Nano Dies

A New Type of Diamond Die Brings Huge Opportunities

Nano Dies are used to achieve significant productivity improvements over traditional diamond tooling the only place we neek diamond is at working place. The top layers form a single structured diamond crystalline coating with individual crystals in the nanometre range of sizes. The uni-directional all diamond crystal structure provides immense strength and hardness, exceeding the hardness of PCD material.

If you are changing from tungsten-carbide dies, fully compliant power cables may now be manufactured using up to 0.2%-3% less Copper or Aluminium and this is a huge saving .

The benefits of using Nano Dies are:

1. In cable compacting applications, Price/Performance savings are very significant when using Nano Dies. But the potential savings in raw material are far greater again.
2. Nano Dies impart a superb surface finish on your product.
3. Nano Dies have less friction than other dies.
4. Nano Dies typically outlast Tungsten Carbide dies by 10-15 times.
5. Where PCD dies cannot go (above Ø34.0mm), Nano Dies are just warming up (Ø1.2mm to Ø50.0mm)

Surface Quality / Finish Using PCD Die

Surface Quality / Finish Using Nano Die

Its Application Areas:

1. Compacting Energy Cables
2. Drawing Aluminum Wire and other non-Ferrous Wires (esp. when the mechanical and electrical characteristics of conductors must be maintained at targeted values)
3. Drawing Stainless Steel Wires
4. Tube Drawing (Low Carbon Steel, Stainless Steel, non-Ferrous)
5. Tube Drawing (Tubes with a welded seam)
6. Manufacture of Coaxial Signal Cables