

**Standard Operating Procedure
of
6-HI ROLLING MILL- Thickness Gauge Troubleshooting**

**STANDARD OPERATING PROCEDURE
FOR
6-HI ROLLING MILL- THICKNESS GAUGE
SYSTEM**

Prepared By:	Anna Sharma	Date:	15-03-2023
Reviewed By:	Mohit Jain	Revision No:	00
Approved By:	Gaurav Yadav	Page No:	Page 1 of 5

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1.0 Purpose:

The purpose of this procedure is to conduct Thickness Gauge Troubleshooting safely. The objective of this procedure is to give guidance to perform all task in a safe manner to reduce risk associated in the Thickness Gauge work that can affect the safety & health of employees performing the task.

2.0 Responsibility

The following employees are responsible to implement this procedure while working at Thickness Gauge system-

- Section Incharge
- Shift In charge/Supervisor

3.0 Safety Risks:

- Electrical Shock
- Material Fall
- Slip, trip & Fall
- Gamma Radiation Emission

4.0 Environment Impact:

- Radiational Hazards

5.0 Impact & Risk Control Requirements:

- LOTO procedure
- Insulated tools
- Personal Protective Equipment

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6.0 PPE's Requirement

- Safety Helmet
- Electrical Hand Gloves
- Safety Shoes

7.0 Initial Checking:

Sr. No	Activity	Responsibility
1.	Always check for fault alarms on Gauge PC	Electrical team
2.	Standardization fault/ Shutter open command not working	Electrical team
3.	Gauge IN fail	Electrical team
4.	Gauge OUT fail	Electrical team
5.	Gauge not healthy	Electrical team
6.	Error in Gauge reading	Electrical team

8.0 Step Wise Procedure for Troubleshoot:

STEP-1 Standardization Failure/Shutter Open Command failure

Sr. No	Activity	Responsibility
1.	Check air pressure in regulator in Thickness Gauge valve stand panel- It should be at least 2.5 bar and it should not drop less than 2.0 bar during operation	Mechanical team
<u>2.</u>	If air pressure is 2.5 bar, then check 24V Supply valve, check its wiring & rectify	Electrical team
<u>3.</u>	Check for Reed Switch healthy condition.	Electrical team

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STEP-2" Gauge In" Fail

Sr. No	Activity	Responsibility
1.	Firstly, Check 24V supply in DC valve which is connected in air line. There should always be 24V DC supply	Electrical team
2.	Check for Gauge OUT proxy to be healthy and if not make it healthy by checking the proxy manually.	Electrical team
3.	Check for VFD faults accordingly.	Electrical team

STEP-3" Gauge Out" Fail

Sr. No	Activity	Responsibility
1.	First, Check 24V supply in DC valve which is connected in air line. There should always be 24V DC supply	Electrical team
2.	Check for Gauge IN proxy to be healthy and if not make it healthy by checking the proxy manually.	Electrical team
3.	Check for VFD faults accordingly.	Electrical team

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STEP-4 Gauge not healthy

Sr. No	Activity	Responsibility
1.	Check if power supply is coming or not, if cables found damaged replace them with new ones.	Electrical team
2.	Check if Communication card is healthy and if not, reinsert the card or replace it accordingly.	Electrical team
3.	Check if the PLC Cards are working properly and if not, reinsert them with care and precision.	Electrical team
4.	Check if PLC and Gauge PC are communicating with each other and if not, reconnect and tighten the ethernet cable and reboot the PC.	Electrical team
5.	The Pre-amplifier cum HT Card should be checked for its healthy working.	Electrical team

STEP-5 Error in Gauge reading

Sr. No	Activity	Responsibility
1.	Check for any object hinderance on the Gauge surface and if found remove it accordingly.	Electrical team
2.	Clean the surface of the Source to avoid any formation of contaminants or dust particles on the Gauge.	Electrical team

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