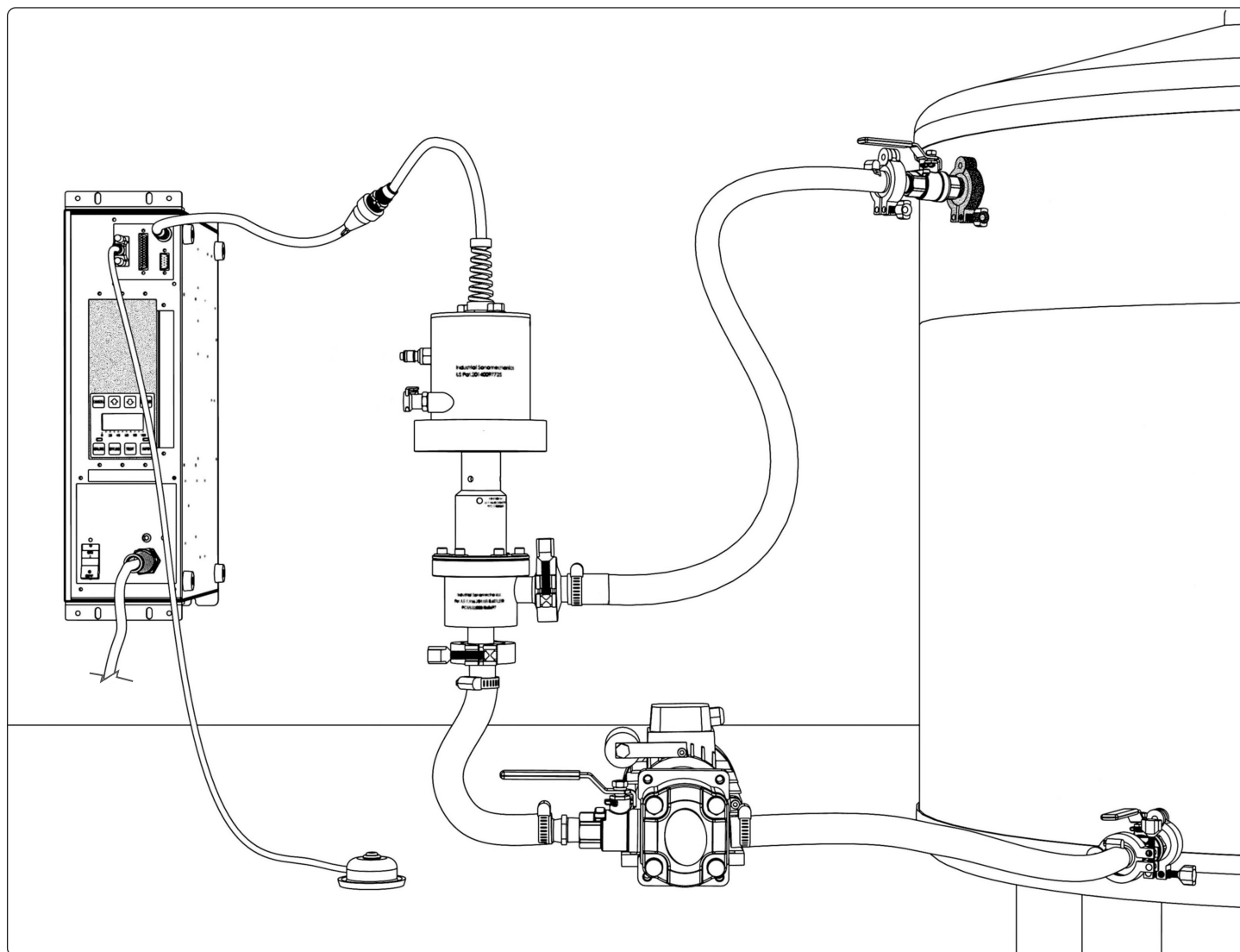


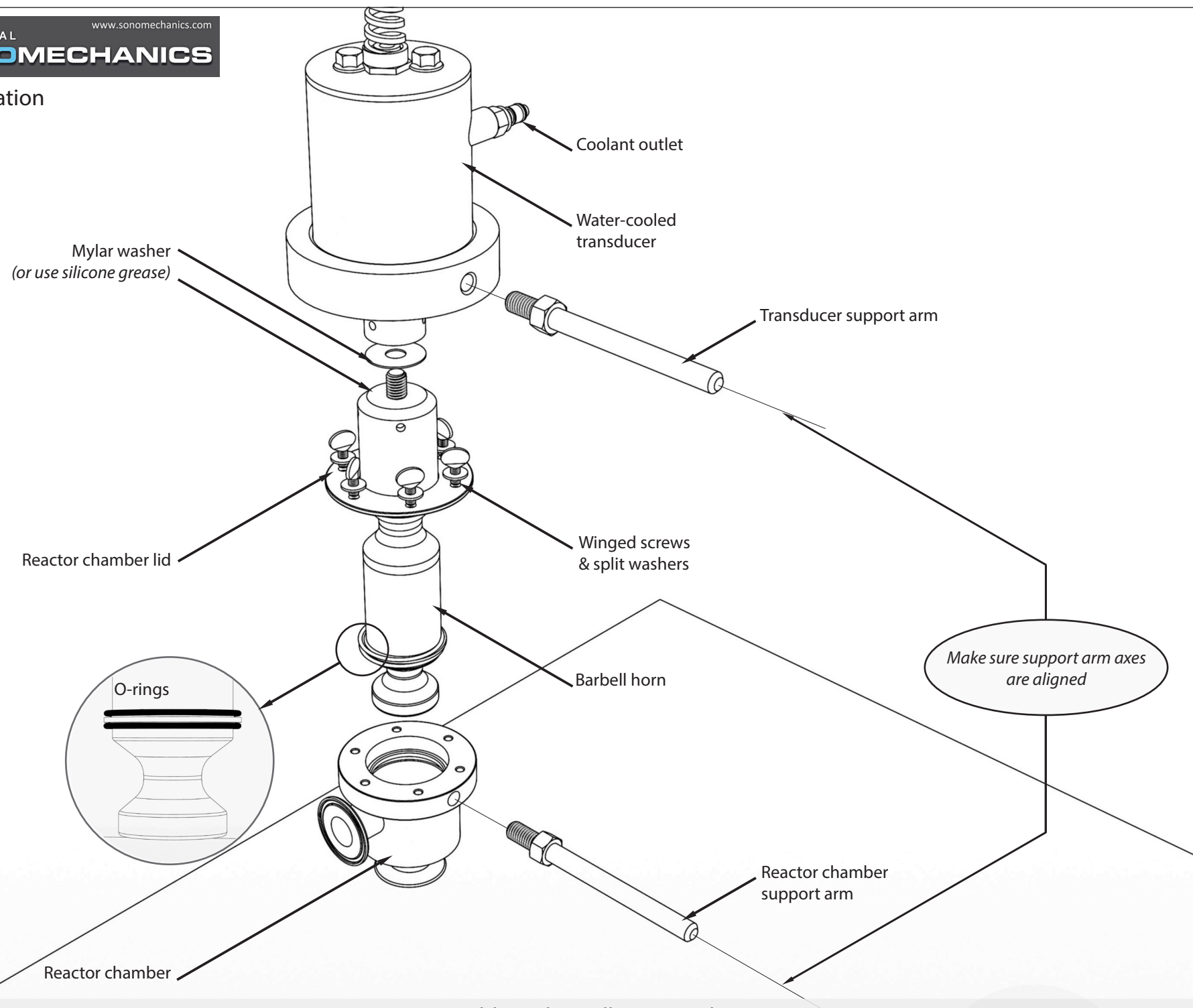


# ISP-3000 Assembly and Installation Guide

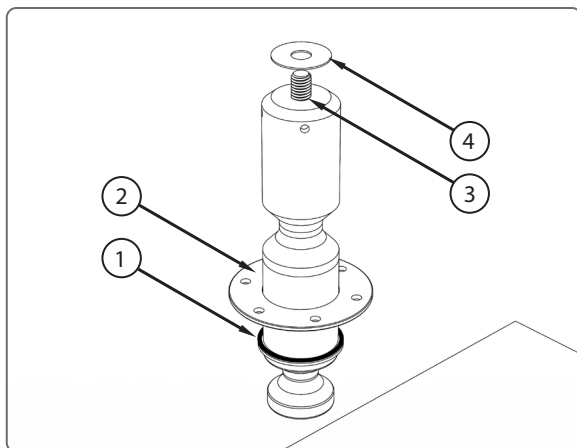




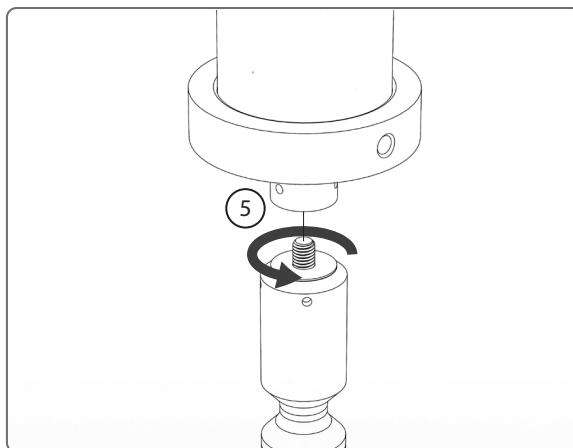
## Parts Identification



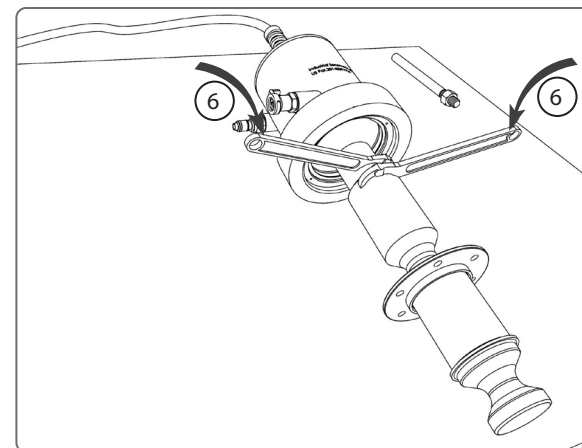
## Ultrasonic Stack Assembly Guide



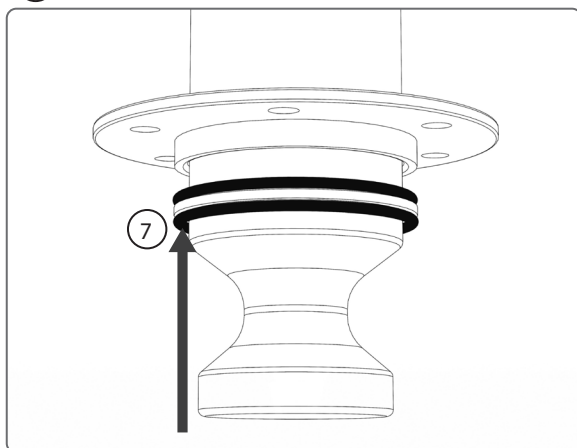
- ① Place the top O-ring above the horn flange;
- ② Place the reactor chamber lid above the horn flange;
- ③ Thread and tighten the connecting stud into the horn;
- ④ Place the Mylar washer over the connecting stud;



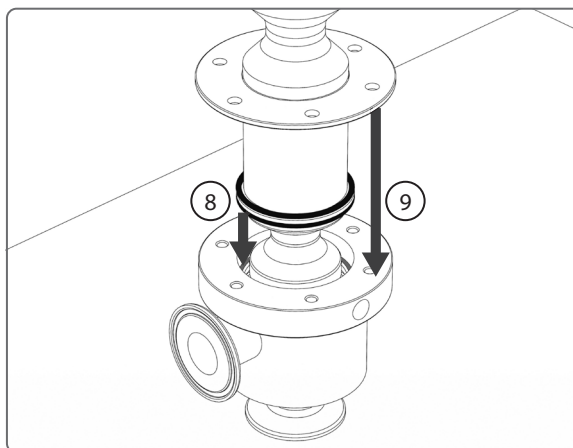
- ⑤ Thread the horn into the transducer by hand;



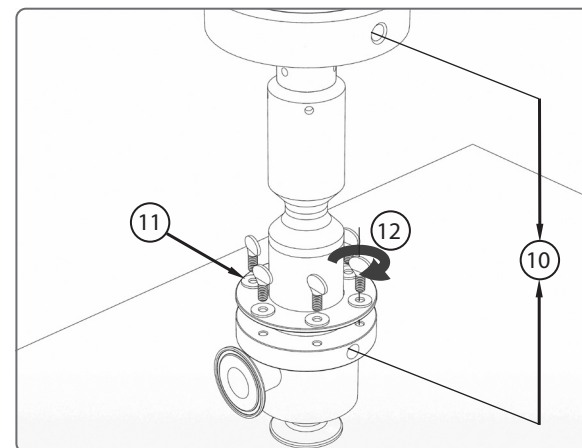
- ⑥ Tighten the assembly using spanner wrenches (see manual for details);



- ⑦ Place the bottom O-ring below the horn flange;



- ⑧ Insert the horn into the reactor chamber until the bottom O-ring is in contact with the chamber;
- ⑨ Lower the lid until it is in contact with the top O-ring and align the six holes;



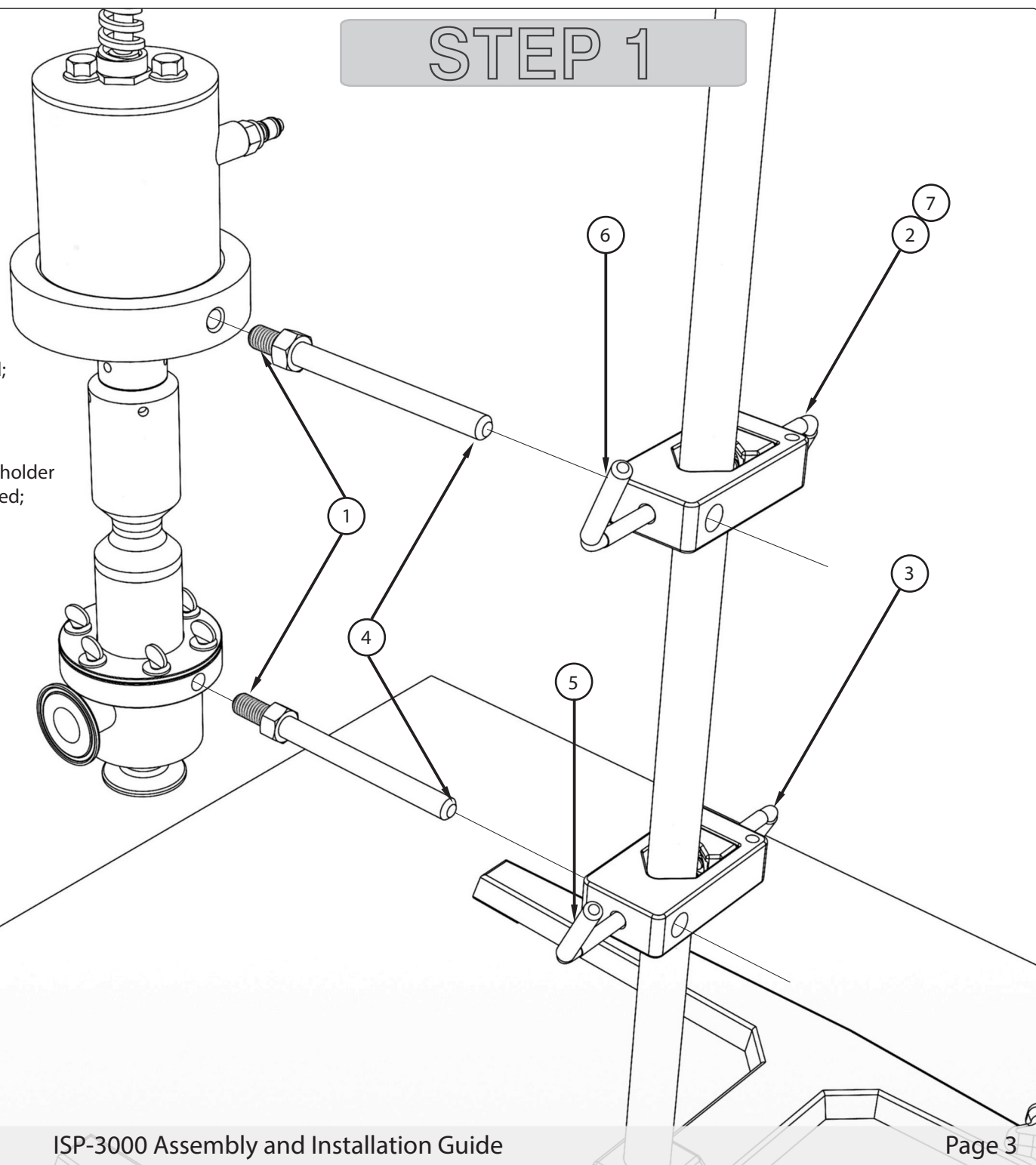
- ⑩ Align the transducer and reactor chamber support arm hole axes;
- ⑪ Insert the winged screws with split washers through the lid holes;
- ⑫ Thread the winged screws by hand. Tighten evenly on all sides using a crossing pattern.



## Flow-Through Processing Configuration Installation Guide Step 1

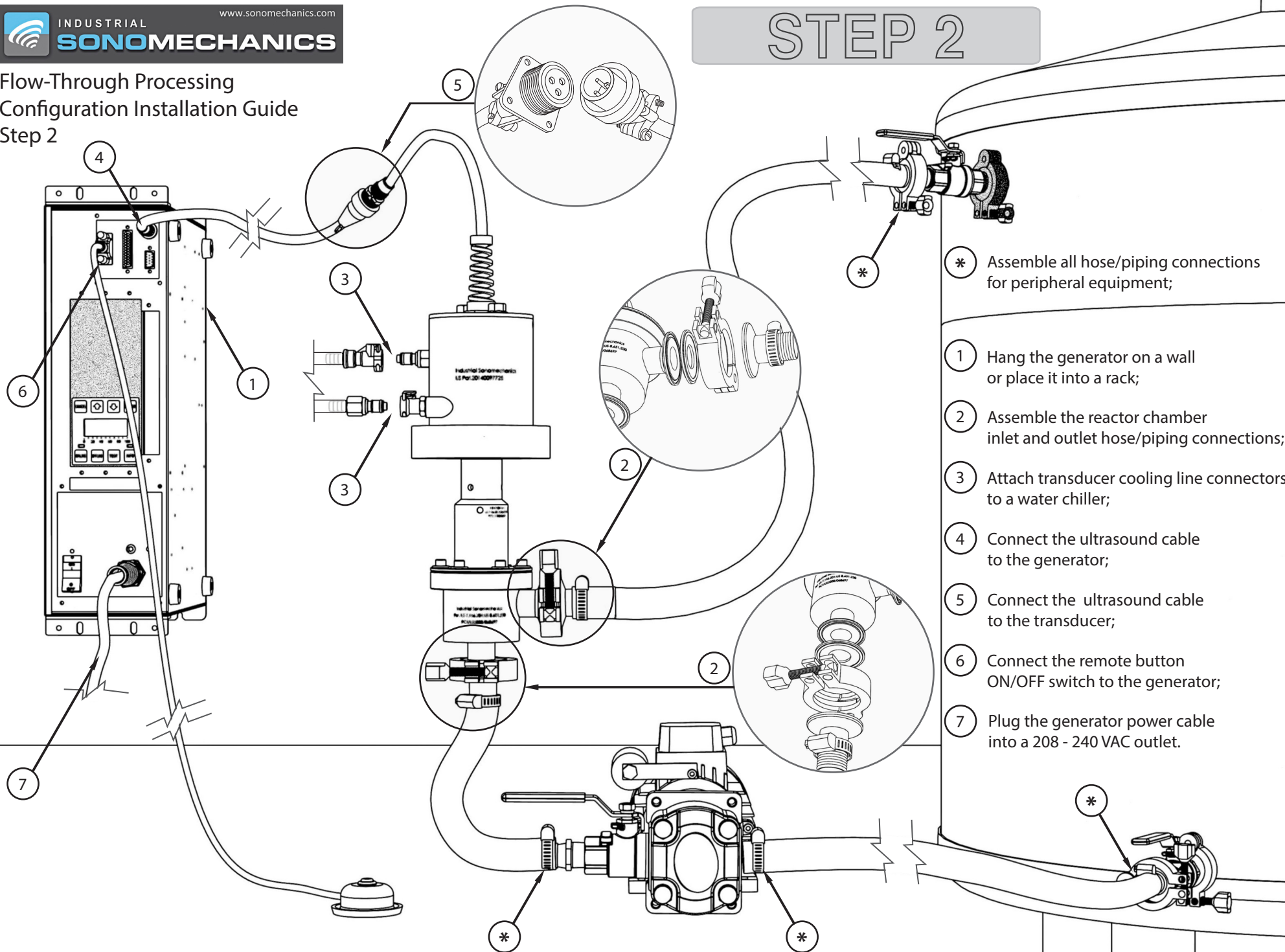
# STEP 1

- 1 Thread the support arms into the transducer and the reactor chamber and tighten the counter-nuts;
- 2 Secure the top clamp holder on the mounting rod;
- 3 Adjust the position and secure the bottom clamp holder such that both support arms can be accommodated;
- 4 Slide both support arms into the corresponding clamp holders;
- 5 Secure the reactor chamber support arm in the bottom clamp holder;
- 6 Secure the transducer support arm in the top clamp holder;
- 7 Momentarily loosen and retighten the top clamp holder to remove any strain in the assembly.



# Flow-Through Processing Configuration Installation Guide Step 2

## STEP 2



\* Assemble all hose/piping connections for peripheral equipment;

- 1 Hang the generator on a wall or place it into a rack;
- 2 Assemble the reactor chamber inlet and outlet hose/piping connections;
- 3 Attach transducer cooling line connectors to a water chiller;
- 4 Connect the ultrasound cable to the generator;
- 5 Connect the ultrasound cable to the transducer;
- 6 Connect the remote button ON/OFF switch to the generator;
- 7 Plug the generator power cable into a 208 - 240 VAC outlet.





## Batch Configuration Installation Guide

- 1 Thread the support arm into the transducer and tighten the counter-nut;
- 2 Secure the clamp holder on the mounting rod;
- 3 Slide the support arm into the clamp holder;
- 4 Secure the support arm in the clamp holder;
- 5 Adjust the height and secure the clamp holder to achieve the desired horn immersion depth.

