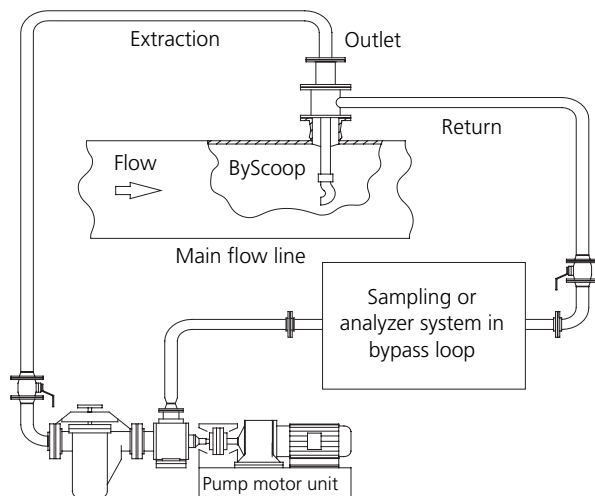


## JISKOOT ByScoop (Fixed or Withdrawable)

Cameron's JISKOOT™ ByScoop is a large-bore sample bypass probe specifically designed to ensure optimum sample representativity for cell samplers, water monitors, densitometers, and online analyzers. For the bypass 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). It also reduces hot tap size requirements through the use of an internally beveled, knife-edged, swan-neck takeoff, offset to ensure a streamline 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 33-1/2 mm 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 from building up and to 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 the JISKOOT hydraulic extractor data sheet)

## Technical Specifications

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

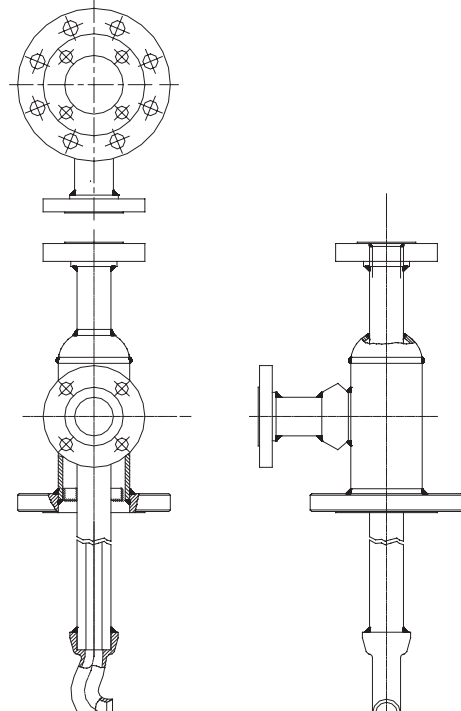
The following equipment is designed in accordance with the requirements of ASME B31.3 and is CE marked (where applicable) to PED – 97/23/EC

### Withdrawable ByScoop

Maximum Operating Pressure	100 barg at 104° F (40° C) (standard material of construction) Higher pressure versions available*
Support Tube	316 stainless steel
Carrier Flange	Carbon steel
Seal Housing	ASTM A350 LF2 carbon steel (316 available*)
Probe Head	ASTM A351-CF8M stainless steel
Seal	Nitrile-proof cotton/nylon (other options available)
Installation	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 – 55 mm minimum standard
Line Temperature	-4° F to 100° F (-20° C to 100° C)
Maximum Line Pressure	Standard version 720 psi (49.6 bar) HP version 2160 psi (149 bar)
Pipeline Sizes	8" to 48" Other sizes available by request
Operating Standards and CE Compliance	ISO 3171, API 8.2, IP 6.2, PED – 97/23/EC, Machinery directive – 98/37/EC

### Fixed ByScoop

Maximum Operating Pressure	To suit flange and materials of construction
Support Tube	ASTM A333 Gr6 carbon steel
Probe Head	Stainless
Mounting Flange	ASTM A350 LF2 carbon steel
Installation	Pipeline mounting flange 3" NB 150/300/600/900/1500 RF (minimum bore size – 55 mm) Exit connection 1-1/2" NB 150/300/600# RF/RTJ standard (Other sizes available on request) Pipeline tapping bore size – 55 mm minimum standard
Operating Standards and CE Compliance	ISO 3171, API 8.2, IP 6.2, PED – 97/23/EC, Machinery directive – 98/37/EC



#### LOCATIONS

##### North and South America

14450 JFK Blvd.  
Houston, TX 77032  
USA  
Tel 1 281 582 9500  
ms-us@c-a-m.com

##### Europe, Africa, Caspian, and Russia

JISKOOT Technology Centre  
Longfield Road  
Tunbridge Wells  
Kent, TN2 3EY  
United Kingdom  
Tel 44 1892 518000  
ms-jiskootuksales@c-a-m.com

##### Asia Pacific

Suite 16.02 Menara AmFirst  
No. 1 Jalan 19/3  
46300 Petaling Jaya  
Selangor Darul Ehsan  
Malaysia  
Tel 603 7954 0145  
ms-kl@c-a-m.com

##### Middle East

Level 9, Al Jazira Club Tower A  
PO Box 47280, Muroor Road  
Abu Dhabi  
United Arab Emirates  
Tel 971 2 596 8400  
ms-uk@c-a-m.com