



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

STANDARD OPERATING PROCEDURE

Title: Procedure for Artwork Handling & Cylinder Destruction			Page No. 1 of 3
SOP No.	Version No.	Effective Date	Next review date
SIPL/QAS/008	00	07.07.2026	06.07.2028

1.0 PURPOSE

- 1.1 To define a procedure for artwork handling and printing cylinder destruction.

2.0 SCOPE

- 2.1 This SOP applies to all incoming printing / approved artworks of the customer, all shade cards and all printing cylinders at Shakambhari Ispat & Power Ltd.

3.0 REFERENCE(S) & ATTACHMENTS

3.1 References

- 3.1.1 In-house

3.2 Attachments

- 3.2.1 Attachment I: Shade Card - SIPL/QAS/008/F01/00
3.2.2 Attachment II: Destruction Certificate - SIPL/QAS/008/F02/00
3.2.3 Attachment III: Shade Card In-Out Register - SIPL/QAS/008/F03/00
3.2.4 Attachment IV: List of Artwork / Cylinder Destruction - SIPL/QAS/008/F04/00
3.2.5 Attachment V: Artwork Record Register - SIPL/QAS/008/F05/00
3.2.6 Attachment VI: Cylinder Issue-Return Log - SIPL/QAS/008/F06/00

4.0 RESPONSIBILITY

4.1 QA Department Person

- 4.1.1 To prepare the SOP.

4.2 QA 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 Plant Head / Department Head

- 4.3.1 To approve new or revised SOP.
4.3.2 To ensure the implementation of the defined system.

5.0 DISTRIBUTION

- 5.1 Quality Control
5.2 Production

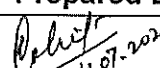
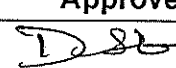
6.0 DEFINITION(S) & ABBREVIATION(S)

6.1 Definitions

- 6.1.1 **Printing Cylinders:** the image to be printed is engraved on cylinders. While printing, the inks transfer onto the substrate. These are also called Rotogravure Printing Rollers: 'Roto' means rotate and gravure is a process of printing. The rotogravure printing rollers rotate into the ink pan and the doctor blade wipes the maximum ink from the cylinders, transferring the ink of the engraved image area onto the substrate.

6.2 Abbreviations

- 6.2.1 Nil

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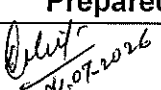
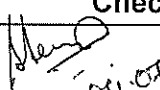
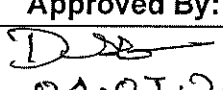
7.0 PROCEDURE

7.1 Artwork Management

- 7.1.1 Customer-approved artworks are received in the form of a soft copy along with an artwork information sheet like machine mock-up, layout, etc.
- 7.1.2 The Planning department assigns the specific product coding logic and creates the artwork PDF in Shakambhari Ispat & Power Ltd. format.
- 7.1.3 Once it is approved, Printing / Prepress archives the artwork and sends a CDR and PDF copy to the rotogravure cylinder manufacturer for processing.
- 7.1.4 Maintain the artwork record in a register with a unique design number. Example: artwork design numbers starting from AA01 and ending at AA99, then again starting from AB01, and so on.
- 7.1.5 After receiving the cylinders, check physically to ensure there are no defects like dent, chrome or grounding issues. If found OK, load onto the machine as per colour sequence and match the shade as per the Pantone or approved specimen. Once the shade is matched closest to the Pantone or approved specimen, and after QC approval, start printing. Shade cards are prepared, 03 nos to 08 nos depending upon customer requirement. A small roll for eye-mark verification can be sent to the customer for machine trial depending upon customer requirement.
- 7.1.6 QC sends 02 nos to 07 nos (depending upon customer requirement) shade cards to the customer for their approval. One shade card is retained with QC for internal use.
- 7.1.7 The customer approves the shade card and sends at least one signed copy back to Shakambhari Ispat & Power Ltd. QC, which is finally archived by QC.
- 7.1.8 Upon approval of the customer, QC puts the approval stamp on the internal copy of the shade card and sends it to the respective printing section for online matching of shade.
- 7.1.9 The validity of all shade cards shall be 2 years from the date of approval. However, if the frequency of use is high, QC can remake the shade cards before 2 years also.
- 7.1.10 In case of change in artwork / design, QC puts an 'OBSOLETE' stamp and preserves it in the obsolete file.

7.2 Printing Cylinder Management

- 7.2.1 The printing cylinders for the respective artwork are received by Stores, and the Printing Head carries out the initial inspection to detect any physical damage on the cylinders. In case any of the cylinders is found damaged, the same is returned to the cylinder manufacturer for rectification.
- 7.2.2 The approved cylinders are received by Production.
- 7.2.3 The cylinders are fitted in the printing machine and an appropriate proof (actual printed sample) is generated.

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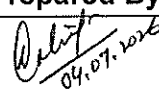
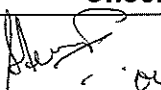
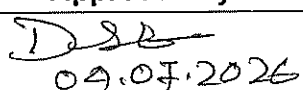
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- 7.2.4 The proof is read by Production, counter-checked again, and approved / rejected by QC.
- 7.2.5 After the proof-reading work is completed, the approved cylinders are cleaned with solvent-soaked cotton cloth and removed from the printing machine.
- 7.2.6 White Petroleum Jelly I.P. is applied on these cylinders, and they are wrapped individually with PET or PE film and covered with corrugated paper sheets.
- 7.2.7 The cylinders are then transferred to the central cylinder storage area where they are maintained customer-location wise.
- 7.2.8 In case an artwork is changed by the customer, the same cylinders shall be sent for re-engraving of the new artwork. If a new cylinder is made for the new artwork, the old cylinders shall be rejected and transferred to rejected cylinder storage, which shall be under lock and key and controlled only by QC. The cylinder may also be rejected due to technical reasons, e.g. quality issue / de-chroming / dent, etc. Such rejected cylinders shall also be kept under lock and key and controlled only by QC.
- 7.2.9 To destroy the rejected cylinders, written customer permission shall be taken. After permission from the customer, the respective cylinders of the respective artwork shall be damaged by hammering in the presence of QC, and then these cylinders are scrapped. A destruction certificate shall be provided to the customer as per Attachment II if needed.
- 7.2.10 To destroy cylinders which have been rejected due to internal reasons, e.g. quality issue / de-chroming / dent, etc., a change control is filled and approved by QA, then it can be physically scrapped. A list of all cylinders destroyed shall be maintained.

8.0 REVISION HISTORY:

Revision No.	00	Effective Date	07.07.2026	CC No.	NA
Details of revision: New SOP					

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