DewPoint 331
Information Brochure

STAHELIWEST

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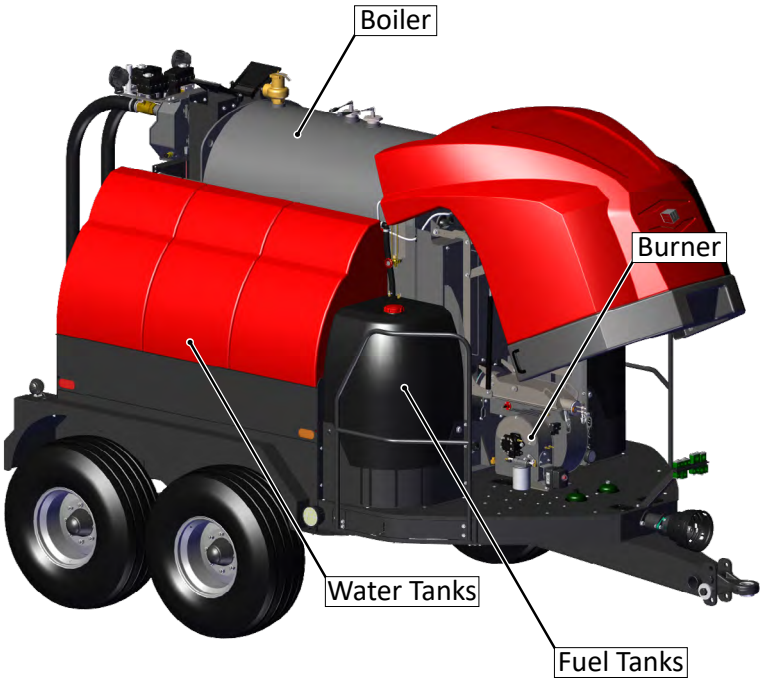
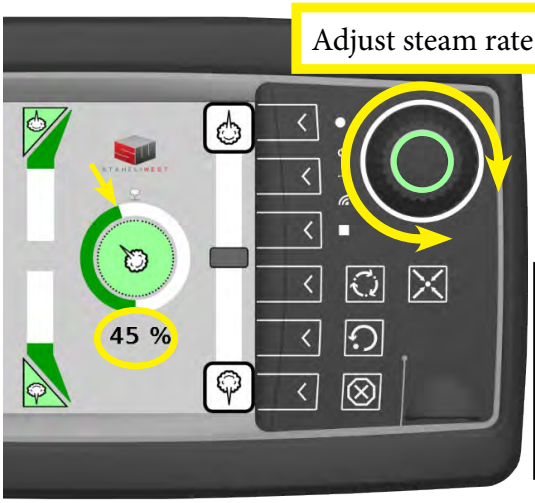
Contents

How The 331 Works

The DewPoint 331 is powered by the 12v tractor supply and the tractor hydraulic system. A diesel burner heats water inside the boiler until boiling. Steam is transferred through hoses into custom manifolds mounted on the baler. The operator controls which manifolds are active and the rate at which steam is applied.

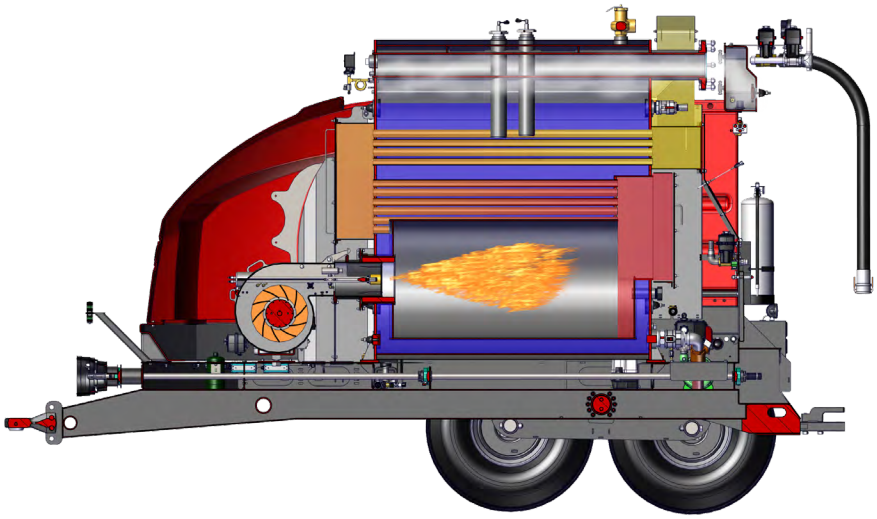




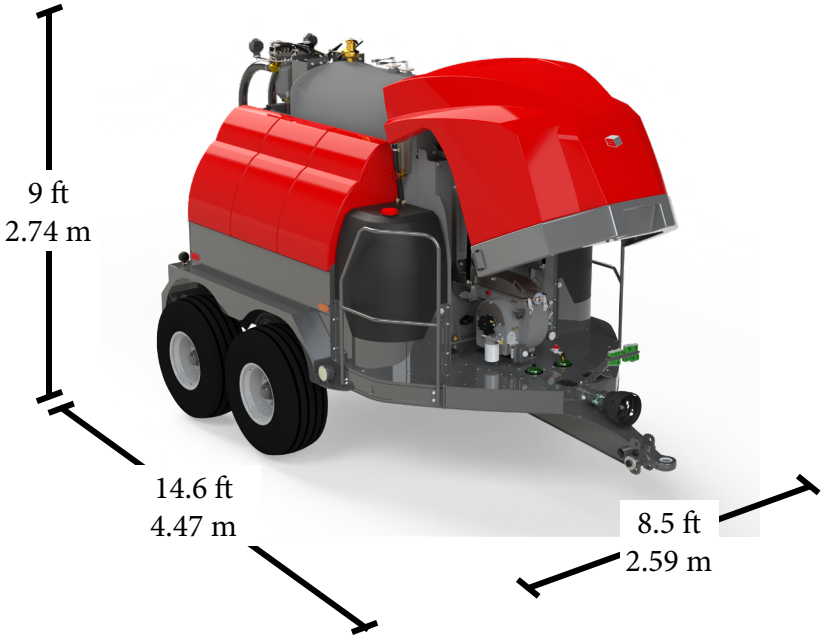
Steam rate and distribution is controlled by the machine operator from the touch screen located in the tractor cab.

The DewPoint 331 generates steam which is injected into hay windrows. The ability to inject steam gives farmers the following benefits:

- *Added Bale Weight*
- *Added Value*
- *Risk Mitigation*
- *Increased Annual Yield*
- *Dew More With Less*
- *Better Lifestyle*



331 Specifications



Dry Weight

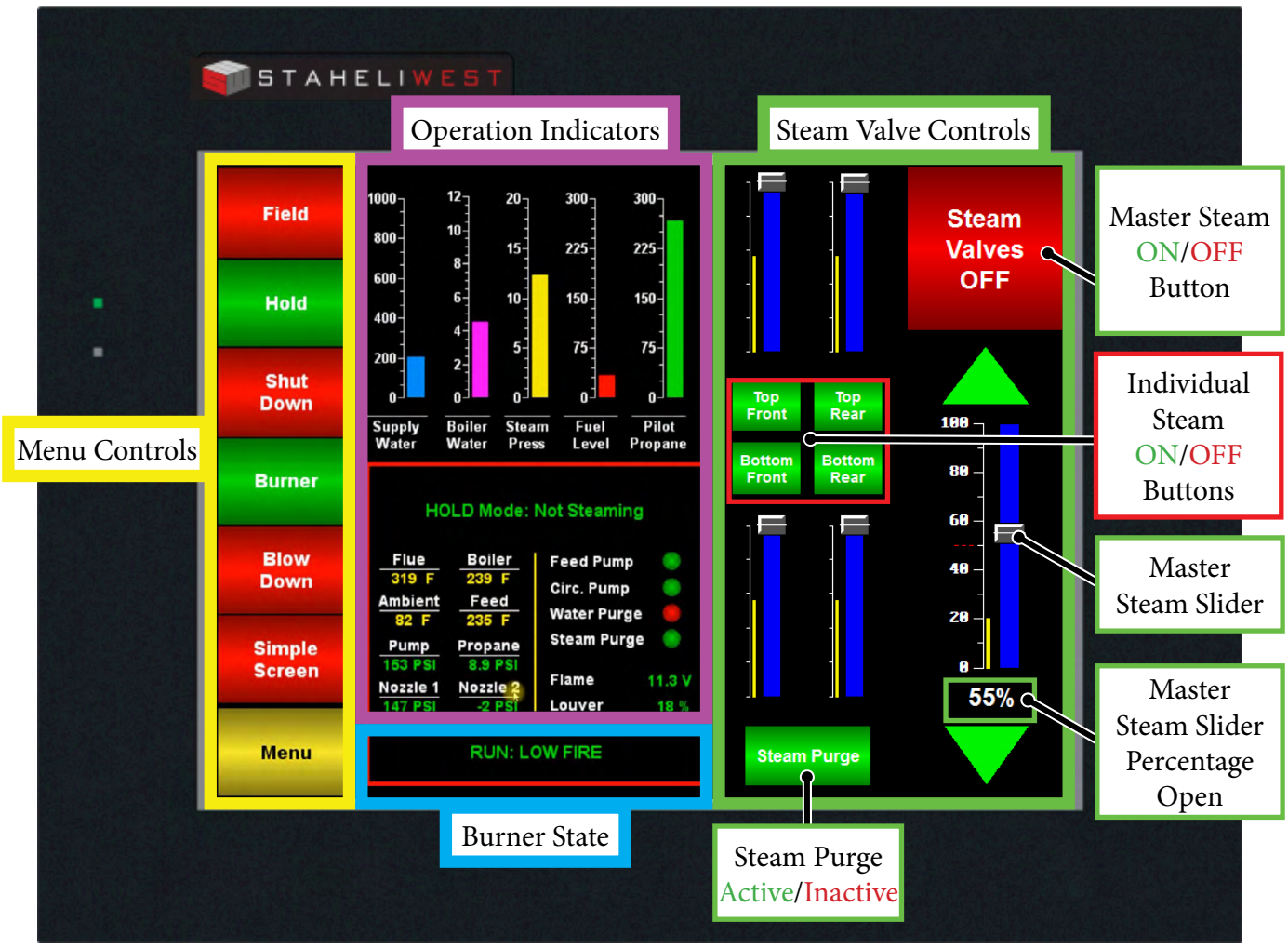
7,300 lbs
3300 kg

Fully Loaded

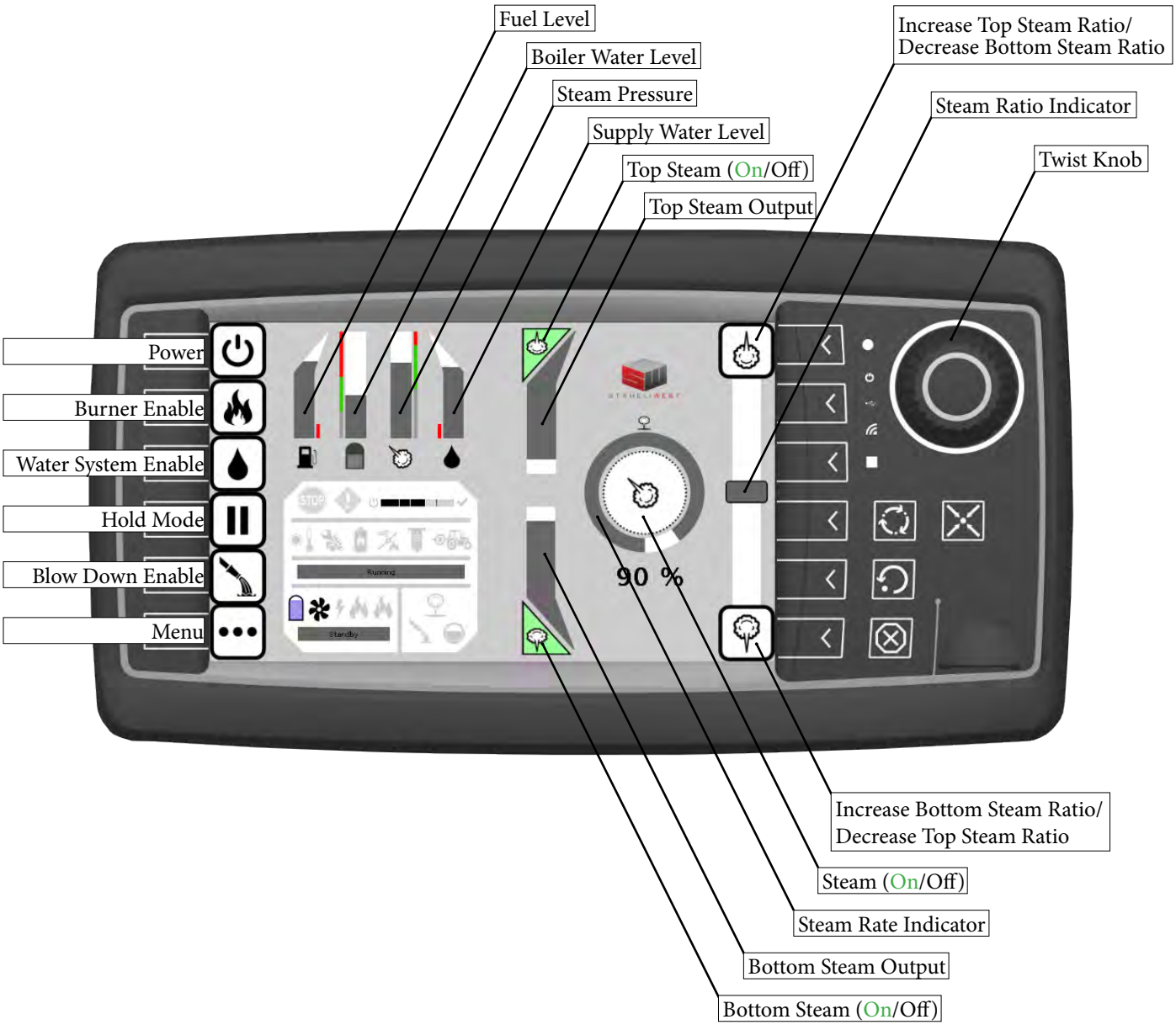
16,000 lbs
7,250 kg

	Capacity	Run Time	Output
Supply Water	500 Gal. 1,900 L	2.5 - 5 Hours	40-80 Tons / Load 35-70 Metric Tons / Load
Boiler Water	250 Gal. 950 L		
Fuel / Diesel	150 Gal. 550 L	7.5 - 15 Hours	120-240 Tons / Load 110-220 Metric Tons / Load

DewPoint 6210 Controls



DewPoint 331 Controls



Baling With Steam

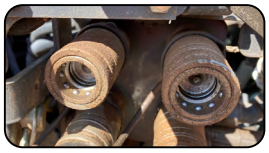
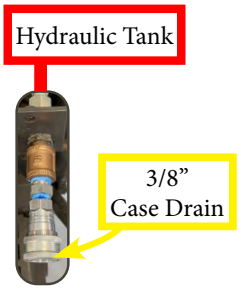
	 Large Square Bales	 Small Square Bales
Max Bale Temperature	135° F (57°C)	145° F (60°C)
Max Bale Stacking Temperature	115° F (45°C)	115° F (45°C)
Max % Moisture Increase With Steam	4-5%	6-8%
Suggested Moisture Range	12-14%	12-18%
Accumulators	Horizontal = OK	Horizontal = OK Bale Band-it & Bale Baron only if bales are ≤ 115° F (45°C)
Suggested Moisture Sensor	Gazeeka 870	Gazeeka 180s (Colt)
Contact Moisture Sensors (Hand Probe, Star Wheel + Other baler mounted sensors	Contact moisture sensors read 3-5% high when testing recently steamed bales. Wait 24 hours for the steam to dissipate and then the contact moisture sensors will read accurately.	
Condition of Alfalfa Before Steaming	Fully Cured (6-10%)	
Condition of Mixed Grass/Alfalfa Before Steaming	Fully Cured (6-10%)	
Condition of Cereal Grain Before Steaming	Fully Cured (6-10%) Don’t be tricked by green nodes on plants that appear dry	

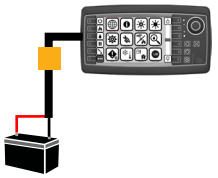
DewPoint Machines

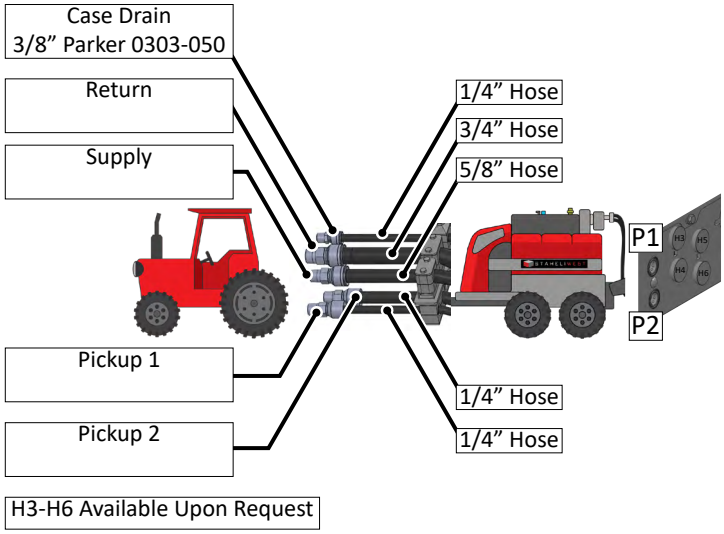
	DewPoint 6110/6210	DewPoint 331
Water Storage Needed	2500-3000 Gallons (9500-11300 Liters)	1500-2000 Gallons (5700-7500 Liters)
Supply Water Capacity 	1000 Gallons (3800 Liters)	500 Gallons (1900 Liters)
Amount of Boiler Chemical to Add Each Fill 1:1000 	1 Gallon (3.8 Liters)	0.5 Gallons (1.9 Liters)
Boiler Water Capacity 	350 Gallons (1300 Liters)	250 Gallons (950 Liters)
Fuel Capacity 	300 Gallons (1100 Liters)	150 Gallons (550 Liters)
Tractor Requirements		
Horse Power	200-275 (Depending On Slopes)	100-175 (Depending On Slopes)
Min Hydraulic GPM	N/A	15
Recommended Hydraulic GPM	N/A	25
Hydraulics	• Hydraulic Trailer Brake Valve	• 1 Set SCV • 3/8” Direct Return to Hydraulic Tank
Electrical	N/A	• 12 Volt Auxiliary Port • SW Harness 11546 • SW Harness 11547 • Trailer Brake Controller

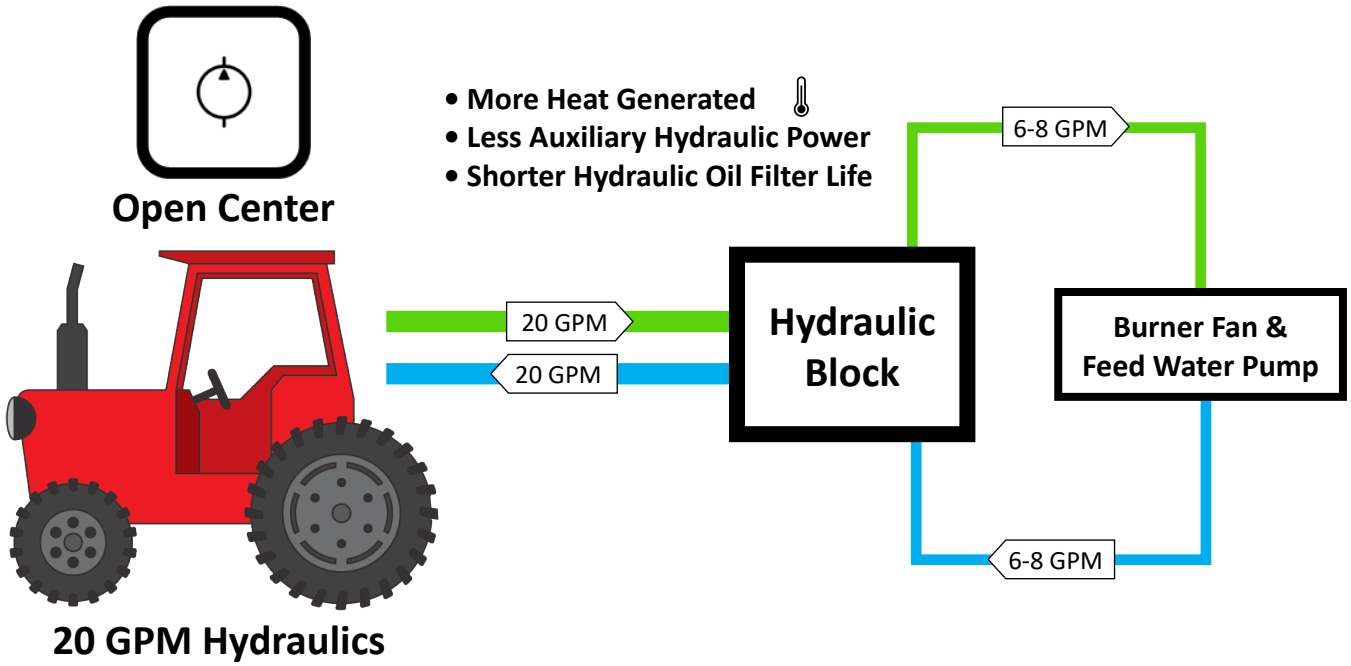
Tractor Requirements

	Minimum Engine Horsepower	Recommended Engine Horsepower
0-2% Slopes	100	125
0-5% Slopes	125	150
0-10% Slopes	150	175

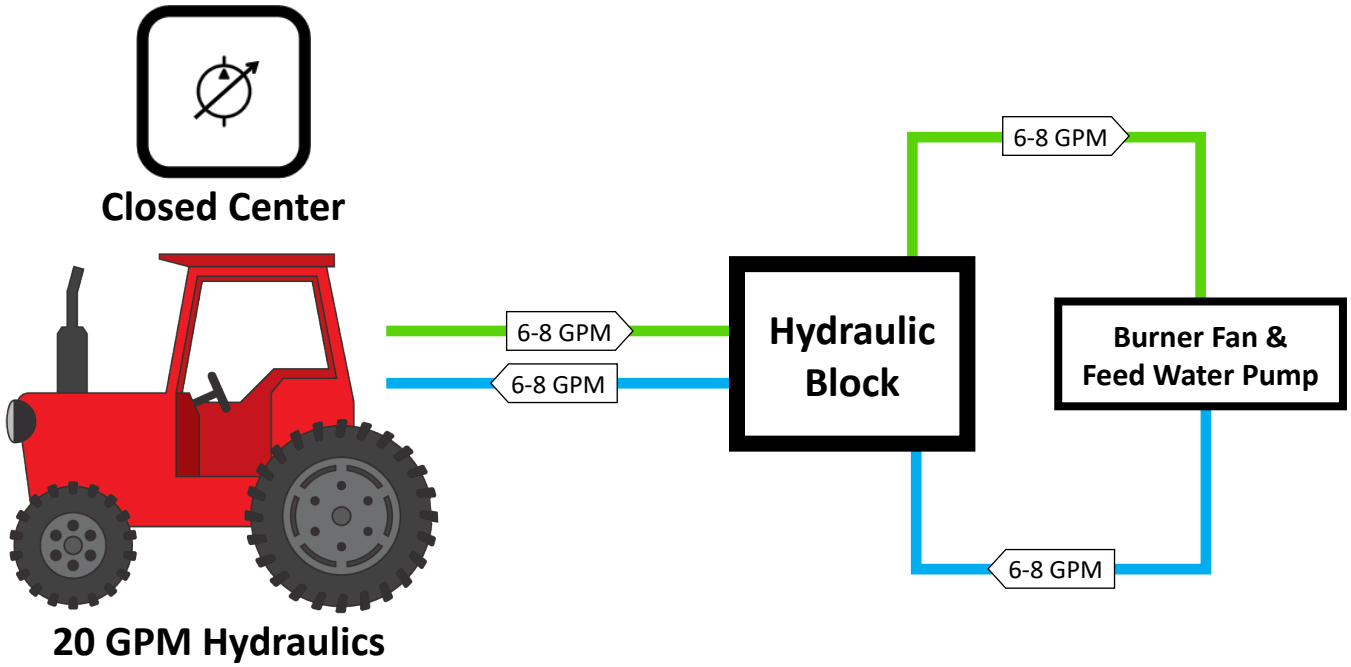
Hydraulic Requirements (Closed Center Hydraulic System Preferred)	
Minimum Recommended Hydraulic GPM	Open Center **15 GPM**
	Closed Center **15 GPM**
Maximum Recommended Hydraulic GPM	Open Center **25 GPM**
	Closed Center **N/A**
1 Set of SCV's	
3/8" Case Drain Female hydraulic fitting that will fit the Parker 0303-050 male fitting direct to tractor hydraulic tank	

Electrical Requirements	
12 Volt Auxiliary Port Required	
Staheli West Harness 11546 & 11547 (Included)	
Trailer Brake Controller (Included)	





Open Center hydraulic systems will create more heat because they send the hydraulic pump's full capacity to the DewPoint. The DewPoint then bypasses all unnecessary flow back to the tractor. If an operator has the option to run hydraulic pumps coupled at low rpm's or run one pump at higher rpm's, they should run one pump at higher rpm's. Turning down the flow on the SCV will create more heat within the tractor and is therefore not a good option. The hydraulic oil cooler will sufficiently cool the oil.



Closed Center hydraulic systems will create less heat because they send only the necessary gpm to the DewPoint. Closed Center hydraulic systems are preferred for this reason.

How to Start Steaming

1

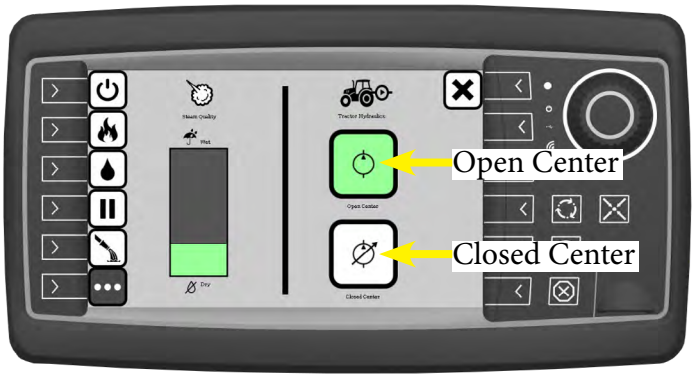
Turn on the tractor.

2

Upon startup, the screen prompts the operator to do the daily maintenance. (See maintenance section)

3

Press ••• then ⚙ to access the settings page.



Confirm whether it is a closed center or open center hydraulics. This only needs to be selected once. It will need to be changed if you change tractors.

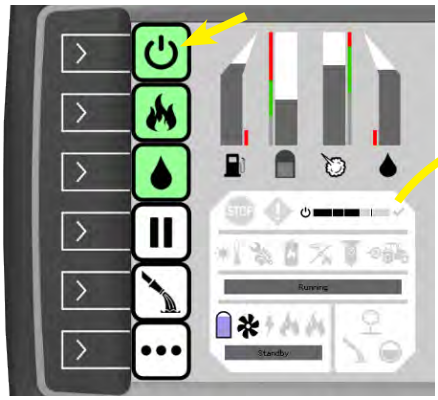
4

Hydraulics Disengaged

Hydraulics Engaged

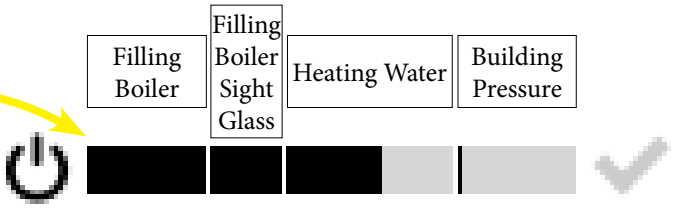
Engage the hydraulics and verify that pressure is detected (the supply pressure icon will change from orange to grey).

5



Press the “Power” icon. The machine will prepare for field work. This will take 5-30 minutes depending on water temperature and water level.

6



The progress bar shows the progress. During this time the boiler fills with water, and the burner turns on to heat the water and create steam pressure.

How to Start Steaming

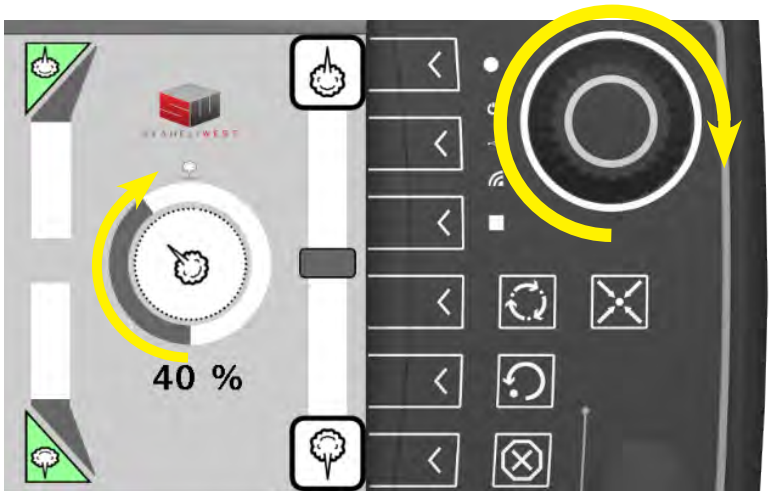
7

When the steamer has built adequate steam pressure and is ready to use, the steam purge valve opens and releases steam pressure.

8

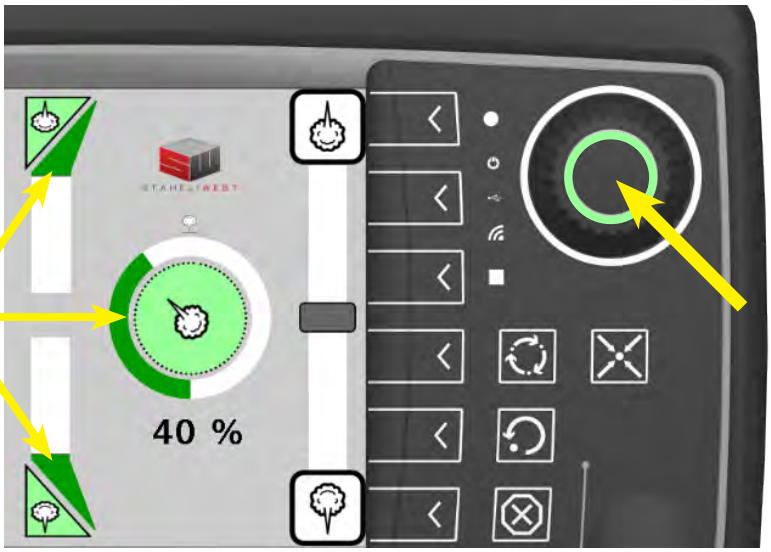
The check mark indicates the startup is complete. The system automatically goes into “Hold” mode.

9



Turn the Twist Knob to adjust your steam rate. We suggest starting at 40%

The Steam Rate indicator and the Steam Output indicators turn green as well to show that steam is on.

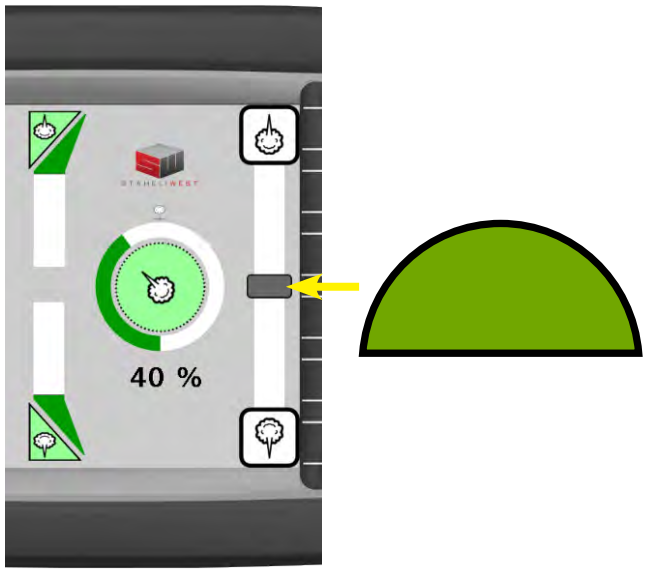


Push the Twist Knob to turn on steam.
The circle on the Twist Knob will light up green while steam is on.

You are ready to start steaming. Look at the following suggested steam settings. (Common Valve Settings page)

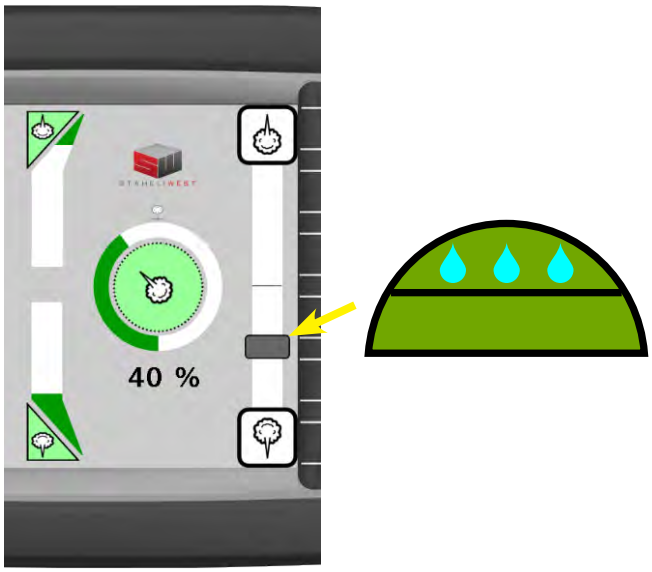
Common Valve Settings

Windrow Evenly Cured Top to Bottom



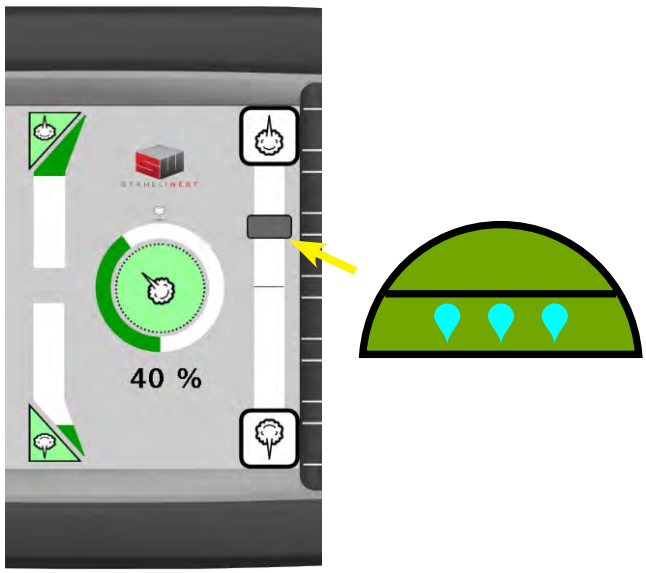
When a windrow is evenly cured, start with the Steam Ratio Indicator in the middle and the steam rate at 40%. Adjust steam rate as needed.

Windrow with More Moisture on Top than Bottom



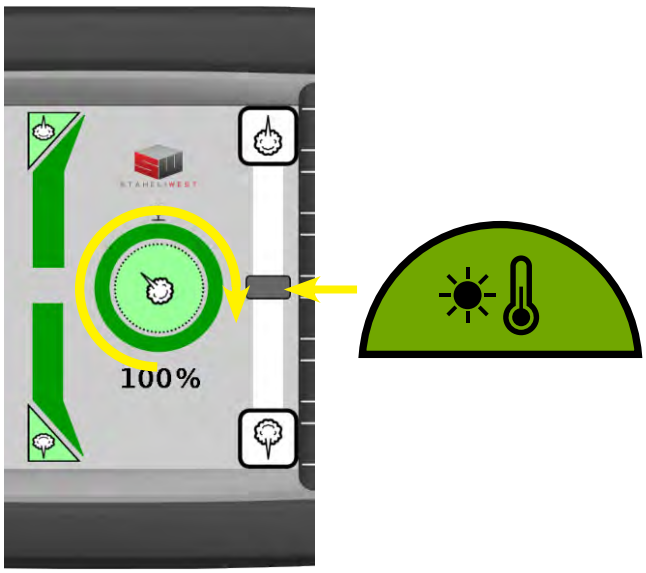
When a windrow has more moisture on top than on bottom, start with the Steam Ratio Indicator closer to the bottom and the steam rate at 40%. Adjust steam rate as needed.

Windrow with More Moisture on Bottom than Top



When a windrow has more moisture on bottom than on top, start with the Steam Ratio Indicator closer to the top and the steam rate at 40%. Adjust steam rate as needed.

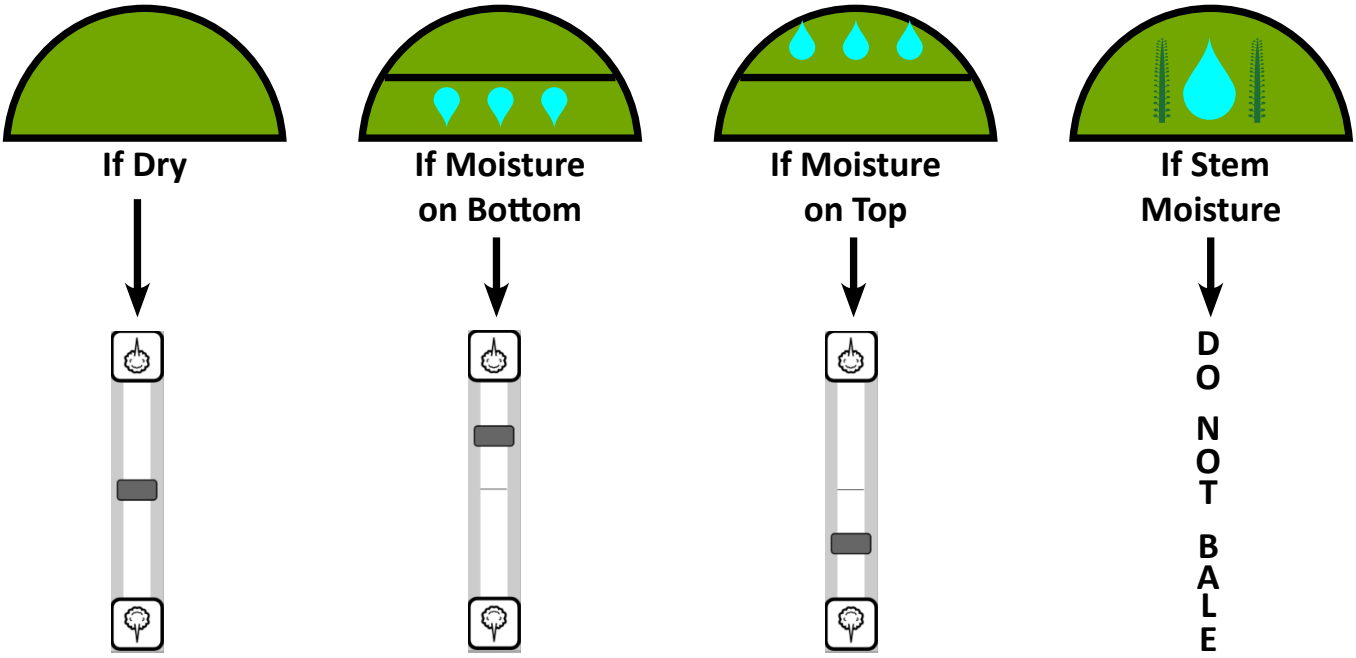
Hot and Dry Conditions



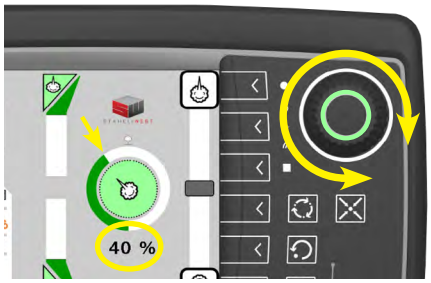
When baling in hot and dry conditions, start with the Steam Ratio Indicator in the middle and the steam rate at 100%. Adjust steam rate as needed.

Simple Operation

#1 - Check Current Windrow Condition
#2 - Set Steam Ratio

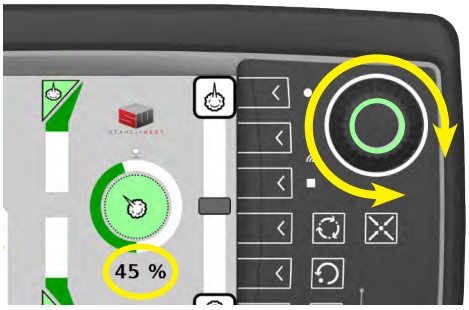


#3 - Set Steam Rate



40% is a good starting rate

#4 - Bale 2-4 Bales with Steam
#5 - Adjust Steam Rate 5-10% If Necessary
#6 - Repeat Steps 4-5 Until Optimum Bale Moisture is Reached



Make steam rate changes based on the average (Avg) reading

***The steam ratio should not be changed unless the windrow condition changes**

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