

# RECTANGULAR MAGNESIUM TANK ANODES

50 YEARS EXPERIENCE IN CATHODIC PROTECTION

JENNINGS ANODES

# RECTANGULAR MAGNESIUM TANK ANODES

DATA SHEET

Magnesium hull anode is commonly used for corrosion prevention on steel hull service boats in fresh water such as river boats, canal boats, cruising boats, etc. It is the best choice for fighting corrosion problems caused by stray current or pollution in freshwater. This magnesium hull anode with cast-in galvanized steel straps can be either bolted or welded directly to a submerged structure.

## CHEMICAL COMPOSITION

Constructed from high grade magnesium alloy, our magnesium hull anode conforms to meet American standard ASTM B843 - AZ63C.

| Element | Content |
|---|---|
| Aluminum (Al) | 5.30% ~ 6.70% |
| Manganese (Mn) | 0.15% ~ 0.70% |
| Zinc (Zn) | 2.5% ~ 3.5% |
| Silicon (Si) | 0.1% max. |
| Copper (Cu) | 0.02% max. |
| Iron (Fe) | 0.003%max. |
| Nickel (Ni) | 0.002% max. |
| Single Impurity (Each) | 0.05% max. |
| Other Impurities (Total) | 0.30% max. |
| Magnesium (Mg) | Remainder |





## ELECTROCHEMICAL PROPERTIES

Our magnesium condenser anode is normally cast with H-1 alloy for standard potential of -1.55 volts relative to saturated calomel eletrode(SCE).

| Technical Measurement | Performance |
|---|---|
| Open Circuit Voltage (-V) | 1.50 ~ 1.55 |
| Closed Circuit Voltage (-V) | 1.45 ~ 1.50 |
| Current Capacity (A.h/kg) | 550 A.h/lbs (1230 A.h/kg) |
| Current Efficiency | 55% min. |

* The open/closed circuit voltage is with respect to a Ag/AgCl reference electrode.

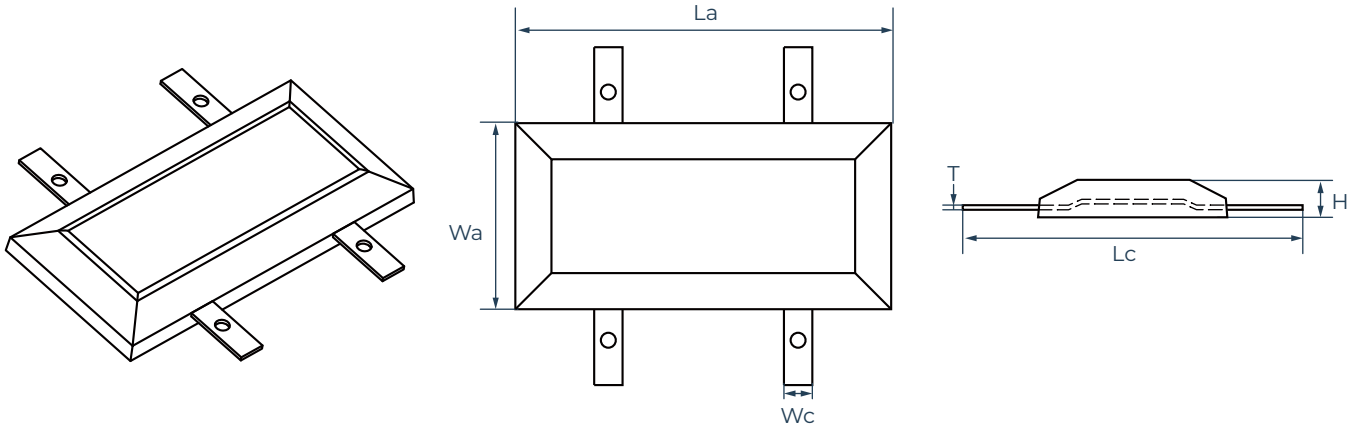


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## SPECIFICATIONS




| Item No. | Anode Dimensions | | | Insert Dimensions | | | Weight |
|---|---|---|---|---|---|---|---|
| | La | Wa | H | Wc | Lc | T | |
| JA-MG-H22 | 20" (508 mm) | 10" (254 mm) | 2" (51 mm) | 1.5" (38 mm) | 18" (457 mm) | 0.25" (6.35 mm) | 22 lbs (10 kg) |
| JA-MG-H24 | 18" (457 mm) | 9" (229 mm) | 2" (51 mm) | 2" (51 mm) | / | 0.25" (6.35 mm) | 24 lbs (11 kg) |
| JA-MG-H44 | 18" (457 mm) | 9" (229 mm) | 2" (51 mm) | 2" (51 mm) | / | 0.25" (6.35 mm) | 44 lbs (20 kg) |

**Notes:** All dimensions and weights are nominal. The parameter provided is subject to variation in material compositions and Jennings Anodes foundry tolerance.

## TESTING DETAILS

We employ ISO 9001:2015 quality management system and rigorous internal testing standards to ensure the optimum lifespan and performance of our Anodes. Each anode is labelled with a unique serial number for quality tracking.

| Technical Measurement | Chemical Composition | Electrochemical Performance | Physical Properties |
|---|---|---|---|
| Testing Standard | ATSM B843 | ATSM G97 | Foundry ITP |
| Testing Content | Chemical Analysis | Circuit Potential<br>Current Capacity<br>Current Efficiency | Surface Finish<br>Dimension & Weight |
| Equipment | Optical Emission Spectrometer<br>OBLF QSN 750 | Electrochemical Analyzer<br>EPI 200 | Calibrated Digital<br>Measuring Devices |

* Third party testing is conducted by customer's special request at extra charge.






# Worldwide Service Network

Our worldwide network of sales and service centers can provide immediate advice and assistance on the complete range of products.

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