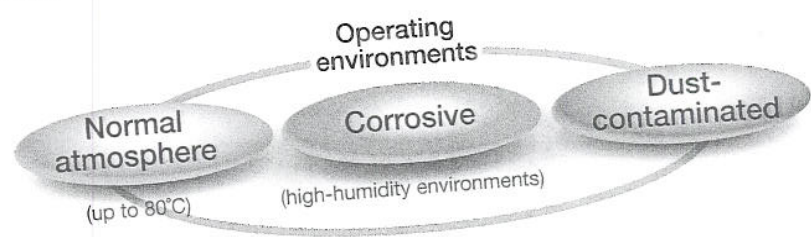
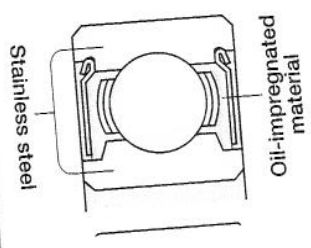
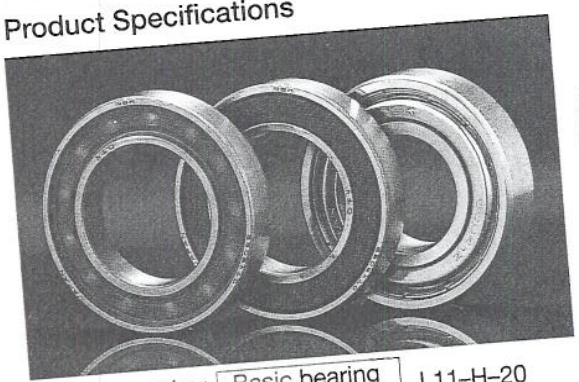


2. Molded-Oil™ Bearings

Molded-Oil™ bearings are lubricated with NSK's own oil-impregnated material, Molded-Oil™, and are suitable for corrosive and dust-contaminated environments in normal atmosphere.



Product Specifications



Bearing number for inquiry: Basic bearing number L11-H-20

Structure	Open Type, Shielded Type, Sealed Type	
Specifications	Outer/Inner rings	Martensite stainless steel
	Balls	Martensite stainless steel
	Cage	Corrugated stainless steel
	Lubricant	Molded-oil™
	Shields	Austenite stainless steel
	Seals	Nitrile rubber

Applications: Semiconductor cleaning equipment, liquid-crystal bases, hard-disk cleaning equipment, food processing machinery, various conveyor lines

Operating Instructions and Notes

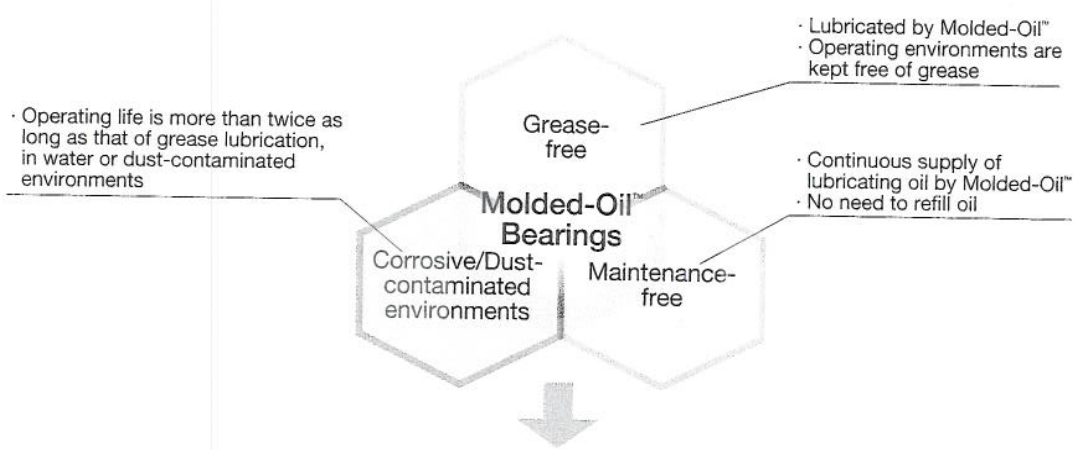
- Molded-Oil™ bearings should not be exposed to degreasing liquids such as organic solvents.
- Molded-Oil™ melts at a temperature of 120°C. The bearings must not be heated over 100°C, especially during shrink fitting.
- A radial load is required for the bearings to properly rotate. The minimum radial load recommended for maintaining proper rotation is at least 1% of the basic dynamic load rating.
- For use in normal atmosphere only.
- The scope of applications is shown in the table below.

Operating environment	Operating temperature	Limiting rotational speed	Limiting load
Water spray, water immersion	Up to 80°C	$d_m n = 150\,000$	Between 1% and 5%, inclusive, of the stainless steel bearing load rating C_H

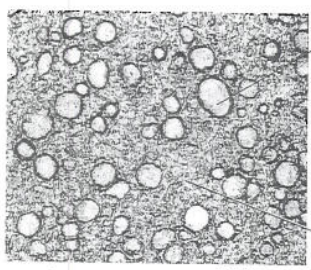
Remarks 1. $d_m n = (\text{Bearing bore diameter, mm} + \text{Bearing outside diameter, mm}) \times \text{Rotational speed, rpm}$
 2. The limiting load is calculated based on a bearing life of 10^7 rotations.
 3. See the SPACEA™ Bearing Dimension Table on P24-27 for load rating C_H for stainless steel bearings.

Features

- Molded-Oil™ — provides continuous supply of lubrication oil
- Grease-free property with no oil refilling keeps operating environments clean
- Operating life more than twice as long as grease lubrication, in water or dust-contaminated environments
- Contact-seal Type available in standard inventory (see P24–27)



Performance



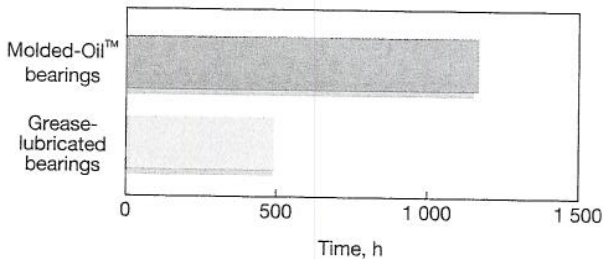
Portion containing high proportion of polyolefin
Polyolefin is used for packaging food in supermarkets, replacing dioxin-generating vinyl chloride.

Portion containing high proportion of lubricating oil
The lubricating oil is mineral oil-based.

● **Durability under wet conditions**

Molded-Oil™ bearings have an operating life that is more than twice as long as that of grease-lubricated bearings.

Test bearings: 6000	Axial load: 29.4 N
Speed: 1 000 rpm	Water exposure: 0.8cm ³ /min
Radial load: 79.4 N	



● **Durability in water-immersed conditions**

Molded-Oil™ bearings have an operating life that is more than twice as long as that of grease-lubricated bearings.

Test bearings: 6000	Axial load: 29.4 N
Speed: 1 000 rpm	
Radial load: 79.4 N	

