Selection method

1 Linear guide application requirements

(1) Dimension
(2) Service life
(3) Rigidity requirements
(4) Accuracy requirements
(5) Operating environment
(6) Lubrication options

2 Linear guide use condition settings

Factors to determine the load of linear guide
(1) Installation position (horizontal, vertical, inclined, hanging, wall mounting)
(2) Load (size, direction, position) and force (size, direction, position)
(3) Stroke
(4) Velocity and acceleration
(5) Frequency
(6) Accuracy level

3 Model selection

Select the specification of linear guide based on operating environment. Determine the desired dimensions and reference edge corner design according to the bearing capacity of mounting screws (page 21)

4 Calculation of equivalent load

Use the **cpc** program to calculate the equivalent load of each block based on selected specification and operating environment.

Note: Please fill the "Linear guide service life calculation and model selection inquiry form" (Page 62)

5.1 Calculate the static safety factor

Calculate the static safety factor based on the maximum equivalent load, basic static load rating, and the bearing capacity determined by mounting method of rails and blocks.

5.2 Select pre-load level

- Use pre-load level
- Select the mounting method
- Decide the fix method

5.3 Select the accuracy level of rail.

- Determine the accuracy level of installation site.
- Reference table of accuracy level of different category machine.

6 Determine whether the static safety factor and the bearing capacity of mounting screws is qualified or not

NO

YES

7 Calculate the average equivalent load

Convert the change of block load in stroke into the average equivalent load

8 Service life prediction and Rigidity

Find out the operating distance, service life and rigidity by life calculating formula.

9 Determine whether the service life and rigidity fulfil the demand

NO

YES

10 Lubrication method / cycle

- Lubrication Design
- Dustproof Design
- Surface Treatment

Selection completed