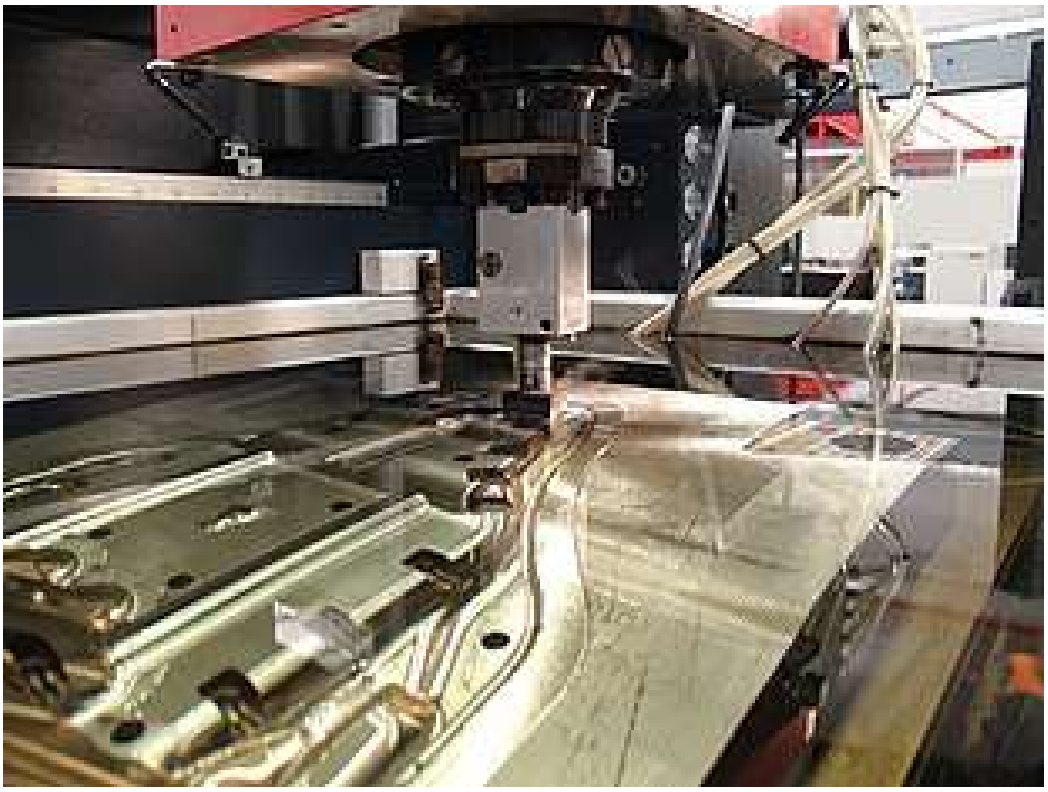
ELECTRICAL DISCHARGE MACHINING (EDM)

How does CNC EDM work?

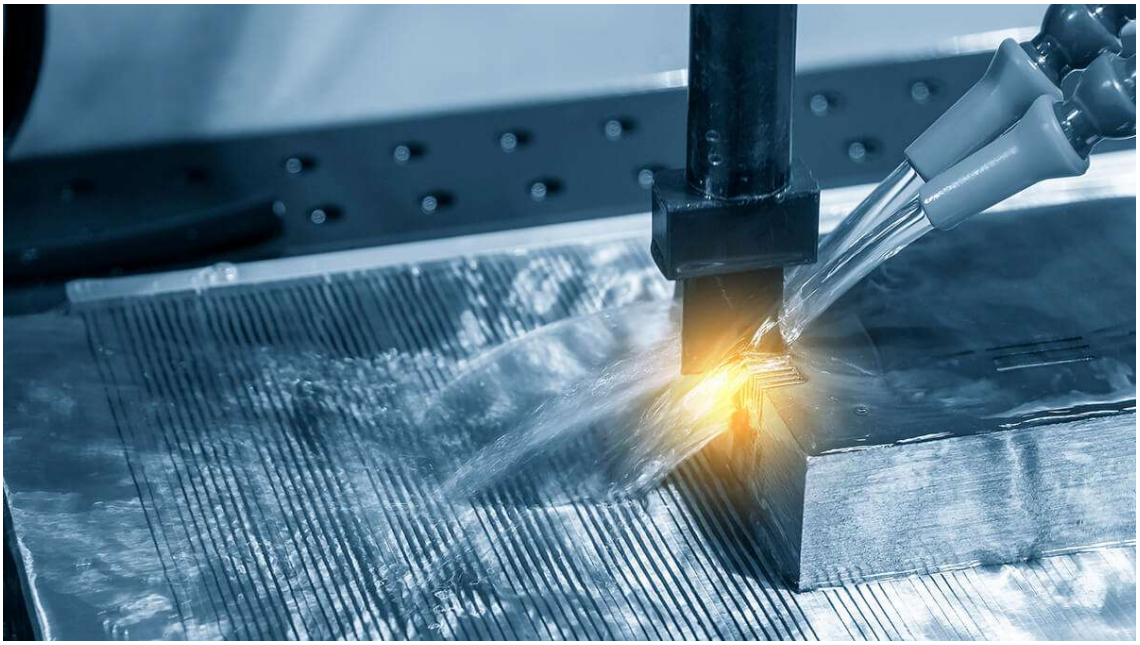
Wire EDM machining works by **creating an electrical discharge between the wire or the electrode and the work piece**. As the spark jumps across the gap, material is then removed from the work piece and the electrode.

Electrical discharge machining (**EDM**) also known as **spark machining**, **spark eroding**, **die sinking**, **wire burning** or **wire erosion**, is a metal fabrication process whereby a desired shape is obtained by using electrical discharges (sparks).



Material is removed from the work piece by a series of rapidly recurring current discharges between two electrodes, separated by a dielectric liquid and subject to an electric voltage. One of the electrodes is called the tool-electrode, or simply the *tool* or *electrode*,

while the other is called the workpiece-electrode, or *work piece*. The process depends upon the tool and work piece not making physical contact.



When the voltage between the two electrodes is increased, the intensity of the electric field in the volume between the electrodes becomes greater, causing dielectric break down of the liquid, and produces an electric arc. As a result, material is removed from the electrodes.