CTS CORROSION TECHNOLOGY SERVICES

MAGNESIUM PIPELINE ANODES

Application

Temporary cathodic protection of pipelines, permanent cathodic protection of short, isolated pipelines, internal surfaces of fresh water tanks and other well coated isolated structures. Protection of casing sleeves, hydrants and 'hot spot' protection.

Most suitable for use in ground with moderate resistivities. The presence of significant amounts of chloride can reduce the utilisation due to increased self-corrosion.

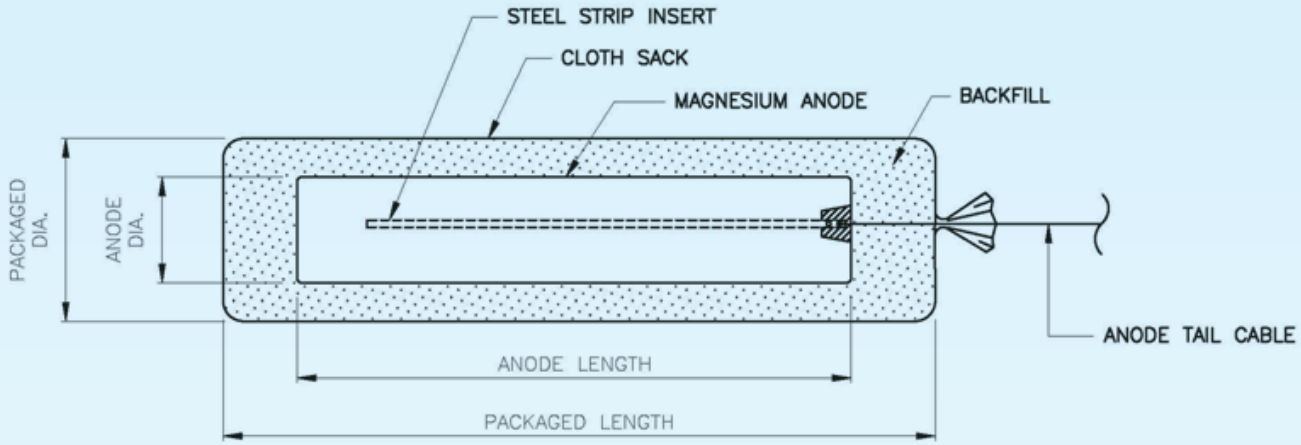
Availability

Available in two alloys, Standard (SP) and High Potential (HP), bare, or packaged in backfill held in a cotton bag.

Alloy specifications

	Standard Potential	High Potential
Aluminium	5.30 - 6.70%	0.01% max
Zinc	2.50 - 3.5%	-
Manganese	0.25% min	0.5 - 1.3%
Copper	0.02% max	0.02% max
Nickel	0.002% max	0.001% max
Iron	0.003% max	0.03% max
Other (individual)	0.05% max	-
Other (total)	0.30% max	0.30% max
Magnesium	Balance	Balance
Open Circuit Potential wrt Cu / $CuSO_4$ electrode	1.50 - 1.60 -Volts	1.75 - 1.85 -Volts
Output Capacity	1230 Ah/kg	1150 Ah/kg

Weights and Dimensions



Type	Bare Weight (kg)	Packaged Weight (kg)	Bare Anode			Packaged Anode		Anode Shape
			Length (mm)	Height (mm)	Width (mm)	Length (mm)	Diameter (mm)	
41HP	4.1	11	554	76	70	787	127	'D' shape
77HP	7.7	19	645	76	70	762	152	'D' shape
145HP	14.5	32	505	148	140	762	203	'D' shape
272HP	27.3	59	1520	102	102	1626	171	Square

Note: all dimensions and weights are nominal.

Standard Packaging

Backfill composition

Gypsum	75%
Bentonite	20%
Sodium sulphate	5%

Standard Cable 1 x 6mm^2 XLPE/PVC red outer. Length 5m. Connection brazed and sealed with epoxy resin. Other cable types and lengths are available on request.

Quality Assurance

Anodes batch tested to G-97, ASTM B-843 Grades AZ639 and M1C
Samples subjected to random pull test and dimensional/weight checks.

Disclaimer

The information provided in this document was accurate at the time it was published, however, we reserve the right to revise this document without prior warning.