

Shaft Grounding Strap

Electrically bonds your drive shaft(s) to the greater vessel bonding system assisting in efficient & effective cathodic protection.

THIS KIT CONTAINS:



1 x pot of MPS Conductive Grease



1 x tinned copper Shaft Strap, SS 316 arm bar & hull mount



1 x stainless steel cable tie



2 x SS 316 tensioning springs (2 sizes)

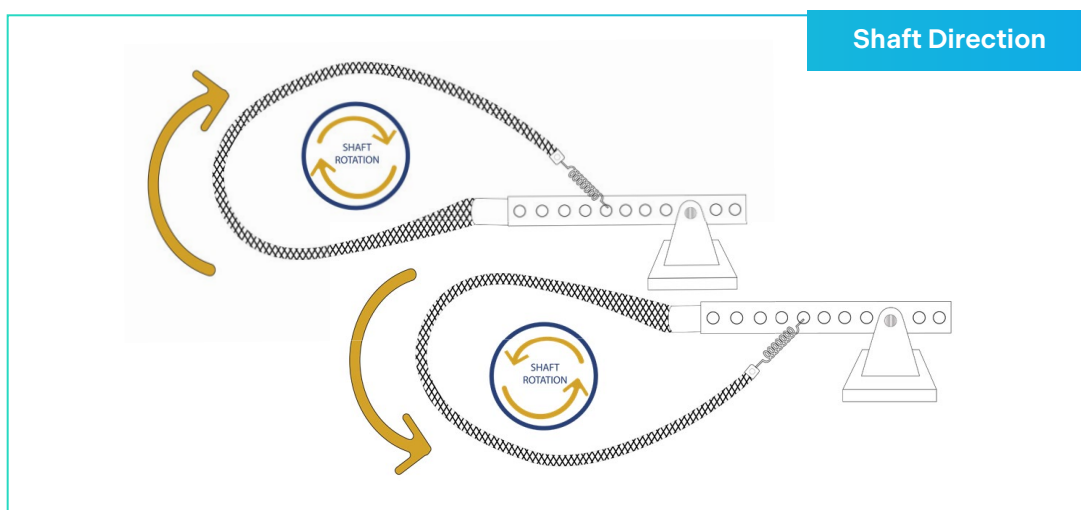


1 x maintenance sticker

INSTALLATION INSTRUCTIONS (GENERAL)

MPS Shaft Grounding Strap should only be installed by persons competent in fitting, maintenance or repair of marine vessels.

- 1 Find a location on the exposed stainless steel shaft which is free from any rotating parts or couplings, and in close proximity to a suitable hull or other mounting location.
- 2 Use a gentle abrasive to remove glossy surface of shaft at point of connection (A shiny shaft will cause a poor connection).
- 3 Clean the shaft with a dry soft cloth to remove any residual material.
- 4 Wrap the braided strap over the shaft **in the same direction** as the shaft rotation when in drive and with good flat contact (see below illustration).



MPS recommend that the Shaft Grounding Strap be tested for connection by a qualified Marine Electrician, using the MPS Cathodic Protection Reference Electrode & a quality multimeter.

INSTALLATION INSTRUCTIONS (GENERAL)

- 5 Select spring length required & affix into one of the 11 available holes to allow slack tension to the strap. There should be minimal tension on the spring (see image overleaf).
- 6 Ensure the strap is not over tightened. Strap should have approx 50% connection to the circumference of the shaft. There should be no tension on the spring (see image overleaf).
- 7 Affix supplied stainless steel cable tie as a redundancy in case the spring fails.
- 8 Mark the hull through the holes in the hull mounting bracket.
- 9 Drill and screw the hull mounting bracket. Use a flexible adhesive to protect hull and help secure.
- 10 Apply only enough MPS Conductive Grease as supplied to lubricate the shaft strap - "less is more". Work grease into the braid to improve electrical conductivity of the braid.

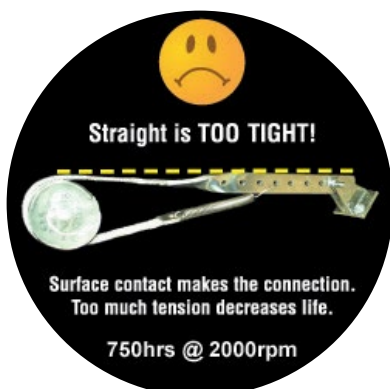
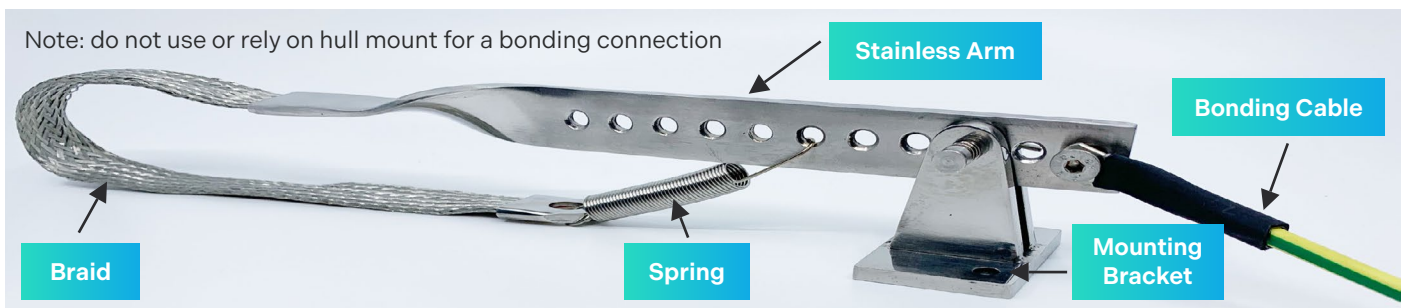
SPECIFIC VESSEL INSTALLATION

Connect a bonding wire from an unused hole on the **stainless arm** to:

Composite/Fibreglass Vessel: Connect to the vessel bonding system.

Timber Vessel: Connect to the vessel bonding system. Best practice is to isolate SGS mounting bracket from hull (plastic mounting).

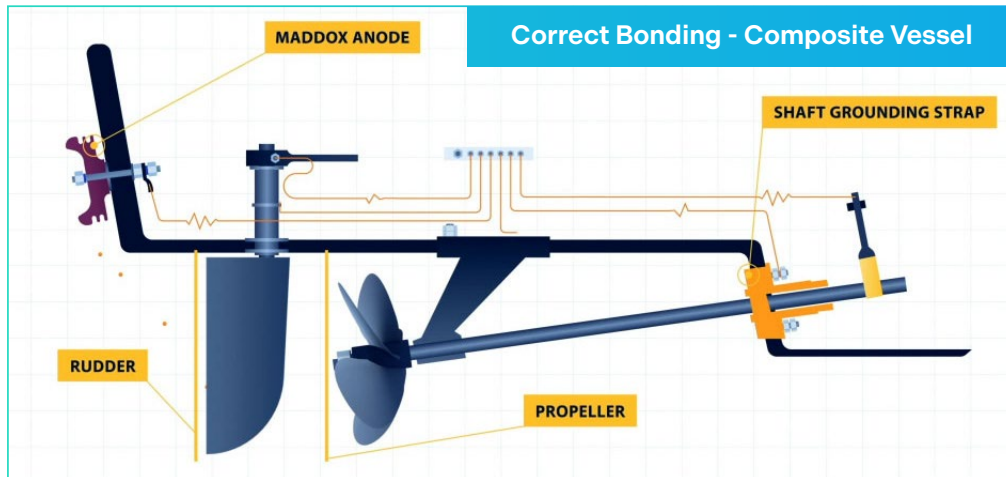
Metallic Vessel: Connect bonding cable on the hull near a hull anode and isolate SGS mounting bracket from hull (plastic mounting).



CORROSION CONTROL THAT WORKS

INSTALLATION TEST:

- ✓ Test less than 1ohm resistance between strap & shaft and bonding location (see sticker)
- ✓ Affix supplied sticker in clearly visible location near installation



MAINTENANCE INSTRUCTIONS

Maintenance not in accordance with MPS recommendations will void any product warranty.

- 1 A visual inspection of the strap should be carried out regularly and lubricant re-applied during periods of frequent use and/or after bilge clean and mechanical maintenance. (See maintenance sticker)
- 2 Ensure that the Shaft Grounding Strap maintains surface contact with the vessel shaft.
- 3 Ensure that the Shaft Grounding Strap braided strap is not over tightened, or too loose when inspected.
- 4 Ensure the braided strap and shaft surface is clean & mildly lubricated with MPS Conductive Grease where the shaft strap is in contact with the shaft.
- 5 Regular inspection of the Shaft Grounding Strap and reapplication of Grease is required. Users will need to determine the regularity of application depending on frequency of vessel use and other factors (see below)
- 6 Retain instructions for further use and reference.

PERFORMANCE REDUCTION

Things that can affect the performance of the Shaft Grounding Strap:

- ⊘ Leaking Shaft Seal: Water and salt can cause degradation to the connection, causes high resistance and can score the shaft.
- ⊘ Too Tight or Loose: Can cause mechanical or electrical failure.
- ⊘ Contamination: Metal/timber/fiberglass debris can act as abrasive &/or insulator. Glazing caused by contamination produces a shiny shaft which is indicative of increased resistance, causing poor connectivity.
- ⊘ Other: Debris and salt will score the shaft and affect performance as will on board process such as the cleaning of the engine room can wash away the lubricant.

Note: Fitting or maintenance not in accordance with MPS recommendations will void any product warranty.

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CORROSION CONTROL THAT WORKS