



Series  
STRA

# Duct Mounted Airflow Measurement Station

## Integral Flow Straightener, Ideal for Turbulent Measuring Conditions

AIR QUALITY

Flow Sensors

**CIRCULAR FLANGE DIMENSIONS**

Station Size "D"	Flange Thickness	Flange Size "F"	Casing Length "L"
8" - 15"	.064"	1"	8"
16" - 44"	.064"	1-1/2"	8"
45" - 72"	.188"	1-1/2"	10"
73" & Over	.188"	2"	12"

**OVAL FLANGE DIMENSIONS (OPTIONAL)**

Station Width "W"	Flange Thickness	Flange Size	*Casing Length "L"
Up to 44"	.064"	1-1/2"	8"
Over 44"	.188"	1-1/2"	10"

\*NOTE: All oval flow stations without flange have a casing length of 8".

**RECTANGULAR FLANGE DIMENSIONS**

Station Size "H" or "W"	Flange Size "F"
8" - 72"	1-1/2"
73" & OVER	2"

**SELECTABLE SIZES:**  
 1. OVAL OR RECTANGULAR "H" OR "W" DIMENSIONS IN INCHES CAN BE THE FOLLOWING: 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 40, 44, 48, 52, 56, 60, 66, 72, 78, 84, 90, 96, 102, 108, 114 or 120.  
 2. CIRCULAR "D" DIMENSION IN INCHES CAN BE THE FOLLOWING: 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 36, 40, 44, 48, 54, 60, 66, 72, 78, 84, 90, 96, 102, 108, 114 or 120

The Series STRA Airflow Measurement Station is easy to install - simply connect the tubing to the station fittings, then to a differential pressure manometer, gage, transmitter or switch. Single or multiple airflow elements are factory mounted and pre-piped in a casing designed for flanged connection to the ductwork. The Series STRA utilizes an airflow averaging element in a head-type device, generating a differential (velocity) pressure signal similar to the orifice, venturi, and other head producing primary elements. It has been developed with a honeycomb airflow straightening section for use in duct systems having highly turbulent conditions at the point of measurement. Strategically located sensing ports continually sample the total and static pressures when inserted normal to flow. Total pressures sensed by the upstream ports are continually averaged within the airflow element in an isolated chamber. The static sensing ports are averaged in a second isolation chamber. Multiple elements are joined together for connection to a differential measurement device (gage, transmitter, etc.) for flow measurement and indication purposes.

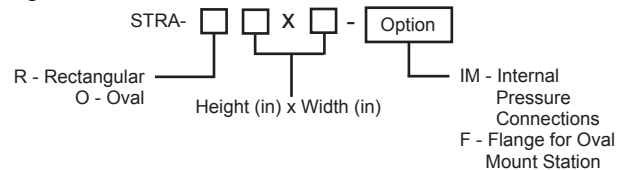
**FEATURES**

- Low signal-to-noise ratio
- Honeycomb airflow straightening section with 1/2" opening by 3" depth
- Multiple total and static pressure sensing ports along the length of the element
- Factory mounted and pre-piped in a flanged duct section (casing)
- ±2% accuracy throughout velocity ranges of 100 fpm and over
- Standard construction includes galvanized casing and 6063-T5 anodized aluminum flow sensors
- Standard airflow stations can be operated (in air) continuously in temperatures up to 350°F or intermittently in temperatures up to 400°F
- All airflow stations can be operated in humidity ranges of 0 to 100%
- Standard airflow stations have good salt air resistance and are suitable for most HVAC applications
- Great for use where turbulent conditions exist

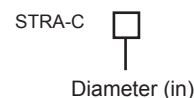
**SPECIFICATIONS**

- Accuracy:** Within 2% of actual flow when installed in accordance with published recommendations.
- K Factor:** 0.97.
- Velocity Range:** 100 to 10,000 FPM (0.51 to 51 m/s).
- Wetted Materials:** Elements: 6063-T5 anodized aluminum; Casings: 16 ga G90 galvanized steel, 3003 aluminum air flow straightener.
- Temperature Limits:** Galvanized casings and aluminum elements 350°F (177°C) continuous operation (in air), 400°F (204°C) intermittent operation (in air).
- Humidity Limits:** All airflow stations 0 to 100% non condensing.
- Process Connections:** 1/4" compression fittings.

**Rectangular or Oval Models:**



**Circular Models:**



When ordering rectangular or oval flow stations, pressure taps will always be located on the longer of the two dimensions.

Series STRA Rectangular or Oval

Size (in)	8"	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"	30"	32"	34"	36"
8"	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
10"		X	X	X	X	X	X	X	X	X	X	X	X	X	X
12"			X	X	X	X	X	X	X	X	X	X	X	X	X
14"				X	X	X	X	X	X	X	X	X	X	X	X
16"					X	X	X	X	X	X	X	X	X	X	X
18"						X	X	X	X	X	X	X	X	X	X
20"							X	X	X	X	X	X	X	X	X
22"								X	X	X	X	X	X	X	X
24"									X	X	X	X	X	X	X
26"										X	X	X	X	X	X
28"											X	X	X	X	X
30"												X	X	X	X
32"													X	X	X
34"														X	X
36"															X

Size (in)	40"	44"	48"	52"	56"	60"	66"	72"	78"	84"	90"	96"	102"	108"	114"	120"
8"	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
10"	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12"	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
14"	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
16"	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
18"	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
20"	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
22"	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
24"	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
26"	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
28"	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
30"	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
32"	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
34"	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
36"	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
40"	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
44"		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
48"			X	X	X	X	X	X	X	X	X	X	X	X	X	X
52"				X	X	X	X	X	X	X	X	X	X	X	X	X
56"					X	X	X	X	X	X	X	X	X	X	X	X
60"						X	X	X	X	X	X	X	X	X	X	X
66"							X	X	X	X	X	X	X	X	X	X
72"								X	X	X	X	X	X	X	X	X
78"									X	X	X	X	X	X	X	X
84"										X	X	X	X	X	X	X
90"											X	X	X	X	X	X
96"												X	X	X	X	X
102"													X	X	X	X
108"														X	X	X
114"															X	X
120"																X

OPTIONS

IM – Internal Pressure Connections (Rectangular Stations Only)

F – (Oval Stations Only)

Series STRA Circular\*

Size (in)	8"	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"	32"	36"	40"
		X	X	X	X	X	X	X	X	X	X	X	X	X
Size (in)	44"	48"	54"	60"	66"	72"	78"	84"	90"	96"	102"	108"	114"	120"
	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Note: When ordering rectangular or oval flow stations, pressure taps will always be located on the longer of the two dimensions.

