

Large Square Balers



**LSB**

870 / 890 D / 1290 D

[www.KuhnNorthAmerica.com](http://www.KuhnNorthAmerica.com)



**Invest in Quality<sup>®</sup>**

# WHERE INNOVATION MEETS TRADITION

## YEARS OF EXPERIENCE

With over 35 years of experience in large square baling, KUHN large square balers lead the industry with innovative features, simple designs with fewer moving parts and advanced electronics.

## HIGH CAPACITY

Our goal is to develop machines that will boost the profitability of your operation. High output is a key success factor for every large square baler operator. KUHN large square balers have several unique features that will provide the capacity your operation requires.

## HIGH-QUALITY BALES

Rock-hard, square-edged bales are what every customer is looking for. Not only are they easier to handle, stack and haul, but their consistent density provides the quality you expect.

## RELIABILITY

To achieve maximum throughput from your baler, reliability is a must. KUHN large square balers are designed with simple, heavy-duty components. The result is a machine you can depend on with minimum downtime.

## LARGE SQUARE BALERS

LSB  
in brief:

Models	Bale Height	Bale Width	Bale Size	Integral Rotor
LSB 870	28"	31.4"	2x3	OptiFeed, OC-15
LSB 890 D	35"	31.4"	3x3	OptiFeed, OC-15
LSB 1290 D	35"	45.6"	3x4	OptiFeed, OC-23

# VERSATILITY TO MEET YOUR OPERATION'S NEEDS

To better meet your operation's specific needs, there are three different intake options available on LSB balers. Select from an OptiFeed non-cutting rotor, a 15- or 23-knife OptiCut integral rotor.



KNIFE SLIDE TRAY

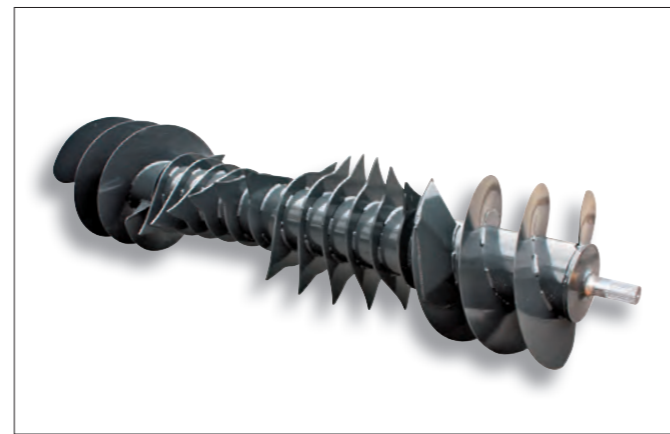
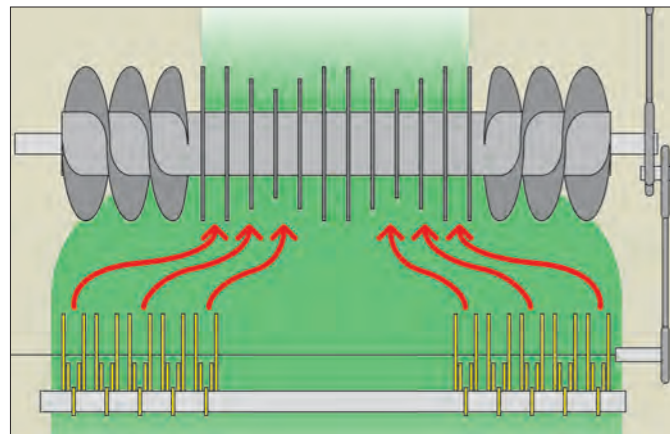
KNIFE SELECTION (OPTICUT 23 ONLY)

# OC-CUTTING INTAKE SYSTEMS

With 20 years of experience behind our cutters, the OptiCut (OC) cutting systems are designed for maximum intake capacity. There are two different types of KUHN OC cutting systems.

## IT ALL STARTS WITH THE PICKUP

The pickup is designed to match the full capacity of the baler. The wide, 91-inch pickup with narrow tine spacing will leave your fields clean. Straight pickup tines help release the crop and reduce crop wrapping. Uniquely shaped crop guides result in more aggressive and efficient pickup by exposing more of the tine when needed and by pulling the crop away from the tines as it approaches the intake. The pickup roller compresses the crop against the pickup tines reducing friction, thus reducing leaf loss and increasing baler efficiency by evening out the windrow. In extreme conditions, pivoting gauge wheels ease wheel and tire stress.



## INTEGRAL ROTOR TECHNOLOGY

The large diameter rotor has heavy-duty auger flighting integrated directly onto the outer sections of the v-shaped rotor. This system is called Integral Rotor Technology. This maintenance free, short-distance intake system ensures even feeding regardless of variations in the crop. With this system, even the heaviest of crops are force-fed through the short intake, resulting in higher speeds for faster bale output.

## OPTIFEED – NON-CUTTING INTAKE SYSTEM

When crop cutting is not required, the OptiFeed system ensures a controlled and consistent crop flow to the pre-chamber. This rotor design helps even out windrows by moving hay where needed for consistent bale formation. This force-fed, non-cutting intake is the perfect solution for handling tough crop conditions such as cornstalks, short straw and high-moisture crops.

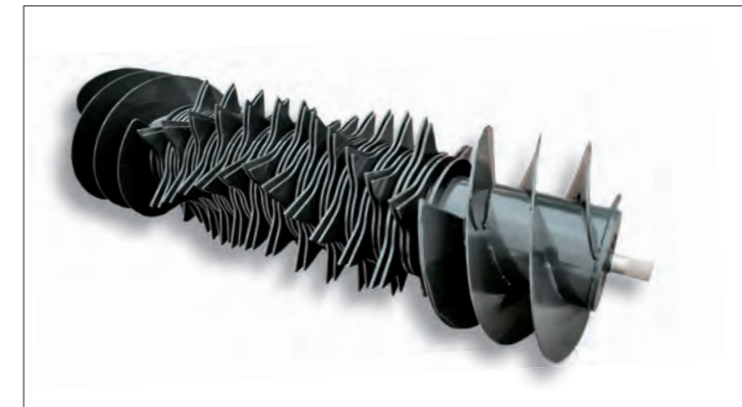
*Note: Available on all LSB models*



## OPTICUT 15

The OC-15 offers a 1.75" theoretical length of cut. The small cut provides better fermentation of forages and more absorbent straw for bedding. The KUHN patented rotor tine shape ensures a low power requirement and a superior cut quality. The knives, individually protected with a spring, can be changed easily with the standard slide tray.

*Note: Available only on LSB 870 & 890 D*

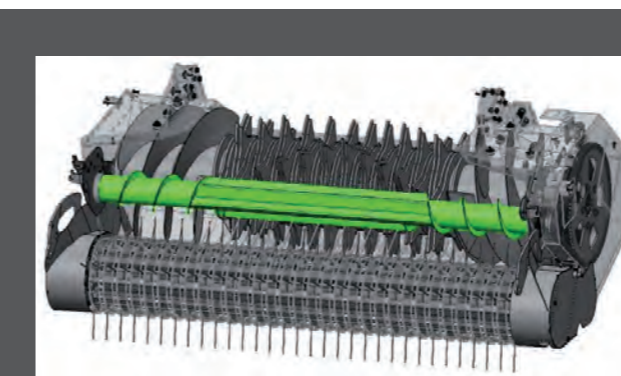


## OPTICUT 23

The OC-23 offers a 1.75" theoretical length of cut. The large 24" OptiCut rotor is designed with your operation's high-capacity needs in mind. The knives on the OC-23 have individual hydraulic protection.

With just two levers, you can easily choose from the following knife group configurations: 0 – 11 – 12 – 23. Together with the standard slide tray for easy knife changing, you not only invest in cutting quality but, above all, in driver comfort.

*Note: Available only on LSB 1290 D*



## POWER FEED ROLLER

Up to 15% more capacity in heavy windrows. The new PowerFeed roller compresses large windrows down into the integral rotor to improve crop flow.

Standard on LSB 1290 D, optional on LSB 890 D, not available on LSB 870.

# CONSISTENT, DENSE, HIGH-QUALITY BALES

## THE IMPORTANCE OF BALE SHAPE

Consistently shaped bales provide more than just aesthetic appeal. A dense, consistently filled bale represents quality in every form. Square bales are easy to handle and stack. In addition, they are much more stable during transport than a poorly formed bale. In silage applications, a square-edged bale indicates less air content, resulting in higher quality feed.

The KUHN Power Density system, a single feeder fork design, proves that a well-engineered component can eliminate complexity. This system ensures consistently filled flakes and results in heavy, square-edged bales regardless of the windrow condition.

## POWER DENSITY – THE KUHN SOLUTION

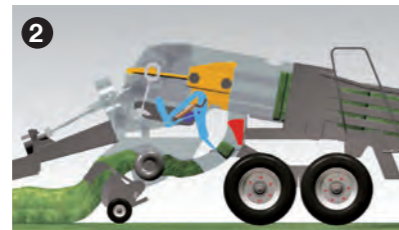


The single feeder fork combines two functions into one mechanism, eliminating unneeded components and complexity. KUHN's exclusive Power Density system runs at twice the speed of the plunger allowing a minimum of one flake formed per plunger stroke. This creates consistent bale shape and excellent density.

## HOW DOES IT WORK?



**1** The integral rotor actively delivers the crop to the pre-chamber.



**2** The single-acting feeder fork (blue) lifts the feed up to the measuring plates (red).



**3** The single-acting feeder fork continues to form the bale flake until the measuring plate is pushed back with a predetermined force.



**4** Once the measuring plate is pushed back it locks the single acting feeder fork to push the perfectly formed flake into the bale chamber.



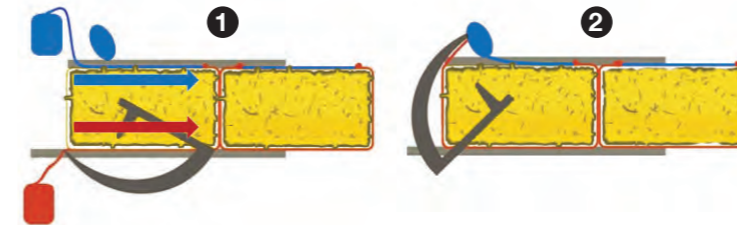
## KNOTTING

### A SOLUTION FOR EVERYONE

One of the last steps in creating a high-quality bale is the knot. With the knotting options on the KUHN LSB, you can be sure of a reliable and secure knotting system that meets your operation's requirements.

#### DOUBLE KNOTTING – LSB 890 D & 1290 D

The LSB 890 D and LSB 1290 D are equipped with a double-knotting system. With the electronic knoter control, the driver has accurate information concerning twine tension at all times and receives an alarm if an issue arises. The knotting progress can be monitored directly from the tractor cab.



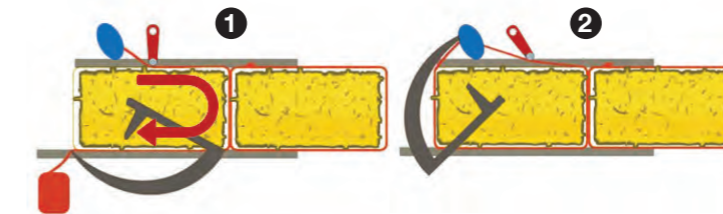
During baling, an upper (blue) and lower (red) twine is fed to the bale, because the twine is not slipping around the bale there is no tension on the twine during the bale formation.

**Step 1:** As the bale reaches the desired length, the needles (gray) are activated and move upward to the knoter to start the knotting cycle. In this first step the bale is finished with the first knot.

**Step 2:** Once the first knot has finished the bale, the second knot connects the upper and lower twine again so the bale can be formed without tension on the twine during knotting.

#### TWIN-STEP KNOTTING – LSB 870

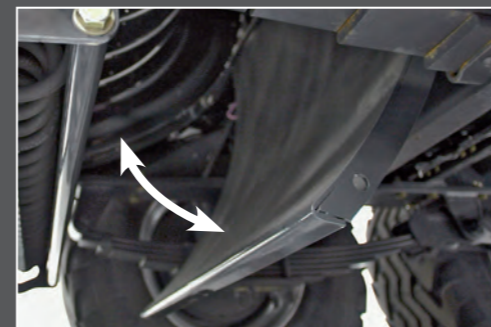
The unique Twin-Step knotting system on the LSB 870 combines a single knoter and optional tension release arm that releases the twine tension during the knotting cycle. The result is a reliable, easy to adjust knotting system.



While baling, the knotters (blue) are at rest and the twine is guided by the twine tension release lever (red), in the vertical position. Tension is held on the twine to ensure maximum bale density.

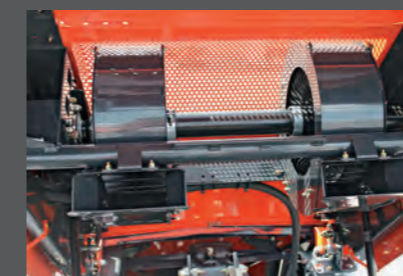
**Step 1:** As the bale reaches the desired length, the needles (gray) are activated and move upward toward the knotters to start the knotting cycle.

**Step 2:** By pivoting backward, the tension lever (red) releases the twine and therefore, reduces tension to the knoter during the knotting cycle. The Twin-Step process is simple and reliable.



#### EXCLUSIVE PRE-CHAMBER INSPECTION DOOR

An exclusive feature is the inspection door at the bottom of the pre-chamber. For easy access to the pre-chamber, the complete underside can be opened without using tools for simple seasonal cleanout.



LSB 890 D & 1290 D  
Double-knotter models  
Dual hydraulic-driven fans

#### KNOTTER CLEANING



LSB 870 only  
Twin-Step models  
Electric knoter fans



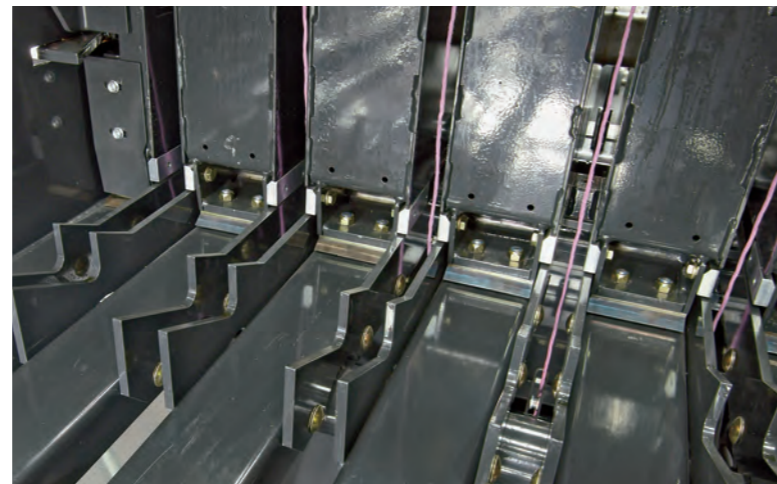
# THE BALE CHAMBER

The specially designed bale chamber of the KUHN LSB machines is the result of more than 35 years of experience in large square balers. With the 10-foot long bale chamber, there is plenty of space to form a rock-hard, square-edged bale. The combination of aggressive retainers and special wedge-shaped doors brings maximum compaction and gentle expansion of the bale.



## PLUNGER

Forty-six plunger strokes per minute result in a high bale capacity. The plunger is guided by four large rollers with a 5" diameter for maximum service life.



Top and bottom retainers prevent decompression of the bale and provide extra density

## DENSITY REGULATION

KUHN LSB balers are known for producing rock-hard, square-edged bales with consistent density. The density can be regulated in two ways according to the driver's preference. 1.) Using the manual setting, the density is directly regulated from the set bale pressure. 2.) With the automatic setting, the machine detects the load and automatically adjusts the pressure on the bale chamber. Switching between the two settings is quick and easy resulting in a versatile, easy to operate machine.

## LAST BALE EJECTOR

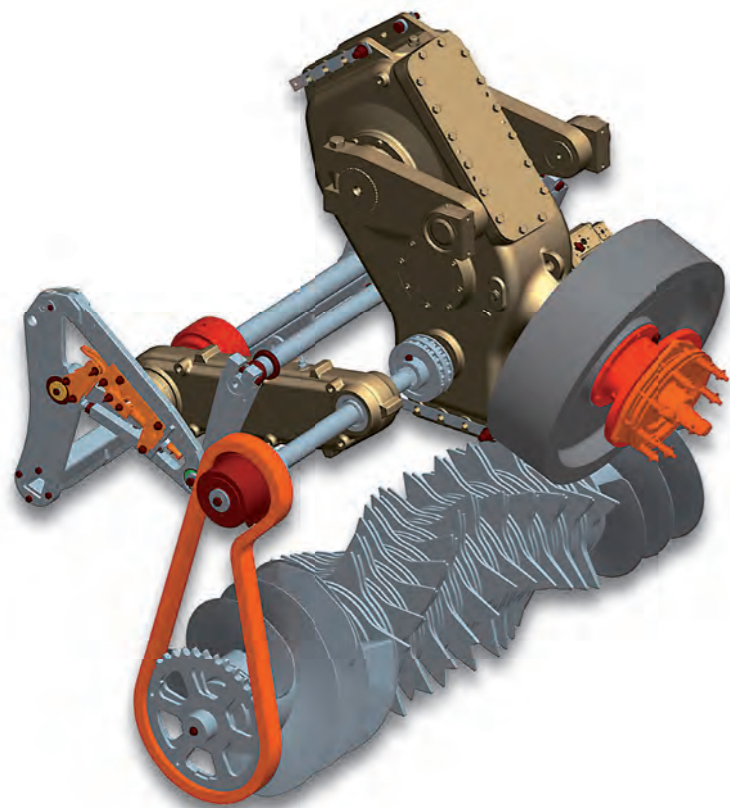
To guarantee safe transport on the road, the last bale ejector can be used to remove the last bale from the chamber. *(Optional on 870)*



# HEAVY-DUTY DRIVELINE, MAXIMUM PROTECTION

## HEAVY-DUTY DRIVELINE

KUHN uses a combination of synchronized gearboxes, drivelines and oversized chains designed for maximum life and limited maintenance. The driveline layout is simple, clean, and easy to service and maintain while minimizing the overall number of moving parts.



## INSTANT PROTECTION

The pickup, integral rotor and feeder fork are protected with cam-type clutches, which are automatically activated in the event of an overload.

The clutch re-engages when the operator reduces the PTO speed. This allows the operator to restart the stalled component from the driver's seat, reducing overall downtime that is typical with slip clutches and shear bolts.

Another benefit of these clutches is that they give the ability to drive at a constant speed without worrying about plugging.

Heavy, large-diameter flywheels are featured on all LSB models. The large flywheel creates the force needed to pack the bale. This also reduces the horsepower required, and the torque spikes through the components and driveline, resulting in less fuel consumption and wear for extra longevity.



Integral Rotor protection clutch

# WHICH KUHN BALER IS RIGHT FOR MY OPERATION?



## LSB 890 D & LSB 1290 D

KUHN LSB D Series balers have been built from the ground up to provide you with one of the toughest, most reliable large square balers on the market. The KUHN LSB 890 D (3x3) and 1290 D (3x4) large square balers combine high output and maximum reliability to serve as a perfect fit for commercial hay producers.

The D Series balers have been designed with simple, yet efficient features including Integral Rotor Technology and the Power Density System to produce rock-hard, square-edged bales in all crop conditions. New Rasspe® double knotters are not only reliable, but allow you to increase bale density by 10% and the number of bales per hour by 15%. Dual hydraulic-driven fans keep our double knotters clean and our competitors envious. KUHN LSB balers feature the simplest drive system in the industry, fewest moving parts, heaviest standard flywheel and longest standard bale chamber to provide outstanding durability and performance.



**LSB 890 D**  
Bale Size: 3x3



**LSB 1290 D**  
Bale Size: 3x4



**LSB 870**  
Bale Size: 2x3

## LSB 870

High performance in a simple package – this describes the KUHN LSB 870 perfectly. The LSB 870 is a simple, large square baler that produces rock-hard, well-shaped bales at a lower price point. The 870 is a 2x3 baler and features a 15-knife cutting or non-cutting integral rotor that provides high-performance bale throughput in diverse crop conditions. Packed with many of the same features as the LSB D Series, the LSB 870 varies in that its high-density bales are tied together by the simple, trouble-free Twin-Step knotting system. The LSB 870 is a baler designed for the smaller dairy or beef producer, or horse hay producer. The smaller bale is easier to handle and includes a flake size that is more ideal for handfeeding livestock.



## EASY MAINTENANCE & ACCESSIBILITY



### EASY-ACCESS TWINE BOXES

The twine boxes swing out completely for easy access to the vital parts of the machine. Behind the full-access side doors, spools of twine can be stored.

The LSB 890 D and LSB 1290 D have a twine capacity of 30 spools. The twine storage itself is sealed to keep twine rolls clean for consistent, reliable tying.

The twine boxes on the LSB 870 are capable of storing up to 24 twine spools and have a cover to help keep dust out.



### SERVICE LIGHTS

The LSB 890 D and LSB 1290 D are equipped with LED service lights on the needles and twine box for easy machine inspection.

The LSB 870 features an optional moveable service light. It can be plugged in at three convenient locations and provide you with light where you need it.



### AUTOMATIC GREASING

To reduce daily maintenance and to preserve your machine, the automatic central greasing system is fitted on most models. The automatic greasing system covers all the greasing points on the baler except for the drivelines and tandem axle. This is another example of how KUHNS helps you protect your investment for years to come. *(Optional on LSB 870)*



### SIMPLE KNIFE MAINTENANCE

After lowering the slide tray that holds the knives, it can simply be pulled out on the right-hand side of the baler. Inspecting and removing the knives to sharpen or replace is quick, clean and easy. Spare knives can be safely stored within reach. Knives can be removed and changed in minutes, without any tools. When cutting is not required, blind knives can be easily inserted to keep from plugging the knife slots.

## CUSTOMIZED TO FIT YOUR OPERATION

# ELECTRONICS

### ISOBUS

All KUHNS LSB balers are ISOBUS compatible. ISOBUS compatible tractors, therefore, will not require a separate monitor for the baler. Alternatively, the CCI 200 or VT 50 monitor can be used with tractors that are not ISOBUS compatible. Operator settings, such as bale density and knife activation, are accessed through the monitor. Operator warnings such as overload, twine routing and operator information, including flakes per bale and number of bales, are also provided.



### CCI 200

The ISOBUS compatible CCI 200 terminal has a large 8.5" color screen with outstanding clarity. Machine adjustments can be easily made via the touchscreen or with the intuitive, large soft keys. The CCI 200 monitor can also be used with many other ISOBUS compatible machines on the market.



### VT 50

The KUHNS ISOBUS VT 50 monitor has a 5.7" color screen with outstanding clarity. Adjustments can easily be made by the touchscreen and the large soft-touch keys on the sides. The VT 50 monitor can be used for all KUHNS ISOBUS machines.

### FULL VISIBILITY

To provide optimal visibility and safety around the machine, the LSB can be equipped with a KUHNS group camera system. There are two versions available; one version is compatible with the CCI terminal, the other comprises a separate monitor and a camera.



# OPTIONS

### LED WORK LIGHTS



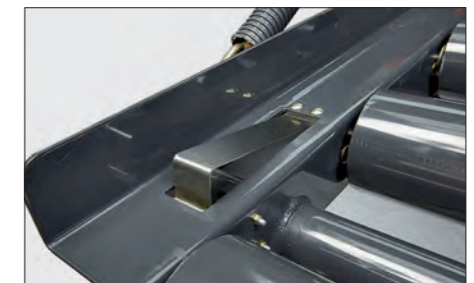
There is a choice of additional LED work lights on the pickup and the bale chute to have a clear view all night long.

### EASY FLOW KIT



The easy flow kit is useful for silage conditions in wet/sticky material. The Teflon plates reduce friction for better crop flow.

### BALE DROP SENSOR



A bale drop sensor can be installed to alert the operator when the bale is dropping.

### MOISTURE SENSOR



All LSB balers can be equipped with a moisture sensor. Moisture information shows up in real time on the tractor monitor.

### BALE LENGTH ADJUSTMENT



Electronic bale length adjustment is available for all LSB models. This system allows the operator to change the bale length on-the-go without having to stop.

### INTEGRATED BALE WEIGHING SYSTEM



Use of the KUHNS integrated bale weighing system provides on-the-go feedback about the bale weight, within 2% accuracy, plus direct insight in your crop yield.



## Model Specifications

	LSB 870 OptiFeed	LSB 870 OptiCut	LSB 890 D OptiFeed	LSB 890 D OptiCut	LSB 1290 D OptiFeed	LSB 1290 D OptiCut
<b>Bale Dimensions</b>						
Bale Size	2 x 3	2 x 3	3 x 3	3 x 3	3 x 4	3 x 4
Width	31.4" (80 cm)	31.4" (80 cm)	31.4" (80 cm)	31.4" (80 cm)	45.6" (120 cm)	45.6" (120 cm)
Height	28" (70 cm)	28" (70 cm)	35" (90 cm)	35" (90 cm)	35" (90 cm)	35" (90 cm)
Length	24" (60 cm) up to 118" (300 cm)	24" (60 cm) up to 118" (300 cm)	24" (60 cm) up to 118" (300 cm)	24" (60 cm) up to 118" (300 cm)	24" (60 cm) up to 118" (300 cm)	24" (60 cm) up to 118" (300 cm)
<b>Pickup</b>						
Intake Width	91" (230 cm)	91" (230 cm)	91" (230 cm)	91" (230 cm)	91" (230 cm)	91" (230 cm)
Pickup Diameter	13" (34 cm)	13" (34 cm)	13" (34 cm)	13" (34 cm)	13" (34 cm)	13" (34 cm)
Number of Tine Bars	5	5	5	5	5	5
Tine Spacing	2.4" (6.1 cm)	2.4" (6.1 cm)	2.4" (6.1 cm)	2.4" (6.1 cm)	2.4" (6.1 cm)	2.4" (6.1 cm)
<b>Bale Chamber</b>						
Number of Plunger Strokes	46/Min	46/Min	46/Min	46/Min	46/Min	46/Min
Plunger Stroke Length	27" (69.5 cm)	27" (69.5 cm)	27" (69.5 cm)	27" (69.5 cm)	27" (69.5 cm)	27" (69.5 cm)
Density Control	3 Hydraulic Cylinders	3 Hydraulic Cylinders	3 Hydraulic Cylinders	3 Hydraulic Cylinders	4 Hydraulic Cylinders	4 Hydraulic Cylinders
Bale Chamber Length	10' (305 cm)	10' (305 cm)	10' (305 cm)	10' (305 cm)	10' (305 cm)	10' (305 cm)
Controls	ISOBUS (VT 50 or CCI 200)	ISOBUS (VT 50 or CCI 200)	ISOBUS (VT 50 or CCI 200)	ISOBUS (VT 50 or CCI 200)	ISOBUS (VT 50 or CCI 200)	ISOBUS (VT 50 or CCI 200)
<b>Knotters</b>						
Number of Knotters	4	4	4	4	6	6
Knottling System	Single Knotter Standard / Twin-Step Optional	Single Knotter Standard / Twin-Step Optional	Double Knotter	Double Knotter	Double Knotter	Double Knotter
Knottling Cleaning	Electric Knotter Fans Optional	Electric Knotter Fans Optional	Dual Hydraulic-Driven Fans	Dual Hydraulic-Driven Fans	Dual Hydraulic-Driven Fans	Dual Hydraulic-Driven Fans
Twine Capacity (Rolls)	24	24	30	30	30	30
<b>Intake System</b>						
Integral Rotor	OptiFeed	OptiCut	OptiFeed	OptiCut	OptiFeed	OptiCut
Knives	-	0/15	-	0/15	-	0/11/12/23
Theoretical Cutting Length	-	1 3/4" (45 mm)	-	1 3/4" (45 mm)	-	1 3/4" (45 mm)
Knife Protection	-	Individual Spring	-	Individual Spring	-	Individual Hydraulic
<b>Wheels and Axles</b>						
Single Axle	Hydraulic Brakes	Hydraulic Brakes	Hydraulic Brakes	Hydraulic Brakes	Hydraulic Brakes	Hydraulic Brakes
600/50-22.5	X	X				
600/55-22.5	X	X	X	X	X	
710/40-22.5						
710/40R22.5						X
Tandem Axle	Hydraulic Brakes	Hydraulic Brakes	Hydraulic Brakes	Hydraulic Brakes	Hydraulic Brakes	Hydraulic Brakes
425/65R22.5	X	X	X	X	X	X
550/45/22.5	X	X	X	X	X	X
<b>Machine Dimensions</b>						
Length	25'7" (7.8 m)	25'7" (7.8 m)	26'3" (8 m)	26'3" (8 m)	26'3" (8 m)	26'3" (8 m)
Width	9'1" (2.76 m)	9'1" (2.8 m)	9'1" (2.8 m)	9'1" (2.8 m)	9'10" (3 m)	9'10" (3 m)
Height	8'10" (2.7 m)	8'10" (2.7 m)	10'7" (3.3 m)	10'7" (3.3 m)	10'7" (3.3 m)	10'7" (3.3 m)
Weight*	17,000 lbs (7,711 kg)	17,650 lbs (8,006 kg)	19,000 lbs (8,618 kg)	19,600 lbs (8,890 kg)	21,400 lbs (9,707 kg)	22,800 lbs (10,342 kg)
Minimum Power Requirement	90 hp (67 kW)	100 hp (75 kW)	105 hp (78 kW)	115 hp (86 kW)	150 hp (112 kW)	170 hp (127 kW)
Required Tractor Hydraulic Connections	2 SA and 1 DA	2 SA and 1 DA	2 SA and 1 DA	2 SA and 1 DA	2 SA and 1 DA	2 SA and 1 DA
Hitch	Cat. 3 (Fixed) Standard / Cat. 4 (Swivel Ball) Optional	Cat. 3 (Fixed) Standard / Cat. 4 (Swivel Ball) Optional	Cat. 4 (Swivel Ball)	Cat. 4 (Swivel Ball)	Cat. 4 (Swivel Ball)	Cat. 4 (Swivel Ball)

\*Single axle model excluding cutting device



# COMPLEMENTARY PRODUCTS

## MORE PRODUCTS TO MEET YOUR NEEDS

With over 700 models of equipment, we have the most complete implement line in the industry. Whether you have a small or large operation, we have a broad range of models and options to help fit your diverse needs.



1. Mowers
2. Mower Conditioners
3. Round Balers
4. Square Bale Wrappers
5. Bale Processors
6. TMR Mixers

For more information about your nearest KUHN dealer and other KUHN products, visit our website at [www.KuhnNorthAmerica.com](http://www.KuhnNorthAmerica.com)




Visit our YouTube channel to watch our latest product videos.

### KUHN NORTH AMERICA, INC.

Corporate Headquarters  
1501 West Seventh Avenue - Brodhead, WI 53520  
Phone: (608) 897-2131 Fax: (608) 897-2561

Information given in this document is only for informational purposes and is non-contractual. Our machines are in compliance with North American safety standards. In our literature, and for improved illustration of certain details, some safety devices may not be in operating position. When operating these machines, these devices must be operated in accordance with the requirements indicated in the operator's manuals and assembly manuals. We reserve the right to change any designs, specifications or materials listed without further notice. Machines and equipment in this document can be covered by at least one patent and/or registered design. Trademarks cited in this document may be registered in one or several countries.

 <a href="http://www.KuhnNorthAmerica.com">www.KuhnNorthAmerica.com</a>	Your KUHN dealer
---	------------------

Find us on

