Euroelettra®
SISTEMI

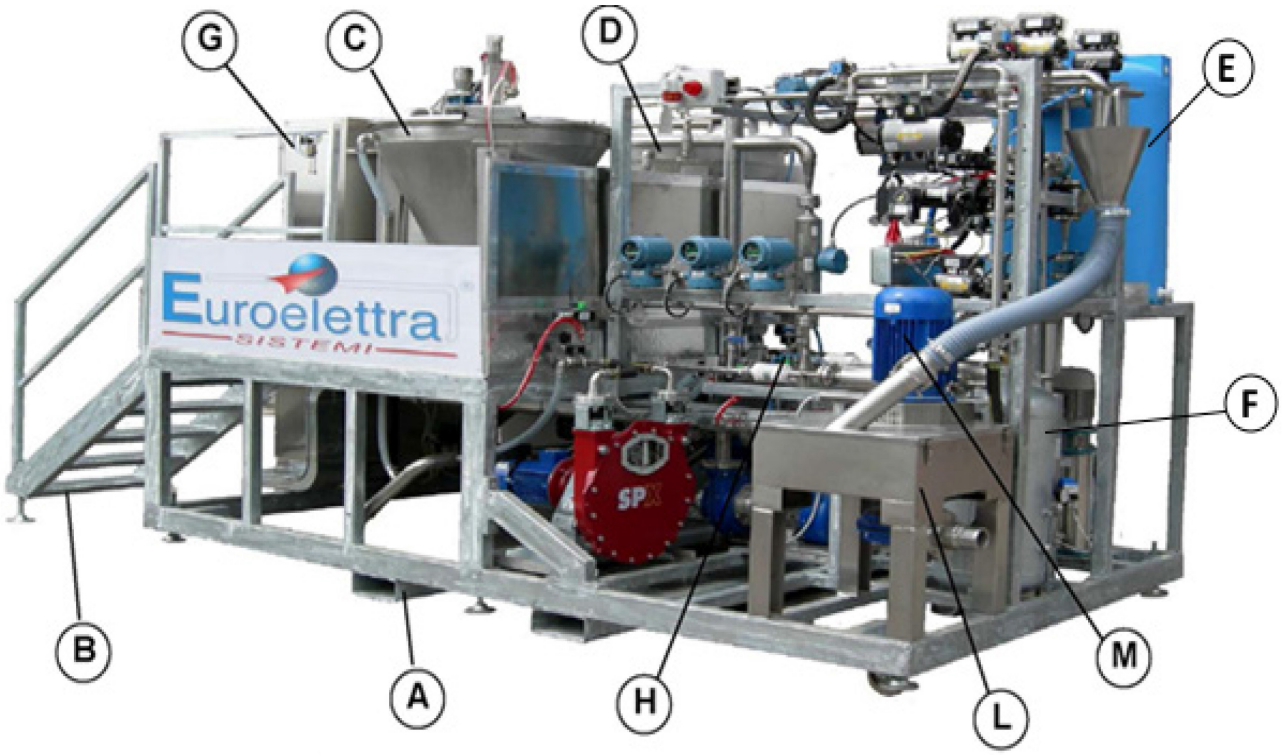
PRESENTS:

WET DOSING SLIP COLORATION SKID

1.1 TECHNICAL DESCRIPTION

The **SKID** presents one work station, managed by one single operator specifically trained to work in safety.
The machine is composed by the following parts:

A) n. 1 supporting frame
B) n. 1 staircase to access the filling area
C) n. 1 tank for the base product (slip)
D) n. 1/2 tank(s) for the color
E) n. 1 cistern for water
F) n. 1 tank for water
G) n. 1 electric panel including supervision system (PLC, software to manage the machine, switching actuators, etc.)
H) n. 1 mass circuit (density calculation)
I) n. 1 magnetic circuit (volume calculation)
L) n.1 mixing tank
M) n.1 relaunch pump for the end product

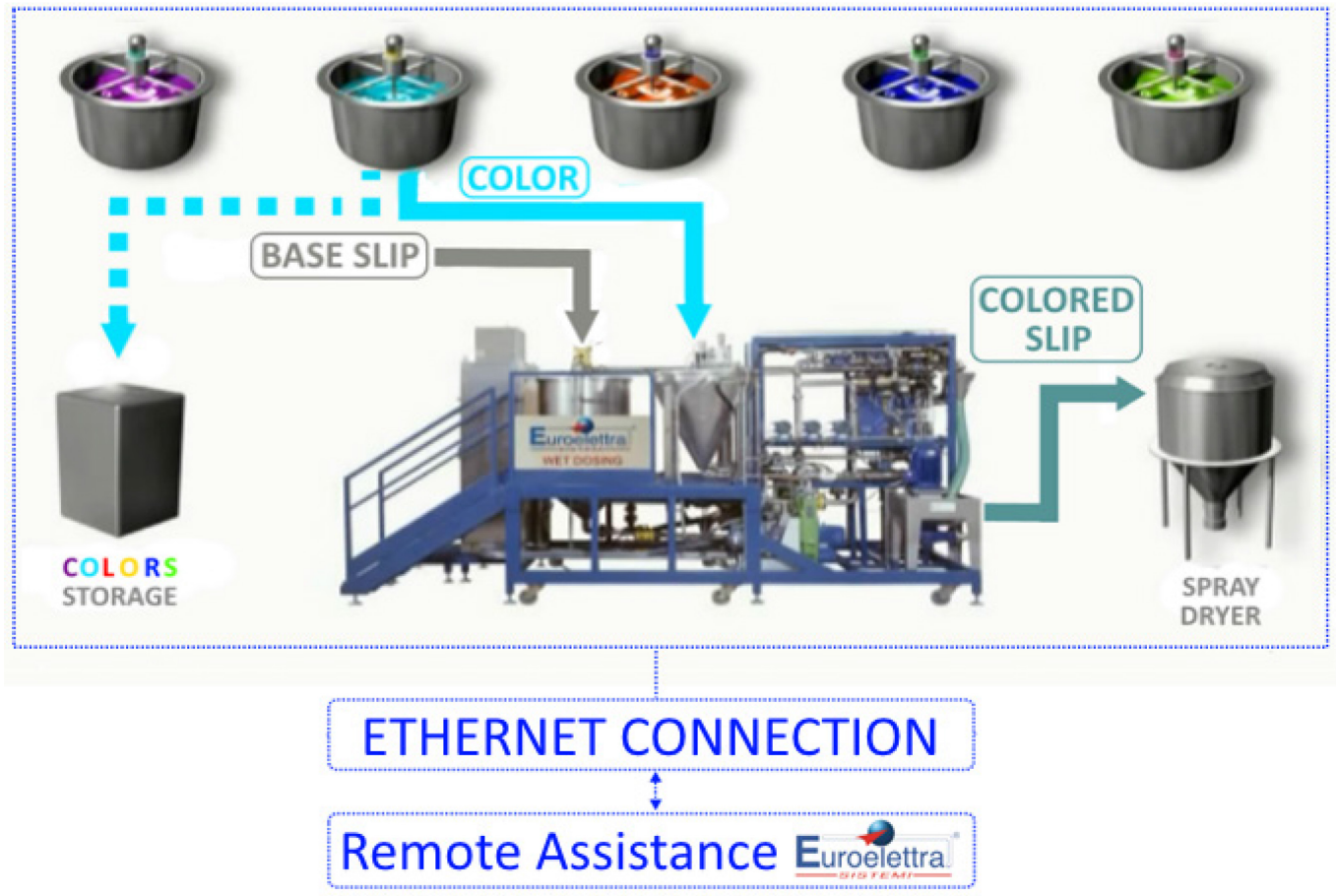


1.2 MACHINE CAPACITY AND OPERATION

The **SKID**'s production capacity is linked to the technical parameters (flow rate, quantity, etc.) set up by the operator.
The performance can be summarize like shown below:

- MASTER CIRCUIT - BASE SLIP (range: 7.000 – 23.000 Kg/hr)
- SLAVE CIRCUIT - COLOR A (range: 20 – 2.000 Kg/hr)
- SLAVE CIRCUIT - COLOR B (range: 20 – 2.000 Kg/hr)

The three circuits can measure the mass and the density continuously and with the maximum accuracy, with a precision of 3 numbers after the 0 (1 gram): the system can detect density variation (i.e. due to a storage tank change, or a different base/colors dilution, etc.) and promptly operate in real time on dosing parameters to maintain in any moment the percentage of the solid part (Kg) needed by the recipe, to guarantee a constant and repeatable production quality.



The machine and its functioning can be easily manage setting up in the recipe:

- Dry material percentage (Kg) needed by every circuit
- Specific weigh of the required material in the recipe for every circuit
- Total dry quantity (Kg) of the required recipe for the spray dryer

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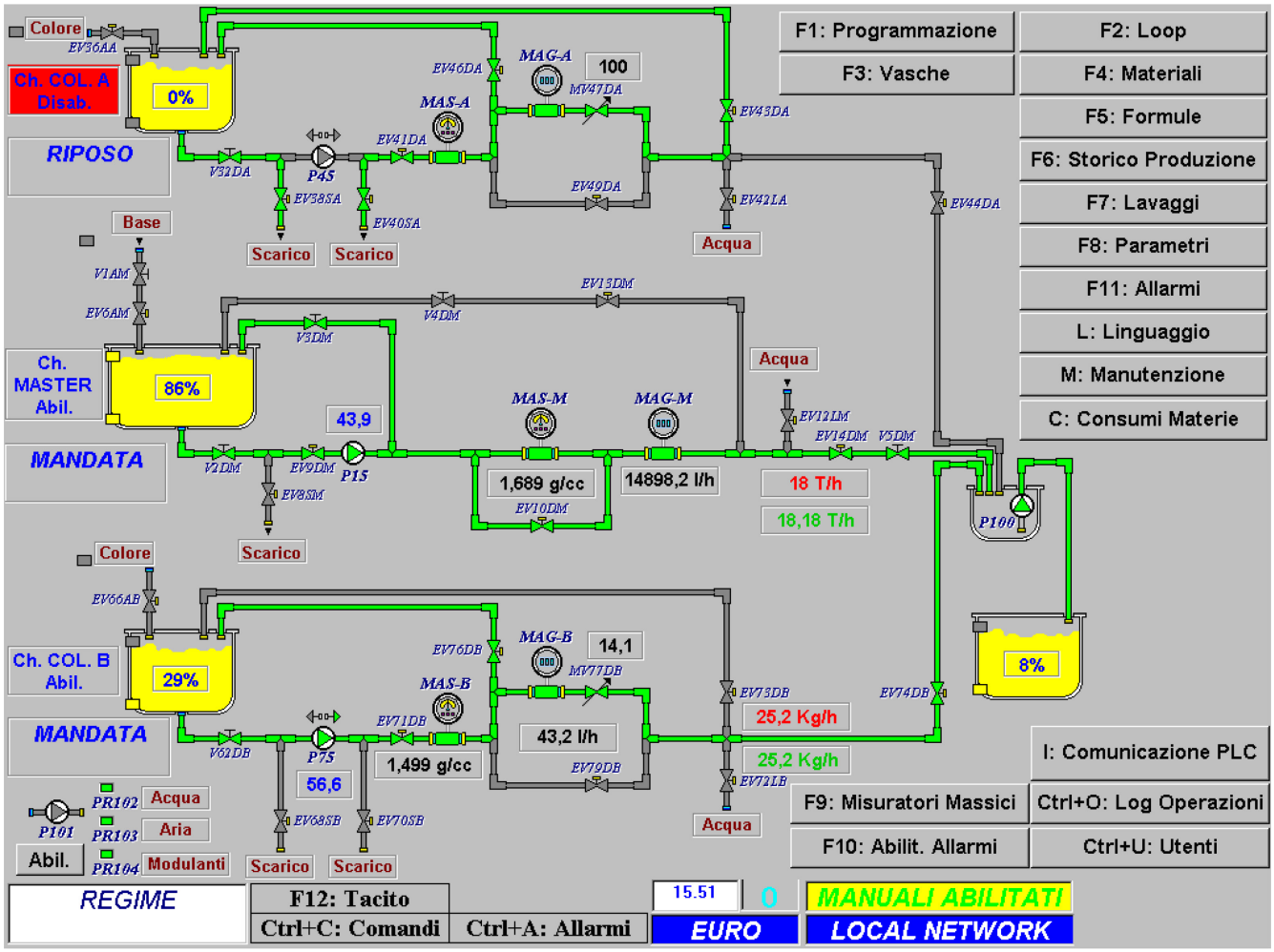


The SKID presents a total-automated management with a supervision that can manage both the standard pages of the system (machine, recipes, historical alarms, productions, etc.) and the end-of-production section, calculating the emptying of the tanks at the end of the batch selected. It is connected with automated washing procedures for the piping and the instrumentation, to guarantee a constant efficiency of the machine.

The Skid changes the concept of mixing; in fact, the mixing happens in continuum and with the desirable quantities of materials (Kg), avoiding to produce an amount linked with the quantities needed to be mixed into tanks (base + color), and then putting the output into storage tanks and finally wash them to prepare the following batch.

This system produces significant savings of:

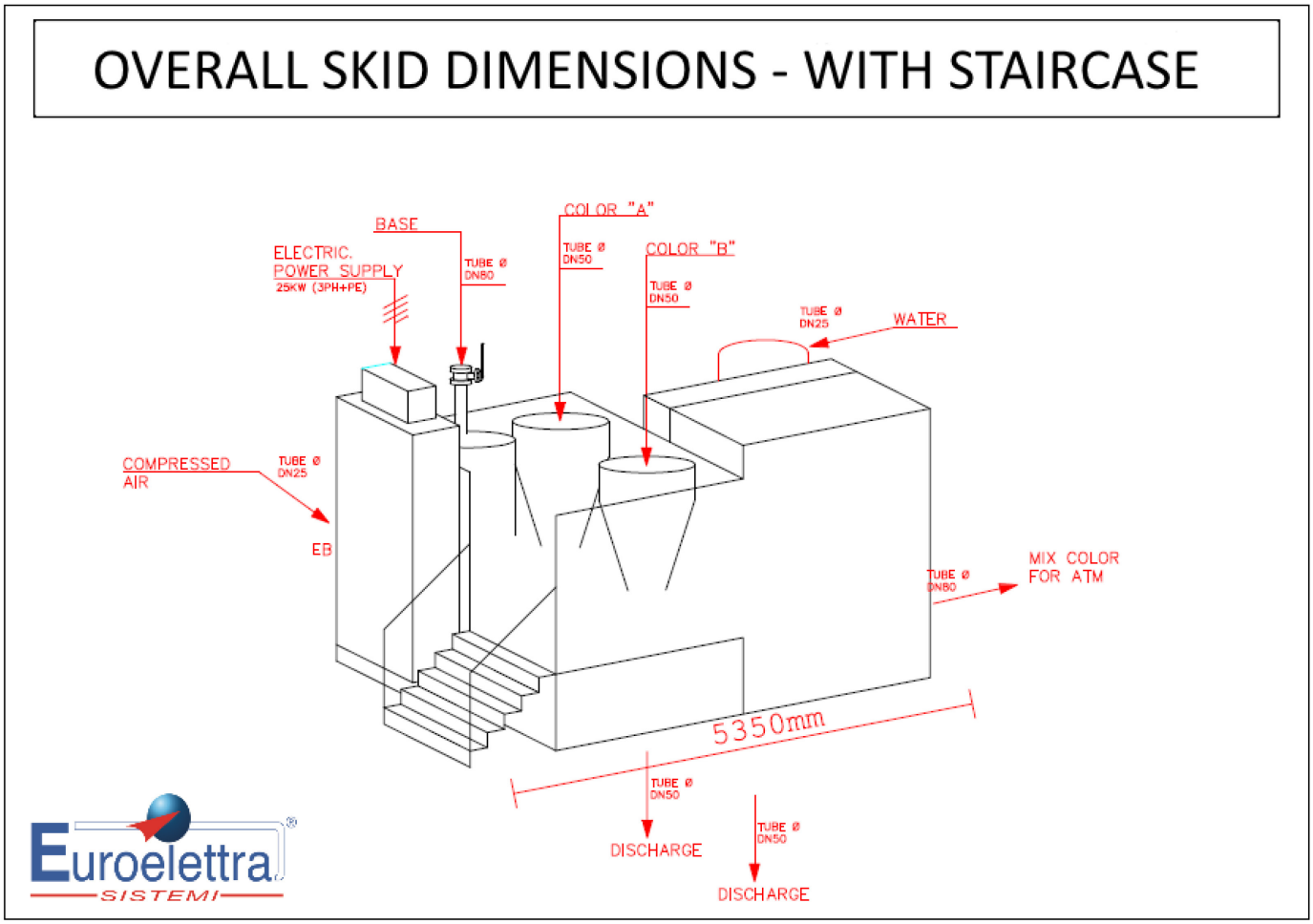
- ***Energy***
- ***Water***
- ***Waste depending on washing***
- ***Production Timing***

The return on investment happens on avarage between 10 and 14 months.

1.3 MACHINE SPECIFICATIONS

The machine presents small dimensions and it is assembled on wheels, so it can be easily moved inside the plant if necessary. Service tanks volumes and pipes itinerary are studied to minimize water quantities used for washing and to permit small batch production. The tanks don't present moving parts inside, to allow a perfect cleaning. The shaking of the products is possible thanks to a dynamic movement inside piping.

- **MACHINE BODY DIMENSIONS:** (single main elements):
  - **SKID** with complete configuration (with staircase):
    Height 2770 mm, Width 5350 mm, Depth 2400 mm



  - **SKID** "transport" configuration (staircase disassembled):
    Height 2770 mm, Width 4800 mm, Depth 2400 mm

❖ **CONNECTIONS:**

- Washing water piping
- Electrical alimentation 380V
- Compressed air piping
- Base slip piping (to be send through pump or falling tank)
- Color 1 piping (to be send through pump or falling tank)
- Color 2 piping (to be send through pump or falling tank)
- Washing emptying piping

❖ **WEIGHT**:

- **Overall mass:** Approximately 3 Tons.

❖ **POWER SOURCES**:

- **Water supply** (with delivery network water):
  4 bar / washing cycle (SKID with water tank and reservoir)
  5,5 bar / washing cycle (SKID without water tank and reservoir)
- **Pneumatic supply**:
  The pneumatic plant of the customer must guarantee the continuous supply of compressed dry air at the pressure of 6 bar.
  Minimum consumption: 5,5 NL / cycle
- **Electrical supply**:
  400 V three-phase + neutral + ground
- **Current drawn:** 61 A
- **Installed/used power:** 25 Kw (circa)
- **Frequency:** 50 Hz
- **Auxiliary controls electrical supply:** 220 V. A.C., 110 V. A.C., 24 V. D.C.
- **Level of protection:** IP55

❖ **PRODUCT TECHNICAL SPECIFICATIONS**:

- **Base slip flow:** 23.000 l/hr
- **Base slip density:** From 1.5 to 1.8 kg/l
- **Color density:** From 1.2 to 2 kg/l
- **Sifted slip and color dimension:** at least 200 µm