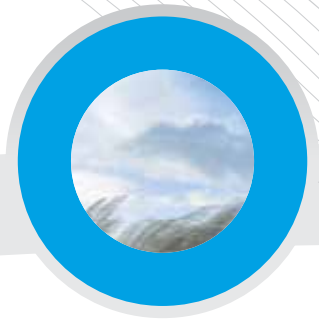




CMI ENVIRONMENT

AIR & GAS



Expert in the treatment of industrial chemical pollution:
harmful & corrosive gases in SURFACE TREATMENT

CMI Environment makes available to you the highest performing technologies for **controlling gaseous pollutants** from your processes in **numerous applications**, such as:



ELECTROPLATING
(AUTOMOTIVE, MEDICAL)



METALLURGY



ELECTRONICS



HOT DIP GALVANISATION



HARD CHROMIUM COATING



AERONAUTICS

The chemical and electro-chemical attacks on plastic and metal surfaces modify the properties of the treated parts, and also generate different types of gaseous pollution: our job is **to define and set up the optimal treatment solution** in line with your requirements and those of the regulations in force.

Thanks to its **know-how** and **technological skills**, CMI Environment helps to:

- Protect the operators on site
- Control your gaseous rejects
- Preserve your working environment: buildings and equipment
- Enhance your image among local residents and clients

AUDIT

TREATMENT
SOLUTION DESIGN

MANUFACTURE

INSTALLATION

COMMISSIONING

MAINTENANCE
& AFTER-SALES
SERVICING



EXAMPLE OF A RECURRENT CHALLENGE IN ELECTROPLATING FOR THE AERONAUTICS / AUTOMOTIVE SECTOR

- Treatment of vapours and aerosols from soaking baths (degreasing, sweating, polishing, flowing, passivation, deposits, conversion, etc.)
- Ambient temperatures up to 80°C
- Pollutants: HF, HNO₃, NO_x, HCl, NaOH, Cr(III), Cr(VI), CN...

EXAMPLE OF A TYPICAL SOLUTION



CLIENT'S PROCESS: SURFACE TREATMENT FOR THE MANUFACTURE OF HELICOPTER PARTS (FRANCE)

- Pollutants: Chromium and alkaline acids emitted by the bichromate plugging, degreasing, sulpho-chromic aluminium pickling, sulpho-nitro-ferric (SNF₃) bath, and anodic chromic and sulphuric oxidation baths
- Airflow: 27 000 m³/h at 50°C

OUR SOLUTION

- Droplets separator with blades and ducting elements
- Spraying gas scrubber with automatic regulation of the washing solution, made up of sodium water

PERFORMANCE:

- > 99% ON THE CHROMIUM
- > 90% ON THE ALKALINE

EXAMPLE OF RECURRENT CHALLENGE IN ELECTRONICS

- Treatment of gas arising from attack processes and deposits on electronic parts (vacuum extraction on machines and clean rooms...)
- Pollutants: HF, HNO₃, NO_x, HCl, NH₃, SiF₄

EXAMPLE OF A TYPICAL SOLUTION



CLIENT'S PROCESS: CHEMICAL ATTACKS FOR THE MANUFACTURE OF PHOTOVOLTAIC CELLS (SICILY)

- Pollutants:
 - HF : 250 mg/m³
 - NO_x : 150 mg/m³
 - CO₂ : 670 mg/m³
 - SiF₄ : 354 mg/m³
- Airflow: 69 000 m³/h per line (x2)
- Temperature: 130°C

OUR SOLUTION

- Quench Venturi to manage dust and temperature
- Spraying and packing scrubbers with automatic pH regulation
- Network pipes and radial droplet separators

PERFORMANCE: > 98%