



Solutions, technique and innovation: the power of SAEL.....

NEW INVESTMENT IN BURGO Group

**- TOLMEZZO Papermill -
Installation of the new sectional
drive in PM3**



by: **Paolo Andrighetti, BU paper**

Over the last three years of pandemic, Tolmezzo Paper Mill has invested on renewing the old Machine 3 Sectional Drive using the SAEL REEBORN System. From today on, this machine has a new life, with a very low impact on the cost of this electrical revamping.



Tolmezzo Plant

Founded in 1928 to produce cellulose, the Tolmezzo Papermill S.A. was bought in 1941 by Pirelli Group: the production began shortly thereafter.

In 1986 the Paper Mill was bought by Cartiere Burgo S.p.A. and from 2014 it is member of the Mosaico S.p.A. (a Company controlled by Burgo Group)

Today, the work model is “integrated”, likely: Natural special papers without woos (160.000 ton/year) and Cellulose (40.000 tons/year) used in the paper production process.

There are two Continuous Machines (MC):

- MC1 (360 cm wide size, 1.000 m/min max. speed), for food thin special papers (17-45 gsm);
- MC3 (455 cm wide size, 1.100 m/min max. speed), for graphic uses (60-170 gsm).

SAEL; the historical partner of the Paper Mill

Since the beginning SAEL uses its own drives to supply the system automations. There is a great feeling between the Paper Mill technical team and the Sael engineers, and this is a win-win situation, so far.

Sael constantly trains the Mosaico technicians on using its products: a very useful process for the operators. An open wide relationship.

Investments calibrated for M3 Continuous Machine and its technical evolution

Thanks to the SAEL “REEBORN ONE DRIVE” technology, the MC3 equipment, highly strategic for the entire Group, has been retrofitted re-using the existing Drives.

To reduce the global impact of the investment along the years, SAEL has subdivided into three Steps the job, upon demand of the Paper Mill Management.

The system architecture has been studied, offered, and agreed by the Group. It is based on a modular system (a standard for SAEL) to be upgraded over the entire retrofit process whenever planned. The result is a flexible system that can be modified and upgraded at any time. The first Step was made in 2021 – revamping of the 11 dc motors: from the 7th dryer to the Pope.

This year the upgrade involved all the areas: from the Sim Sizer to the Dryers and the addition of a new inverter for the paper carrying rolls and the Ropes.

The next year we will work on the remaining 8 motors of the wet zone, letting spaces for new important upgrades.

We also supplied two Redundant Stations with “DCS in Drive SAEL” for the supervisor, management, and control of the drives – the core of the investments made by the Paper Mill, so far -.

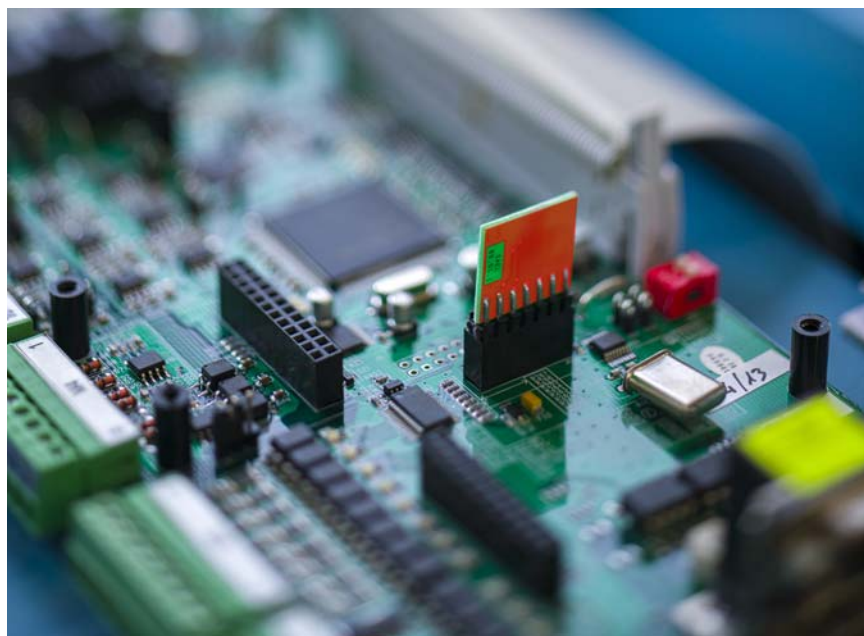


TOLMEZZO Plant - Reconstruction of MC1 Dry Zone with PLATFORM ONE DRIVE

Strenghts of the Platform ONE Drive system

Launched in 2011, the “ONE Drive” is an innovative technological platform, as much as the alternative to the most popular Drives available on the market. Since the 2011, against the market tendency, SAEL uses a unique control board who fits for all the applications: DC; AC; Chopper, Brushless and Reeborn (Reeborn is a system who saves the original power section of the existing DC Drives). It is by far the greatest solution having one single spare part for all the equipments.

Thanks to the EEPROM, in case of fault the replacement of the board can be easily made in 3 minutes: actually, the EEPROM supports the “Platform ONE Drive” and get stored all the parameters of the unit to be replaced. The operation can be easily handled by people without expertise. No informatic skills or PC are required.



The removable EEPROM is a must for any main ONE Board – Quick replacement without settings.

The ONE Drive inverter series, made for Paper Mill applications, are equipped by Film Capacitors vs. the Electrolytic normally mounted by the competitors: this allows to ensure a long life of the inverter vs. 60.000/ 70.000 hours of cycle. No

regeneration procedures are required whenever the drives are stocked.

Last, but not least, SAEL supports the customers by the remote control installed into the DCS in Drive ONE.



TOLMEZZO Plant - Reconstruction of MC1 Wet Zone with PLATFORM ONE DRIVE

Any problem occurred can be detected and quickly solved. The DNA of SAEL is to be Customer and Application focused. That's the successful key after over 35 years of practice in the automation field.

The Energy Save with Liquid Cooled Inverters

One of the last targets of SAEL was to hit the frontier of the SAVE ENERGY. In the last 4 years SAEL was the sole Company who pushed the Liquid Cooled solution in the Paper Mill application: Inverters Liquid Cooled, inside of electrical cabinets liquid cooled, as well. After the fourth MC

application supplied, SAEL is highly satisfied of all the investments made. The results in term of Efficiency and energy savings are above the expectations. Pushed by SACI-PM3 Paper Mill, that already got a liquid cooled MC machine, SAEL supplied its first Stock Preparation machine using this technology.

SAEL – Technology development for the Customer preservation



REEBORN on drive Ansaldo

The “Intelligent DRIVE” SAEL System, who uses specific inverters for Paper Mill application, allowed quick adaptation of the control system with implementations and modifications for cascade settings, not available before. The warrant offered by SAEL to the market self-explains its operative philosophy.



**Our DOP Touch operator panels:
7 or 12 “of the
PLATFORM ONE DRIVE
series; remotable and
easy to replace without
programming
procedures**



REEBORN PLATFORM ONE DRIVE – Electrical Cabinets Room, main view

VW WATER COOLED SERIES with Safety Torque Off



The “PLATFORM ONE DRIVE WATER” Inverter series, equipped by ONE card (a unique board who supports any AC or DC and REEBORN Drive). Film Capacitors for a, Inverter long life.

SAEL is the unique company in Europe who offers long life systems, confirming the availability of the spares parts for ever, no issues of continuous PC, Panels, PLC, Inverters and Boards changings. Another important plus of the SAEL “Intelligent Drive” AC or DC, is the availability of every single component as a spare part, saving a lot of money to the customers: in countertendency to the competitors, who continuously plays with the “phase out” product policy. In the end, there is the IWSA – Internet World Sael Assistance – included for any application: this tool allows the technicians to remotely support the application and any issue, eventually. It means that for each station equipped by a supervisor, it is possible to work on BIOS, digital boards, Software and Plc modification, and so on ... all in remote mode.

