

TIEger® Auto-Tie Baler

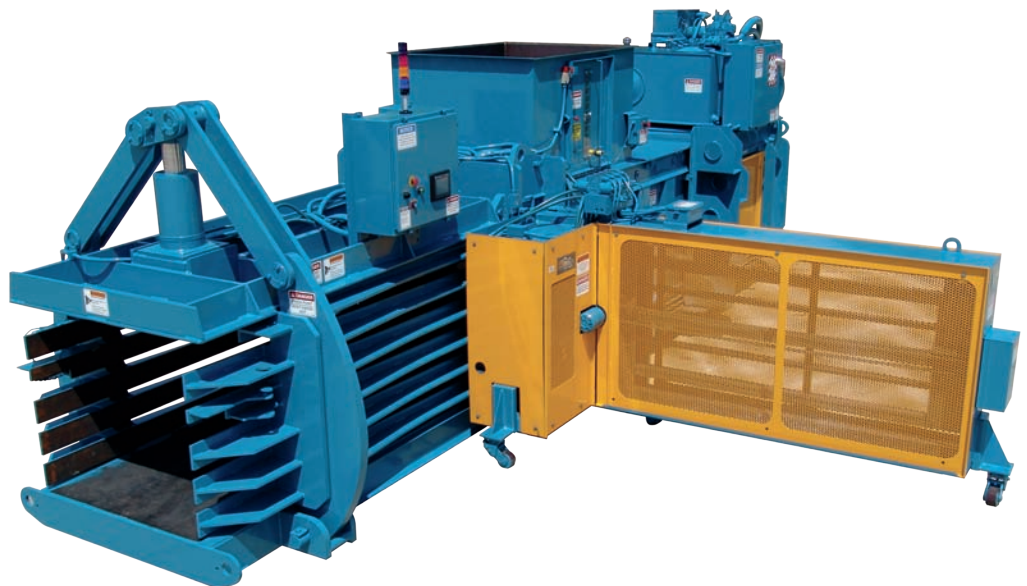


*Exclusive gear
driven tying
system*

*Replaceable
serrated body and
ram shear blades*

*Single cylinder
bale tensioning
system*

*Spring loaded
retainer locks,
adjustable wire
positioners,
and adjustable
inserter needle
positioners*



**Environmental
Solutions Group**

A DOVER COMPANY

Marathon's line of TIEger® auto-tie balers are precision built by our manufacturing specialists and feature the exclusive TIEger tying system.

TIEger Auto-Tie Baler

Highly Efficient and Precision Built

Marathon's TIEger auto-tie baler uses highly efficient gear twisters, which eliminates pigtails. This accounts for more than 10% reduction in wire consumption and related costs. The gear twisters and inserter needles are hydraulically driven and wire is dispensed directly from our unique box holders. Hydraulic wire positioners precisely align the wires for pick-up by the inserter needles, making the TIEger the most reliable tier on the market.

Marathon auto-tie balers are designed for high-productivity and ease of use with advanced electronics, such as the Allen-Bradley MicroLogix 1500 PLC and Maestro® color touch-screen operator interface. From this interface, the operator can control a variety of baler functions such as auto and manual modes, bale settings, system pressure, bale length, and perform computerized diagnostics. The main panel box features IEC controls.



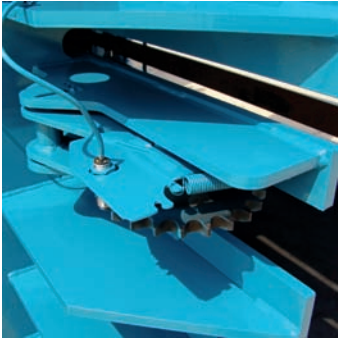
RECYCLING SOLUTIONS



Single cylinder bale tensoning system with linkage bars provides up to 1 million pounds of extrusion force.



Spring loaded retainer locks, adjustable wire positioners, and adjustable inserter needle positioners.



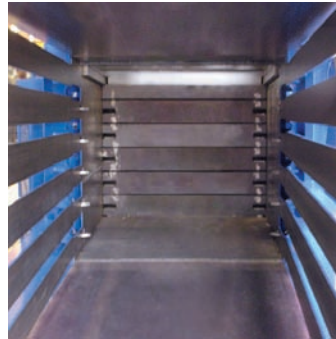
Spring loaded counter wheel, located on the side of the baler, sends a digital reading to the operator interface.



The in-feed hopper has viewing windows on both sides and a hopper door with full gasket. Infrared photoelectric sensors are adjustable to the height of the hopper door window.



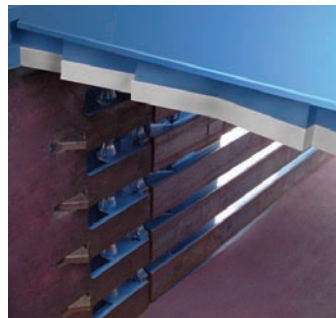
Wire positioners are on the twister cabinet side for precise twister alignment and wire pick-ups.



Wear resistant, replaceable Nylatron liners on the ram slides. 500 Brinell steel liners on the floor and ram bottom. Oversized ram hold-down bars are adjustable from the exterior of the machine.



TEFC motor with quiet running pump system.



Serrated body and ram bolt-in shear blades are shimmable and replaceable (not available in the PC-Series, WC, and EWC models).

TIEger® Features and Benefits

Structural and Mechanical

- Single cylinder tension system, which leverages and generates force on all four sides.
- All pivot points have solid steel bushings and grease fittings.
- Adjustable Nylatron inserter needle positioners (on the side opposite the tie) maintain correct needle position.
- Inserter and twister assembly cabinet pivots for easy access and maintenance.
- Inserters and gear twisters are driven by hydraulic motors
- Hydraulic wire positioners
- Bolt-in Shear blades are replaceable (NS, WS and EWS only)
- 500 Brinell steel liners on the floor and ram bottom.
- Chute-type feed hopper with gasketed access door with viewing windows on both sides of the baler.
- Oversized ram hold-down bars are adjustable from the exterior of the machine.
- Heavy-duty, spring-loaded retainer locks
- Wire box holders make loading quick and easy with no adjustment required. Ceramic wire guides and adjustable wire rollers
- Optional wire run-out system available

Electrical and Hydraulic

- Spring-loaded counter wheel located on the side of the baler sends digital bale length reading to the operator interface.
- Maestro® color touch screen operator interface with Allen-Bradley MicroLogix 1500 PLC; provides many functions such as diagnostics, bale set-up, bale length, and system pressure.
- Infrared photo electric sensors are adjustable to the entire height of the hopper door window
- UL® and CUL® Listed control systems
- Start-up alarm and beacon
- 460V/3-phase/60Hz high-efficiency power unit
- Power packs up to 150HP (dual motor units available)
- Lockable main circuit breaker
- Low oil shutdown switch, high oil temperature shutdown switch, and oil shut-off valve
- Quiet running pump system
- Electrically actuated regen hydraulic system
- Current and pressure transducers standard
- Air-to-oil cooler
- 150 to 600 gallon hydraulic oil reservoir (up to 200 gallons delivered with the unit)

Rental and Leasing Programs Available

For detailed specifications, recommendations, or free economic studies comparing various systems, contact Marathon Customer Care at **1-800-633-8974**.

Authorized Dealer:



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 P.O. Box 1798
 Vernon, AL 35592-1798
 800.633.8974
www.marathonequipment.com
 NJPA Contract #060612-ESG



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www.doveresg.com



Pictures in this literature are illustrative only. Specifications are subject to change without notice in order to accommodate improvements to the equipment. Complies with ANSI standard Z245.5 and applicable OSHA Regulations. Products must be used with safe practice and in accordance with said regulations and standards.



MARATHON AUTO-TIE BALER SPECIFICATIONS
TIEger SERIES
MODEL WS-310-84
Specification #WS310-84 Revision Date: 3/20/17



Application - Most belt & air-conveyed recyclable materials weighing 6 pounds or less per cubic foot infeed density

Construction - Heavy-duty structural members properly jugged & fixtured to ensure proper alignment. CAD designed, reinforced and braced as required by engineering standards

GENERAL PERFORMANCE SPECIFICATIONS

Model		WS-310-84		
Horsepower		100	2x50	2x75
Total Flow, GPM		200	274	300
Average Dry Cycle Time in Sec.**		11.7	9.2	8.7
Cycles per Minute		5.1	6.5	6.9
Oil Capacity		400 Gal.	600 Gal.	600 Gal.
Displacement (CF/HR)		27,300	34,800	36,800
Tie Cycle Time		25 Seconds		
Infeed Density	Efficiency	TONS per Hour		
1.5 LB/CF	55%	11.3	14.4	15.2
3 LB/CF	45%	18.4	23.5	24.8
4.5 LB/CF	38%	23.3	29.8	31.5
6 LB/CF	32%	26.2	33.4	35.3

PRESSURE SPECIFICATIONS

Compressing Cylinder	10" Bore x 7" R x 98" S
Tension Cylinder	8" Bore x 4-1/2" Rod x 6" Stroke
Normal Operating Pressure	4,000 PSI
Compressing Force	314,100
Ram Face Pressure (PSI)	183
Tension Force	987,500

DIMENSIONAL SPECIFICATIONS

Feed Opening	39" W x 84" L		
Charge Box Size	89" L x 42" W x 41" H		
Charge Box Volume	88.7 Cubic Feet		
Bale Size	42" x 42" x Variable		
Length	33'-8"		
Width	15'-6"		
Body Height	55"		
Top of Hopper	90"		
Estimated Weight (Including Power Unit)	35,000 #	40,600 #	41,200 #

BALE WEIGHT & DENSITIES

Bale Size - Approximately 42" High x 42" Wide x 72" Long - (73.5 cubic feet)

Maximum Weights & Densities*

OCC (old corrugated containers)	Up to 2400 # (32.5#/CUFT)
MOW (mixed office waste)	Up to 2400 # (32.5#/CUFT)
ONP - Fluffed	Up to 2400 # (32.5#/CUFT)

* Bale weights, densities and production ratings are based on the typical infeed densities indicated. Feed rates and densities may be affected by feed method, moisture content and material shapes.

MARATHON balers meet existing ANSI standards at the time of manufacture

** Cycle Times include 1-1/2 seconds on 30 HP & 2-1/2 seconds on 2x30 HP for decompression and valve shift.



MARATHON AUTO-TIE BALER SPECIFICATIONS
TIEger SERIES
MODEL WS-310-84
Specification #WS310-84 Revision Date: 6/4/13



ELECTRICAL SPECIFICATIONS

Main Motor	100 HP, 2x50 HP or 2x75 HP - TEFC
Main Voltage	460 Volt - 3 Phase - 60 Hertz
Starting Arrangement	Across the Line
Motor Control Center	UL Listed NEMA 12 Enclosure (2x50 & 2x75 HP); NEMA 4 (100)
Control Voltage	24 Volt DC - 120 VAC
Controls	PLC Controls with Bale Recipes and Diagnostics
Operator Interface	6.5" TFT Color Touchscreen
Disconnect	Lockable Circuit Breaker

HYDRAULIC SPECIFICATIONS

Powerpack Type	Flooded Suction Type with High-Flow Hydraulic Manifold
Pump System - 3000 PSI	100 HP - Hi-Lo Vane Pumps; 2x50 HP & 2x75 HP - Low Pressure Vane Pump & High Pressure Piston Pump
Powerpack Location	Floor-mounted
Air to Oil Cooler	1 HP Fan (100 HP); 3 HP Fan (2 x 50 HP & 2 x 75 HP)
Circulating Pump	2 HP (100 HP); 2x50 HP & 2x75 HP - 20 HP with Tier Pump
Filtration	10 Micron (100, 2 x 50 & 2 x 75 HP)
Tier Flow	12 GPM
Cylinder mount	Cross-tube self adjusting mount

GENERAL FEATURES

Automatic Wire Tier - MARATHON TIEger 5 tie Gear Type Wire Tier. Hydraulic drive inserter & twister with wire positioners and feed system. 100# spool feed standard. Swing away design. 10 or 11 Ga black annealed wire
Adjustable gib bars (hold-downs) from outside the machine with replaceable Nylatron wear plates
Replaceable AR 500 Floor Liners
Spring Loaded Bale Retainers
Infrared Actuators (1 set)
Regenerative hydraulic circuit
Automation Pkg w/Infeed Management System
Flex-Ten Bale Tensioning System
Ram shear blade is replaceable
Body shear blade is serrated & replaceable
Replaceable Nylatron Ram Seal Plates
Hopper View Door
3' Bale Table
Baler Mounted operator center with PLC Controls and 6.5" Color Touchscreen Interface
Paint - baked on - 12 standard colors

AVAILABLE OPTIONS

Additional 5' Bale Tables
Hopper Monitoring System (High Definition Camera & Monitor)
Material Stamper
10" Color Enhanced Multi-language Touchscreen Interface
Single & Dual Fluffers
Machine Mounted Power Packs (30 Hp Standard)
Conveyor Controls with VFD or Motor Starter
Additional Photocell Actuators
Oil Heater
Electrostatic Control System
Other voltages
Control Panel Heaters & Coolers
Wire Runout Sensor
Remote Wire Stand 1000# Coils
Bi-Level Remote Wire Stand for 1000# Coils
Other hopper arrangements
Modem