

## HARRIS BALER SPECIFICATION

### BADGER L 100S-2-10/7

#### I. Dimensions:

A. Bale Chamber:	29" high x 43" wide x 57" deep
B. Charge Box:	29" high x 43" wide x 155" long
C. Overall Length:	355"
D. Box Opening:	43" x 85"
E. Standard Hopper:	
1. Hopper Opening (Top):	65" wide x 94" long
2. Hopper Height:	92"
3. Max. Machine Height:	106"
4. Max. Machine Width:	Without extended side ram 161" With extended side ram 185"
F. Approximate Weight W/Oil:	23.5 tons w/out door, 26 tons w/combo door
G. Approx. Exp. Bale Size:	31" x 46" x 61"
H. Approx Bale Volume:	50 cu/ft.

#### II. Performance Ratings - Corrugated: Input Density: 3.0-6.0 lbs./cu.ft.

A. Density:	24 - 29 lbs./cu.ft.
B. Bale Weight:	1175 - 1425 lbs.
C. Tons/Hour w/o door:	8.1 - 13
D. Tons/Hour with door:	7.6 - 12

#### Performance Ratings - Solid Waste: Input Density: 7.0-12.0 lbs./cu.ft.

A. Density:	36 - 48 lbs./cu.ft.
B. Bale Weight:	1850 - 2450 lbs.
C. Tons/Hour w/o door:	18 - 30
D. Tons/Hour with door:	17 - 27

#### Performance Ratings - Newsprint: Input Density: 6.8-8.0 lbs./cu.ft.

A. Density:	27 - 34 lbs./cu. ft.
B. Bale Weight:	1300 - 1625 lbs.
C. Tons/Hour w/o door:	15 - 21
D. Tons/Hour with door:	13.5 - 18

#### Performance Ratings - UBC Aluminum: Input Density: 1.5-4.5 lbs./cu.ft.

A. Density:	21 - 25 lbs./cu. ft.
B. Bale Weight:	950 - 1125 lbs.
C. Tons/Hour w/o door:	4.3 - 9.5
D. Tons/Hour with door:	4.2 - 9.0

Performance Ratings - Tin Cans: Input Density: 6.0-9.0 lbs./cu.ft.

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|-------------------------|----------------------|
| A. Density:             | 33 - 46 lbs./cu. ft. |
| B. Bale Weight:         | 1500 - 2075 lbs.     |
| C. Tons/Hour w/o door:  | 15 - 20              |
| D. Tons/Hour with door: | 14 - 19              |

Performance Ratings - Plastic: Input Density: 1.2-4.0 lbs./cu.ft.

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|-------------------------|---------------------|
| A. Density:             | 22 - 29 lbs./cu.ft. |
| B. Bale Weight:         | 1175 - 1550 lbs.    |
| C. Tons/Hour w/o door:  | 3.5 - 8.0           |
| D. Tons/Hour with door: | 3.5 - 7.5           |

Performance Ratings - Non-Ferrous: Input Density: 3.0-6.5 lbs./cu.ft.

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|-------------------------|---------------------|
| A. Density:             | 32 - 50 lbs./cu.ft. |
| B. Bale Weight:         | 1450 - 2250 lbs.    |
| C. Tons/Hour w/o door:  | 8 - 15              |
| D. Tons/Hour with door: | 7.5 - 14            |

III. Hydraulics:

3500 p.s.i. system operating pressure.  
4000 p.s.i. max. pressure.

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|------------------------|---|
| A. Main Cylinder:      | 10" bore secured to platen with four "easy-off" bolts. 137 tons force, 222 p.s.i. ram face pressure. 60% ram penetration. |
| B. Eject Cylinder:     | 7" bore secured to platen with four "easy-off" bolts. 67 tons force 85 p.s.i. ram face pressure.                          |
| C. Hydraulic Pumps:    | Main pumps = 2<br>Main flow = 172 GPM<br>Circulation = 42 GPM<br>Tier = 12 GPM<br>Total Flow = 226GPM                     |
| D. Hydraulic Valving:  | State-of-the-art cartridge and spool valves controlling all hydraulic functions   |
| E. Reservoir Capacity: | 400 gallons.  |
| F. Filter:             | 10 micron.  |
| G. Cooler:             | Oil to air - thermostatically controlled.   |
| H. Heaters:            | (1) 2200 watt thermostatically controlled oil heater.   |

IV. Power Unit:

A. Motors:

Main - (1) 100HP, 460/3/60, 1750 RPM.  
Open, drip proof.  
Cooler Fan - (2) 1/4 HP 460/3/60, 1140 RPM.  
TEAO.

B. Starters:

- Across-the-line motor starters with overload protection. Reduced voltage starting is available as an option.

C. Location:

Standard power unit location is at the end of the bale compression chamber. Optional power unit locations available at additional cost.

V. Controls:

A. Type:

Solid-state programmable controller with operator console.

B. Functions:

Automatic or manual baling cycles. Push buttons and joy stick, mounted on operator console. System pressure gauge. Self diagnostics with visual display. Multiple baling and strapping modes.

C. Location:

Control console mounted over compression chamber.

VI. Electrical Enclosures:

Standard enclosures are NEMA 12 and are NOT suitable for outdoor operation.

VII. Construction:

A. Main Frame:

The main frame and compression chamber are constructed of heavy steel plate and reinforcing ribs. Critical components are machined to insure proper fit. Wear surfaces are covered with replaceable hardened alloy steel. Back wall is reinforced solid steel plate. Floor ribs are standard.

B. Platens:

Both the gathering and eject platens are heavy steel weldments, machined as necessary to achieve tolerances.

C. Piping:

ASTM A-106 Schedule 160 and 80. Joints are welded with bolted, O-ring sealed flange connections. Suitable pipe clamps and supports are provided for all pipe runs.

- D. Fixed Knife: Fitted with Harris' unique \*\*"Smart-knife" adjusting system. No shims are required.
- E. Liners: Harris' quick-change floor liner and main platen shoe replacement system \*\*"Sky-jacker" is standard and includes segmented floor liners for easy handling and replacement. Main platen shoe and floor liner can be replaced without removal of main platen.
- VIII. Tying Unit: U. S. Model 341 or equivalent.
- IX. Testing: Machine will be assembled and tested prior to shipment.
- X. Startup Service: This proposal includes the services of a qualified installation specialist for two (2) eight hour working days. He will place the baler in operation and instruct your operator in recommended operating and maintenance procedures. (Transportation and sustenance outside of continental U.S. is for the Purchaser's account.)
- XI. Other Services: Tuition free maintenance and operation training school in Cordele, GA for two people.
- XII. Purchaser to provide:  
(Unless stated otherwise in Proposal or Contract.)
- A. Approximately 400 gallons of hydraulic oil.
  - B. Electric power to baler motor control center.
  - C. Foundation and anchoring plan acceptable to Harris, conveyors, conveyor pits, and all required site preparation.
  - D. Personnel, equipment and tools to unload, assemble and install equipment. Spreader bars are required for lifting equipment.
  - E. Wire for automatic tier.
  - F. Adequate and appropriate materials for processing during the Start-up/Training period.
  - G. Conveyor pit and apron closures, guards and access.
  - H. Tools and spare parts for performing maintenance, adjustments and troubleshooting.

**XIII. Limited Warranty: All Harris Manufactured Products.**

**This Limited Warranty only applies to products manufactured by Harris Waste Management Group, Inc., its brands labeled as Harris, Selco, Mosley, TransPak, and/or HRB.**

**Subject to the terms and conditions herein, COMPANY warrants to the original PURCHASER hereunder that the EQUIPMENT listed within the agreement attached hereto will be free from manufacturing defects in materials and workmanship performed by COMPANY, for a period commencing thirty (30) days after shipment of the EQUIPMENT or thirty (30) days after the date it could have been shipped in case shipping is delayed by factors or conditions which are not the responsibility of COMPANY, and extending for a period of one (1) year, or two thousand (2,000) hours use of the EQUIPMENT whichever first occurs.**

**XIII. Limited Warranty: All Harris Manufactured Products. (continued)**

The foregoing notwithstanding, the following conditions shall void the warranty: (1) The EQUIPMENT, or any part thereof, has been subjected to accident, negligence, improper operation or maintenance, alteration, modification, abuse or misuse, or to damage caused by unauthorized or improper repairs or failure to read, view or follow prescribed or reasonable operation, safety and maintenance instructions, or failure to replace worn parts in a timely manner; (2) The EQUIPMENT has been subjected to operating conditions beyond that for which it was designed or more severe than is normal for the industry; (3) The EQUIPMENT has processed unauthorized materials; (4) PURCHASER fails to notify COMPANY in writing of any alleged defects within the aforementioned warranty period; or (5) In the event the EQUIPMENT is not: (a) operated by fully-trained, competent personnel; (b) maintained in good operating condition using approved COMPANY components and service techniques and instructions applied by competent maintenance personnel. or (c) marked with all warnings and decals attached to the EQUIPMENT.

COMPANY and PURCHASER expressly agree that COMPANY'S obligations are limited solely to COMPANY'S choice of repair or replacement (F.O.B. point of manufacture) of any defective parts or workmanship, or alternatively, refund of the purchase price of any item or parts. Any such refunded parts shall be promptly returned by the PURCHASER to COMPANY, F.O.B. PURCHASER'S site if so requested by COMPANY. It is expressly agreed that the remedies provided in this Limited Warranty are the exclusive remedies for the PURCHASER and that COMPANY shall never be liable nor responsible for any parts or services furnished by PURCHASER or third parties without the ADVANCE written authorization by COMPANY.

IT IS EXPRESSLY AGREED BY THE PARTIES SIGNING THIS AGREEMENT (1) THAT COMPANY MAKES NO GUARANTEES OR WARRANTIES OF ANY NATURE EXCEPT AS STATED IN THIS AGREEMENT, (2) THAT ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ANY IMPLIED WARRANTIES ARISING FROM COURSE OF PERFORMANCE, COURSE OF DEALING OR USAGE OF TRADE, ARE HEREBY EXCLUDED AND NEGATED, (3) THAT COMPANY'S LIABILITY IS EXPRESSLY LIMITED TO AND PURCHASER'S SOLE AND EXCLUSIVE REMEDIES ARE THOSE STATED IN THIS AGREEMENT, AND (4) THAT COMPANY SHALL NEVER BE LIABLE FOR INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES OF ANY NATURE, INCLUDING, WITHOUT LIMITATION, LOSS OF PRODUCT, LOSS OF OPERATING SUPPLIES, OR LOSS OF REVENUES, PROFITS OR INCOME IN CONNECTION WITH THE PURCHASES, OPERATION, OR USE OF THE EQUIPMENT.

In the event of any diversion of adjustment from the specific written warranty, such diversion shall not alter the specific terms of the warranty COMPANY reserves the right to make improvements and changes in the design and/or specification: for its products without notification and without incorporating the changes in EQUIPMENT on order or delivered.

**XIV. Options:** Harris offers many options including:

- Installation or installation assistance
- Conveyors
- Hopper extension
- Bale run out table
- Climate controlled operator's cab
- Oversize bale release door
- Combination bale release and separation door
- Plus many more, please consult your Harris representative

XV. Acceptable Materials: This baler is intended to process the following materials; any materials other than these could severely damage the machine and will void the warranty.

- A. Empty aluminum cans.
- B. Empty tin cans, buckets or barrels, 55 gallons or less.
- C. High grade paper if segregated and "delumped."
- D. Corrugated paper.
- E. Solid waste (excluding large pieces of masonry, steel or other such non compressibles.)  
Ferrous metals greater than 1/8" thickness or 3/8" in diameter along with masonry and concrete greater than 2 square inches in cross section or 12" in length are not acceptable materials for processing. Glass, masonry and other such abrasive NON compressibles can cause excessive wear or damage and can interfere with baler functions such as shearing or the operation of the door. Therefore, the content of this type material should be minimized.
- F. Drywall.
- G. Wooden pallets.
- H. Empty PET bottles.
- I. "White goods" without motors and transmissions.
- J. Newsprint if segregated and "delumped."
- K. Aluminum siding and aluminum cable less than 1" diameter.
- L. Aluminum extrusions less than 1/2".
- M. Copper less than 1/2" thick.
- N. Radiators (automobile only made of aluminum or brass).
- O. Steel cable less than 3/8" in diameter.
- P. Non-magnetic ferrous material with a thickness no greater than 1/8".
- Q. Rags.
- R. Ferrous material with a tensile strength of less than 50,000 lbs/sq. inch, a thickness of no more than 1/8" and a cross section of no more than 1/4" sq. inches.

NOTE: 1. Some bridging may occur in the hopper depending upon the material being processed and how the material is being presented to the hopper. Wet solid waste may tend to extrude the plug bale if the baler has no baling door. Some materials may require pre-conditioning, consult your Harris representative.

2. The knife edges and the vertical blade clearance must be maintained within the limits established by the Harris knife blade gauge furnished with the machine; however, the clearance must, in any event, be less than the thickness of the thinnest metallic material being processed.

**SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.**

The provisions of this specification shall apply unless specifically provided for otherwise in your Proposal or Contract.