

ISO 7870-8:2017-04 (E)

Control charts - Part 8: Charting techniques for short runs and small mixed batches

| Contents | | Page |
|--------------------|--|-------------|
| Foreword | | v |
| Introduction | | vi |
| 1 | Scope | 1 |
| 2 | Normative references | 1 |
| 3 | Terms, definitions and symbols | 1 |
| 3.1 | Terms and definitions | 1 |
| 3.2 | Symbols | 1 |
| 4 | How to select the correct type of Shewhart control chart for continuous variables data | 2 |
| 4.1 | General | 2 |
| 4.2 | How to select the correct type of Shewhart control chart for measured data generally | 2 |
| 4.3 | How to select the Shewhart control chart when the characteristic does not have a constant aim or process spread | 3 |
| 5 | How to prepare for short run, small mixed batch control charting | 5 |
| 5.1 | Focus on the process | 5 |
| 5.2 | Procedure for grouping similar processes | 5 |
| 5.3 | Typical applications | 7 |
| 5.4 | Preliminary process diagnosis | 8 |
| 5.5 | Procedure to establish the correct initial set-up of a process characteristic | 8 |
| 5.5.1 | Purpose | 8 |
| 5.5.2 | Scope and limitations | 8 |
| 5.5.3 | Reasons for need of procedure | 8 |
| 5.5.4 | Method | 9 |
| 5.5.5 | Example | 10 |
| 5.6 | Procedure to pre-establish control limits for SPC charts for short run, small batch, processes | 11 |
| 5.6.1 | Purpose | 11 |
| 5.6.2 | Scope of application | 11 |
| 5.6.3 | Reasons for need of procedure | 11 |
| 5.6.4 | Method | 11 |
| 5.6.5 | Example | 12 |
| 6 | How to establish and apply short run, small mixed batch, control charts | 15 |
| 6.1 | General | 15 |
| 6.2 | Variable aim, individual and moving range chart | 15 |
| 6.2.1 | Purpose | 15 |
| 6.2.2 | Scope of application | 16 |
| 6.2.3 | Method | 16 |
| 6.2.4 | Example | 16 |
| 6.3 | Variable aim, moving mean and moving range chart | 18 |
| 6.3.1 | Purpose | 18 |
| 6.3.2 | Scope of application | 18 |
| 6.3.3 | Method | 18 |
| 6.3.4 | Example | 19 |
| 6.4 | Universal, individual and moving range chart | 20 |
| 6.4.1 | Purpose | 20 |
| 6.4.2 | Scope of application | 20 |

| | | |
|--|---|----|
| 6.4.3 | Method | 20 |
| 6.4.4 | Example | 21 |
| 6.5 | Universal, moving mean and moving range chart | 22 |
| 6.5.1 | Purpose | 22 |
| 6.5.2 | Scope of application | 23 |
| 6.5.3 | Method | 23 |
| 6.5.4 | Example | 24 |
| Annex A (informative) Reproducible copies of control charts forms and normal probability worksheet | | 25 |
| Bibliography | | 31 |