

MAGNESIUM ANODE

ECOANODE's packaged magnesium anodes are engineered for maximum performance in underground cathodic protection systems. The core of each unit is a high-purity magnesium alloy, selected for its superior electrochemical activity and high driving voltage, which generates exceptional current efficiency. This ensures powerful and responsive protection, even in high-resistivity soils. Each anode is securely pre-packaged within a specialized, low-resistance moisture-retaining backfill, contained in a robust, biodegradable cotton bag. This engineered system is crucial for two primary reasons: it dramatically reduces the anode's grounding resistance by creating a stable, conductive environment, and it simplifies installation to a straightforward "dig-and-bury" process, eliminating the need for on-site backfill mixing.

This design guarantees a consistent voltage output and an extended service life, providing a completely maintenance-free corrosion defense solution. Ideal for critical infrastructure where long-term reliability is non-negotiable, our anodes are specifically tailored for demanding applications across a broad spectrum, including buried oil and gas transmission pipelines, municipal water and storage tank networks, and other essential utility assets, ensuring their structural integrity for decades.

CHEMICAL COMPOSITION

Element Content	Standard Potential (H-1)	High Potential (HP)
Aluminum (Al)	5.3% ~ 6.7%	0.01% max.
Manganese (Mn)	0.15% ~ 0.7%	0.5% ~ 1.3%
Zinc (Zn)	2.5% ~ 3.5%	—
Silicon (Si)	0.1% max.	0.05% max.
Copper (Cu)	0.02% max.	0.02% max.
Iron (Fe)	0.03% max.	0.03% max.
Nickel (Ni)	0.002% max.	0.001% max.
Single Impurity	0.05% max.	0.05% max.
Other Impurities	0.3% max.	0.3% max.
Magnesium (Mg)	Remainder	Remainder



ELECTROCHEMICAL PROPERTIES

Technical Measurement	Standard Potential (H-1)	High Potential (HP)
Open Circuit Voltage	1.50 ~ 1.55 Volts	1.70 ~ 1.75 Volts
Closed Circuit Voltage	1.45 ~ 1.50 Volts	1.58 ~ 1.62 Volts
Current Capacity	1230 A.h/kg (550 A.h/lbs)	1100 A.h/kg (500 A.h/lbs)
Current Efficiency	55% min.	50% min.

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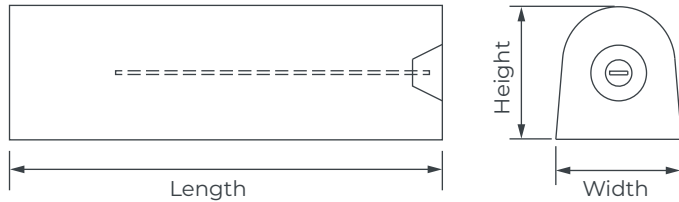
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SPECIFICATIONS

D-shape Anode



Model	Anode Dimensions (W x H x L)		Insert Dimensions		Prepackaged Size		Weight	
	High Potential	Standard Potential	Wc	T	Diameter	Length	N.W	G.W
EA-MG-B5D2	70 x 76 x 310 mm (2.8" x 3" x 12.2")	70 x 76 x 305 mm (2.8" x 3" x 12.0")	14 mm (0.6")	1.5 mm (0.06")	127 mm (5")	450 mm (17.7")	2.3 kg (5 lbs)	8.2 kg (18.1 lbs)
EA-MG-B5D3	89 x 95 x 190 mm (3.5" x 3.7" x 7.5")	89 x 95 x 180 mm (3.5" x 3.7" x 7.1")	14 mm (0.6")	1.5 mm (0.06")	160 mm (6.3")	300 mm (11.8")	2.3 kg (5 lbs)	9 kg (19.8 lbs)
EA-MG-B9D2-1	63.5 x 66 x 650 mm (2.5" x 2.6" x 25.6")	63.5 x 66 x 640 mm (2.5" x 2.6" x 25.2")	14 mm (0.6")	1.5 mm (0.06")	130 mm (5.1")	810 mm (31.9")	4.1 kg (9 lbs)	25 kg (55.1 lbs)
EA-MG-B9D2	70 x 76 x 545 mm (2.8" x 3" x 21.5")	70 x 76 x 540 mm (2.8" x 3" x 21.3")	14 mm (0.6")	1.5 mm (0.06")	140 mm (5.5")	690 mm (27.2")	4.1 kg (9 lbs)	16 kg (35.3 lbs)
EA-MG-B9D3	89 x 95 x 345 mm (3.5" x 3.7" x 13.6")	89 x 95 x 325 mm (3.5" x 3.7" x 12.8")	14 mm (0.6")	1.5 mm (0.06")	160 mm (6.3")	550 mm (21.7")	4.1 kg (9 lbs)	16 kg (35.3 lbs)
EA-MG-B14D2	70 x 76 x 850 mm (2.8" x 3" x 33.5")	70 x 76 x 815 mm (2.8" x 3" x 32.1")	14 mm (0.6")	1.5 mm (0.06")	140 mm (5.5")	950 mm (37.4")	6.36 kg (14 lbs)	22 kg (48.5 lbs)
EA-MG-B17D2	63.5 x 67 x 1210 mm (2.5" x 2.6" x 47.6")	63.5 x 67 x 1188 mm (2.5" x 2.6" x 46.8")	14 mm (0.6")	1.5 mm (0.06")	140 mm (5.5")	1350 mm (53.1")	7.7 kg (17 lbs)	31 kg (68.3 lbs)
EA-MG-B17D3	89 x 95 x 645 mm (3.5" x 3.7" x 25.4")	89 x 95 x 610 mm (3.5" x 3.7" x 24")	14 mm (0.6")	1.5 mm (0.06")	160 mm (6.3")	780 mm (30.7")	7.7 kg (17 lbs)	22 kg (48.5 lbs)
EA-MG-B17D4	102 x 108 x 525 mm (4" x 4.3" x 20.7")	102 x 108 x 405 mm (4" x 4.3" x 16")	20 mm (0.8")	3 mm (0.12")	190 mm (7.5")	680 mm (26.8")	7.7 kg (17 lbs)	28 kg (61.7 lbs)
EA-MG-B20D2	70 x 76 x 1524 mm (2.8" x 3" x 60")	70 x 76 x 1495 mm (2.8" x 3" x 58.9")	14 mm (0.6")	1.5 mm (0.06")	140 mm (5.5")	1650 mm (65")	9.1 kg (20 lbs)	38 kg (83.8 lbs)
EA-MG-B32D5	140 x 146 x 498 mm (5.5" x 5.7" x 19.6")	140 x 146 x 472 mm (5.5" x 5.7" x 18.6")	20 mm (0.8")	2 mm (0.08")	200 mm (7.9")	680 mm (26.8")	14.5 kg (32 lbs)	30 kg (66 lbs)
EA-MG-B40D3	103 x 90 x 1480 mm (4.1" x 3.5" x 58.3")	103 x 90 x 1450 mm (4.1" x 3.5" x 57.1")	20 mm (0.8")	2 mm (0.08")	160 mm (6.3")	1600 mm (63")	18.2 kg (40 lbs)	40 kg (88 lbs)
EA-MG-B48D5	140 x 146 x 750 mm (5.5" x 5.7" x 29.5")	140 x 146 x 710 mm (5.5" x 5.7" x 28")	20 mm (0.8")	2 mm (0.08")	205 mm (8.1")	960 mm (37.8")	21.8 kg (48 lbs)	45 kg (99.2 lbs)
EA-MG-B60D4	112 x 112 x 1524 mm (4.4" x 4.4" x 60")	114 x 114 x 1485 mm (4.5" x 4.5" x 58.5")	20 mm (0.8")	3 mm (0.12")	190 mm (7.5")	1650 mm (65")	27.3 kg (60 lbs)	68 kg (150 lbs)

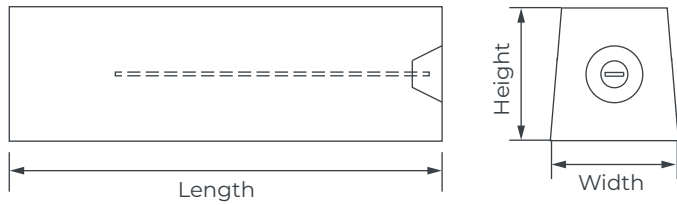
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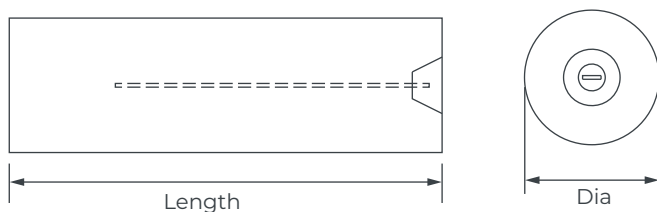
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Square Shape Anode



Model	Anode Dimensions (W x H x L)		Insert Dimensions		Prepackaged Size		Weight	
	High Potential	Standard Potential	Wc	T	Diameter	Length	N.W	G.W
EA-MG-B3S3	86.3 x 76 x 120 mm (3.4" x 3" x 4.7")	86.3 x 76 x 115 mm (3.4" x 3" x 4.5")	14 mm (0.6")	1.5 mm (0.06")	160 mm (6.3")	300 mm (11.8")	1.4 kg (3.1 lbs)	8.5 kg (18.7 lbs)
EA-MG-B5S3	86.3 x 76 x 204 mm (3.4" x 3" x 8")	86.3 x 76 x 198 mm (3.4" x 3" x 7.8")	14 mm (0.6")	1.5 mm (0.06")	160 mm (6.3")	350 mm (13.8")	2.3 kg (5 lbs)	10 kg (22 lbs)
EA-MG-B9S3	86.3 x 76 x 365 mm (3.4" x 3" x 14.4")	86.3 x 76 x 345 mm (3.4" x 3" x 13.6")	14 mm (0.6")	1.5 mm (0.06")	160 mm (6.3")	550 mm (21.7")	4.1 kg (9 lbs)	16 kg (35.3 lbs)
EA-MG-B17S3	86.3 x 76 x 680 mm (3.4" x 3" x 26.8")	86.3 x 76 x 650 mm (3.4" x 3" x 25.6")	14 mm (0.6")	1.5 mm (0.06")	160 mm (6.3")	800 mm (31.5")	7.7 kg (17 lbs)	23 kg (50.7 lbs)
EA-MG-B32S5	117 x 127 x 563 mm (4.6" x 5" x 22.2")	117 x 127 x 535 mm (4.6" x 5" x 21")	20 mm (0.8")	2 mm (0.08")	195 mm (7.7")	700 mm (27.6")	14.5 kg (32 lbs)	30 kg (66.1 lbs)
EA-MG-B48S5	117 x 127 x 845 mm (4.6" x 5" x 33.3")	117 x 127 x 820 mm (4.6" x 5" x 32.3")	20 mm (0.8")	2 mm (0.08")	200 mm (7.9")	1000 mm (39.4")	21.8 kg (48.1 lbs)	45 kg (99.2 lbs)
EA-MG-B60S4	102 x 102 x 1485 mm (4" x 4" x 58.5")	102 x 102 x 1515 mm (4" x 4" x 59.6")	20 mm (0.8")	3 mm (0.12")	190 mm (7.5")	1650 mm (65")	27.3 kg (60 lbs)	68 kg (150 lbs)

Circular Shape Anode



Model	Anode Dimensions (ØD x L)		Insert Dimensions		Prepackaged Size		Weight	
	High Potential	Standard Potential	Wc	T	Diameter	Length	N.W	G.W
EA-MG-BR50	Ø114 x 288 mm (Ø4.5" x 11.3")	Ø114 x 275 mm (Ø4.5" x 10.8")	25 mm (1")	2 mm (0.08")	160 mm (6.3")	480 mm (18.9")	5 kg (11 lbs)	13.5 kg (29.8 lbs)
EA-MG-BR100	Ø114 x 565 mm (Ø4.5" x 22.2")	Ø114 x 545 mm (Ø4.5" x 21.5")	25 mm (1")	2 mm (0.08")	175 mm (6.9")	710 mm (28")	10 kg (22 lbs)	25 kg (55.1 lbs)
EA-MG-BR145	Ø146 x 505 mm (Ø5.75" x 19.9")	Ø146 x 475 mm (Ø5.75" x 18.7")	25 mm (1")	2 mm (0.08")	200 mm (7.9")	650 mm (25.6")	14.5 kg (32 lbs)	30 kg (66.1 lbs)
EA-MG-B50R8	Ø203 x 406 mm (Ø8" x 16")	Ø203 x 395 mm (Ø8" x 15.6")	25 mm (1")	2 mm (0.08")	280 mm (11")	580 mm (22.8")	22.7 kg (50 lbs)	52 kg (114.5 lbs)
EA-MG-BR273	Ø114 x 1524 mm (Ø4.5" x 60")	Ø114 x 1450 mm (Ø4.5" x 57.1")	25 mm (1")	2 mm (0.08")	175 mm (6.9")	1650 mm (65")	27.3 kg (60 lbs)	58 kg (127.9 lbs)

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