

Teollisuusvoitelu,

suosituksia mineraaliöljyn viskositeetille, ISO-VG

Huom ! (liukulaakerille) Kierokset nousee öljy ohenee
(yleisohjeita) Lämpötila nousee öljy paksunee

Table 8.3 Plain bearing ISO viscosity grade selection [34]

Bearing speed (rpm)	Bearing/oil temperature (°C)			
	0–50	60	75	90
300–1,500	–	68	100–150	–
~1,800	32	32–46	68–100	100
~3,600	32	32	46–68	68–100
~10,000	32	32	32	32–46

Other methods [35] for determining the viscosity grade required in an application are to apply minimum and optimum viscosity criteria to a viscosity–temperature plot. A third and more complex method is to calculate the oil viscosity needed to obtain a satisfactory oil film thickness.

The lubrication of bearings for machine tools usually requires mineral oils of ISO VG 46 or 68. For fast-running grinding spindles with plain bearings, mineral oils of ISO VG 5 or 7 are required, dependent on bearing clearance and speed. Bearings operating under high loads need lubricants of ISO VG 68 or 100. The service life of the bearing can be increased if the viscosity of the selected liquid lubricant at operating temperature exceeds the calculated optimum viscosity