

<HT1770 is...>

HT1770(JIS SUS632J1) is an original standard of Nisshin Steel, which is a typical precipitation hardening stainless steel, mainly used for "steel belt".

Before aging treatment in other words heat treatment, the hardness of this material is around HV350.

But after aging treatment, it increases to around HV500. So, when you make complex shapes with bent, it adapts best performance. It is superior than general SUS CSP material.

There are similar materials with this, such as SUS631. But to increase to HV500, its hardness must be around HV400 in raw material.

Thus, this HT1770 can be shaped in soft and can be hardened with aging treatment. When aging treatment it needs an hour in 475°C.

<Chemical composition in N%>

	C	Si	Mn	P	S	Ni	Cr	Cu	Ti	Al	N
HT1770	0.042	1.53	0.3	0.25	0.004	7.21	14.7	0.7	0.39	-	0.009
SUS301	∠0.15	∠1.0	∠2.0	∠0.04	∠0.03	6.0-8.0	16.0-18.0	-	-	-	-
SUS631	∠0.09	∠1.0	∠1.0	∠0.04	∠0.03	6.5-7.75	16.0-18.0	-	-	0.75-1.5	-

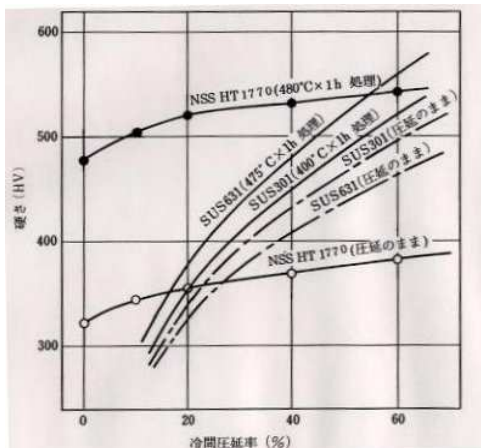
<Feature>

1. High weldability
2. High strength, high spring characteristics
3. Less Variability, less work hardening, stable material hardness,

*Its weldability is even better than that of SUS631. And it is highly resistant to corrosion.

<Feature as steel belt>

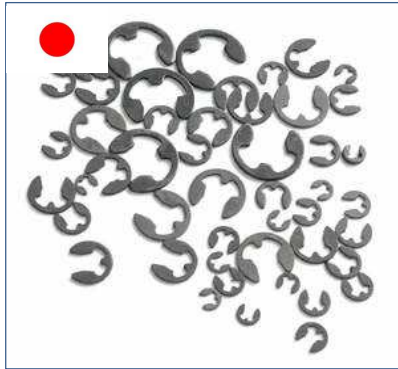
1. Low dust generating
2. static electricity
3. protection against vibration
4. surface flatness
5. capable of stably detecting the damage even under a high temperature environment.
6. capable of stably detecting the damage even under a frozen temperature environment.



	NSSHT1770	SUS631
密度 (kg/cm ³)	7.74 × 10 ⁻³	7.67 × 10 ⁻³
比熱 (J/(kg·°C))	0.50 × 10 ³	0.46 × 10 ³
電気抵抗 (μΩ·m)	1.00	0.84
弾性係数 (N/mm ²)	196000	190000
熱膨張係数 (°C ⁻¹)		
25°C~100°C	10.9 × 10 ⁻⁶	11.8 × 10 ⁻⁶
25°C~200°C	11.5 × 10 ⁻⁶	12.0 × 10 ⁻⁶
25°C~300°C	11.7 × 10 ⁻⁶	12.3 × 10 ⁻⁶
25°C~400°C	12.0 × 10 ⁻⁶	12.8 × 10 ⁻⁶
25°C~500°C	12.1 × 10 ⁻⁶	13.2 × 10 ⁻⁶
熱伝導度 (W/m·°C)		
100°C	15.9	15.9
200°C	18.0	18.0

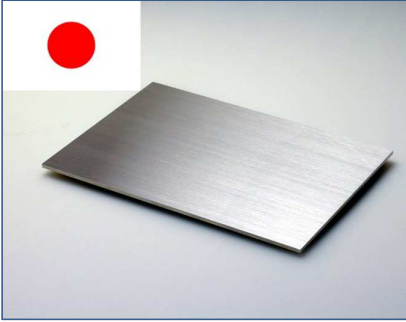
<mainly for use and its reason for adaption>

- | | | |
|-------------------|---|---|
| Steel belt | → | High weldability |
| E ring and C ring | → | High strength |
| Tube grip spring | → | High fatigue strength |
| Retracter spring | → | Excellent spring characteristics and fatigue resistance |
| Parts of DVC | → | Complex shape and durability |

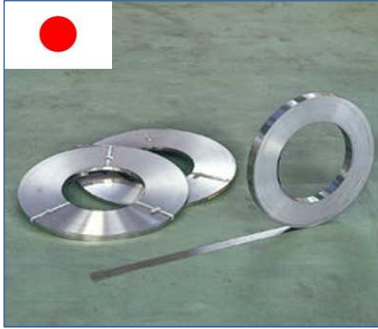


<available shape and sizes>

Sheet



Coils



Coils packing for exports



thickness : 0.2mm to 3.0mm
Width : under 1200mm