

For Restricted Circulation only

 SHAKAMBHARI GROUP # SteelWithin		SHAKAMBHARI ISPAT & POWER LTD. (Formerly known as Ess Dee Aluminium Ltd.)	
STANDARD OPERATING PROCEDURE			
Title: Operation for Doctorine/Inspection Machine			Page No. 1 of 3
SOP No.	Version No.	Effective Date	Next review date
SIPL/PDI/011	00	06.07.2026	05.07.2028

1.0 PURPOSE

- 1.1 To describe the procedure for safe and effective operation of the Doctorine Machine for inspection, rewinding, defect removal, and roll preparation while ensuring product quality and compliance with GMP requirements.

2.0 SCOPE

- 2.1 This SOP applies to Production Department.

3.0 REFERENCE(S) & ATTACHMENTS**3.1 References**

- 3.1.1 In-house

3.2 Attachments

- 3.2.1 Attachment I: Doctorine / Inspection Logbook - SIPL/PDI/011/F01/00

4.0 RESPONSIBILITY:**4.1 Production Department Person**

- 4.1.1 To prepare the SOP.

4.2 Production Head

- 4.2.1 To ensure the training of the SOP to all concerned personnel involved in implementation of the SOP.

- 4.2.2 To ensure the implementation of the SOP after training.

4.3 Quality Assurance Person

- 4.3.1 To check the SOP and to maintain the original copy of the SOP.

- 4.3.2 To issue the controlled copy of the SOP and maintain its issuance record.
To retrieve the controlled copy of the SOP when it is superseded/obsolete and maintain its record.

4.4 QA Head / Plant Head

- 4.4.1 To approve new or revised SOP.

- 4.4.2 To ensure the implementation of the defined system.

5.0 DISTRIBUTION

- 5.1 Quality Control

- 5.2 Production

6.0 DEFINITION(S) & ABBREVIATION(S)**6.1 Definitions**

- 6.1.1 **Slitting:** Slit jumbo rolls into required sizes.

- 6.1.2 **Inspection:** Checking of printed rolls for any kind of defects, such as ink line, crease, wrinkles, spot, dent, text matter missing, etc.

6.2 Abbreviations

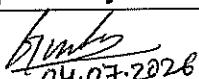
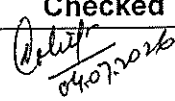
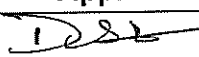
- 6.2.1 QC: Quality Control

- 6.2.2 M/C: Machine

- 6.2.3 MPM: Meters Per Minute

- 6.2.4 HMI: Human Machine Interface

- 6.2.5 PSI: Pound per square inch (1 lb/in²; one pound-force applied to an area of one square inch).

Prepared By:	Checked By:	Approved By:
 04.07.2026	 04.07.2026	 04.07.2026

 SHAKAMBHARI GROUP # SteelWithin	SHAKAMBHARI ISPAT & POWER LTD. (Formerly known as Ess Dee Aluminium Ltd.)
STANDARD OPERATING PROCEDURE	
Title: Operation for Doctorine/Inspection Machine	
Page No. 2 of 3	
SOP No.	Version No.
SIPL/PDI/011	00
Effective Date	Next review date
06.07.2026	05.07.2028

7.0 PROCEDURE**7.1 Equipment Cleaning (Before Startup)**

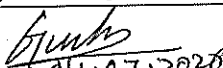
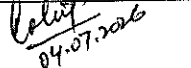
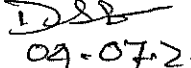
- 7.1.1 Clean the complete equipment with air and wet mopping with a soft cloth.
- 7.1.2 Clean all path rollers and other parts of the machine.
- 7.1.3 Carefully clean the slitting cutter blades.

7.2 Equipment Cleaning (Monthly)

- 7.2.1 Remove all the panel covers and clean all machine parts with a dry cloth.
- 7.2.2 Clean all path rollers with a cotton cloth soaked with solvent.
- 7.2.3 Clean all re-winder accessories with a dry cloth.

7.3 Operation

- 7.3.1 **Equipment: Doctorine Machine.** This machine has the following components:
 - 7.3.1.1 Unwinding Station
 - 7.3.1.2 Web Guiding System
 - 7.3.1.3 Nip Roll Console
 - 7.3.1.4 Cutting Console
 - 7.3.1.5 Rewinding Station
 - 7.3.1.6 Tension Controller
 - 7.3.1.7 Air Shaft
 - 7.3.1.8 Main Drive unit
- 7.3.2 The Doctorine / Inspection plan is given by the Production Head.
- 7.3.3 Core cutting to specified width should be done as per the Doctorine / Inspection plan.
- 7.3.4 Load the spool on the un-winder.
- 7.3.5 Switch ON the un-winder tension controller.
- 7.3.6 Pass the foil through the web aligner and then through the nip roll and cutting console up to the re-winder.
- 7.3.7 Set the cutter blades and check the slit width as per the Slit / Inspection plan.
- 7.3.8 Set the cores on the re-winder shaft as per the Doctorine / Inspection plan.
- 7.3.9 Joint the foil to the respective cores with a small piece of BOPP tape affixed to the middle of the foil.
- 7.3.10 Check again the width of the foil as per the Slit / Inspection plan.
- 7.3.11 Switch ON the re-winder tension controller and main drive.
- 7.3.12 After Q.C. approval, start the Slit / Inspection operation.
- 7.3.13 Continuous inspection is to be done with a stroboscope for printed and plain material; remove all defective material as mentioned in point 6.1.2.
- 7.3.14 For any printing defect, remove the defective material, put a joint with red tape and mention the joint detail on the sticker as well as the logbook. On completion of each roll, check the sample for quality and fill the roll details on the logbook as well as the sticker and paste it on the roll.
- 7.3.15 Q.C. samples each finished roll for the required testing.
- 7.3.16 After unloading finished rolls, weigh each roll.

Prepared By:	Checked By:	Approved By:
 04.07.2026	 04.07.2026	 04.07.2026

For Restricted Circulation only

SHAKAMBHARI ISPAT & POWER LTD.
(Formerly known as Ess Dee Aluminium Ltd.)

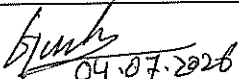
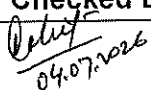
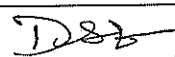
STANDARD OPERATING PROCEDURE

Title: Operation for Doctorine/Inspection Machine			Page No. 3 of 3
SOP No.	Version No.	Effective Date	Next review date
SIPL/PDI/011	00	06.07.2026	05.07.2028

- 7.3.17 2 nos. product-specific labels are generated and one is affixed inside the core.
- 7.3.18 Each roll is packed in plastic film and the second label and Q.C. Passed label are affixed.
- 7.3.19 The packing slip is prepared simultaneously.
- 7.3.20 Transfer the lot to the required location.
- 7.3.21 Handover the packed material to dispatch along with the packing slip.
- 7.3.22 The Q.C. inspector responsible for process monitoring is ultimately responsible for preparation of the certificate of analysis through the pre-defined format. The certificate of analysis accompanies the consignment and a copy is retained with Q.C. for record.
- 7.3.23 Remove all the materials as mentioned in the line clearance checklist. Fill the line clearance record. Fill the details of quantity, time, etc. in the Doctorine / Inspection log book.

8.0 REVISION HISTORY

Revision No.	00	Effective Date	06.07.2026	CC No.	NA
Details of revision: New SOP					

Prepared By:	Checked By:	Approved By:
 04.07.2026	 04.07.2026	 04.07.2026