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## ***The Model CIP Sonolator™***



**Assembly/Disassembly Instructions**

## *Assembly and Disassembly*

Refer to Drawing B1101D 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 CIP 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 4-inch double-bolt tri-clamp fittings that connect the B3101 Inlet and Outlet pieces to the B3102 Center Body.
3. The B3102 Center Body holds the Blade, B1109. Position the Sonolator with the Blade Process Connection end up on a flat surface and pull the Blade out from the backside.
4. There are teflon spacer Gaskets on either side of the Blade; these are the same size.
5. Reassemble by reversing the order. Clean and wipe all parts and surfaces before replacing them. Don't forget to install the teflon Gaskets on either side of the Blade. The Blade is aligned properly by aligning the notch on the Blade with the Pin on the inside diameter of the B3102 Center Body.
6. The B1109 Blade is inserted with the protruding knife-like blade pointing in toward the Center Body.
7. The smooth, flat surface will be facing out for connection to the B3101 Blade Inlet piece.
8. Install the Teflon Gasket before clamping together the Center Body and Inlet piece.
9. DON'T FORCE ANYTHING. IF IT DOESN'T FIT, IT'S DIRTY OR IT'S BEING ASSEMBLED INCORRECTLY.

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

1. The CIP Sonolator has to be removed from the system to change the B1108 Orifice. It is best to remove the B1109 Blade before removing the B1108 Orifice.
2. Remove the Process Connection tri-clamp fittings to remove the Sonolator from pipework.
3. Once the Sonolator is on a level and clean work surface, remove the 4-inch double-bolt tri-clamp fitting that connects the B3101 Inlet piece to the B3102 Center Body.
4. The B3102 Center Body holds the Orifice, B1108. Following the above instructions, remove the B1109 Blade.
5. Once the Blade has been removed, position the Sonolator with the Blade Process Connection end up on a flat surface and push the Orifice out from the backside.
6. There are teflon spacer Gaskets on either side of the Orifice; these are the same size.

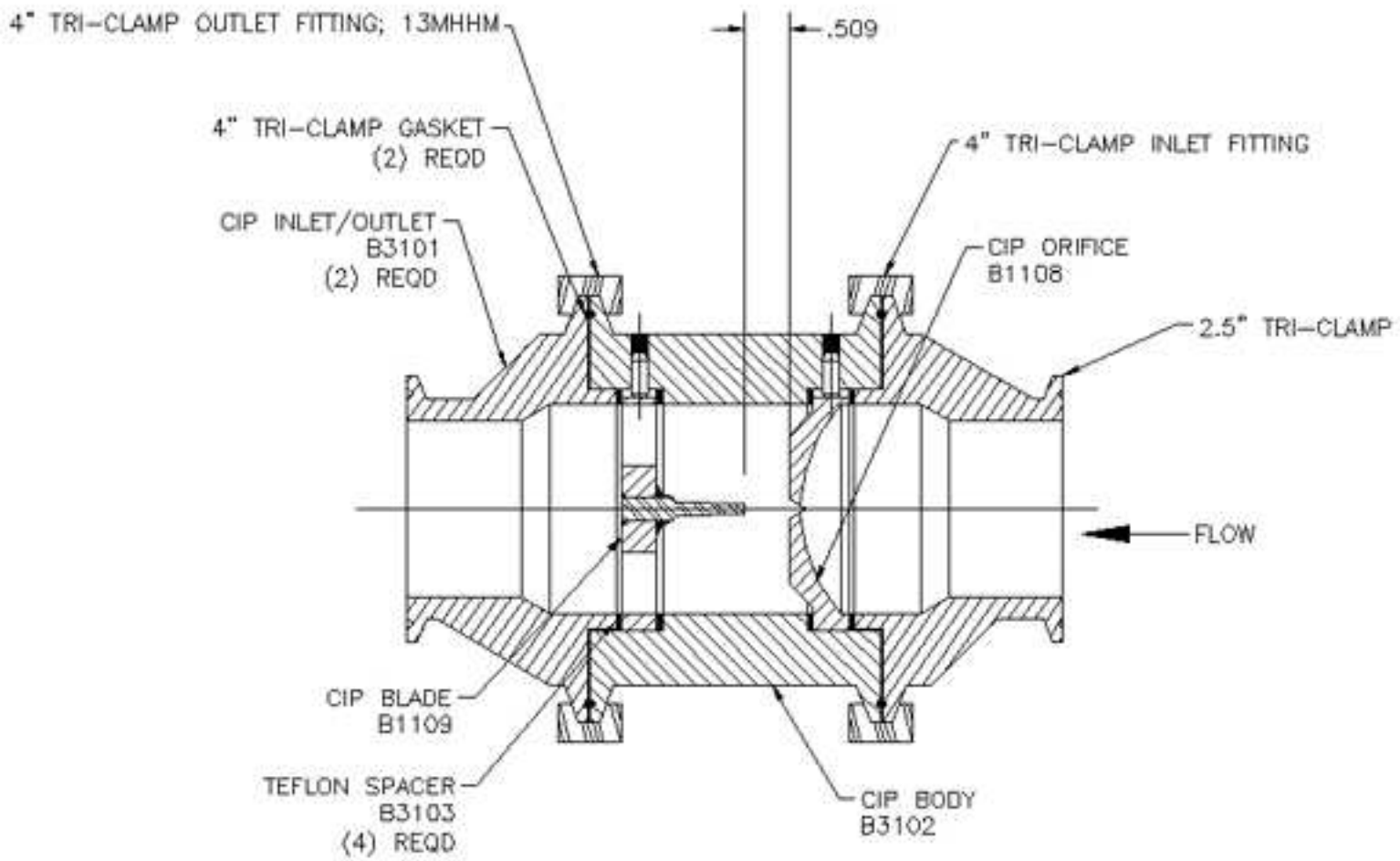
7. Reassemble by reversing the order. Clean and wipe all parts and surfaces before replacing them. Don't forget to install the teflon Gaskets on either side of the Orifice. The Orifice is aligned properly by aligning the notch on the Orifice with the Pin on the inside diameter of the B3102 Center Body.
8. The Orifice is inserted with the protruding face pointing in toward the Center Body.
9. The smooth, concave surface will be facing out for connection to the B3101 Inlet piece.
10. Install the Teflon Gasket before clamping together the Center Body and Inlet piece.
11. DON'T FORCE ANYTHING. IF IT DOESN'T FIT, IT'S DIRTY OR IT'S BEING ASSEMBLED INCORRECTLY.

### ***Reassembly***

1. For reassembly of the entire CIP Sonolator, it is imperative that the B1108 Orifice and B1109 Blade be aligned as illustrated below with the B3102 Center Body.
2. The notches seen on each piece along the circumference need to align with the Pins on the inside diameter of the Center Body.
3. The knife-like blade needs to face the protruding face of the Orifice.
4. Flow travels from the right, through the Orifice and out over the Blade knife edge, and exits to the left.



## Drawing A1160D



### A1160 CIP Sonolator™ Bill Of Materials

B1108	CIP Orifice
B1109	CIP Blade
B3101	CIP Inlet and Outlet; connection sizes to process vary
B3102	CIP Center Body