



# GETTING RELIABLE OIL SAMPLES

WHY SAMPLING  
VALVES

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PRESSURIZED  
SAMPLING  
SOLUTIONS

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LOW PRESSURE  
SAMPLING  
SOLUTIONS



**FA-ST**

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Filtration Analysis Services Technology Ltd

How clean is your oil ?

# The Importance of Reliable Oil Samples

For years companies have used oil analysis to determine the health and condition of their equipment. Most recognize the value of using oil analysis to avoid unplanned equipment downtime and for planning oil changes. However, most companies are not getting the most out of their oil analysis program because they do not understand the importance of proper oil sampling.

Oil samples are the important first step in any oil analysis program. Without one, the lab would have nothing to analyze. The aim of any predictive oil analysis program is to trend any gradual changes in fluid properties, contaminants and wear debris so that corrective action can be started in a controlled, planned manner. The results from your sample will determine if corrective actions need to be taken. An improper sample can skew these results, producing either costly false negatives or false positives. Ultimately those improper samples can cause an oil analysis program to be abandoned.

**A proper sample represents the true condition of the equipment. It is taken while the equipment is running and it is taken from the same spot every time.**

# Why Sampling Valves?

Reliable samples are a prerequisite for any successful oil analysis program. These samples represent the true condition of the equipment. They're taken while the machine is running and they're taken from the same spot in the active zone every single time.

Following poor sampling methods and practices can be costly, and time-consuming. For instance, taking a drop tube or gravity driven drain sample can be inconvenient and unsafe. With both these methods, sampling with the equipment running is extremely dangerous to both the technician and the life of the equipment. Waiting for a shutdown in order to take the sample is not always convenient, and can lead to undiagnosed problems worsening. When taking the sample using the drain method, the flow of oil cannot be controlled. This can lead to extra costs for topping up with new oil or possibly lead to machine starvation from lack of oil. Technicians must be extremely careful to not get burnt from the hot oil. With both methods, the only safe way to sample is by shutting off the machine and waiting for the oil to cool to a safe handling temperature which allows for more wear particles to settle. For trending results, it is recommended to sample from the same spot every time which is nearly impossible with these two methods. In the end, any drop tube or gravity driven drain sample will be unrepresentative of the true condition of the machine.

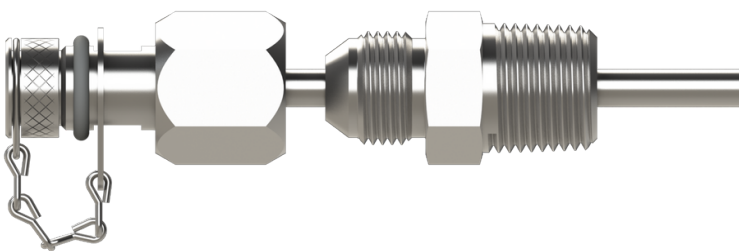
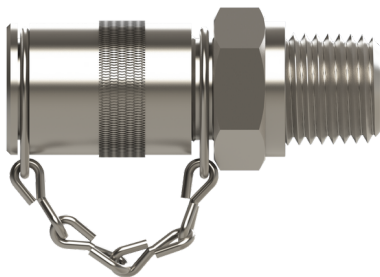
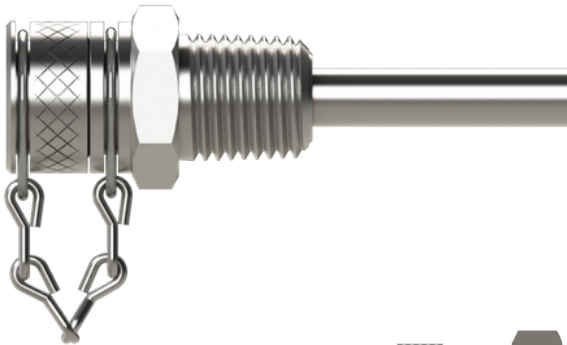
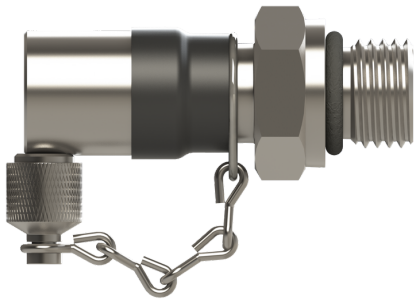
**Sampling valves are the best method for obtaining proper, reliable oil samples. They make it possible to take oil samples safely, while the equipment is running, from the same spot, every time. This means that oil samples can be taken at any time since shutdowns are no longer necessary. Sampling while the equipment is running ensures that the sample is a direct representation of the equipment's condition. Additionally, the oil sample is coming from the same spot in the active zone every time, away from the sediment and filters. Meaning that the sample pulled will contain hot, information-rich oil that can be trended against previous samples to show the condition of your equipment.**

**A world class oil analysis program starts with good practices and procedures to extract the most representative oil sample. The resulting data from a good oil sample will hold more useful information on the health of the equipment. These results will give teams the information needed to maximize reliability, reduce unplanned downtime and eliminate catastrophic failures..**



# CHOOSING THE RIGHT SAMPLING VALVE

Different types of equipment require different types of sampling valves. We've developed our range of sampling valves and tubes to cover the needs of both non/low-pressure and pressurized systems.



## FOR PRESSURIZED SAMPLING:

- KP Pushbutton
- KST Series

## FOR NON/LOW PRESSURE SAMPLING:

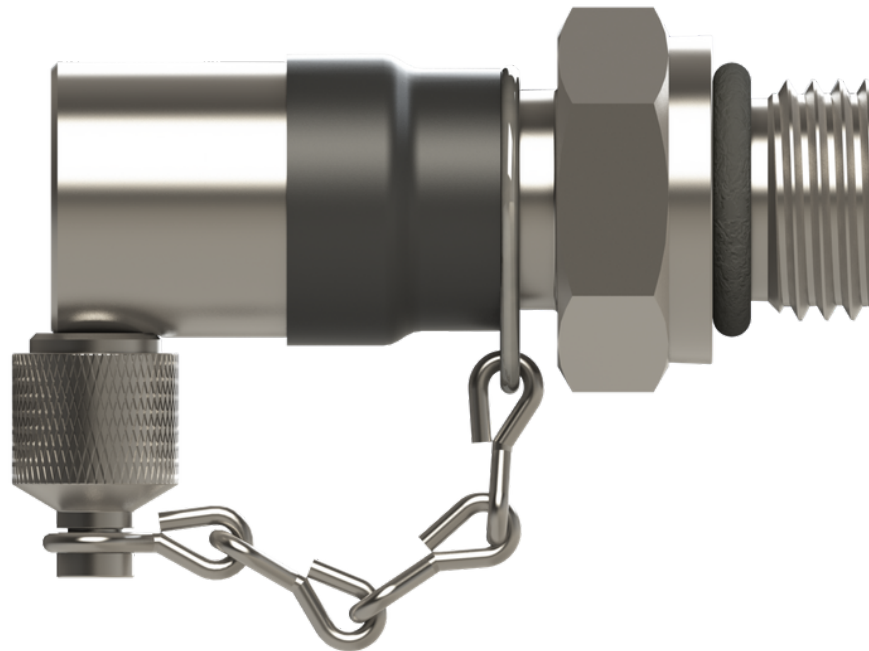
- LP Pushbutton
- LT Sampling Tube
- LTJ Sampling Tube
- AD Drain Mount
- AB Breather Mount

# THE KP PUSHBUTTON

The KP Pushbutton allows for easy sampling of pressurized systems by pushing a button. The push button style eliminates the need for probes and cross-contamination risks. To sample, hold the bottle under the spout of the button and then push.

## BENEFITS

- No probes needed
- Low purge volume
- Patented elastomeric vacuum tight seals
- Automatic valve shutoff
- Remote access available
- Sampling range of 5 - 750 psi



## FEATURES

- Unique 360° rotating spout offers convenient sampling and installation without swivel fittings
- Push button style valve: push to open valve, release to automatically close valve
- Weather sleeve
- Rugged spout design with easy to grip knurled cap
- Variety of thread options for direct installation
- Corrosion resistant stainless steel chain and clip with no exposed springs

# THE KST SERIES

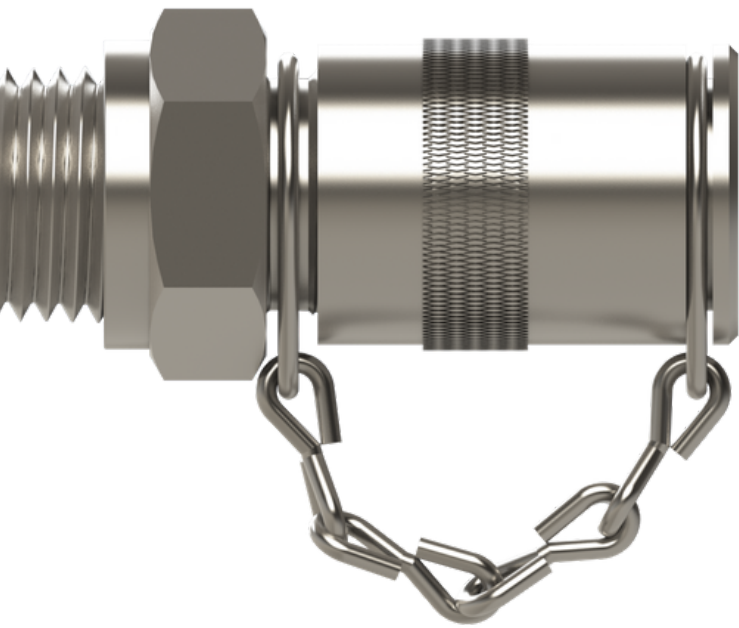
The KST Series sampling valve provides quick samples using a standard needle probe. Hundreds of thousands of low and high pressurized systems worldwide use the KST's rugged O-Ring sealed valve. Tested for 1 millions cycles, to deliver reliable samples in a leak-free environment.

## BENEFITS

- Low purge volume
- Patented elastomeric vacuum tight seals
- Automatic valve shut off
- Dynamic sampling up to 4000 psi (27.6 MPa)
- Can be used for pressure testing
- Sampling range of 5 - 4000 psi (Note: pressures greater than 750 psi are probe dependant)

## FEATURES

- 2mm probe style valve
- Variety of thread sizes for direct installation
- Rugged style valve
- Corrosion resistant stainless steel chain and clip

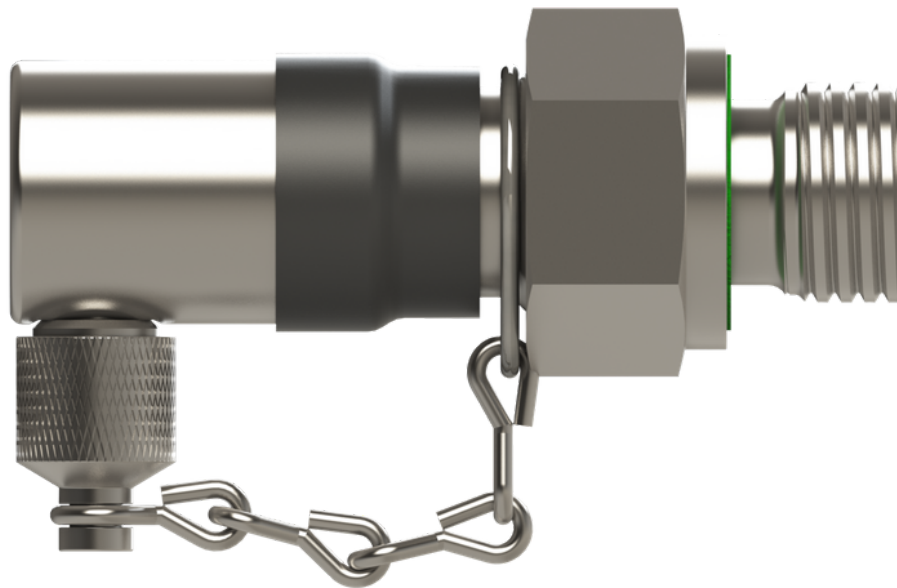


# THE LP PUSHBUTTON

The LP Series allows you to sample low pressure systems with a push of a button. It's ideal for sampling high viscosity oils, and heavy weight gear oils in systems with pressures up to 125 psi (0.86 MPa).

## BENEFITS

- No probes needed
- Low purge volume
- Patented elastomeric vacuum tight seals
- Automatic valve shutoff
- Extra high flow for pressurized high viscosity gear oils up to VG 1000 or low-pressure, low-temperature applications
- Sampling range of 3 - 125 psi



## FEATURES

- Unique 360° rotating spout offers convenient sampling and installation without swivel fittings
- Push button style valve: push to open valve, release to automatically close valve
- Weather sleeve
- Rugged spout design with easy to grip knurled cap
- Variety of thread options for direct installation
- Corrosion resistant stainless steel chain and clip with no exposed springs



# THE LT SAMPLING VALVE

Eliminate the safety risk of inserting flexible plastic tubing into equipment with the LT High Flow Series. The LT's stainless tubing can be cut/bent and installed to draw active oil. Sample from the same active zone every time, eliminating the inaccuracies of sampling too close to the bottom or sides.

## BENEFITS

- Samples up to 7x faster than the B16x2 series
- Zinc-nickel based corrosion protection offers 5 - 7x more life than industry standard
- Sample without shutting the equipment down
- Sampling range 0 - 125 psi

## FEATURES

- High flow flush-faced valve designed to be able to sample high viscosity gear oils up to VG 1500
- Sampling tube draws only oil from the active zone
- Variety of port threads for direct installation
- Stainless steel chain and clip with no exposed springs

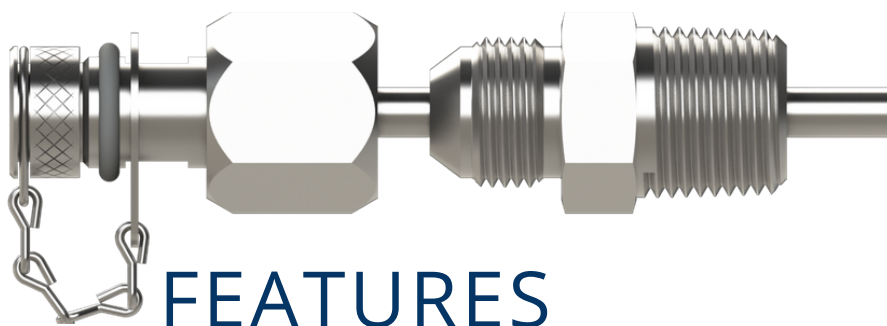


# THE LTJ SAMPLING VALVE

The same great L valve with a universal port. The LTJ Sampling Tube makes gearbox sampling simple. Install into a readily available port using a standard 1/2" (-8) JIC Flare fitting. The standard swivel helps easily position the tube to draw oil directly from the active zone while the equipment is running, leading to more reliable, trendable, and repeatable samples.

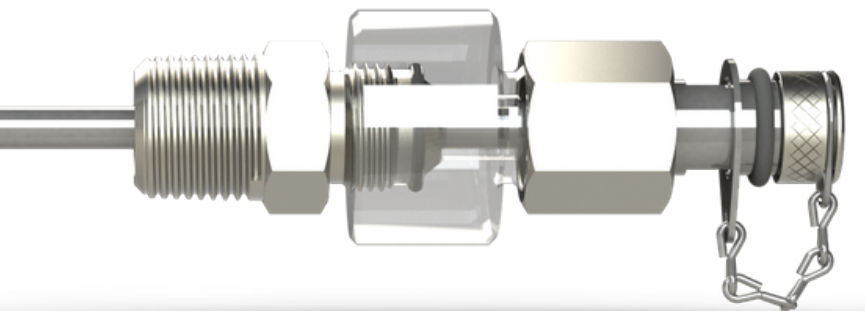
## BENEFITS

- Sampling tube draws only oil from the active zone
- Sample high viscosity gear oils without shutting down
- Samples 7x faster than the B16x2 series
- Zinc-nickel based corrosion protection offers 5 - 7x more life than industry standard
- Installs compactly into almost any port without special tools or multiple adapters
- Detect oil levels more accurately and from any angle with the 3D Sight Glass
- 3D Sight Glass provides easy visual for any oil discoloration oil level
- Sampling range 0 - 125 psi



## FEATURES

- High flow flushface valve is designed to be able to sample high viscosity gear oils up to VG 1500
- JIC style offers one less connection point- use 1/2" (-8) JIC Flare standard fitting for port installation
- Swivel feature allows for bending and positioning of the tube to draw from the active zone



# THE AD MOUNT

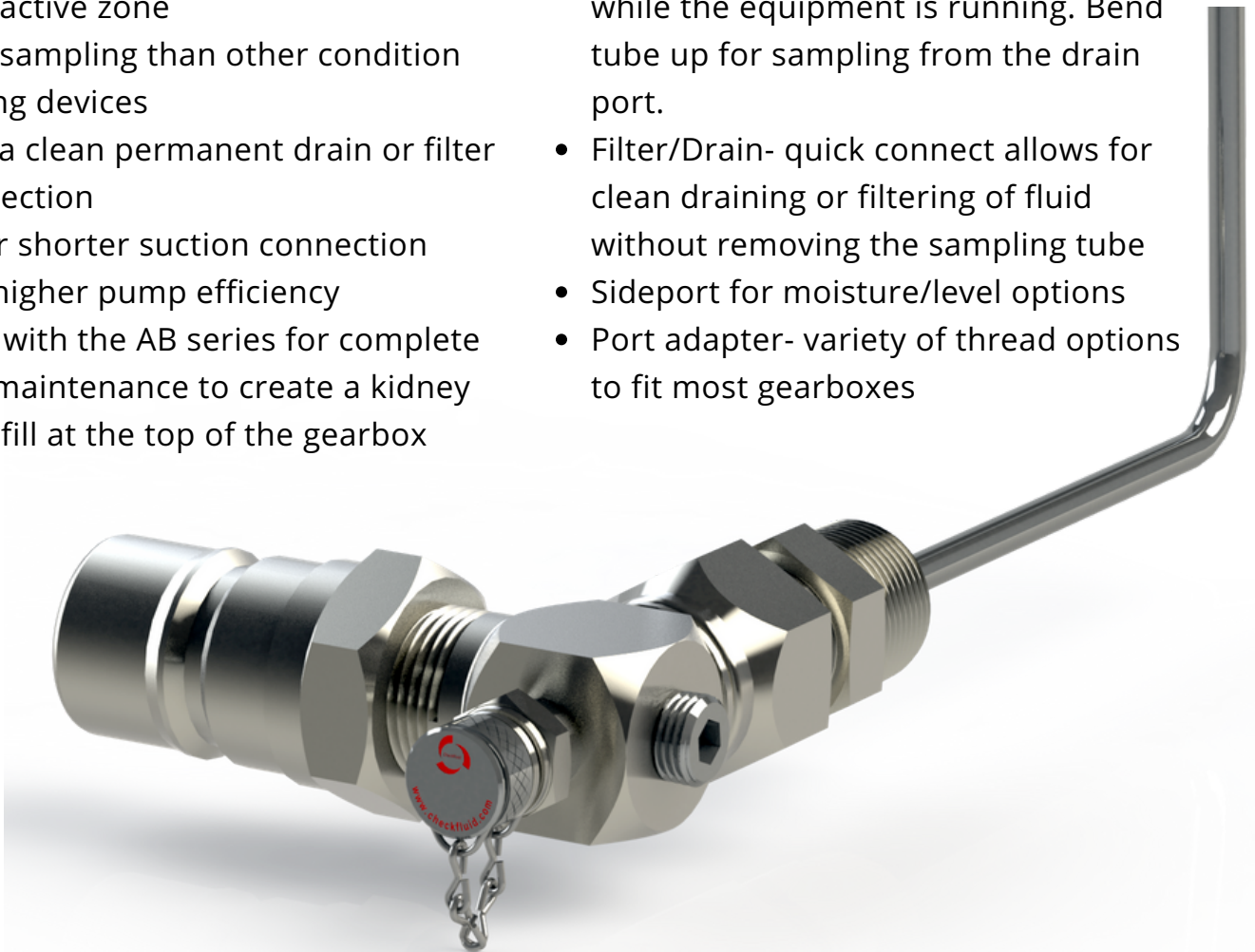
The AD Mount allows for installation of a permanent sampling tube without monopolizing the drain or level port. The sampling tube is bent or positioned to reach the active oil zone. The drain mount includes a quick connect with the options to add a level gauge as well and moisture sensor.

## BENEFITS

- Combines sampling with draining or filtration features from one port
- Able to get a clean accurate sampling from the active zone
- 7x faster sampling than other condition monitoring devices
- Provides a clean permanent drain or filter cart connection
- Allows for shorter suction connection lines for higher pump efficiency
- Combine with the AB series for complete gearbox maintenance to create a kidney loop and fill at the top of the gearbox

## FEATURES

- High flow LT sampling tube
- Extended tube- sampling tube allows oil to be taken directly from the active zone while the equipment is running. Bend tube up for sampling from the drain port.
- Filter/Drain- quick connect allows for clean draining or filtering of fluid without removing the sampling tube
- Sideport for moisture/level options
- Port adapter- variety of thread options to fit most gearboxes



# THE AB MOUNT

Optimize the breather port with an AB Mount. Mount a desiccant breather, a fill port, a filter minder, and a return vent line while maintaining a closed system with the AB. Combine with the AD Mount for a complete fluid maintenance system.



## BENEFITS

- Combines protection from system moisture and particulate contamination with quick fill in one port
- Option to connect to a filter cart with separate down tube to avoid filter contamination
- Combine with the AD Mount to create a kidney loop and drain at the bottom of the gearbox
- Optional sampling tube to get reliable samples directly from the active oil
- Optional desiccant breather offers better filtration to protect against particulates that can destroy your system and it remove moisture from the system

## FEATURES

- Filter/Fill - quick connect allows quick and clean filling with separate stainless flow tube
- 1" Desiccant breather port
- Sideport for optional filter minder and connection to AD Mount vent line
- Option high flow LT Sampling Tube
- Port adapter 16 Bolt Flange - variety of thread options to fit most gearboxes

# Sampling Probes for

## KST Series

### VHKF - High/Low Pressure

K sampling probe, thread-on with micro hose and vent cap. For sampling pressures 5 - 4000 psi / 0.03 - 27.6 MPa.

### SVP1 - Disposable

K sampling probe, push on with PVC tubing and bottle vent cap. For sampling pressures 5 - 750 psi / 0.03 - 5.17 MPa.

### KPB4 - Reusable

K sampling probe, 90° push-on. For sampling pressure 5 - 750 psi / 0.03 - 5.17 MPa.

## LT/LTJ Series

### SLF4 - Reusable

L sampling probe, thread on (vacuum - 125 psi / 0.86 MPa) use 1/4" poly tubing.

### LF-4NF Reusable

L sampling probe, thread-on, with 1/4" OD quick attach/detach (vacuum - 125 psi / 0.86 MPa) use 1/4" poly tubing.

# Accessories for

## LT/LTJ Series

### Vacuum Pump

Required for retrieving samples from the LT/LTJ Valve

### Plastic Tubing

Required for retrieving samples from the LT/LTJ Valve

## All Valves

### Sampling Bottle

# TAKE YOUR OIL ANALYSIS TO THE NEXT LEVEL, START GETTING RELIABLE OIL SAMPLES



Certificate Number 22484



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