



HI-ALLOY

COLD SPRAY POWDER TORCH

DESCRIPTION: This torch is used to apply the Hi-Alloy “Cold Spray” metal alloy spray powders. It is a triangular shaped unit. The torch butt and tip make the base of the triangle. The handle grip makes the back of the triangle. At the top is the powder hopper/dispensing assembly. A gravity fed powder drop tube makes the front of the triangle.

OPERATIONAL CHARACTERISTICS: A trigger mechanism in the powder dispensing assembly releases the powder into the drop tube, the powder falls through the tube and drops directly into the flame, the flame melts the powder and the gas pressure propels it onto the work piece. The molten powder splatters onto the preheated work piece using the irregularities of the pre-machined/roughened surface to aid in the bonding process.

PROCEDURES: There are two distinctly different groups of powders which may be applied using this torch; “Two Step” group and the “One Step” group. The following 4 pages describe the application processes for both groups. Please read and follow the application process instructions carefully.

POWDERS: The pages following the application processes provide details on the variety of different “Cold Process” metal alloy spray powders we have available.