



# ...art in rebuilding...

## *Another win ... Ermolli Paper Mill*

*Three Paper Machines drives and a Scalink DCS integration built in FOUR years. 50% of the users served by our Scalink platform – the Sael own, flexible and friendly user, platform which uses free commercial HW and communicate/relates with the other existing platforms of the paper mill.*

by: **Paolo Andrighetti SAEL srl**

After the wet zone machine 3 rebuilding at Ermolli, **Sael** has finished the drives and pulpers upgrade of the dry zone too. This was done by the ONE Drive Platform – with own flexible REBORN device as well as the “**DCS in Drive One**” which manages every single task of the PM drive.

Dr. Gilio Munaro personally pushed to get the three PM machines rebuilding done: Sael delivered the third machine, actually within 9 working days. Today, a sole and flexible **ONE DRIVE PLATFORM** manages all the drives and a REDUNDANT data acquisition system – Scalink

a partnership of COELME and SAEL - Beside the machine nr.3, we have done the pulpers automatization and the stock prep on 2016. Within Feb. 2017 we will provide the automation of the new Paper Mill investments like: 2 gas motors (3Mw each); 1 Turbine (3Mw); the new Boiler



**Machine 1 - POPE Zone – Rebuild on 2013 in two steps, “ONE Drive” PLATFORM SAEL**



**LONG LIFE “ONE Inverters” series. Exclusively made for Paper Mill Industry, with long life components, allows a quick and easy replacement in case of fault.**

(which will replace the old hydroelectric unit). On top of that the ENERGY SAVE campaign, started few years ago, is showing great results: identified the Plant macro areas to work on – our inverters will reduce the energy consumption -.

Just one spare part, the ONE board, and a DOP (Digital Operator Panel) for the whole Paper Mill components (AC; DC; REBORN) – 20years of availability and/or full compatible new versions -. From the very beginning, 30 years ago, we do provide the full compatibility vs the old modes.

The Ermolli plant, nearby the A23 Udine-Tarviso highway and S.S.13 “Pontebbana”, has an extension of 52.600sm – 22.000 covered -. This Paper Mill is a 24/24h production with three production lines. Thanks to modern and

sophisticated quality control systems, Versatility, Quality and Customer orientation are the Ermolli musts.

**The present lines:**

- PM1, rebuild on 2013 in two steps; the 2.240mm size and



**MC2 – POPE Zone – Rebuild on 2014, “ONE Drive” PLATFORM SAEL**

weight, is typically used for “special paper”. A surface special treatment allows either the soluble-forms application, or the coats with high solid content. A different treatment for each side is available too.

- PM2, rebuild on 2014; 2.100mm size and 18 to 35 gr/sm variable basis, is made for light papers typically used for: food and hygiene industry.

- PM3, rebuild on 2016 in two steps; 2.210mm size and 40 to 170 gr/sm has a “Size-Press” system for soluble-forms or natural pigments application. It also suitable for standard paper on high volume demand.

- The finished paper operations are made by machines with advanced technologies: beside the continuous cycle lines, there are two wetting machines, four hot super-calenders – heated by



high temperature steam – and four winders.

Cartiera Ermolli therefore wants to guarantee the perfect set-up (or preparation) of any type of paper in reels. Moreover, there are the automatic packaging systems for high quality transportation packages.

The continuous improvement and the high flexibility Paper Mill policy is the guide for new investments like the rebuilding of a Calander and a Wetter machine – electrical equipment included – on 2017. To increase the production maintaining the best quality, the automatization process will be renewed as well.

### The M3 steps at Ermolli

The PM3 Drive, where the implementation was done, involved many electrical cabinets located in different places: nr. 21 d.c. motors with EVI/BMB converters, driven by an



**MC3 – POPE Zone – Rebuild on 2016 in two steps by “ONE PLATFORM”, the flexible and powerful sectional drive system who never get old.**

analogical-digital cascade reference – the spare parts were no longer available -. Based on the scheduled stop/re-start of the line (8 days maximum), and after a careful technical analysis of the machine, we offered a two steps implementation. The first, done on Jan-2016, involved the wet zone update. The second, in Aug-2016, by adding the dry zone. This “two steps job” allowed to spread the investment impact too. The whole technical rebuilding gave back to the Paper Mill a full digital PM Drive: moreover, thanks to the DCS in Drive One,

all the machine operators can easily dive into the system. Actually, this last important point, pushed the management to speed up the dry zone implementations.

“Also Ermolli was committed to our classical machine renewing philosophy – n.d.r. Paolo Andrighetti / Paper B.U. Manager at SAEL – where, as a first step, we transform into digital the cascade ref by applying our REBORN to the existing drives. The management by PLC system, later on. Against the market trend of our competitors, our drives



**A section of the new cabinet for wet area of MC1 and the control panels realized by the paper mill.**





**“ONE PLATFORM” Drive tests at Ermolli. The easiest platform drivable by the paper mill operators.**

have been engineered to fulfil this technical philosophy: they exchange all the information like settings, speeds cascade refs, loop regulation and so on, without a cascade co-ordinator (PLC – microprocessor boards – DCS) - that any other manufacturer needs.

After the first step where all the main problems are fixed – n.d.r. Paolo Andrighetti – we move ahead by adding the Reborn

device to the electrical equipment, carefully restored in case.

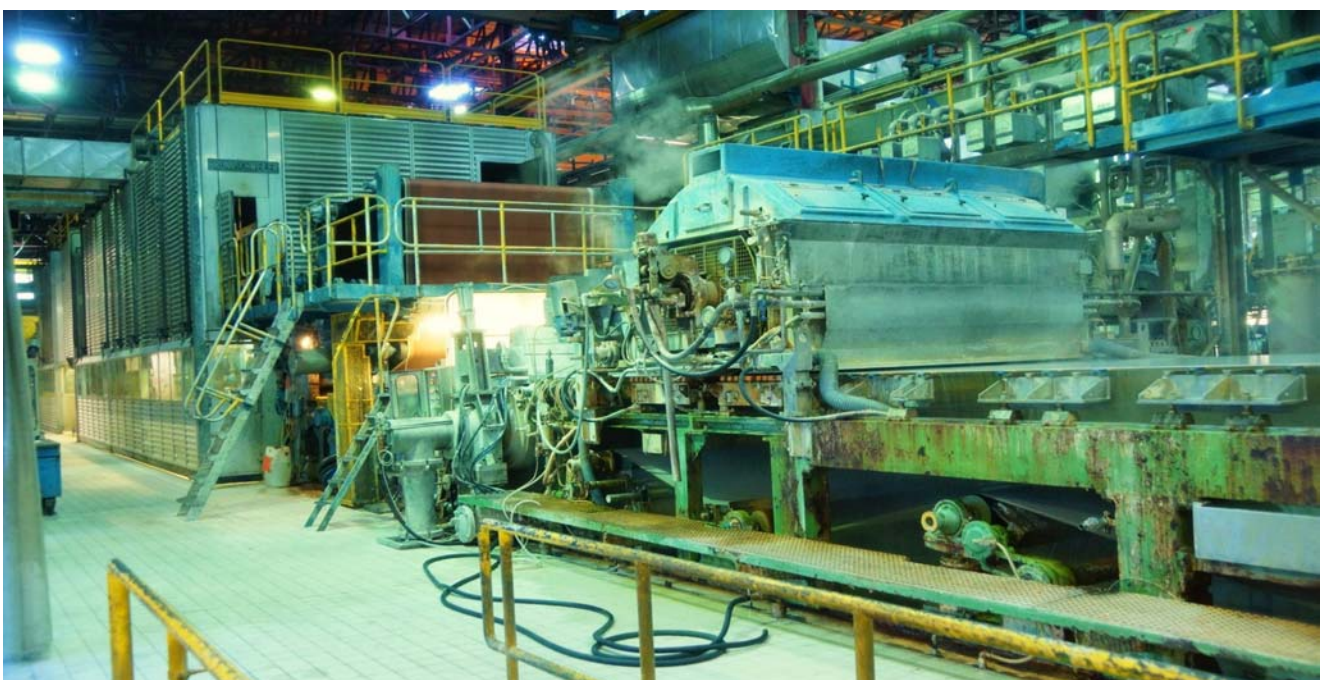
**SAELs “One Drive” Platform**

**HOW MANY TIMES YOU ASKED TO YOUR SELF ...**

- The Drive is on fault: how long it will take this time to re-start?
- The Drive diagnostic highlights “encoder fault”: I did change that

but the machine does not re-start. What happens?

- I do not understand where the problem is: Drive, PLC, Board, whatever else...
  - Every time I get a fault I must call a qualified technician who costs me a lot of money and waiting time...
  - It’s 4a.m., I’ve to change the drive and I’m not expert: I’m afraid to cause further problems...
  - Can I replace the Board alone? Will I remember how to set it up?
  - I did replace the drive but it does not work properly. What did I do wrong?
  - I’m blocked now. I’ve to call the assistance. How long will it take before they come to me?
  - I’ve to spend a lot of money for the spare parts of a five years old Drive...
- To get out of any doubt SAEL launched the new “ONE Drive”



**The wet area of MC3 of Cartiera Ermolli reconstructed in two steps in 2016, SAEL Platform ONE**





Platform on 2011 exclusively made for Paper Industry: a single, unique, board “ONE” fits any AC, DC, BLDC, CHOPPER and REBORN Drive. The ONE board is equipped with a powerful and removable memory card easily replaceable in case of drive fault.

The operation can be done by non-expertise personnel. Basically, no programming, settings or technical specific operations are required in case of fault. Actually, our ONE Platform is a simple auto diagnostic system at your

disposal. The “ONE Drive” Platform uses our last LONG LIFE new drives generation that guarantee a never-ending device. The inside components used are Long Life proof (eg. Film capacitors vs. traditional electrolytic with 50-70kHours life cycle), the hardware is engineered to be easily handled in case of maintenance. All over against the market trend that parallels the Drives to the Electro domestic devices: change instead of repair. After few years, you get a “new model” which requires new and different spare parts and so on: we are against this philosophy because we do care for our customers and we want to be cost effective! The “ONE Drive” Platform offers the IWSA system (remote web assistance).

