

# Reverse Pitot-Static Probes Type "S" and "ST"



## Description

The Type "S" (Stauscheibe) or Reverse Pitot-Static probe measures velocity, weight flow rate, and related volumetric quantities of a moving fluid. The probe consists of two stainless steel tubes with impact holes oriented at 180° angles to one another (see Fig. 1). One hole faces upstream for the measurement of total pressure (PT); the other is aligned in a downstream direction for static pressure (PS) measurement. The difference between these two pressures (PT - PS) approximately equals 150% of the velocity pressure (PV) of the fluid. PV approximation must be corrected to true value through proper calibration to the particular flow situation.

## Capabilities

United Sensor "S" Probes are designed for easy entry into small holes in stack or flow passage walls, and due to their relatively large impact (sensing) holes, are especially effective in the presence of high concentrations of clogging particulate matter. Large pressure tube diameters permit easy cleaning.

## Variations

A wide selection of variations permit custom designing of the "S" Probe to meet exact specifications. These include special constructions for high operating temperature and pressures; longer or shorter probe lengths; larger or smaller diameter tubing; and built-in thermocouples.

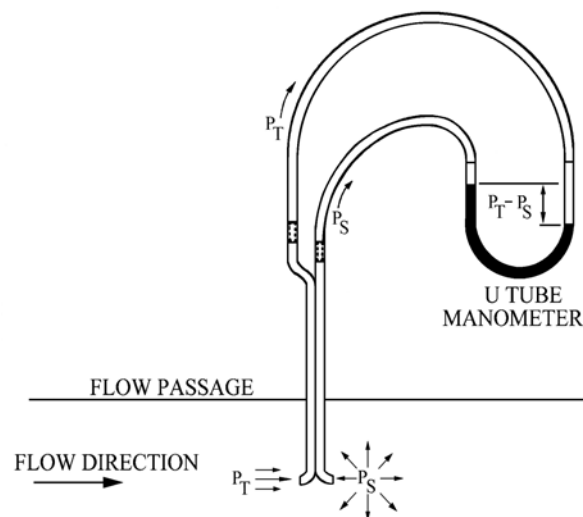


Fig. 1 "S" Probe Operation



# TECHMARK

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# Typical S and ST Probes

Ordering Part No.	Probe Length	Reinforcement Tubing Diameter	Reinforcement Length	Take-Off Diameter
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## TYPE S

Permanent take-offs, no mounting chuck, reinforcement tubing added

S065-24-.250-23-.125	24"	1/4"	23"	1/8"
S125-24-.375-23-.125	24"	3/8"	23"	1/8"
S156-24-.500-23-.250	24"	1/2"	23"	1/4"
S250-24-.750-22-.250	24"	3/4"	22"	1/4"
S312-24-1.00-20-.250	24"	1.00"	20"	1/4"
S375-24-1.00-20-.250	24"	1.00"	20"	1/4"

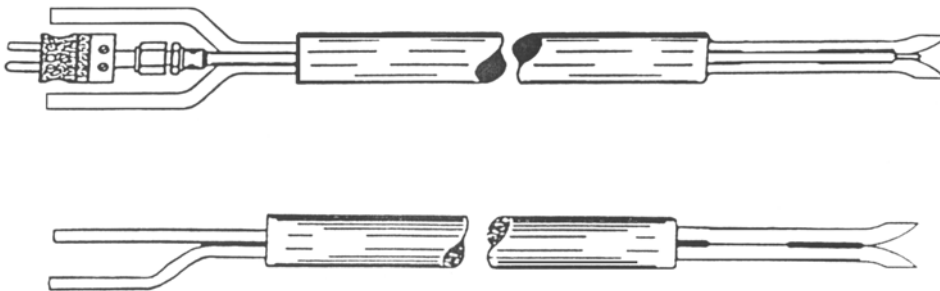
Permanent take-offs, no mounting chuck, no reinforcement tubing

S065-24-.125	24"			1/8"
S125-24-.125	24"			1/8"
S156-24-.250	24"			1/4"
S250-24-.250	24"			1/4"
S312-24-.250	24"			1/4"
S375-24-.250	24"			1/4"

## TYPE ST

Thermocouple with plug. Add calibration letter to end of part number (K, J, T, E).

ST125-24-.375-23-.125-	24"	3/8"	23"	1/8"
ST156-24-.500-23-.250-	24"	1/2"	23"	1/4"
ST250-24-.750-22-.250-	24"	3/4"	22"	1/4"
ST312-24-1.00-20-.250-	24"	1.00"	20"	1/4"
ST375-24-1.00-20-.250-	24"	1.00"	20"	1/4"



Custom Probes are Available



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