

QUALITY ASSURANCE DEPARTMENT

INSTALLATION QUALIFICATION FOR AUTOMATIC VERTICAL ROUND BOTTLE STICKER LABELING MACHINE

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1.0 PROTOCOL APPROVAL:

Signing of this approval page of Protocol indicates agreement with the qualification approach described in this document. If modification to the qualification approach becomes necessary, an addendum shall be prepared and approved .The protocol cannot be used for execution unless approved by the following authorities.

This Installation Qualification protocol of Automatic Vertical Round Bottle Sticker Labeling Machine has been reviewed and approved by the following persons:

| FUNCTION | NAME | DESIGNATION | DEPARTMENT | SIGNATURE | DATE |
|----------------|------|-------------|---|-----------|------|
| PREPARED BY | | | QUALITY ASSURANCE | | |
| REVIEWED BY | | | QUALITY ASSURANCE ENGINEERING PRODUCTION | | |
| APPROVED | | | HEAD OPERATION | | |
| BY | | | QUALITY ASSURANCE | | |



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2.0 OVERVIEW:

2.1 OBJECTIVE:

The objective of developing and executing this protocol is to collect sufficient data pertaining to the Automatic Vertical Round Bottle Sticker Labeling Machine and define the installation qualification requirements and acceptance criteria for the Automatic Vertical Round Bottle Sticker Labeling Machine. Successful completion of these installation qualification requirements will provide assurance that the Automatic Vertical Round Bottle Sticker Labeling Machine was installed as required in the manufacturing area.

The Qualification of Automatic Vertical Round Bottle Sticker Labeling Machine performed in view of Dry Syrup in manufacturing facility.

2.2 PURPOSE:

The purpose of this protocol is to establish documentary evidence to ensure that the Automatic Vertical Round Bottle Sticker Labeling Machine received matches the Design specification and also to ensure that it is properly and safely installed.

2.3 SCOPE:

This Protocol is applicable to installation of Automatic Vertical Round Bottle Sticker Labeling Machine in Dry Syrup in Production Cepha Oral Block of the manufacturing facility.

2.4 **RESPONSIBILITY:**

In accordance with protocol, following functions shall be responsible for the qualification of system.

Execution Team (Comprising members from Production, Engineering and Quality Assurance) and their responsibilities are following:

- > Prepares the qualification protocol.
- Ensures that the protocol is in compliance with current policies and procedures on system Qualification.
- > Distributes the finalized protocol for review and approval signatures.
- > Execution of Qualification protocol.



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- > Review of protocol, the completed qualification data package, and the final report.
- The installation checks, operational checks, calibration, SOP identification, identification features, identification of utility supply shall be carried out by engineering persons
- The production operator / supervisor shall carry out the cleaning and operation of machine.

Head – Production/ Engineering:

- > Review of protocol, the completed qualification data package, and the final report.
- > Assist in the resolution of validation deficiencies.

Head – Operation and Quality Assurance:

Review and approval of protocol, the completed qualification data package, and the final report.



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2.5 EXECUTION TEAM:

The satisfactory installation of the Automatic Vertical Round Bottle Sticker Labeling Machine shall be verified by executing the qualification studies described in this protocol. The successfully executed protocol documents that the Automatic Vertical Round Bottle Sticker Labeling Machine is installed satisfactorily.

Execution team is responsible for the execution of installation of Automatic Vertical Round Bottle Sticker Labeling Machine. Execution team comprises of:

| NAME | DESIGNATION | DEPARTMENT | SIGNATURE | DATE |
|------|-------------|------------|-----------|------|
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3.0 ACCEPTANCE CRITERIA:

- 3.1 The Automatic Vertical Round Bottle Sticker Labeling Machine shall meet the system description given in design qualification.
- 3.2 The Automatic Vertical Round Bottle Sticker Labeling Machine shall meet with the acceptance criteria mentioned under the topic "Identification of major components"
- 3.3 The safety feature of machine should be in place

4.0 **REQUALIFICATION CRITERIA:**

The machine shall be requalified if

- There are any major changes in system components which affect the performance of the system
- After major breakdown maintenance is carried out.
- As per revalidation date and schedule



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| 5.1 | SYSTEM DESCRIPTIC |)N: | |
|-----|-----------------------|-----|--|
| 1 | Equipment Name | | Automatic Vertical Round Bottle Sticker Labeling |
| | | • | Machine |
| 2 | Supplier/Manufacturer | : | Parth Engineers & Consultant |
| 3 | Model | : | |
| 4 | Serial no. | : | |
| 5 | Capacity | : | Up to 100-120 BPM |
| 6 | Dimension | : | 1800 mm (L) X 550 mm (W) X 1332 mm (H) |
| 7 | Location | : | Dry Syrup |

5.0 INSTALLATION QUALIFICATION PROCEDURE:

5.1.1 Brief process description:

The round containers positioned on conveyor are released at equal distance by creating space between two containers with the help of roller spacing device. At the labeling point, an electronic product sensor senses container & releases a label from self adhesive label roll. If machine is equipped with batch printing device, then batch printing device prints the batch no. & other matter on the label while label is satisfactory between dispensing of two labels. The sensed round container moves on conveyor & picks the released label. Then the labeled container moves further through a rubber pressing belt & stationary rubber pad which ensures neat & perfect fixing of label on the container diameter.

5.1.2 MACHINE DESCRIPTION

The Automatic Vertical Round Bottle Sticker Labeling Machine is used for full/partial wrap around labeling on different size of round containers. It is capable of labeling up to 240 containers per minute depending on the products & label size. The automatic model is equipped with roller spacing device resulting in a simple operation with "No change parts required".



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5.2 INSTRUCTION FOR FILLING THE CHECKLIST:

- 5.2.1 In case of identification of major component actual observation should be written in specified location.
- 5.2.2 In case of the compliance of the test actual observation should be written in specified location.
- 5.2.3 For identification of utilities actual observation should be written in specified location.
- 5.2.4 Give the detailed information in the summary and conclusion part of the installation Qualification report.
- 5.2.5 Actual observation of the component should be written in specified location.
- 5.2.6 Whichever column is blank or not used 'NA' shall be used.



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5.3 INSTALLATION CHECKLIST:

Installation checklist is as follows:

| S.No. | Statement | Method of Verification | Actual Observation | Checked By Sign/Date |
|-------|---|---------------------------|-----------------------|----------------------------|
| 1 | Verify purchase order copy and write down P.O. number | Physically | | |
| 2 | Verify that there is no observable physical damage | Physically | | |
| 3 | Examine All access ports are cleared of any debris. | Physically | | |
| 4 | Verify that all components are properly assembled, securely anchored and shock proof. | Physically | | |
| 5 | Verify that all electrical connections are properly done and safe | Physically | | |
| 6 | Verify that the equipment is properly earthed | Physically | | |
| 7 | Verify that utility line is properly connected | Physically | | |
| 8 | Verify the proper leveling of equipment | Physically | | |
| 9 | Verify that there is sufficient space provided for operation, cleaning, preventive maintenance | Physically | | |
| 10 | Equipment/system identification no. Is visible | Physically | | |

Remark: -----



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5.4 IDENTIFICATION OF MAJOR COMPONENTS:

Describe each critical component and check them and fill the inspection checklist.

| System Components | Design Specification | | Method of Verification | Actual Observation | Checked By Sign/Date |
|----------------------|----------------------|---|------------------------------------|-----------------------|----------------------------|
| Main Motor | Location | Bottom of the | Physically | | 0 |
| | | machine | 5 5 | | |
| | Make | Bonfiglioli | Physically | | |
| | Spec. | 1.07 A/0.37 | Physically/ | | |
| | | KW/415 V/ 50 | Test | | |
| | | Hz/ 1370 RPM | Certificate | | |
| | Sr. No. | To be recorded | Physically | | |
| Conveyor Motor | Make | Bonfiglioli | Physically | | |
| | Spec. | 0.72 A/ 0.18 kw/ | Physically/ | | |
| | | 415v/ 1320 RPM/ | Test | | |
| | | 50 Hz | Certificate | | |
| Main Gear Box | Make | Bonfiglioli | Physically | | |
| | Ratio | 20:1 | Physically/ Test Certificate | | |
| Conveyor Gear Box | Make | Bonfiglioli | Physically | | |
| DUX | Ratio | 20:1 | Physically/ Test Certificate | | |
| Label Dispenser | Make | Panasonic | Physically | | |
| Motor | Spec. | 0.4 kw, 230 V | Physically/ Test Certificate | | |
| AC Drive | Make | Allen Bradley | Physically | | |
| | Spec. | 0.5 HP, Input Single phase, Output: 3 Phase | Physically/ Test Certificate | | |
| | Sr. No. | To be recorded | Physically | | 1 |



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| PLC | Make | Delta | Physically/ | |
|-----------|-------|--------------|---------------|--|
| | | | Technical | |
| | | | Specification | |
| | Model | DVP-12SA211T | Physically/ | |
| | | | Technical | |
| | | | Specification | |
| HMI | Make | Delta | Physically/ | |
| | | | Technical | |
| | | | Specification | |
| | Model | B03S211 | Physically/ | |
| | | | Technical | |
| | | | Specification | |
| MCB | Make | Schneider | Physically/ | |
| | | | Technical | |
| | | | Specification | |
| Sensors | Make | Lauze | Physically/ | |
| | | | Technical | |
| | | | Specification | |
| Contactor | Make | Schneider | Physically/ | |
| | | | Technical | |
| | | | Specification | |

Remark: -----

PHARMA DEVILS



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5.5 VERIFICATION OF MATERIAL OF CONSTRUCTION:

| Name of Components | Material of Construction | Method of Verification | Observation | Verified By |
|--------------------|-----------------------------|---------------------------|-------------|----------------|
| | | | | Sign/Date |
| Machine Frame | M.S. Angle | Physically | | |
| Structure | Structure duly | | | |
| | powder coated | | | |
| | & fully covered | | | |
| | with SS 304 | | | |
| | Sheet | | | |
| | SS 304,- Hair- | By Molybdenum | | |
| Door Set | lined pre- | Kit/ Test Certificate | | |
| | finished sheet | | | |
| Chain Wheel for | Nulon | Visually | | |
| Conveyor | Nylon | | | |
| Conveyor Belt | Nylon Endless | Test Certificate | | |

Remark: -----

Reviewed by (Sign/Date)

5.6 IDENTIFICATION OF SUPPORTING UTILITIES:

| S.No. | Utility | Method of Verification | Observation | Checked By Sign/Date |
|-------|--|-----------------------------|-------------|-------------------------|
| 1. | Electrical Power Supply: 3 phase, 230- 400 V, 50Hz supply with neutral and proper earthing | Physically with clamp meter | | |

Remark: -----



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5.7 IDENTIFICATION OF SAFETY FEATURES:

Identify and record the safety/interlocking features (if any) and their function in following tables:

| Safety Features Description | Location/Identification | Method of Verification | Observation | Identified By Sign/Date |
|-----------------------------------|---|---------------------------|-------------|-------------------------------|
| Earthing | Equipment connected with earthing strip | Physically | | |
| Emergency stop | To stop the machine immediately | Physically | | |
| Label sensor | No label no labeling | Physically | | |
| Product sensor | No bottles No Labeling. | Physically | | |

Remark: -----



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5.8 IDENTIFICATION OF COMPONENT TO BE CALIBRATED:

| Name of Components | Range | Make | Location | Identified By Sign/Date |
|--------------------|-------|------|----------|----------------------------|
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Remark: -----



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5.9 IDENTIFICATION OF STANDARD OPERATING PROCEDURE (SOP):

The following Standard Operating Procedures were identified as important for effective performance of Automatic Vertical Round Bottle Sticker Labeling Machine operation

| S.No. | SOP Title | Verified By Sign/ Date |
|-------|-----------|---------------------------|
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| Remark: | |
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5.10 VERIFICATION OF DRAWING AND DOCUMENTS:

Following documents are reviewed and attached as listed below:

| S.No. | Drawing And Document Detail | Verified By Sign/Date |
|-------|-----------------------------|--------------------------|
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Remark: -----



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5.11 ABBREVIATIONS

Following Abbreviations are used in the installation qualification protocol of Automatic Vertical Round Bottle Sticker Labeling Machine

MOC: Material of construction

Spec.: Specification

V: Voltage

Hz: Hertz

A: Ampere

SS: Stainless Steel

RPM: Rotation per minute

HP: Horse Power

NA: Not Applicable



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5.12 DEFICIENCY AND CORRECTIVE ACTION (S) REPORT (S):

Following deficiency was verified and corrective actions taken in consultation with the Engineering Department.

Description of deficiency:

Corrective action(s) taken:

Deviation accepted by (Sign/Date)

Deviation Approved by: (Sign/Date)





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5.13 Annexure (S)

| Annexure No. | Details of Annexure |
|--------------|---------------------|
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Remarks (if any):

Done By & Date:

Verified By & Date:



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6.0 INSTALLATION QUALIFICATION FINAL REPORT:

6.1 SUMMARY:

6.2 CONCLUSION:

Prepared By Sign/Date Checked By Sign/Date



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6.3 FINAL REPORT APPROVAL

It has been verified that all tests required by this protocol are completed, reconciled and attached to this protocol or included in the qualification summary report. All amendments and discrepancies are documented, approved and attached to this protocol, If applicable. Signature in the block below indicates that all items in this qualification report of Automatic Vertical Round Bottle Sticker Labeling Machine have been reviewed and found to be acceptable and that all variations or discrepancies have been satisfactorily resolved. After the successful installation qualification of the Automatic Vertical Round Bottle Sticker Labeling Machine the equipment can be taken for operational qualification.

| FUNCTION | NAME | DESIGNATION | DEPARTMENT | SIGNATURE | DATE |
|----------------|------|-------------|----------------------|-----------|------|
| DEVIEWED | | | QUALITY ASSURANCE | | |
| REVIEWED BY | | | ENGINEERING | | |
| | | | PRODUCTION | | |
| APPROVED | | | HEAD OPERATION | | |
| BY | | | QUALITY ASSURANCE | | |