

NSSC SERIES

FERRITIC



## High-Rust Resistant Ferritic Stainless Steel

### NSSC 160R

17Cr-0.4Cu-Nb-LC,N

### Features and Applications

NSSC 160R was developed for wire rods with advanced corrosion resistance without Ni and Mo addition.

1. Rust resistance superior to conventional ferrite stainless steel SUS 430.
2. Superior in elongation, and less work hardening compared with austenitic stainless steels.
3. Superior properties at the weldments (Corrosion resistance and ductility).

[ Applications ] A variety of wire nettings, Fastening products, Precision machine component, Automotive component

### Characteristics

#### [Mechanical properties]

	Yield strength 0.2% offset N/mm <sup>2</sup>	Tensile strength N/mm <sup>2</sup>	Elongation %	Wire Drawing %
Typical values	260	430	32	82

(Data of 5.5φ wire rod)

#### [Corrosion resistance]

Salt spray test (SST)

(Test conditions)

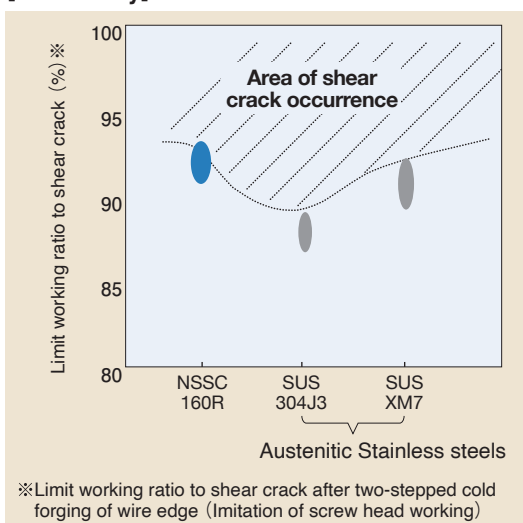
5%NaCl, 35°C, 1000h

	(inferior) ← Stain resistance rating → (superior)					
	F	E	D	C	B	A
NSSC 160R						
SUS 430						
SUS 304						

#### [Physical properties]

	Density (g/cm <sup>3</sup> )	Electric resistivity (μΩ·cm) [20°C]	Thermal expansion ratio (/°C) [0–800°C]	Thermal conductivity (W/m·°C) (100°C)	Specific heat (J/kg/°C)
Typical values	7.70	62	11.8×10 <sup>-6</sup>	26.0	460

#### [Formability]



### Applications

**Stainless steel fasteners (screw, nail, bolt, etc.)**

- Replacement from nickel-based stainless steel (VA)
- Replacement from plated steel products (improved durability)
- Magnetic tools compatible

**Wire netting (for industrial machinery or building materials, etc.)**

- Replacement from nickel-based stainless steel (VA)
- Replacement from plated steel products (improved durability)
- Enabling magnetic detection and removal of fragments in wire netting

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