

SPECIFICATIONS	Comply	
	Yes	No
1. The machine will be used for removing stones, bottles, cans, grease, sludge, and other debris from sanitary sewer and/or storm drain lines by the flushing action of high-pressure water. The machine will be equipped with a self contained, non-corrosive, non-metallic water tank supply as the water source for the high-pressure pump. The machine shall be capable of being operated by one man, with all operating controls for high-pressure water, hose reel, located at the front of the machine for operator safety.	_____	_____
WATER SUPPLY		
2. The water tank shall have a minimum usable capacity of U.S. 1600 gallons.	_____	_____
3. The water tanks shall be constructed of non-corrosive, non-metallic, durable, cross-linked polyethylene to eliminate rust, corrosion, and stress cracking.	_____	_____
4. The water tank shall be mounted at the truck frame level to provide a low center of gravity for truck stability.	_____	_____
5. A 2-1/2" diameter x 25' long hydrant hose with hydrant wrench shall be supplied on the unit.	_____	_____
6. An anti-syphon fill device shall be installed on the unit.	_____	_____
7. Quick removal hatches shall be provided on all water tanks for access for flush out, to fill tank, or to add chemicals to the water tank.	_____	_____
8. A sight gauge to indicate water level shall be located within sight of the operator station.	_____	_____
9. The water tank shall have a five-year <i>replacement warranty</i> .	_____	_____
HIGH-PRESSURE WATER PUMP		
10. The high-pressure water pump shall be rated to deliver smooth continuous pressure and flow through the entire flow range of the pump.	_____	_____
11. Does high-pressure system have smooth continuous flow for both high-pressure system and handgun system?	_____	_____
12. A continuous duty flow of 30 g.p.m. and 3000 psi shall be provided.	_____	_____
13. High-pressure relief valves shall be provided for both the high-pressure system and handgun system.	_____	_____
14. The water pump shall be powered by the chassis engine via hydrostatic drive.	_____	_____
15. The water pump shall be capable of running dry.	_____	_____
16. Controls for starting and stopping the water pump, and to vary the flow and pressure shall be at the front hose reel operators station.	_____	_____
17. The high-pressure water pump will be equipped with cold weather drain valves. The valves will allow operator to completely drain the high-pressure pump.	_____	_____

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HYDROSTATIC DRIVE		
18. The water pump drive shall be a closed loop hydrostatic system using a variable piston pump and motor.	_____	_____
19. This system shall include a heat exchanger for extreme ambient conditions and to maintain the pump suction oil temp at 160° F. max. The heat exchanger shall be protected by a 30 micron filter and cold weather bypass valve. Hydrostatic loop filtration shall be accomplished by a 10 Betamicron return filter and a 10 micron Absolute (no bypass) charge filter.	_____	_____
20. A means of starting, stopping, and varying the flow from operator station at the front of the machine must be provided.	_____	_____
HOSE REEL ASSEMBLY		
21. The hose reel assembly shall be on the front of the vehicle.	_____	_____
22. The hose reel shall have a minimum of 30" inside diameter with a <i>capacity</i> of 800' x 3/4" hose.	_____	_____
23. The hose reel will be hydraulically powered in both directions by means of a double chain and sprocket drive. The controls for operating the motor shall have a flow control device to regulate the rotational speed of the reel in both directions. All hydraulic hoses shall be behind a steel housing to protect operator from hydraulic oil if a hose fails.	_____	_____
24. The hydraulic motor, chain, and sprockets will have a protective cover or be mounted on the radiator side of the hose reel for operator safety.	_____	_____
25. The hose reel will <i>articulate</i> 180° allowing operator to work in any position through this arc. This allows greater flexibility in truck placement for manholes located in tough areas and provides greater safety to the operator.	_____	_____
26. Reel will extend beyond the width of unit for greater flexibility for positioning reel over offset manholes, catch basins, etc.	_____	_____
27. Does reel extend beyond the trucks width for greater flexibility in cleaning?	_____	_____
28. A hydraulically controlled outrigger leg shall be supplied that comes in contact with the ground at any one position.	_____	_____
29. A warning light is located in the cab to warn the operator that the outrigger leg is not in its transported position prior to moving the unit	_____	_____
30. A manual bypass system for the hose reel assembly shall be provided to manually pull the reel assembly away from its transported position. This feature allows operator to check fluids without starting engines.	_____	_____
MANHOLE CLEANING WATER SYSTEM (HANDGUN)		
31. The high-pressure pump and independent water tank assembly supplied shall be used for manhole cleaning.	_____	_____
32. A smooth continuous flow of 20 g.p.m. and pressure of 600 p.s.i. shall be provided for ease of operation.	_____	_____
33. A handgun pressure relief valve set at 600 psi shall be provided.	_____	_____

SPECIFICATIONS	Comply	
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34. One full functioning handgun with on/off hand control, replaceable nozzle tip, 12" extension, adjustable spray and 50' x ½" handgun hose with quick disconnects with retractable reel will be provided.	_____	_____
35. The handgun will attach to the system via a quick couple connection at the curbside of the unit. To avoid being coiled at the operator's station a handgun holder will be provided at the front bumper.	_____	_____
JET HOSE		
36. 500' X 3/4" high-pressure jet hose, rated for 3000 p.s.i. working pressure and 7500 p.s.i. burst pressure will be provided on the unit.	_____	_____
37. A heavy-duty hose guide with 25' of nylon rope will be provided.	_____	_____
38. Nozzles will be provided as follows: <ul style="list-style-type: none"> a. 1-Chisel head penetrating nozzle b. 1-30° sanitary nozzle 	_____	_____
HYDRAULIC SYSTEM AND LUBRICATION		
39. The hydraulic system shall have a 45gallon capacity.	_____	_____
40. The hydraulic system shall incorporate a main shut off valve in case of hydraulic failure.	_____	_____
41. The hydraulic system shall incorporate hydraulic pressure relief valves and pressure gauges for ease of trouble shooting and maintenance.	_____	_____
42. The unit shall be equipped on the passenger side mid-section of the module a permanent weatherproof white vinyl lubrication chart.	_____	_____
43. The chart will point out lubrication points on the module and specify what type of lubrication and hydraulic fluids are required. The chart will also specify the frequency of each lubrication point.	_____	_____
44. Remote plumbed grease fittings shall be provided for the vacuum compressor, boom rotation, and water pump drive areas.	_____	_____
ACCESSORIES		
45. A minimum twelve (12) month manufacturers guarantee on the unit will be provided.	_____	_____
46. Tool box 16" x 13" x 72"	_____	_____
47. Hose footage counter	_____	_____
48. Electronic back up alarm	_____	_____
49. Winter recirculating system shall be capable of operating throughout the <i>full flow</i> range of the high-pressure pump system in transport or stopped position.	_____	_____
50. Bidder to state flow capacities of winter recirculating system: Flow capacities:_____	_____	_____
51. Air purge system	_____	_____
52. Variable flow valve	_____	_____
53. Rear mounted tow hooks	_____	_____
54. 5 lb fire extinguisher	_____	_____
55. Triangle kit	_____	_____

SPECIFICATIONS	Comply	
	Yes	No
PAINT		
56. Chassis to be painted white.	_____	_____
57. Unit paint surface shall be shot blasted, primed and sanded prior to paint.	_____	_____
58. Unit shall be painted _____ with DuPont Imron 5000 polyurethane paint.	_____	_____
LIGHTING		
59. The entire module electrical system shall be vapor sealed to eliminate moisture damage.	_____	_____
60. All wiring shall be color-coded, labeled and run in sealed terminal enclosures.	_____	_____
61. All module circuits shall be protected by circuit breakers.	_____	_____
62. Clearance lights and reflectors shall be furnished in accordance with D.O.T. requirements.	_____	_____
63. Front and rear mounted strobe lights	_____	_____
64. Arrowboard	_____	_____
65. Hand held spot light	_____	_____
AWARDING OF BID		
66. The owner will award the bid on the basis of price, quality of equipment with this set of specifications and the delivery. The owner reserves the right to reject any or all bids and to waive all informalities.	_____	_____
OPERATOR TRAINING		
67. Operator training is to be conducted by a factory trained representative for a minimum of one day at the time of delivery.	_____	_____
68. One copy of the operating and maintenance manual for the sewer cleaner module shall be provided upon unit delivery.	_____	_____
69. An operational video will be provided with the unit.	_____	_____
MOUNTING AND DELIVERY		
70. The unit described shall be mounted on the truck chassis at the factory of the body manufacturer.	_____	_____
71. Transportation charges shall be included in proposal pricing.	_____	_____
72. Bidder shall state delivery time after receipt of order: _____ days	_____	_____
ATTENTION TO BIDDERS		
73. It will be the bidder's responsibility to carefully examine each item of the specification. Failure to respond to each section of the technical specification comply: yes/no section will cause the proposal to be rejected without review as "non-responsive". All variances, no responses, exceptions, and/or deviations will be fully described in the appropriate section provided.	_____	_____

INSERT CHASSIS SPECS HERE

