

Inflight Plasma Waste Destruction

Tottenham Plant

front view

Tottenham Plant

rear view

Plant Schematic

PLASCONÂ® is

a continuous, automated, electric-arc plasma process that can be used to destroy any gaseous or liquid compound. This is an in-flight process in where waste is injected directly into the plasma torch.

There are several configurations of plasma based waste destruction processes available, however, the in-flight PLASCONÂ® process offers a number of critical advantages as follows:

- All of the waste is subjected to the highest possible temperatures
- More efficient use of the plasma energy is achieved because there is no large thermal mass (chamber) to heat
- The entire plasma torch, reaction chamber and scrubber system can be kept to the footprint of a 20 foot shipping container
- The system is inherently very safe
- The process doesn't produce a "melt" into which solid, and often toxic, waste could otherwise be mixed
- No toxic off-gas is produced, eliminating the need for down stream processing (often by inappropriate incineration/combustion systems)
- Because the process doesn't rely on combustion, the "fuel value" of the feed is of no relevance
- The process becomes increasingly cost effective as the concentration of the hazardous/toxic component in the feed increases

The throughput rate is dependent on a number of factors:

- Chemical composition of the waste
- Contamination, eg particulate and inorganic levels
- Physical properties of the waste, i.e. liquid, gas, viscosity, etc
- Residual discharge limits

For further information on the above, refer to the case studies.