Data Sheet

FGDS-SCDP1000

Self-Compensating Duct Probe

For use with FGDS 1000 & 2000 Aspirator Systems

Application

The FGDS Self Compensating Duct Probe (SCDP) has been designed to allow simple, trouble free, representative sampling of duct environments. When used in conjunction with a FGDS ASP1000 or ASP2000 aspirator it provides a complete duct sampling system capable of operating in hazardous areas.

The SCDP draws a representative sample from the whole width of a duct, no matter what the flow rate or pressure in the duct. The design ensures equal volumes of sample are drawn from each duct sampling point, before combining them prior to introduction to an aspirator.

The SCDP operates on the "reverse wing" principle (see Fig 1). The contour of the SCDP creates an area of negative pressure on the opposite side to the airflow direction. The samples are drawn from this area behind the probe protecting the sample holes from becoming blocked by particulate in the duct.

Large particles carried by the flow in the duct, which may block sampling points of traditional probes, will either be too heavy to be drawn into the negative pressure area, or will impact on the face of the SCDP. In either case the SCDP sampling holes will remain unaffected

Technical Details

Operating Temperatures

- Standard (SCP-S) - 20ºC to +110ºC (-4ºF to 230ºF)
- High (SCP-T) - 20ºC to +185ºC (-4ºF to 230ºF)
- Heated (SCP-H) - 55ºC to +110ºC (-67ºF to 230ºF)

Dimensions

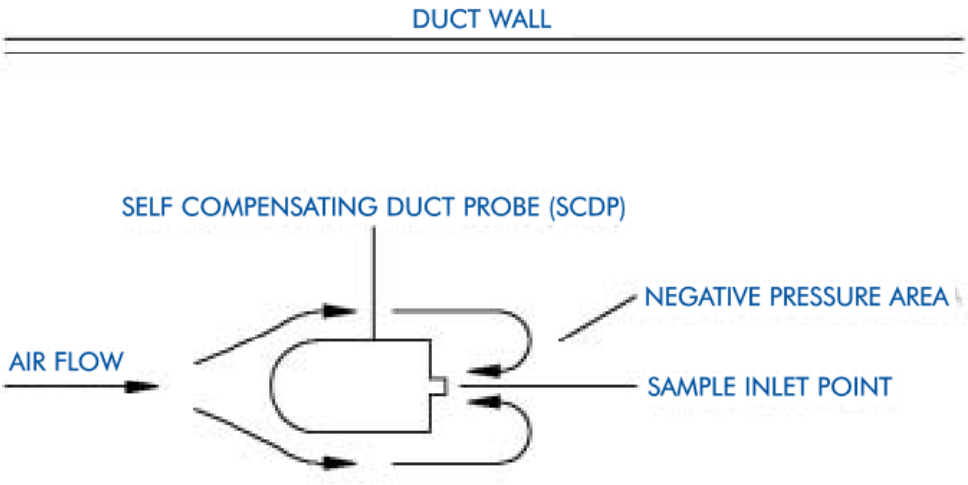
- Every SCP is precision-crafted to seamlessly match the dimensions of a customer's duct.
- Probes can be manufactured any size from 400mm (1.3ft) to 4000mm (13.1ft).

Construction

- All exterior surfaces are constructed using 316 stainless steel. Internal components consist of materials such as PTFE, naval brass, & acetal, which possess resistance to corrosive gases, including Hydrogen Sulphide.
- If necessary, we can also supply silicone sealing gaskets and acetal isolation sleeves to effectively separate the SCP from the duct wall.

For details of the mounting arrangement see fig 2 below:

Fig 1:



CROSS SECTIONAL VIEW OF SCDP IN DUCT

Fig 2:

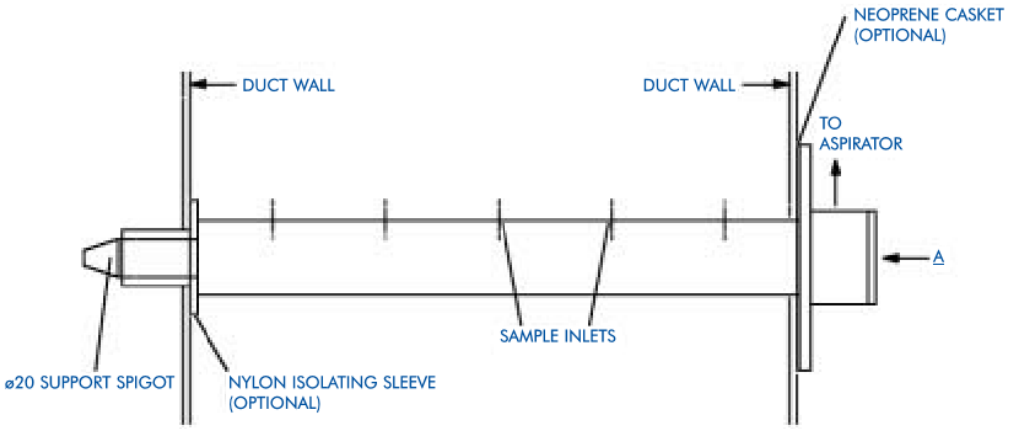


DIAGRAM SHOWING SCDP MOUNTED IN A DUCT