



Model 720 Dew Simulator

Allows for the precise addition of moisture to windrowed alfalfa

Waiting for natural dew to soften alfalfa before baling is a challenge for producers in arid areas. Many producers have tried to spray over the windrow to bring the moisture content up, only to find that just the top of the windrow becomes soft, but the leaves still shatter off most of the hay. The Model 720 Dew Simulator from Harvest Tec has now made simulation of natural dew possible.

The Dew Simulator is pulled as a separate pass before baling with a customer supplied water tank. The Dew Simulator preheats water to 240 °F, and applies the hot mist to the windrow via a reel with tines that enter into the windrow and spray from the bottom of the windrow up, the same way that natural dew occurs in windrowed alfalfa. The heated water has been shown to soften the plant's material more effectively than cold water, allowing the crop to retain more leaves.

Hay treated with Harvest Tec's artificial dew simulator will look and test as well as hay made under almost ideal dew conditions.



The Model 720 Dew Simulator operates as a separate pass in front of 1 Large Square Baler or 2 Small Square Balers.



Dew Simulator in transport position.

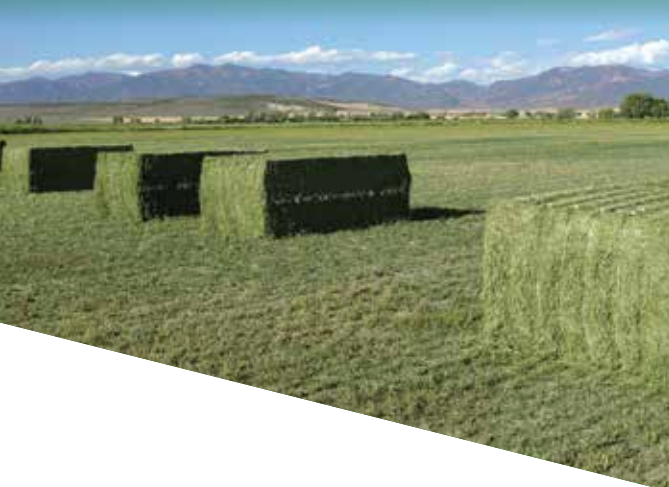


Become more efficient with the Model 720 Dew Simulator by opening your baling window throughout the early morning and later evenings when operating conditions become a challenge. Take more control and become more productive baling on your own schedule.

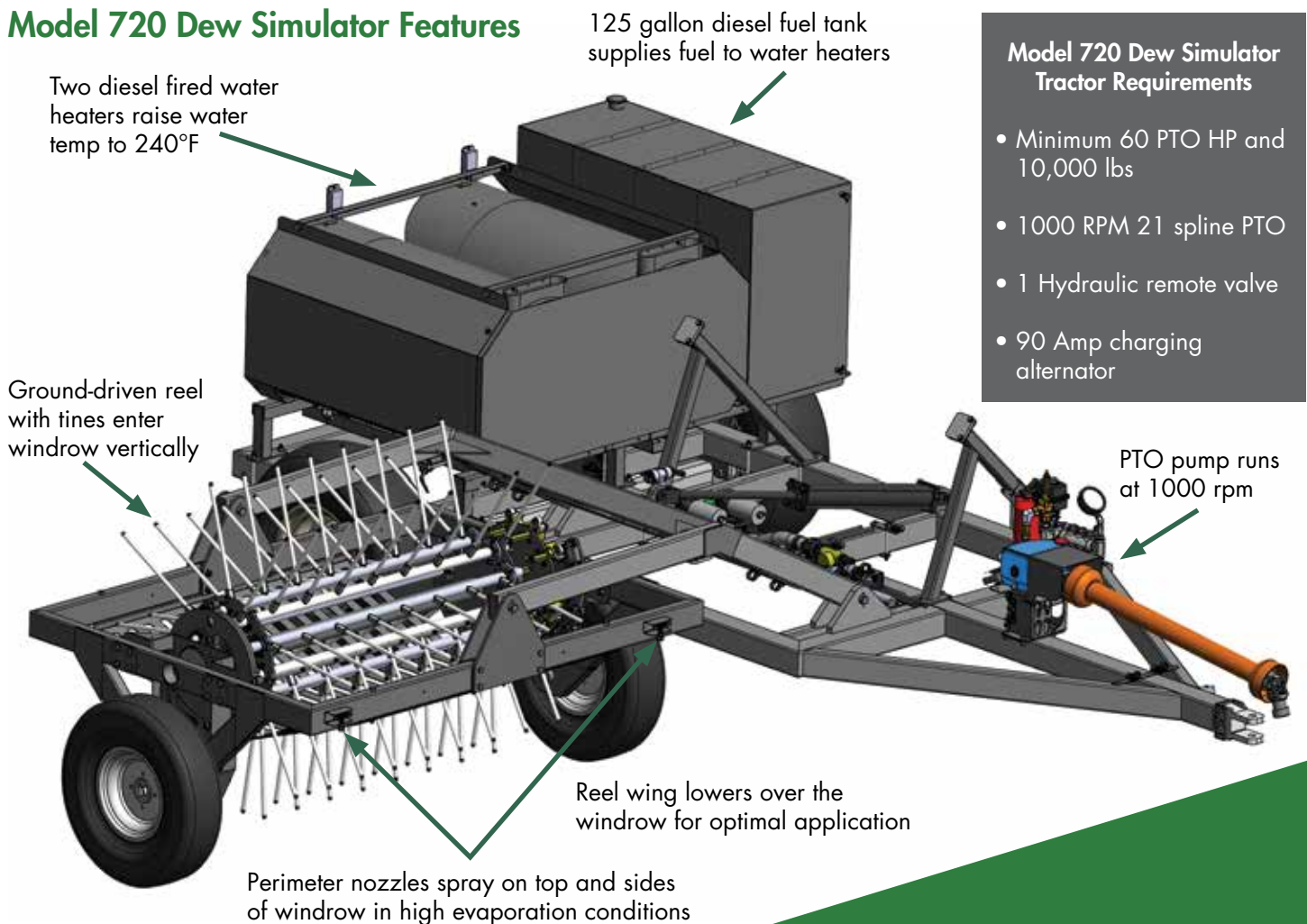


Rehydrate and soften windrows and increase bale weights with additional leaf retention. In addition to higher yields, operators treating hay with the Model 720 Dew Simulator can expect better looking bales with more consistent weights.

The Harvest Tec logo features the word "HARVEST" in a large, green, sans-serif font above the word "TEC" in a smaller, green, sans-serif font. Below the text is a stylized graphic of vertical bars of varying heights, resembling a barcode or a field of crops.



Model 720 Dew Simulator Features



Model 720 Dew Simulator Tractor Requirements

- Minimum 60 PTO HP and 10,000 lbs
- 1000 RPM 21 spline PTO
- 1 Hydraulic remote valve
- 90 Amp charging alternator

How the Dew Simulator Works

- Runs as a separate pass ahead of baling
- In periods of low evaporation (such as evening, nighttime and early morning), the interval between simulating and baling can be 10 to 20 minutes
- In periods of high evaporation (such as early evening and later morning), the interval between simulating and baling can be within seconds
- Water is heated and maintains a target temperature of 240°F with system integrated flow meter and temperature sensors
- 65 tine (85 tine option) cammed reel enters and exits the windrow vertically, with no crop disturbance
- Valve actuated tine rows only apply high pressure mist when inside the windrow
- Valve actuators are adjustable for varying windrow conditions can be turned off for windrows with bottom moisture
- 250 - 1,200 psi spray delivers fine droplets between 20 and 40 microns
- 2 in-series diesel fired water heaters each use a maximum 5.5 gallons per hour of #2 diesel
- Water tank is operator supplied and is pulled directly behind (1000 gallons recommended and will treat 50 to 75 tons depending on application rate)
- 1% of a specially formulated surfactant can be added at a cost of \$2/ton



User friendly control box is mounted in the tractor cab displays water temperature and flow readings.



“This process has allowed us to put up large quantities of supreme dairy quality hay; not only put it up, but put it up on our own schedule, without baling through the night. It is a lot less effort and we put up a lot more hay. We actually put up 360 acres in one day, using the dew simulator and running two balers.”

Rusty Lytle, South Dakota



“With the Dew Simulator you can get moisture in the bottom of the windrow, and you can soften the windrow and lot quicker. I try to bale really close behind the machine, and it’s making really nice hay. It opens the window for baling. I baled hay at 8 o’clock in the evening the other night trying to see if I could make it work, and it made good hay.”

Colin Bowler, Utah

Benefits of the Model 720 Dew Simulator

The Model 720 Dew Simulator is designed to re-hydrate dry alfalfa windrows from 6-10% moisture up to 14-16% moisture in dry, arid climates that don’t see a lot of natural moisture and have to rely on the dew. By adding the moisture back into the windrow before baling, operators have the ability to open up their baling window, bale longer hours, and make better quality alfalfa bales.

Weight Gain from Reduced Leaf Loss

Total Tons Treated	1000 tons
Reduced Leaf Shatter by Adding 4 Points of Moisture ¹	4%
Increase in Tonnage from Less Leaf Shatter	40 tons

Weight Gain from Additional 4 Points of Moisture Added

Total Tons Treated	1000 tons
Weight of Additional Water per Ton (lbs/ton)	4%
Increase in Tonnage from Additional Water	40 tons

Total Tons Added	80
Value per Ton	\$180
Total Value Added	\$14,400

¹Based on laboratory study on alfalfa in a vibration chamber at different moistures conducted by the University of Manitoba in cooperation with Colorado State University.



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Contact Harvest Tec for more information:

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