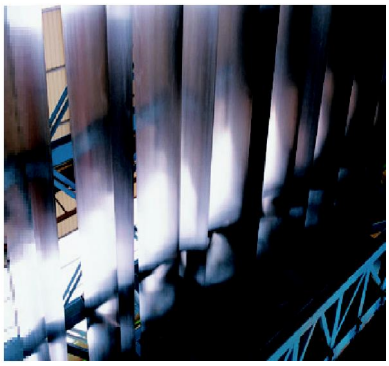
CASE STUDY

Rectifiers Control Upgrading



Aplications: Electrogalvanised, electrolytic tinning, electrolytic cleaning and any electrolytic processes in general.

Ingeteam, with a wide experience in power and control systems, since 1990, has installed a wide range of rectifiers for electrolytic processes from 4kA to 25kA with voltages up to 65Vdc.

Problematic

These equipments although robust, nowadays several points highlight to be improved:

- ∑ Difference between the lifecycle of power and control components.
- ∑ Obsolescence of the control and the auxiliaries.
- ∑ Lack of integration with new generation PLCs.
- ∑ Loss of accuracy in measurement and control.

Solution

Ingeteam proposes an integral solution consisting of the replacement of the old fashion control and regulation unit , and their associated auxiliaries, in rectifiers of high current level based on thyristors.

This set is integrated inside the existing one, therefore remains the cabinet, all the power units and power wiring.

This solution consists of the supply of last generation control system, of a renowed brand, the updating of the documentation, and all work required until the installation and commissioning are completed.

Benefits

- ∑ Very cost effective solution.
- ∑ Quality.
- ∑ Energy efficiency.
- ∑ Material saving.
- ∑ Availability.
- ∑ Obsolescence.
- ∑ Lifetime.
- ∑ Maintenance.
- ∑ Production.
- ∑ Fast payback.

Rectifiers for electrolysis upgrading

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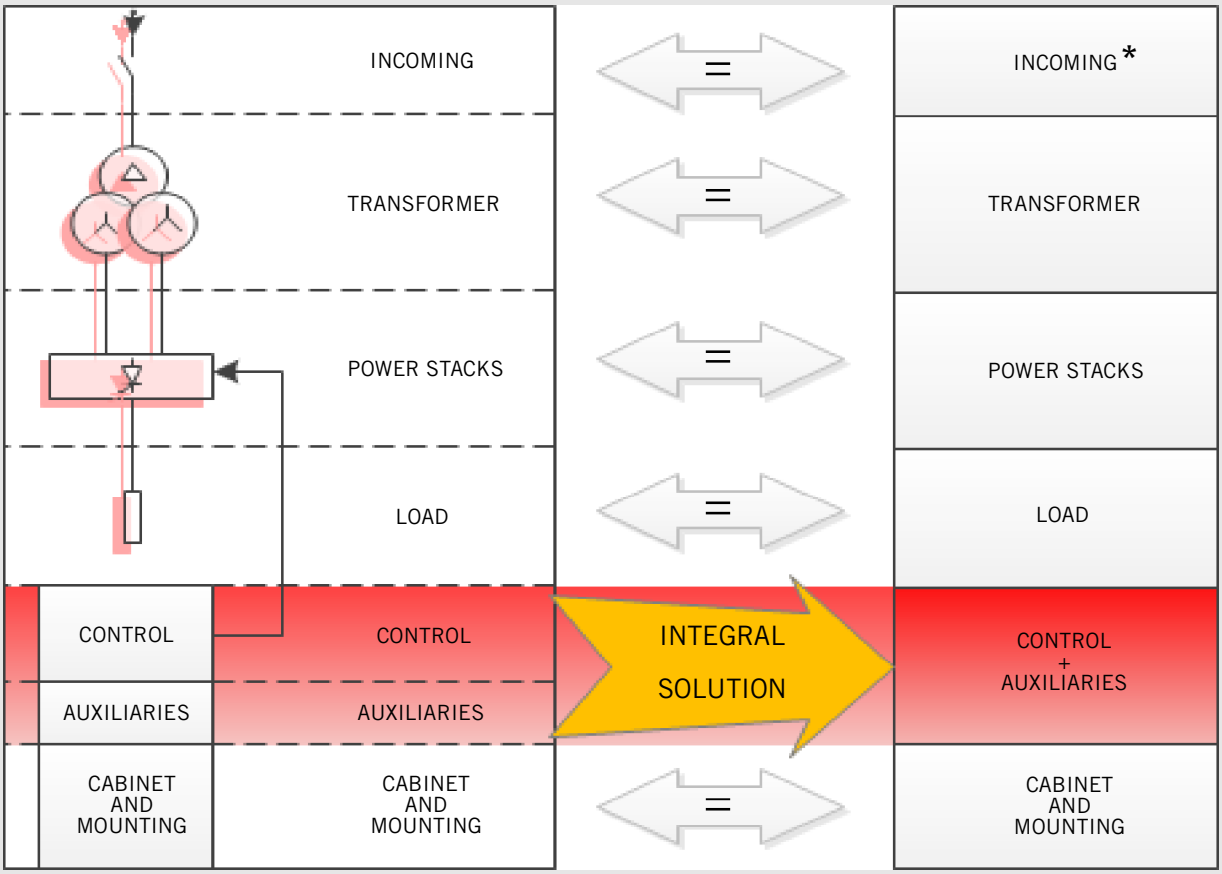
SOLUTION



* Optional change

TECHNICAL FEATURES

Input Voltage:	220 . . 1200 Vac, 50-60 Hz.
Output Voltage:	0 . . 1160 Vdc. (full scale depending on the application)
Output current:	100 . . 30.000 Adc. (full scale depending on the application)
Control:	2Q / 4Q up to four parallel bridges. Primary and secondary control in multiple configurations. (M3, 2xM3, M6, B6,...)
Current regulator:	3,3 / 2,77 ms (50/60Hz), Static accuracy ±1% of setpoint.

Comunication:	Multiple fieldbuses: Profibus DP, Modbus, Interbus-S, ControlNet, DeviceNet, ProfiNet, Ethernet TCP-IP, etc.
Operation temperature:	0-55ʃC.
Protection:	IP00.
Standards:	EN/IEC
Assembly:	Control and auxiliaries prewired on the mounting plate.

Possibility of signals logging by means of a IBA FDA System.

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