

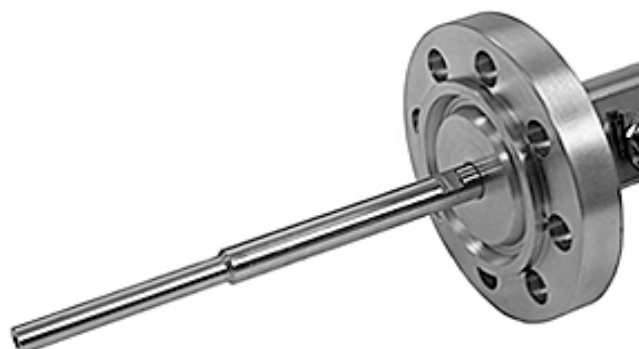
## INJECTION QUILLS AND SAMPLING PROBES FOR DBB VALVES



In most modern applications there is often a requirement to take a sample of the process fluid or inject a particular chemical directly into the process stream at full operating pressures and temperatures.

To meet this requirement then any of the Budenberg ranges of Double Block & Bleed Valves including type 98 one piece, MV Modular type or Monoflanges can be fitted with either an Injection Quill or Sampling Probe whilst retaining the wide choice of options available in each range.

Probes and Quills extend into the process medium and are designed to meet the individual application requirements. Units can be fitted with an integral check valve to prevent back flow into the process stream.



### Injection Quills

In many applications there is a need to inject chemicals such as de-waxing, de-icing or de-foaming agents into the process stream to facilitate a free flow of the process media.

Using the primary and secondary isolation valves the required chemical is injected directly into the process stream. It is usual for Injection Valves to be fitted with a non return check valve that only opens when chemicals are injected into the process line thus preventing back flow out of the process stream.

### Sampling Probes

Typically the need would be to allow a small process sample to be removed for evaluation under full system pressure.

Usually this is achieved by opening and closing of the primary isolation valve thus trapping a sample of the process fluid between the primary and secondary isolation valves. Using the Vent valve this sample can then be safely vented off at reduced pressure.

Alternatively if larger samples are required then this can be achieved by use of the primary and secondary isolation valves with an optional Non Return Check Valve being fitted to prevent back flow into the process stream.

### Non Return Valve

A high integrity full bore non-return valve, that can be fitted internally or externally, eliminates the risk of back flow into or out of the process stream. The design uses a spring loaded poppet to ensure leak proof performance and has a standard cracking pressure of 10 psig although other cracking pressures can be supplied. See Datasheet VAC-036 for further details

### Construction

Probes / Quills can be manufactured in several ways to suit the users requirement:

- \* The outlet flange and the probe can be made from a single one piece forging or from forged barstock
- \* The Quill / probe is manufactured from forged barstock which is then screwed and torqued into the outlet flange. If required the probe can also be seam welded to provide added strength.
- \* The Quill / Probe can be socket welded into the outlet flange

### Dimensions

The overall quill length, defined in mm from the tip to directly below the flange face and pipe schedule of the quill are user definable. Units can be fitted with velocity or support collars dependant upon the required design.

### Bore

Bore sizes are determined by the through bore of the DBB valve that have 10mm, 14mm or 20mm as standard

### Materials

Probes / Quills are usually manufactured special to order and as such are available in a full range of materials including: 316 St St, LF2 Carbon Steel, Duplex, Super Duplex, Hastelloy, 6Mo, Monel, Incoloy 600, Inconel 800 etc

### Quill profiles

The profile of the end of the quill / probe can be manufactured to suit the application. Typically on sampling probes the end will be cut at 45 degrees to face the on coming process stream whereas on injection quills the ends are usually sealed except for a small outlet hole as defined by the user.

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