

## **What's thermal spray?**

In most thermal spray techniques, thermal and energy source, usually combustion gases or plasma, heat the spray materials to molten or semi-molten state and propelled them onto a substrate to deposit coatings.

The coating material may be in powder, rod or wire form. The Thermal Spray gun uses plasma arc, combustible gases or an electric arc to generate the heat necessary to melt the coating material. The material changes to a plastic or molten state when heated and is accelerated by process gases. The acceleration of the molten material produces a confined stream of particles that the process gases transfer to the substrate. The particles strike the substrate, flatten upon impact, and form thin platelets that bond to the substrate and to each other. The particles build up and cool into a lamellar structure that forms a coating.