



NORTH CAROLINA SHERIFFS' ASSOCIATION

Name of Dealership	Type of Vehicle	Zone	Base Unit Price
<u>G-S - SB8232S (Specification #09)</u>			
GSP Marketing	2016 G-S SB8232S -32 Cubic Yard	★Appalachia	\$121,295.22
GSP Marketing	2016 G-S SB8232S -32 Cubic Yard	★Dogwood	\$121,295.22
GSP Marketing	2016 G-S SB8232S -32 Cubic Yard	★Cardinal	\$121,295.22
GSP Marketing	2016 G-S SB8232S -32 Cubic Yard	★Longleaf Pine	\$121,295.22



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G-S - SB8232S SPECIFICATION #9

2016 G-S SB8232S -32 Cubic Yard

32 Cubic Yard Side Loader Single-Side Loading. Dual Purpose, 60-40 Split, Semi-Automated, Full Eject - This specification describes a split-body truck mounted, hydraulic refuse packer. This machine must be equipped with loading mechanism on the curb side of the material receiving hopper near the front of the body. This loading system must be configured so that two materials can be mechanically loaded into the compaction chamber simultaneously and kept separate for compaction inside the body. Body must be designed so that optimum load distribution can be achieved when installed on a 54,000 G.V.W. truck cab and chassis. Body installation shall not require modification to a standard truck chassis forward of the rear suspension. (NO DROP FRAME)

ALL ITEMS FACTORY INSTALLED UNLESS OTHERWISE INDICATED

INSTRUCTIONS: Listed above, you will find the model numbers of the vehicles that will be included in this year's contract.

1. BODY CAPACITY

- a. The body shall have a usable capacity of thirty two (32) cubic yards including the tailgate. Body to be split vertically with a fixed divider and result in the street-side chamber having 40% of body capacity and the curb-side chamber having 60% of the body capacity

2. BODY DIMENSIONS

- a. Body length - 305" - (including bustle tailgate)
- b. Overall height above chassis - 102" (bin in "down" position)
- c. Overall height above chassis - MUST NOT EXCEED - 118" - (bin in full "up" position). NO EXCEPTIONS ALLOWED
- d. Overall body width with loading bucket down - 102"

3. BODY CONSTRUCTION

- a. The body floor shall be constructed of 1/4" HARDOX 450 steel plate
- b. The body floor shall have 6" x 10.5 lbs/ft structural channel long - members
- c. Body sides shall be curved shell style, ten (10) gauge A.S.T.M 656, Grade 80 steel sheet
- d. Body roof shall be curved shell style, ten (10) gauge A.S.T.M 656, Grade 80 steel sheet
- e. All external welds shall be continuous

4. TAILGATE CAPACITY

- a. Street-side tailgate shall have a usable capacity of 3.20 cubic yards minimum. Curbside tailgate shall have a usable capacity of 4.80 cubic yards minimum

5. TAILGATE CONSTRUCTION

- a. Body tailgate shall be bustle type, top hinged, with heavy-duty hinges and tapered-pin plunger style locks. Pivots and lock pins must have grease fittings
- b. Tailgate shall be equipped with a flow control device to assure smooth, even operation
- c. Tailgate to be constructed from 12 gauge steel sheet and framed with formed steel channel

d. Gate shall have a seal across the bottom and at least 12" up each side to control liquid leakage

6. TAILGATE OPERATION

- a. Each tailgate shall be raised and lowered with one 2 1/2" bore x 28" stroke double acting hydraulic cylinder
- b. All tailgate controls shall be located inside the truck cab within easy reach of the operator's position. I.E. tailgate operation shall not require exit of the cab by the driver. Controls shall be electric/air/hydraulic and spring returned to the "neutral" position
- c. Tailgates to lock and release hydraulically through the use of positive acting, tapered rod, plunger style locks
- d. Tailgate ajar and lock status warning light and alarm to be installed in the truck cab
- e. Safety prop for tailgate to be included
- f. All exterior welds to be continuous

7. PACKER HOPPER FUNCTION

- a. The receiving hopper shall have 6.0 cubic yards capacity minimum
- b. Hopper shall act as receiving chamber for materials dumped by the loading bin
- c. Hopper shall be configured so that both materials being loaded can be kept separate and routed into their respective compaction chambers. TO ASSURE MORE EFFICIENT LOADING, HOPPER MUST BE SPLIT 50/50
- d. Forward hopper chamber must be equipped with a hydraulically controlled flipper panel to assist with movement of material toward the street-side compaction chamber as needed. Also, this chamber must have a retractable wind screen for use during transport
- e. Rear hopper chamber must be equipped with a hydraulically operated crusher panel/hopper cover. Control for this panel to be located adjacent to the loading bucket control

8. PACKER HOPPER CONSTRUCTION

- a. Hopper floor to be constructed of 1/2" HARDOX 450 steel plate
- b. Hopper side walls to be 1/4" HARDOX 450 steel plate

9. COMPACTOR FUNCTION

- a. Compactor is to move the material dumped by the container loader from the receiving hopper into the body chamber. Also, compactor is to compress the loaded material to such an extent that the vehicle is loaded to its' recommended capacity

10. COMPACTOR OPERATION

- a. Compactor to be powered by one (1), 6" bore x 84" stroke, single section, dual acting hydraulic cylinder
- b. Packer cycle shall be 32 seconds @1200 R.P.M.
- c. When fully extended, compactor must penetrate the body by 18" minimum. This aids compaction of the material and reduces fallback into the loading hopper
- d. Compactor shall displace 2.6 cubic yards/cycle minimum
- e. Compactor shall have "on-demand" style controls with both "AUTOMATIC PACK" and "MANUAL PACK" selector console mounted in the truck cab and convenient from both sides of cab
- f. Compactor stroke shall be automatically grade switches sensitive to both position and pressure
- g. Unit to be equipped with a "near-loaded" warning alarm to alert operator that body is approaching its' maximum capacity

11. COMPACTOR CONSTRUCTION

- a. Compactor to be guided by a floor mounted "T" track beam
- b. Both the "T" track beam and compactor guide shoes must be made of HARDOX 450 steel plate
- c. The compactor shall be constructed of engineered steel sections and fully tested using state-of-the-art Finite Stress Analysis technology

12. LOADING DEVICE FUNCTION

- a. The loading device must provide top loading of materials into the receiving hopper
- b. The loading height of the bin shall be approximately 40" (may vary with tire and frame options)
- c. Each lifting mechanism must be operated by one (1), 4" bore x 16" stroke, hydraulic cylinder with 1 1/2" fluid cushions in both the rod and base ends
- d. Lift cycle shall be approximately 10 seconds at engine idle
- e. When in the full dump position, the bin dump angle must be 52 degrees minimum, measured from a horizontal line parallel to the ground
- f. The loading bin must tilt 5 degrees during the lift cycle to control spillage

- g. Materials loaded into both the front and rear section of the loading bin and/or 32-100 gallon roll carts attached to the cart attachments must be EMPTIED SIMULTANEOUSLY WITH A SINGLE LOADING MECHANISM CYCLE
- h. The loading bin must have "CHIP-GUARD" coating on the inside surface for easy clean-out during the dump cycle
- i. The body to bin gap, (space between the loading bin and body sides) must not exceed two (2) inches during the dump cycle. This prevents overhead spillage and reduces the need for clean-up
- j. Bins shall be track guided by roller bearing type steel rollers and stabilized by two lift arms, one at each end
- k. Loading bin lifting mechanism operation must be smooth and non-binding, regardless of uneven bin loading
- l. Loading bin lifting capacity must be 2500 LBS minimum with a 2 to 1 design safety factor
- m. Loading bin volume shall be one and one half (1 1/2) cubic yard each
- n. Top opening of loading bin shall measure 72" x 22" minimum. Smaller openings are not acceptable
- o. Outside wall of loading bin must fold outboard to effective opening of 33" to allow loading of oversized items such as large bags or boxes. Folding panels for the front and rear sections must operate independently of each other and must lock in both the open and closed position with spring-loaded lock pins

13. LOADING DEVICE CONSTRUCTION

- a. Loading bin lifting arms must be constructed of solid, high tensile steel plate, minimum allowable section modulus for loading bin lift arms shall be 3.0 cubic inches. Tubular load lifting components are not acceptable
- b. All loading bin lift arm connecting pins shall be 1.25" minimum diameter with spring steel bushings and grease fittings
- c. Loading bin shall be constructed of 12 gauge COR-TEN steel sheet supported by a tubular steel frame. Ends of bins shall be 10 gauge COR-TEN steel sheet

14. LOADING DEVICE CONTROLS

- a. Controls for the loading mechanism shall be located both immediately behind the chassis cab and immediately behind the loading bucket convenient for operator access
- b. The lift control valve shall be a three (3) position air directional valve

15. BODY UNLOADING FUNCTION

- a. Body payload to be offloaded by hydraulically powered horizontal ejection. DUE TO SAFETY CONCERNS WITH UNBALANCED LOADS, NO GRAVITY UNLOAD BODIES WILL BE CONSIDERED
- b. Each ejector panel to be operated by one (1), 4" bore x 56" stroke single section hydraulic cylinder and one (1), 3" bore x 80" stroke single section hydraulic cylinder. MULTI-STAGED TELESCOPIC CYLINDERS WILL NOT BE ACCEPTED
- c. Ejectors shall operate using a track guided inner/outer slide system that allows the panel to move the full length of the body while discharging the load. This system must be suspended below the body roof and be equipped with a hydraulically sequenced closure panel to assist in sweeping the body of material
- d. Ejector operation shall be sequenced so that panel will "extend" only when packer panel is in full "extend" position and tailgate is fully "up"
- e. Controls to be mounted convenient to operator's in-cab driving location

16. BODY UNLOADING CONSTRUCTION

- a. Ejector panel to have a structural steel tubular frame
- b. Panel guide tracks to be formed 3/16" steel plate
- c. Panel guide/cylinder enclosure tube shall be 5" x 7" x 3/16" structural steel tube equipped with HARDOX 450 steel wear strips

17. HYDRAULICS PUMP

- a. All body and lift functions shall be powered by tandem-section gear type pump (25 G.P.M. @ 800 R.P.M.). This pump shall be powered by a transmission mounted Chelsea Model 890 power take off. Each pump section shall automatically unload to tank when factor flow settings are exceeded. This feature prevents inadvertent or accidental over-speed of the system

18. HYDRAULICS CONTROL VALVE

- a. The body main valve must be a Parker Hydraulics Model VA-35 with main system pressure set @2600 P.S.I. This valve must have one (1) control section to act as directional control for the packer. This valve must be electric/air/hydraulic controlled by automotive style relays. NO COMPUTERS OR PLC'S.
- b. The valve assembly that controls all other loading and body unloading functions shall be Parker Hydraulics Model VA-20 with relief set @ 2500 P.S.I. Valve spool control must be pneumatic. Body operating functions must operate with NO COMPUTERS OR PLC'S.

19. HYDRAULIC RESERVOIR

- a. The body shall be equipped with a hydraulic reservoir with a minimum capacity of (50) gallons. This reservoir shall be equipped with a fill cap, breather, fluid level indicator and temperature gauge

20. HYDRAULICS FILTRATION AND SERVICE (SYSTEM CLEANLINESS AND PROTECTION AGAINST CONTAMINATION SHALL BE ACCOMPLISHED THROUGH THE USE OF THE FOLLOWING DEVICES)

- a. All oil shall be routed through a 10 micron return line filter. This filter shall be installed in the top of the hydraulic reservoir and properly sized so that 100% of the flow is filtered under normal operating conditions without bypass. Filter must be located so that all periodic service can be performed from ground level. Filter service must be possible without loss of fluid. Service indicator must be supplied.
- b. In-Line Shutoff - For ease of service the suction line shall be equipped with a shutoff valve plumbed adjacent to the reservoir
- c. Suction Strainer - A 100 mesh oil strainer must be installed in the hydraulic system suction line. This strainer must be serviceable without draining the system reservoir

21. HYDRAULICS PLUMBING

- a. All body and lift plumbing not requiring flexibility to complete its function must be constructed of seamless steel hydraulic tubing correctly sized for each operation. Plumbing requiring hoses shall be routed in such a way as to prevent rubbing, chafing and undue bending

22. IN-CAB CONTROLS (THE FOLLOWING CONTROLS MUST BE MOUNTED INSIDE THE TRUCK CAB FOR SAFE AND CONVENIENT OPERATION)

- a. Hydraulic system on/off switch
- b. Body tailgate controls
- c. Body ejector controls
- d. Work light and strobe light switches
- e. Hopper cover control
- f. Packer override/reverse switch

23. LIGHTS

- a. Standard lights shall be supplied in accordance with FMVSS#108
- b. All body lights must be TRUCKLITE Model "Super 44" L.E.D. with series 50 wiring harness
- c. Curb-side loading location must have work lights
- d. Peterson Smart-Lite strobe/turn system, four (4) rear, two (2) front
- e. Mid-body turn signals

24. ACCESSORIES

- a. Federal under-ride bumper shall be installed
- b. Tailgate safety prop shall be provided
- c. Body "up" and tailgate "unlock" alarm shall be provided
- d. Back up alarm shall be provided
- e. Both body and hopper shall have access doors on each side for cleaning behind the packer and ejector panels. Doors must be sealed when closed
- f. Triple camera system by ZONE DEFENSE (Hopper, Back-up, Left side)
- g. Detached aluminum service ladder
- h. Broom and shovel holder

25. PAINTING PROCEDURES

- a. The body and lift shall be free of all weld slag, dirt and grease and be prepared prior to painting in accordance with the paint manufacturers specifications
- b. Body and loading mechanism shall receive at least one coat of primer and one finish coat of polyurethane enamel. Primer shall be approved for use with the finish coat material

26. WARRANTY

- a. A minimum two-year warranty against manufacturing defects shall be provided by the manufacturer



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2016 G-S SB8232S -32 Cubic Yard

The G-S SB8232S -32 Cubic Yard purchased through this contract comes with all the standard equipment as specified by the manufacturer for this model and NCSA's base vehicle specification(s) requirements which are included and made a part of this contract's vehicle base price as awarded by specification by zone.

ZONE:	★Appalachia	★Dogwood	★Cardinal	★Longleaf Pine
BASE PRICE:	\$121,295.22	\$121,295.22	\$121,295.22	\$121,295.22

While the North Carolina Sheriffs' Association has attempted to identify and include those equipment items most often requested by participating agencies for full size vehicles, we realize equipment needs and preferences are going to vary from agency to agency. In an effort to incorporate flexibility into our program, we have created specific add/delete options which allow the purchaser to tailor the vehicle to their particular wants or needs.

The following equipment delete and add options and their related cost are provided here to assist you in approximating the total cost of the type vehicle(s) you wish to order through this program. Simply deduct the cost of any of the following equipment items you wish deleted from the base unit cost and/or add the cost of any equipment items you wish added to the base unit cost to determine the approximate cost of the type vehicle(s) you wish to order.

NOTE: An official listing of all add/delete options and their prices should be obtained from the appropriate dealer in your zone when preparing your order. Additional add/delete options other than those listed here may be available through the dealers, however, those listed here must be honored by the dealers in your zone at the stated prices.

VEHICLE:	SB8232S -32 Cubic Yard			
DEALER:	GSP Marketing	GSP Marketing	GSP Marketing	GSP Marketing
ZONE:	★Appalachia	★Dogwood	★Cardinal	★Longleaf Pine
BASE PRICE:	\$121,295.22	\$121,295.22	\$121,295.22	\$121,295.22

Order Code	Add Options	All Zones
Cart tipper ¹	Dumping attachment for 30-100 gallon containers. Semi-automated container attachments must be equipped with positive lock, automatic container latches. These latches must be linkage actuated by the lower bin lift arm and must require no action by the operator other than bin control lever operation. In order to prevent possible container damage, the container latches must automatically engage the container lower bar after the container is well clear of the ground or curb on the bin "up" cycle and automatically release well before the container reaches the ground or curb on the bin "down" cycle. Attachment of semi-automated carts to the container attachment shall not require tipping of the container or opening of the container lid for proper engagement <i>Sold individually</i> ¹	\$653.54 ¹