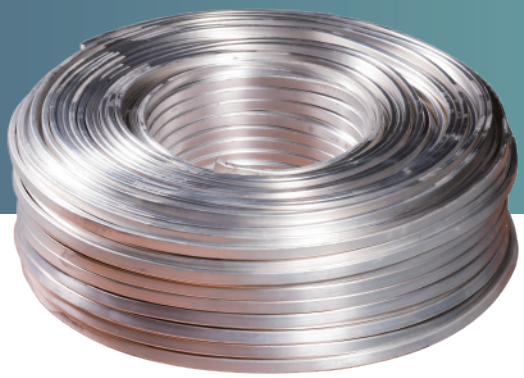
MAGNESIUM RIBBON ANODES



ISO 9001
QUALITY MANAGEMENT

CELEBRATED ENTERPRISE IN CATHODIC PROTECTION

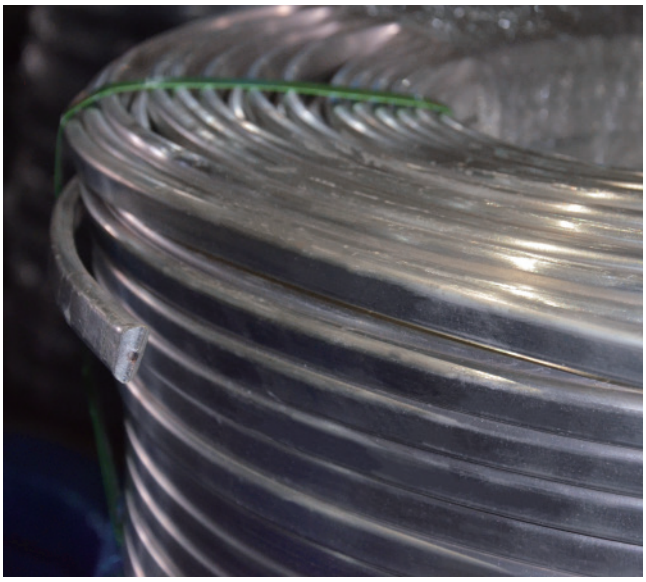
JENNINGS ANODES

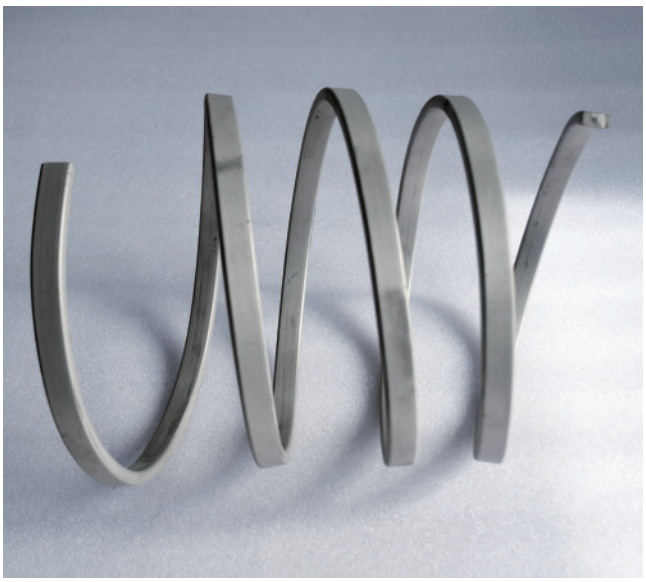
MAGNESIUM RIBBON ANODES

DATA SHEET

JENNINGS ANODES

As a flexible anode material, our magnesium ribbon anode consists of an extruded ribbon of magnesium around a central continuous galvanized steel core which ensures uniform current and efficient electrical discharge. Due to the ribbon's greater surface area to weight ratio, magnesium ribbon anode can provide higher current outputs compared to other magnesium anodes.





Quality Substrate Material

Our magnesium ribbon anode is produced using high-purity magnesium, conforming to ASTM B843–M1C standards.

Element	Content
Aluminum (Al)	0.01% max.
Manganese (Mn)	0.50% ~ 1.30%
Zinc (Zn)	—
Silicon (Si)	0.05% max.
Copper (Cu)	0.02% max.
Iron (Fe)	0.03% max.
Nickel (Ni)	0.001% max.
Other Impurity(each)	0.05% max.
Total Impurities	0.30% max.
Magnesium (Mg)	Remainder

High Current Output

This magnesium ribbon anode has an increased surface area-to-mass ratio. With a high driving potential of -1.7V to -1.75V, it can generate more current than their cast magnesium counterparts. Generally, the current output is three to seven times greater than that found with cast anodes of the same weight.

Technical Measurement	Performance
Open Circuit Voltage (-V)	1.70 ~ 1.75
Closed Circuit Voltage (-V)	1.58 ~ 1.62
Current Density	Soil: 3 mA/ft. (10 mA/m) Freshwater: 0.9 mA/ft. (3 mA/m)
Current Capacity	500 A.h/lbs (1100 A.h/kg)
Current Efficiency	50% min.

Remarks: Open/close circuit potential is with respect to a Saturated Calomel Reference Electrode.

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Easy Installation

The magnesium ribbon anode is easy to bend and has a small footprint. It is mainly installed as a coil around the protected body, especially in cathodic protection for long-distance pipelines, crossing pipelines, large tanks or silos among other structures. It functions automatically after installation, so no frequent maintenance is required, and does not cause any harmful interference with the surrounding environment.

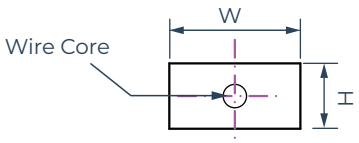
Uniform Current Distribution

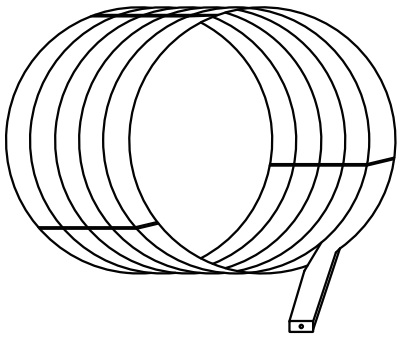
The magnesium ribbon anode is constructed with a solid galvanized steel core, which runs lengthwise through the anode to ensure efficient electrical discharge as current is evenly distributed along the length of the structure.

APPLICATIONS

our magnesium ribbon anode is generally used in higher resistivity soil or freshwater, particularly in areas with restricted space.

- Cathodic protection of well coated buried pipelines
- Corrosion control of internal water tank surfaces
- Grounding protection against strong electrical interference





SPECIFICATIONS

Item No.	JA-MGR-1
Cross Section (WxH)	3/4" x 3/8" (19.05 x 9.5 mm)
Core Diameter	0.135" (3.4 mm)
Core Eccentricity Rate	1/16" (1.6mm)
Weight	0.24 lbs/ft. (0.36 kg/m)
Coil Length	1000 ft. (305 m)
Coil Weight	242.5 lbs (110 kg)

Notes: All dimensions and weights are nominal. The length can be adjusted upon request.

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 Current Capacity Current Efficiency	Surface Finish Dimension & Weight Core Eccentricity
Equipment	Optical Emission Spectrometer OBLF QSN 750	Electrochemical Analyzer EPI 200	Calibrated Digital Measuring Devices

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

PACKAGING INFORMATION

We have strict packing protocols to guarantee safe delivery of our products. Clear shipping marks and documentation make delivery acceptance straightforward and simple.

Item No.	Coil Length	Wooden Spool Dimensions	Weight	
			N.W.	G.W.
JA-MGR-1	1,000 ft. (305 m)	27.6" × 17.3" (Φ700×440 mm)	243 lbs (110 kg)	276 lbs (125 kg)

Remarks: Custom packing is available upon request.

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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