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Question:

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Answer:

Advantages -1. The V-belt drive gives compactness due to the small distance between the centres of pulleys.

- 2. The drive is positive, because the slip between the belt and the pulley groove is negligible.
- 3. Since the V-belts are made endless and there is no joint trouble, therefore the drive is smooth.
- 4. It provides longer life of 3 to 5 years.
- 5. It can be easily installed and removed.
- 6. The operation of the belt and pulley is quiet.
- 7. The belts have the ability to cushion the shock when machines are started.
- 8. The high velocity ratio (maximum 10) may be obtained.

- 9. The wedging action of the belt in the groove gives high value of limiting ratio of tensions. Therefore the power transmitted by V-belts is more than flat belts for the same coefficient of friction, arc of contact and allowable tension in the belts.
- 10. The V-belt may be operated in either direction with tight side of the belt at the top or bottom. The centre line may be horizontal, vertical or inclined.