

Piano Wire & Hard Drawn Steel Wire for the Small Diameter Spring

Providing wire with high durability and excellent formability utilizing JFE Techno-wire Corporation's original technologies.

In order to respond to our customers' needs, we use a wire drawing machine for small diameter wires to produce 0.40- to 0.70-mm wire.

Our steel wire delivers outstanding performance in applications for springs that require both durability and reliable formability.

■ Applications

Various types of springs for automobiles, home appliances, stationery, etc.



Small diameter springs



Small diameter springs

〈 Hard drawn steel wire with a small diameter 〉
• JIS G-3521 hard drawn steel wire
• Product type :
SW-A, SW-B, and SW-C
• JIS authentication number :
QA0307068

〈 Small diameter piano wire 〉
• JIS G-3522 piano wire
• Product type :
SW-A, SW-B, and SW-C
• JIS authentication number :
QA0307067

Specifications

Wire diameter tolerance and mechanical properties of hard drawn steel wire with a small diameter

Wire diameter (mm)	Wire diameter tolerance (mm)	Tensile strength (N/mm ²)			Number of twists
		SW-A	SW-B	SW-C	
0.40	±0.015	1,670 ~ 1,960	1,960 ~ 2,260	2,260 ~ 2,550	—
0.45	∕	1,620 ~ 1,910	1,910 ~ 2,210	2,210 ~ 2,500	—
0.50	∕	∕	∕	∕	—
0.55	±0.020	1,570 ~ 1,860	1,860 ~ 2,160	2,160 ~ 2,450	—
0.60	∕	1,570 ~ 1,810	1,810 ~ 2,110	2,110 ~ 2,400	—
0.65	∕	∕	∕	∕	—
0.70	∕	1,520 ~ 1,770	1,770 ~ 2,060	2,060 ~ 2,350	20 or more

Wire diameter tolerance and mechanical properties of small diameter piano wire

Wire diameter (mm)	Wire diameter tolerance (mm)	Tensile strength (N/mm ²)		Number of twists
		SWP-A	SWP-B	
0.40	±0.008	2,350 ~ 2,600	2,600 ~ 2,840	—
0.45	∕	2,300 ~ 2,550	2,550 ~ 2,790	—
0.50	∕	∕	∕	—
0.55	±0.010	2,260 ~ 2,500	2,500 ~ 2,750	—
0.60	∕	2,210 ~ 2,450	2,450 ~ 2,700	—
0.65	∕	∕	∕	—
0.70	∕	2,160 ~ 2,400	2,400 ~ 2,650	25 or more

(Note) For requests for diameters that are not listed in the table, please contact us.

Coil diameter and mass

Wire diameter (mm)	Inner diameter of coil		Coiling capstan diameter (Inner / outer)	Coil weight (kg)
	300mm (12 in.)	350mm (14 in.)		
0.40	○		250 / 350	25
0.45	○		∕	25
0.50	○		∕	30
0.55	○	○	250 / 350 , 300 / 400	30
0.60	○	○	∕	30
0.65	○	○	∕	30
0.70		○	300 / 400	30