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## ***The Model ACIP2 Sonolator™***



**Assembly/Disassembly Instructions**

## *Assembly and Disassembly*

Refer to Drawing ACIP2 or Figure 1 for all items detailed below. The numbers can be matched with their corresponding part number and description listed in each drawing or the Bill of Materials list included with the exploded view drawing.

### ***Blade Removal and Replacement***

The ACIP2 Sonolator has to be removed from the system to change the Blade.

1. Remove the Process Connection tri-clamp fittings to remove the Sonolator from pipework.
2. Once the Sonolator is on a level and clean work surface, remove the 1.5 inch tri-clamp fittings that connect the ACIP2-3 Orifice and ACIP2-1 Blade to the ACIP2-2 Center Body.
3. There are standard Tri-clamp Gaskets on either side of the Blade piece; the Gasket around the Blade itself is  $\frac{3}{4}$  inch size and the back end Gasket is 1 inch.
4. Slide the Blade smoothly and evenly back from the Center Body, keeping items as straight as possible so as to not damage the Alignment Pins.
5. Before reassembly, clean and wipe all parts and surfaces before replacing them. Don't forget to install the Gaskets on either side of the Blade. The Blade is aligned properly by aligning the hole on the Blade with the Pin on the Center Body.
6. The Blade is inserted with the protruding knife-like blade pointing in toward the Center Body as shown:



7. Properly align the Alignment Pin on the Center Body with the opening on the Blade; this ensures proper alignment of the Blade with the Orifice.
8. The smooth, flat surface will be facing out for connection to the Sonolator discharge piping.

DON'T FORCE ANYTHING. IF IT DOESN'T FIT, IT'S DIRTY OR IT'S BEING ASSEMBLED INCORRECTLY.

### ***Orifice Removal and Replacement***

The ACIP2 Sonolator has to be removed from the system to change the Orifice.

1. Remove the Process Connection tri-clamp fittings to remove the Sonolator from pipework.
2. Once the Sonolator is on a level and clean work surface, remove the 1.5 inch tri-clamp fittings that connect the ACIP2-3 Orifice and ACIP2-1 Blade to the ACIP2-2 Center Body.
3. There are standard Tri-clamp Gaskets on either side of the Orifice piece; the Gasket around the Orifice nose itself is  $\frac{3}{4}$  inch size and the back end Gasket is 1 inch.
4. Slide the Orifice smoothly and evenly back from the Center Body, keeping items as straight as possible so as to not damage the Alignment Pins.
5. Before reassembly, clean and wipe all parts and surfaces before replacing them. Don't forget to install the Gaskets on either side of the Orifice. The Orifice is aligned properly by aligning the hole on the Orifice with the Pin on the Center Body.
6. The Orifice is inserted with the protruding nose pointing in toward the Center Body as shown:



7. Properly align the Alignment Pin on the Center Body with the opening on the Orifice; this ensures proper alignment of the Orifice with the Blade.
8. The smooth, flat surface will be facing out for connection to the Sonolator discharge piping.

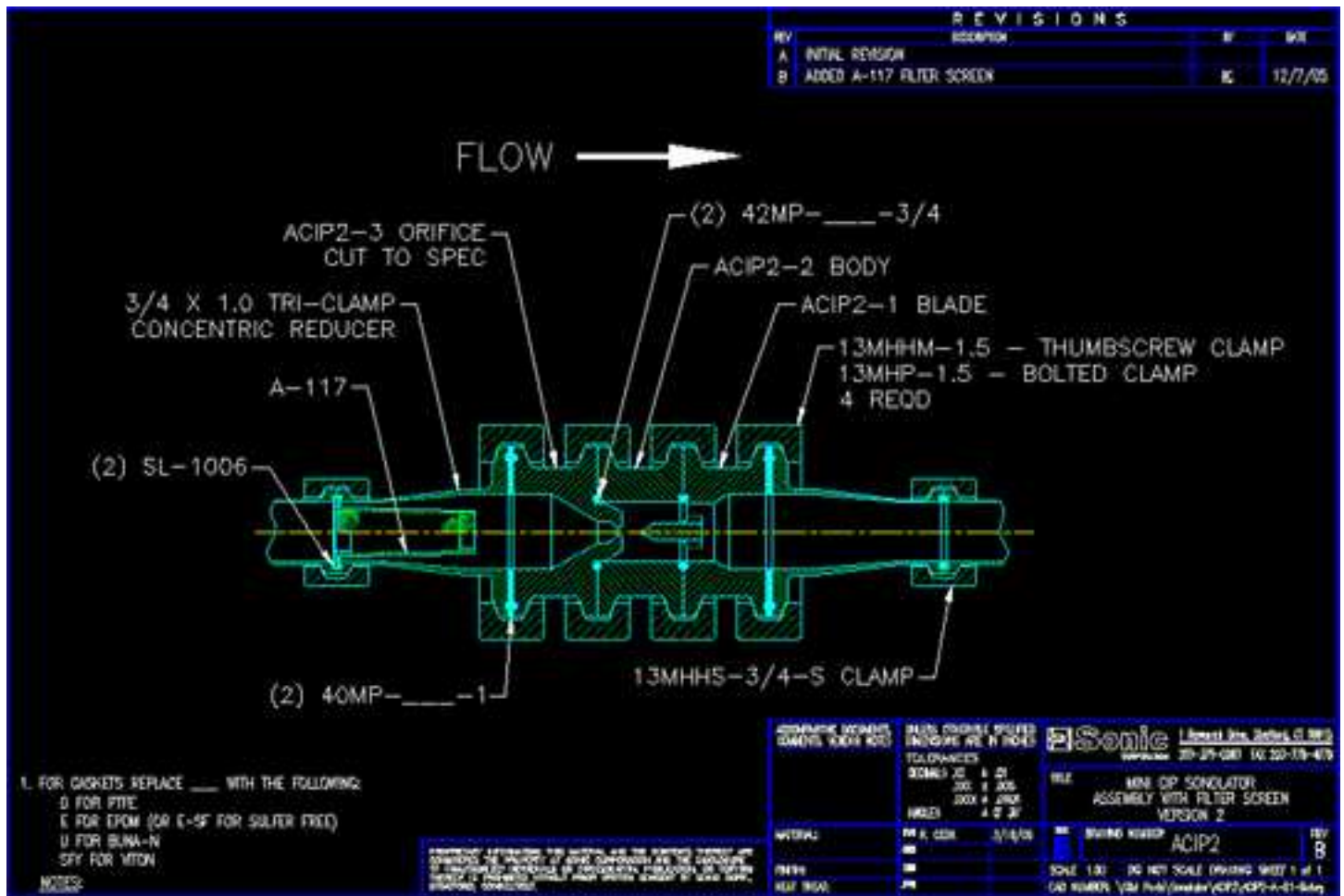
### ***Reassembly***

1. For reassembly of the entire ACIP2 Sonolator, it is imperative that the Orifice and Blade be aligned as illustrated in the assembly drawing and the photo below:



2. The knife-like blade needs to face the protruding face of the Orifice as shown.
3. Flow travels from the left, through the Orifice and out over the Blade knife edge, and exits to the right.
4. Piping from system pumps need to be connected to the Orifice side of the Sonolator and the discharge piping of the system needs to be connected to the Blade side of the Sonolator. Flow does not need to flow from left to right as illustrated here.

## Drawing ACIP2



## ACIP2 CIP Sonolator™ Bill Of Materials

- ACIP2-3 Orifice
- ACIP2-1 Blade
- ACIP2-2 Center Body
- 13MHHM-1.5 Tri-clamp Clamp, 1.5 inch; qty 4
- 40MP-X-1 Tri-clamp Gasket, 1 inch; qty 2; specify material
- 42MP-X-1 Tri-clamp Gasket, 3/4 inch; qty 2; specify material

Not all units contain the A117 Filter. Inlet and Outlet to Sonolator are standard Tri-clamp fittings in 1 inch sizes.