

Mounting the NJK Air Flow Station

If the NJK Sensor Flow Frame is ordered to be mounted in ductwork with a duct insulation liner the NJK Sensor Flow Frame will be delivered with mounting brackets designed for the lined duct mounting installation.

The NJK Sensor Flow Frame can be enlarged slightly in the field for a tight fit into the ductwork by loosening the set screws in the die cast corners of the NJK Sensor Flow Frame Assembly and sliding the corner pieces outward. The set screws must be retightened. It is recommended that the corners be slid out no more than 1-1/4 inches.

In the event that the NJK-02 Sensor Flow Frame is too large for the ductwork the extruded side pieces can be trimmed in the field with a circular saw with a non-ferrous saw blade.



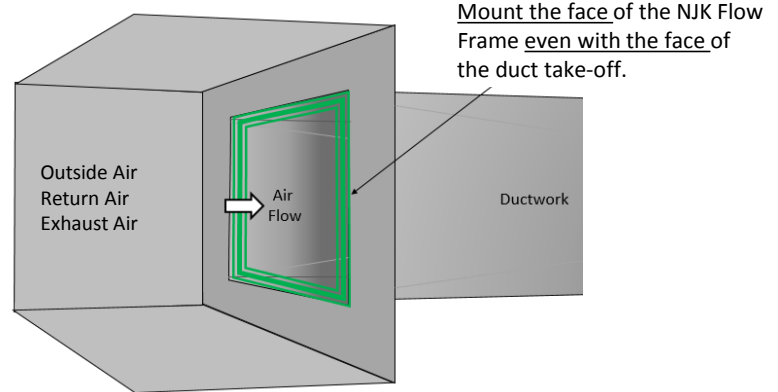
The NJK Sensor Flow Frame can be secured from outside of the ductwork by screwing into each sensor corner pieces (1 inch from edge of damper framing) with self-tapping screws or internally using the NJK Mounting Brackets

Inlet Sensor Mounting

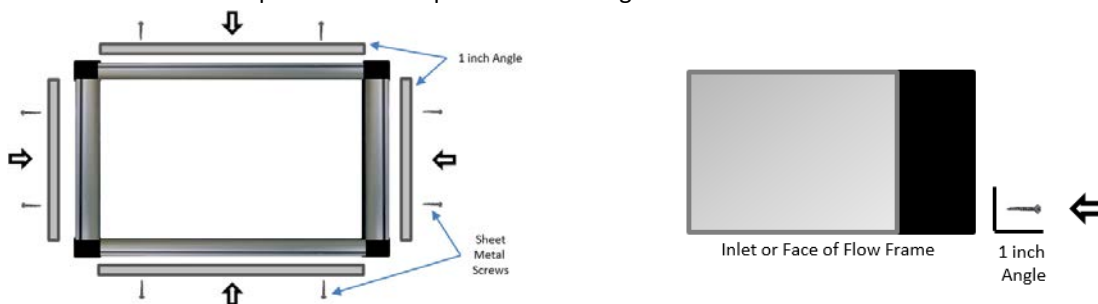
In the mounting installation to the right the NJK Sensor Flow Frame is to be mounted in a duct take-off from the main plenum. This can be in an Exhaust, Outside, or Return Air Plenum.

Mount the face of the NJK Flow Frame even with the face of the duct take-off.

(This will allow for air to enter and exit the NJK Sensor Flow Frame with all areas of the Sensor Flow Frame being exposed to the flow of air.)



NJK Sensor Flow Frames installed in an open inlet will require a 1 inch flange around the inlet face of the NJK Flow Frame.



Install all NJK Sensor Flow Frames ahead of damper banks. This will keep the sensor out of mixing chambers and will eliminate poor sensor readings due to damper restrictions and possible return air entrainment.

Flow modules mounted inside of the flow frame and interior to ductwork will require an access door so that maintenance staff can readily remove and replace the NJK Flow Measuring Module for routine cleaning or repair.

Do Not install an NJK Sensor Flow Frame on the face of a coil or filter bank as the coil or filters will become loaded with dirt and debris and will cause a false reading through the NJK Sensor Flow Frame .

System Effects must always be considered when installing an NJK Sensor Flow Frame to assure that the air flow measured through the NJK Sensor Flow Frame is a true representation of the desired air flow and is not being effected by other air sources such as return air flows or by system dynamics that adversely effect the air flow through the NJK Sensor Flow Frame.

Assembling the NJK Air Flow Station

NJK Sensor Flow Frame Assembly Instructions:

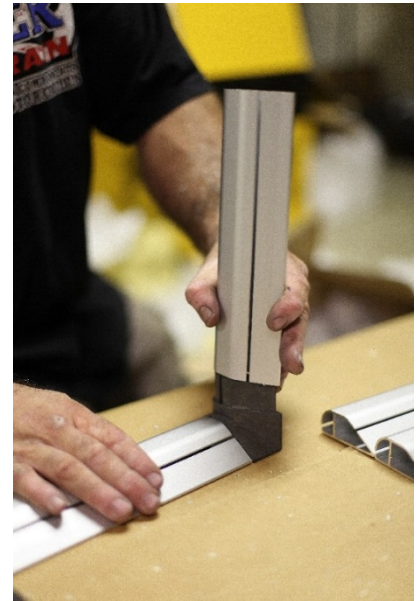
Open sensor assembly package and inspect contents for any damage

- Verify that there are two equal length side extrusion pieces and an equal length top and bottom piece.
- Verify that there are four aluminum corner pieces, a sensor probe assembly and transmitter, and an operator display panel.

Lay sensor bottom piece on its back on the floor, slide one corner piece into each end of the sensor bottom piece. (set screws in corner pieces may need to be loosened to allow the corner piece to slide into place). Tighten set screws snugly to extrusion piece.



Slide extrusion side piece onto sensor bottom piece corner (set screws in corner pieces may need to be loosened to allow the side piece to slide into place). Tighten set screws snugly to extrusion piece. Repeat for other side piece.



Flip top piece assembly onto side piece extrusions while setting corner pieces into side extrusion pieces (set screws in corner pieces may need to be loosened to allow the side pieces to slide into place). Tighten set screws snugly to extrusion piece.



The NJK Flow Measuring Module will be delivered factory mounted to the NJK Sensor Flow Frame. In the event that the NJK Flow Measuring Module is separated from the Sensor Flow Frame or during regular maintenance locate the pre-drilled mounting holes on the NJK Sensor Flow Frame, match the NJK Flow Measuring Module to the mounting holes in the NJK Sensor Flow Frame and secure the NJK Flow Measuring Module to the sensor frame by four screws (Included).

The NJK Flow Measuring Module **must be mounted squarely on the Flow Frame** to ensure optimal sampling port gasket sealing and proper sampling of the total air flow through the ductwork and into the Flow Measuring Module. Tighten all 4 screws equally to maintain an even contact between the Flow Measuring Module and the Flow Frame.



*Please note that air flow direction is marked on the NJK Flow Measuring Module and will be labeled on the NJK Sensor Flow Frame near the pre-drilled mounting holes. The sensor air flow must be the same for both the NJK Flow Measuring Module and the NJK Sensor Flow Frame .

Mounting the NJK Air Flow Station

Rain Hood Mount Installation: (NJK Flow Measuring Module internally mounted)

1. Set the NJK Sensor Flow Frame inside rain hood and assure proper fit.
2. Flow direction arrow on NJK Sensor Flow Frame should match air flow in ductwork.
3. Secure NJK Sensor Flow Frame from outside of the rain hood by screwing into corners with self-tapping screws.
4. Assure that all screws and the NJK Sensor Flow Frame do not interfere with damper operation or functionality.
5. Drill 3/4" hole in side of damper housing section and pull sensor wire from the NJK Flow Measuring Module to the outside of the air system.



Assemble in Duct Installation: (NJK Flow Measuring Module internally mounted)

1. Bring NJK Sensor Flow Frame sensor pieces into duct area ensuring 2 straight extrusion pieces of one dimension and two of the other side wall dimension (NJK Flow Measuring Module will need to be mounted on the extrusion piece with factory mounting holes) and that you have 4 die cast corner pieces.
2. Assemble the four extrusion pieces together with the 4 corners to form the NJK Sensor Flow Frame sensor assembly on a slight angle in the ductwork.
3. Move the NJK Sensor Flow Frame sensor assembly into place and slide the 4 corners out to match the duct walls in the installation. Be careful not to slide the corner pieces out more than 1-1/2" to avoid disassembling the sensor assembly.
4. Flow direction arrow on NJK Sensor Flow Frame should match air flow in ductwork
5. Secure the NJK Sensor Flow Frame from outside of ductwork into each sensor corner piece (1 inch from edge of ductwork) with self-tapping screws or internally using the NJK Mounting Brackets
6. Drill 3/4" hole in side of ductwork directly left or right of cut-out section and pull sensor wire from the NJK Flow Measuring Module to the outside of the air system (using grommet provided).



NJK Mounting Brackets

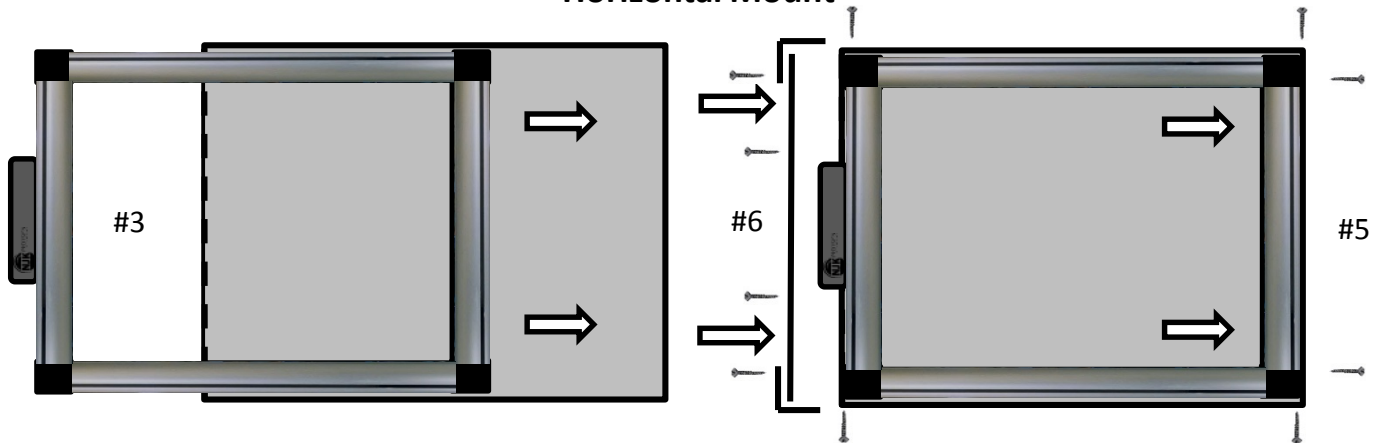


Mounting the NJK Air Flow Station

Cut and Slide* Installation: (Delivered with Finish End Plate Option)

1. Cut opening in the side of ductwork (as specified for the job) the full width of the duct and 6" high.
2. Install Angle Mounting Brackets in each of the four corners directly below the cut-out section approximately 1 inch inward from each corner (Vertical Mount).
3. Set the NJK Sensor Flow Frame into the cut-out section and rest on all four Angle Mounting Brackets. Ensure that air flow station is completely into the insert.
4. Flow direction arrow on NJK Sensor Flow Frame should match air flow in ductwork.
5. Ensure that the NJK Flow Measuring Module is mounted squarely on the NJK Sensor Flow Frame.
6. Secure NJK Air Flow Station from outside of ductwork into each sensor corner piece (1 inch from edge of ductwork) with self-tapping screws.
7. Add end cover plate and corners to the NJK Sensor Flow Frame and fasten with screws provided.

Horizontal Mount



Slide the NJK Sensor Flow Frame into the cut-out section and rest against opposite duct sidewall. Ensure that the NJK Sensor Flow Frame is completely into the insert.

Secure NJK Sensor Flow Frame from outside of ductwork into each sensor corner piece (1 inch from edge of ductwork) with self-tapping screws. Add cover plate and corners to the NJK Sensor Flow Frame and fasten with screws provided.

Vertical Mount

