

# Pulptec™ MPS-1000, PPS-1000 and APS-1000

## Pulp samplers

- Simple and reliable design.
- Mechanism provides consistent samples, independent of operator skill.
- Representative sampling, as the sample is extracted away from the water layer around the pipe wall.
- Water flushing available for cleaning.
- Simple installation through a weld-in stud, FRP-stud or thread connection.
- Highly serviceable – few moving parts.

## General

The sampler is used for the extraction of representative screened pulp samples from pressurized pipes.

There are three different models of the sampler. Each model can be connected flanged or threaded:

- MPS-1000/1010, hand operated. For manual sampling.
- PPS-1000/1010, pneumatic push button control. For manual sampling.
- APS-1000/1010, pneumatic and electric control. For automatic sampling.

## Technical data

<b>Type</b>	MPS-1000, PPS-1000 and APS-1000
<b>Manufactured by</b>	BTG, Säffle, Sweden
<b>Operating range</b>	0 – 8% pulp. Suspended liquids must be pumpable.
<b>Max calculating pressure</b>	16 bar (230 psi)
<b>Max media pressure</b>	10 bar (145 psi)
<b>Min media pressure</b>	See figure 1
<b>Max media temperature</b>	90°C (194°F)
<b>Material</b>	All wetted parts made of stainless steel quality SS 2343 or 254 SMO.
<b>Connection to process line (-1000)</b>	Flanged weld-in stud or FRP-stud (only with 254 SMO)
<b>Connection to process line (-1010)</b>	NPT 1½" thread connection (only in SS2343)
<b>Connection for flushing water</b>	ISO-Rp 1/4



Pulp samplers – PPS-1000, MPS-1000 and APS-1000 .

<b>Air connections PPS- and APS-1000</b>	ISO-G 1/8
<b>Air pressure, PPS- and APS-1000</b>	4–8 bar (58–100 psi)
<b>Voltage APS-1000</b>	24/48/110/220/240 V 50-60 Hz, 24 V DC

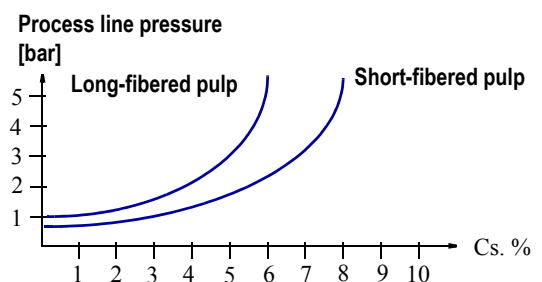


Fig 1 Minimum pressure in process line at different consistencies (Note! These values are only approximate)

## Working principle

Solid arrows indicate the pulp's path through the sampler.

(2) Flushing water connection.

On the outlet a tube of max. 5 m can be connected.

### MPS-1000

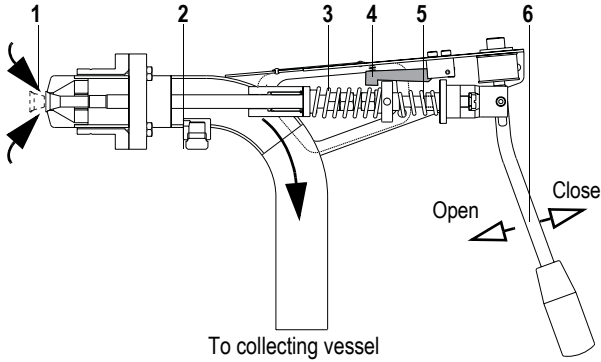


Fig 2 MPS-1000

The plug (1) is kept closed by return spring (3) in closed position.

Move lever arm (6) towards the pulp line during sampling. At first the opening spring (5) is compressed, whereupon the lock catch (4) is released. The plug will now open entirely, which prevents dewatering during sampling.

Move the lever arm backwards after sampling. The return spring will now close the plug. A better seal can be achieved by pulling the lever arm firmly backwards.

## Dimensions

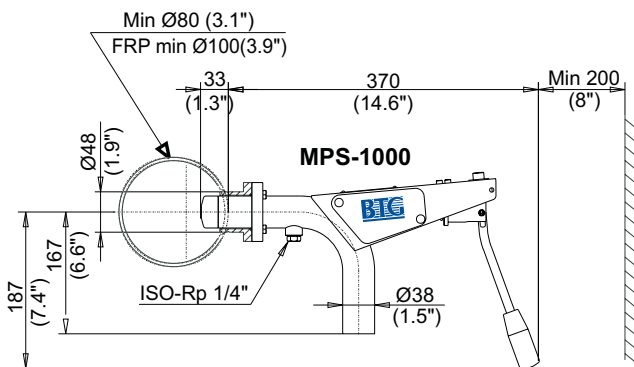


Fig 5 Dimensions and mounting

### PPS-1000

The pneumatic version controlled by a push button is adapted for installation in difficult to access locations.

Otherwise it is the same design and function as the MPS-1000.

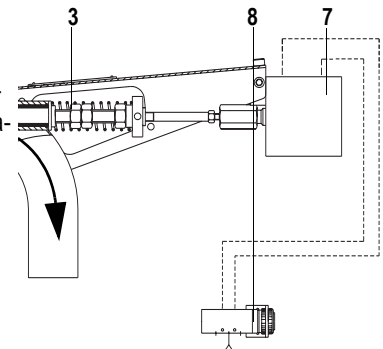


Fig 3 PPS-1000

The plug (1) is kept in closed position by the return spring (3) and the air cylinder (7).

Sampling takes place when the push button (8) of the manual air valve is pushed. The air cylinder will then open the plug. Sampling is finished when the push button is released.

### APS-1000

Electric version, automatically controlled by a programmable control system. Otherwise it is the same design and function as the MPS-1000 and PPS-1000.

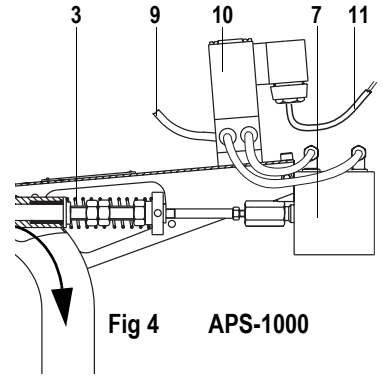
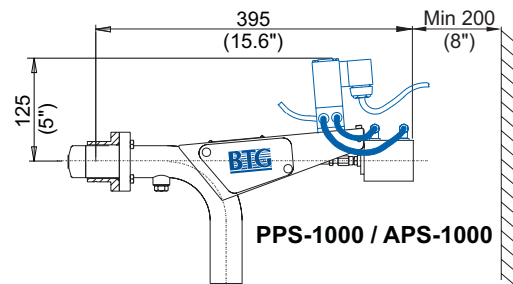


Fig 4 APS-1000

Sampling takes place when the solenoid valve (10) receives an impulse from the programmable control system/DCS. The air cylinder (7) will then open the plug.

Compressed air to the solenoid valve (9).  
Cable to the solenoid valve (11).



BTG reserves the right to make technical improvements without previous notice.