



Pall Corporation

A Summary of Fluid Sampling

This procedure summarises the ideal method for obtaining representative samples of system fluid for analysis of the fluid cleanliness. The information given below is taken, in part, from the Pall document titled 'How to Take a Fluid Sample'.

WARNING Fluid sampling from HIGH PRESSURE systems can be dangerous, ensure adequate precautions are taken prior to obtaining a sample of the system fluid.

Cleanliness

Cleanliness is of the utmost importance, extraneous particles can give increased contamination levels and 'fail' the cleanliness test. Likely sources of particles include:

- a) Sample bottle background contamination
- b) Sample valve contaminant shedding characteristics (note: gate valve internals)
- c) Inadequate flushing of sampling valves
- d) Moving the sample valve during sampling
- e) Environment (note: motor cooling fan air flow)

Equipment

- a) Suitable adaptor and seal for installation onto the system to be sampled.
- b) Stainless steel pipe and fittings
- c) 1/4" full bore ball valve or test point connection rated for the system pressure
- d) Pre-cleaned sample bottles (note: ISO3722 maximum 150 particles >5 µm)
- e) Labels

Procedure

- a) Operate the system for at least 30 minutes prior to sampling
- b) Open the sample valve and flush at least 1 litre of fluid through the sampling valve
DO NOT MOVE THE VALVE DURING FLUSHING
- c) Open the pre-cleaned sample bottle immediately prior to obtaining the sample and keep hold of the cap
- d) Fill the sample bottle (ideally within 60 seconds) and securely cap the bottle.
If pre-cleaned sample bottles are not available, fill and rinse the bottle, discard this fluid, repeat if required and finally fill and cap the bottle.
DO NOT MOVE THE VALVE DURING SAMPLING.
- e) Close the sampling valve
- f) Label the bottle with system and reference details