

BS ISO 11171:2016



BSI Standards Publication

Hydraulic fluid power — Calibration of automatic particle counters for liquids

National foreword

This British Standard is the UK implementation of ISO 11171:2016. It supersedes BS ISO 11171:2010 which is withdrawn.

Attention is drawn to the fact that the UK committee voted against the approval of this International Standard.

The UK committee has concerns that there are three options for presenting data which will give significant differences in particle counts when analysing the same fluid with automatic particle counters (APCs). The difference in particle counts is because the previous calibration suspensions, SRM 2806 and 2806a, where the calibrated size is labelled “ $\mu\text{m}(\text{c})$ ”, are no longer available. The latest characterization of the particle sizes by electron microscope has shown that there is an increase in size of the same particles. The result is that calibration using SRM 2806b results in higher particle counts compared to calibration using SRM 2806 or SRM 2806a, when testing the same fluid.

Clause 6.8 of this standard describes the process for constructing an additional calibration curve so that an APC calibrated using SRM 2806b can give results equivalent to the earlier standard that used SRM 2806 or SRM 2806a when option 7.1 b) is selected, but use of this is not required when reporting to options 7.1 a) and 7.1 c).

Any standard using APCs calibrated to ISO 11171 will be affected by these changes e.g. ISO 4406. It is beyond the scope of this standard to state how to apply the results derived in clause 7.1 to generate ISO 4406 codes. At the time of publication, ISO 4406 has not been revised to account for these changes and the UK committee suggests, therefore, that the ISO Code is followed by:

- “ μm ” if option 7.1 a) is chosen;
- “ $\mu\text{m}(\text{c})$ ” if option 7.1 b) is chosen, or
- “ $\mu\text{m}(\text{b})$ ” if option 7.1 c) is chosen.

The UK participation in its preparation was entrusted by Technical Committee MCE/18, Fluid power systems and components, to Subcommittee MCE/18/-/6, Contamination control.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Amendments/corrigenda issued since publication

Date	Text affected