

Robot-TINO

Firefighting Robot

FIREFIGHTING ROBOT – Robot-TINO



Description

The Robot-TINO is a remote-controlled emergency response unit designed to fight or to mitigate fires and other hazardous events. The unit is specifically designed to support firefighters during firefighting or fire mitigation operations in industrial process areas, tank farms, tunnels or anywhere congestion may create dangerous situations for the fire brigade. The unit is powered via a compact diesel engine. Robust and sized to overcome difficult conditions such as those that are often found by emergency responders. The unit is protected against heat radiation with a cooling system which allows the Robot-TINO to get closer than ever to the fire origin to suppress it with higher probability of success. The unit is mechanically protected by a shell that prevents debris and fragments from entering the engine or control system parts. The roll-bar is also framed within the chassis and can be used to lift the vehicle in complete equilibrium. The frame also features a hooking point structure to lift the vehicle, as well as front and rear hooking systems for the fastening of equipment and optional devices. The Robot-TINO comes with high-visibility LED headlights and blinkers. The vehicle is remote-controlled including the Fire Fighting Monitor or other accessories which can be installed to allow complete operation from a remote location. The Robot-TINO is available with a wide array of accessories such as monitors, dry chemicals, foam, gas detectors or Infrared camera systems. All options available can be tailored and adapted to the specific application and requirements of the Emergency Response Team.

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Technical characteristics

ROBOT:

- 4 Cylinder engine horsepower 49.4 Cv
- Cylinder capacity 2200 cm³
- Fuel Tank Capacity 29 litres
- Oil Tank Capacity 10 litres
- Operating Voltage 12 Vcc
- Alternator 65 Amp
- Starter Battery 44 Ah 730
- Internal unit pipe in carbon steel hot dip galvanised ASTM A 106 Gr. B
- Fire Water connection to be selected among:
 - UNI, BS, DSP, STORZ, GOST, NH, SMS, NOR
- Connections equipped with check valve, cap and chain
- Monitor horizontal rotation: 150°
- Elevation: +85° / +15°
- Max. working pressure: 16 bar (232 psi)

MONITOR:

- Body material in Stainless Steel AISI 316
- Joints material: stainless steel AISI 316; mounted on phosphor bronze balls with grease cups
- Inlet flange ANSI in Carbon Steel ANSI A 105
- Internal diameter of the body 100 mm (4"), 150 mm (6")
- Horizontal movement drive by reduction gear hydraulic motor, with safety torque limiter and mechanical limit switches
- Horizontal plane continuous rotation
- Vertical movement driven by reduction gear hydraulic motor with safety torque limiter and mechanical limit switches
- Movement velocity 8°/s (other factory settings available)
- Oil flow rate required for each unit 3.6 l/min.(0,95 gpm)
- EPDM gaskets
- Suitable execution for external installation in marine environment and operation with sea water and foam solutions

WATER/FOAM NOZZLE:

Body material to be selected among

- Bronze EN 1982 – CCC491K
- Stainless Steel AISI 316
- Inner parts in stainless steel AISI 316 and brass
- Brass hydraulic cylinder with AISI 316 emergency lever
- Oil flow rate required 1,6 lpm (0,95 gpm)
- Oil pressure 60 ± 10 bar (870 ± 145 psi)
- Connection SF 150
- Suitable execution for external installation in marine environment and operation with sea water and foam solutions
- Design pressure: 16 bar (232 psi)

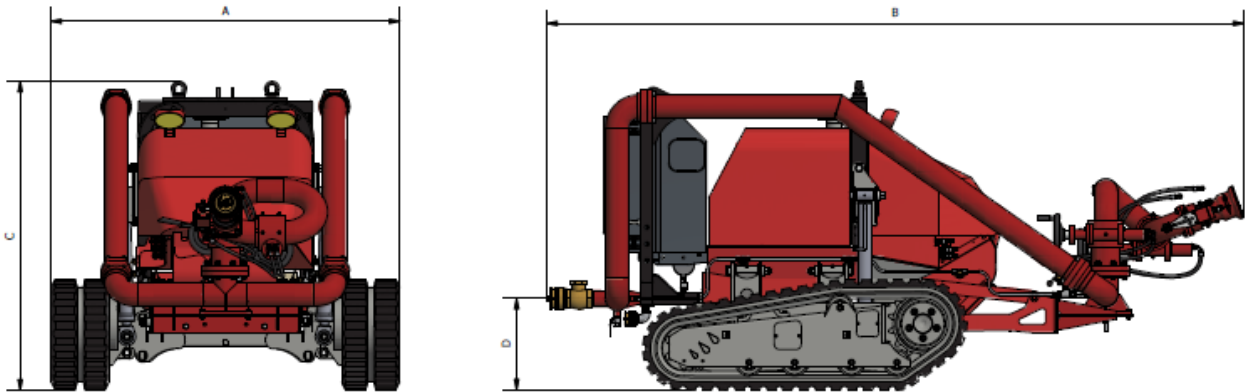
Standard painting system:

- Manual cleaning solvent
- Epoxy primer 60 µm
- Polyurethane intermediate 30 µm
- Polyurethane finish 30 µm
- Total thickness 120 µm dry film +/-10%
- Colour red RAL 3000

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Dimensions and Weights



Ø Monitor body	ØA BSP	A mm	B ⁽¹⁾ mm	C mm	D mm	Monitor Working Angles		Max. Flow rate lpm
						α	β	
4"	4 x 2 1/2"	4777	3100	1144	2200	+15°	+85°	8500

Optional

- Dual water/foam and dry chemical monitor provision
- Foam concentrate mixing unit
- Toxic/explosive gas detector
- Thermographic systems

