crop.

A spring loaded chopping bar and rotor chop the roots to nugget size before being blended with the ration inside the mixer.

This results in freshly chopped roots whenever you want them. The ration is also perfectly mixed so that stock cannot selectively eat.

A small cleaner chain is available for small crops such as potatoes, carrots etc.





Blending Plant

Mounted on a special heavy-duty frame, the Mixmax Blenders are powered by a three phase electric motor combined with an electric power pack for hydraulic operation.

A single side discharge door or double underbody doors (optional) allow for rapid emptying of the mix once blending is complete. The mix can be fed onto an independent conveyor for immediate dispatch or storage.

Mixmax Blending Plants are available in five sizes:

| | |
|---------------------|-------------|
| Mixmax BP 10 | 37kW motor |
| Mixmax BP 14 | 45kW motor |
| Mixmax BP 16 | 55kW motor |
| Mixmax BP 18 | 75kW motor |
| Mixmax BP 24 | 110kW motor |

The Mixmax Blenders use the same efficient Feed-Flo mixing system. Pellets, meal based materials and liquids are all gently incorporated together to form a highly uniform blend, and a digital weighing system allows ingredients to be accurately measured.

Gentle mixing ensures minimum break-up of pellets, and once mixing is finished, the ingredients are cleanly swept out of the machine during emptying.

Large and small batches can be prepared, and depending on model size, 2 to 3 mixes can be completed each hour.





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