Assumptions underlying EOQ

The objective of EOQ is to reduce the overall cost associated with materials. Associated costs are (i) Ordering cost and (ii) Carrying cost. EOQ identifies the appropriate quantity to be ordered so that the ordering cost and carrying cost are kept at the minimum as a whole. Square root formula is developed based on certain assumptions. Those assumptions are:

1. Annual demand/requirement is uniform throughout the period.
2. Ordering cost per order is constant.
3. Carrying cost per unit per annum is also constant.
4. Materials are available aplenty; there is no shortage of quantity.
5. Reorder quantity restrictions are not there. That is, any quantity can be ordered without any restrictions.
6. Lead-time is minimal and constant throughout.
7. Purchase costs do not vary with the quantity ordered.