

6.9 Larger tubing diameters

The critical bending vibration speed of a driveline is, as can be seen from the critical rpm formula, a function of tubing diameters and length of center part. By going to larger tubing diameters, the critical speed of a driveline can be increased. However, the diameter increase must remain within defined limits since a certain relationship between tubing dimensions and joint size must be adhered to.

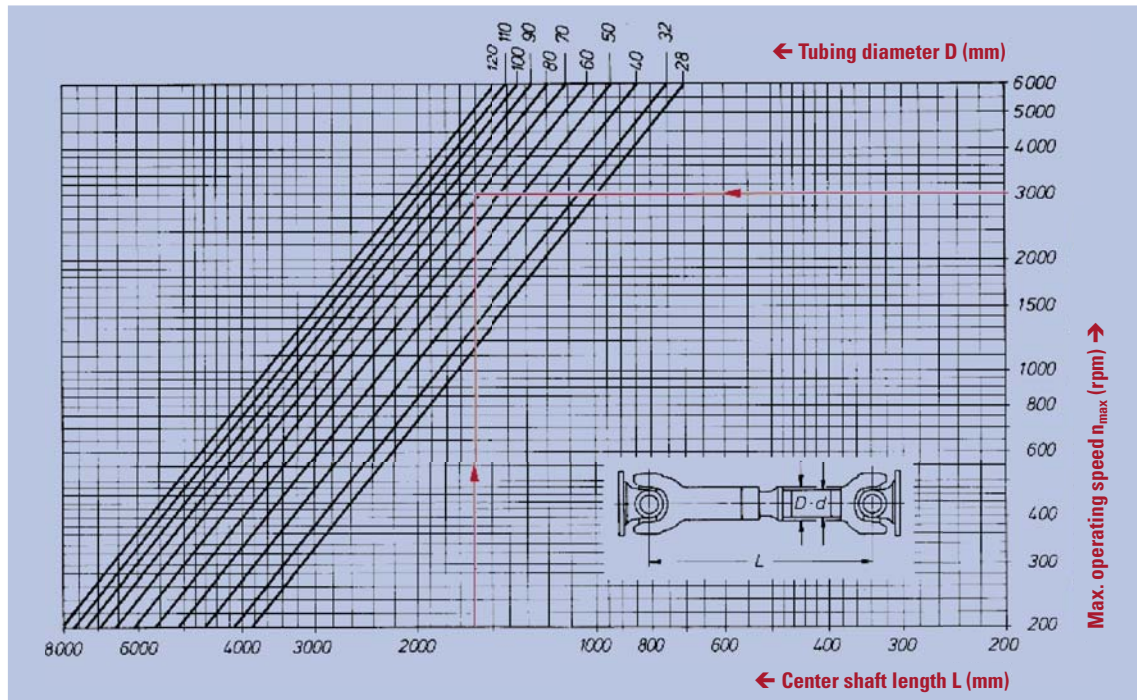
The dimension sheets of the different driveline models list the possible tubing dimensions for each size. In all the cases where a single driveline is insufficient, multiple arrangements with intermediate bearings must be used.

It must be noted that larger tubing diameters are feasible only above a certain shaft length. The following minimum lengths can be used as a guide line.

Flange diameter [mm]	Up to 65	75 to 100	120 to 180
Min. length S [mm]	650	950	1250

6.10 Tubing diagram

For determining the required tubing diameter when maximum operating speed n_{max} and center part length L are given.



Example:
 Center shaft length $L = 1600$ mm
 Max. operating speed $n_{max} = 3000$ RPM
 } Obtained: Tubing diameter ≥ 70 mm

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