

SECTION 2.1: MINIMUM SPECIFICATIONS

SUPPLY AND DELIVERY OF ONE (1) NEW SEWAGE VACUUM TANK TRUCK

STANDARD TECHNICAL SPECIFICATION
SEWAGE VACUUM TANK TRUCK

The Sewage Vacuum Tank Truck shall comply with the requirements of the Standard Technical Specification, as detailed in the tables below.

It must be noted that Schedule A of the table lays down the detailed requirements of this Specification while Schedule B must be completed by the Tenderer providing guarantees and technical particulars of the equipment and materials offered. Failure by the Tenderer to complete Schedule B could invalidate the tender.

SCHEDULE A	SCHEDULE B	
	Comply YES / NO	Page to Reference
1. CHASSIS		
1.1) A heavy duty, two axle, diesel powered truck with a 6000L (minimum) vacuum tank is required.		
1.2) The chassis must be of robust construction.		
2. ENGINE		
2.1) A 6-cylinder diesel powered engine.		
2.2) Displacement not less than 7600 cubic centimetres.		
2.3) A net power output, not less than 175 kW.		
2.4) Torque at sea level not less than 700 Nm.		
2.5) Aspiration and Injector pump must be Turbocharged Intercooled Common Rail.		
2.6) The air cleaner must be of South African manufacture unless customising enders' fittings of the South African unit impractical. The air cleaner shall use replaceable elements of South African manufacture		
3. TRANSMISSION CLUTCH		
3.1) Manual 6 forward speed transmission Type – Synchro Shift - Manual No. of gears forward – 6		
3.2) Clutch Type – Dry Single Plate Diameter mm – 380mm (minimum) Operation – Hydraulically Operated.		

4. POWER TAKE OFF (PTO)			
4.1) A heavy duty, single speed Power Take off (close coupling) shall be provided and shall be compatible with that of chassis-cab transmission. The PTO shall be activated by an Electrical Signal (Hot Shift). A fail-safe system (inter linked to the handbrake) shall be fitted to prevent the vehicle being driven with the PTO engaged. Safety system to prevent gear selection when PTO is engaged must also be fitted.			
4.2) The P.T.O must run quietly. Gearing shall be selected for minimum engine RPM compatible with recommended pump RMP for correct operating and rates of flow for the vacuum pump.			
4.3) A dashboard mounted warning light to indicate to the driver when the PTO is the engage position. Power take off controls shall conveniently be mounted in the cab.			
5. BRAKES			
System type	Full Air or Air Over Hydraulic		
Front	Drum Brake		
Rear	Drum Brake		
Electronic brake system	ABS		
Park/Emergency system	Yes		
Exhaust brake	Yes		
6. STEERING			
6.1) Power assisted steering is required with Tilt and Telescopic functions.			
7. WHEELS AND TYRES			
7.1) The tyres must be radial steel belts of South African manufacture.			
7.2) All tyres must be of the same ply rating and not smaller than 265/70 R19.5			
7.3) Tyre loads, as well as tyre to rim matching, must comply with the current SABS 1550, 1992 specification.			
7.4) A full size spare wheel is required.			
8. AXLE CONFIRURATION SUSPENSION DIMENSION			
Reduction	Single Reduction Single		
Front	Multi-Leaf Spring or Parabolic Springs		
Rear	Multi-Leaf Spring		
Shock Absorbers	Standard		
Stabilisers	Front		
9. MASS DISTRIBUTION			
9.1) Tenderer must submit a detailed mass distribution drawing, showing all leading dimensions, tare mass, axle loadings and payload capacities.			

10. ELECTRICAL SYSTEMS			
10.1) The vehicle is to be equipped with a Reversing warning beeper.			
10.2) An electric, tamper and smash proof hour meter must be installed to operate when engine is running.			
10.3) All electrical wiring connectors to be automotive double seal with wiring in split convoluted loom.			
10.4) Clearance, back-up and directional lights shall be Lexan lens, shock mounted in a protective housing. The whole unit shall be pop out and replaceable. Not with-standing, the vehicle shall be equipped with all lights in accordance, with the latest compulsory vehicle standards.			
11. CAB			
No. of seats	3 (Includes Centre Seat)		
Seat Belts	Standard – ELR with Reminder (Lap belt with centre seat)		
Seats	Full adjustable, with Fire Retardant Material		
Tilt cab	Yes		
12. GENERAL			
12.1) The colour of the vehicle must be white and painted with Sigma primer with epoxy undercoat and two coats of 2k white.			
12.2) The vehicle must have a substantial bumper and towing eye in front.			
12.3) Lockable fuel cap and battery box(es) are required.			
12.4) Essential operator’s tools including a 15-ton (metric) hydraulic jack must be provided. Triangles, wheel spanner as well as essential tools to perform operator’s maintenance is required.			
12.5) Operators and service parts manuals must be provided for the trucks.			
12.6) The complete vehicle must be fully guaranteed for at least 12 months or 20 000km for at least three years against anybody rust or paint defects, fair wear and tear excluded.			
12.7) Tenderers must please specify despatch period after placing of order clearly in terms of lead time, rate of despatch and lead completion of contract.			
12.8) State whether any free services are included in the tenderer price and where services will be carried out.			
12.9) Training to be provided within 2 weeks of delivery of the vehicle.			
12.10) Vehicle to be fitted with front, under engine protection guard (6mm thick) to protect piping where necessary.			
12.11) Reflective tape 80% of the Chassis-cab and body as per Road Traffic Act. The licenced vehicle is to be delivered with a full tank of fuel to Hessequa Municipality.			
12.12) Cost of licensing, registration, number plates etc. To be included in the price of			

vehicle.		
12.13) Vehicle to comply in all respects to Road Traffic Act and ruling Traffic Regulations.		

SCHEDULE A		SCHEDULE B	
VACUUM TANK		Comply YES/NO	Page to Reference
Tank Dimensions	Capacity 6000L (minimum)		
Material	4.5mm 3CR12 Stainless Steel		
Tank Ends	4.5mm 6% Toro-Spherical dish ends		
Support	2x Internal Bolt on Baffles		
Discharge	150mm Lever Gate valve with Perrot fittings and 3CR12 Drip tray		
Inlet	100mm Lever Gate valve with Perrot fittings		
Fluid Level Gauge	3x Sight glasses		
	Tailboard and all brackets and subframe. 3CR12 Stainless Steel		
Piping	Pipes 1x150mm x 3000mm Kanna flex. 3 x ± 9.5m hoses + Reducer fitting6 – “4” (female – male)		
Mudguards	Polyurethane mudguards		
Vacuum System	Jurop PNR 82 Suction 80mm Free airflow 8200 Litre per minute Air flow @ 60% vacuum: 7600L/min Filling time ±8-12 min Positive pressure of 0.49 Bar Total time to load and off load ± 9-11 min		
Hose Trays	One each side mounted above rear mudguards. 3CR12, ± 3750mm Support frame to ran pipe around back of tank. Holes at rear of trays for drainage.		
Safety System	Primary overflow valve mounted in tank, connected to the secondary overflow mounted on the outside for easy cleaning and mounting. Vacuum breakers set at -80 kPa Pressure breaker set at + 0.45kPa Vacuum/ Pressure gauge.		

Hazards, Night lights	Revolving hazard light, situated at rear of tank with steel protection and night working LED lights with separate switches inside cab.		
Hand Wash Tank	Polyurethane water tank (30L) with liquid soap dispenser for washing hands.		
Hydraulic Tank	3CR12 tank with sight glass. Complete electronically controlled hydraulic system with pump and motor.		
Painting	Prior to painting the material is stripped down and surface preparation is according to ISO 12944;46.1 Painted with Jotun Pilot Arc Inside of tank: Cleaned		
Operation Manual	Document that describes in detail the processes and systems and maintenance procedures of the vacuum unit.		
Toolbox	Mounted behind the mudguard. One on each side. 500 x 550 x 500mm lockable.		
Warning, Hazards and Functional labels	All the necessary warnings, hazards and maintenance instructions are clearly marked on the unit including: <ol style="list-style-type: none"> 1. Daily preventative maintenance indicated 2. Lubrication points 3. Lubrication information for pump and hydraulics. 		
Regulations and Guarantees	Road Traffic Legislation: Chevron board and reflectors as per traffic legislation. S.A.B.S Registration		
Guarantee: Minimum	2 Year guarantee for 3CR12 Stainless steel tanks on workmanship and tank construction.		

SCHEDULE A	SCHEDULE B													
All bidders must comply with the following six points to be considered	Comply Yes/No	Page to Reference												
<ul style="list-style-type: none"> Is the bidder the official agent/dealer appointed by the original equipment manufacturer/factory? Official name of business: 														
<ul style="list-style-type: none"> Is the bidder able to lodge claims directly against the factory on behalf of the client in case of failures or breakages? 														
<ul style="list-style-type: none"> Does the bidder stock a sufficient number of spare parts on own branded premises? Value of spare parts in stock on own premises..... 														
<ul style="list-style-type: none"> Is the bidder able to service, repair and modify the equipment in its own branded workshop? 														
<ul style="list-style-type: none"> Does the bidder have (a) suitably equipped workshop(s) within the 200km radius of the Hessequa municipal boundary to accomplish this? 														
<ul style="list-style-type: none"> Does the bidder have qualified artisans within the 200km radius of the Hessequa municipal boundary to accomplish this? Please provide the following Information: Location within the 200km radius of the Hessequa Municipal boundary: <table border="1" style="margin-left: 40px;"> <thead> <tr> <th style="text-align: center;">Towns with an equipped and branded workshop</th> <th style="text-align: center;">Number and Street name</th> <th style="text-align: center;">Number of artisans</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	Towns with an equipped and branded workshop	Number and Street name	Number of artisans											
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