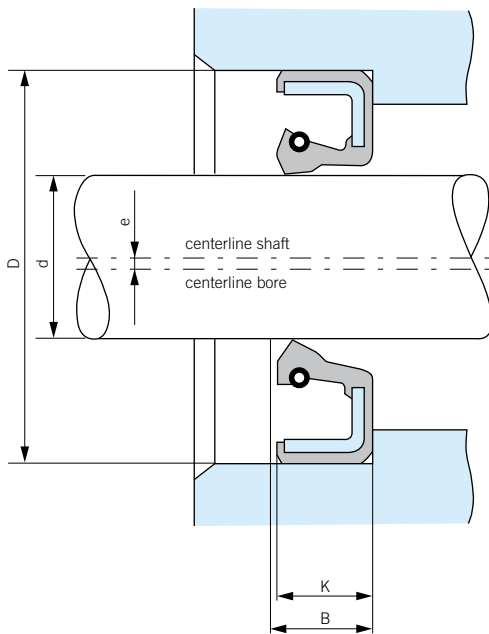


## Eccentricity and shaft oscillation

### Eccentricity

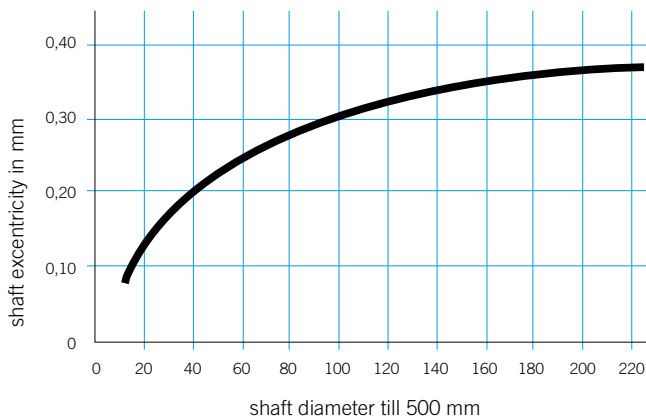
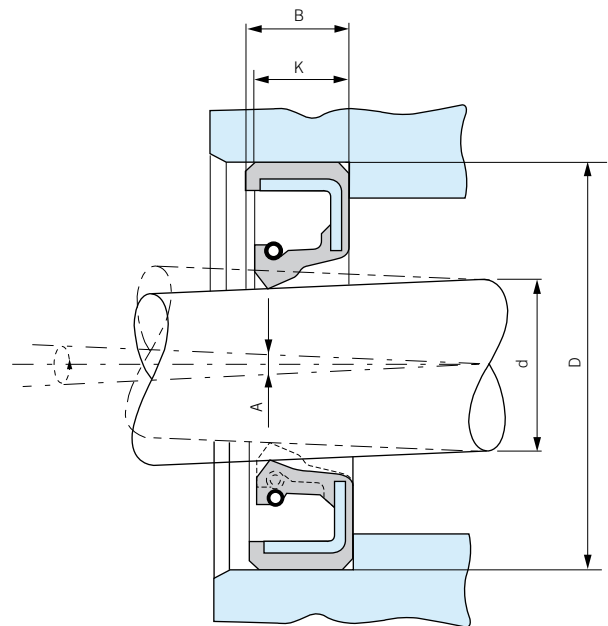
It is obvious that the centre lines of the housing, Oil Seal and shaft have to coincide as much as possible. The sealing element of the Oil Seal will only tolerate a minimum deviation. The maximum permitted eccentricity is dependent on the size of the shaft and the type of Oil Seal. In this case, we assume static eccentricity, and no shaft runout.

ERIKS has special types of Oil Seals, which are suitable for applications with large shaft eccentricity and runout. Information on all the possibilities is available.

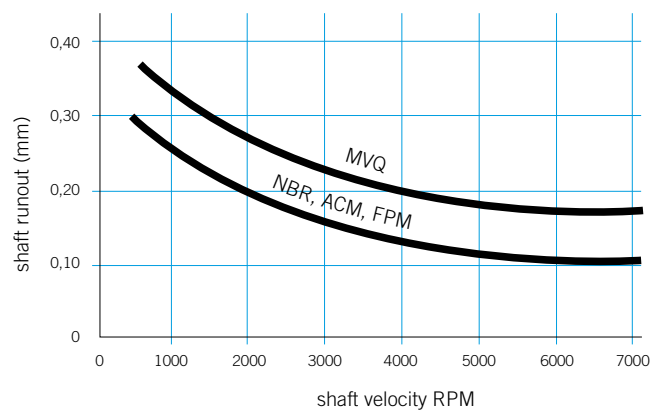


### Shaft oscillation

When shaft runout is present, seals with a loose garter spring are preferred to seals with an encapsulated spring. The runout should remain within the limits. "A" represents the difference between the centre line of the housing bore and the centre line of the shaft in the region of the seal line. The two centre lines do not run parallel. The permitted maximum value of A depends on the rotational speed, the dimensions of the shaft and the Oil Seal.



Above diagram shows the maximum allowable eccentricity



Above diagram shows the maximum allowable shaft run out