THIRTYPLUS™ HAY PRESERVATIVE

Applicator Systems & Precision Accessories For Baled Hay.

Applicators | Moisture Sensors | Automatic Controls
Control Options | Precision Accessories

CNH INDUSTRIAL GENUINE PARTS

CASE

AN ADVANCED BUFFERED ACID FOR BALING AT HIGH MOISTURES.

Maximize the number of acres baled per day with a chemically-buffered form of propionic acid formulated to prevent spoilage of valuable hay crops. Case IH ThirtyPlus™ Hay Preservative is gentle on your baler with a pH of 6.0 that is as neutral as rainwater, yet it is just as effective as straight propionic acid. It works on all types of hay, including alfalfa, grass and other crops susceptible to spoilage at higher moistures.

BENEFITS THAT GO BEYOND BETTER BALE QUALITY:

- Retains hay's freshness, green color and higher feed value for years
- Treats hay at moistures up to 30%
- Works well on all types of hay
- Won't harm equipment, operators or livestock
- Won't freeze or lose effectiveness over time with outside storage

COMPARED TO OTHER PRESERVATIVES, THIRTYPLUS:

- Is easier to apply
- Gives more consistent coverage
- Won't clog application equipment

HAY BALED AT HIGHER MOISTURES CAN HEAT AND SPOIL

UNTREATED HAY MOISTURE	DAMAGE
16% – 22%	Hay discoloration and odor can occur
23% – 26%	Hay temperatures can climb to 120° F in storage; mold will begin to form and quality drops significantly
Over 27%	Can result in temperatures over 140° F; hay can turn black and combust

THIRTYPLUS HAY PRESERVATIVE INGREDIENTS	
Active Ingredient Propionic Acid Citric Acid	 64.5% 5.0%
Other Ingredients Ammonium Hydroxide, Deionized Water, Sorbitol Green Dyes	30.5%
EPA Registration #73877-1-74898	Total 100%

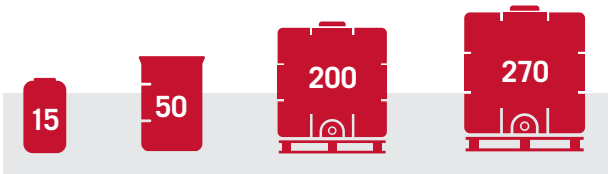
APPLICATION RATES

LARGE SQUARE BALES		
Hay Moisture	Stem Moisture	Dew Moisture Only
Under 22%	6 lbs/ton	3 lbs/ton
23% – 26%	10 lbs/ton	8 lbs/ton
27% – 30%	DO NOT BALE	16 lbs/ton
SMALL SQUARE & ROUND BALES		
Hay Moisture	Stem Moisture	Dew Moisture Only
Under 22%	4 lbs/ton	2 lbs/ton
23% – 26%	8 lbs/ton	6 lbs/ton
27% – 30%	16 lbs/ton	12 lbs/ton

Not recommended on any hay above 30% moisture.

AVAILABLE IN FOUR SIZES FOR ANY SIZE BALING OPERATION

- **15-Gallon Drum:** Ideal for smaller operations
- **50-Gallon Drum:** Treats up to 100 tons of hay
- **200 or 270-Gallon Tote:** Ideal for larger square baler operators



THIRTYPLUS HAY PRESERVATIVE CONTAINER SIZES†	
Mini Drum	120 lbs/15 gal (54 kg/50.5 L)
Drum	450 lbs/50 gal (204 kg/189.3 L)
Totes	1,800 lbs/200 gal* (818 kg/757 L)
	2,380 lbs/270 gal (1,082 kg/1,020 L)

* Not available in Canada.
† ThirtyPlus Hay Preservative is not available in California.

COST-EFFECTIVE

Bales treated with ThirtyPlus yield more tonnage and have a higher relative feed value.

SAFE FOR LIVESTOCK

Propionic acid, the main ingredient in ThirtyPlus, is an organic acid occurring naturally in a horse's gastrointestinal tract.

In ruminants, propionic acid is produced by rumen bacteria and is beneficial in the digestive process.

SAFE ON EQUIPMENT

The ingredients in ThirtyPlus will not cause corrosion on your baling equipment.

MAXIMUM PRODUCTIVITY

When paired with approved Case IH applicators at the recommended application rate, ThirtyPlus maximizes hay baling productivity year after year.

SEE PAGE 16 FOR A LIST OF THIRTYPLUS HAY PRESERVATIVE PART NUMBERS.

BETTER BALES WITH BETTER APPLICATION EQUIPMENT.

Case IH automatic applicator moisture sensors accurately read moisture percentages in real time, adjusting application rates every three seconds to match hay conditions. Large or small, our application process means your crops are baled at the highest quality possible, with minimal product waste.

LARGE SQUARE BALERS

Automatic systems for large square balers are equipped with star wheels that mount on the top of the bale chute. Accurately reads moisture from 6% to 70%.

ROUND BALERS

Automatic systems for round balers are equipped with two sensing discs, one mounted on each of the baler's sidewalls. Reads moisture from 6% to 60% on 300 and 600-Series Systems.

SMALL SQUARE BALERS

Sensors for the automatic system on small square balers consist of two star wheels that mount on the bottom of the bale chute. Reads moisture from 8% to 32% on 300 and 600-Series Systems.

EFFICIENT DESIGN WITH YOU IN MIND

Tanks and saddles are easy to install, operate, and service. They are designed to be mounted out of the way of other baler operations for added safety.

No matter what baler you use, there is a Case IH ThirtyPlus applicator for your implement.

MOISTURE DOESN'T STAND A CHANCE.

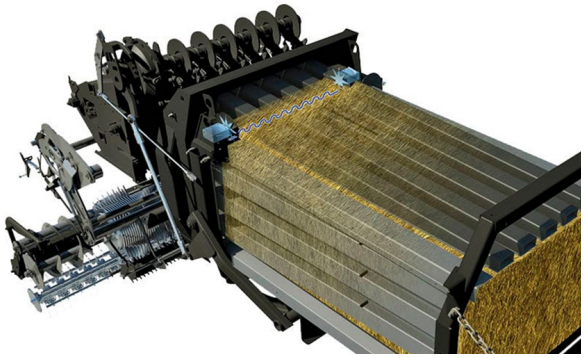
Sensors in the applicators accurately sense moisture levels on round, large or small square balers. A positive sensor is mounted on one side with an isolated ground mount on the other side. When the bale makes contact, a current passes through it, measuring moisture from one side to the other. This results in a moisture reading that is accurate to within one point.

700 SERIES AUTOMATIC APPLICATOR FOR LARGE SQUARE BALERS

Using side-to-side moisture reading technology, the 700 Series Automatic Applicator reads crop moisture across the width of the bale near the front of the chamber via moisture sensing dual star wheel sensors.

This process accurately reads crop moisture from 6% up to 70%.

See **page 15** and back page for a list of applicator, preservative and accessories part numbers.



PROEWS™ MICROWAVE MOISTURE OPTION FOR LARGE SQUARE BALERS

When using with preservative applicators, the Microwave Moisture Sensor Option:

- Mounts closer to the pickup head where preservative is applied
- Reads moisture across individual flakes through the pre-compression chamber, eliminating lag time
- Displays moisture through baler ISOBUS or tablet
- Is available as an upgrade option to all 700 series applicators
- Works with all brands of large square balers

▲ Pre-compression chamber mounting location

▲ Microwave sensors mounted on the rear of bale chamber

70%

The PROEWS Microwave Moisture Option reads crop moisture accurately up to 70% using on-baler microwave sensors.

AUTOMATIC CONTROLS.

ROUND & SMALL SQUARE BALERS

300-SERIES

The automatic system for round and small square balers consists of a compact processor, and a single bypass pump that supplies constant pressure to a pulsing solenoid. This efficient design allows a fast response time for applying preservative. The 300 series system is controlled through an iPad®* via a wired connection for a clear, colorful display.

The automatic system is able to store up to 60 job records by field name with total tons baled, average high moisture, date and time, and amount of preservative used.

600-SERIES

The 600-Series Automatic Applicator System for round and small square balers makes baling hay and keeping track of bales virtually effortless. The 3-pump system continuously monitors moisture readings and automatically adjusts application rates. The system on small square balers has a built-in stroke counter to help the operator create a more consistent bale by monitoring the number of flakes per bale. The system on round balers has an additional sensor on the bale door to identify individual bales and provide a more accurate tonnage reading. The 600 series system is controlled through an iPad* via a wired connection for a clear colorful display. The 600 series can also display on a dedicated ISO Virtual Terminal.

300 & 600-SERIES MONITORS DISPLAY:

- Moisture content
- Speed of baling (tonnage)
- Volume of preservative used per bale
- Target application rate and actual application rate
- Total tons baled

LARGE SQUARE BALERS

700-SERIES

The new 700-Series Applicator is an improvement over previous model applicators with these key designs:

- Single bypass pump supplies constant pressure to pulsating solenoid valves for improved response time to changes in moisture
- Improved flowmeter works on a range of products
- Display applicator readings on dedicated Virtual Terminal, Apple tablet*, or Android tablet**
- Free Precision Baling app is available on Apple iTunes* or Google Play** store for approved tablets

***Requirements to run Apple iPad are 3rd Generation (2012) or newer, running the current iOS operating system.**
****Requirements to run Android are Google Play, 5th Generation, plus the Precision Baling App.**

ProRFV™ SYSTEM FOR LARGE SQUARE BALERS.

The ProRFV System is a breakthrough concept, allowing the hay producer to view, record, and track the Relative Feed Value (RFV) for each bale that they produce. The ProRFV System is advanced software that is downloaded to your ThirtyPlus Applicator or 700BB Moisture System, tied into the scale kit on the baler, and able to give the operator everything needed to manage those variations in quality.

HOW DOES IT WORK?

The system is based on the principle that most of the feed value is in the leaves of the plant. That means the higher the leaf content, the higher the density and quality of the bale.

System process:

1. Hay grower takes a sample of hay just before or after its cut
2. The sample is sent to a lab
3. The sample value is entered into the 700 Series System when it's time to bale
4. As the baler operates:
   - The star wheel sensors take accurate moisture readings
   - The scale measures the weight
   - The system calculates the dry matter density and RFV for each bale
5. The RFV is displayed on the baler screen as the baler is running and stored into the downloadable job records

Requirements to measure Relative Feed Value (RFV):

- Complete 700 Series Applicator or 700BB, 700BBHD Moisture Only System
- Case IH Chute Scale

ACCOUNTABILITY

As the RFV is calculated and compiled to the job record, it is important to identify how the values of quality can impact the hay production process. The advantage of identifying RFV is significant, especially for dairy producers, as sorting and feeding hay according to quality allows for accurate ration adjustments, keeping milk production consistent.

Using the ProRFV technology, the dairyman can drive potential cost savings by feeding only what the cow needs, increasing their bottom line.

For producers or brokers involved with selling hay, having the ability to sort, stack, and ship by RFV can greatly improve their ability to make sure that each customer gets the quality level of hay that they expect.

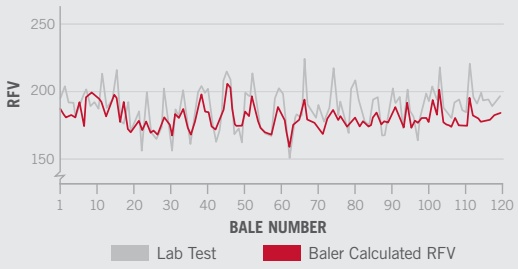
ACCURACY

The ProRFV System is a new and efficient substitute for the conventional coring of bales to determine feed value, which has been the standard for many years. The ProRFV System studies have been conducted on multiple farms across multiple states, each showing the accuracy of the system.

Additional studies can be found at www.harvesttec.com/case-relative-feed-value/

> ***On one field, we split the core samples from 50 bales and sent them to two different labs. The RFV levels came back from the two labs 4% apart, which isn't bad. The ProRFV-calculated values were right in the middle, only 2% difference from either lab.***
>
> *– Don Leonard, Brush, Colorado*

Representation of Core Samples Compared to ProRFV Calculated Bales From Two Fields

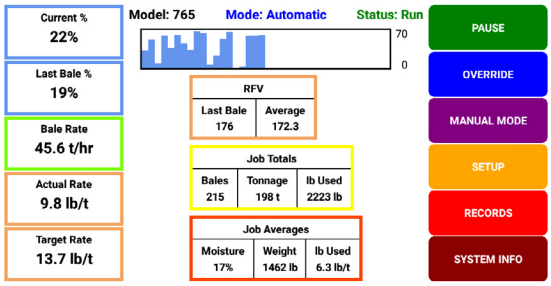


YOU SET THE STAGE FOR LARGE SQUARE BALERS.

Automatic applicators take the guesswork out of baling hay by sensing moisture content and adjusting preservative application rates on the go. You have complete control from the tractor with the baler's AFS Pro 700 monitor, customer's tablet or the new dedicated virtual terminal. New, simple operating design allows for on-the-go information and quick adjustments all on one screen!

AUTOMATIC MODE

The 700 system accurately senses moisture on-the-go and adjusts the application of preservative every three seconds to match hay conditions.



MANUAL MODE

Operator can override automatic features and proceed as needed and apply a consistent rate of preservative.

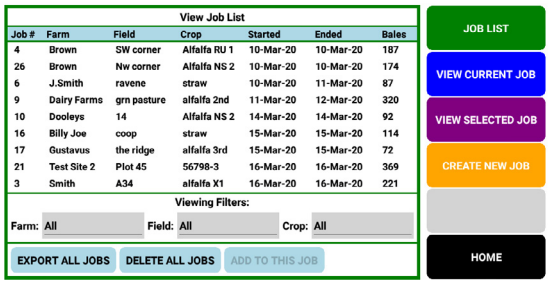
SETUP

Adjust moisture points or set rate per ton. Weights for balers not equipped with scale can be estimated.

JOB RECORDS

Knowledge is power. Detailed job records, as shown below, help you stay efficient.

- Average and high moisture levels
- Bale weight (if equipped with roller chute scale)
- Amount of product used
- Date/time
- GPS position of bale (if equipped)



SEE PAGE 15 FOR A LIST OF APPLICATOR PART NUMBERS.

ROUND OR CONVENTIONAL BALERS, YOU'RE IN CONTROL.

Automatic applicators provide "in-the-field" office management for your baling operations.

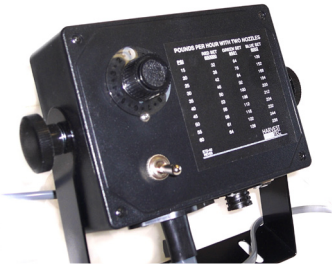
300 AND 600 MONITORS

- Control the automatic application of preservative
- Allow moisture to be read continuously by sensors, fed to the processor and displayed as it changes, 200 feet at a time
- Measure speed of baling, the amount of preservative used and the average moisture of the last bale
- Applicator automatically adjusts the rate of preservative application every three seconds when in automatic mode. Actual rate of application is read by a flow meter and displayed on the screen as "actual" and compared to the set "target" rate
- Adjusts for speed of baling on both automatic systems on conventional square balers

EVERYDAY ELECTRONIC CAB CONTROL

Designed for small-scale operations, an electronic control applicator is available on all baler models and sizes. The dial on the control box can be adjusted for correct preservative output. Electronic components in the cab control box hold the application rate constant.

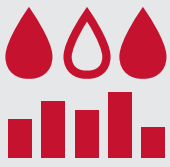
- Available with a 25 or 55 gallon tank for round and small square balers
- 110 & 115 gallon tanks on large square systems (baler dependent)
- Conveniently mounted in the cab of tractor or fender
- Upgradeable to an automatic applicator system



300 AND 600 MONITORS DISPLAY:

Graph of the last 200 feet of window moisture

Actual and target rate



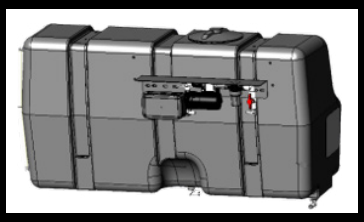
Current moisture and moisture of last bale

Preservative used

COMPARISON OF APPLICATOR CONTROLS

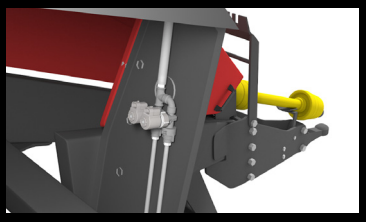
	Electronic Applicator	300-Series Automatic	600-Series Automatic
Single Pump System	•	•	
3-Pump Manifold			•
Control Box with Adjustable Dial	•		
iPad® Display		•	•
ISOBUS Display			•
Built-in Flowmeter		•	•
Automatic Application		•	•
Moisture Sensing Capability		•	•
Job Record by Field		•	•
Job Records by Individual Bales			•
Calculates Baling Rate: Round Baler		•	•
Export Records to iPad			•
Hay Indicator Compatible	•	•	•
Stroke Counter on Small Square Baler			•
Dye Sprayer Kit Compatible: Small Square Baler, Large Square Balers			•

COMPONENTS OF 700 SERIES APPLICATOR.



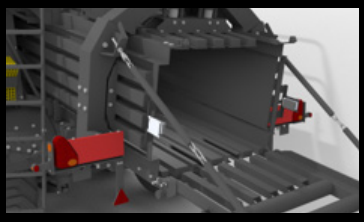
A PUMP PLATE

Mounted on preservative tank includes bypass pump and flow meter.



B DUAL PULSING SOLENOIDS

Accurately control rate of preservative with a range from 24 lb/hr up to 800 lb/hr



C OPTIONAL MICROWAVE MOISTURE SENSORS

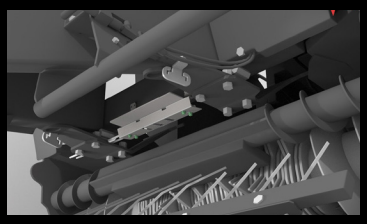
Positioned at back of bale chamber (shown) for artificial moisture applications. Additionally, can be positioned in pre-compression chamber for improved preservative placement in bale

G OPTIONAL GPS ANTENNA

Records position of bale and adds it to job record

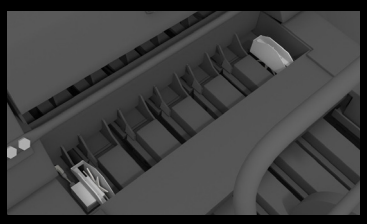
DISPLAY (NOT INCLUDED)

Improved functionality for ease of operation; integrates through the baler virtual terminal



D SPRAY SHIELD/TIPS

Hay preservative applied at baler pickup on loose windrow as fed into the baler



E DUAL STAR WHEELS

Sends low voltage signal to accurately sense moisture at front of bale chamber

F OPTIONAL HAY INDICATOR (CROP-EYES) END OF ROW SHUT-OFF SENSOR

Automatically turns applicator on/off when enter/exiting windrow

BALE IDENTIFICATION: OUR PRECISION PRODUCTS HELP YOU MAKE BETTER HAY.

From best-in-class Case IH ThirtyPlus™ Hay Preservative to high-quality precision products like worry-free applicators with moisture sensors, GPS mapping, bale scales, proficient pumping systems and spray shields, Harvest Tec and Case IH can help you get the baling job done and be ready with an assortment of baling accessories.

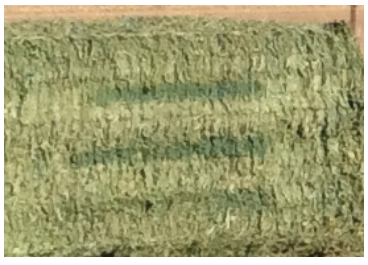
MOISTURE DYE SPRAYER KIT

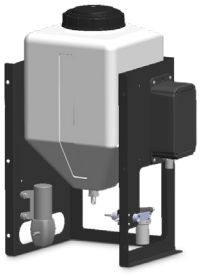
The Case IH Model (Part No. C740DM) Dye Sprayer Kit
A simple and effective way to mark wet areas on bales, allowing for a quick and easy reference to better manage feeding, sorting, inventory or storage.

- Compatible with any 700-Series Automatic Applicator and 700 Moisture (only kit) on large square balers
- Easy to fill and service
- One tank of dye mix [Part No. C0800] lasts through a full tank of ThirtyPlus Hay Preservative
- Adjustable from 6% to 70% on large and small square balers

RFV DYE SPRAYING KIT

RFV Dye Marker: Part No. C745RFV
An economical alternative to identifying RFV values on the bale. Consisting of a 3-gallon tank, and 3 pumps and spray nozzles, the operator inputs the RFV ranges into the ProRFV System that they want to identify. The kit sprays each bale with one, two, or three stripes of food-grade dye, showing the operator the RFV range of that bale for easy identification and sorting.





BALE WEIGHING / SCALE INTERFACE

LB334 Scale Kit: Part No. 84427553
LB334 Scale Kit: Part No. 84427554
If your large square baler has a dealer-installed scale kit from Case IH, the new 700-Series Automatic Applicator System will:

- Interface with the scale controls on the baler
- Adjust the preservative output for more accurate application based on weight
- Add actual bale weight to the job record

MODEL 9212 (12-VOLT) & MODEL 9215 (110-VOLT): ELECTRIC TRANSFER PUMPS

Case IH Part No. C9212 (12-Volt), Case IH Part No. C9215 (110-Volt): These standard output models will transfer preservative at a rate of four gallons per minute.

MODEL 9213: HAND TRANSFER PUMP

Case IH Part No. C9213: This hand transfer pump is ideal for transferring small amounts of preservative easily.

MODEL 9214: 12-VOLT HIGH-OUTPUT ELECTRIC TRANSFER PUMP

Case IH Part No. C9214: For a rapid transfer rate of 14 gallons per minute, this pump will get the job done quickly.

MODEL FX2000: DELMHORST MOISTURE TESTER

Case IH Part No. CFX2000: Hand-probe and pad style moisture tester that digitally measures moisture levels in the bales, windrow and chamber.

MODEL 474A & 474C: HAY INDICATOR KIT

C474A Kit: Electronic, 300 & 600 series applicators
C474CS Kit: 700 Series only
The kit consists of two eyes that mount on the baler's pickup head. The eye kit senses when crop is passing through and automatically starts and stops preservative application.

AFS 162 GPS RECEIVER: GPS & YIELD MAPPING

Case IH Part No. 87491749: Incorporating the AFS 162 GPS receiver into the 700-Series Automatic Applicator allows you to create yield maps of crop data that can be used for planning future yields.

ON-BALER ECONOMY MOISTURE SENSORS.

Introducing the most efficient, cost-effective moisture monitor with accurate readings. The new H_2O Precision Moisture Sensor from Harvest Tec is the answer.

Using the patented* side-to-side moisture reading technology, the kit reads crop moisture across the width of the bale in the chamber via moisture sensing discs for round balers, or dual star wheel sensors for large and small square balers. The sensor will read crop moisture from 5% up to 60% on round balers, 70% on large square balers, and 33% for small square balers, for those customers that make high moisture bales as well as dry bales.

FEATURES OF THE NEW HARDWIRE DISPLAY INCLUDE:

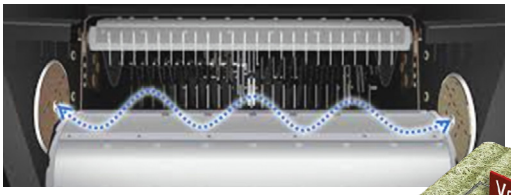
- Security of a hardwired solution
- Built-in tablet/smartphone charging capabilities
- New alternating moisture readings – allows for even greater moisture accuracy when moisture readings alternate between discs or star wheels

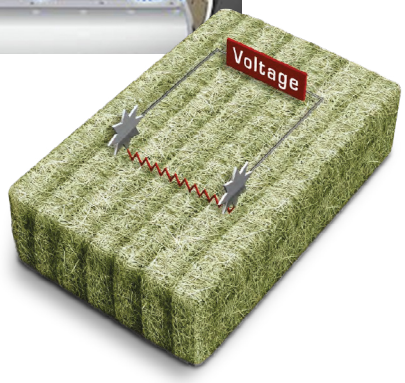
The moisture sensor uses the operator's Apple or Android** smart phone or tablet as the monitor. The H_2O control is mounted in the cab and connects via the charging cable to your device, along with the free H_2O app from Harvest Tec.

NOTE: H_2O kit includes wired integration control module.

PRECISION MOISTURE SENSOR FEATURES AND BENEFITS:

- Displays instantaneous moisture
- Add on kit is available to provide last bale average moisture (required for fixed chamber round balers)
- Rugged disc plates and star wheels are designed for long-term use with minimal wear
- App is simple to use and free to download from the iTunes Store or Android Play Store
- Only on-baler moisture sensor to read up to 60% with reliable accuracy for round balers





The H_2O moisture sensor has two star wheels or discs in the bale chamber that read across the width of the bale, taking five readings of resistance per second, giving the operator complete visibility of crop conditions.

*Patent No. 8,860,443
**Requirements to run H_2O app and current IOS, or later for Apple devices, and Android 5 for Android devices

APPLICATOR PART NUMBERS.

LARGE SQUARE BALERS

Baler	Part No.
AUTOMATIC APPLICATOR KITS	
LB234	C7964532C
LB334(+) Standard/Packer	C7964533C
LB334(+) Roto-Cutter	C7964635C
LB434(+) Standard/Packer	C7964534C
LB434(+) Roto-Cutter	C7964636C
LB436HD	C7954636C
LBX331, 332, 431, 432, LB333, LB433 (Pre-2011) Standard/Packer	C7964495C
LBX331, 332, 431, 432, LB333, LB433 (Pre-2011) Roto-Cutter	C7964497C
LB433 (2011 or newer) Standard/Packer	C7964528C
LB433 (2011 or newer) Roto-Cutter	C7964529C

LARGE SQUARE BALERS

Baler	Part No.
ELECTRONIC APPLICATOR KITS	
LB234	C4914532
LB334(+) Standard/Packer	C4914533
LB334(+) Roto-Cutter	C4914535
LB434(+) Standard/Packer	C4914534
LB434(+) Roto-Cutter	C4914536
LB436HD	C4904536
LBX331, 332, 431, 432, LB333, LB433 (Pre-2011) Standard/Packer	C4914495
LBX331, 332, 431, 432, LB333, LB433 (Pre-2011) Roto-Cutter	C4914536
LB433 (2011 or newer) Standard/Packer	C4914528
LB433 (2011 or newer) Roto-Cutter	C4914529

ROUND BALERS

Baler	300 Series Part No.	600 Series Part No.
AUTOMATIC APPLICATOR KITS (Requires iPad as display)		
RB455, 465, 560, 565	C347C	C647C
Premium Series	C347P	-
RB454, RB464, RBX452, 453, 462, 463462, 463	C34725	C64725
RB554, RB564, RBX552, 553, 562, 563	C34755	C64755
RB444, RBX442, 443, 451, 461, 561	C3464484C	-
ELECTRONIC APPLICATOR KITS		
RB455, 465, 560, 565	C442C	-
Premium Series	C442P	-
RB454, RB464, RBX452, 453, 462, 463	C44225	-
RB554, RB564, RBX552, 553, 562, 563	C44255	-
RB444, RBX442, 443, 451, 461, 561	C4414484	-

SMALL SQUARE BALERS

Baler	300 Series Part No. (25 Gal Tank)	300 Series Part No. (55 Gal Tank)	600 Series Part No. (55 Gal Tank)
AUTOMATIC APPLICATOR KITS (Requires iPad as display)			
SBX520, SB521	C3454409C	-	-
SBX530, 540, 550, SB531, 541, 551	C3454415C	C3514415C	C6514415B
ELECTRONIC APPLICATOR KITS			
SBX520, SB521	C4414409	-	-
SBX530, 540, 550, SB531, 541, 551	C4414415	C4404415	-

ACCESSORIES PART NUMBERS.

THIRTYPLUS™ HAY PRESERVATIVE PART NUMBERS*†

Description	Part No.
15-gal Drum of ThirtyPlus (120 lbs)	C0903
50-gal Drum of ThirtyPlus (450 lbs)	C0904
Pallet of 50-gal Drums of ThirtyPlus (4/pallet)	C0904PQ
200-gal Tote of ThirtyPlus (1,800 lbs) U.S. only	C0908
270-gal Tote of ThirtyPlus (2,380 lbs)	C0909

*** Note: In Canada, please add a "C" suffix on all part numbers.**
† ThirtyPlus Hay Preservative not available in California.

MICROWAVE MOISTURE KIT PART NUMBERS
Large Square Balers Only

Part No.	Part No.
BACK OF BALE CHAMBER	
Microwave Moisture Chute Upgrade Kit - Requires 700 Series Base Kit	C771MWM
PRE-COMPRESSION CHAMBER	
Microwave Moisture Pre-Compression Chamber Upgrade Kit - Requires 700 Series Base Kit	C770MWM

OPTIONAL DISPLAY PART NUMBERS

Description	Part No.
700 Series Applicator Android Tablet Kit	C1670DK
700 Series Applicator VT Monitor Kit	C7670DK
Universal iPad Mini display (iPad mini 4 w/ Hay App, mount and charger) for 300, 400 & 600 series	C4670DK
MOISTURE ONLY KITS	
Moisture Only Kit for Large Baler (display not included). Integrates through baler display.	C700BB
Precision Moisture on Kit Small Square Balers	C201SS*
Precision Moisture on Kit Roll Belt Round Balers	C201RBC*
End of bale sensor kit provides bale avg moisture. For use with 201 kits. Required for fixed chamber round balers.	C200FCA

* Requires phone / tablet as display

CNH INDUSTRIAL GENUINE PARTS

CASE IH

www.mycnhistore.com/thirtyplus

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