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## **Statistical methods in process management — Capability and performance —**

### **Part 8: Machine performance of a multi-state production process**

*Méthodes statistiques dans la gestion de processus — Aptitude et  
performance —*

*Partie 8: Aptitude machine d'un procédé de production multimodal*



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## Foreword

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 69, *Applications of statistical methods*, Subcommittee SC 4, *Applications of statistical methods in process management*.

ISO 22514 consists of the following parts, under the general title *Statistical methods in process management — Capability and performance*:

- *Part 1: General principles and concepts*
- *Part 2: Process capability and performance of time-dependent process models*
- *Part 3: Machine performance studies for measured data on discrete parts*
- *Part 4: Process capability estimates and performance measures [Technical Report]*
- *Part 6: Process capability statistics for characteristics following a multivariate normal distribution*
- *Part 7: Capability of measurement processes*
- *Part 8: Machine performance of a multi-state production process*

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## Introduction

The methodology introduced through this part of ISO 22514 provides the platform for producing the items required for building a long-term process capability and its leading, for a given product characteristic. This can, for example, make it possible to

- define the in-process or mid-process sampling procedure,
- predict, for batch furnaces, a process capability variation range covering all the parts in the batch load, once a recorded partial load variation has been characterized beforehand, and
- follow, for multi-cavity casting, the changes of extreme variation field based on different positions in the mould, each variation of the mould cavities have been characterized beforehand.