Specifications for an Industrial Vacuum Loader

	SPECIFICATIONS	COMPLY YES	COMPLY NO
DEBRIS BODY			
1.	Unit shall have a minimum of 15 cubic yard capacity and manufactured of a minimum 3/16" thick Corten steel.		
2.	Debris body will be cylindrical for ease of dumping.		
3.	Debris body will be dumped utilizing a single 3-stage hydraulic lift cylinder, mounted to the sub-frame above the chassis frame rails and will be connected to the tank head, offering maximum stability throughout the dumping cycle.		
4.	The debris body lifting cylinder will by hydraulically powered in both up and down directions and have a safety check valve in the hydraulic return line to prevent the sudden lowering of the body due to a hydraulic failure. There shall also be two safety props, one on each side of tank, that can be easily placed onto tank for operator safety.		
5.	An outlet box providing wet/dry airflow passageways will be mounted directly over the 14" diameter debris body outlet. These passageways will be a minimum of 8" in diameter each.		
6.	A single sealing surface on this outlet box will rest against an adjustable inlet box when in the full down position.		
7.	A 8" clean-out/inspection door will be provided at the top of the outlet box for ease of cleaning and inspection.		
8.	An external liquid level indicator will be provided as standard.		
9.	Individual rubber isolated cradles will be mounted on each side of the debris body where it rests on the frame.		
10.	The dump angle of repose will be a minimum of 50? .		
REAR DOOR			
11.	Rear door will be constructed of a minimum 3/16" thick Corten steel.		
12.	It shall open to a full 90° to the sealing flange, allowing a completely unobstructed dump path.		
13.	All hydraulic locking/unlocking and open/close functions will be from the operators control panel.		
14.	A positive locking/sealing mechanism will be provided.		
15.	Method of locking must be shimmable to allow for gasket wear.		
WET AND DRY SINGLE MODE			
16.	Two round baghouses will be provided and be a minimum of 3/16" thick steel.		
17.	The unitized design of these baghouses will allow for easy removal for repairs or replacement.		

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18.	Thirty pleated cartridge type filters are provided as standard equipment.		
19.	The baghouses will be accessible from the topside of the unit and have individual lids for opening to expose the filters, plates, and reverse pulse/air cannon air tubes.		
20.	All baghouses will have a conical shaped material collection area. Each will have an 8" flange w/ a 8" easy opening butterfly valve.		
21.	The baghouse inlets will be located as to provide a material capacity of .75 cu. yd. Or 145 gallons in each baghouse.		
FINAL STRAINER			
22.	Made of all 3/16" steel.		
23.	Flanged mounted with rubber gaskets at blower connection, and rubber isolators at frame mounting.		
24.	An 18" blower inlet access door will be provided for ease of blower inspection and maintenance.		
25.	Vacuum relief valving is mounted into the final strainer, as standard on *all* models. A selector valve providing a choice of 16" Hg. or 27" Hg. will be standard on *all* 27" units.		
26.	The final strainer filtration system is to consist of a single bag as standard, and will provide 99% filtration of particles less than 10 micron.		
27.	A lid will be provided for ease of cleaning/removal of final filter.		
TOP SIDE ACCESS			
28.	Access to baghouses, air passageways and final strainers will be provided.		
29.	Catwalks are provided so the operator has a level working surface.		
POSITIVE DISPLACEMENT BLOWER			
30.	Will be a Dresser Roots Model 10x21. The blower will be rated at 5,000 C.F.M.'s, or equal.		
31.	All blower legs and flanges will be rubber isolated mounted. No metal to metal mounting surfaces will be acceptable, including flanged connections or chassis frame mounts.		
BLOWER DRIVE			
32.	The blower will be driven by the truck engine via a COTTA transfer case and PTO. This same transfer case will be utilized to drive the hydraulic pump. No hot shift PTO's will be acceptable.		
33.	The blower drive system will be engaged from the truck cab via air shifters mounted within easy reach of the operator.		

SPECIFICATIONS	COMPLY YES	COMPLY NO
OPERATOR'S CONTROL PANEL		
34. Will be mounted within easy reach from ground level and contain the following gauges/controls: ➢ Vacuum gauge ➢ Air pressure gauge ➢ Transfer case temperature gauge ➢ Digital tachometer ➢ Hour meter ➢ Reverse pulse timer ➢ Circuit breakers ➢ All necessary warning & operation lights and indicators		
35. This panel will be rubber isolated mounted, moisture and dust resistant.		
36. A plexi-glass panel will be required for viewing all gauges/lights while door is closed.		
HYDRAULICS		
37. All hydraulic functions will be accomplished from a single location unless otherwise required for a selected option.		
38. Hydraulic system will provide all capacities required for sufficient oil cooling and for any options which may be purchased at a later date.		
ELECTRICAL		
39. All electrical circuits will be color coded and numbered for ease of maintenance.		
40. All circuits will be protected by appropriate re-settable circuit breakers, not fuses.		
41. Proper wiring schematics will be included in owners manual.		
42. The vacuum manufacturers electrical circuitry is required to supply a circuit breaker system, independent of the chassis circuit breaker system.		
VACUUM BREAKER		
43. The vacuum breaker will be operated via a toggle switch in the control panel. This will be utilized to completely break vacuum for operator safety.		
44. Due to the variety of applications the unit can be used in, the vacuum breaker must be able to be operated at max. RPM.		
45. Radio control vacuum breaker will operate the vacuum breaker and throttle control up to 300 ft. away from the truck w/ a hand held control box. Engine RPM will also be controlled with the radio control box.		
TOOL BOX		
46. Two toolboxes will be mounted on each side of the unit for storage of reducers, clamps, etc.		

SPECIFICATIONS	COMPLY YES	COMPLY NO
HYDRAULIC VIBRATOR		
47. Hydraulic vibrator will be mounted at the debris tank head, and controlled with a hydraulic lever. This will be used to aid in cleaning solids from the debris body while dumping.		
AUTOMATIC MATERIAL RETURN SYSTEM		
48. 6" kanaflex hose shall run from the bottom of each baghouse to the upper, rear of the debris tank.		
49. There shall be a 4" gate valve located on the bottom of each baghouse that opens and closes allowing air flow from the baghouse to the debris body, cleaning out the baghouse.		
50. Before the debris body, there will be a 6" butterfly valve allowing air flow into the tank. Opening the valve on the bottom of the baghouse and the 6" butterfly valve will clean out each baghouse. This allows the operator to clean the baghouses while maintaining vacuum and without moving the truck or driving to the dump site.		
HYDRAULIC BOOM		
51. The hydraulic boom will rotate 180 degrees, controlled by a hydraulic lever. The lever shall be located on the drivers side, rear of unit. Due to maintenance considerations and desired smooth rotation, the boom shall rotate by means of a hydraulically operated worm gear (no exceptions).		
MISCELLANEOUS		
52. Grounding cable with screw clamp and 25' of cable.		
53. Electronic back up alarm		
54. 6" Knife valve with camlock		

CHASSIS SPECIFICATIONS

EXCEPTIONS AND DEVIATIONS:

Bidder shall fully describe every variance, exception, and/or deviation. Additional sheets may be used if required.