

Distinguish, differentiate, compare and explain what is the difference between Cold and Hot Extrusion. Comparison and Differences.

Differences between Cold and Hot Extrusion

S.No.	Cold Extrusion	Hot Extrusion
1	Better surface finish and lack of oxide layers.	Surface is coated with oxide layers. Surface finish not comparable with cold extrusion.
2	Improved mechanical properties due to strain hardening.	Since processing is done hot recrystallisation takes place.
3	Good control of dimensional tolerance; no machining or very little machining required.	Dimensional control not comparable with cold extrusion products.
4	High production rates at low cost. Fit for individual component production.	High production rates but process fit for bulk material, not individual components.
5	Tooling subjected to high stresses.	Tooling subjected to high stresses as well as to high temperature. Tooling stresses are however lower than for cold extrusion.
6	Lubrication is crucial.	Lubrication is crucial.