

Product Compatibility List for In-Service Robotic Inspection



The below list of products have been evaluated for submerged operations of SR Inspection Robots. Square Robot is continually investigating material compatibility with new products and expanding this list. **If your tank product is not on the list please contact Square Robot for more information or to conduct a compatibility assessment.**

Product	Inspection Robot Compatibility
Aromatic 200 Fluid	✓
Base Oil	✓
Biodiesel (B99)	✓
Brine	✓
Chemguard 3% (Firefighting Foam)	✓
Corn Oil, Crude (CD)	✓
Decene	✓
Diesel	✓
Diethylene Glycol	✓
Ethanol	✓
Ethylene Glycol (aka MEG)	✓
Exxal Alcohol	✓
Fuel Oil	✓
Gas Oil (VGO)	✓
Gasoline	✓
Heptane	✓
Hexane	✓

Hexyl Carbitol (Glycol Ether)	✓
Isopar V	✓
Jayflex L911P	✓
Jet A & Jet A-1	✓
JP-5 & JP-8	✓
Kerosene	✓
Lube Oil	✓
Methanol	✓
Mineral Oil	✓
Naphtha	✓
Orthoxylene	✓
Palm Oil	✓
Paraxylene	✓
Polyethylene Glycol	✓
Soybean Oil, Crude (CD)	✓
Triethylene Glycol (TEG)	✓
Urea Ammonium Nitrate	✓
Water	✓
Xylene	✓

Square Robot Operational Specs

Specification	SR3 Inspection Robot
Operating Temperature Range	0°C to 40°C (32°F to 104°F)
Storage Temperature Range	-10°C to 60°C (14°F to 140°F)
Vehicle Maximum Operating Depth	27.4 m (90-ft) in freshwater ($P_{abs} = 370 \text{ kPa}$, $P_{gauge} = 269 \text{ kPa}$)
Minimum Fluid Product Density (ρ)	680 kg/m ³ (5.7 lbs/gal)
Minimum Product Fill Height (ρ specific)	For ρ 710 kg/m ³ : 5.4 m (17.9-ft) For ρ 1000 kg/m ³ : 4.0 m (13.2-ft)
Maximum Kinematic Viscosity (with no robot performance loss)	45 cSt >45 cSt with performance loss
Hazardous Location	Certified for C1D2 C1D1 with Side Launcher

If your tank product falls outside the above environmental specification ranges please contact us for more information and to discuss your specific tank inspection needs.

Contact our team of experts: info@squarerobots.com
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