

## Lubrication under Special Environments

For use under special conditions, such as continual vibrations, clean room, vacuum, low temperature and high temperature, normal grease may not be used in some cases. For lubricants that meet such conditions, contact THK.

Table1 Lubricants Used under Special Environments

Service environment	Lubricant characteristics	Brand name
High-speed moving parts	Grease with low torque and low heat generation	AFG Grease(THK) see A-968 AFA Grease(THK) see A-959 NBU15(NOK Kluba) Multemp (Kyodo Yushi) or equivalent
Vacuum	Fluorine based vacuum grease or oil (vapor pressure varies by brand) <small>Note 1</small>	Fomblin Grease (Solvay Solexis) Fomblin Oil (Solvay Solexis) Barrierta IEL/V (NOK Kluba) Isoflex(NOK Kluba) Krytox (Dupont)
Clean room	Grease with very low dust generation	AFE-CA Grease(THK) see A-963 (The above vacuum grease products also applicable) AFF Grease(THK) see A-965
Environments subject to microvibrations or microstrokes, which may cause fretting corrosion	Grease that easily forms an oil film and has high fretting resistance	AFC Grease(THK) see A-961
Environments subject to a spattering coolant such as machine tools	Highly anti-corrosive, refined mineral oil or synthetic oil that forms a strong oil film and is not easily emulsified or washed away by coolant Water-resistant grease <small>Note 2</small>	Super Multi 68 (Idemitsu) Vactra No.2S (ExxonMobile) or equivalent

Note1) When using a vacuum grease, be sure that some brands have starting resistances several times greater than ordinary lithium-based greases.

Note2) In an environment subject to a spattering water-soluble coolant, some brands of intermediate viscosity significantly decrease their lubricity or do not properly form an oil film. Check the compatibility between the lubricant and the coolant.

Note3) Do not mix greases with different physical properties.

## Lubrication Accessory Series for LM Systems

THK provides a wide array of lubrication accessories such as grease, grease guns, grease nipples and plumbing fixtures available for various applications. (A-959 to A-970)

### THK Original Grease

THK provides various types of THK original greases needed for the lubrication of LM systems. They are available for various conditions and environments.

#### [Table for Grease Selection]

Refer to the table below that allows you to select a type of grease according to the application of the LM system.

Also note that the color of the decorative package varies according to the type (both 70 g and 400 g).

Name of grease		AFA Grease	AFB-LF Grease	AFC Grease	AFE-CA Grease	AFF Grease	AFG Grease
Features		Long service life	All-purpose grease	High-speed/micro-vibration grease	Grease for clean environment	Grease for clean environment	Grease for heat of Ball Screw
Base oil		high-grade synthetic oil	refined mineral oil	high-grade synthetic oil	high-grade synthetic oil	high-grade synthetic oil	high-grade synthetic oil
Consistency enhancer		Urea-based	Lithium-based	Urea-based	Urea-based	Lithium-based	Urea-based
Service Temperature Range (°C)		-45 to 160	-15 to 100	-54 to 177	-40 to 160 (200)	-40 to 120	-45 to 160
Applications	General industrial machinery	●	●	—	—	—	—
	Machine tool	—	●	●	—	—	●
	Semiconductor manufacturing equipment	—	●	●	●	●	—
	Special environments	—	—	●	●	●	●
Capacity	70g	●	●	●	●	●	●
	400g	●	●	●	●	●	●
Color of decorative package		Green	Orange	Mazarine	Lime green	Light blue	Blue
Reference page		A-959	A-960	A-961	A-963	A-965	A-968

#### Model number coding

● Type of packing: bellows cartridge

**AFC + 70**

Cartridge capacity (70 g / 400 g)

Type of grease (AFA Grease, AFB-LF Grease, AFC Grease, AFE Grease, AFF Grease, AFG Grease)