

ATMOSPHERIC REFERENCE DEVICE

THE SLUG[®]

This device acts as a datum for sensing atmospheric pressure where pressure regimes are critical.

The atmospheric sensing point of any pressure regime is critical to the control of pressure within the area.

Wind velocity can cause rapid variance of pressure at the sensing point, resulting in fluctuation of the signal within the control system. It is therefore necessary to slow down the response time and stabilise the pressure signal to minimise "hunting" of pressure controls and maintain the required conditions.

Stable conditions within any pressure regime will reduce excessive wear and tear of electrical and mechanical control devices and prevent spurious alarms.

The SLUG[®], as its name suggests, acts as a slugging device which effectively slows down changes in velocity pressure caused by weather conditions whilst maintaining an atmospheric datum.

The unit is manufactured from marine grade 316 stainless steel and its filter media from synthetic fibre with a gravimetric arrestance greater than 95%.

The SLUG[®] is virtually maintenance free, only a simple filter replacement is required periodically, dependent on the working environment.



**A stabilizing influence,
whatever the weather**

THE SLUG[®]

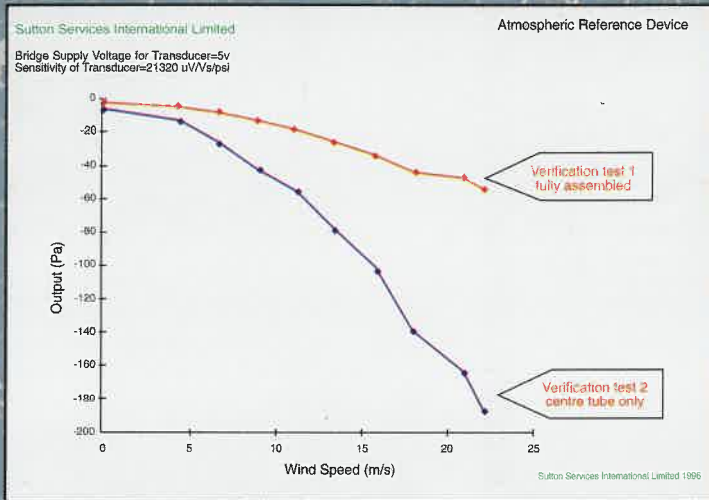


Fig 1 Represents the plotted results of the National Engineering Laboratory independent testing

Mean Wind Speed (m/s)	Pressure Reference Point (m bars)	Atmospheric Pressure (m bars)	Ambient Temperature (0C)
4.44	-0.05	974.40	21.74
6.70	-0.13	974.40	22.55
9.00	-0.25	974.40	21.63
11.30	-0.43	974.40	22.02
13.44	-0.56	974.40	22.34
15.87	-0.78	974.40	22.57
18.09	-1.02	974.40	23.03
20.96	-1.39	974.40	23.36
22.13	-1.64	974.00	21.91
23.69	-1.88	974.90	22.69

Fig 2. Test Data for standard reference point

Mean Wind Speed (m/s)	Pressure Reference Point (m bars)	Atmospheric Pressure (m bars)	Ambient Temperature (0C)
4.36	-0.02	971.00	20.90
6.71	-0.04	970.90	20.23
8.91	-0.08	970.80	20.21
11.09	-0.13	970.90	20.59
13.35	-0.18	970.90	20.76
15.72	-0.26	970.90	20.55
18.18	-0.34	970.90	20.99
20.95	-0.45	970.90	21.44
22.06	-0.49	970.90	21.74
23.31	-0.55	970.90	21.84

Fig 3. Test Data for fully assembled 'Slug' device

The SLUG[®] device has been independently tested by the National Engineering Laboratory at East Kilbride, Scotland. The results of the extensive and exhaustive wind tunnel tests clearly show that the device significantly reduces the effect of wind velocity pressure to the datum reference point when the device is installed.

Each unit is provided with a QA documentation support package to ISO EN9000 which includes mill certificates, drawings, test reports and material conformity certification.

The unit is being successfully used as a reference device throughout the Offshore Oil Platform environment and within the Pharmaceutical and semi conductor industries, where pressure regimes are critical.



Designed, Developed and Produced by

Sutton Services International Limited