

PRODUCTION DEPARTMENT

#### STANDARD OPERATING PROCEDURE

Title: Operation and Cleaning of Static Pass Box, Dynamic Pass Box & Dynamic Garment Storage Cabinet					
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SOP No.:		<b>Effective Date:</b>			
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#### **1.0 OBJECTIVE:**

To lay down a procedure for Operation and Cleaning of Static Pass Box, Dynamic Pass Box & Dynamic Garment storage cabinet.

#### **2.0 SCOPE:**

This SOP is applicable for Operation and Cleaning of Static Pass Box, Dynamic Pass Box & Dynamic Garment storage cabinet provided in parenteral Production area.

#### **3.0 RESPONSIBILITY:**

Officer / Executive Production

#### 4.0 ACCOUNTABILITY:

Head Production

#### 5.0 ABBREVIATIONS:

ADDREVIAL	
Ltd.	Limited
No.	Number
QA	Quality Assurance
SOP	Standard Operating Procedure
UV	Ultra Violet
IPA	Iso-Propyl alcohol
DGSC	Dynamic Garment storage cabinet
DP	Difference pressure
PW	Purified Water
WFI	Water for Injection
NLT	Not Less Than

#### 6.0 **PROCEDURE:**

#### 6.1 OPERATION OF STATIC PASS BOX :

- **6.1.1** Ensure that the Static pass box is clean.
- 6.1.2 Open the door and place the material container inside the pass box.
- 6.1.3 Close the door of static pass box and inform to another side operator by alarm.
- 6.1.4 The operator of another side shall open the door of pass box and receive the materials.
- 6.1.5 The operator shall check the status label and place the material at defined location.
- 6.1.6 After receipt of material close the door.
- **6.1.7** If the static pass box is not working properly inform to Head Engineering by Work order for further rectification of breakdown and shall be followed the Entry, Exit & aseptic practices as per respective SOP's of area.



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**6.1.8** After rectification breakdown, Static pass box shall be clean as define procedure and record the same in respective log of equipment's.

#### 6.1.9 Cleaning of Static Pass Box:

- **6.1.9.1** Cleaning of static pass box from outside and inside using a **dry lint free cloth** to remove any adherent material.
- 6.1.9.2 Then wipe with 70 % IPA using lint free cloth and then again clean with dry lint free cloth.
- 6.1.9.3 Record the Usage & cleaning activities in Annexure-I Titled as "Static Pass Box Cleaning & Usage Log".
- **6.1.9.4** Cleaning Frequency: Daily once/whenever required/after Preventive maintenance activity/after rectification of breakdown.

#### 6.2 OPERATION OF DYNAMIC PASS BOX:

#### 6.2.1 Instructions:

- **6.2.2** Blower & UV light of every Dynamic Pass Box shall be kept "**ON**" always except Cleaning, Breakdown, and Preventive maintenance and during active air sampling.
- 6.2.3 Avoid the direct exposure of UV line on skin & eye.
- **6.2.4** Ensure that transfer activity of BI indicator /process indicator(un -exposed /exposed indicator and media plates in closed S.S bin /container by exclusion of UV exposure to avoid the discrepancy in data interpretation of (un -exposed /exposed ) indicator (s).
- **6.2.5** Use the dynamic pass box after **10 minutes** from cleaning and sanitization as well as after any breakdown rectification /Preventive maintenance.
- 6.2.6 No UV Exposure, Hold & Sanitization is mandate, if may be consider for better control.
- **6.2.7** Before transferring the material check and ensure that Inner Side Door of Dynamic Pass Box closed.
- **6.2.8** Use filtered disinfectant solution in aseptic area to be transferred through Dynamic pass Box from lower grade area to higher grade area.

#### 6.2.9 Operation:

- **6.2.10** Ensure that the Dynamic pass box is clean.
- 6.2.11 Switch "ON" the Main Switch.
- 6.2.12 Check the Pressure drop across the HEPA Filter and ensure that it should be within 10 20 mm of water on Magnehelic Gauge.



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- **6.2.13** Check the Pressure drop across the HEPA Filter and ensure that it should be within 05 15 **mm of water** on Magnehelic Gauge.
- **6.2.14** Check the Pressure drop across the Pre Filter and ensure that it should be within **0.6 4 mm** of water on Magnehelic Gauge.
- 6.2.15 In case of Sterile material container OR Three piece vial: Before transferring into the dynamic pass box, material shall be Sanitize the external surface of item(s) /container / material with 70 % IPA & then sanitize with 5%Virosil/ Silvicide solution from top to bottom direction (unidirectional). Intactness of sterile article shall be evaluated.
- **6.2.16** In case of General material: Before transferring into the dynamic pass box, material shall be Sanitize the external surface of item(s) /container / material with **70 % IPA** solution from top to bottom direction (unidirectional).
- **6.2.17** Open the dynamic pass box door by pressing the switch to release the interlocking of loading /unloading side door as per applicability of material transfer as one time on door opening will be applicable.
- **6.2.18** Place the item(s)/container/Material to be transferred in the dynamic pass box. Allow to hold the material for **10 minutes of UV** exposure inside dynamic pass box (as per auto interlocking timer or hold the material for **NLT 10 minutes UV** exposure in Dynamic pass which are excluded with auto inter locking).
- 6.2.19 Record the Equipment usage details in Annexure-II Titled as "Dynamic Pass Box Cleaning & Usage Log".
- **6.2.20** On completion of UV exposure, intimate the person present in other side of dynamic pass box via bell available in dynamic pass box or telephone to unload the item(s)/container/ Material from higher grade side of the pass box and sanitize phone after use.
- **6.2.21** Unload the item(s) /container/material (after completion UV exposer time) by opening the dynamic pass box door and kept at clean SS pallets OR suitable place.
- **6.2.22** If the Dynamic pass box is not working properly inform to Engineering by Work order for further rectification of breakdown and shall be followed the Entry, Exit & aseptic practices as per respective SOP's of area.
- **6.2.23** After rectification breakdown, Dynamic pass box shall be clean as define procedure and record the same in respective log of equipment's.

#### 6.2.24 Cleaning of Dynamic Pass Box:

- **6.2.24.1** Ensure the UV light & Blower "**Off**" condition before initiation of cleaning, Material keeping or any Preventive activity/break down.
- **6.2.24.2** Cleaning activity of dynamic pass box shall be performed by lower grade area.
- **6.2.24.3** Perform dry cleaning of dynamic pass Box by removal of left over paper/polybag/ corrugated material and dry moping with lint free mop, mop external surface direction



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which includes the surface gauge indicator followed by wet cleaning with lint free mop soaked in PW/WFI (as per applicability) followed by sanitization with **70% IPA**.

- **6.2.24.4** Sanitize the outer surface of Dynamic Pass Box and close the lower grade side door.
- 6.2.24.5 Switch "ON" the main switch.
- 6.2.24.6 Switch "ON" the UV light & Blower and let it being operation for 10 minutes.
- **6.2.24.7** Check the Pressure drop across the HEPA Filter and ensure that it should be within 10 20 mm of water on Magnehelic Gauge.
- **6.2.24.8** Check the Pressure drop across the HEPA Filter and ensure that it should be within 05 15 **mm of water** on Magnehelic Gauge.
- **6.2.24.9** Check the Pressure drop across the PRE Filter and ensure that it should be within 0.6 4 mm of water on Magnehelic Gauge.
- 6.2.24.10 Record the Equipment cleaning details in Annexure-II Titled as "Dynamic Pass Box Cleaning & Usage Log".
- **6.2.24.11 Cleaning & DP monitoring Frequency:** Daily once / whenever required / after Preventive maintenance activity/after rectification of breakdown.

#### 6.3 OPERATION OF DYNAMIC GARMENT STORAGE CABINET:

#### 6.3.1 Instructions:

- **6.3.2** Blower & UV light of every DGSC shall be kept "ON" always except Cleaning, Breakdown & Preventive maintenance.
- **6.3.3** Switch "**OFF**" the UV lights before opening of the door to avoid the direct exposure of UV line on skin & eye.

#### 6.3.4 Operation:

- 6.3.5 Ensure that the DGSC is clean.
- **6.3.6** Switch "**ON**" the Main Switch.
- 6.3.7 Switch "ON" the UV Light and blower 10 minutes before starting work.
- 6.3.8 Observe the reading on Magnehelic Gauge and ensure that it is between 10 to 20 mm of water.
- **6.3.9** If any abnormal sound is observed from the Unit, the Unit must be checked for its wear and tear.
- **6.3.10** Switch "**OFF**" the UV light and open the door and place all the sterile set of garments inside the Dynamic Garment Storage Cabinet.
- **6.3.11** Close the door and ensure that even after closer of door laminar air is continuously blowing inside the garment storage cabinet and Switch "**ON**" the UV lights.



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- 6.3.12 Switch "OFF" the UV lights before opening of the door.
- **6.3.13** If the DGSC is not working properly inform to Head Engineering by Work order for further rectification of breakdown and shall be followed the Entry, Exit & aseptic practices as per respective SOP's of area.
- **6.3.14** After rectification breakdown, DGSC shall be clean as define procedure and record the same in respective log of equipment's.

#### 6.3.15 Cleaning of Dynamic Garment Storage Cabinet:

**6.3.15.1** Switch "**OFF**" the laminar air flow unit of Dynamic Sterile Garment Storage Cabinet.

- 6.3.15.2 Switch "OFF" the UV light.
- **6.3.15.3** Remove any kind of Material, Particles etc. and clean the inner surface with lint free cloth or sponge.
- **6.3.15.4** Spray **70% IPA** at the inner surface of garment cabinet and inner surface of the door and wipe it with dry sponge.
- 6.3.15.5 Close the door of Dynamic Garment Storage Cabinet and mop the outside surface with 70% IPA.
- 6.3.15.6 Switch "ON" the electric supply for supply of laminar air flow inside the dynamic sterile garment storage cabinet and switch "ON" the UV light and let it being operation for 10 minutes.
- 6.3.15.7 Record the cleaning details in "Dynamic Garment Storage Cabinet Cleaning & Usage Log" as per Format shown in Annexure-III.
- **6.3.15.8 Cleaning & DP monitoring Frequency:** Daily once/whenever required/after Preventive maintenance activity/after rectification of breakdown.
- **6.3.15.9** Record the cleaning activity in respective equipment log book.

# 6.4 UV BURNING RECORD FOR DYNAMIC PASS BOX & DYNAMIC GARMENT STORAGE CABINET:

- **6.4.1** Replace the UV light on **Yearly basis** (±7 days) or due to any malfunctioning, whichever is earlier.
- 6.4.2 Justification of frequency as vendor recommendation is 9000 hrs. (365 days x 24 = 8760 hrs.)
- 6.4.3 Schedule of UV replacement shall mention on yearly basis as Annexure- IV titled as "Schedule of UV light replacement of Dynamic pass box & Dynamic garment storage cabinet".
- **6.4.4** Schedule shall be prepared by production and hand over to QA for further approval.



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- **6.4.5** QA shall retain the mater copy & issued the control copy of respective manufacturing area as per procedure.
- 6.4.6 UV light replacement status label shall be affix on each equipment as Annexure-V titled as "Status Label UV light replacement".
- **6.4.7** If any update in facility w.r.t. Dynamic pass box & Dynamic garment storage cabinet, schedule shall be updated next year accordingly.

#### 6.5 CLEANING OF ASSOCIATED FILTERS:

- 6.5.1 Cleaning of associated filters shall be performed as per SOP.
- **6.5.2** Operation activities shall be recorded in respective log of equipment along with cleaning, preventive maintenance etc.

#### 7.0 ANNEXURES:

ANNEXURE No.	TITLE OF ANNEXURE	FORMAT No.
Annexure-I	Static Pass Box Cleaning & Usage Log	
Annexure-II	Dynamic Pass Box Cleaning & Usage Log	
Annexure-III	Dynamic Garment Storage Cabinet Cleaning & Usage Log	
Annexure-IV	Schedule of UV Light Replacement Of Dynamic Pass Box & Dynamic Garment Storage Cabinet	
Annexure-V	Status Label UV light replacement	

#### **ENCLOSURES:** SOP Training Record

#### 8.0 **DISTRIBUTION:**

- Controlled Copy No.01 Quality Assurance
- Controlled Copy No.02 Production
- Master Copy Quality Assurance

#### 9.0 **REFERENCE**

Not Applicable.

#### **10.0 REVISION HISTORY:**

#### **CHANGE HISTORY LOG**

Revision No.	Change Control No.	Details of Changes	Reason for Change	Effective Date	Updated By



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#### ANNEXURE-I STATIC PASS BOX CLEANING & USAGE LOG

Equipn	nent ID:	Blo			ection:	often neetifiesti	Location	
S.No.	<b>Date</b>	nce / whenever required Material Name & Activity <sup>@</sup>	Batch No.	Start Time	End Time	Done By	Checked By (Sign./ Date)	n. Remarks

Remark: <sup>@</sup>Activity means Cleaning, Preventive maintenance & Breakdown related activities.

Reviewed by QA Sign & Date



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ANNEXURE-II						

### DYNAMIC PASS BOX CLEANING & USAGE LOG

Month	ment I / Year: encv of	D: : Cleaning:	Block:			Section:			Location:	
Daily o	once / wi	henever required/ a		ive main	tenance	activity/after rec	tification of bro			
S.No.	Date	Material Name & Activity <sup>@</sup>	Batch No.	Start Time	End Time	Pressure Differential Observed (10-20 mm of water)	UV Light Status (Ok/ Not Ok)	Done By	Checked By (Sign./ Date)	Remarks
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Remark: <sup>@</sup>Activity means DP Monitoring, Cleaning, Preventive maintenance & Breakdown related activities.

Reviewed by QA Sign & Date



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ANNEXURE-III DYNAMIC GARMENT STORAGE CABINET CLEANING & USAGE LOG							
Equipment ID:Block:Section:Location:Frequency of Cleaning & DP:							
Daily once / whenever required/ after Preventive maintenance activity/after rectification of breakdown							

Daily once / whenever required/ after Preventive maintenance activity/after rectification of breakdown.

S.No.	Date	Activity <sup>@</sup>	Start Time	End Time	Pressure Differential Observed (10-20 mm of water)	UV Light Status (Ok/ Not Ok)	Done By	Checked By (Sign./ Date)	Remarks

Remark: <sup>@</sup>Activity means DP monitoring, Cleaning, Preventive maintenance & Breakdown related activities.



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#### **ANNEXURE-IV**

### SCHEDULE OF UV LIGHT REPLACEMENT OF DYNAMIC PASS BOX & DYNAMIC GARMENT STORAGE CABINET

Block:

Section:

Year:

Frequency of UV light Replacement: - Yearly (±7 days)

S.No.	Equipment ID	Equipment Location	Due Date	Done Date	Done By (Sign./ Date)	Checked By (Sign./ Date)

Remark	(If	any):
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•••••••••••••••••••••••••••••••••••••••	•••••••••••••••••••••••••••••••••••••••

Prepared By:
Production
Sign & Date

Reviewed By: QA Sign & Date Approved By Manager QA Sign & Date



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Nil

#### **ANNEXURE-V** UV LIGHT REPLACEMENT LABEL

Equipment Name	
Equipment ID	
UV light installation date	
UV light replacement due date	
Done By (Sign. & Date)	
Checked By (Sign. & Date)	