KPM KS Pulp Samplers
Testing and industry-specific instruments

With high performance sampling for screened and unscreened applications, ABB offers the widest portfolio of cost-effective, durable and versatile sample valves for all applications. The KPM KS2 covers low consistency screened applications. The KPM KS4 and KPM KS6 samplers handle unscreened extractions with a cutting piston.

Manual and pneumatic versions available
KPM KS2 is available in manual and pneumatic versions; KPM KS4 and KPM KS6 are pneumatically operated only. Saddle and threaded mounts are options for KPM KS2 and KPM KS4 samplers, while KPM KS6 is saddle mounted only.

Safe and representative sampling
The KPM KS-line sampler heads penetrate the water layer inside the pipe, eliminating dewatering from the sampling process. KPM KS4 and KPM KS6 have stroke depth adjustment for sample flow, ensuring reliable operation with unscreened pulp.

Water flushing
A separate water connection allows cleaning of the sample valve after a collection. Flushing ensures a repeatable and representative sampling procedure.

Reduced maintenance costs
All KPM KS samplers have seal-less construction, allowing a maintenance-free operation.

Pneumatic operating valve
All pneumatic KPM KS samplers are equipped with an operation valve. An optional electric switch detects the pistons position.

Optional indicator
Electric position indicator for sampling pistons enables time stamping in the DCS.
Specifications

Consistency range
- KPM KS2: Low consistency 0–8% Cs screened pulp
- KPM KS4: Low consistency 0–8% Cs screened and unscreened pulps, no knots
- KPM KS6: Medium consistency 0–10% Cs screened and unscreened pulps

Process connection
- KPM KS2: NS40 Sandvik Saddle or threaded NPT1½”
  Materials: AISI316L, titanium Gr2, 254SMO, SAF2205
- KPM KS4: NS40 Sandvik Saddle or threaded NPT1½”
  Materials: AISI316L, titanium Gr2, 254SMO, SAF2205
- KPM KS6: NS70 Sandvik Saddle or
  Materials: AISI316L, titanium Gr2, 254SMO, SAF2205, titanium saddle for FRP-pipes
  DN80 flange AISI316L, titanium Gr2, 254SMO, SAF2205

Flush water connection
- KPM KS2: R¼” internal thread, compatible with NPT¼”
- KPM KS4: R¼” external thread, compatible with NPT¼”
- KPM KS6: R¼” external thread, compatible with NPT¼”

Flush water pressure
- 2–10 bar (30–150 psi)

Air pressure (P-models)
- KPM KS2: 2–10 bar (30–150 psi),
- KPM KS4: 2–10 bar (30–150 psi), recommendation min 4 bar (60 psi)
- KPM KS6: 5–10 bar (30–150 psi), recommendation min 5 bar (75 psi)

Sample outlet connection
- KPM KS2: 38 mm, (1 ½”) hose connection
- KPM KS4: 38 mm (1 ¼”) hose or welded hard pipe connection
- KPM KS6: 50 mm (2”) hose or welded hard pipe connection

Process pressure
- Maximum pressure: 25 bar (370 psi)
  The minimum operating pressure required is a function of the sample consistency.
  KPM KS2 and KPM KS4 min. process pressure:
    0–3% 0.5 bar (7 psi)
    3–5% 1.0 bar (15 psi)
    5–8% 2.0 bar (30 psi)
  KPM KS6 min. process pressure:
    over 8% 2.0 bar (30 psi)

Sample flow
- The sample flow is a function of process pressure, fiber type and consistency. The flow diminishes at higher consistencies. KPM KS4 and KPM KS6 piston stroke opening and piston orientation are adjustable.

Materials
- KPM KS2: AISI 316L, titanium Gr2, 254SMO
- KPM KS4: AISI 316L
- KPM KS6: AISI 316L, titanium Gr2

Weight
- KPM KS2-M: 1.8 kg (4.0 lbs)
- KPM KS2-P: 2.0 kg (4.4 lbs)
- KPM KS4: 2.3 kg (5.1 lbs)
- KPM KS6 Sandvik: 3.7 kg (8.2 lbs)
- KPM KS6 Flange: 5.0 kg (11 lbs)

Options
- Electric position switch of sampling piston for stamping the time in the DCS