S5000® Round Duct Mount Kit User Instructions

MSA Kit 10179323/10179324 - S5000 316 Stainless Steel Parts List / Instructions

- Round Duct Mount Gasket (1)
- Round Duct Mount Base Plate (1)
- Base Gasket (1)
- Gasket Plate (1)
- Enclosure Gasket (1)
- Bracket (1)
- Quick-Connect Fitting (1)
- Elbow (1)
- Standoff, 1/2” Long (4)
- Screw, 3/8” Long (4)
- Washer, #10 Screw (4)
- Hose Clamp*
- Flanged Screw, 1” Long (2)
- Locknut (2)
- S5000*
- Sensor Guard (1)
- Base Assembly (1)

*Parts not provided by MSA within this kit. S5000 must be bought separately. Hose clamp depends on duct diameter.
(1) Slide the bracket up flush against the S5000 so that the holes are aligned with the two mounting slots. Align the S5000 housing so the desired port (either 1 or 4) will be facing down. Use the two 1” long flanged screws and two locknuts from the hardware bag to attach the bracket to the housing, as shown in Figures 1-4.

(2) Take the enclosure gasket and gasket plate out of their bag and place them around the 3/4 NPT thread of the sensor body as shown in Figures 5-6. Be sure to have the enclosure gasket between the gasket plate and the conduit entry on the S5000. Attach the sensor that will be mounted in the duct to desired port (either 1 or 4). Be sure to connect all internal wiring according to the wiring labels on the inside of the transmitter.
(3) Use the template provided on the last page of these instructions to trace the required cutout in the location on the duct that the S5000 will be mounted. Be sure to choose a location that allows enough room for the specific sensor configuration within the duct and is accessible for wiring/conduit. Once a suitable location is selected, cut the duct according to the template.

**Note:** The sensor must be oriented in the vertical direction upon installation. Keep this in mind when choosing a mounting location on the duct. The IR400 is not compatible with the duct mount kit.

(4) Remove the base assembly from the carton and align the cut out in the round gasket underneath the base plate with the duct cutout, as shown in Figure 7.

**Note:** Be sure to keep the tubing accessible so that the elbow can be installed on the sensor for calibration. If using a passive sensor, the tubing will not be used.
(5) Once the base assembly is properly aligned, secure it to the duct using large hose clamps (not provided) as shown in Figure 8. When tightening, alternate frequently between the hose clamps to achieve even gasket compression against the duct. Completely tighten down the hose clamps so that the base plate is firmly sealed against the gasket in the bends of the plate. If there is a gap between the base plate and duct mount gasket anywhere along the perimeter of the plate, untighten the hose clamps and repeat step 6 with more frequent alternating between hose clamps.

**Note:** Be sure to keep the tubing accessible so that the elbow can be installed on the sensor for calibration. If using a passive sensor, the tubing will not be used.

![Figure 8](image8)

(6) If using a digital sensor, attach the tubing elbow to the sensor guard as shown in Figure 9. If using a passive sensor, do not use the tubing.

![Figure 9](image9)
(7) Attach the S5000 and bracket assembly from step 2 to the base assembly via the four standoffs on the base plate. Use the four 3/8” long screws and four washers from the hardware bag to attach the bracket to the standoffs, as shown in Figures 10-11. Be sure to tighten screws completely to ensure proper gasket compression.

Figure 10  Figure 11

(8) Check to make sure all gaskets are compressed evenly. If not, repeat steps 6-8 as needed.