REFUEL INTERNATIONAL

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# HYDRANT PIT CLEANING VEHICLE



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# DESCRIPTION

Refuel International Quality Control and Hydrant Pit Cleaning vehicle is built to safely flush unused hydrants and system Low Points and efficiently contain and store the resulting liquid in its 2,700 litre cargo tank or the rear 1,000L vacuum tank. A second compartment in the main tank holds 1,000L of water for pressure washing / flushing.

The frame module is an all-steel, welded structure and hot-dip galvanised. It vehicle layout has been designed to maximise operator comfort while the use of a modular assembly of key components on the module facilitates easy transfer of the module or pumping gear to another truck if required.

The unit is an aviation refuelling tank truck consisting of:

1. ISUZU 4x2 cab/chassis
2. A 4,000 litre two-compartment tank consisting of:
   - 3,000 litre SLOPS TANK (Compartment 1)
   - 1,000 litre WATER TANK (Compartment 2)
3. A 1,000 litre one-compartment VACUUM TANK
4. Equipment to take samples from the hydrant system, flush low points, clean hydrant pits and conduct hydrant pit repairs



Loading of the SLOPS TANK is linked to the overfill protection system. In an overfill situation, fuelling is positively stopped by the bottom load foot valves and the fuelling foot valves, thereby terminating all cleaning operations. A green Pre-check / test push button(s) is provided on the main Control Panel to simulate overfill.

The module, equipment and all ancillary equipment is fitted by Refuel International to provide a fully functional vehicle.

# HYDRANT SERVICE VEHICLE

## Unit's basic description and functions ... At a glance

The vehicle has low-point flushing into the main slops tank, a vacuum pumping system, a stand-alone transfer pump and high pressure water and air reels. In additional to the flushing and vacuum systems, an hydraulically operated crane is mounted at the rear right corner of the vehicle to facilitate lifting of pit valves etc.

All pneumatics are supplied by the compressor installed behind the cab and the hydraulic system pump is driven by a PTO on the vehicle transmission. Automatic depressurization of the system occurs when all interlocked fuelling components are stowed.

Safety features include Brake Interlock (vehicle immobilisation) System, Emergency Interlock Over-ride and Emergency Stop / Shutdown buttons, roll-over sensor and engine strangler. Many more safety and efficiency-improving functions are also provided.








## MAJOR FUNCTIONS

- Hydrant Low Point Flush
- Hydrant Pit Cleaning with water
- Hydrant Pit cleaning Vacuum / suction system
- Hydrant drying with air pressure
- Transfer Pumping system
- Crane (For lifting pit valves, pit covers etc.)

| FEATURE | TYPE | COMMENTS |
|---|---|---|
| Electrical | 24V, 7-pin master isolator switch located on chassis, behind cab RHS | Remote / Separate Red & green ON-OFF buttons behind cab |
| Hydraulics | Hydraulic pump driven by PTO | Provides power for Pumps, rear crane and hydraulic Hose Reel Rewinds. |
| Pneumatics | System uses vehicle air supply | * Typical System pressure: 800+kPa |
| Interlocks / vehicle Immobilisation system | Electric / Pneumatic | Prevents vehicle moving when components unstowed or operating |
| Meter | SAMPI M7 type with ERP Pulser Large 4-digit Display | Measures intake from Hydrant Low Point Flushing into main Slops Tank (Comp 1). Digital Readout Display above Control Panel with Counter Reset button on panel. |
| LOW POINT SAMPLE / FLUSH Hose-reel & Dry-Break coupling | One hydraulic rewind drum / "cottonreel" Avery Hardoll CCMZ-8153V dry-break. | Reel has hydraulic rewind with 20 metres f 1½" / 38mm (HD38) ELAFLEX hose. Interlocked stowage fitted. |
| 2,740L SFL JET SLOPS TANK | Main "slops" tank compartment (Comp 1) | Venting top hatch, over fill protection and contents gauge on LHS side. Rear section of tank is Comp 2 (WATER comp) |
| 1,000L VACUUM TANK & SUCTION System | Suction pump with strainer, pre-filter, scrubber and muffler empties into 1,000L rear tank. | Detachable Suction Spear with ball valve fitted. |
| 1,000L WATER TANK with High Pressure PUMP, REEL & NOZZLE | Spring-rewind reel with water hose & detachable trigger nozzle and airdriven pressure pump | Reel has spring-recoil rewind with 10 metres of 12mm, 240 psi rated hose. |
| AIR-DRY HOSE REEL & NOZZLE | Spring-rewind reel with air hose & detachable trigger nozzle. | Reel has spring-recoil rewind with 10 metres of 12mm, 240 psi rated hose. Air supplied by compressor. |
| TRANSFER PUMP | Hydraulically driven REGENT pump | Stand-alone pump for transferring liquids / fuel between two units / containers, fitted with inlet & outlet isolation ball valves |
| Crane | Hydraulic, Slewing type with Extendable Boom | Crane (with interlocked stowage) & controls at rear RHS, for lifting pit valves etc. Manually operated rear stabilizers. |
| COLLECTOR TANK | 90L with diaphragm pump evacuation | Collects fuel samples from Aljac, depressurisation & other sources. Evacuates via air-driven pump to main Slops Tank (Compartment 1). |
| Static Bonding Reel | Manual rewind, 30m Yellow PCV coated cable, h/d clip. | Fitted on Sample Cabinet, driver's side above rear mudguard |
| Battery Boost Socket | Anderson Plug type | On chassis behind cab, RHS by Air Reel |