



# ByScoop

(Fixed or Withdrawable)



The Jiskoot ByScoop is a large bore sample bypass probe specifically designed to ensure optimum sample representivity for cell samplers, water monitors, densitometers and on-line analysers. For the by-pass slipstream to be truly representative the sample intake must be located in the central third of a well mixed cross-section of the pipe flow and be designed to prevent any biasing of the slipstream properties.

The Jiskoot philosophy of cost reduction through high quality engineering solutions is evident in the ByScoop's integrated return, which eliminates the traditional need for separate entry and exit points on the line (see diagram), and in the reduction of hot tap size requirements: achieved through the use of an internally beveled, knife edged Swan Neck takeoff, offset to ensure a stream-line profile to the entry (see diagram overleaf). This prevents any preferential bias caused by mixed fluids having different specific

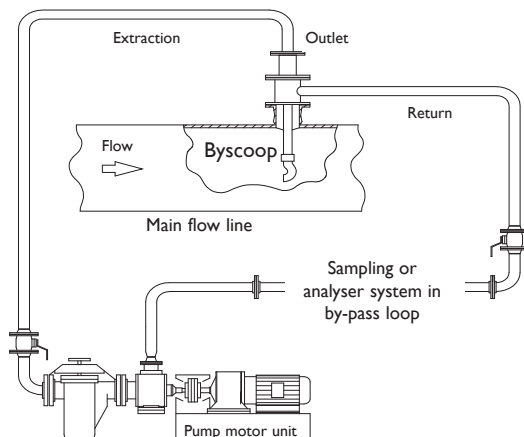
gravities.

The Jiskoot ByScoop has a substantial stem to allow insertion into the central third of the pipeline without bending or vortex shedding problems. The sample entry size is 33.5mm for a nominal 1" loop. The flow is accelerated in the loop to prevent any component fallout and reduce volume/time lag. The probe outlet valve is in-line with the main stem to allow any possible obstructions to be rodded out (see diagram).

The flow rate will normally be sized to give a sample inlet velocity between 10 and 300% of the main line velocity per IP 6.2.

The Jiskoot ByScoop is available for fixed or withdrawable mounting in any piping configuration.

- The Fixed ByScoop will install directly to a 3" pipeline stub.
- The Withdrawable ByScoop is installed through a 3" full bore ball valve. A seal housing may be provided with an optional loop return/purge connection to prevent sediments in the seal area building up and allow them to be dispersed prior to retrieval.



Hydraulic extractors are available to allow the withdrawable ByScoop to be removed from the pipeline without depressurizing. (see hydraulic extractor data sheet)

Data Sheet S042-0812-5 • ByScoop Sample By-Pass Probe



## Technical Specification

The following represents a standard design; alternative specification including NACE MR-01-75 are available\*

The following equipment is designed in accordance with the requirements of ASME B31.3 and is CE marked (where applicable) to PED – 97/23/EC

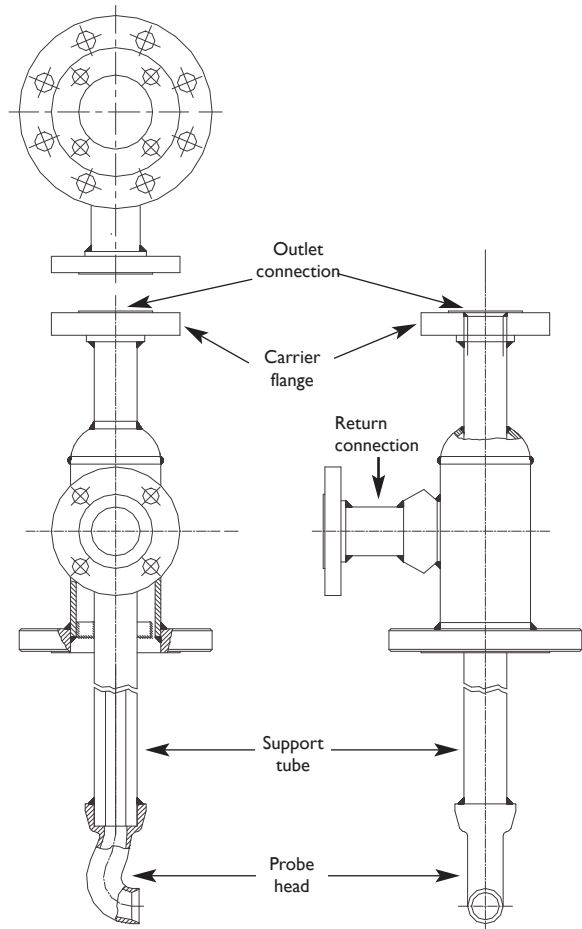
### Withdrawable ByScoop

<b>Maximum operating pressure</b>	100 Barg at 40°C (std material of construction) Higher pressure versions available*
<b>Support tube</b>	316 Stainless steel
<b>Carrier flange</b>	Carbon steel
<b>Seal housing</b>	ASTM A350 LF2 Carbon steel, (316 available*)
<b>Probe head</b>	ASTM A351-CF8M Stainless Steel
<b>Seal</b>	Nitrile proof cotton / nylon (other options available)
<b>Installation</b>	Pipeline mounting flange 3" NB 150/300/600# RF/RTJ. Outlet connection 1 1/2" NB 150/300/600# RF/RTJ standard (Other sizes available on request*) Optional return connection 1 1/2" NB 150/300/600# RF/RTJ standard (Other sizes available on request*) Pipeline tapping bore size - 55mm minimum standard.
<b>Line temperature</b>	-20°C to +100°C
<b>Max line pressure</b>	Std. version 49.6 bar (720psi) HP version 149 bar (2160psi)
<b>Pipeline sizes</b>	8" - 48". other sizes available by request.
<b>Operating standards and CE compliance</b>	ISO 3171, API 8.2, IP 6.2, PED – 97/23/EC, Machinery directive – 98/37/EC

\*Charges made for these items

### Fixed ByScoop

<b>Maximum operating pressure</b>	To suit flange and materials of construction
<b>Support tube</b>	ASTM A333 Gr6 Carbon steel
<b>Probe head</b>	BS 3146 CLA10
<b>Mounting flange</b>	ASTM A350 LF2 Carbon steel
<b>Installation</b>	Pipeline mounting flange 3" NB 150/300/600/900/1500 RF (minimum bore size of 55mm) Exit connection 1 1/2" NB 150/300/600# RF/RTJ standard (Other sizes available on request*) Pipeline tapping bore size - 55mm minimum standard.
<b>Operating standards and CE compliance</b>	ISO 3171, API 8.2, IP 6.2, PED – 97/23/EC, Machinery directive – 98/37/EC



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