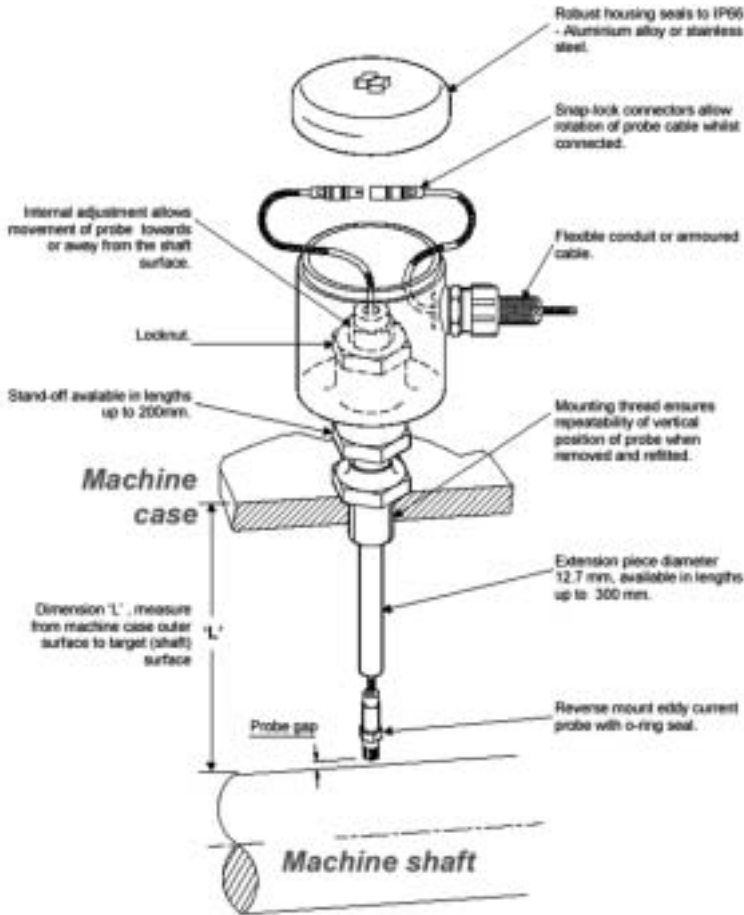


BRACKETRY

It is vital when mounting transducers that the bracket itself and the fixing of the bracket is rigid. An insufficiently stiff bracket will resonate in the frequency range which is being measured and false readings of vibration will result. A robust method of mounting eddy current proximity probes is illustrated below.



An API670 probe holder

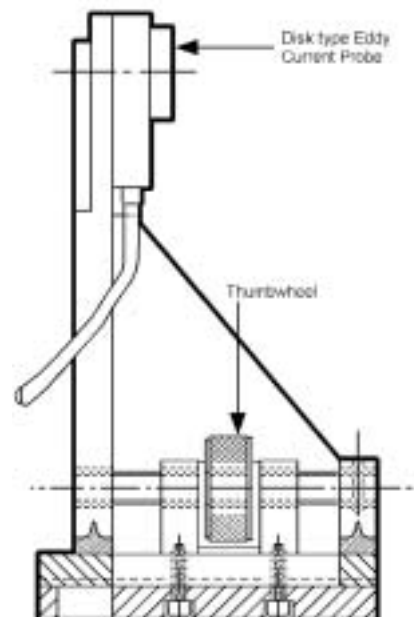
Note: A crude but effective test of the resonant frequency of a transducer and bracket is to attach the output of the transducer to a spectrum analyser and monitor the output when struck with a steel hammer.

The above configuration of probe holder is used almost exclusively with reverse mount probes with an 8mm tip diameter and measurement range of up to 4mm. Since the probe is threaded up in to the extension piece no further adjustment at this point can be achieved, therefore the definition of length 'L' is critical in offering the probe to the shaft. The top section of this extension piece is threaded to permit fine adjustment and therefore appropriate gapping of the probe to the target.

The mounting thread for the holder can be either standard imperial or NPT (tapered), which forms a tight seal when tightened. If a standard thread is utilised and a seal is required on the shaft housing an additional 'O' ring should be fitted on a suitably prepared mounting face.

This type of holder permits robust signal cabling methods to be applied to the installation. The probe extension cable is routed from the driver unit and connects with the probe in the main housing body. This allows flexible conduit or armoured cable options to be utilised whilst retaining an IP66 rating and protecting the probe RF cables.

The mechanical configuration of disk probes permit large measurement ranges to be achieved against a shaft collar where mounting space is at a premium. However, without appropriate adjustment, the gapping process is virtually impossible. The disk probe bracket below operates on a sliding plate principle in combination with a thumb wheel to allow accurate setting up of the probe.



Right angled disk probe bracket