

Introduction to SWACHH 3.2 : Automatic Sanitary Pad making machine

WHO ARE WE?



SARAL DESIGNS

Saral Designs is working on increasing access to high quality sanitary napkins. Founded in 2015 by alumni of IITs, Saral is taking a systematic approach to address challenges in the menstrual hygiene space.

Saral has developed India's first indigenously designed machine, 'Swachh', for producing ultra-thin sanitary napkins at a decentralised scale. While decentralization cuts down the distribution costs, the automated production ensures economies of scale and product quality. Swachh ensures production quality equivalent to a that of ultra-thin napkins manufactured by Multinationals at less than half of their rate, maintaining the quality parameters (of large length, high absorption using SAP gel technology, dry and soft feel).

This will enable several manufacturers to collectively solve the problem of quality, access and affordability of menstrual hygiene products.

With production units spread **across 7 different countries**, Swachh machines are robust and the best choice for long term sustainability.

SWACHH 3.2

Automatic Sanitary Napkin Making Machine



Swachh 3.2 is a **Patented** automatic machine for producing high quality ultrathin sanitary napkins.

The machine is compact and easily operable; hence, it can be installed at several locations making it ideal for decentralized manufacturing.

Specifications of SWACHH 3.2

Dimensions (L x B x H)	16ft x 6ft x 7ft
Pad Production Rate	16 pads/min
Pad Type	Ultra thin with wings
Weight	350 kgs
Air Pressure	8-10 kg/cm ²
Power Consumption	6kW
Efficiency	80%

Note: All product specifications are subject to change without notice as we are in the process of constant innovation and improvement in the machine

Salient Features



Makes high quality ultra thin pads with a low setup cost



Multiple sizes and shapes of sanitary pads can be made as per required customization



Compatible with different raw material options



Better process monitoring with pad counter and temperature control indicator



Motor driven roll mounts for better web control



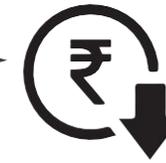
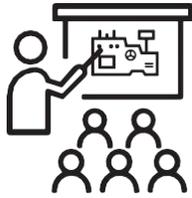
Easy process for re-mounting the raw materials roll



Compact machine

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Sound

In-line with government
envision of MSME & Skill
development
programmes



Low set-up and distribution
costs through localised
manufacturing

ADVANTAGES OF LOCAL MANUFACTURING USING SWACHH



Generates local employment

Women empowerment through village
level entrepreneurship distribution
model through SHGs



Involves women actively in the
sales and distribution of sanitary
napkins



Eliminates the dependency
on the external suppliers



Final product can be customised
according to the local requirements

Requirements of SWACHH 3.2

Power Mode	<ul style="list-style-type: none"> i. 420V: Three phase for compressor and 220V: Single phase for machine with 16 HP load capacity ii. If electricity supply is irregular in the factory, it is advisable to purchase a Generator iii. IGBT based Static Voltage Stabilizer- 30 kVA iv. Recommended to have RCCB/RCBO for employees safety
Air Pressure	8-10 kg/cm ²
Air Requirements	<ul style="list-style-type: none"> i. Air compressor, 17.3 CFM ii. It is advisable to purchase an air dryer for the air compressor
Space	<ul style="list-style-type: none"> i. Total space requirement of 800 square feet needs to be maintained for the production floor the room should be such that neither the length nor the width of the room is less than 20 feet, height at least 10 feet ii. 500 square feet for packaging of pads (close to production area) iii. Clean and dry storage facility for raw materials and finished goods of 1000 square feet iv. 200 square feet for office space for keep stock accounts etc (if needed) v. Door length should be 4x8 feet, so that machine can be installed without damaging the property
Staff Requirements	<ul style="list-style-type: none"> i. 4 semi- skilled labours for the packaging of the product per shift ii. 2 skilled labour for operating the machine per shift (one of them who shall be trained by Saral, should be have hands-on experience or an ITI training) iii. 1 Production Manager for ensuring supply chain and managing production staff process once the machine's possession.
Process Guidelines	Once the machine's possession is given to the buyer, detailed guidelines for production will be provided and they must be followed

Swachh 3.2: Add- Ons

1. Pantliners

- Pantliners market in India registered a positive compound annual growth rate (CAGR) of 15.71% during the period 2013 to 2018 with a sales value of INR 1.9 Billion in 2018.
- Typically, pantliners are used by women on very light flow days of their period cycle and in between period cycles for collecting white discharge, making it a good add-on to a pack of sanitary pads.

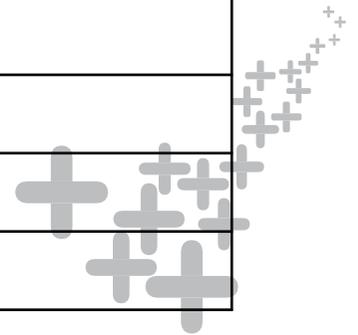


Back- Release paper (automatic application)



Front- PE top sheet

Size of pantliners	180*75 mm
Type	Ultra Thin Pantiliner Without wings
Top Sheet	PE / Non-Woven
Speed	16 pads / min



Swachh 3.2: Add- Ons

1. Maternity Pads

- Maternity Pads are typically used by women post child delivery for 2-6 weeks
- Maternity Pads are frequently used by hospitals and nursing homes

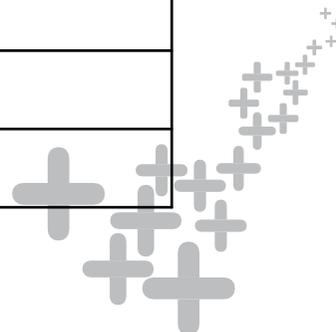


Front



Front- Non Woven top sheet

Size	510mm*180mm
Type	Both With and Without release paper options available
Top Sheet	Non Woven/ PE top sheet
Speed	10-12 pads/ min





Training

The training will be in two parts

Part 1

This training will require the production manager to travel to Mumbai for a 2 days training program at Saral office.

The following modules will be covered.

1. Overview of the industry and Swachh technology
2. Sales and Marketing strategies
3. Pad composition and raw material selection
4. Keeping stock and accounts of raw materials as well as finished goods

Part 2

After installation at the buyer's site, Saral's Engineer will provide a 3 days training on the following topics on-site to all the staff members involved in production including the production manager.

This training will cover the following modules:

1. Operating the machine
2. Loading and unloading of raw materials on machine
3. Best practices to be followed for production
4. Regular maintenance of the machine including replacement of wear and tear parts
5. Managing basic breakdown

Installation & Warranty

Installation details

Once the machine is received at the buyer's premises, one staff members of Saral will travel to the installation site.

The purpose of this one week-long visit will be as follows:

1. Installation of the machine
2. Inspection of the production facility
3. Make sure that the machine is commissioned properly

The cost of travelling, lodging and boarding of the Saral staff needs to be borne by the buyer. Before the installation, the buyer should procure relevant licenses, carpentry, air requirements, and electricity work at their own expense.

Note: At the time of commissioning, two personnel from the buyer's end should be present to assist Saral's engineer according to regular shift timings (8hours).

Warranty

1. Each machine comes with a one-year warranty against manufacturing defects, damages during transportation and installation.
2. Critical Spares for regular maintenance for 1 year are provided for free at the time of installation.
3. Any component failure or part replacement beyond the Critical spares, will be payable by the buyer as per actuals. Saral can ship components as required to the buyer as per actual costs.
4. If Saral staff needs to travel to the production site for repair during the warranty period, the cost of travel, lodging and boarding needs to be borne by the buyer.
5. Regular free consultation (via audio or video calling) shall be available to the Production Engineer for any questions.



Annual Maintenance Contract

After the warranty period, the buyer can choose to enter an Annual Maintenance Contract with Saral for an annual charge.

1 year of additional critical spares are provided at the time of AMC renewal

1. Under the AMC, Saral's field Engineer will visit the production unit 4 times a year (at scheduled intervals of 3 months each or on-call in case of a requirement by the buyer).
2. Each visit will include inspection of machine performance and components, and preventive maintenance.
3. AMC does not include cost of spares or mechanical part replacements. Saral can ship/repair/replace the components as required as per actual costs.
4. Alternatively, if buyer chooses not to avail AMC, buyer can, per head per day including the travel time of SARAL Service Engineer on-call basis subject to availability of SARAL staff.



Project Financing:

For promoting menstrual hygiene and Entrepreneurship, Government of India has multiple loan schemes available by NABARD (upto INR 5Lac) and nationalized bank schemes like Mudra loan (upto INR 10Lac).

Find details here: <https://saraldesigns.in/how-to-finance-your-sanitary-napkin-business/>

Saral Designs Automatic machines are now registered under **TUFS scheme**. In future, if you decide to upgrade your machine to an automatic machine, subsidy scheme upto 15% can be availed. Please check the TUFS website for more details and eligibility criteria.

<http://texmin.nic.in/schemes/technology-upgradation-fund-scheme>





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