

## AUDIT LINES

### Powder and liquid technical analysis



Inscribed in a technical support program for our customers using SAMES KREMLIN equipment in electrostatic powdering and painting, the audit line approach is designed to help you optimize and control your production process.

Our network of SAMES KREMLIN experts is continuously trained and qualified to provide our customers with technical expertise on powder or liquid installations in which our equipment is integrated. The overall environment of your production line will be taken into account in this technical survey.

Line audit visits allow:

- **Identify critical points** that may affect the reliability or mechanical integrity of the SAMES KREMLIN equipment;
- **Identify and contain** any changes of the system from its original operating;
- Identify **all wear parts** and **first emergency parts** necessary for the continuity of your production;
- Develop a **Preventive Maintenance Plan\*** (P.M.P.) personalized and adapted to your production environment;
- Provide on site **technical advice** appropriate to the situation and **define training** allowing a professionalisation of your operating staff;
- **Identify corrective actions** and their degree of urgency.

Line audit visits are scheduled in accordance with your production so as not to disrupt it. The audit of lines is above all a technical assistance.

To allow you to **maintain sustainable technical performance** of your production equipment in an industrial environment constantly changing and **benefit from our expertise over time**, SAMES KREMLIN also provides preventive maintenance contracts..

*(\*) **Preventive Maintenance Plan (P.M.P.):** Issued from SAMES KREMLIN technical instructions, the Preventive Maintenance Plan identifies for each subassembly constituting a specific installation, operations monitoring and verification to achieve depending an accurate periodicity.*

## What controls do we realise on your facilities?

### Proposed technical services

#### We verify ...

manual and automatic paint atomisers (*new and old generation*) inspection the following points:

- general condition of the device;
- wear and cleanliness of bell cups;
- sealing of quick disconnect plate and condition of O-rings;
- injector fouling;
- presence of paint return in the air chambers of the turbines;
- sealing of pneumatic, paint and solvent connections;
- Spraying parameters (*current consumption, high voltage, fault history and safety parameters on high voltage generator GNM200*).

#### We control ...

manual and automatic powder projectors (*new and old generation*) and visually perform the following checkpoints:

- • general condition of the device;
- fouling of high-voltage nozzles and contact points;
- wear of the nozzles and deflectors;
- status of the electrical connection;
- sealing of pneumatic and powder connections;
- wear of powder pipes;
- spraying parameters (*current consumption, high voltage clipping, injection and dilution values*);
- the stroke of the projectors and the covering of the parts.

#### We share with you our experience!

We found that *in 95% of the cases*, the internal preventive maintenance of the robots (reciprocators) was not carried out.

During a production shutdown, we propose to open the covers to check the mechanical components of the RFV robots, the mechanical adjustment and to check the following points:

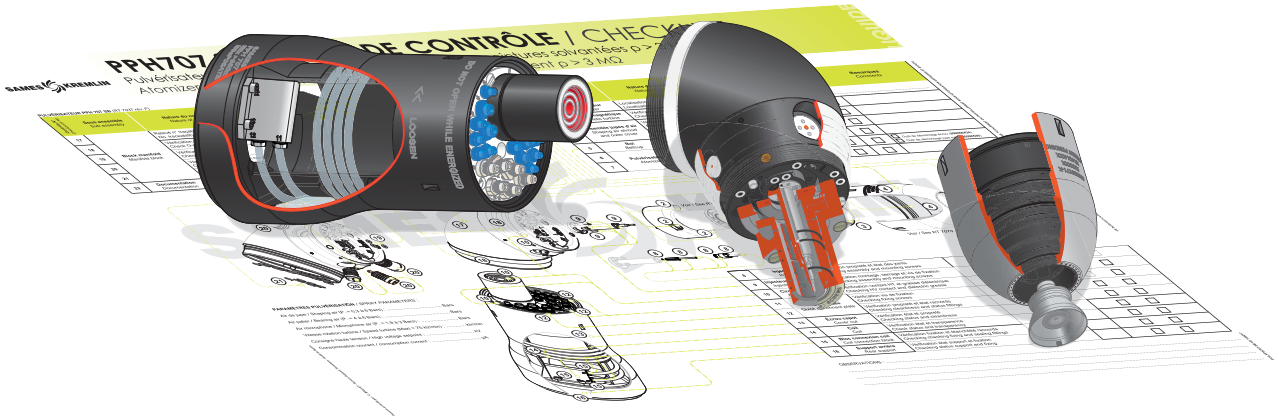
- the main and secondary chain tension;
- wear of the upper wheel gear and motor gear;
- lubrication, seizing and wear of chains;
- Load balancing;
- the mechanical position of the median stroke ;
- mechanical clearance of the trolley and counterweight rollers;
- status of connections;
- grounding of the frame and the equipment potentiality of the tubular structures.

#### We will follow with you ...

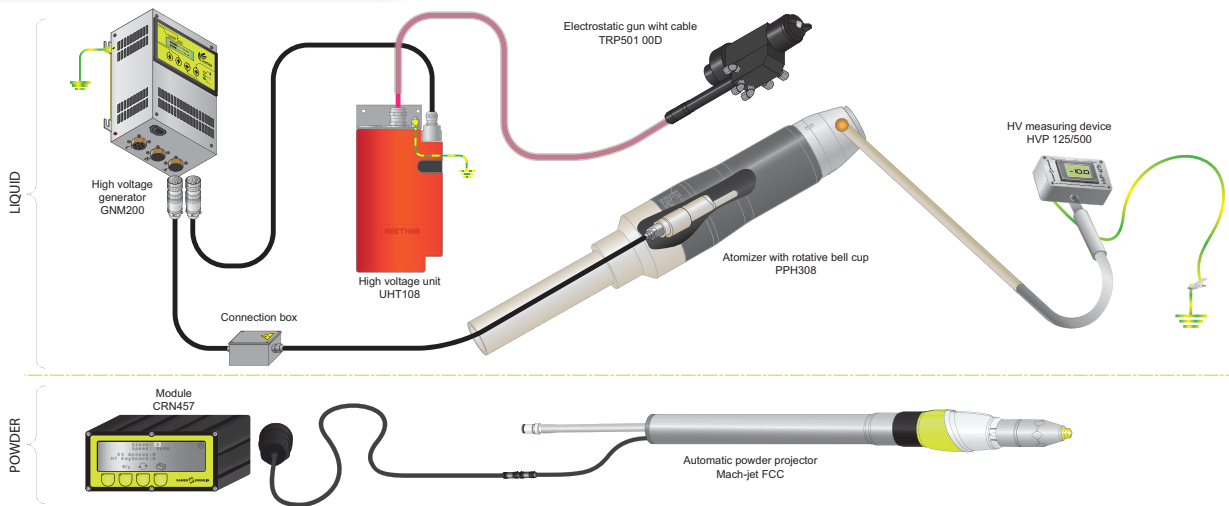
your daily production in the presence of the drivers of line to analyze together the possible problems encountered and offer you **solutions for improvement and optimization of performance**.

These visual controls can be supplemented if necessary by measurements of earth continuity between the conveyor and the parts to be painted, high-voltage measurements and control of the airflow in the cabin using **regularly calibrated equipment**.

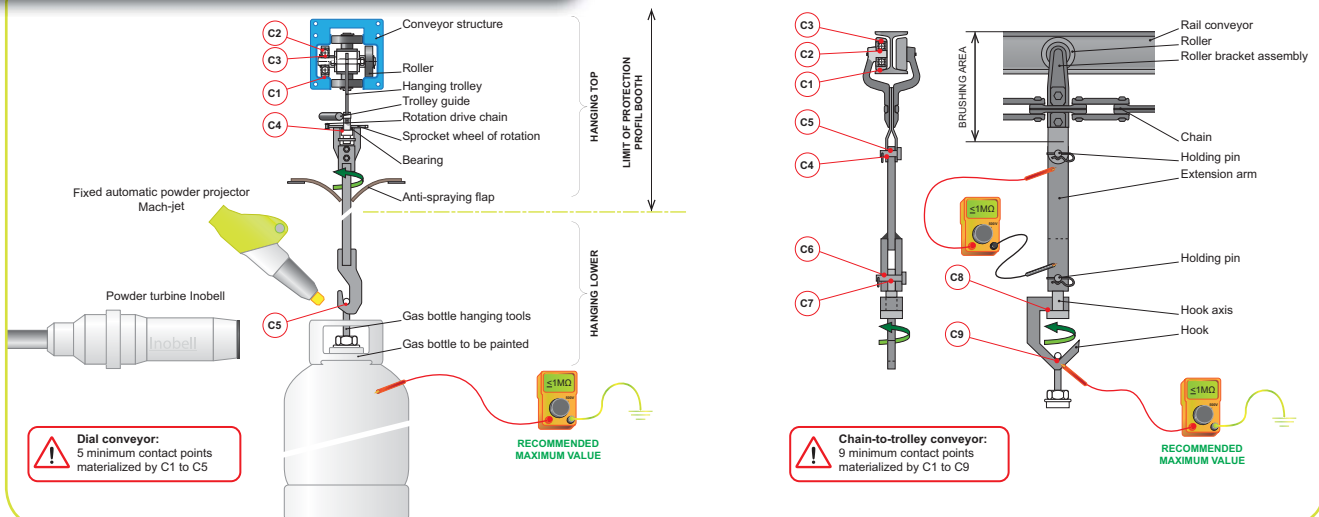
**Expertise of equipment**



**High voltage measurement**



**Grounding continuity measurement**



**Price scale of audit services.**

Price grid by geographical area

Geographical area	Mission proposée	Number of days	Price (HT)	Additional day (in € HT)
France / Spain / Italy / Belgium	Day(s) of audit of line in daytime (8 am to 6 pm, excluding weekend and public holiday) including travel, hotel and restaurant expenses.	1	1.500	750
Europe / Germany / Africa		2	2.733	750
Russia		3	3.567	750
India / Turkey / Iran / Qatar / Jordan		3	4.165	750
Asia		3	5.545	750
Central and North America		3	4.750	750
South America		3	5.805	750

