

## Lens holder

SF20T(product of Shimomura Tokushu Seiko Co., Ltd.) is used as standard lens holder material in our products.

This is developed to improve anticorrosion of SUS430(ferritic stainless steel) and has achieved anticorrosion near SUS304 by 20%Cr-2%Mo.

Currently, it is near SUS444, but is not applied to JIS(Japanese Industrial Standard) steel grade. SF20T is free-cutting stainless steel of low-carbon ferritic series.

### Characteristic

#### ☆Machinability

SF20T has an equivalent or greater machinability than JIS SUM24L(heavy free-cutting) and near at brass.

#### ☆Anticorrosion

In usual atmosphere, the anticorrosion is the order of bellow.

High SUS304 > SF20T = SUS303 > SUS430 Low.

And SF20T has an enough anticorrosion.

#### ☆Magnetic characteristic

SF20T which have high permeability and low coercive force, can be used as an electromagnetic stainless steel.

#### ☆Cold processing (Caulking)

Cold processing of SF20T is more excellent than SUS303.

#### ☆Welding

Welding of SF20T is inferior to SUS304 for added free-cutting ingredient.

However, SF20T is many used to the brazing and spot-welding.

And it is not problem at the plasma-welding test.

### Composition (Chemical composition)

#### Comparison of each stainless steel

(It is a value of JIS except for SF20T)

Steel grade	C	Si	Mn	P	S	Ni	Cr	Mo	Pb	Te
SF20T	0.05 $\geq$	1 $\geq$	2 $\geq$	0.05 $\geq$	0.15 $\leq$	0.16 $\geq$	19~21	1.5~2.5	added	added
SUS430	0.12 $\geq$	0.75 $\geq$	1 $\geq$	0.04 $\geq$	0.03 $\geq$	—	16~18	—	—	—
SUS430F	0.12 $\geq$	1 $\geq$	1.25 $\geq$	0.06 $\geq$	0.15 $\leq$	—	16~18	—	—	—
SUS444	0.03 $\geq$	1 $\geq$	1 $\geq$	0.04 $\geq$	0.03 $\geq$	—	17~20	1.75~2.5	—	—
SUS303	0.15 $\geq$	1 $\geq$	2 $\geq$	0.2 $\geq$	0.15 $\geq$	8~10	17~19	0.6 $\geq$	—	—
SUS304	0.08 $\geq$	1 $\geq$	2 $\geq$	0.04 $\geq$	0.03 $\geq$	8~10.5	18~20	—	—	—

### Physical properties

Characteristic Steel grade	Density (g/cm <sup>3</sup> )	Specific resistivity ( $\mu\Omega$ cm)	Specific heat (cal/g/°C)	Thermal conductivity (cal/cm/sec·°C)	Thermal expansion coefficients (10 <sup>-6</sup> /°C)
			0~100°C	100°C	0~100°C
SF20T	7.75	66	0.11	6.24	11.0