



**INSTALLATION QUALIFICATION PROTOCOL CUM REPORT FOR CHECK WEIGHER  
MACHINE**

**INSTALLATION QUALIFICATION  
PROTOCOL CUM REPORT  
FOR  
CHECK WEIGHER MACHINE**

<b>EQUIPMENT ID. No.</b>	
<b>LOCATION</b>	<b>Packing Area</b>
<b>DATE OF QUALIFICATION</b>	
<b>SUPERSEDES No.</b>	<b>NIL</b>



**INSTALLATION QUALIFICATION PROTOCOL CUM REPORT FOR CHECK WEIGHER  
MACHINE**

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**INSTALLATION QUALIFICATION PROTOCOL CUM REPORT FOR CHECK WEIGHER MACHINE**

**1.0 PROTOCOL PRE – APPROVAL:**

**INITIATED BY:**

DESIGNATION	NAME	SIGNATURE	DATE
OFFICER/EXECUTIVE (QUALITY ASSURANCE)			

**REVIEWED BY:**

DESIGNATION	NAME	SIGNATURE	DATE
HEAD (PRODUCTION)			
HEAD (ENGINEERING)			

**APPROVED BY:**

DESIGNATION	NAME	SIGNATURE	DATE
HEAD (QUALITY ASSURANCE)			



**INSTALLATION QUALIFICATION PROTOCOL CUM REPORT FOR CHECK WEIGHER MACHINE**

**2.0 OBJECTIVE:**

- To provide documented evidence for the Installation Qualification of Check Weigher Machine.
- To confirm that the equipment and its components are installed as per the Specifications mentioned in the design qualification document and other requirements given by supplier.

**3.0 SCOPE:**

The scope of this installation qualification protocol cum report is limited to qualification of Check Weigher Machine to be installed in Packing Area.

- This document provides all the relevant information related to specification, installation checks and acceptance criteria to be required to perform installation qualification activity of Check Weigher Machine.



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**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:

<b>DEPARTMENTS</b>	<b>RESPONSIBILITIES</b>
<b>Quality Assurance</b>	<ul style="list-style-type: none"><li>• Initiation, Approval and Compilation of the Installation Qualification Protocol cum Report.</li><li>• Co-ordination with Production and Engineering to carryout Installation Qualification.</li><li>• Monitoring of Installation Qualification Activity.</li><li>• Post Approval of Installation Qualification Protocol cum Report after Execution.</li></ul>
<b>Production</b>	<ul style="list-style-type: none"><li>• Review &amp; Pre Approval of Installation Qualification Protocol cum Report.</li><li>• To Co-ordinate and support for Execution of Qualification study as per Protocol.</li><li>• Post Approval of Installation Qualification Protocol cum Report after Execution.</li></ul>
<b>Engineering</b>	<ul style="list-style-type: none"><li>• Review &amp; Pre Approval of Installation Qualification Protocol cum Report.</li><li>• Co-ordination, Execution and technical support in Check Weigher Machine Installation Qualification Activity.</li><li>• Calibration of Process Instruments.</li><li>• Responsible for Trouble Shooting (if occurs during execution).</li><li>• Post Approval of Installation Qualification Protocol cum Report after Execution.</li></ul>



**INSTALLATION QUALIFICATION PROTOCOL CUM REPORT FOR CHECK WEIGHER MACHINE**

**5.0 EQUIPMENT DETAILS:**

<b>Equipment Name</b>	Check Weigher Machine
<b>Equipment</b>	
<b>Manufacturer's Name</b>	
<b>Supplier Name</b>	
<b>Machine Serial No.</b>	
<b>Model</b>	
<b>Location of Installation</b>	Packing Area

**6.0 SYSTEM DESCRIPTION:**

The check Weigher Machine contains display conveyor belt control box automatic sensor for over & underweight variation other machine signal rejection foreign product rejection

The check Weigher Machine consists of following Parts:-

- Infeed conveyor
- Photosensor/reflector
- Weighing conveyor
- Display
- Control box
- Power switch
- Rejector (option)
- Rejector conveyor (option)



**INSTALLATION QUALIFICATION PROTOCOL CUM REPORT FOR CHECK WEIGHER MACHINE**

**7.0 PRE – QUALIFICATION REQUIREMENTS:**

**7.1 Verification of Documents:**

- Executed and approved design qualification document
- Electrical circuits diagram
- Technical specification of equipment
- Certificate of material of construction of components.

**7.1.1 Procedure:**

- Verify the above mentioned documents for availability, completeness and approval status
- If any deviation is observed the same has to be recorded giving reasons for deviation and approved. Deviation should be approved by Authorized person.
- Approved Drawings and supporting documents would form a part of the IQ Protocol cum report.

**7.1.2 Acceptance Criteria:**

- All the documents should be available, complete and approved by respective authorities.



**INSTALLATION QUALIFICATION PROTOCOL CUM REPORT FOR CHECK WEIGHER MACHINE**

**8.0 CRITICAL VARIABLES TO BE MET:**

**8.1 General Checks and Location Suitability:**

<b>INSTALLATION CHECKS</b>	<b>ACCEPTANCE CRITERIA</b>	<b>OBSERVATION</b>	<b>OBSERVED BY (ENGINEERING) SIGN/DATE</b>
Leveling	Should be properly balanced and leveled		
Edges of parts	Metal parts should be properly grind without any sharp edges		
Welding of Joints	Welding of joints should be without any welding burrs		
Place of Installation	Three Piece Line Packing Line		
Room Condition	General working condition		
Illumination in area	NLT 300 Lux		
Working space around the equipment	Should be sufficient for easy operation, cleaning, sanitation and maintenance		

**Checked By**  
**Production**  
**Sign/Date:** .....

**Verified By**  
**Quality Assurance**  
**Sign/Date:** .....

**Inference:**

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**Reviewed By**  
**Manager QA**  
**Sign/Date:** .....





**INSTALLATION QUALIFICATION PROTOCOL CUM REPORT FOR CHECK WEIGHER MACHINE**

**8.2 EQUIPMENT VERIFICATION:**

**8.2.1 TECHNICAL SPECIFICATIONS:**

PARAMETERS	ACCEPTANCE CRITERIA	OBSERVATION	OBSERVED BY (ENGINEERING) (SIGN/DATE)
Model	AD-4961-2KD-2035		
Sr.No.	.....		
Capacity	500 gm / 2,000 gm		
Resolution	0.01 gm / 0.1 gm		
Accuracy (3 $\sigma$ )*1	0.08 gm / 0.18 gm		
Max. throughput	320pcs/min.		
Conveyor belt width	200 mm		
Conveyor length	350 mm		
Transport medium	Urethane belt		
Conveyor belt speed	15 – 120m/ min.		
Max. product dimensions	Length: 30 – 300 mm Width: 200 mm		
Weighing sensor	Strain gauge load cell		
Display	7inch touch panel color display (WVGA)		
Operation method	Touch panel (resistive film type), operation buttons		
Number of recorded items	1,000 items (10 groups x 100 items)		
Communication functions	Modbus TCP / Modbus RTU/ RS-232C/485 (selectable) / TCP/IP(PostScript printer)/USB (for PostScript printer, USB memory, data storage, image import use)*3		
External input	Non-Voltage contact input 4points		
External output	Relay output 8points		
Dust / Water resistance specifications	IP65		



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PARAMETERS	ACCEPTANCE CRITERIA	OBSERVATION	OBSERVED BY (ENGINEERING) (SIGN/DATE)
Operation temperature / humidity range	5 - 40 <sup>0</sup> C / humidity below 85% (with no condensation)		
Power supply * 4	Single phase AC100V – 240 V (+10% / -15%), 50/60Hz 180VA		
External dimensions * 2	Length: 700mm / Width: 660mm / Height: 710 – 860mm		
Weight * 2	Approx. 35 Kg.		
Material	Display: ABS resin		
	Conveyor unit: Aluminum (alumite coating) and PP resin		
	Control box: Stainless steel		
	Base unit: Stainless steel		

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**INSTALLATION QUALIFICATION PROTOCOL CUM REPORT FOR CHECK WEIGHER MACHINE**

**8.2.2 INSTALLATION CHECKS:**

SPECIFICATION		OBSERVATION	OBSERVED BY (ENGINEERING) (SIGN/DATE)
The delivered check weigher Machine, options and accessories match the order description.			
Options and accessories are properly connected to check weigher Machine.			
No external damage affects the accuracy.			
Installation environment	Temperature range (5.0 to 40.0 <sup>0</sup> C)		
	Humidity (Below 85.0%)		
	No condensation		
Use a solid table or base for the check weigher Machine and avoid vibration.			
Ensure that the instrument is level by adjusting the adjuster bolt.			
Avoid installing the check weigher Machine near air conditioners or in an area exposed to direct sunlight.			
Install the instrument away from magnetically charged substances.			
Install the instrument away from areas where dust accumulates.			
Cables should be routed so that they cannot be damaged or hinder daily operations.			
Maximum capacity 500 / 2,000 gm			
Minimum resolution 0.01 gm / 0.1 gm			
Main power turns on without problems			

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**8.3 MOC Verification List:**

S.No.	COMPONENTS	MOC	OBSERVATION	OBSERVED BY (ENGINEERING) (SIGN/DATE)
1.	Control Box and Base unit	Stainless Steel, grade 304		
2.	Display unit	ABS Resin		
3.	Conveyor Belt	Urethane Material Belt		
4.	Conveyor Unit	Aluminium (alumite coating) and PP Resin		

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**Production**  
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**Quality Assurance**  
**Sign/Date: .....**

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**Manager QA**  
**Sign/Date: .....**



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**8.4 Safety:**

CHECKS	ACCEPTANCE CRITERIA	OBSERVATION	OBSERVED BY ENGINEERING (SIGN/DATE)
No Sharp Edges	Rounded Corners		
Motor	No open motor and no timing belt for safety and reduce accident of risk		
Electrical & Electronic Guard	Safely enclosed control box and display unit. Proper wire earthing		
External Components	All external material used are of stainless steel 304 and Food grade		

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**Production**  
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**INSTALLATION QUALIFICATION PROTOCOL CUM REPORT FOR CHECK WEIGHER MACHINE**

**8.5 UTILITIES PROVIDED:**

PARAMETERS	ACCEPTANCE CRITERIA	OBSERVATION	OBSERVED By (ENGINEERING) (SIGN/DATE)
Electricity	Voltage: AC100V-240V (+10% / - 15%), 50-60 Hz 180VA		
Light Indication for machine / instrument working Condition	Shall be properly connected and identified		

**Checked By**  
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**Manager QA**  
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**INSTALLATION QUALIFICATION PROTOCOL CUM REPORT FOR CHECK WEIGHER MACHINE**

**9.0 REFERENCES:**

- Validation Master Plan
- Schedule-M – “Good Manufacturing Practices and Requirements of Premises, Plant and Equipment for Pharmaceutical Products.”
- WHO Essential Drugs and Medicines Policy, QA of Pharmaceuticals, Vol-2 – Good Manufacturing Practices and Inspection.

**10.0 DOCUMENTS TO BE ATTACHED:**

- Instruction Manual
- Assembly Guide
- Certificate of MOC
- Dimension Drawing

**11.0 DEVIATION FROM PRE-DEFINED SPECIFICATION IF, ANY:**

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**12.0 CHANGE CONTROL, IF ANY:**

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**INSTALLATION QUALIFICATION PROTOCOL CUM REPORT FOR CHECK WEIGHER MACHINE**

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

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**14.0 CONCLUSION:**

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**15.0 RECOMMENDATION:**

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**INSTALLATION QUALIFICATION PROTOCOL CUM REPORT FOR CHECK WEIGHER MACHINE**

**16.0 ABBREVIATIONS:**

cGMP	:	Current Good Manufacturing Practices
CWM	:	Check Weigher Machine
DQ	:	Design Qualification
IQ	:	Installation Qualification
mm	:	Millimetre
MOC	:	Material of Construction
QA	:	Quality Assurance
RH	:	Relative Humidity
Sr.	:	Serial No.
WHO	:	World Health Organization



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**17.0 PROTOCOL POST -APPROVAL:**

**INITIATED BY:**

DESIGNATION	NAME	SIGNATURE	DATE
OFFICER/EXECUTIVE (QUALITY ASSURANCE)			

**REVIEWED BY:**

DESIGNATION	NAME	SIGNATURE	DATE
HEAD (PRODUCTION)			
HEAD (ENGINEERING)			

**APPROVED BY:**

DESIGNATION	NAME	SIGNATURE	DATE
HEAD (QUALITY ASSURANCE)			