

# PRODUCT SPECIFICATIONS

Radiametrics Technologies Inc.

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## Robotic Arm for Berthold EcCAST Eddy Current System

A Robotic manipulator arm solution for suspended sensors provides many benefits to the custom. However the robotics must be well designed, low maintenance, and precisely accurate to add to the usability and not detract from the overall system performance.

### Benefits:

- Longer coil life, with less operator handling.
- Precise repeatable coil location on the mould, so casting position matches calibration position. Providing more accurate measurement.
- Manipulator arm can be placed on back side of mould and be out of the way of the operators.
- Automation of the arm can be controlled in the casting automation programs. Set positions can be programmed for different casting situations.



Robotic Arm with Enclosure

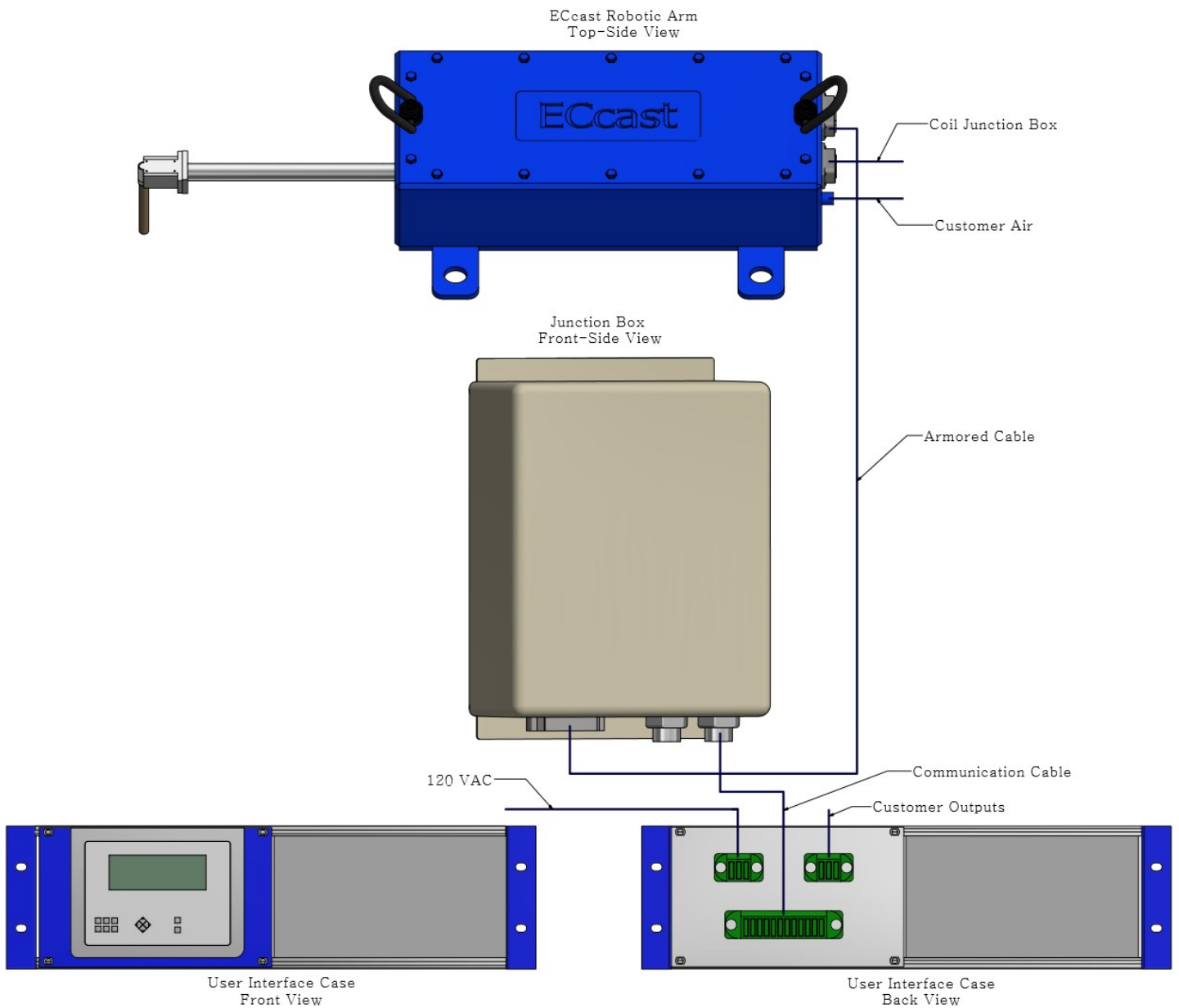
### Features:

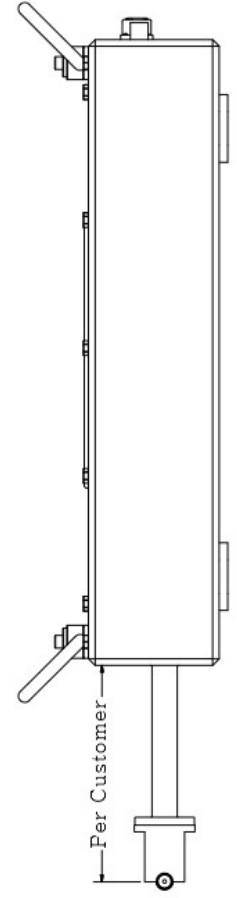
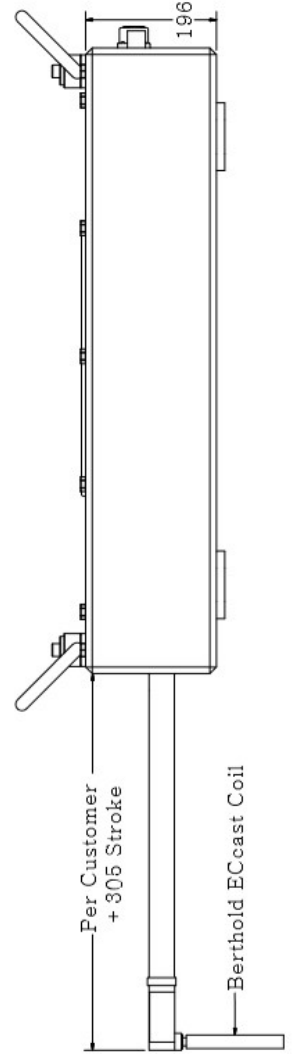
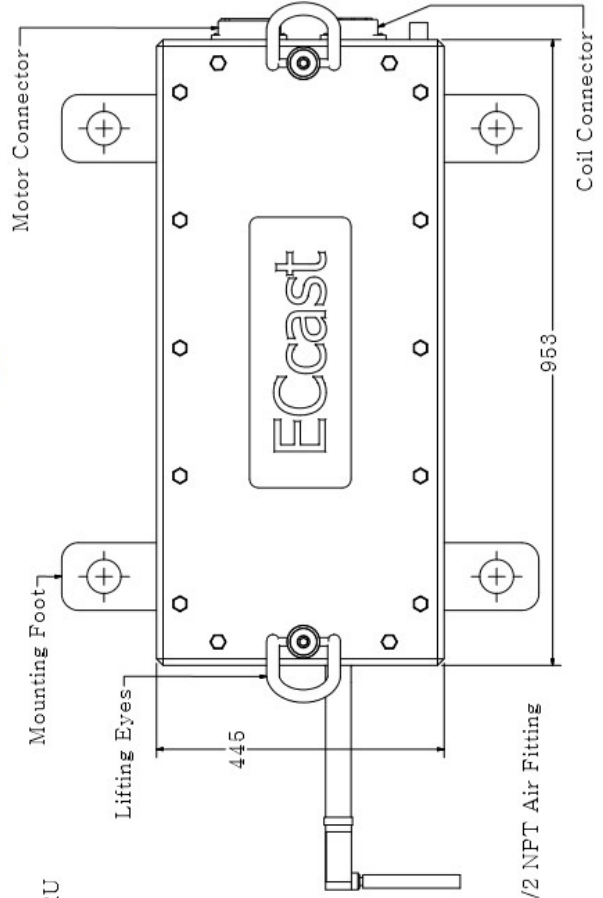
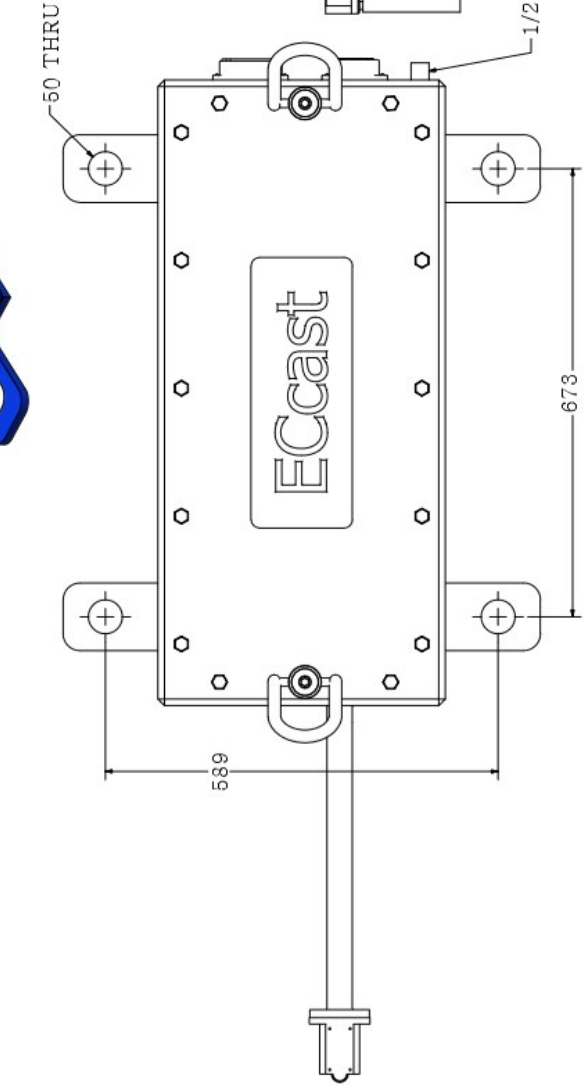
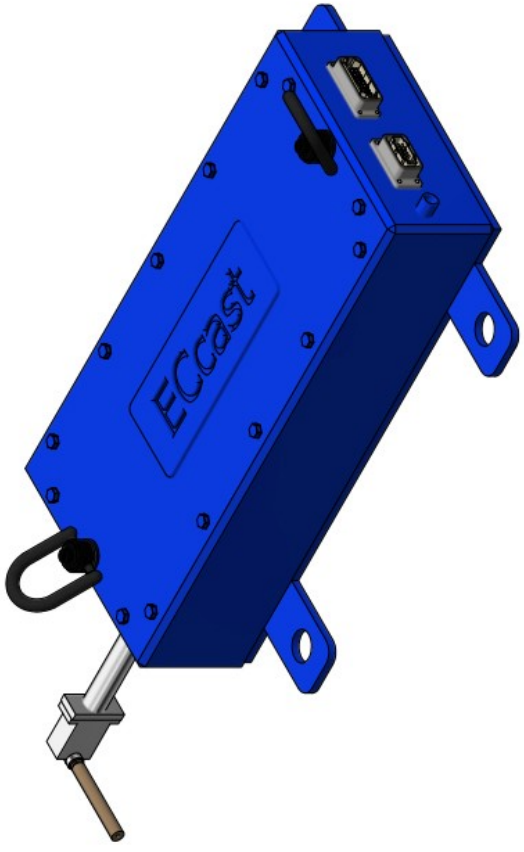
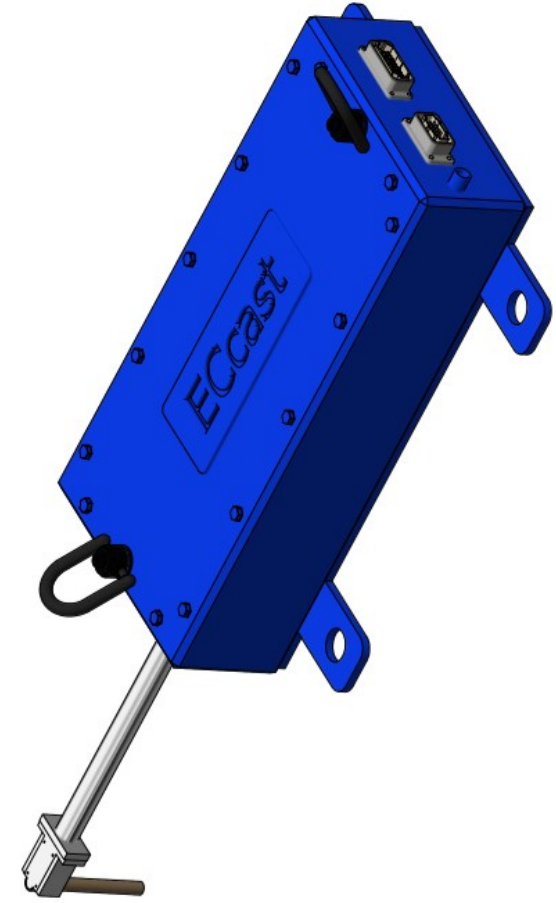
- 2 Axis Movement
- Precise Repeatable Coil placement within +/- .2mm
- Components chosen provide industrial million+ cycles
- Steel Plant Hardened
- PLC Controlled

# Customization

- Linear arm extension of 305mm is provided standard. Arm length however is per customer specifications.
- After arms linear motion of 305mm is extended the coil then rotates 90 degrees into position, the direction of the rotation is determined via the PLC. This allows the arm to positioned on either side of the SEN shroud tube.
- The overall height of the robotic enclosure is only 195mm allowing it to easily fit under the tunnel. Standard mounting feet are provided. The mounting of these feet can be raised to position coil at proper height for measurement.

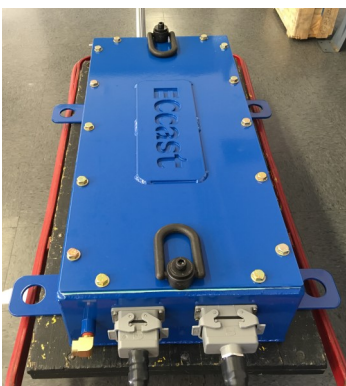
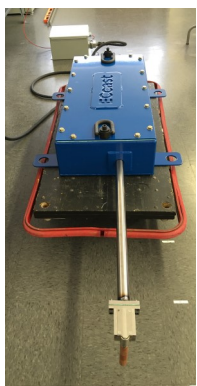
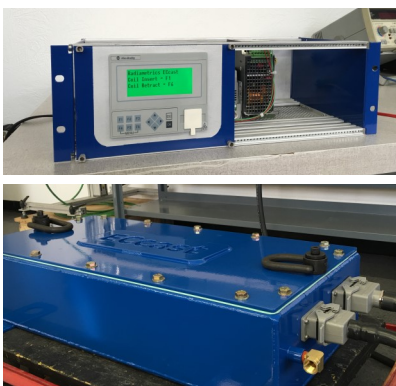
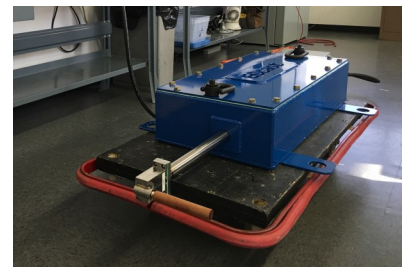
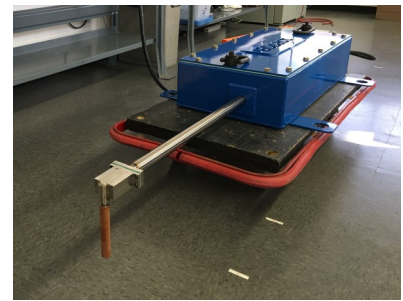
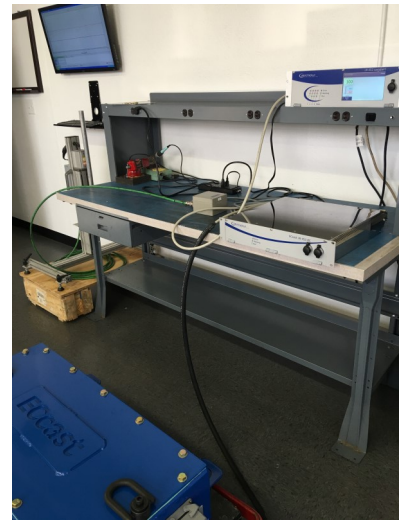
# System Diagram





## Specifications:

- ◆ Robotic arm stainless steel bearing grade, 75mm diameter and 20mm wall thickness with mounting flange for Berthold EcCast suspended coil. Arm is supported by 2 internal maintenance free bearings inside the robotic enclosure.
- ◆ Robotics axis are driven by electronic servo motors with built in digital encoders.
- ◆ Precise mechanical home location.
- ◆ Robotics can be programmed to provide variable speeds, directions, inertia, and obstruction protection.
- ◆ 10mm thick steel, sealed, and powder coated robotic enclosure, 445mm x 953mm x 195mm.
- ◆ Weight 85kg, lifting eyes are provided with enclosure.
- ◆ 1/2" NPT air fitting, with required pressure of 40/60 PSI.
- ◆ Harting Plugs and castor grade armored cables provided for connections from robotics to junction box. Cables can be provided in 10, 15, or 20 meter lengths.
- ◆ Nema 4 rated junction box for armored cable conversion to hard wired communication.
- ◆ 19" rack with Allen Bradley PLC and display.
- ◆ 120/240 VAC.
- ◆ Outputs provided for customers plc and pendent panels.
- ◆ Can be mounted to mould cover, floor frame supports, or rotatable turret.



## Contact Us

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