

Success case

in the metal-mechanical stamping industry



Casting and metallic stamping factory.



Santena (Piedmont) Italy.



15m³/day of industrial wastewater as waste from the process of metal lubrication and washing system for casting and stamping.



3 months

Customer needs

- Waste water treatment with high loads of toxic and corrosive pollutants, as a result of the smelting and stamping of metals.
- Reduction of the high concentration of oils and fats that exceed 3,000 mg / l.
- Decrease in Chemical Oxygen Demand (COD) that exceeds 25,000 mg / l.
- High cost reduction of such complex wastewater treatment services, amounting to more than € 120 / m³ for the removal and elimination of pollutants.

The solution

Direct application of the AMAPEX system as it consists of treating contaminated water by passing it through retention tanks, applying a solution that contains a mixture of bacteria and nutrients, specifically designed for each client.

The bacteria are activated very quickly and efficiently, metabolizing especially the contaminating compounds present in the water (oils, fats, surfactants and metals).

For the activation of bacteria, an intelligent unit has been designed that, reading the parameters of the waters to be treated, activates the biological mixture to provide it with optimized activity.

Results

- More than 56% COD reduction.
- 50% decrease in the oils and fats contained.
- The proposed treatment system represents less than 50% of the cost of the current treatment.
- It allows treatment at the client's headquarters without the need to use the external services of a waste manager.

Applications

This AMAPEX solution is also successfully applied in the hardware and technical metal parts production industries, which use large amounts of water and oils for cooling and lubricating the process.

