

Exensys Software Solutions Ltd.		AA/B/CCDD V x.y
White Paper		W. E. F. dd/mm/yy



eXensys – Calibration Cycle [®]

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Business Performance Sustained

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Introduction

Objective of this document is to furnish a conceptual analysis of calibration cycle in the Quality Management. Calibration refers to the process of verification that an instrument is within its designated accuracy.

Overview

• Calibration cycle

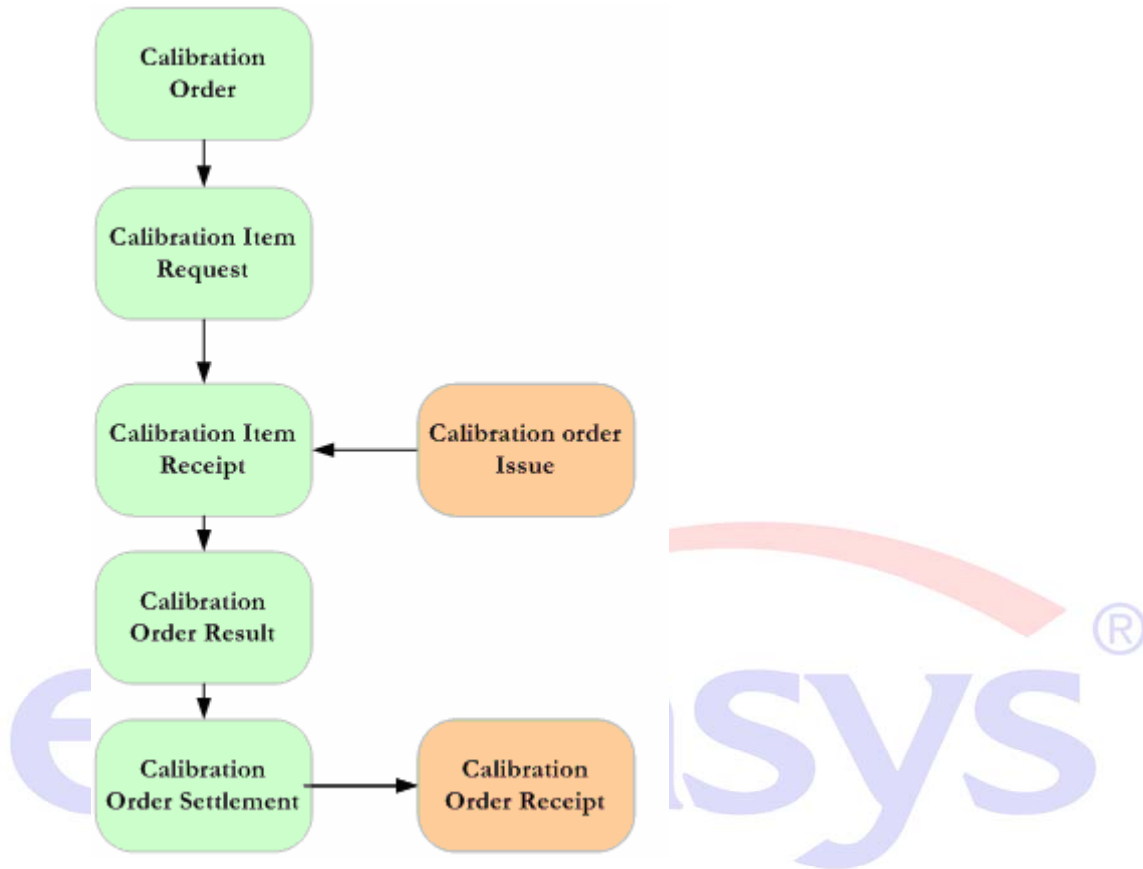
Calibration is usually accomplished by formal comparison with standard master test equipment. At the time of receipt of material the calibration details are captured, and the details of calibration frequency & calibration procedure are maintained. Based on the information, the quality manager is prompted to generate calibration order for the equipments. On the completion of calibration, the history of calibration dates are maintained along with next calibration due date. Calibration Order is generated for the test equipment or items requiring calibration.

There are two calibration order Types :

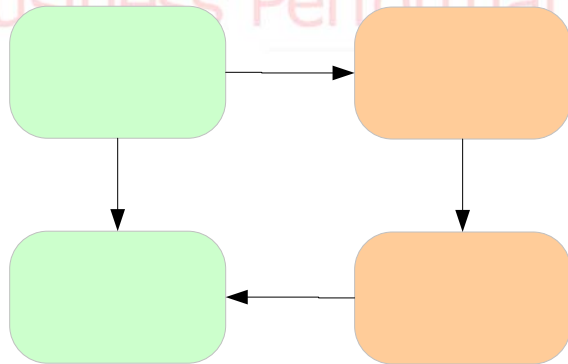
1. **In-house Calibration** – Calibration is done In-house. Initiation of the cycle starts with
 - a. Calibration Order
 - b. Calibration Item Request
 - c. Calibration order Result
 - d. Calibration order settlement.

2. **Vendor Calibration** – Calibration is done by the vendor. Test Equipment will be send to vendor for calibration. Vendor will do the calibration of the test equipment with his master test equipment. Initiation of cycle starts with
 - a. Calibration Order
 - b. RDN Issue
 - c. RDN Receipt
 - d. Calibration order Result

In –House Calibration



Vendor Calibration



- **QAC – Calibration Definition**

Master Test equipment is defined in the calibration definition master.

Sub organization	SO1
Calibration Code	CAL -001
Master Test equipment	Viscometer Fluid

- **QAC – Equipment Calibration**

Test equipment is mapped to the master test equipment.

Sub organization	SO1
Test Equipment	Viscometer
Calibration Code	CAL -001
Master Test equipment	Viscometer Fluid

- **QAC – Calibration Order**

Calibration Order is generated for the test equipment or items requiring calibration.

a. In house Calibration

Sub organization	SO1
Calibration Order Code	CO-001
Order Type	In House calibration
Test equipment	Viscometer
Master Test equipment	Viscometer Fluid

Serial No.	Last Calibration date	Next Calibration Due Date	Calibration Start Date	Calibration End Date
1	08.08.2008	08.12.2008	15.09.08	15.09.08

b. Vendor Calibration

Sub organization	SO1
Calibration Order Code	CO-001
Order Type	Vendor calibration

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Test equipment	Viscometer
Vendor Code	V001

- **QAC – Calibration Item Request**

Only for order type ‘In house calibration’ item request initiation will be there. In this process calibration equipment and master test equipment is requested from Inventory .

Sub organization	SO1
Calibration Order Code	CO - 001

Item Code	UOM	Sl. No.	Required Qty.	Required On
Viscometer	No.	1	1	15.09.08
Viscofluid	gm/cc	1	1	15.09.08

- **Inventory – Calibration Order Issue**

Calibration master test equipment and test equipment are issued from Inventory with reference to the calibration item request from QC. For Vendor calibration order type returnable delivery note issue is used for sending the material to vendor.

Sub organization	SO1
Calibration Order Issue Code	COI - 001
Calibration Order Code	CO - 001

Item Code	UOM	Sl. No.	Required Qty.	Issued Qty
Viscometer	No.	1	1	1
Viscofluid	gm/cc	1	1	1

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- **QAC – Calibration Order Receipt**

Calibration master test equipment and test equipment are received from Inventory with reference to the Inventory Calibration order issue. For Vendor calibration order type returnable delivery note receipt is used for receiving the material from vendor.

Sub organization	SO1
Calibration Order Issue Code	COI - 001
Calibration Order Code	CO - 001

Item Code	UOM	Sl. No.	Ref. Qty.	Received Qty
Viscometer	No.	1	1	1
Viscofluid	gm/cc	1	1	1

- **QAC – Calibration Result**

Calibration Result is generated for the items or test equipment sent for calibration process. Test equipment calibrated at vendor end also is reflected in the calibration Result.

Sub organization	SO1
Calibration Result	CR-001
Calibration Order Code	CO-001
Test equipment	Viscometer

Serial No.	Last Calibration date	Calibration Start Date	Calibration End Date	Calibration Result	Next Calibration Date
1	08.08.2008	15.09.08	15.09.08	Pass	08.12.2008

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- **QAC – Calibration Settlement**

Calibration order is settled once the calibration order is generated. The test equipment procured from the inventory needs to be sent back to the respective departments. For order type vendor calibration there is no settlement process.

Benefits

- Calibration of Test equipment from third party and tracking of items at vendor.
- In house calibration cycle.
- Calibration history details of test equipment .
- Calibration helps to verify that an instrument is within its designated accuracy.

Conclusion

- eXensys In house Calibration cycle is very effective as it automates the whole of – Calibration Order - Calibration Item Request - Calibration order Result -Calibration order settlement .
- eXensys Vendor Calibration cycle is very effective as it automates the whole of – Calibration Order – RDN Issue - RDN Receipt -Calibration Result .
- eXensys calibration cycle captures calibration history details of the test equipment.