



**OMCD GROUP** 

# drawing

For over 70 years Scleros has been designing and producing high precision Hard Metal equipment, mainly used for the drawing of tubes and bars for the ferrous and non-ferrous sector.

Drawing is a process of cold plastic deformation that a material undergoes by passing through a shaped matrix. The reaction forces exerted by the insides surfaces of the matrix produce wires, bars and cylindrical or special shaped tubes in a continuous way with millesimal dimensional tolerances, improving also the mechanical properties of the drawn material.

Hard Metal, thanks to its wear resistance and toughness, is the most suitable material for these operations because it can tolerate the high mechanical stress exerted during processing.

A deep technological knowledge of the production process and the use of state-of-the-art machinery, allow Scleros to produce dies and mandrels with millesimal dimensional tolerances and high surface qualities.





#### The Company

Scleros, the first born company of the OMCD Group, for more than 70 years it has been a symbol of success and excellence in the world of **Hard Metal finishing**. Today the company operates in more than 50 countries around the world and specializes in the **design and production of finished and high-precision tools**, both standard and according to customer's drawings.

The modern industrial world needs valuable tools that improve production efficiency. To meet this need, Scleros offers high-quality products that have superior levels of precision, durability, performance and finishing.

Scleros is constantly enhancing and increasing their innovative machinery and tools. The company is equipped with state-of-the-art grinding and EDM machines, as well as optical- tactile control machinery, to ensure full satisfaction of the customers requested precision. This, in addition to the precious and constantly evolving know-how acquired over the years and the complete economic-productive flexibility focused on customer satisfaction, identifies Scleros as the **jewel among Italian tooling factories** and the **ideal partner** for achieving success.

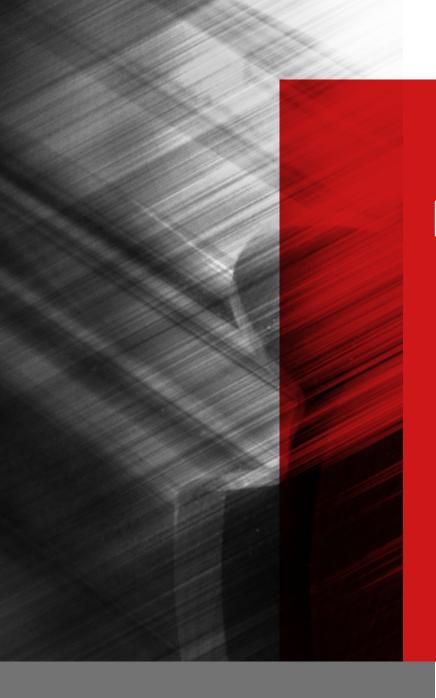


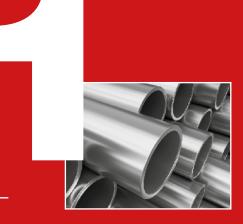






Quality
Precision
Passion
Customer
care





tube drawing

## tube drawing

Scleros is specialized in the **design** and production of:

- Round dies
   (conic and toric geometry)
- Dies with shaped profiles (hexagonal, flat, square, oval, six-lobed, three-lobed, lemon, york and special)
- Cylindrical and conical mandrels brazed or with mechanical fastenings
- Floating mandrels
- Helicoidal mandrels
- Complex shape mandrels
- Capillary mandrels















### Bar and Tubes

Surface Engineering C.V.D. and P.V.D. Technologies.

Costs reduction and increased productivity

The choice of the most suitable technology and coating type is determined by the characteristics of the processed material and by mechanical performance expectations.

Our technical staff will advise you on the best solution for your needs.





bar drawing

### C.V.D.: Chemical Vapour Deposition

- Suitable for heavy-duty cold-drawing
- Ideal for machining high strength Material
- High Hardness and wear resistance
- Tool life increase from 3 to 5 times
- Layer thickness range from 0,6 to 1,2 microns
- Coating temperatures range from 800 to 1050°C
- Excellent adhesion

### P.V.D.: Physical Vapour Deposition

- Thin film with low friction coefficient
- Smooth surface and very low roughness
- Suitable for "non ferrous" (Al Cu Alloys)
- High Hardness and wear resistance
- Tool life increase from 3 to 5 times
- Layer thickness range from 0,2 to 0.5 microns
- Coating temperatures range from 200 to 450°C
- Excellent adhesion















## bar drawing

Scleros is specialized in the **design** and production of:

- Round die
- Dies with shaped profiles (hexagonal, flat, square, trolley and special)
- Adjustable dies with blocks
- Adjustable dies with abutments and saddles
- Die blocks, shim, wedges, grains for adjustables dies.

