



DATE OF QUALIFICATION

SUPERSEDE PROTOCOL No.

NIL



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DESIGN QUALIFICATION PROTOCOL CUM REPORT FOR

LABEL COUNTER MACHINE

1.0 **PROTOCOL PRE – APPROVAL:**

PREPARED BY:

| DESIGNATION | NAME | SIGNATURE | DATE |
|---------------------|------|-----------|------|
| OFFICER/EXECUTIVE | | | |
| (QUALITY ASSURANCE) | | | |

REVIEWED BY:

| DESIGNATION | NAME | SIGNATURE | DATE |
|--|------|-----------|------|
| OPERATING MANAGER (QUALITY ASSURANCE) | | | |
| HEAD (ENGINEERING) | | | |
| HEAD (WAREHOUSE) | | | |

APPROVED BY:

| DESIGNATION | NAME | SIGNATURE | DATE |
|-----------------------------|------|-----------|------|
| HEAD (QUALITY ASSURANCE) | | | |



2.0 **OBJECTIVE:**

- To prepare the Design Qualification document for Label Counter Machine on basis of Design and Specification and information given by Supplier.
- To ensure that all Critical Aspects of Process/Product Requirement, cGMP and Safety have been considered in designing the equipment and are properly documented.

3.0 SCOPE:

- The Scope of this Qualification Document is limited to the Design Qualification of Label Counter Machine to be installed at Receiving Area.
- The equipment shall be operated under the dust free environment and conditions as per the cGMP requirements.

4.0 **RESPONSIBILITY:**

The Validation Group, comprising of a representative from each of the following departments, shall be responsible for the overall compliance of this Protocol cum Report:

| DEPARTMENTS | RESPONSIBILITIES |
|-------------------|---|
| Quality Assurance | Preparation, Review, Compilation and approval of the Design Qualification Protocol cum Report. Assist in the verification of Critical Process Parameters as per the Specification. Review of Qualification Protocol cum Report after Execution. Co-ordination with Warehouse and Engineering to carryout Design Qualification. Monitoring of Design Qualification Activity. |
| Warehouse | Review of the Design Qualification Protocol cum Report. Assist in the verification of Critical Process Parameters as per the Specification. Review of Qualification Protocol cum Report after Execution. |
| Engineering | Review of the Design Qualification Protocol cum Report. To co-ordinate and support the Activity. To assist in Verification of Critical Process Parameter as per the Specification i.e. Review of Design Qualification Protocol Cum Report after Execution. |



5.0 **PROJECT REQUIREMENTS:**

To confirm that safe delivery of the equipment from the supplier site. To ensure that no unauthorized or unrecorded design modification shall take place.

If at any point in time, any change is desired in the mutually agreed design, change control procedure shall be followed and documented.

6.0 BRIEF EQUIPMENT DESCRIPTION:

The equipment is an automated means to count label with help of gap sensor it suitable for different size of labels.

Fix the label roll on primary winding plate follow steps by show in schematic diagram. Once the machine is started, the labels are passed throughout gap sensor and rewinding in secondary winding plate.

7.0 EQUIPMENT SPECIFICATION:

Equipment Specifications are based on User Requirement Specification prepared for manufacturer of equipment ensures complies with user requirement specification.

TABEL TOP MODEL TYPE LABEL COUNTER

- cGMP Model
- SS-304 Constriction.
- Inbuilt Primary winding plate.(Tray)
- In Built A.C. Frequency Drive for Speed Control
- PLC & HMI Touch Screen for Operating Controls
- Suitable for 150 labels per minute
- Output: Up to 150 Labels per minute (Dispensing Upon Labels Size)



8.0 **CRITICAL VARIABLES TO BE MET:**

8.1 PROCESS/PRODUCT PARAMETERS :

| Critical Variables | Acceptance Criteria | Reference |
|----------------------------------|--|---------------------|
| Working: | Machine identified the personnel through | Process Requirement |
| Working of Label Counter Machine | the Label Counting identification & Show | |
| | the reading on PLC Screen and Operate | |
| | the machine of ON/Off Button. | |
| Electrical Control Panel | The system should have Electrical | Design Requirement |
| | Control Panel. | |

8.2 UTILITY REQUIREMENTS/LOCATION SUITABILITY:

| Critical Variables | Acceptance Criteria | Reference | | | |
|--|--|---------------------|--|--|--|
| Utility connections should be available as | Utility connections should be available as per the manufacturer's specification. | | | | |
| Motor | 0.25 HP, 220 V, AC, 1 Phase | Process Requirement | | | |
| Electricity | 0.5 HP, 220 V, AC, 1 Phase | Process Requirement | | | |
| Room Condition | Should be able to meet the requirement of | cGMP Requirement | | | |
| | clean environment. | | | | |

8.3 TECHNICAL SPECIFICATIONS/KEY DESIGN FEATURES:

| S. No. | Parameters | Acceptance criteria | Reference |
|--------|-----------------------|--|--------------------|
| 1. | Model No. | HMLC-150 | Design Requirement |
| 2. | SR.No. | HMLC-150/20-21 | Design Requirement |
| 3. | Overall Dimension | 750 mm x 500 mm x1200 mm | Design Requirement |
| 4. | Weight (Approx.) | Net Weight 150 Kgs. Gross Weight 200 Kgs. | Design Requirement |
| 5. | Input Specification | 1500 mm height and label roll Diameter - 300 mm | Design Requirement |
| 6. | Output | Up to 150 Labels per minute | Design Requirement |
| 7. | Make | H.M. Industries | Design Requirement |
| 8. | Primary winding Plate | Made from Acrylic sheet To fix label roll for the operating purpose | Design Requirement |
| 9. | Control Panel | Made out from SS-304 SheetPlaced inside the machine | Design Requirement |



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LABEL COUNTER MACHINE

| S. No. | Parameters | Acceptance criteria | Reference |
|--------|-------------------------------------|---|--------------------|
| | | A/C Frequency Drive Gap Sensor Main/Selector | |
| 10. | Operator Interface | Made from SS-304 Machine Start/Stop Selector Switch HMI-4.3" Delta Make Emergency Stop | Design Requirement |
| LIST O | F BROUGHT OUT ITEMS | | |
| 11. | Machine Motor | Bonvario make | Design Requirement |
| 12. | Machine Gearbox | Bonvario make | Design Requirement |
| 13. | Variable Frequency Drive Machine | Delta | Design Requirement |
| 14. | Gap Sensor | Luize | Design Requirement |
| 15. | Selector Switch | Salzer | Design Requirement |
| 16. | Emergency Button | Salzer | Design Requirement |
| 17. | PLC | Delta | Design Requirement |
| 18. | HMI | Delta | Design Requirement |

8.4 Material of Contraction:

| S. No. | Parameters | Acceptance criteria | Reference |
|--------|-------------------|--------------------------------------|--------------------|
| 1. | Machine Body | Machine body made from SS-304 Sheet | Design Requirement |
| 2. | Machine Top plate | Mild Steel cladded with SS-304 Sheet | Design Requirement |
| 3. | Label roll plates | Made from acrylic Sheet | Design Requirement |
| 4. | Finish | Matt finishing | Design Requirement |

8.5 SAFETY:

| Critical Variables | Acceptance Criteria | Reference |
|------------------------|--|--------------------|
| Leveling and balancing | Label Counter Machine should be properly balanced & leveled | Safety Requirement |
| Electrical wiring | Electrical wiring should be proper | Safety Requirement |



8.6 VENDOR SELECTION:

| Critical variables | Acceptance criteria | Reference |
|---|--|---------------------|
| Selection of Vendor for supplying the Label Counter Machine | Selection of Vendor is done on the basis of review of vendor. Criteria for review should include vendor background (general/financial), technical knowhow, quality standards, inspection of site, costing, feedback from market (customers already using the equipment) | Process Requirement |

Checked By Engineering

Sign/Date:

Verified By Quality Assurance Sign/Date:

Inference:

| | |
|------|------|
| | |

Reviewed By Manager QA Sign/Date:

9.0 DOCUMENTS TO BE ATTACHED:

• Any other relevant documents.

10.0 REVIEW (INCLUSIVE OF FOLLOW UP ACTION, IF ANY):

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11.0 ANY CHANGES MADE AGAINST FORMALLY AGREED PARAMETERS:

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12.0 RECOMMENDATION:

13.0 ABBREVIATIONS:

| cGMP | : | Current Good Manufacturing Practice |
|------|---|-------------------------------------|
| DQ | : | Design Qualification |
| Ltd. | : | Limited |
| QA | : | Quality Assurance |
| mm | : | Millimeter |
| LCM | : | Label Counter Machine |
| AC | : | Alternate Current |
| HP | : | Horse Power |
| KW | : | Kilo Watt |
| V | : | Volts |
| SS | : | Stainless Steel |
| | | |



14.0 REVIEWED BY:

| DESIGNATION | NAME | SIGNATURE | DATE |
|-----------------------|------|-----------|------|
| HEAD (ENGINEERING) | | | |

| DESIGNATION | NAME | SIGNATURE | DATE |
|--|------|-----------|------|
| OPERATING MANAGER (QUALITY ASSURANCE) | | | |

| DESIGNATION | NAME | SIGNATURE | DATE |
|---------------------|------|-----------|------|
| HEAD (WAREHOUSE) | | | |

| DESIGNATION | NAME | SIGNATURE | DATE |
|-----------------------------|------|-----------|------|
| HEAD (QUALITY ASSURANCE) | | | |