Selecting a Rod End

[Permissible Load P]

The static load capacity (C_s) indicated in the specification tables, is presented as a guide for the mechanical strength of the Rod End. Select a bearing while taking into account the safety factor (f_s) indicated in Table1 according to the type of the load.

Table1 Safety Factor (f_s)

Type of load	Lower limit of f_s
Constant load in a constant direction	2 to 3
Fluctuating load in a constant direction	3 to 5
Load in varying directions	5 to 8

According to the type of load, select a bearing that satisfies the following equation from a mechanical strength's viewpoint.

$$P \leqq \frac{C_s}{f_s} \quad \cdots\cdots\cdots (1)$$

P : Permissible Load (N)
C_s : Static load capacity (N)
f_s : Safety factor (see Table1)

[Dynamic Load Capacity C_d]

The dynamic load capacity refers to the upper limit of load that the spherical area can receive without showing seizure while the Rod End is rotating or oscillating. The dynamic load capacity is obtained from the following approximation formula using the static load capacity (C_s) (note 1) indicated in the specification table.

$$C_d = \frac{C_s}{\sqrt[3]{n}} \quad \cdots\cdots\cdots (2)$$

C_d : Dynamic load capacity (N)
C_s : Static load capacity (N)
n : Revolutions per minute (min^{-1})

The selected bearing must meet both the permissible load obtained from equation (1) and the dynamic load capacity obtained from equation (2).

Note1) Static load capacity (C_s) refers to the value obtained by multiplying the projected area on the spherical section by the permissible surface pressure, and is used to obtain the dynamic load capacity.