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Plasma Torch



PRINCIPLE :

The **PLASMA TORCH** system is different from the current low pressure systems. With such a system, the treatment cycle consists in the generation of a vacuum, the injection of a gas, the generation of an electrical field of variable duration, then a re-pressurised state and the gas exhaustion followed by the extraction treated of the parts

The PLASMA TORCH operates at atmospheric pressure:

Inside a chamber a plasma is generated through a high voltage discharge. Through the electrical discharge a clean air flow, or a mixture of air with specific gases is injected.

The flow of the air through the electrical discharge causes the separation of the majority of the plasmageneous radicals. The radicals react over the surface under treatment through a nozzle similar to a torch.

UTILIZATION :

The opening of the nozzle retains certain elements of the plasma and also it determines the shape of the plasmageneous discharge. Therefore this system allows the treatment non conductive plastic parts as well as conductive plastic parts, such as carbon loaded materials. In addition, it is possible to treat metallic parts.

The temperature of the discharge, contrary to other Corona systems or Plasma Tunnel, is relatively high (approximately 500°C in its centre). This condition, in addition to the treatment of the surfaces, also cleans polluted surfaces, or the surfaces covered with grease or silicone.

APPLICATIONS :

- ? Sealed beams for the automobile industry
- ? Sealing of lids, or protection strips for the food industry.
- ? Treatment and cleaning of metallic surfaces before gluing, etc.

Considering the different surface treatment systems available, the **PLASMA TORCH** is somewhat related to flaming, because of the physical and chemical reaction, which often treats at more than 72 mN/m.

Compared to the other low pressure plasma systems the plasma torch reacts with the same characteristics and may be easily integrated in the production lines.