Procurement & Logistics Division
Logistics Department

Fleet Operations Section
Male Water & Sewerage Company Pvt Ltd

Basic Requirement & Recommendation Report
Acquisitions of non-current Assets

Reference Number: TRSPT/R/2026/029
Report Date: 02.11.2026

Introduction

1. Following report highlights, the basic requirement and recommendation for the acquisition of the following non-current asset.

Requirement

01 x Flushing vehicle – Regional Operation Division, Kulhudhuffushi

IPR Reference: 1000000250 / Asset code: 5000181

Vehicle Requirement

Requirement	Specification
Engine and Chassis	
Vehicle Manufacturer / Brand	Supplier's choice. The proposed vehicle shall be manufactured by an internationally recognized and reputable manufacturer with a proven record of reliability, durability, and suitability for heavy-duty municipal and sewer maintenance applications.
Vehicle Type	Purpose-built sewer flushing vehicle equipped with a high-pressure water jetting system, suitable for cleaning and maintenance of sewer pipelines and drainage networks.
Vehicle Condition	Brand-new, unused vehicle of the latest available production model.
Year of Manufacture	The vehicle shall have been manufactured after 2024.
Overall Dimensions	Maximum overall length: 5,250 mm. Maximum overall width: 1,700 mm. The dimensions shall include all permanently installed equipment and accessories.
Engine Manufacturer	Supplier's choice. The engine shall be manufactured by an internationally recognized and reputable manufacturer, with proven reliability, fuel efficiency, and availability of spare parts and technical support.
Emission Standard	Engine shall comply with Euro VI (Euro 6) emission standards or an equivalent internationally recognized emission standard, subject to approval.
Transmission	Fully automatic transmission, suitably rated for the vehicle's gross vehicle weight and intended operating conditions.
Steering System	Right-hand-drive (RHD) configuration with integral hydraulic or electrohydraulic power-assisted steering.
Tyre Configuration	Front axle: Two (2) tyres. Rear tandem axles: Six (6) tyres. Spare: One (1) complete spare wheel and tyre.
Driver's Cabin	Factory-built, forward-tilting day cabin with air-conditioning, adequate ventilation, ergonomic seating, and easy access to engine and chassis maintenance points.
Cabin Color	White, with a durable automotive-grade protective paint finish.
Fuel Tank Capacity	Minimum 200 litres, fitted with a secure, lockable fuel filler cap and appropriate fuel level indication.
Fuel Type	Diesel.
Electrical System	24 V DC electrical system, complete with suitable batteries, alternator, starter motor, circuit protection, and standard vehicle lighting and instrumentation.
Exhaust System	Manufacturer-approved exhaust system with the exhaust outlet positioned at the rear of the vehicle, away from the operator's working area, fuel system, and other sensitive equipment.
Water Tank Specification	
Tank Capacity	3,000 litres nominal capacity.
Tank Construction	Tank shall be fabricated from mild steel (MS) plates with Material a minimum thickness of 4 mm, incorporating suitable corrosion protection. The tank shall be divided into three (3) interconnected compartments with appropriate internal baffles to minimize liquid surging during vehicle movement.
Tank Shape	Oval or cylindrical configuration with rounded ends, designed to provide structural integrity, stability and efficient installation on the vehicle chassis.
Storage Compartments	Heavy-duty, weather-resistant tool storage compartments shall be provided on both sides of the tank, complete with lockable access doors, suitable hinges, and secure locking mechanisms.
Bottom Filling	One (1) bottom filling connection equipped with a SS Connection quick-connect coupling, protective end cap, and 2-inch stainless steel (SS) valve. The connection shall be positioned for safe and convenient filling operations.
Manhole	One (1) 600 mm diameter inspection manhole fitted with a hinged, lockable cover and suitable sealing gasket to facilitate inspection, cleaning, and maintenance.

Requirement	Specification
Tank Breather Valve	One (1) suitably sized pressure/vacuum breather valve installed on the manhole cover to provide adequate tank ventilation during filling, discharge, and normal operation.
Emergency Shut-Off	One (1) emergency shut-off valve installed at the tank Valve outlet, positioned for safe and immediate isolation of tank discharge in the event of an emergency.
Internal Coating	All internal tank surfaces shall be properly prepared and coated with a corrosion-resistant protective paint system.
External Coating	One (1) coat of suitable epoxy primer, followed by one (1) coat of compatible protective finish coating in white. The coating system shall be suitable for outdoor exposure and marine environmental conditions.
High Pressure Hose Reel	
Hose Reel Type	Heavy-duty, hydraulically operated, pivoting high-pressure (HP) hose reel with a 180° swivel range for flexible operation and improved accessibility.
Drive System	Hydraulic drive system with adjustable speed control for controlled hose winding and unwinding, integrated with an automatic hose-guidance mechanism.
Hose Size and Length	High-pressure hose with a nominal diameter of 1 inch and a minimum length of 100 metres, suitable for high-pressure water jetting applications.
Hose Guidance System	Automatic hose-guidance and level-winding system to ensure uniform hose distribution across the reel, preventing overlapping, tangling, and excessive hose wear.
Mechanical freewheel	Mechanical freewheel engagement/disengagement mechanism allowing the hose reel to rotate freely during hose deployment, minimizing resistance and facilitating smooth, effortless unwinding.
Radio Remote Control	Wireless radio remote control system equipped with a system dedicated battery charger and one additional rechargeable battery. The remote control shall provide the following functions: vehicle engine start/stop, high-pressure pump engagement/disengagement, engine RPM increase/decrease, and emergency stop.
High Pressure Water jetting Pump	
Power Take-Off (PTO) Unit	Heavy-duty, engine- or transmission-driven PTO system, suitably rated and configured to transmit power to the high-pressure water jetting pump through the appropriate hydraulic or mechanical drive arrangement.
High-Pressure Pump	Heavy-duty, high-pressure water jetting pump capable of Capacity delivering a minimum flow rate of 128 litres per minute (L/min) at a continuous operating pressure of 160 bar. The pump shall be suitable for continuous-duty sewer and drainage pipeline cleaning applications.
Pressure Regulation and	The pump shall be equipped with an adjustable pressure- safety system regulating valve, integrated bypass system, and suitable overpressure protection to maintain stable operating pressure and prevent damage to the pump, hoses, and associated components.
Dry-Running Protection	The pump shall incorporate an automatic dry-running protection system with low-water-level and/or low-inlet- pressure detection. The system shall automatically disengage or shut down the pump when insufficient water supply is detected. A suitable bypass arrangement shall also be provided for safe pressure regulation and water recirculation, where applicable.
Pump Drive System	The high-pressure pump shall be driven by the vehicle engine through a manufacturer-approved Power Take-Off (PTO) system, incorporating suitable power transmission components and operating controls. The PTO and drive arrangement shall be adequately rated for continuous operation at the specified pump pressure and flow rate.
Operational Noise Level	The maximum noise level during high-pressure jetting operations shall not exceed 70 dB(A), measured at a distance of 3 meters from the vehicle under normal operating conditions.
Vehicle Lighting and Warning Systems	
Beacon Warning Lights	Provide high-visibility, amber LED rotating or flashing beacon lights, suitably mounted on the vehicle to ensure maximum visibility during operation and roadside maintenance activities.
Tank-Mounted Warning Lights	Provide two (2) high-intensity LED warning lights mounted on top of the water tank to enhance vehicle visibility and operational safety, particularly during nighttime operations.
Rear Indicator Lights	Provide rear-mounted LED direction indicators, brake lights, tail lights, and hazard warning lights, compliant with applicable road traffic safety regulations.
Rear Work Lights	Provide high-intensity, weatherproof LED work lights at the rear of the vehicle to ensure adequate illumination of the hose reel, jetting equipment, and surrounding work area during nighttime operations.
Side-Mounted Downlights	Provide LED downward-facing work lights on both sides of the vehicle to illuminate the side access areas, equipment compartments, and surrounding ground surfaces during nighttime maintenance and operational activities.
Safety Signs and Warning Markings	The vehicle shall be equipped with appropriate safety signs, hazard identification labels, operational warning notices, and mandatory safety instructions.
Reflective Safety Markings	High-visibility reflective safety markings shall be installed at the rear and along the sides of the vehicle to enhance visibility during nighttime operations and in low-light conditions, in accordance with applicable road safety regulations.
Accessories, Tools, and Spare Parts	
High-Pressure Jetting	Supply a minimum of four (4) standard high-pressure Nozzles jetting nozzles with ½-inch connections, suitable for sewer and pipeline cleaning applications and compatible with the supplied high-pressure jetting system.
High-Pressure Jetting Gun	Supply one (1) heavy-duty high-pressure water jetting gun with Lance complete with lance and suitable nozzle, rated for the maximum operating pressure and flow capacity of the high-pressure pump.
Standard Chassis Tool Kit	Supply one (1) complete set of standard chassis maintenance tools, including the necessary tools for routine inspection, servicing, adjustment, and minor repairs of the vehicle.
High-Pressure Pump	Supply one (1) complete set of specialized tools Maintenance Tools required for routine maintenance, dismantling, inspection, and reassembly of the high-pressure water jetting pump.
Sealing Rings and Gaskets	Supply multiple sets of replacement sealing rings, O-rings, flange gaskets, and pipeline joint gaskets compatible with the supplied equipment and piping systems.

Requirement	Specification
Consumable and Wear	Supply an adequate quantity of essential consumable and spare parts wear components for the high-pressure pump, hose reel, valves, and associated systems to facilitate routine preventive maintenance and minimize equipment downtime.
Quick-Release Couplings	Clamps Supply suitable heavy-duty quick-connect couplings, and Hose Clamps hose connectors, and hose clamps compatible with the supplied hoses, pipelines, and operating pressure requirements.

Supplier Requirement

- Able to provide after sales service for the vehicle (a warranty period as well)
- Assistance with spare parts acquisition and to provide a replacement part list
- Spare parts catalogue and workshop manual
- Additional trainings (Operator and maintenance) and guidelines for best operational practices of the vehicle
- Provide workshop manuals i.e., part catalogue and workshop manual in either soft and hard copy * in English

Recommendation

To provide sewerage services more efficiently and effectively, additional flushing vehicle is required for Kulhudhuffushi Operations.

<<END OF REPORT>>

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Basic Requirement & Recommendation Report. Flushing vehicle, Kulhudhuffushi

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