

### C-1-3 Optional Components

#### MCM Series

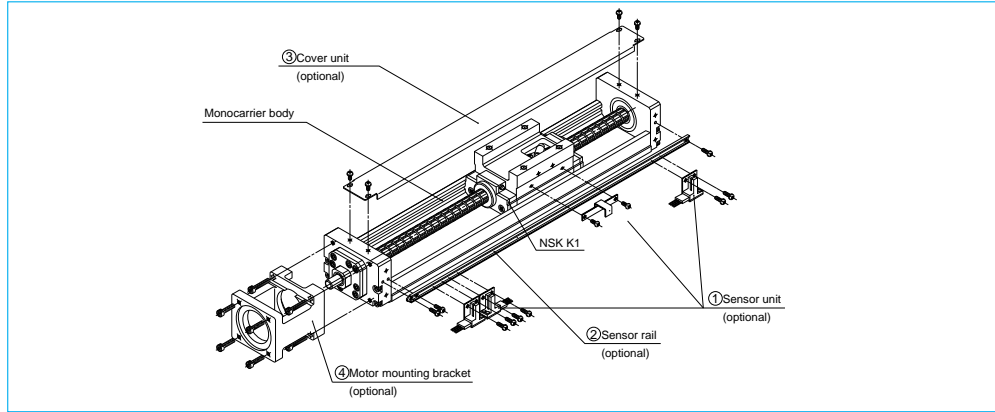


Fig. 3.1 Assembly Optional components for MCM10 (example)

- ① Sensor unit : Sensors, sensor mounting parts and a sensor dog are available in a set.  
\* When a sensor unit is used, the full cover unit cannot be used.
  - ② Sensor rail : Rail for sensor mounting is available.
  - ③ Cover unit : Top cover or full cover (included top cover and side cover) is available.
  - ④ Motor bracket for motor mounting : Available for a variety of models.
- Note: We assemble optional components upon request.

#### MCH Series

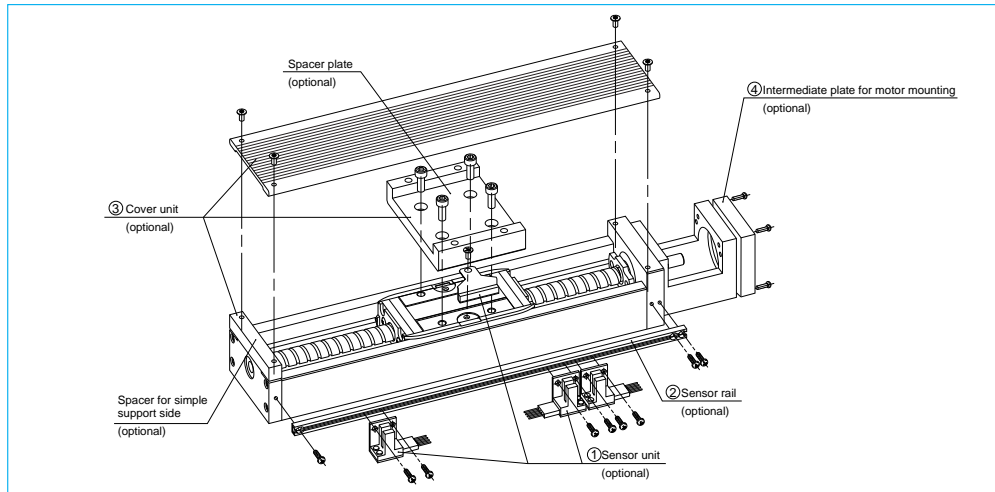


Fig. 3.2 Assembly Optional components for MCH10 (example)

- ① Sensor unit : Sensors, sensor mounting parts and a sensor dog are available in a set.
  - ② Sensor rail : Rail for sensor mounting is available.
  - ③ Cover unit : Top cover (included spacer plate and spacer for simple support side) is available.
  - ④ Intermediate plate for motor mounting : Available for a variety of models.
- Note: We assemble optional components upon request.

### Selection

#### C-1-4 Selection of Monocarrier

##### C-1-4. 1 Procedures for Selecting Monocarrier

Select a reference type of Monocarrier based on stroke and rigidity (Refer to Fig. 4.2, 4.3).



Select a ball screw lead referring to "C-1-4.3 Maximum Speed" so that the rotational speed does not exceed the limit.



Study the loads to be applied to the linear guide and obtain the equivalent load ( $F_e$ ) substituting them for equation ① or ② on Page C13. Obtain the mean effective load ( $F_m$ ) substituting them for equation ③ on Page C14, then calculate the life.



Study the loads to be applied to the ball screw and support unit. Obtain the mean effective load ( $F_m$ ) substituting them for equation ③ on Page C14, then calculate the life.

##### C-1-4. 2 Rigidity

#### Rigidity of rail

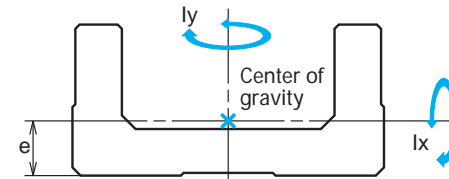


Fig. 4.1

Table 4.1 Rigidity of rail

Nominal size	Geometrical moment of inertia $\times 10^4$ (mm <sup>4</sup> )		Center of gravity (mm)	Mass (kg/100mm)
	$I_x$	$I_y$	$e$	$w$
MCM02	0.097	1.32	3.3	0.11
MCM03	0.30	3.3	4.5	0.18
MCM05	0.78	11.4	6.0	0.31
MCM06	2.14	26.1	7.0	0.57
MCM08	5.90	81.0	9.2	0.88
MCM10	15.6	219	12.2	1.52
MCH06	6.5	38.2	10.8	0.67
MCL06	2.58	29.6	7.8	0.56
MCH09	28.7	172	15.5	1.48
MCH10	54.0	307	18	1.93

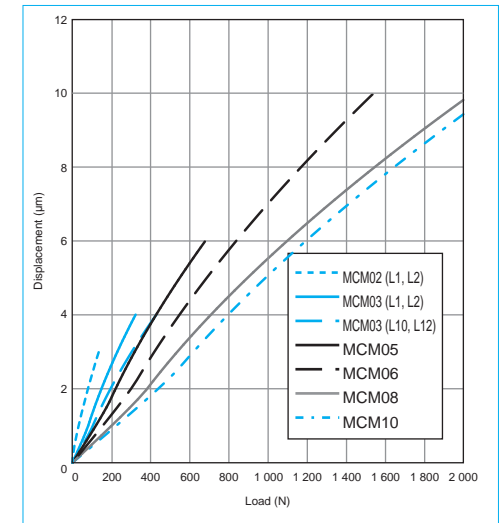


Fig. 4.2 MCM Series Rigidity in radial direction

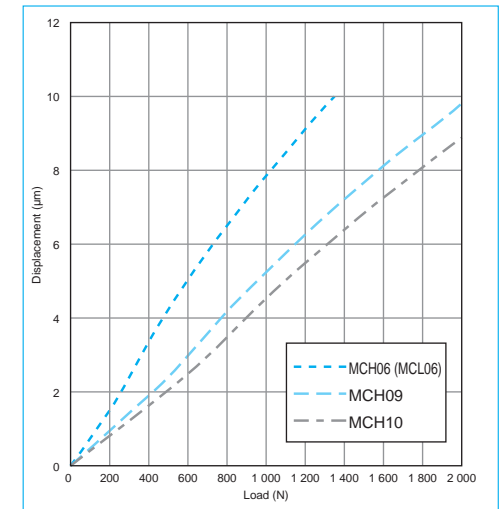


Fig. 4.3 MCH Series Rigidity in radial direction