



MAGNESIUM ANODE-DURAMAG

Magnesium anode is the most common material used as sacrificial anode in cathodic protection system because of its higher driving voltage, easy installation and limited maintaincae. It is typically used for buried transmission oil&gas pipelines, and also can be used to protect structures in fresh water.

Our DuraMag anodes all manufactured and tested according to latest international standards, such as ASTM B843 and ASTM G97, it is available from both M1C (high potential) or AZ63B (Std potential) alloy with annual capacity 8,000 metric tons. In the past decade our anodes were widely used in North America, Europe, Middle East and Asia markets, and we have been approved vendor by Saudi Aramco since 2006.

Features:
 High purity raw material.
 Rigid process control.
 Automatic production.
 Advanced testing facilities.

Specification:

- **High Potential Magnesium Anode**
 Alloy: ASTM B843-M1C

Chemical composition:

Aluminum	Manganese	Copper	Silicon	Nickel	Fe	Single Impurity	Total Impurity	Remaining
0.01% Max	0.50-1.30	0.005% Max	0.05% Max	0.001% Max	0.01% Max	0.05% Max	0.30% Max	Magnesium

Electrochemical properties:

Open Voltage (-V)	Closed Voltage (-V)	Actual capacity A.h/kg	Efficiency %
1.70-1.75(-V) SCE	1.58-1.62(-V) SCE	1100	50%

- **Standard Potential Magnesium Anode**
 Alloy: ASTM B843-AZ63B

Chemical composition:

Aluminum	Manganese	Copper	Silicon	Nickel	Fe	Single Impurity	Total Impurity	Remaining
5.3-6.7% Max	2.5-3.5	0.005% Max	0.05% Max	0.001% Max	0.01% Max	0.05% Max	0.30% Max	Magnesium

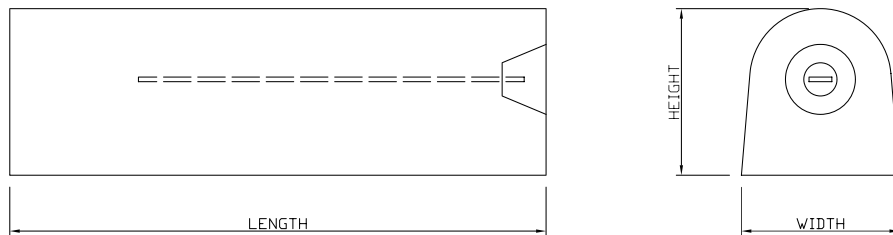
Electrochemical properties:

Open Voltage (-V)	Closed Voltage (-V)	Actual capacity A.h/kg	Efficiency %
1.50-1.55(-V) SCE	1.45-1.50(-V) SCE	1230	55%



■ "D" Shape Anode

Dimension and Weight:



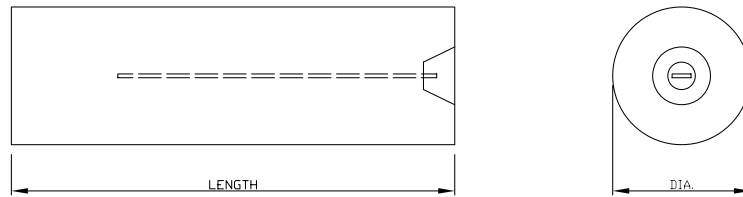
'D' Type	High Potential(-1.7V)				Standard Potential(-1.5V)				Item No.
	Width	Length	Height	Weight	Width	Length	Height	Weight	
YX-MG-5D2	70	310	76	2.3	70	305	76	2.3	1
YX-MG-9D2	70	545	76	4.1	70	540	76	4.1	2
YX-MG-9D2-1	63.5	705	67	4.1	63.5	640	67	4.1	3
YX-MG-20D2	70	1524	76	9.1	70	1495	76	9.1	4
YX-MG-14D2	70	850	76	6.36	70	815	76	6.36	5
YX-MG-17D2	63.5	1210	67	7.7	63.5	1188	67	7.7	6
YX-MG-5D3	89	190	95	2.3	89	180	95	2.3	7
YX-MG-9D3	89	345	95	4.1	89	325	95	4.1	8
YX-MG-17D3	89	645	95	7.7	89	610	95	7.7	9
YX-MG-35D5	140	498	146	14.5	140	472	146	14.5	10
YX-MG-48D5	140	750	146	21.8	140	710	146	21.8	11
YX-MG-17D4	102	525	108	7.7					12
YX-MG-60D4	112	1524	112	27.3	114	1485	114	27.3	13

*All dimensions and weights shown are nominal (mm/kg). actual dimensions/weight will be adjusted according to drawings



■ "R" Shape Anode

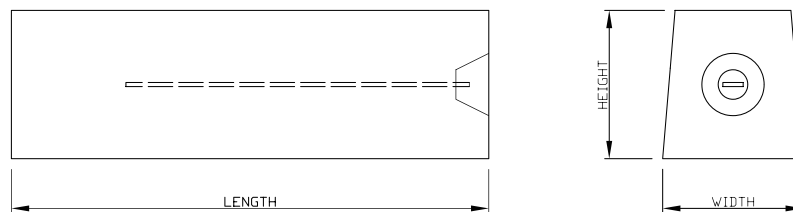
Dimension and Weight:



'R' Type	High Potential(-1.7V)			Standard Potential(-1.5V)			Item No.
	Diameter	Length	Weight	Diameter	Length	Weight	
YX-MG-R50	114	288	5.0	114	275	5.0	1
YX-MG-R77	114	440	7.7	114	410	7.7	2
YX-MG-R100	114	565	10.0	114	545	10.0	3
YX-MG-R145	146	405	14.5	146	475	14.5	4
YX-MG-R273	114	1524	27.3	114	1450	27.3	5

■ "S" Shape Anode

Dimension and Weight:



'S' Type	High Potential(-1.7V)				Standard Potential(-1.5V)				Item No.
	Width	Length	Height	Weight	Width	Length	Height	Weight	
YX-MG-3S3	86.25	120	76	1.4	86.25	115	76	1.4	1
YX-MG-5S3	86.25	204	76	2.3	86.25	198	76	2.3	2
YX-MG-9S3	86.25	365	76	4.1	86.25	345	76	4.1	3
YX-MG-17S3	86.25	680	76.2	7.7	86.25	650	76	7.7	4
YX-MG-32S5	117	563	127	14.5	117	535	127	14.5	5
YX-MG-48S5	117	845	127	21.8	117	820	127	21.8	6



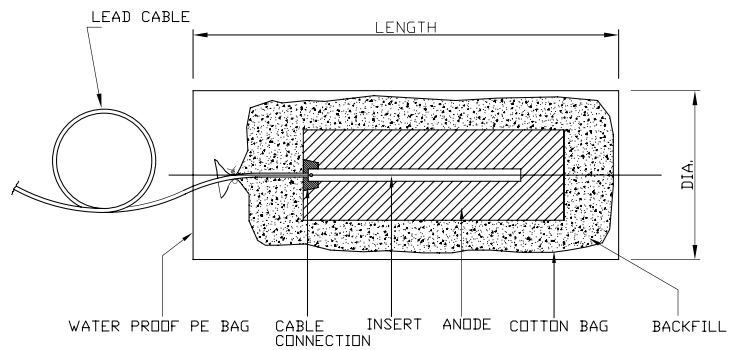
■ Pre-packaged Magnesium Anode

YUXI pre-packed anodes are made of recyclable material and easily decomposable material, the content of harmful element in the backfill is lower than safety standards, which is absolutely environmental friendly.

The available cables type are PVC/PVC, XLPE/PVC, HMWPE, THHN, TW at any required size.

Backfill Element	
Gypsum	75%
Bentonite	20%
Sodium Sulphate	5%

Harmful Elements	
Cadmium (Cd)	≤1ppm
Arsenicum (As)	≤1ppm
Mercury (Hg)	≤1ppm
Phosphorus (Pb)	≤10ppm





Dimension and Weight:

Part No.	Diameter	Lenght	Weight	Item No.
YX-PMG-5D2	127	450	8.2	1
YX-PMG-9D2	140	690	16	2
YX-PMG-9D2-1	130	810	16	3
YX-PMG-20D2	140	1650	38	4
YX-PMG-5D3	160	300	9.0	5
YX-PMG-9D3	160	550	16	6
YX-PMG-17D3	160	780	22	7
YX-PMG-35D5	200	680	30	8
YX-PMG-48D5	205	960	45	9
YX-PMG-R50	160	480	13.5	10
YX-PMG-R77	175	640	22	11
YX-PMG-R100	175	710	25	12
YX-PMG-R145	200	650	30	13
YX-PMG-R273	175	1650	58	14
YX-PMG-5S3	160	350	10	15
YX-PMG-9S3	160	550	16	16
YX-PMG-17S3	160	800	23	17
YX-PMG-32S5	195	700	30	18
YX-PMG-48S5	200	1000	45	19

*All dimensions and weights shown are nominal (mm).