

“Rustproof and Human-Friendly”
pure titanium bearings for various special environments

SMT

1T Series
Pure Titanium Bearings



◎Features

1. Corrosion Resistance

Usable in severer corrosive environment than austenitic stainless bearing made of AISI304, by using high corrosion resistant pure titanium class 2 for outer and inner rings.

2. Safeness

Human-friendly without allergen reactions, as usable as in artificial joints.

3. Low Temperature Characteristics

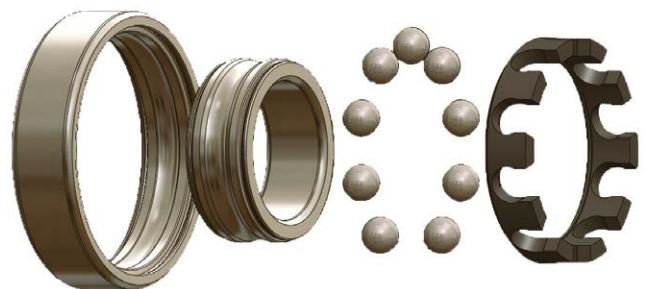
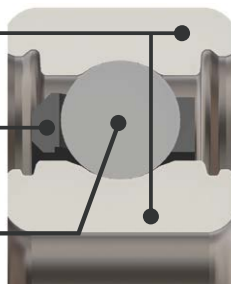
Usable in low temperature environment by good low-temperature toughness.

◎Materials

Outer and Inner Rings:
Pure Titanium Class 2

Retainer:
Fluorine Resin

Balls:
Silicon Nitride Ceramics



◎Applications

Food Machinery, Seawater-related Equipment, Plating Machine, Electronic Device, Equipment used in Low Temperature, Etching Equipment, Developing Machine, Medical Equipment, etc.

◎Sizes Available

Please contact SMT for the available sizes.

Corrosion Resistance

Chemicals	Conditions	Temperature	Titanium	AISI304
Muriatic Acid	10%	24°C/75°F	△	×
	30%	24°C/75°F	×	×
Aluminum Chloride	25%	Room	○	–
		Boiling	△	–
Nitric Acid	10%	Room	○	○
	50%	Boiling	○	△
Sulfurous Gas	Dry	30~60°C/86~140°F	○	×
Aqua Regalis	IHNO ₃ +3HCl	Room	○	×
		Boiling	○	×
Lactic Acid	10%	100°C/212°F	○	△
	50%	100°C/212°F	○	×
Ferric Chloride	10%	24°C/75°F	○	×
	30%	24°C/75°F	○	×
Ferrous Sulfate	10%	24°C/75°F	○	△
	50%	24°C/75°F	○	△
Formic Acid	10%	100°C/212°F	△	×
	30%	100°C/212°F	×	×

* ○ not effected △ slightly effected × effected

* The above chart is for reference only.

Comparison

	Unit	Pure Titanium Class 2	AISI304	AISI440C
Specific Gravity	–	4.5	7.93	7.8
Tensile Strength	N/mm ²	340~510	520~600	1900~2000
Elastic Modulus	N/mm ²	106400	193000	203000
Hardness	–	HV160	HV170	HV700
Magnetism	–	Nonmagnetic	Nonmagnetic 1)	Magnetic

* The above chart is provided as a general reference, and the values are not guaranteed.

1) AISI304 may be magnetized, depending on manufacturing process.

SMT

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