



PHARMA DEVILS

ENGINEERING DEPARTMENT

STANDARD OPERATING PROCEDURE

Department: Engineering	SOP No.:
Title: Operation of 5TR Chiller	Effective Date:
Supersedes: Nil	Review Date:
Issue Date:	Page No.:

1.0 OBJECTIVE

To lay down the procedure for the operation of 5 TR chiller.

2.0 SCOPE

This standard operating procedure (SOP) is applicable for the operation of 5 TR chillers.

Equipment ID Chilling Plant 5 Tr: U/016,U/017

3.0 RESPONSIBILITY.

Engineering Supervisor/technician will operate the 5 TR chillers and maintained the daily log sheet
Executive Engineering will check the daily log sheet
Manager Engineering will verify the daily log sheet.

4.0 PROCEDURE

4.1 STARTING OF 5 TR CHILLER

- 4.1.1 Switch ON main supply from production electrical panel.
- 4.1.2 Open the make up valve SWV23 &SWV24 till the water level of make up tank is upto sufficient level.
- 4.1.3 Open the valve TRV6, TRV7, TRV10 &TRV11 of pendants BFS 1 & BFS 2.
- 4.1.4 Open the by pass valve TRV3.
- 4.1.5 Open the suction & discharge valves TRV1 & TRV2 / TRV4 &TRV5 of chiller no1/2.
- 4.1.6 Switch ON the control supply by turning the knob K1 / K2 from chiller control panel.
- 4.1.7 Ensure that supply water pressure should be 3.0Kg/cm² in TRPG1.
- 4.1.8 Start the compressor by turning the knob K3 /K4.from chiller control panel.
- 4.1.9 Adjust the temperature from temperature controller as required.
- 4.1.10 Monitor temperature from temperature controller mounted on chiller control panel.
- 4.1.11 Ensure the system is running satisfactory and record the data in logbook as per Annexure –II.

4.2 STOPPING OF 5TR CHILLER

- 4.2.1 Switch OFF the compressor by turning the knob k3 or k4 from chiller control panel.
- 4.2.2 Switch OFF the control supply by turning the knob k3 or k4 from chiller control panel.
- 4.2.3 Close the suction & discharge valves TRV1 & TRV2 / TRV4 &TRV5 of chiller no1/2.
- 4.2.4 Close by pass valve TRV3.
- 4.2.5 Close the valve TRV6,TRV7,TRV10 &TRV11 of pendants BFS 1 & BFS.

5.0 SAFETY AND PRECAUTIONS:

- 5.1 All electrical leads are secure and in good order.
- 5.2 There is no leakage.
- 5.3 Ensure proper earthing for compressor motor.



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6.0 REVISION HISTORY

Revision No.	Reason for Revision	Superseded from & date
00	New	-----

7.0 REFERENCES

Manufacturer Manual of 5 Tr. Chillers

8.0 ABBREVIATIONS

SOP: Standard Operating Procedure.

9.0 ANNEXURE

Annexure I: Valves, Pressure Gauge, and Push Button Details

Annexure II: Daily log sheet of 5 TR Chiller



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Annexure I Valves, Pressure Gauge, and Push Button Details

Valve Serial No.	Valve Description	Gauges No.	Gauge Description
SWV23	Make up chiller no. 1	TRPG1	Supply line
SWV24	Make up chiller no 2	TRPG2	Return line
TRV06	Pendent supply BFS 1		
TRV07	Pendent return BFS1		
TRV 10	Pendent supply BFS 2		
TRV 11	Pendent return BFS 2		
TRV 01	Supply chiller no1		
TRV 02	Return chiller no 1		
TRV 04	Supply chiller no 2		
TRV 05	Return chiller no 2		



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Annexure II

Daily log sheet of 5 TR Chiller

Date:

Time Hrs	Comp.1	Comp.2	Chw Water pr kg/cm ²		Chilled water temperature		Set temp. °C		Remarks	Sign
	SP psi	SP psi	Inlet	Outlet	Inlet	Outlet	No1	No2		
07.00										
08.00										
09.00										
10.00										
11.00										
12.00										
13.00										
14.00										
15.00										
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02.00										
04.00										
05.00										
06.00										
								SHIFT	NAME	
								1		
								2		
								3		

Executive Engineering

Manager Engineering