

**SYNCHRONISATION**

**REGISTRATION**

**INSPECTION**

**DIGITALIZATION**



**SAAPL**<sup>®</sup>  
S A Automation Pvt. Ltd.



Group Company

**SAQAS**

**One Stop Solution for  
Industrial IOT**

**INTEGRATION**

**SOLUTION**

**SUPPLY**

**COMMISSIONING**

**SERVICE**

**REPAIRING**

| [www.saautomation.com](http://www.saautomation.com) |

## Our Philosophy

SAAPL believes the philosophy that customer satisfaction is the most important for its growth. Bearing this in mind, SAAPL gives very special attention and take care of their clients' needs. To achieve this, our expert team consists of product engineers and specialists would go out of their way to assist customers, find out the needs and fulfill their requirements. Our products preference in the market explains the best quality products and the customers' satisfaction as well.

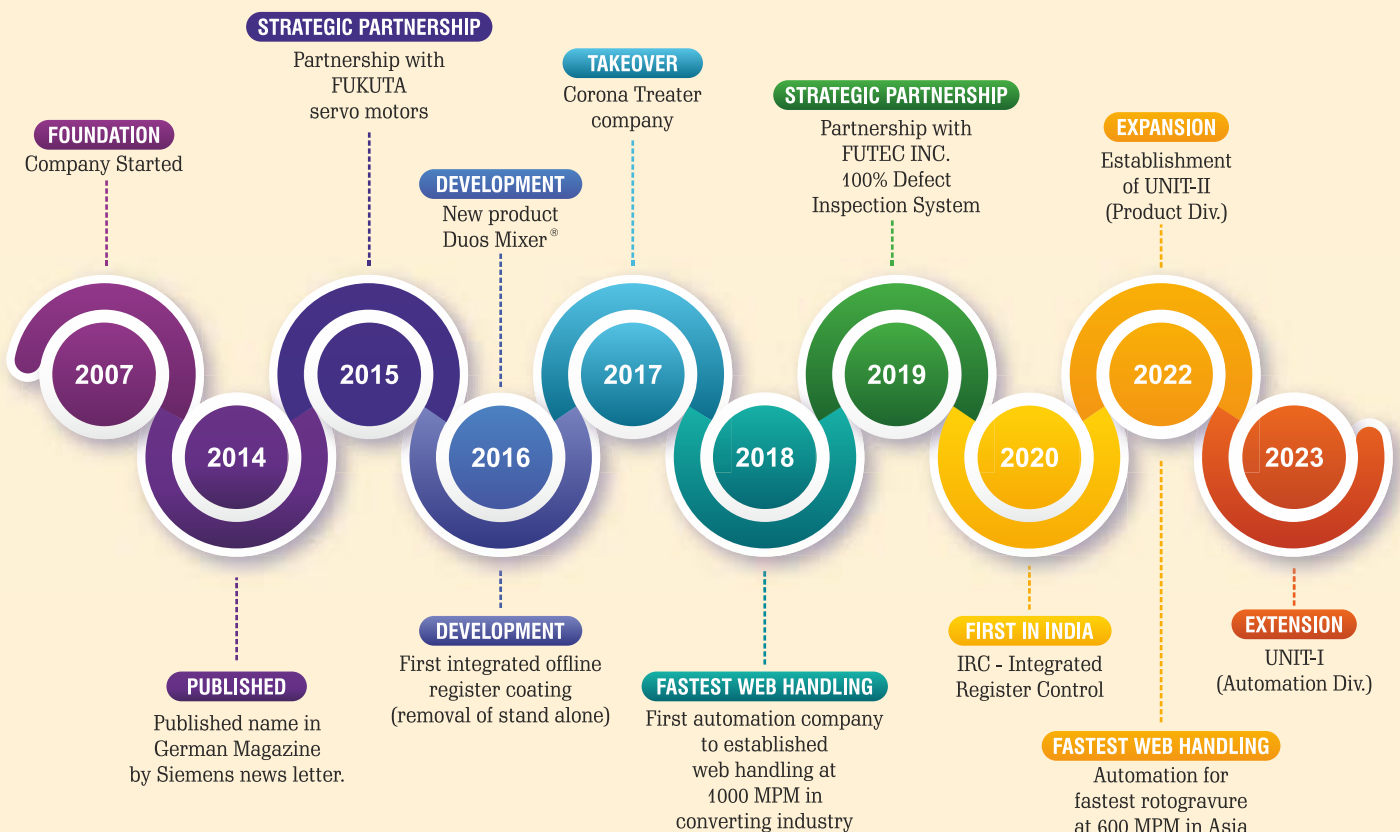
## Our Strength

- More than 85,000 sq. ft. factory area.
- 200+ dedicated & experienced team.
- R&D Department.
- Back up support by our principal.
- Use of globally accepted make of components.
- Regional service support.
- Various strategic partnership

More & more your ultimate partner for customised solution.

**At the time of your decision making for adding technology & values to your projects, we would surely help you to go for right inputs.**

## TIMELINE



## PRODUCT RANGE

CPMS® Control Panels for - Multi Axis Synchronisation

Off Line Register, Front & Back Register, Cold Seal Register, Window Lam. Register

WVIS - Web Viewing & Inspection System

SIMS - 100 % Inspection / IQM - PDF Viewer / Work Flow

Inspection Table

ARC / IRC - Automatic / Integrated Register Control System

Duos Mixer® - Mixer Solution for Solventless

One C Doser - Single Component

Auto Loading Pump - Auto Refilling Pump for Mixer Tank

Hot Melt Tank - Dispensing System for Hot Melt

Static Measurement Solution, Stroboscope, Laser Core Positioning

**COROTREAT** ETC Corona Treatment Solution

CAS - Turret, Splicing & Mechatronics Products

Repeat Length Measurement

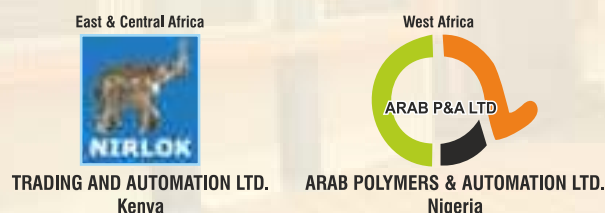
Splice Detection System

IIoT - Digitalization & Industry 4.0

## OUR PRINCIPAL PARTNERS



## OUR MARKETING PARTNERS



## Control Panels for

- Multi Axis Synchronisation
- Off Line Register
- **Front** & **Back** Register
- Automatic Tension Control





# INDUSTRIAL AUTOMATION SOLUTIONS FOR

- **PRINTING**
- **PACKAGING**
- **CONVERTING**
- **TEXTILE**
- **RUBBER**
- **PHARMA**
- **& CUSTOMISED APPLICATION**

## APPLICATIONS

- Rotogravure Printing Machine - MLS / ELS Configuration
- Flexographic Printing Machine - Stack / CI- MLS / ELS Configuration
- Coating & Lamination Machine - Solventbase / DG Coating / Combi / Solventless
- Slitting & Rewinding Machine - Surface & Cantilever Configuration
- Inspection Rewinding and Doctoring Machine
- Extrusion Coating & Lamination Machines
- Hot Melt Control System - Full / Registered System
- Offline Register Control System - Cold Seal / Hot Melt / Window Lamination / VMCH / UV Coating
- Paper Converting Machine
- Label Converting Machine
- Heat & Press Lamination
- Blown Film Plant
- Metalizer Plant
- Rubber Processing Machine
- Special Purpose Machine
- Pharma & Textile Machineries
- Special Customised Turnkey Projects
- Stenter Machine
- Singeing Machine

**RETROFITTING  
SOLUTION**



**SCADA**

# DUOS MIXER<sup>®</sup>

## Adhesive Mixing & Dispensing System

  
**SAAPL<sup>®</sup>**  
S A Automation Pvt. Ltd.

**3**  
MODELS



• **Duos Mixer Std.**

**IIoT  
ENABLED**

**HIGHLY ADVANCED CONTROL SYSTEM  
USING VECTOR DRIVE**

**AUTOMATIC DENSITY CALCULATION,  
WEIGHT CALIBRATION**

**QUICK INSTALLATION AND CALIBRATION**

**REAL TIME & HISTORICAL DATA**

**PRECISE GSM MEASUREMENT THROUGH  
HIGH RESOLUTION ENCODER**

**REMOTE SUPPORT & SERVICE THROUGH Wi-Fi  
(Internet Connection is Required)**

**AUTOMATIC GSM CONTROL INTEGRATION  
WITH MAIN MACHINE (OPTIONAL)**

**SCHEDULE PREHEATING**

**ALARM CONTROL FOR SET POINT SAFETY**

**MIS - REPORTS, SERVICE**

## APPLICATIONS

- SOLVENTLESS LAMINATION MACHINE
- SOLVENTBASE LAMINATION MACHINE
- COATING MACHINE
- PAINT BOOTH



• Duos Mixer Eco



Pneumatic NRV

• Duos<sup>+</sup> Mixer

30cc NCO PUMP, FLOWMETER, PNEUMATIC NRV & IIoT ENABLED.



IIoT 4.0

MIXER  
RETROFITTING &  
REFURBISHMENT  
OF ALL LEADING  
OEM's.



# ONE-C-DOSER

## Mono Component Dosing Pump

### FEATURES

- Paper, aluminum foil, met pet, pet etc. lamination.
- High quality vertical type heater for 200 litre adhesive drum.
- Dosing capacity for machine speed upto 600 mpm.
- 7" operational HMI.
- Remote support through Wi-Fi.
- Alarm history, reports and many advanced features.
- Additional heating sections (optional).

### APPLICATIONS

- SOLVENTLESS LAMINATION MACHINE
- COATING MACHINE



## AUTO LOADING PUMP SET

SAAPL's auto loading pump set is an optional system offers with Duos/other make mixer to ensure time saving.

### FEATURES

- Auto refilling of mixer tank as per required set programmed level.
- Stand alone Electro-pneumatic control panel with Auto/Manual selector switch.
- Pneumatic solenoid valve to shut off, release, dose.
- Automatic refilling by means of additional pneumatic diaphragm pumps for both NCO/OH.
- Works better with 200kg. adhesive drums.
- It allows the use of the drums on a vertical position.
- No manipulation needed.

### BENEFITS

- Increase productivity.
- Fully automatic process.
- Prevents creation of jelly skin on adhesive top.
- No longer moisture intake.
- Works on a complete closed loop.

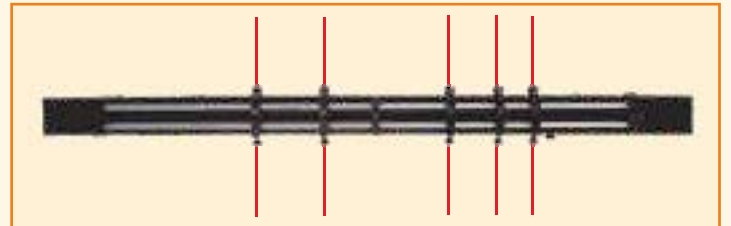
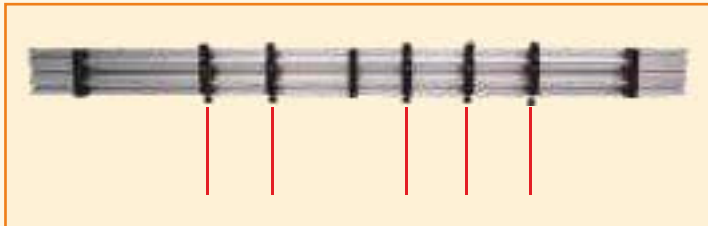




## STROBOSCOPE



## LASER SYSTEM



## STATIC MEASUREMENT



ONLINE STATIC MEASUREMENT

KNOW HIDDEN TERRORIST OF YOUR FACTORY

### REG 4000

SAAPL's latest series of REG 4000 for rotogravure printing machines provides optimum efficient register correction at either speed with use of latest double eye photoelectric sensor, highly efficient embedded PC, touch monitor and Individual unit motor control.

Pictorial symbol with suitable guidelines ensures easiness in quick set up with optimum correction in just a "ONE TOUCH".



### APPLICATIONS

- ROTOGRAVURE PRINTING MACHINE
- FLEXOGRAPHIC PRINTING MACHINE
- OFF-LINE REGISTER MACHINE



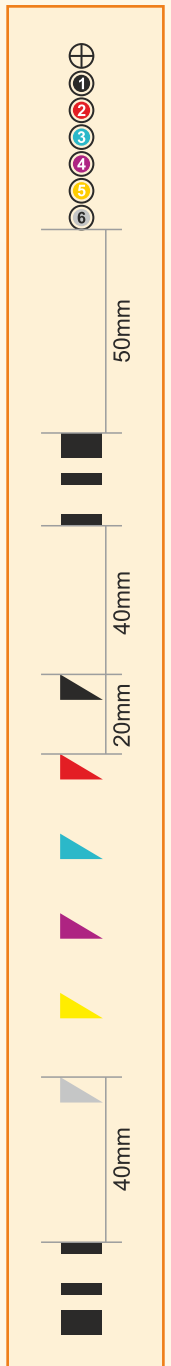
UNIT CONTROLLER



DOUBLE EYE SENSORS



ALARM UNIT



### SPECIFICATIONS

MODEL	REG 4000
Speed Control	Up to max 400 m/min
Accuracy	$\pm 0.01$ mm
Amendment Speed	1 mm/s
Repeat	350-1500 mm
Unit	Up to 16 color
Area	Vertical and horizontal error
Power	800 W
Voltage	AC 230V $\pm$ 10 % 50-60 Hz

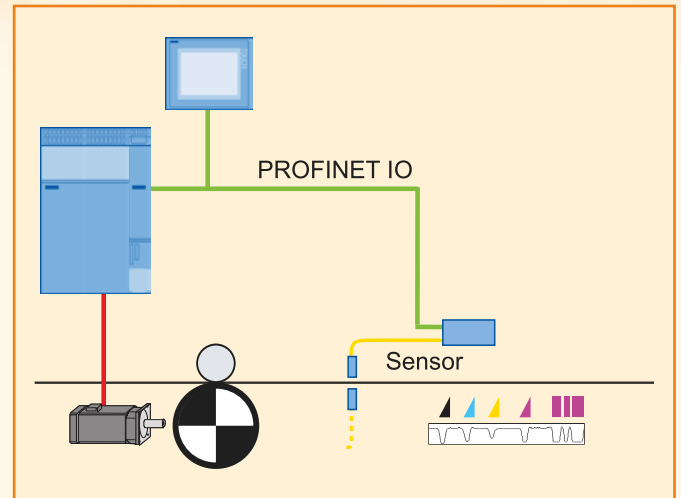
- Presetting Function (Optional).
- Machine integration for motor or drive (Optional).

## Integrated Register Control System

### APPLICATIONS

- ELS ROTOGRAVURE PRINTING MACHINE
- REGISTER COATING MACHINE
- ELS FLEXO PRINTING MACHINE
- COLD SEAL
- WINDOW LAMINATION

**UPGRADABLE  
TO PRE-REGISTER  
CONTROL FOR  
NEW JOB**



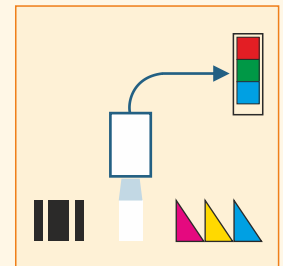
### FEATURES

- Integrated with Simotion to avoid communication delay. It works on IRT communication.
- No Noise issue in communication cable.
- Communicate via profinet communication which is faster than profibus communication.
- Minimum error detection is 10 micron.
- Automatic register mode will change from manual to auto within 5 sec. with minimum wastage.
- Fast correction in splice and ramp up/down period.
- Individual station register control parameters (gain, revolution, time etc.).
- Pre-register integration with Simotion.

### AVAILABLE VERSION

**TRC 3000**

**TRC 7000**





# CORONA TREATMENT SYSTEM



## FEATURES

- Real time IIoT compatible over wireless network supporting.
- Remote access via internet.
- Email notifications for completion of roll, consolidated job report, critical alarms & trends - predictive maintenance.
- Intelligent software detects mechanical & electrical failures quickly.
- Built-in feature of automatic opening and closing of electrodes during operation based on machine speed. No dependency on operator for this function.
- Flashover trip unique feature to prevent fire.
- Latest IGBT technology.
- Power efficiency above 90%.
- Stepless treatment power control.
- Zero speed / overload / short circuit trip with audio - visual (stack light) alarms.
- Advance protective circuits guard against : over temperature, over current and high voltage.
- Wide load matching 5 to 1.

## WORKING

Surface tension of plastic film, paper, metal foils, teflon coated fiber glass cloth etc. is not sufficiently high to permit good wetting of inks / gums or lamination. Corona treatment makes films receptive to ink / lamination by including molecular changes on the film surface.



## APPLICATIONS

- Blown film extrusion single layer/multilayer plastic film plants
- Woven sack roll on-line flexo printing machine
- Extrusion/Lamination coating plant for paper
- Lamination plant for aluminum foil / plastic film
- PVDC coating on PVC film for pharmaceuticals applications
- Sheet line plant
- Gum coating on PTFE coated fiber glass cloth
- Plastic moulded articles
- Rotogravure, flexographic, solventless coating, solventbase coating machines
- Label printing machine

## SPECIFICATIONS

- **Treatment Power** : 500 Watts to 20 kW
- **Frequency** : 10 kHz to 45 kHz
- **Treatment Width** : 150 mm to 4400 mm
- **Material** : LDPE/LLDPE/HM/PTFE/Paper/Aluminum Foil/PVC/Kapton etc.
- **Max. Thickness** : 5 mm



Optional available with

## FLAPPER SYSTEM

ENSURE DOOR TO OPEN AND PREVENTS DISTURBANCE TO ELECTRODES BY JOINT/SPLICE

# SPLICE DETECTION SYSTEM

Splice / Joint detection system either visible (top level) or nonvisible (sandwich joints) useful for converters, fabric manufacturers, raffia, blown film machines.

## FEATURES

- Counts number of joints.
- Measure distance between joints.
- Machine stops once joint detected with alarm signal.

## BENEFITS

- It is touch panel operated and programmed to generate interlock/alarm in machine control.
- In case of flexographic machine, momentary opening of the impression cylinder leads to incremental life of plate.
- In case of gravure printing machine, preset data triggers rewind splice at the time of extra joints.
- At converting stage (slitting) quality output fulfils customer requirement without any chances of output reel (sandwich joints/splice joints).



# REPEAT LENGTH MEASUREMENT

## FEATURES

**Accurate length within +/-0.2mm per meter of printed substrate**

- **On-Line accurate print length repeat measurement**  
Able to meet customers quality standards with minimum waste at higher press speeds.
- **Better management of tension control (optional)**  
Allows minimum pressure to be used on nips roll and between the nips, this means less web tension, less wear and tear, together with more sensitive tension control.
- **Improve control of flexible substrate**  
With better management of tension between in-feed and out-feed. Substrate can be printed / laminated at higher speed.



## BENEFITS

- It constantly monitors the print repeat length.
- Enables the operator to control the substrate length.
- Ensures the product meets the customers length and snap-back specification.
- Archive records for future reference.





# PDF VERIFICATION SYSTEM

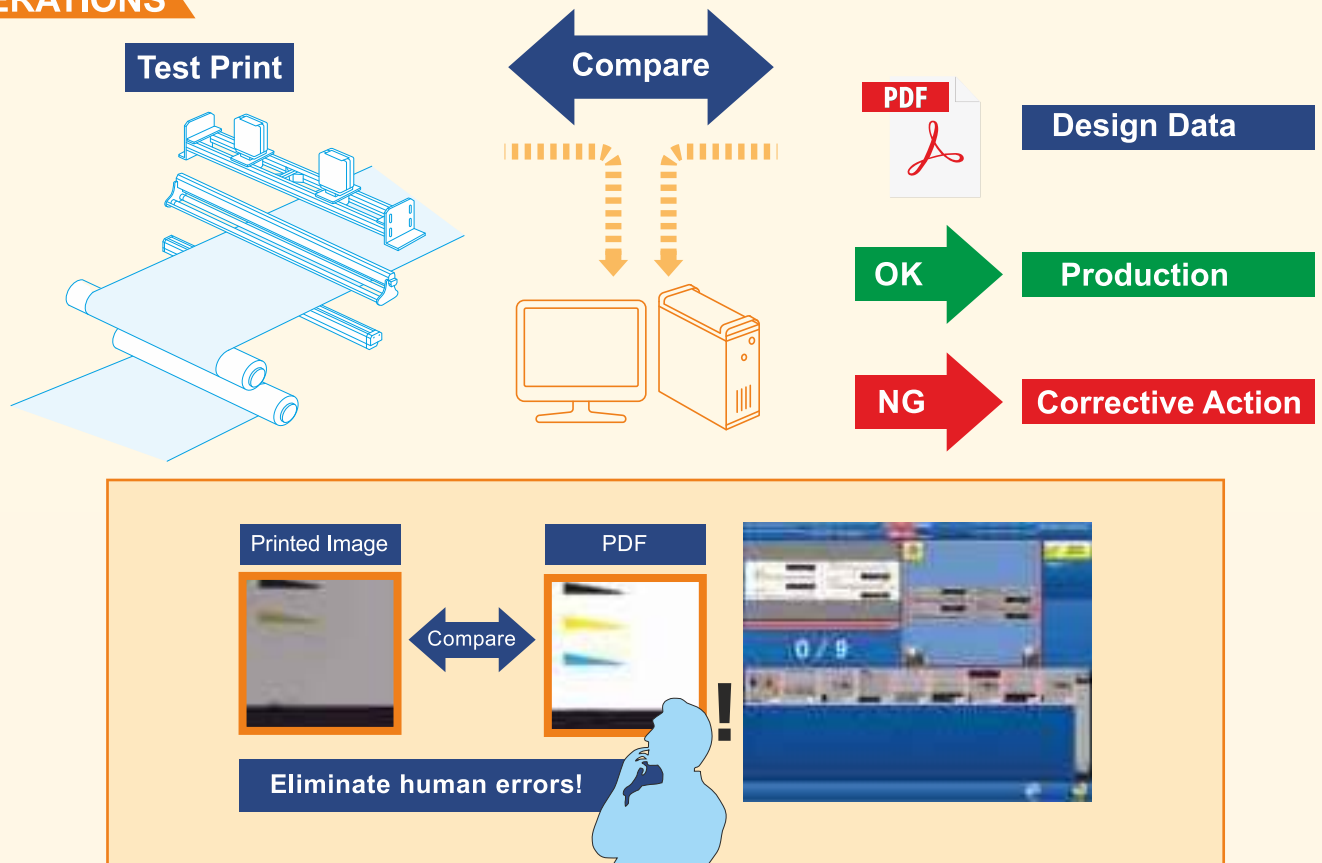
## CASE STUDY

Operators cannot identify whether the cylinder is correct or not?

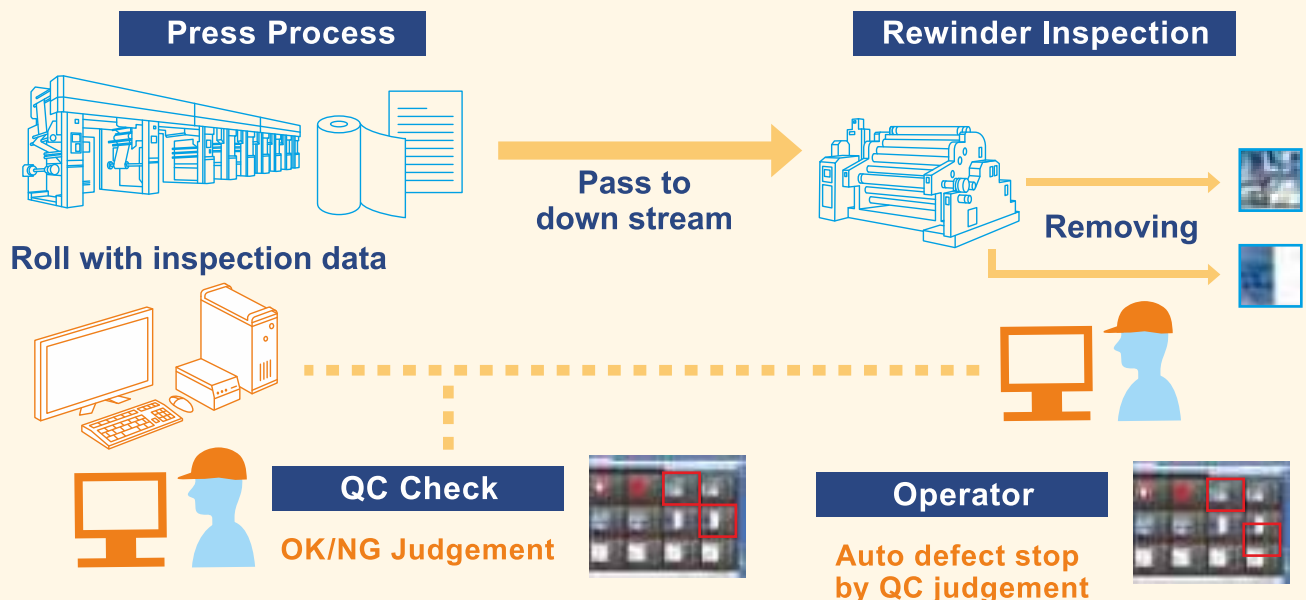


The printed image need to be compared with the design data by machine

## OPERATIONS



# WORK FLOW MANAGEMENT SYSTEM





OBSERVER 4000

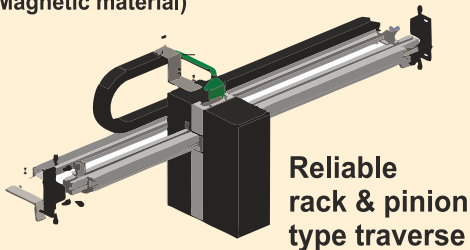


OVERSEER 100

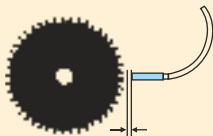


OVERSEER 200

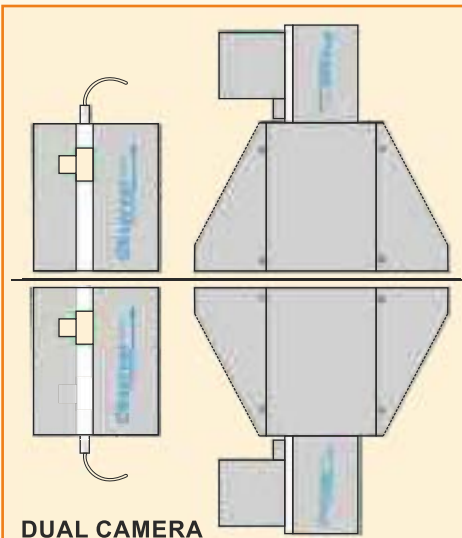
Gear wheel, module >1  
(Magnetic material)



Reliable  
rack & pinion  
type traverse



Distance =S



DUAL CAMERA



Touch View



Normal View



Remote Web View(optional)

### STANDARD FUNCTIONS (OBSERVER 4000)

- Image Rotate X/Y/XY
- Image Split & Freeze
- CMYK/RGB value detection (optional)
- Second monitor (optional)
- Backstroke for cold seal view (optional)
- Touch monitor (optional)
- Print speed & length measure
- Image sharpen with gamma
- Image roll and slow shot
- Optical zoom saving

### OVERSEER 100

- 100 x 75 field of view
- Touch GUI in high definition
- 21.5" operational monitor
- Touch monitor (Optional)
- ACS/PPS

### OVERSEER 200

- High-end printing image monitor
- 200 x 120 field of view
- Optical lens with long range HD transportation
- 23.8" operational touch monitor
- ACS/PPS

**INTEGRATE YOUR EXISTING VIEWING SYSTEM REMOTELY  
ON YOUR GADGETS WITH INTERNET CONNECTIVITY**

## FEATURES

**Quality of your products are guaranteed!**

80 MHz high speed camera enable high-precision detection with fine images, even on high speed running web.

**Flexograph Feature****Focusing on flexo specific missing characters**

A specific filter for missing character detection is adopted as a standard. Tiny defects like partial missing character can be detected.

**Robust over web meandering**

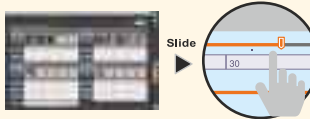
Image position is precisely adjusted automatically. Web meandering never affect the inspection stability any more. Only desired detection can be performed.

**Colour monitoring**  
Monitor the trend of colour density.**Easy startup**

You can start inspection with just one click.

**Easy setting**

Sensitivity parameters can be easily set by operators.

**Real time print monitoring**  
Display the monitoring images of designated points.**Multi user interface**

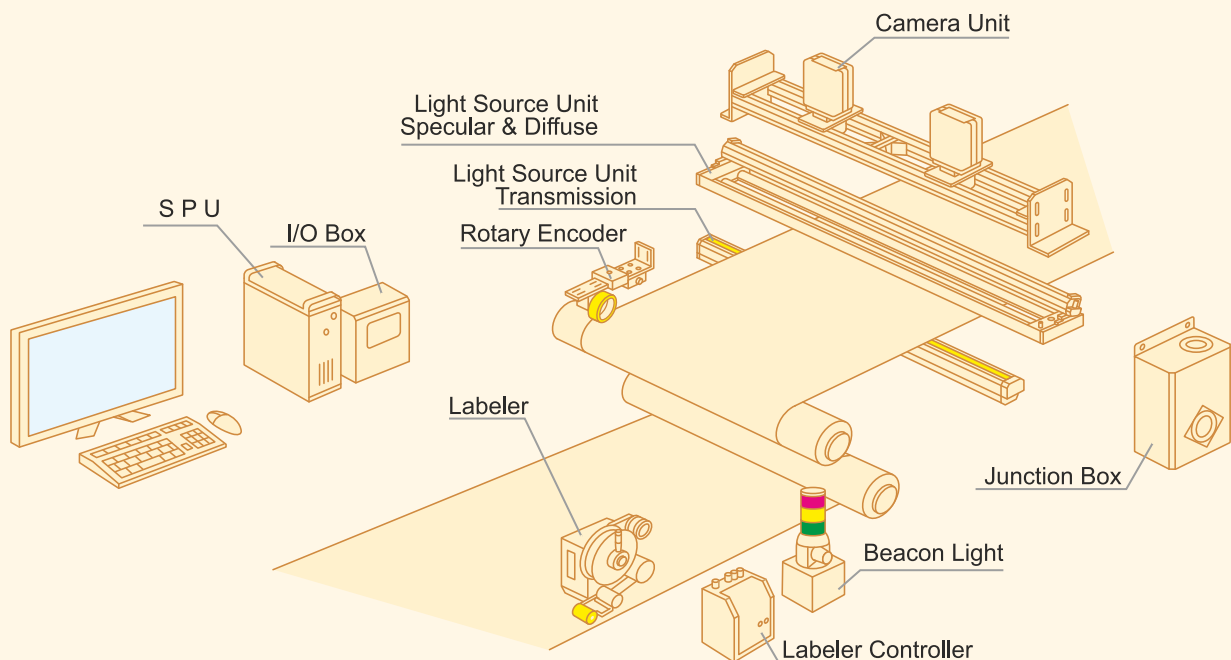
You can access inspection info with smart phone or tablet from anywhere.

**Free layout**

Freedom to watch & utilize different screens & functionality simultaneously.

**High Detectability and Clear Flaw Images**

## SYSTEM CONFIGURATION





## SIEMENS

## FUKUTA<sup>®</sup>



SERVO MOTORS



GEAR BOX AND MOTOR



# CUSTOMISED MECHANICAL ENCLOSURES



# CUSTOMIZED AUTOMATION SOLUTION



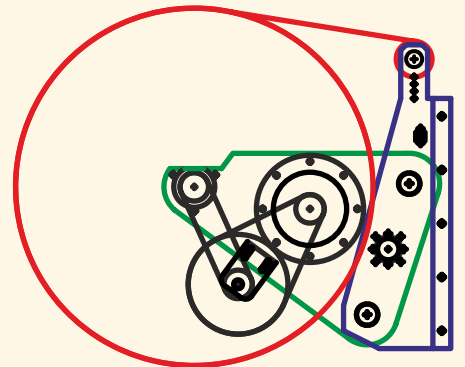
**TURRET WITH INTEGRATED SPLICING**  
(Used in converting/offset industry)



**TURRET & SPLICING WITH  
INFEED UNIT**  
(Used in rotogravure  
& coating machines)



**SPLICING WITH  
BUTT TECHNOLOGY  
FOR HIGHER GSM**  
(Used in corrugations and  
cigarette paper industry)



**UPDATION IN  
OLD/EXISTING MACHINE  
WITH CUSTOMISED SOLUTION**

SAAPL offers automatic reel change over system including the following :

- State-of-the-art design
- Dancer based technology
- Linear type splice
- User define width and speed
- Easy installation on existing machine without disturbing main machine synchronisation
- Gap winding (optional)

• AUTOMATION

• ANALYTICS

• DASHBOARD

• DAQ SYSTEM

• DIGITALIZATION

• OEE

## SMART MACHINES

- PREVENTIVE MAINTENANCE
- PREDICTIVE TOOLS
- SUPERVISORY MONITORING
- ANALYTICS
- SECURE ACCESSIBILITY
- ENERGY OPTIMIZATION
- PRE-DEFINED NOTIFICATION
- USER-DEFINED APPLICATION



## WEB APP - SACAS 4.0

- Optimize visualization on Dashboard includes real-time data with various charts & tables.
- Accessible on PC & mobile which are connected with internet.
- Report generation helps to plan a job & focus on a breakdown accordingly.
- In addition, power quality can be analysed, which further used to improve efficiency.





# RETROFITTING

**We have successfully handled Retrofitting Projects  
at various converters.**

## European OEMs

- |                |                         |                |                 |
|----------------|-------------------------|----------------|-----------------|
| • Bielloni     | • Heidelberg            | • Pomini       | • Titan         |
| • Bobst        | • IMS Deltamatic S.p.A. | • Prati        | • Valmet        |
| • Cerruti      | • Kampf                 | • Refeinhauser | • Wickeltechnik |
| • Chambon      | • MBCoater              | • Rotoflex     | • W&H           |
| • Comexi       | • Nilpeter              | • Rotomec      |                 |
| • DCM ATN      | • Nordmeccannica        | • Schiavi      |                 |
| • Flexotecnica | • Olampia               | • Svecom       |                 |

## Asian OEMs

- |             |           |           |
|-------------|-----------|-----------|
| • Fong kee  | • Remak   | • Wuxi    |
| • HCI       | • SAM     | • Yillian |
| • Long New  | • Winrich |           |
| • Pro Doing | • Wordly  |           |

## American OEMs

- Abg International
- Davis Standard
- Mark Andy

## Indian OEMs

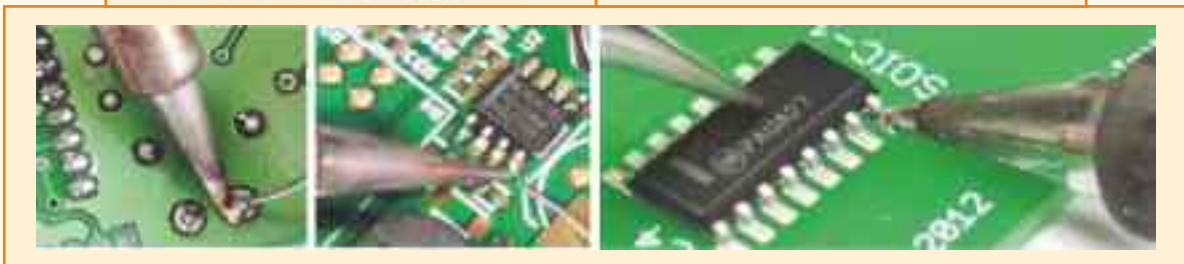
- |             |                |           |
|-------------|----------------|-----------|
| • Expert    | • Pelican      | • Uflex   |
| • Kalpvruux | • Rajoo        | • Windsor |
| • Kohli     | • Raulimex     |           |
| • Kolsite   | • SP Ultraflex |           |

and many more...

**WE WOULD BE THE RIGHT PARTNER  
TO UPGRADE/RETROFIT YOUR EXISTING SYSTEM WITH OPTIMUM QUALITY**

# REPAIRING

## EQUIPMENTS



## LOAD CHECK



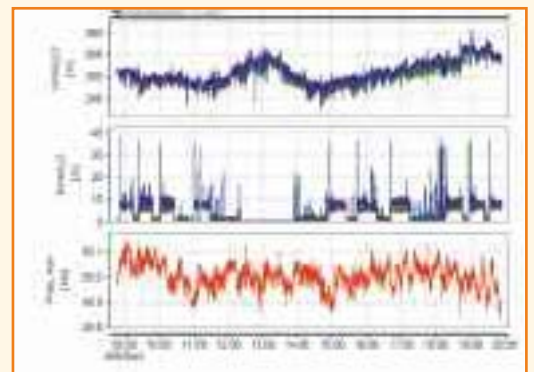
All types of VFD & servo drives, motors, HMI & IPC  
(Siemens, Lenze, Parker, ABB, A&B, B&R etc.)

PLC, IO modules, extension modules etc.

ARC & Web view systems

Power supply, stroboscope, amplifier card, DC cards etc.

All types of controllers i.e. temperature controller, brake controller etc.



**WE ALSO ANALYSE YOUR POWER QUALITY**



# SAAPL®

## S A Automation Pvt. Ltd.

Synchronisation, Registration,  
Inspection and Digitalization in Converting

**AN ISO 9001:2015  
CERTIFIED COMPANY**

**GLOBALLY ACCEPTED,  
LOCALLY DEDICATED**

**BANGLADESH**

**OMAN**

**BHUTAN**

**PORTUGAL**

**DUBAI (U.A.E.)**

**RUSSIA**

**EAST, WEST, CENTRAL & SOUTH AFRICA**

**ETHIOPIA**

**SAUDI ARABIA**

**EGYPT**

**SRI LANKA**

**GHANA**

**SUDAN**

**HONG KONG**

**SWITZERLAND**

**KUWAIT**

**SYRIA**

**MALAWI**

**THAILAND**

**MEXICO**

**TURKEY**

**NEPAL**

**U.S.A.**

**NEWZEALAND**

**VIETNAM**

**NIGERIA**

**And many more..**



**SINCE  
2007**



**UNIT - I**

90 & 89, Devraj Industrial Park, Piplaj-Pirana Road,  
Piplaj, Ahmedabad - 382 405. Gujarat, INDIA  
Mo.: +91 9712900834 • E-mail:sales@saautomation.com



**UNIT - II**

73, Devraj Industrial Park, Piplaj-Pirana Road,  
Piplaj, Ahmedabad - 382 405. Gujarat, INDIA



**REGIONAL PRESENCE**

**DELHI • KOLKATA • MUMBAI • BANGALORE • HYDERABAD • KANPUR • INDORE • SURAT • VAPI • VASAI**



**saapl**



**Saaplsa**

**www.saautomation.com**