

MAGNETO TUBESCAN

WATERWALL ROBOT



gridbots



MAGNETO TUBESCAN

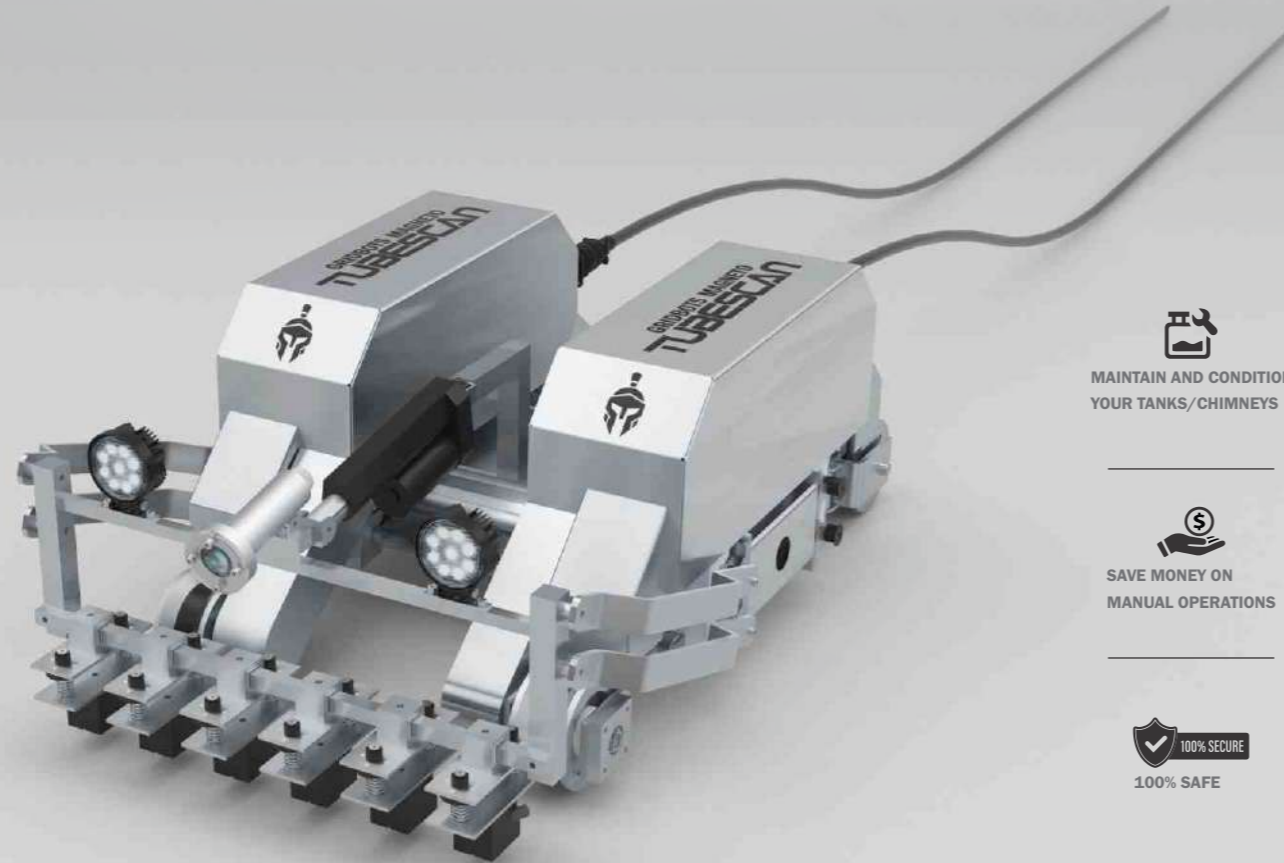
WATERWALL ROBOT

Gridbots Magneto tubescan series of robots are designed to be used in vertical and inclined waterwalls of powerplant boilers.


It has the capabilities to climb almost all kind of magnetic surfaces with a payload upto 50 kgs in most extreme temperature and surface conditions. The robot can be used for surface inspection, weld inspection, blasting, painting, coating, grinding, lapping or many other operations where it is difficult for a human worker to reach. The robot is ultra light construction from aircraft grade aluminum and high strength magnets to adhere to the surface with active distance compensation force multipliers underneath the body.

The robot is internally powered by strong PMSM geared motors, pedometer and 6 DOF IMU sensor to track the motion in all 6 DOF. It also features distance offset sensor beneath its surface to keep a constant distance maintained from the surface.

The robot has an array of 10 EMAT/USONIC sensors to measure the tube thickness and report it in real-time to the base computer- where a depth profile of pipes can be composed for later analysis

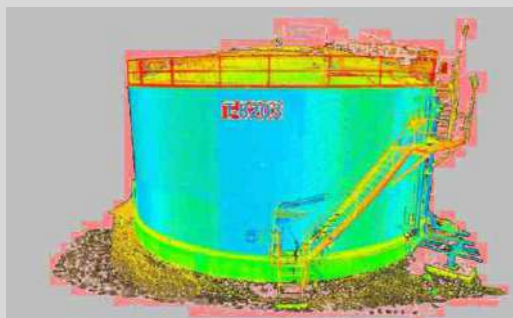


 MAINTAIN AND CONDITION YOUR TANKS/ CHIMNEYS

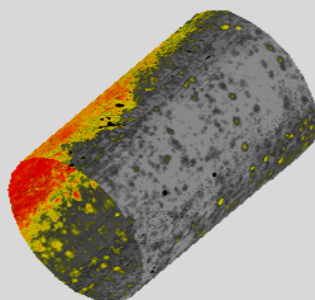
 SAVE MONEY ON MANUAL OPERATIONS

 100% SECURE
100% SAFE

BOILER WATER-WALLS/ TANK WALL THICKNESS ASSESSMENT



TANK THICKNESS 3D PROFILE



PIPE THICKNESS 3D PROFILE



VARIANTS

Power Drive
Twin 400Watts PMS Motors

Adhesion
Permanent Magnets

Tube Thickness Sensing
Using Ultrasonic Probes
(Upto 8 Channels in Single Broom)

Robot Lines Speed
Upto 20 mm/second

Laser Scanner Coverage Width
150 mm

Robot Power Consumption
100 W

Supply Type
Single Phase A.C./ Battery Paci

Robot Self Weight
20 Kgs

Robot Adhesion Force
Upto 500N

Supply and Sensor Interfacing to the Robot
Via Umbilical Cable

Cable Length
Upto 250 Meters

Operator Control Unit
12" Touch Screen Tablet PC

SAFETY

TOF Sensors
6x

Impact Sensor
1x

E-Stop
2x

ENVIRONMENTAL

IP Rating
54

Temperature
5°C to 65°C

Humidity
95%, Non-Condensing



MAGNETO TUBESCAN

CONTROL UNIT

3D LASER PROFILOMETER

ULTRASONIC SENSORS

MFL SENSOR



GRIDBOTS TECHNOLOGIES PVT. LTD.

Main Office Address

Office #306, Maharana Pratap Complex,
Behind V.S. Hospital, Ashram Road,
Ahmedabad - 380006,
Gujarat, India.

Factory Address

Survey No. 157, Fatehwadi,
Kismat Estate, Near Alwish Motors,
Sanathal-Bakroal Ring Road,
Ahmedabad-382210.

Contact

M. :+919924826584
Email Id : contact@gridbots.com
Website : www.gridbots.com