

## THK Mist Lubrication

Unlike conventional mist lubrication, THK Mist Lubrication feeds lubricant mist in a micron-size mist at a consistent and accurate rate that is regulated electronic. Therefore, the interior of LM blocks and Ball Screws is uniformly lubricated. Such electronic control minimizes the adverse effects of oil temperature, atmospheric temperature, and viscosity that are common in conventional mist lubrication. Leakage to the atmosphere is minimal as well. Also the mist and air cools the subject system and thus inhibits heat generation resulting from high-speed motion. Since coolant and other contaminants are unlikely to invade the lubrication unit, THK Mist Lubrication is highly suitable in harsh environments (Fig. 8).

Note 2: Some types of lubricant are difficult to atomize.

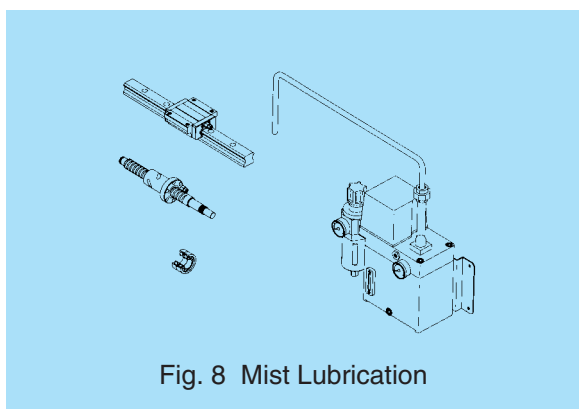


Fig. 8 Mist Lubrication

### 3.1.4 Greasing Interval

#### ① Grease lubrication

Although the grease feeding interval depends on the service conditions and environment, as a rule, feeding should be performed every 100 km of travel under normal usage conditions.

Normally you can feed grease through a grease nipple or a greasing port provided on your linear motion system. Use a grease of the same type as is in use now. Please be sure that mixing different types of grease can increase the consistency of the resulting grease, thus degrading system performance.

#### ② Oil lubrication

Linear motion systems to be oil-lubricated are delivered with only anticorrosive oil applied. When placing an order, please specify the lubrication method you intend to use. If the system is not installed horizontally, some raceways are more unlikely to be oiled than others. Therefore, be sure to inform us of the orientation for your system when installed (see page A-64).

##### \* Recommended lubrication oils

Sliding surface oil

(kinematic viscosity: 68 cst or so)

Highly emulsification-resistant brands

Daphne Super Multi 68 (Idemitsu Kosan)

Daphne Super Multi 68ER (Idemitsu Kosan)

Vactra No. 2S (Mobile Oil)

- The amount of oil to be fed varies with the stroke length. For a long stroke, increase the oiling frequency or the amount of feed so that the oil film reaches the stroke end on the raceway.
  - In environments where a liquid coolant is splattered, the lubricant will mix with the coolant, and this can result in the lubricant being emulsified or washed away, thus causing significantly degraded lubrication performance. In such locations, apply a lubricant with high viscosity (kinematic viscosity: approx. 68 cst) and high emulsification resistance, and adjust the lubrication frequency or the amount of feed.
- For machine tools and similar devices that are subject to heavy loads and require high rigidity and operate at high speed, it is advisable to apply oil lubrication.
- Please make certain that lubrication oil normally discharges from the ends of your lubrication piping, i.e., the oiling ports that connect to your linear motion system.