

PHARMA DEVILS

ENGINEERING DEPARTMENT

Title: Operation of Multi Column Distillation Plant

SOP No.:	Revision No.:	00
Effective Date:	Supersedes No.	Nil
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1.0 **OBJECTIVE:**

To lay down a procedure for Operation of Multi Column Distillation Plant.

2.0 SCOPE:

This SO	o is	applicable	for	Operation	of	Multi	Column	Distillation	Plant	(Make:	Pharmalab)	at

3.0 RESPONSIBILITY:

Officer/Executive-Engineering

4.0 ACCOUNTABILITY:

Head-Engineering

5.0 DEFINITION:

- The process of evaporating or boiling a liquid and condensing its vapors.
- purification or separation of mixture by using different evaporation rates or boiling points of their components, the process of obtaining the essence or an extract of a substance, usually by heating it in a solvent.

6.0 PROCEDURE:

6.1 START-UP:

- **6.1.1** Ensure the Cooling tower circulation of MCDP system is ON.
- **6.1.2** Switch ON Main Power Supply.
- **6.1.3** The 'Log In' screen shall appear.
- **6.1.4** Press on 'Log In' button and Enter the USER name and PASSWOD.
- **6.1.5** Wait for 'System Ready to Start' Signal.
- **6.1.6** Press the START button on the above mentioned signal displayed on screen.
- **6.1.7** Check the setting of the parameter.
- **6.1.8** Crosscheck Steam Pressure between 3 kg/cm² to 6 kg/cm².



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- **6.1.9** Open the Bypass Column Condensate Drain Valve partially to drain the initial condensate. Wait till the Steam is coming out from the Column Condensate Drain Valve.
- **6.1.10** Close the Bypass condensate valve after 2 Minutes.
- **6.1.11** Wait till the Feed Pump Gets ON.
- **6.1.12** Wait till the WFI starts coming out.

6.2 SHUT DOWN:

- **6.2.1** Press the MAIN screen button.
- **6.2.2** The START and STOP button shall appear on screen.
- **6.2.3** Press STOP button from MMI.
- **6.2.4** After reducing Distill Water Temperature to low Set Point, Cooling Pump will get OFF.
- **6.2.5** Open all manually operated Valves to drain out the Water remains. After some time close all Manual Operated Valves.
- **6.2.6** Switch OFF Main Panel.
- 6.3 Records the details in "Operation Log Book of Multi Column Distillation Plant", presented as Annexure-I.

7.0 ABBREVIATIONS:

SOP Standard Operating Procedure

Amps Ampere

ID No. Identification Number

Ltd. Limited

QA Quality Assurance

EN Engineering

8.0 ANNEXURES:

ANNEXURE No.	TITLE OF ANNEXURE	FORMAT No.
Annexure-I	Operation Log Book of Multi Column Distillation Plant	

9.0 DISTRIBUTION:

Master Copy
 Quality Assurance Department



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• Controlled Copy No. 01 Head Engineering

10.0 REFERENCES:

• Operation & Maintenance Manual of Multi Column Water Still, Make Pharm lab.

11.0 REVISION HISTORY

Revision No.	Change Control No.	8		Effective Date	Done By	





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ANNEXURE-I OPERATION LOG BOOK OF MULTI COLUMN DISTILLATION PLANT

MONTH: YEAR:

EQUIPMENT ID:

DATE	TIN	IE	BOILER STEAM	TEM	IPERATURE °	C	FLOW-LPH		CONDUCTIVITY µS/CM		TOTAL RUNNING	TOTAL COLLECTI	OPERAT OR	REMARK
	START	STOP	PRESSURE KG/CM ²	BOILER STEAM	COOLING WATER TEMP.	WFI	FEED WATER	COOLIN G WATER	FEED WATER	WFI	HRS	ON WFI	SIGN.	