

**SonicPRO** Ultrasonic Protection System

## INSTALLATION MANUAL



Transducer and radius bracket installation for onto curved surface i.e. Seawater Strainer and Pipework.



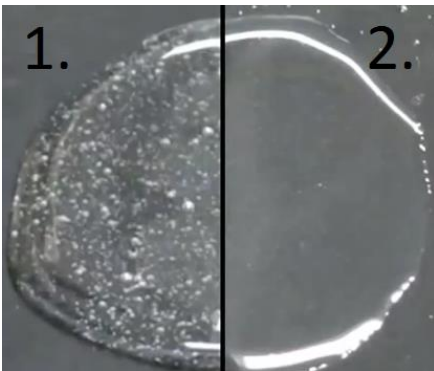
## IMPORTANT INFORMATION

### ***BEFORE INSTALLATION OF THE TRANSDUCER RADIUS BRACKET....***

You are looking to make 100% contact between the curved underside surface of the bracket and the surface of the strainer housing or pipe. The better you prepare the surface the better the effect.

### ***EPOXY MIXTURE....***

Ultrasound does not transmit through air! Use a good quality epoxy and allow the air bubbles in the mixture to dissipate leaving a smooth air free mixture.



#### **SAMPLE EPOXY MIXTURE**

1. Air bubbles in epoxy mixture x
2. Good air free mixture ✓

*Failure to follow these instructions will lessen the transmission of the sound waves and reduce the effectiveness of the system.*

# TRANSDUCER POSITIONING GUIDE

Positioning of the transducer(s) is critical because incorrect positioning can make the system less effective.

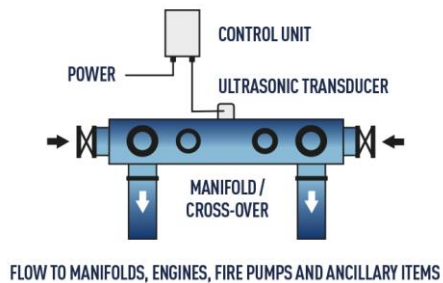
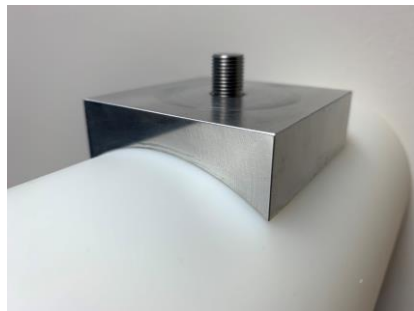
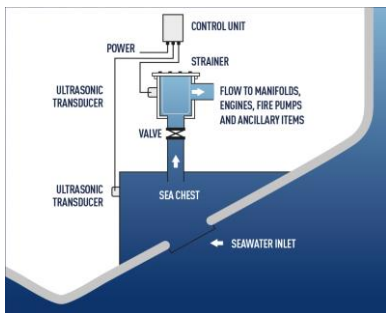
## Strainer / Filter Housing

A central position (or nearest too) on the vertical length between the lid and lower flange (base of cylinder) is preferred to allow even dissipation of the sound waves into the inner flooded space surrounding the isolated strainer / filter.

## Pipes and Crossover Sections

A central position (or nearest too) on the pipe length or in equal distances from edge to edge if using multiple transducers. Do not place on the horizontal line where air bubbles may be trapped under the surface, go around slightly either way about 20 – 30°.

**Mark each selected position to be prepared for bonding of the transducer bracket.**



# RADIUS BRACKET INSTALLATION

## 1. Preparing the surface

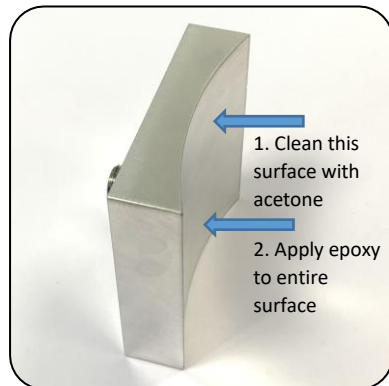
It is vital that the surface to which the bracket is to be attached to, is totally smooth, dry and free from grease and dust when the epoxy is applied for bonding.

Carefully prepare the location of the transducer bracket using an 80 - 120grit sand paper, preparing a smooth surface removing any high spots in the coating. If the coating is loose, then you should rub down to expose the bare metal. This will ensure a strong bond of the bracket. A new coating can be applied around the bracket after installation if required.

Once this has been done clean the whole area with acetone and make sure it is dry and free from grease and dust.

## 2. Preparing the mounting bracket

Clean the underside area with acetone and make sure it is dry and free from grease and dust. Avoid touching the surface with your fingers which could weaken the bond.



## 3. Bonding down the transducer mounting bracket

Using rubber gloves to protect your hands, mix the epoxy (i.e. Araldite Rapid set) and apply about 1.0 – 2.0mm thickness to the underside surface of the bracket. Do not spoil the top surface and threaded stud of the bracket, apply some protective low-tac tape to these areas if required.

Allow the applied epoxy to settle removing any air bubbles in the mixture .... *Ultrasound does not transmit through air!*. Then locate the bracket onto the prepared area and push down firmly moving it slightly side to side until it feels in good contact with the surface. To avoid the bracket moving from its position during the cure, tape down. On vertical surfaces, it is best to hold it firmly for several minutes before taping.

***Leave for 24 hours to allow the epoxy to set before fitting the transducer.***

## TRANSDUCER INSTALLATION

**1.** Check for any debris or excess epoxy on the flat (transducer contact) surface of the bracket that would prevent the transducer making 100% flat contact.



**2.** Apply a small amount of silicone grease to the thread of the lug for lubrication. This will help release the transducer in future if required.

**3.** Place the transducer down onto the threaded lug and using finger-tip pressure only, screw down until the transducer face makes a firm (hand tight) scratch contact.



**CAUTION:** DO NOT OVER TIGHTEN THE TRANSDUCER AS THIS MAY DAMAGE THE THREAD IN THE TRANSDUCER ITSELF.

## TECHNICAL SUPPORT

Contact the technical support team:

**Telephone:** +44 (0) 1202 606 185

**Email:** [info@ultrasonic-antifouling.com](mailto:info@ultrasonic-antifouling.com)

## NOTES

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Ultrasonic Antifouling Ltd

Arena Business Centre, Holyrood Close, Poole, Dorset, BH17 7FJ. England

**T:** +44 (0) 1202 606 185    **E:** [info@ultrasonic-antifouling.com](mailto:info@ultrasonic-antifouling.com)

**[www.ultrasonic-antifouling.com](http://www.ultrasonic-antifouling.com)**