
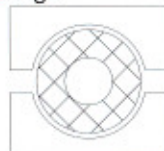

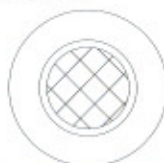

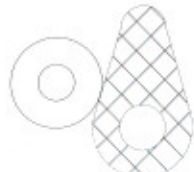




LUBRICATING OIL SYSTEM INTRODUCTION

Calculation For The Lubricating Oil Volume

Operating Case	Formula (Unit:cm)	Example (Unit:cm)
Ball Bearings 	Oil Capacity Required $F(\text{cc/hr}) = 0.04 \times \text{Dia. of Bearing} \times \text{No. of Bearing}$	Supposing there is a ball bearing. Dia of bearing is 8. Figure out oil capacity required. $F = 0.04 \times 8 \times 1 = 0.32(\text{cc/hr})$
Plain Bearings 	Oil Capacity Required $F(\text{cc/hr}) = 0.023 \times \text{Dia. of Shaft} \times \text{Contacting Shaft Length}$	Supposing there is a slide bearing with shaft Dia. 8 and 10 contacting shaft length. Figure out oil capacity required. $F = 0.023 \times 8 \times 10 = 1.84(\text{cc/hr})$
Flat Slides 	Vertical: Oil Capacity Required $F(\text{cc/hr}) = 0.006 \times \text{Length of Slide} \times \text{Width of Slide}$	Supposing there is a flat slideway vertically mounted. Slide length is 10, width is 4, Figure out oil capacity required. $F = 0.006 \times 10 \times 4 = 0.24(\text{cc/hr})$
Cylindrical Slides 	Oil Capacity Required $F(\text{cc/hr}) = 0.023 \times \text{Length of Slide} \times \text{No. of Slide}$	Supposing there is a flat bearing with shaft Dia. 8 and 10 contacting shaft length. Figure out oil capacity required. $F = 0.023 \times 8 \times 10 = 1.84(\text{cc/hr})$
Linear Guide 	Oil Capacity Required $F(\text{cc/hr}) = 0.012 \times \text{Length of Slide} \times \text{No. of Slide}$	Supposing there is a linear guide of 8 length and two slides. Figure out oil capacity required. $F = 0.012 \times 8 \times 2 = 0.19(\text{cc/hr})$
Cams 	Oil Capacity Required $F(\text{cc/hr}) = 0.013 \times \text{Circumference} \times \text{Width}$	Supposing there is a cam mechanism with cam circumference of 20 and width of 2. Figure out oil capacity required. $F = 0.013 \times 20 \times 2 = 0.52(\text{cc/hr})$
Gears 	Oil Capacity Required $F(\text{cc/hr}) = 0.046 \times \text{Pitch Dia.} \times \text{Tooth Width}$	Supposing there is a spur gear with pitch Dia. of 8 and tooth width of 2. Figure out oil capacity required. $F = 0.046 \times 8 \times 2 = 0.74(\text{cc/hr})$
Chains 	Oil Capacity Required $F(\text{cc/hr}) = 0.008 \times \text{Total Length of Chain} \times \text{Width}$	Supposing there is a chain with total length of 30 and width of 0.8. Figure out oil capacity required. $F = 0.008 \times 30 \times 0.8 = 0.19(\text{cc/hr})$