



# PHARMA DEVILS

## PRODUCTION DEPARTMENT

### STANDARD OPERATING PROCEDURE

<b>Department:</b> Production	<b>SOP No.:</b>
<b>Title:</b> Calibration of Checkweigher	<b>Effective Date:</b>
<b>Supersedes:</b> Nil	<b>Review Date:</b>
<b>Issue Date:</b>	<b>Page No.:</b>

#### 1.0 OBJECTIVE:

1.1 To lay down a procedure for Calibration of Checkweigher.

#### 2.0 SCOPE:

2.1 This procedure is applicable for Calibration of Checkweigher in production department.

#### 3.0 RESPONSIBILITY:

3.1 Technical Associate : Cleaning of Check weigher

3.2 Officer/ Executive Production : Supervision and calibration of check weigher

3.3 IPQA : SOP Verification

Head Production : SOP Compliance

#### 4.0 DEFINITION (S):

4.1 NA

#### 5.0 PROCEDURE:

##### 5.1 Caution

5.1.1 Ensure that the Checkweigher is free from dust.

5.1.2 Ensure that Checkweigher is installed on firm support.

5.1.3 Ensure that Checkweigher platform is not touching to any surface.

5.1.4 Do not keep the Checkweigher platform loaded in the "OFF" condition.

5.1.5 Check for the proper earthing of the Checkweigher wherever available.

5.1.6 Avoid impact/mechanical shocks to the Checkweigher.

##### 5.2 Zero Error Checking:

**5.2.1 Note: Zero error of the Checkweigher must be checked before use to avoid erroneous weights. The errors may be due to:**

5.2.1.1 The Checkweigher not being in level as per the spirit bulb.

5.2.1.2 The mechanical or electrical defect.

5.2.1.2 The platform not being cleaned.

5.2.1.3 Some extraneous matter hampering the smooth operation of the platform.



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5.2.1.4 Check the spirit level and record the same in its respective annexure. Rectify it if necessary. (If spirit level is not provided on the Checkweigher, use portable spirit level and check the level by keeping it on the platform. If not in order correct it by adjusting the base-mounting pad.)

5.2.1.5 Put "ON" the Checkweigher.

5.2.1.6 Check for the "ZERO" display and record the same in respective annexure.

5.2.1.7 If there is any error, rectify and record the same.

#### 5.3 Frequency:

- (a) Daily in morning.
- (b) After any maintenance.
- (c) After resuming of the power.
- (d) Relocation of Checkweigher.

#### 5.4 CALIBRATION:

##### 5.4.1 Daily Calibration

5.4.1.1 Check the cleanliness of the Checkweigher.

5.4.1.2 Check Zero error as per step 5.2.

5.4.1.3 Get the fractional weight box or trolley of standard weights (which ever is required. Ensure that the standard weights are duly calibrated.

5.4.1.4 Calibrate the Checkweigher with 1% and 50% of its capacity and record in the respective annexure-I(Checkweigher Daily Calibration Record)PG/076/F2/01.

5.4.1.5 Place the weights in the center of the Checkweigher platform. Keep the weights in ascending order. Check the observations for the variation (if any) and record the same in its respective Daily Calibration format .

5.4.1.6 **Tolerance:** The variation should be  $\pm$  least count of the Checkweigher or  $\pm 0.1\%$  of the standard weights used whichever is higher.

5.4.1.7 If the variation does not found within the limit put the "OUT OF CALIBRATION" label and follow the step no. 5.6

5.4.1.8 **Frequency:** a) Daily in morning.  
b) After the resuming of the power after power failure.

#### 5.5 Full Scale Calibration:



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- 5.5.1 Check the Zero error as per step No.5.2
- 5.5.2 Get the fractional weight box or trolley of standard weights (whichever is required). Ensure that the standard weights are duly calibrated.
- 5.5.3 Calibrate the Checkweigher with 1%, 20%, 50% and 80% of its capacity and record in the respective annexure-II(Checkweigher Monthly Calibration Record) .
- 5.5.4 Place the weights in the center of the Checkweigher platform. Keep the weights in ascending order. Check the observations for the variation (if any) and record the same in Annexure-II(Checkweigher Monthly Calibration Record).
- 5.5.5 Tolerance: The variation should be  $\pm$  least count of the Checkweigher or  $\pm 0.1\%$  of the standard weights used whichever is higher.  
If the variation found with in the limit then dully filled the affixed calibration label.  
If the variation does not found with in the limit .put the "OUT OF CALIBRATION" label and follow the step 5.6.
- 5.5.6 Frequency:**  
a) Monthly.  
b) After any maintenance.
- 5.6 MAINTENANCE:**
- 5.6.1 If the Checkweigher is out of calibration inform to concerned service agency for rectification.
- 5.6.2 After rectification recalibrate the Checkweigher (Full scale Calibration).
- 5.6.3 All the records relating to servicing and calibration to be maintained.
- 6.0 ABBREVIATION (S):**
- 6.1 SOP: Standard Operating Procedure
- 6.2 g : gram
- 6.3 wt: Weight
- 7.0 REFERENCES (S):**
- 7.1 SOP: Status labeling



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#### 8.0 ANNEXURE (S):

Annexure no.	Title of Annexure	Format no.	Mode of Execution
Annexure-I	Checkweigher Daily Calibration Record		Log Book
Annexure-II	Checkweigher Monthly Calibration Record		Log Book

#### 9.0 DISTRIBUTION:

- 9.1 **Master Copy** : Quality Assurance
- 9.2 **Controlled copy (S)** : Production department (02), Quality Assurance (01)
- 9.3 **Reference copy (S)** : Production department (01)

#### 10.0 REVISION HISTORY:

S. No.	Version No.	Change Control No.	Reason (s) for Revision	Details of revision	Effective Date





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### ANNEXURE-II CHECKWEIGHER MONTHLY CALIBRATION RECORD

Department : Packing Month/Year :  
Capacity : 1000 gms Equipment ID:  
Least Count : 0.1 gm Standard Weight Box ID:.....  
Tolerance : Least count of the balance or 0.1 % of standard weight whichever is higher.  
Frequency : Monthly/ After any maintenance

STANDARD WEIGHTS		TOLERANCE	ACCURACY LIMIT
Lower (1% of Capacity)	10.0 gms	$\pm 0.1$ gms	09.9 gms -10.1 gms
Middle 1((20% of Capacity)	200.0gms	$\pm 0.2$ gms	199.8 gms – 200.2 gms
Middle 2 ((50% of Capacity)	500.0 gms	$\pm 0.5$ gms	499.5 gms – 500.5 gms
Upper ((80% of Capacity)	800.0 gms	$\pm 0.8$ gms	799.2 gms- 800.8 gms

Date	Spirit Level	Zero Error	Reading Shown On Checkweigher				Remarks	Checke By
			10.0 g	200.0 g	500.0 g	800.0 g		