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# SAEL s.r.l.

## platform "ONE" in SACI Papermill

Since 1959 and thanks to the Eng. Mario Poli - carrying over the environment - , SACI is focused on Packing Paper production from the 100% of recycled raw material. Over the years SACI got awarded as a market leader on that segment.

Within the European scenario, SACI is a solid and reliable Company always a step ahead on technological solutions. To fulfil the market needs at the best the manufacturing sites are always upgraded by the last technology.

Recently the Company got specialized on low basis weight paper production: a winning card actually! SACI offers a large catalogue

of ecological papers - 100% recycled -, naturally painted, avana or raw yellow, yankee dryer or grooved on different degrees, different sizes from the industrial packing paper, to the food industry up to the certified paper for waste scraps. SACI is also a top player on corrugated papers providing a specific nice models

customized for any customer need. Every year SACI invests an important amount on maintenance of the two continuous machines - managed and carefully controlled by high skilled people -. All the paper production process is strictly controlled for the best result as much as the consciousness of the 24/24 production duty cycle must.

Thanks to the good achievement of the last year where the MC1 got implemented by two inverters at the calander on KUSTER variable geometry, and the supply of a 500 kW inverter for Pulper, Eng. LORENZO POLI - SACI's owner - had no doubt on invest for the MC 2 drive. Of course, as an important partner over the years, SAEL has been engaged for this job.



**SACI PAPER MILL; Verona Plant.**

## HOW MANY TIMES DID YOU ASK TO YOUR SELF ...

- The main Drive is on fault. How long will it take to restart?
- The Inverter displays “encored fault”. But after changing the machine does not restart. What has happened?
- I can't get where the problem is: Drive, PLC, Main board ...?
- Every time I've a specific issue I must buy a technician to get rid off spending a lot of money...
- Are 4 am. I've to replace the Drive but I'm afraid to get problems ...
- I must replace the Main board. will I remember how to program it properly?
- After changing the Drive it does not

work well. What did I do wrong?

- I must to restart. If I call the assistance will I be able to restart quickly?
- I've got the same fault of the last time. To restart what did I do last time?
- The Drive is 5 years old and I must spend a lot of money to spare parts on stock ....

To get rid of those doubts on 2011 SAEL launched on the market the “ONE DRIVE Platform” fit for Paper Mill. Every our Drive - AC; DC; BRUSHLESS; CHOPPER and REBORN - of any continuous machine, calander, wrapping machine or whatever else, is managed by “ONE” hardware board. This is actually the same board for all the drives. The ONE board has a flash card - easy to change by anyone - with all the data inside. To restart the Drive there are

not setting or reprogramming actions to do. Just a plug and play move. That's it! An auto diagnostic system to simply drive you on trouble shooting and seeking.

The Platform ONE uses the last generation drives - LONG LIFE DRIVES - with endless life time. Actually they are engineered using the strongest component ever - e.g. Film Capacitors vs. the convectional electrolytic used by our competitors with a life time of 50-70 k Hours -. Easy to be repaired in case of fault: this is a real “Voice Of Customer” accomplishment.

The most popular brands change their series after few years getting troubles on spare parts: we do it in the opposite way, providing a same platform drive over many years. Through the “DCS on Drive ONE” we also offer the remote assistance for any investigation.

All of that is the “ONE Platform” philosophy. All of that is the SAEL



**STEFANO GALVANINI, Technical manager - n.d.r. “The technical skilled SAEL Team allowed us to hit the target getting excellent results from the engineering up to the further steps as well. Providing good support and training too”.**



answer to the Modern Paper mill drives needs

## THE JOB AT SACI

The SACI PM 2 drive had some problems related to the old installed Inverter made by EEL as much as their unavailability on the market - phase out - and the many stops / faults occurred. Because of that Mr. Stefano Galvagnini - the Technical Manager - with his incredible demand and SAEL did start a flexible MC 2 renewing program: ergonomic, cost effective, by replacing the Main Boards only with the SAELs "ONE REBORN DRIVE". Thanks to this plan in combination with the SAEL REBORN technology all the existing power bridges as much as the "DC BUS" and the main electrical cabinet were re-used. All the Control Panels have been equipped by our "DOP" - Digital Operator Panel - one each motor, to a redundancy DCS driving manage-

ment. Our DCS - awarded as the best tool for Paper Mill - is on, of course. The DCS on Drive and on the operator panel located along the line, installed into the existing desks as well, have a Plug and Play function. The Value Selling Proposition is this: in case of any fault and substitution there are no programming or setting operations required. The device, when installed, automatically uploads the Software from the ONE board needed to restart. Another important Value Selling Point of the ONE DRIVE PLATFORM philosophy is the powerful "DCS on DRIVE". It stores and displays any Trend, Machine state, Variable or whatever else. A real engineering station capable to drive the machine with control functions too, by programming and setting every Drive, existing hardware or PLC. SACI had not this tool before. And immediately recognized the high powerful efficiency of that. All the old



material not used - but still running - are available for future spare parts in case, of course. During the start up it was kept an eye to the inverter



**SACI PAPER MILL - PM2 - RE-START WITHIN 7 DAYS ONLY HAVING THE DRIVE REBUILDING BY "REBORN Platform ONE**



power sections and their electrolytic capacitors usage - at 70% of their life time cycle already -. In case of future fault the maintenance people will replace the old sections with our "ONE DRIVE" getting the endless life time thanks to the film capacitors installed. Mr. Stefano Galvagnini - Technical Manager as much as historical point of reference and trust - has a deep knowledge of the paper mill DCS.

**His feedback was:**

"within the continuous efficiency improvement of our Machines Sael has invested to get the best and steady quality and production".

"The new ONE REBORN with the DCS on DRIVE SAEL gave us an increase of the production, efficiency and reliability, as much as an acknowledgment of any phenomenon happens to the machine. This makes an easier management of the production which gets us more competitive in the

market. the DCS on DRIVE SAEL has much more than expected to me: Its diagnostic system allows me to get any information up front avoiding all the meeting with my people on seeking the root causes of the problems. The IWSA - the DCS remote assistance - allows me a real time team work with SAEL people: especially during the start up phases".

"Another important SAELs Value Selling Point is their high skilled technicians with a huge contribution up front the engineering phases of the project as much as during the execution and the start up. More over the Training program to all my people which will give us more independence in the future - with a cost impact on faults eventually -".

**"Our Philosophy looks for an easier management of the machine to higher efficiency and results".**

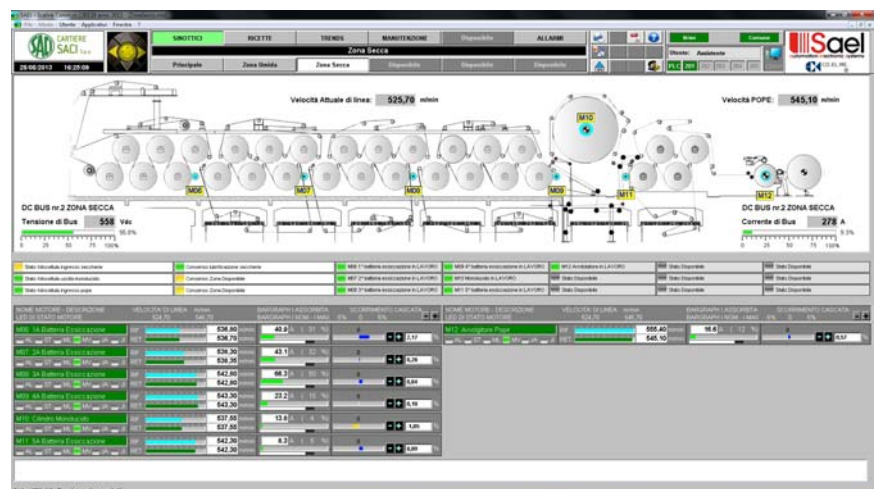
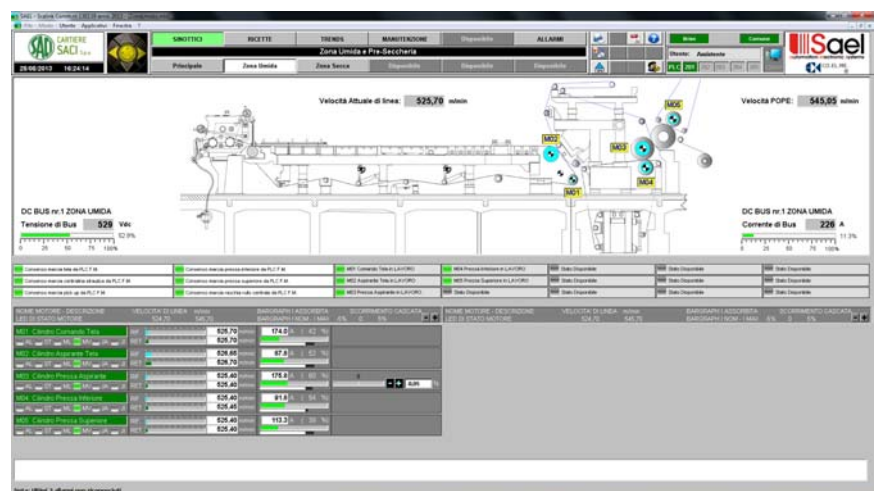
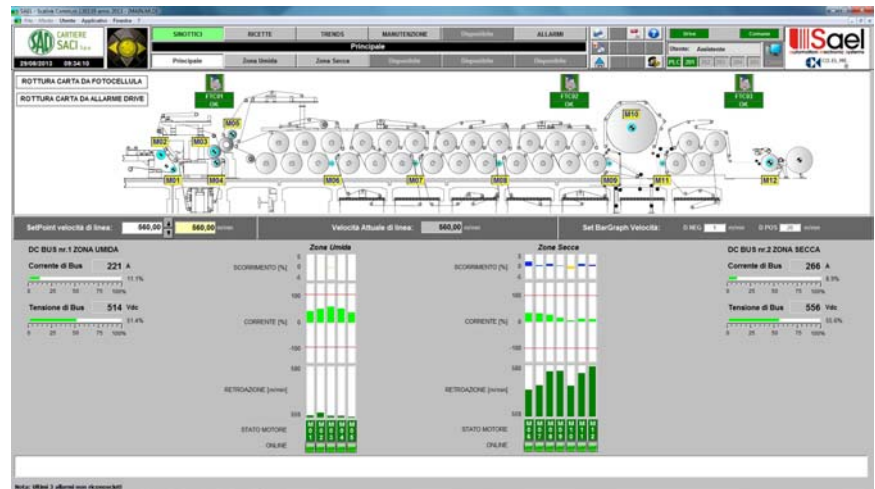


**MC 2, All the wirings of the revamping were made by SAEL technicians**



The DCS - virtually infinite without Tags - stores any system variable every second until the Hard Disk is full. By this DCS platform they can extend the controls to the PLC and keeping the variables stored for an unspecified time, as already made to Burgo Group at Sarego last year. Another beautiful feature is the management of the alarms with movies linked to, the related diagrams opening, the MAIL or SMS function eventually. After getting advised the maintenance people can quickly work on the problem occurred. Having the "Lite Time Client" - Standard on every our DCS - whoever can access to machine on line and manually restart the job. All the management normally made by the two PC on site, can be done from outside for a maximum time of two hours. Due that, and thanks to the SAEL 15 years availability life cycle drives, the customer SACI decided for us starting the jobs on MC 2. The Training are free of charge and mandatory - same philosophy applied to the past supplies as much as the systems, the DCS and the Inverters. This mandatory action built a strong Team relationship over the years. Within the Solution perspectives and sharing ideas nobody in the world is so linked to their customer as we are so far.

The commitment of SAEL on engineering products is a huge benefit for the customers, providing any insurance to the quick phase out of the Drives normally occurred by using standard world wide brands. Actually the Electronic market, as much as the PC or the related goods, is getting faster and faster phasing out quickly the former devices.

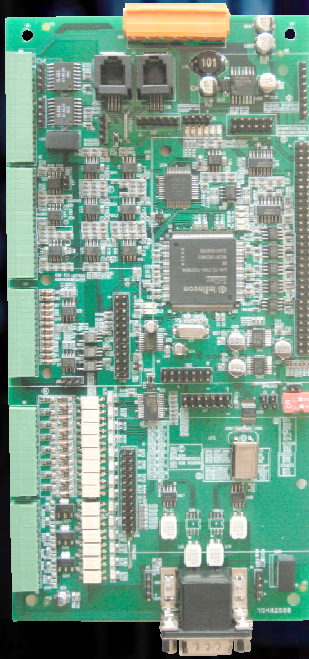


**The high performing "ONE DCS on DRIVE" control, incorporates the most efficient tools for Paper Mill application. The restart and the troubleshooting is the quick and easier ever.**

This is mandatory for the big awarded Companies. But not for SAEL. Our mission is "Customer First". Vice versa, SAEL has developed all the new products in the name of an

easy reparability - No full inverter substitution is required in case of fault -. This is a great benefit for the customers.

**ONE**, the same board for all drives



→ **INVERTER**  
→ **DC DRIVE**  
→ **BRUSHLESS**  
→ **CHOPPER**  
→ **REBORN**

## The “One Drive” Platform by SAEL

The new **“ONE DRIVE” technological platform** installed is revolutionary as much as innovative within the present scenario.

Against the drives market trend, and since 2011, SAEL uses a single board to drive all the Drives: AC; DC; Chopper; Brushless and Reborn - this last one is the device to replace all the DC drives -. Once again our customer has one board as spare part for all the system. The substitution can be done within 3 minutes only. ONE has a flash memory card where all the information are in. In case of fault the simple replacement of this card allows the restart: no programming, no parameters, nothing else. As far as the Inverter ONE series is concerned a huge plus comes from the Film Capacitors instead of the Electrolysis. This provides an endless life to the inverts against the normal 50 / 70 k hours.