



## Anode Sled

### Product Description

Six, heavy high silicon cast iron (HSCI) anodes, each 315 lb / 140 kg, are securely mounted on a corrosion resistant frame (sled). The sled weighs approximately 2,000 kg (4,410 lb), depending upon the size and length of shore lead cable. The footprint is nominally 2.1 m x 2.0 m x 0.6 m (7 ft x 6.5 ft x 2 ft).

### Application Information

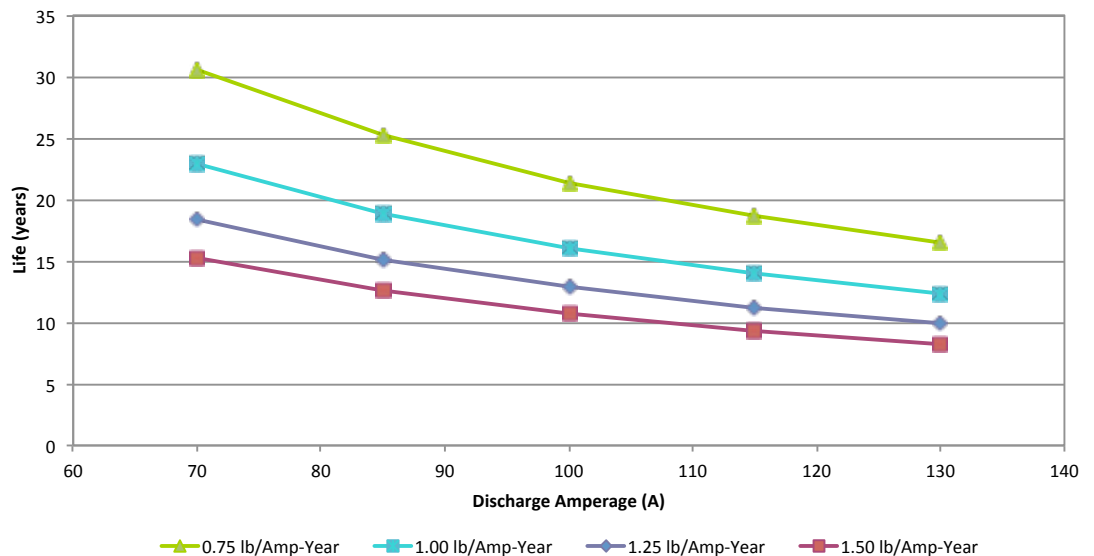
The anodes are spaced for uniform current discharge and consumption. Although HSCI in sea water can withstand current discharge amperages exceeding 5 Amps/sq. ft. (55 Amps/sq. m), the following factors should be considered.

- Environmental regulations may restrict sled discharge current to lower values. (i.e. less than 1 Volt/meter electric field strength in natural waters).
- Sled life will depend upon the weight of anodes (1,890 lb), the discharge amperage, their consumption rate, and utilization efficiency (85%).

The following figure illustrates the estimated sled life versus discharge amperage for different consumptions rates.

6-Anode Sled Life vs. Discharge Amperage

(4884 SZ Anodes, Assuming 85% Utilization)





## Sled Construction

Each 4884 SZ anode has a single #8 Halar / Kynar HMWPE cable lead connected to a shore-based rectifier (not included) by means of two, parallel insulated cables (usually, but not limited to #6, #4 or #2 HMWPE 600V) protected by heavy wall EPDM rubber hose. Length permitting, dual cables of #2 or smaller may be protected by a single hose.

Each anode lead exits from the side of the anode 400 mm (16") from the center connection. The lead wire is protected by a sleeve of rubber hose at the hole in the anode wall. The interior of the anode is encapsulated with epoxy for 460 mm (18"), covering the anode-lead.

The on-sled junction between anode leads and shore leads utilizes high strength ground connectors (copper), sealed and protected by epoxy. The epoxy mass is encased in a fiberglass-reinforced pipe. The shore lead cables and protection hose(s) are securely encased in concrete in the Sled Frame before terminating in the on-sled junction.

The sled frame consists of two, 12" (300 mm), 78" (2000 mm) long PVC pipes filled with reinforced concrete. The pipes are connected together by three, 4" (100 mm) fiberglass-reinforced pipes filled with reinforced concrete.

The sled frame includes 4 lifting eyes and 12 anode clamps manufactured from steel U-bolts, cover protected by a heat shrink sleeve and a 1" EPDM rubber hose jacket. The U-bolts are cast into concrete.

A name plate secured into concrete lists Anotec and the sled serial number and date of manufacture. Customer project "information" is optional.



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