## STUART

PRODUCT DATA

Stuart Steel Protection Corporation, Box 476, South Bound Brook, NJ 08880 • Telephone (732) 469-5544 • FAX (732) 469-9270 Website: www.stusteel.com E-mail: sspcmail@worldnet.att.net

## Zinc Grounding Cells

Pre-packaged zinc grounding cells from Federated Metals provide low resistance across an insulating joint without excessive loss of cathodic protection current.

Cut-away view of a two anode grounding cell installed to protect an insulated flange of an underground pipeline

Unprotected pipe

Insulated flange

Cathodically protected pipe

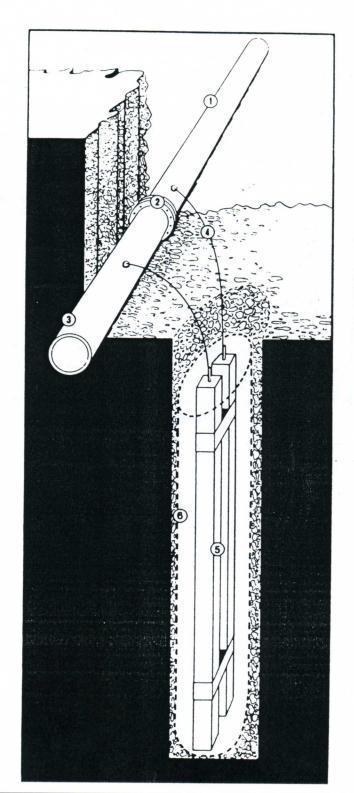
Insulated copper wires connecting zinc anodes and pipeline

Two 60" zinc anodes separated by insulating spacers

Low resistance backfill surrounding zinc anodes

Zinc grounding cells from Federated Metals provide positive, long-life protection wherever voltages must be limited in underground metallic systems to reduce danger of shock or arcing and burning of insulated joints.

Typical grounding installations include oil, gas and water pipelines, power stations, oil storage tanks and transmission line towers and cables.



PRODUCT

## Features:

- Two or four anode units available.
- Pre-packaged for easy installation in sturdy cardboard tubes with wood ends.
- Anodes are 1.4" x 1.4" x 60" HI-PURE™ zinc separated by 1" spacers and tape wrapped.
- Zinc anode composition conforms to ASTM B-418-73, Type II.
- Low resistivity backfill; 75% gypsum, 20% bentonite, 5% sodium sulfate.
- Six feet of insulated No. 6 AWG stranded copper conductor silver brazed to 47/4" diameter steel core rods.

TYPE	DIAMETER	OVERALL LENGTH	APPROXIMATE GROSS WEIGHT (Including backfill)
Two Anode Unit	7" O.D.	75"	185 pounds
Four Anode Unit	7" O.D.	75"	230 pounds

Nominal resistance of two anode grounding cell when permeated by ground water is in the order of 0.2 to 0.6 ohm. To obtain cell resistance of a lower order, four cross-connected zinc anodes can be used. Generally, the resistance of a four

anode unit will be half of a two anode unit. The zinc anodes used in these grounding cells are produced from Asarco Special High Grade electrolytic zinc.