

INDIA SECURITY PRESS

(A Unit of Security Printing and Minting Corporation of India Limited)

Wholly owned by Government of India

Nashik Road – 422 101 (Maharashtra)

Tel: 00 91 253 240 2319/2419

Email: purchase.isp@spmcil.com

Fax: 00 91 253 2462718

Website: www.spmcil.com

Date of Issue: 29.09.2024

1.	Name of the organization	India Security Press, Nashik (a unit of Security Printing and Minting Corporation of India Limited)
2.	Type of the organization	Wholly owned by Government of India
3.	EOI Reference No	EOI No. 15 dated 29.09.2024
4.	EOI Title	Expression of Interest for "Establishment of Complete Coating Setup at India Security Press (ISP), Nasik"
5.	Category	Non-Security
6.	Sub-category	Capital Item
7.	Date of Announcement	29.09.2024
8.	Pre-bid conference	<p>The pre-bid conference will be conducted on 15.10.2024 at 11.00 Hrs IST. The prospective bidders interested to Submit Expression of Interest are requested to attend the pre-bid conference for clarifications on technical issues, at India Security Press, Nashik Road. The queries of pre-bid conference, if any, shall reach to ISP Nashik (either through e-mail/surface mail) on or before 12.10.2024 06.00 PM.</p> <p>Bidders willing to attend/join this pre-bid conference, shall inform, through e-mail (before 14.10.2024 06.00 PM) enclosing therewith the scan copy of ID proof doc. of all the officials/persons visiting ISP-Nasik. This is must in order to issue necessary gate passes.</p>
9.	Last date for submission:	1430 Hrs (IST) on 15.11.2024
10.	Date of EOI Opening	1500 Hrs (IST) on 15.11.2024

11. The Chief General Manager, India Security Press, Nashik invites Expression of Interest from firms for "Establishment of Complete Coating Setup at India Security Press (ISP), Nasik".

12. The Concise Scope of Work for the Brief requirement of ISP for "Establishment of Complete Coating Setup at India Security Press (ISP), Nasik" is as under:

The brief technical spec. of requirement is attached with this EOI notice as following Annexures:

1. Annexure 1: Brief Technical Specification for Hotmelt Coating System
2. Annexure 2: Brief Technical Specification for Silicone Coating System
3. Annexure 3: Brief Technical Specification for Remoistenable Gumming System
4. Annexure 4: Brief Technical Specification for Supercalendering System
5. Annexure 5: Brief Technical Specification for Slitting & Rewinding System

13. **Pre-Qualification Criteria:**

(a) The bidders should give a declaration that they have not been blacklisted or debarred for dealing by Government of India or any Government / PSU/ Reputed organisation in the past.

(b) The documents in support of Expression of Interest need to be submitted duly signed by authorized representative of the company.

(c) The bidder shall be a manufacturer / authorized supplier of coating machineries for at least last three years and has successfully supplied, installed & commissioned coating machinery with the same or higher specifications of at least one number in last three years ending on "31.03.2024". At least one number of the product offered should be in successful operation for at least one year on the date of bid opening. The bidder should provide the documentary evidence for the same.

(d) The interested bidders shall also submit copies of Audited financial statement for the last Five (05) years i.e., 2019-2020, 2020-2021, 2021-2022, 2022-2023 and 2023-2024.

14. The bidder should also confirm specifically that:

(a) Applicant is competent and legally authorized to submit and/ or to enter into legally binding contract.

(b) The firm should confirm their annual installed capacity for supply and installation of similar type of 'Complete Coating Setup'.

(c) Applicant will absolve the purchaser against any infringement of patent rights and other contract provisions.

15. The duly filled details along with supporting documents and budgetary offer(s) with respect to Establishment of Complete Coating Setup at India Security Press, Nashik.

16. Budgetary offers shall clearly mention price of each offered machinery. Prices of additional features (if any), shall be indicated separately.


17. The above may be submitted (in a sealed/closed envelop mentioning the name, no. & date of this EOI) in person or through courier/ registered post/ speed post so as to reach the following address on or before the prescribed date and time as under:

The Chief General Manager,
India Security Press,
Nashik Road -422 101.
Phone No 0253 240 2319 / 2419
Email: purchase.isp@spmcl.com;

Place of opening of Expression of Interest: India Security Press,
Nashik Road, Pin-422 101.
Maharashtra, India.

18. Delay due to postal/Courier etc, will not be entertained.

19. Expression of Interest received after the prescribed due date and time will be rejected.


Addl. General Manager (M)
for Chief General Manager
India Security Press, Nashik Road

Technical Specification for Hot Melt Coating & Laminating Line for Paper (Width: 1200mm or more)**1. General Description**

The hot melt coating line is designed to produce self-adhesive paper/Substrate with a width of 1200mm. The line includes components for applying hot melt adhesive, laminating silicon release paper, and curing the adhesive.

2. Technical Specifications**a. Web Width and Speed:**

- **Max Web Width:** 1200mm or more
- **Operating Speed:** 10 - 200 meters per minute (adjustable)

b. Coating Unit:

- **Coating Method:** Slot die or roller coating
- **Coating Weight:** 5 - 50 gsm (adjustable)
- **Adhesive Type:** Hot melt adhesive
- **Heating System:** Electric heaters with precise temperature control (range: 50°C - 200°C)
- **Coating Accuracy:** ±2%

c. Adhesive Application System:

- **Adhesive Supply:** Continuous feed from adhesive melter
- **Melter Capacity:** 200 kg/hr
- **Temperature Control:** PID temperature controllers for precise adhesive temperature regulation

d. Laminating Unit:

- **Laminating Rollers:** Precision-ground rollers
- **Pressure Control:** Pneumatic or hydraulic pressure control
- **Laminating Speed:** Synchronized with the coating speed
- **Roller Width:** 1250mm (to accommodate edge trimming)

e. Drying/Curing Section:

- **Drying Method:** Hot air or IR (Infrared) drying system
- **Temperature Range:** 50°C - 150°C
- **Drying Length:** 10 meters (adjustable based on adhesive type and thickness)

f. Unwinding and Rewinding Units:

- **Unwinder Capacity:** 1000 kg roll
- **Rewinder Capacity:** 1000 kg roll
- **Tension Control:** Automatic tension control system (closed loop)
- **Core Diameter:** 76mm (standard) or custom as required
- **Edge Guiding System:** Automatic edge guiding to maintain web alignment
- **Decoder & wrinkle remover arrangement**

g. Control System:

- **Operation Interface:** Touchscreen HMI (Human-Machine Interface)
- **PLC Control:** Programmable Logic Controller for precise control and automation
- **Data Logging:** Real-time monitoring and data logging for quality control
- **Control console for monitoring & controlling process parameters**

h. Safety Features:

- **Emergency Stop:** Multiple emergency stop buttons located at key points
- **Safety Guards:** Full safety guarding around moving parts
- **Overheat Protection:** Automatic shutdown in case of overheating
- **Alarm System:** Visual and audible alarms for fault conditions

i. Ancillary Equipment:

- **Edge Trimming:** Automatic edge trimming knives
- **Dust Removal System:** Integrated dust extraction unit
- **Cooling System:** Air or water cooling for laminated product stabilization

j. Power and Utilities:

- **Power Supply:** 400V, 3-phase, 50Hz (customizable based on local requirements)
- **Compressed Air:** 6-8 bar (for pneumatic controls)

3. Optional Features

- **Adhesive Recirculation System:** For minimizing adhesive waste
- **Inline Inspection System:** For real-time quality monitoring (adhesive gsm, thickness, etc)
- **Corona Treatment Unit:** For surface treatment to enhance adhesion
- **Automatic Splicing:** For continuous operation during roll change
- **Adhesive head cleaning system**

4. Environmental Considerations

- **Emission Control:** Integrated fume extraction and filtration system
- **Energy Efficiency:** Designed for low energy consumption with heat recovery options
- **Waste Management:** Waste adhesive collection and recycling system

5. Installation and Training

- **Installation:** Supervised by manufacturer's technical team
- **Training:** Comprehensive training program for operators and maintenance personnel

Technical Specification for Silicon Coating Machine for Paper (Width: 1200mm or more)**1. General Description**

The silicon coating machine is designed for applying a silicone layer to paper with a width of 1200mm. This machine ensures precise application, smooth coating, and efficient curing for high-quality release liners.

2. Technical Specifications**a. Web Width and Speed:**

- **Max Web Width:** 1200mm or more
- **Operating Speed:** 10 - 150 meters per minute (adjustable)

b. Coating Unit:

- **Coating Method:** Gravure or Mayer bar coating
- **Coating Weight:** 0.5 - 3 gsm (adjustable)
- **Silicone Type:** Solvent-based or solvent-free silicone
- **Coating Accuracy:** ± 0.1 gsm
- **Heating System:** Electric heaters with precise temperature control (range: 50°C - 150°C)

c. Silicone Application System:

- **Silicone Supply:** Continuous feed from silicone pump system
- **Pump Capacity:** 50 liters/hr
- **Temperature Control:** PID temperature controllers for precise silicone temperature regulation
- **Mixing Unit:** Static or dynamic mixer for homogenous silicone mixture

d. Drying/Curing Section:

- **Drying Method:** Hot air or UV (Ultraviolet) curing system
- **Temperature Range:** 50°C - 150°C (for hot air drying)
- **Curing Length:** 15 meters (adjustable based on silicone type and thickness)
- **UV System:** High-power UV lamps with adjustable intensity (if UV curing is used)

e. Unwinding and Rewinding Units:

- **Unwinder Capacity:** 1000 kg roll
- **Rewinder Capacity:** 1000 kg roll
- **Tension Control:** Automatic tension control system (closed loop)
- **Core Diameter:** 76mm (standard) or custom as required
- **Edge Guiding System:** Automatic edge guiding to maintain web alignment
- **Decoder & wrinkle remover**

f. Control System:

- **Operation Interface:** Touchscreen HMI (Human-Machine Interface)
- **PLC Control:** Programmable Logic Controller for precise control and automation
- **Data Logging:** Real-time monitoring and data logging for quality control
- **Control console for monitoring & controlling process parameters**

g. Safety Features:

- **Emergency Stop:** Multiple emergency stop buttons located at key points
- **Safety Guards:** Full safety guarding around moving parts

- **Overheat Protection:** Automatic shutdown in case of overheating
- **Alarm System:** Visual and audible alarms for fault conditions

h. Ancillary Equipment:

- **Edge Trimming:** Automatic edge trimming knives
- **Dust Removal System:** Integrated dust extraction unit
- **Cooling System:** Air or water cooling for coated product stabilization

i. Power and Utilities:

- **Power Supply:** 400V, 3-phase, 50Hz (customizable based on local requirements)
- **Compressed Air:** 6-8 bar (for pneumatic controls)

j. Optional Features:

- **Silicone Recirculation System:** For minimizing silicone waste
- **Inline Inspection System:** For real-time quality monitoring (adhesive gsm, Thickness, etc.)
- **Corona Treatment Unit:** For surface treatment to enhance adhesion
- **Automatic Splicing:** For continuous operation during roll change

k. Environmental Considerations:

- **Emission Control:** Integrated fume extraction and filtration system
- **Energy Efficiency:** Designed for low energy consumption with heat recovery options
- **Waste Management:** Waste silicone collection and recycling system

3. Installation and Training

- **Installation:** Supervised by manufacturer's technical team
- **Training:** Comprehensive training program for operators and maintenance personnel

Technical Specification for Remoistenable Gumming Machine for Paper (Width: 1200mm or more)

1. General Description

The remoistenable gumming machine is designed to apply a water-activated adhesive layer to paper with a width of 1200mm. This machine ensures precise application, uniform coating, and efficient drying for high-quality remoistenable gummed paper.

2. Technical Specifications

a. Web Width and Speed:

- **Max Web Width:** 1200mm or more
- **Operating Speed:** 10 - 150 meters per minute (adjustable)

b. Coating Unit:

- **Coating Method:** Roller or Mayer bar coating
- **Coating Weight:** 5 - 30 gsm (adjustable)
- **Adhesive Type:** Water-based remoistenable adhesive
- **Coating Accuracy:** ± 1 gsm
- **Heating System:** Electric heaters with precise temperature control (range: 20°C - 90°C)

c. Adhesive Application System:

- **Adhesive Supply:** Continuous feed from adhesive tank
- **Tank Capacity:** 200 liters
- **Temperature Control:** PID temperature controllers for precise adhesive temperature regulation
- **Mixing Unit:** Static or dynamic mixer for homogeneous adhesive mixture

d. Drying Section:

- **Drying Method:** Hot air or infrared (IR) drying system
- **Temperature Range:** 50°C - 100°C
- **Drying Length:** 10 meters (adjustable based on adhesive type and thickness)
- **Air Circulation:** Forced air circulation for uniform drying

e. Unwinding and Rewinding Units:

- **Unwinder Capacity:** 1000 kg roll
- **Rewinder Capacity:** 1000 kg roll
- **Tension Control:** Automatic tension control system (closed loop)
- **Core Diameter:** 76mm (standard) or custom as required
- **Edge Guiding System:** Automatic edge guiding to maintain web alignment

f. Control System:

- **Operation Interface:** Touchscreen HMI (Human-Machine Interface)
- **PLC Control:** Programmable Logic Controller for precise control and automation
- **Data Logging:** Real-time monitoring and data logging for quality control

g. Safety Features:

- **Emergency Stop:** Multiple emergency stop buttons located at key points
- **Safety Guards:** Full safety guarding around moving parts
- **Overheat Protection:** Automatic shutdown in case of overheating

- **Alarm System:** Visual and audible alarms for fault conditions

h. Ancillary Equipment:

- **Edge Trimming:** Automatic edge trimming knives
- **Dust Removal System:** Integrated dust extraction unit
- **Cooling System:** Air or water cooling for stabilized gummed product

i. Power and Utilities:

- **Power Supply:** 400V, 3-phase, 50Hz (customizable based on local requirements)
- **Compressed Air:** 6-8 bar (for pneumatic controls)

j. Optional Features:

- **Adhesive Recirculation System:** For minimizing adhesive waste
- **Inline Inspection System:** For real-time quality monitoring (adhesive gsm, Thickness, etc.)
- **Corona Treatment Unit:** For surface treatment to enhance adhesion
- **Automatic Splicing:** For continuous operation during roll change

k. Environmental Considerations:

- **Emission Control:** Integrated fume extraction and filtration system
- **Energy Efficiency:** Designed for low energy consumption with heat recovery options
- **Waste Management:** Waste adhesive collection and recycling system
- **Hot foil laminating station / system**

3. Installation and Training

- **Installation:** Supervised by manufacturer's technical team
- **Training:** Comprehensive training program for operators and maintenance personnel

Technical Specification for Offline Supercalendering Machine for Paper (Width: 1200mm or more)**1. General Description**

The offline supercalendering machine is designed to enhance the smoothness, gloss, and density of paper with a width of 1200mm. This machine ensures uniform surface finishing, improving the quality and appearance of the paper.

2. Technical Specifications**a. Web Width and Speed:**

- **Max Web Width:** 1200mm or more
- **Operating Speed:** 50 - 300 meters per minute (adjustable)

b. Supercalendering Stack:

- **Number of Rolls:** 8 - 12 rolls (customizable)
- **Roll Material:** Alternating hard and soft rolls (e.g., steel and polymer composite)
- **Roll Diameter:** 400mm (standard) or customizable
- **Nip Pressure:** Adjustable up to 500 N/mm
- **Temperature Control:** Heated rolls with precise temperature control (range: ambient to 150°C)

c. Unwinding and Rewinding Units:

- **Unwinder Capacity:** 1000 kg roll
- **Rewinder Capacity:** 1000 kg roll
- **Tension Control:** Automatic tension control system
- **Core Diameter:** 76mm (standard) or custom as required
- **Edge Guiding System:** Automatic edge guiding to maintain web alignment

d. Heating System:

- **Heating Method:** Electrical or thermal oil heating
- **Temperature Range:** Ambient to 150°C
- **Temperature Control:** PID controllers for precise temperature regulation

e. Pressure Control System:

- **Pressure Application:** Hydraulic or pneumatic pressure control
- **Nip Pressure Adjustment:** Manual or automated adjustment
- **Pressure Uniformity:** Ensures consistent pressure across the web width

f. Control System:

- **Operation Interface:** Touchscreen HMI (Human-Machine Interface)
- **PLC Control:** Programmable Logic Controller for precise control and automation
- **Data Logging:** Real-time monitoring and data logging for quality control

g. Safety Features:

- **Emergency Stop:** Multiple emergency stop buttons located at key points
- **Safety Guards:** Full safety guarding around moving parts
- **Overheat Protection:** Automatic shutdown in case of overheating
- **Alarm System:** Visual and audible alarms for fault conditions

h. Ancillary Equipment:

- **Edge Trimming:** Optional automatic edge trimming knives

- **Dust Removal System:** Integrated dust extraction unit
- **Cooling System:** Air or water cooling for stabilized finished product

i. Power and Utilities:

- **Power Supply:** 400V, 3-phase, 50Hz (customizable based on local requirements)
- **Compressed Air:** 6-8 bar (for pneumatic controls)

j. Optional Features:

- **Inline Inspection System:** For real-time quality monitoring (adhesive gsm, Thickness, etc.)
- **Automatic Roll Change:** For continuous operation with minimal downtime
- **Humidity Control:** For precise control of paper moisture content before and after calendering
- **Web Cleaning System:** To remove dust and impurities from the paper surface before calendering

k. Environmental Considerations:

- **Emission Control:** Integrated fume extraction and filtration system
- **Energy Efficiency:** Designed for low energy consumption with heat recovery options
- **Waste Management:** Efficient waste handling and recycling system

3. Installation and Training

- **Installation:** Supervised by manufacturer's technical team
- **Training:** Comprehensive training program for operators and maintenance personnel

Technical Specification for Slitting and Rewinding Machine for Paper (Width: 1200mm or more)

1. General Description

The slitting and rewinding machine is designed to slit and rewind paper with a width of 1200mm into narrower rolls of desired widths. The machine ensures high precision, efficient operation, and uniform winding.

2. Technical Specifications

a. Web Width and Speed:

- **Max Web Width:** 1200mm or more
- **Operating Speed:** 50 - 500 meters per minute (adjustable)
- **Slitting Width Range:** 400 mm to 1200 mm (adjustable)

b. Unwinding Unit:

- **Unwinder Capacity:** 1000 kg roll
- **Unwinder Type:** Shaftless or shafted (customizable)
- **Tension Control:** Automatic tension control system (closed loop)
- **Core Diameter:** 76mm (standard) or custom as required
- **Edge Guiding System:** Automatic edge guiding to maintain web alignment
- **Decoder & wrinkle remover**

c. Slitting Section:

- **Slitting Method:** Razor, shear, or rotary slitting (customizable) / automatic
- **Number of Slits:** Up to 10
- **Slitting Accuracy:** ± 0.1 mm
- **Blade Material:** High-speed steel or tungsten carbide

d. Rewinding Unit:

- **Rewinder Capacity:** 1000 kg roll per rewind shaft
- **Rewinder Type:** Duplex or differential rewinding shafts
- **Tension Control:** Automatic tension control system
- **Core Diameter:** 76mm (standard) or custom as required
- **Winding Method:** Contact or gap winding

e. Drive System:

- **Main Drive:** AC or DC motor with variable speed control
- **Tension Control:** Closed-loop tension control with load cells

f. Control System:

- **Operation Interface:** Touchscreen HMI (Human-Machine Interface)
- **PLC Control:** Programmable Logic Controller for precise control and automation
- **Data Logging:** Real-time monitoring and data logging for quality control

g. Safety Features:

- **Emergency Stop:** Multiple emergency stop buttons located at key points
- **Safety Guards:** Full safety guarding around moving parts
- **Overload Protection:** Automatic shutdown in case of overload
- **Alarm System:** Visual and audible alarms for fault conditions

h. Ancillary Equipment:

- **Trim Removal System:** Integrated trim removal and waste handling system
- **Web Cleaning System:** To remove dust and impurities from the paper surface before slitting
- **Web Inspection System:** Optional inline inspection for quality monitoring

i. Power and Utilities:

- **Power Supply:** 400V, 3-phase, 50Hz (customizable based on local requirements)
- **Compressed Air:** 6-8 bar (for pneumatic controls)

j. Optional Features:

- **Automatic Knife Positioning:** For faster setup and higher precision
- **Laser Core Positioning:** For accurate alignment of cores on the rewind shafts
- **Automatic Roll Change:** For continuous operation with minimal downtime
- **Edge Trim Blower:** To efficiently handle edge trim waste

k. Environmental Considerations:

- **Noise Control:** Designed to operate within acceptable noise levels
- **Energy Efficiency:** Designed for low energy consumption with energy recovery options
- **Waste Management:** Efficient trim and waste handling system

3. Installation and Training

- **Installation:** Supervised by manufacturer's technical team
- **Training:** Comprehensive training program for operators and maintenance personnel