

GRIDBOTS MAGNETO

POWER PLANT BOILER INSPECTION ROBOT



Gridbots

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BOILER INSPECTION AND SERVICE ROBOTS



Gridbots Magneto 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



SAFETY



10X FASTER



1000X MORE DATA



**50% FEWER
INSPECTORS**

TECHNICAL SPECIFICATIONS

Power Drive

Twin 400Watts PMS Motors

Adhesion

Permanent Magnets

Tube Thickness Sensing

Using Ultrasonic Probes
(Up to 8 Channels in Single Broom)

Robot Lines Speed

Upto 25mm/Second

Laser Scanner Coverage Width

150 mm

Robot Power Consumption

1000 W

Supply Type

Single Phase A.C./Battery Pack

Robot Self Weight

20 Kg

Robot Adhesion Force

Up to 500N

Supply and Sensor Interfacing to the Robot

Via Umbilical Cable

Cable Length

Up to 100 Meters

Operator Control Unit

17" Touch Screen Monitor

Sensors on the robot

6 DOF Precise IMU + Track Encoders +
Temperature Sensors

Navigation Type

Fully Autonomous + Manual

Safety Brakes

On the Drive System - Release to Move Type

Robot MOC

Stainless Steel/ Mild Steel

IP Rating

IP54





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