



NJK-02 Air Flow Measuring Station Technical Submittal


Flow Station and Measurement:

Workingrange	30 - 3000 FPM
Sensor accuracy (CFM)¹	+/- 0.5% of reading
Sensor repeatability	+/- 0.5% of reading
Installed accuracy	+/- 2% of reading
Responsetime	0.5 seconds
Output	1-10VDC
Output signal	Cubic Feet per Minute
Power supply	24VDC or 24VDC +/- 20%
Current consumption (Display)	AC max 75mA
Current consumption (Module)	AC max 50mA
Electrical connection (24 VAC)	Screw terminal
Electrical connection (Probe)	Factory installed RJ-45 w/watertight seal connectors
Housing protection class	Polycarbonate/IPGS NEMA 4X (IP-65)/UL-94 HB
Sensing probe and transmitter	Sensor probe -IP20
Working temperature (probe)	Factory installed in Flow Measuring Module
Working temperature (elect.)	-25°F - 230°F
Storage temperature	-13°F - 160°F
Humidity range	-25°F - 230°F
	0-95% Relative Humidity

Construction:

Airflow station construction	Extruded aluminum
Flow station corners	Die Cast Aluminum
Sensor module	Die Cast Aluminum
Sensor depth	5-1/2 inches
Rectangular openings	Built to order:

Sensor Module and Display:





Cable Length

25'

50'

75'

100'

Wiring:

All wiring to NJK Sensor shall be a 4-wire. 24 VAC or 24 VDC power/common and 1 to 10 VDC signal/common.

The NJK Flow Measuring Modules will receive their power from the NJK Signal Processing Unit.

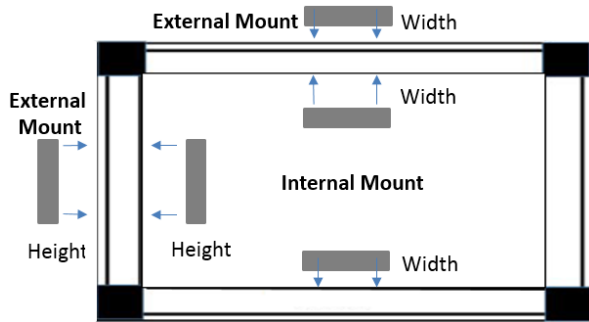
The NJK Flow Measuring Module will contain the Sensing Probe and the Sensor Transmitter. This will come with a factory cable that will be 25 feet in length. Additional cables can be purchased in 25 foot lengths.

All connections to the NJK Flow Measuring Module, Multi Sensor Hub, and to the NJK Signal Processing Unit will be an RJ-45 plug-in. The RJ-45 connection to the Signal Processing Unit will be internal to the casing and accessible through EMT fittings (Fittings not included). Connections to the Multi Sensor Hub will be internal to the casing and accessible via 1/2" EMT knock-outs.

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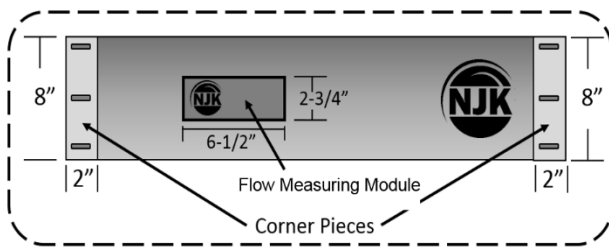
Flow Measuring Module Mount:



The NJK Precision Air Flow Station must be specified when ordering as to the placement of the Flow Measuring Modules. Options are Height or Width, and Internal or External placement.

Sleeve and End Plate options will be externally mounted.

Finish End Plate:



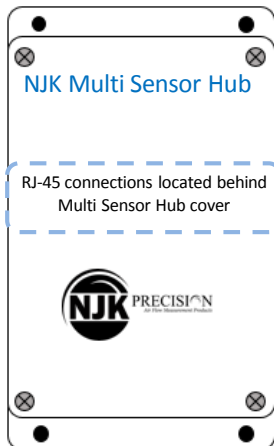
All NJK End Plates are 8 inch in width.

All NJK End Plates are 22g. galvanized.

All NJK Corner Pieces are 22g. galvanized.

All NJK Corner Pieces are 2" X 2" X 8" angle w/slotted screw holes.

Multi Sensor Hub:



All sensing connections to the NJK Flow Measuring Module, the Signal Processing Unit, and the Multi Sensor Hub will be an RJ-45 plug-in.

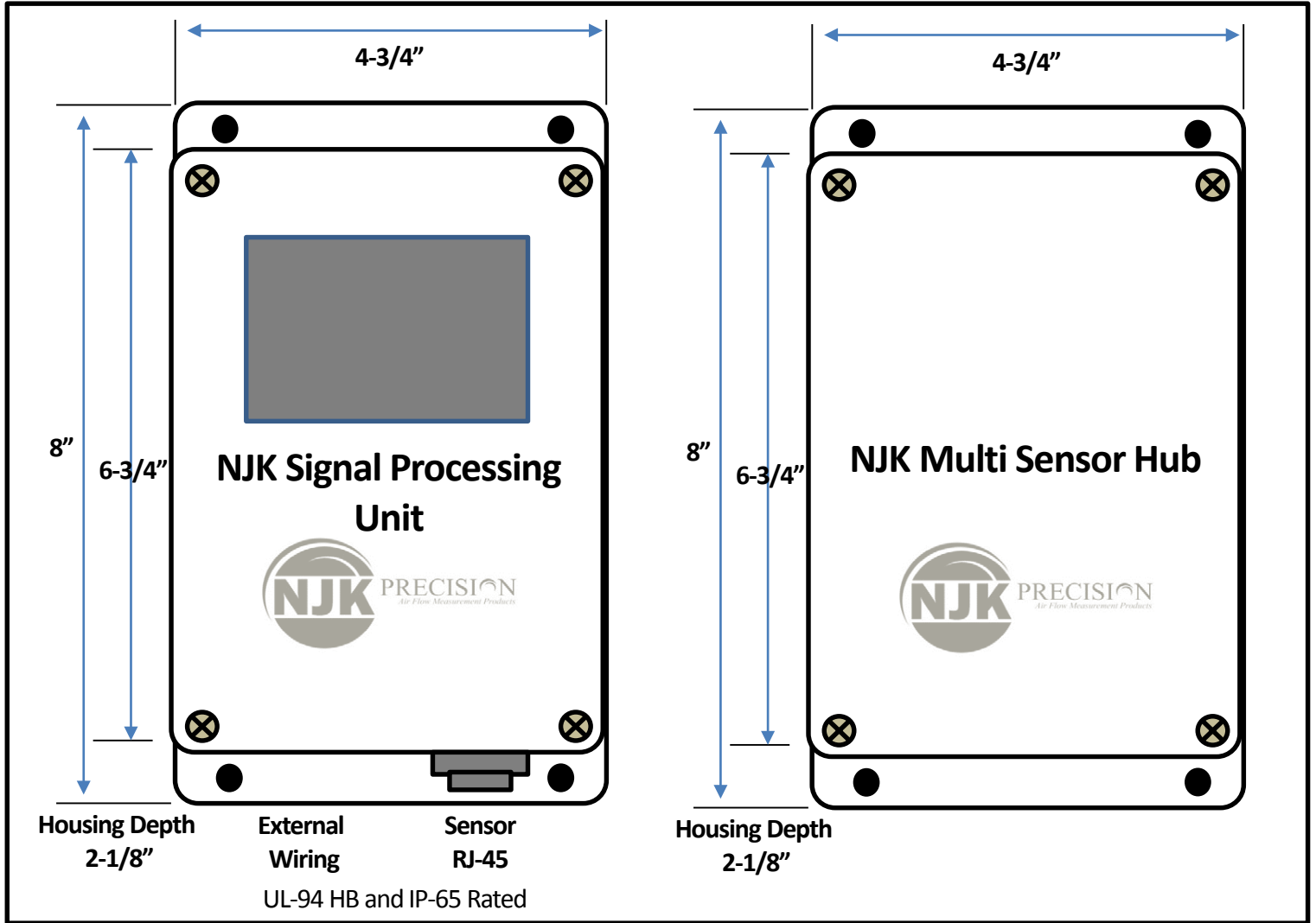
The RJ-45 connection to the Signal Processing Unit will be internal to the casing and accessible through a Liquid Tight cable fitting. Connections to the Multi Sensor Hub will be internal to the casing and accessible via 1/2" EMT knock-outs.

The connections in the Multi Sensor Hub are non-specific and each can be used for any of the sensor inputs.

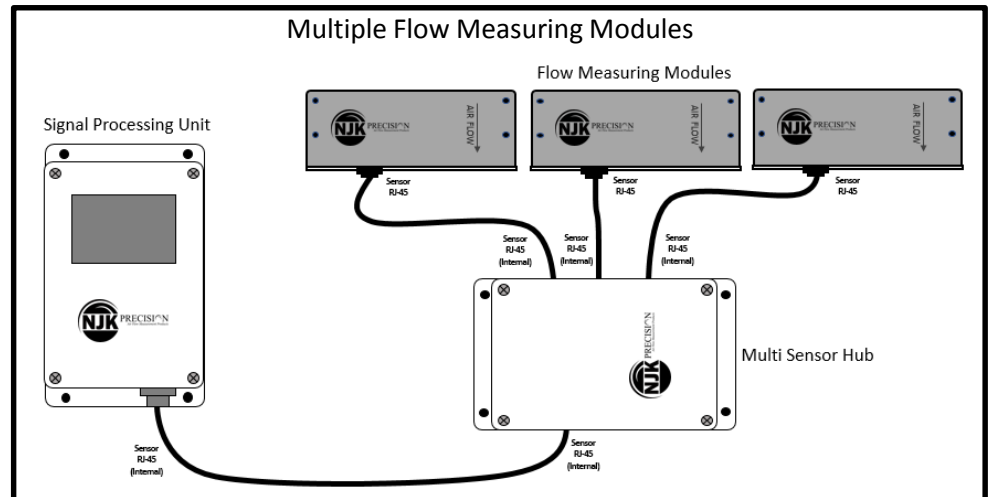
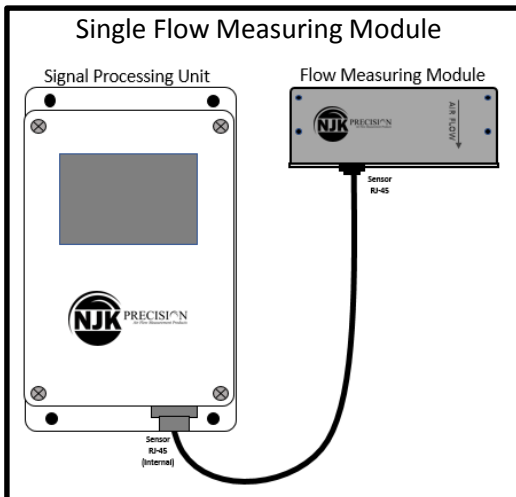
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NJK Product Dimensional:



NJK Sensing Configuration:



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The NJK Signal Processing Unit will receive 24 VAC power from the electrician. NJK Flow Measuring Module will be powered from the NJK Signal Processing Unit .

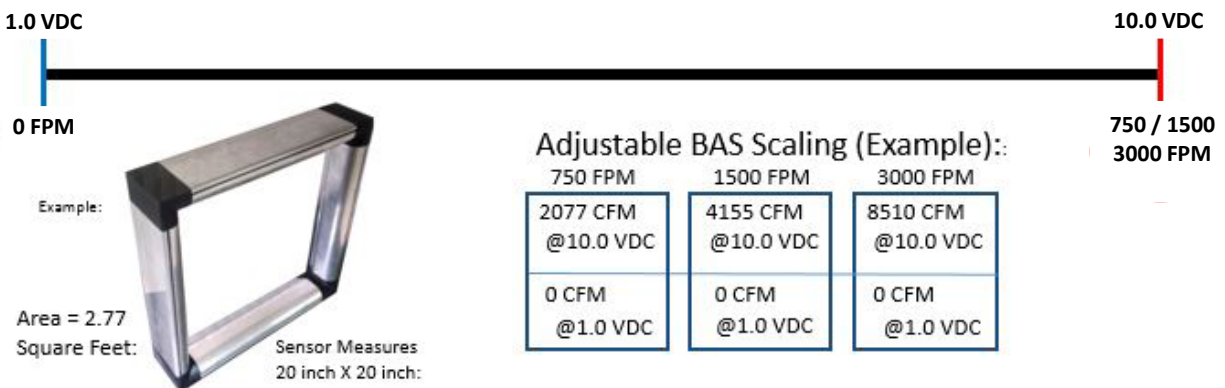
The NJK Flow Measuring Module will contain the sensing probe and signal transmitter. This will come with a factory cable that will be 25 feet in length. Custom cables can be purchased at 50', 75', and 100'.

Connections will be an RJ-45 plug-in to the NJK Flow Measuring Module, the NJK Multi Sensor Hub, and to the NJK Signal Processing Unit. All Flow Measuring Module plug in connections will have a screw-on cover housing protecting the RJ-45 connection.

All NJK Flow Measuring Modules will be delivered with an address to be used when adding to the Signal Processing Unit and the BAS System. On multiple Flow Measuring Module applications this address must be recorded as to air handling system and sensor location and will be used when programming the sensor at the NJK Signal Processing Unit .

NJK Air Flow Station input point is to be defined as a 1 to 10 VDC only and will directly reflect minimum and maximum airflow in Cubic Feet per Minute (CFM). Input point must be scaled as labeled on the NJK Air Flow Station label with 1 VDC representing the low flow (in Cubic Feet per Minute) and with 10 VDC representing the high flow (in Cubic Feet per Minute). (See Below).

The NJK Signal Processing Unit will have a User Adjustable - Integral Signal Dampening feature (output filter), BAS Signal Coefficient Adjustment, an Output Offset, and a Display Range and Minimum Flow Adjustment.



NJK Precision NJK-02 Product Maintenance:

The NJK-02 Air flow sensor “Flow Frame” and “Flow Measuring Module” will need to be kept clear of debris that can inhibit the operation of the air flow sensor. In an unfiltered outdoor air application the sensor “Flow Frame” will need to be free of leaves and or airborne items that can plug the sensor frame. Cottonwood and other such particulates will have very little effect on the operation of the flow frame.

The “Flow Measuring Module” can be cleaned by removing the four mounting screws that attach the module to the flow frame and flushing the sampling port with either a small amount of air or water or electrical contact cleaner. Caution must be used to not damage the internal sensing probe with a large blast of air or water.

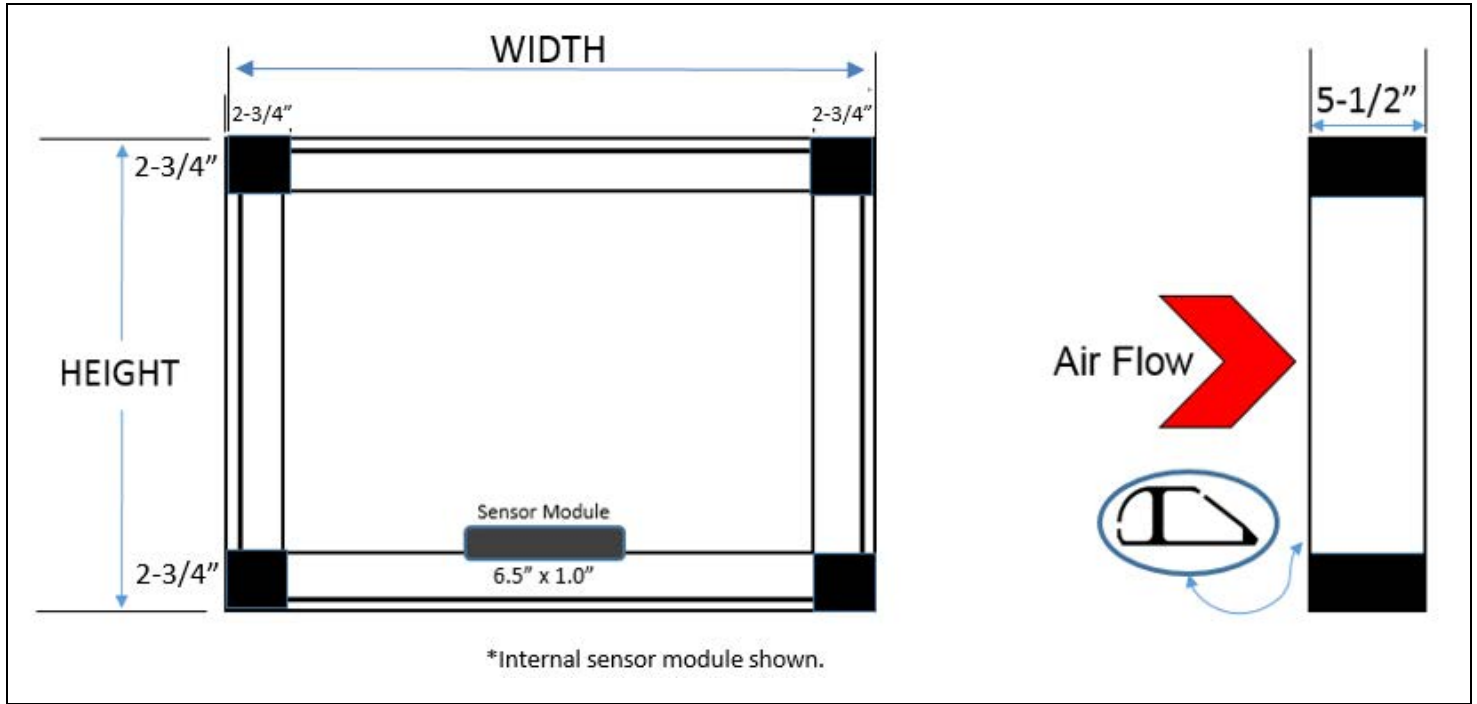
NJK Precision Product Warranty:

The NJK-02 Air flow sensor Flow Frame, Flow Measuring Module, Multi Sensor Hub, and Signal Processing Unit all come with a 3 year factory warranty. The serial number is matched to the job to which the sensor was delivered.

NJK-02 Air Flow Monitoring Station Technical Submittal



Dimensional:



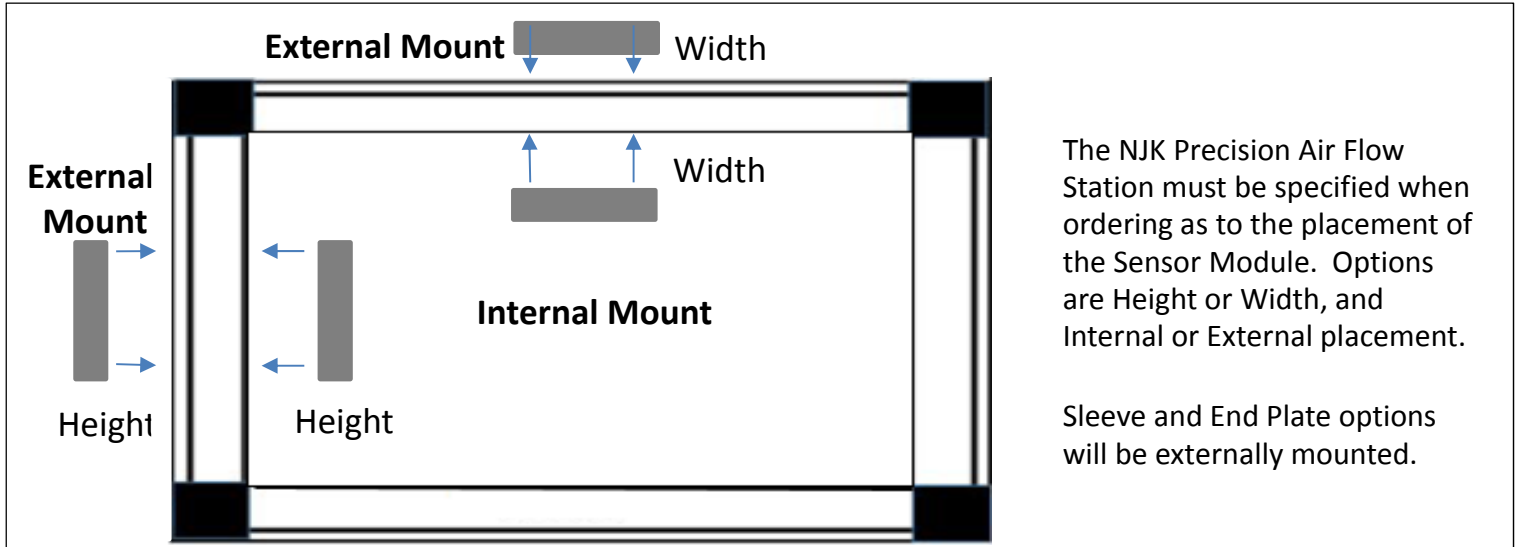
Mounting Options: (NJK End Plate, Sleeve- TDF, Sleeve-Ductmate)

UNIT TAG	WIDTH	HEIGHT	CABLE	Mounting Options	SENSOR MOUNTING LOCATION
					Choose an item.
					Choose an item.
					Choose an item.
					Choose an item.
					Choose an item.
					Choose an item.
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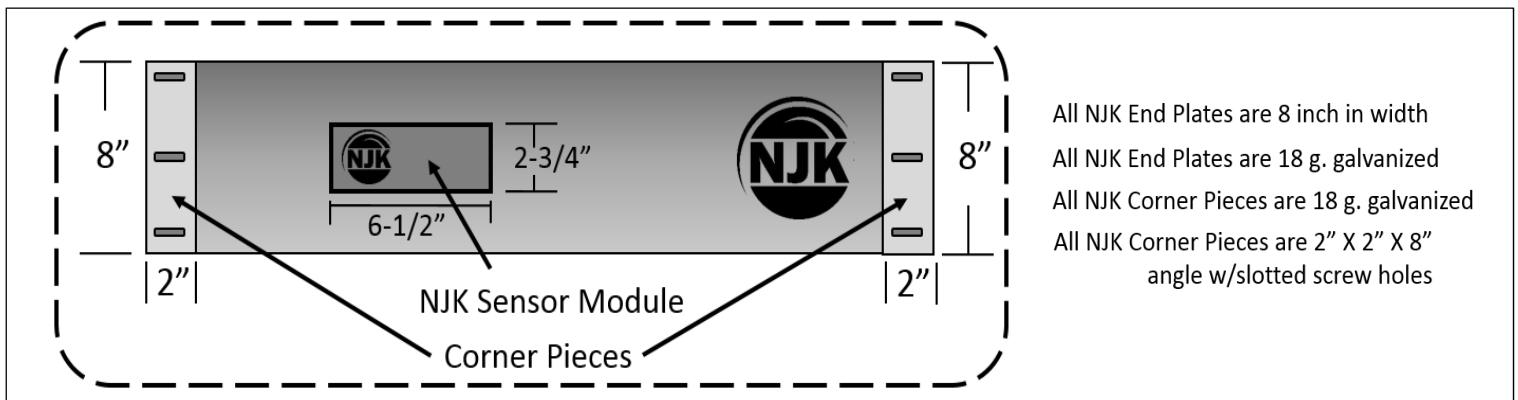
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Sensor Mount:



Finish End Plate:



Sheet Metal Sleeve:

The NJK Precision Air Flow Station can be ordered with a sheet metal sleeve. All sheet metal sleeves will be delivered in 8 inch depth with bolt together flange ends of either TDF or Ductmate.

