

## **Aspects of wire drawing and tube drawing**

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## 1. Quiz - Key

1. What are the reasons for chevron crack in drawn products?  
Large die angle, large friction or lower reduction.

2. What is tube sinking?  
Process of drawing in which the diameter of a tube is reduced without a mandrel.

3. What is the advantage of using a movable mandrel in tube drawing?  
Using a floating mandrel can result in large reductions, upto 45% and coil tubes can be drawn.

4. What happens to the maximum reduction as strain hardening exponent of a material increases? Why?  
Higher strain hardening exponent results in higher maximum reduction. This is because the material gets strain hardened more with higher exponent. Hence it can withstand higher stresses. Therefore higher reductions are possible.

5. What happens to maximum reduction per pass if friction between die and wire increases? Why?  
It gets reduced. Because, draw stress increases with higher friction. As a result the exit area of the wire has to be larger in order to support the increased draw stress.