



STAINLESS STEEL

WIRE

www.b2kwire.com

Quality Stainless Wire into Next Generation





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Head office & factory

41, Bancheonsaneop-ro, Eonyang-eup, Ulju-gun, Ulsan, Korea.



New factory with upgraded facilities.

We move forward for better quality with the mindset of a fresh start

SMALL BUT STRONG





Capacity per
Year

4,200 MT

Capacity per
Month

350 MT

B2K Co., Ltd.
(주)비투케이

HISTORY



2000. 03.
Established Company

2001. 10.
Registered Factory

2002. 09.
Earned ISO 9002 Certification

2007. 06.
Selected INNO-BIZ - Ministry of SMEs and startups, Busan and Ulsan

Selected MAIN-BIZ - Ministry of SMEs and startups, Busan and Ulsan

2010. 11.
Selected as 'Best-Partner' enterprise - Korea Credit Guarantee Fund

2012. 10.
Selected as 'KNB Ace Company' certified company Kyongnam Bank

2013. 05.
Selected as an export START UP company - Korea International Trade Association(KITA)

2014. 12.
Received the Million Dollar Export Tower Award -KITA

2018. 09.
B2K Co., Ltd. 3rd factory built in Samgwang-ri, Onyang-eup, Ulsan

2019. 10.
B2K Co., Ltd. 2nd factory built in Samgwang-ri, Onyang-eup, Ulsan

2022. 08.
Expansion and relocation of Bancheon Industrial Complex in Ulsan
(relocation of all former factories 1, 2, and 3) Capacity. Appox.4,200 Mt/year



1. Spring Wire

2. Cold Heading Wire

3. Free Machining/Shaft Wire

4. Roping Wire

5. Weaving & Mesh Wire

6. General Purpose Wire

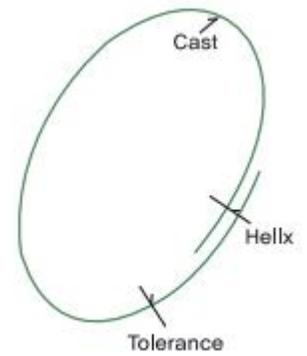


SPRING WIRE



Feature

- No need for special anti-rust treatments such as corrosion resistance or plating
- Excellent elastic limit and fatigue resistance
- High-temperature strength is high and can be used in heat resistance
- Excellent coiling ability and suitable for non-magnetic or electromagnetic applications



SURFACE	HARDNESS	GRADE	DIA(mm)	APPLICATION
SALT COATING	WPA WPB	AISI 302, 304, 316, 631	0.20~7.00	General Spring by auto coiling
BRIGHT	WPA WPB	AISI 302, 304, 316, 631	0.10~3.00	General Spring with bright surface

Available Specification and Grade 적용표준 및 강종

Grade	Equivalent Specification				Chemical Composition(% by mass ^a)				
	STEEL NAME	BS	DIN	JIS	C	Mn	Cr	Ni	Mo
AISI302	X10CrNi18-8	302S26	1.4310	SUS302	0.05-0.15	2.00	16-19	6-9.5	0.80
AISI304	X5CrNi18-10	304S15	1.4301	SUS304	0.07	2.00	17.5-19.5	8.0-10.5	-
AISI316	X5CrNiMo17-12-2	316S42	1.4401	SUS316	0.07	2.00	16.5-18.5	10-13	2.00-2.50
AISI631	X7CrNiAl17-7	301S81	1.4568	SUS631	0.09	1.00	16-18	6.5-7.8	-



Specification

Type	Grade	T/S kg'/mm ² (N/mm ²)		
		Grade A	Grade B	Grade C
Dia(mm)	AISI 302 WPA AISI 304 WPA AISI 316 WPA	AISI 302 WPB AISI 304 WPB	AISI 631J1 WPC	
0.20	165-190 (1650-1900)	220 - 245 (2150 - 2400)	200 - 225 (1950 - 2200)	
0.23~0.40	165-190 (1650-1900)	210 - 235 (2050 - 2300)	195 - 220 (1930 - 2180)	
0.45~0.60		200 - 225 (1950 - 2200)	185 - 210 (1850 - 2100)	
0.65~1.00	155 - 180 (1530 - 1780)	190 - 215 (1850 - 2100)	180 - 205 (1800 - 2050)	
1.20~1.40	145 - 170 (1450 - 1700)	180 - 205 (1750 - 2000)	170 - 195 (1700 - 1950)	
1.60~2.00	140 - 165 (1400 - 1650)	170 - 195 (1650 - 1900)	150 - 185 (1600 - 1850)	
2.30~2.60	135 - 160 (1320 - 1570)	160 - 185 (1550 - 1800)	150 - 175 (1500 - 1750)	
2.90~4.00	125 - 150 (1230 - 1480)	150 - 175 (1450 - 1700)	140 - 165 (1400 - 1650)	
4.50~6.00	112 - 140 (1100 - 1350)	140 - 160 (1350 - 1600)	130 - 160 (1300 - 1550)	
6.50~7.00	100 - 130 (1000 - 1250)	130 - 155 (1270 - 1520)	-	

Packing Specification

◦ Coil Packing

Dia(mm) 선경사이즈	COIL ID(Inch) 코일 내경	App. WT(kgs) 포장가능 무게
0.20~0.29	8	5~10
0.30~0.35	10	15~20
0.40~0.54	12	25~35
0.55~0.79	12	25~40
0.80~1.29	16	50~80
1.30~2.00	16~18	50~150
2.01~7.00	24	100~200

* Various packaging and weights are available, please contact us.

◦ Spool and Carrier Packing

Dia(mm)	Size(Flange)	App. WT(kgs)
0.20~1.19	DIN160	5
	DIN200	10
	DIN250	20
	DIN355	30~40
	DIN/BS 560(STEEL)	150
	DIN/BS 760(STEEL)	300~350
1.20~7.00	DIN/BS 560/760(STEEL)	150~350
1.50~7.50	CARRIER 16"/24" INCH	250~500

Allowance & Ovality of Spring Wire

Dia(mm)	Allowance(mm)	Max. Ovality(mm)
0.20~0.40	± 0.008	0.008 below
0.40~0.80	± 0.010	0.010 below
0.80~1.60	± 0.015	0.015 below
1.60~3.20	± 0.020	0.020 below
3.20~6.00	± 0.025	0.025 below
6.00~10.00	± 0.035	0.035 below



COLD HEADING WIRE

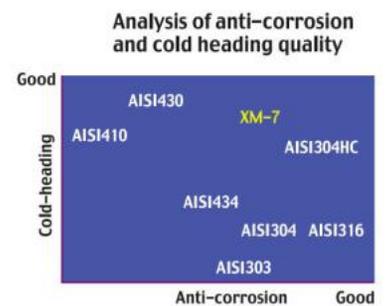


Feature

- Superb surface condition and accurate diameter by strict process control
- Strict control of chemical composition
- Uniform physical quality by continuously even heat-treatment processing
- Stable and uniform coating through in-line processing



Class	Grade	Bright		Special Salt Coating	
		Annealed Finish	Drawing Finish	Annealed Finish	Drawing Finish
		WSA	WSB	WSA	WSB
Austenitic	AISI 304HC 304Cu 316(LCU) 302HQ (XM-7)	0.8-7.5mm	0.8-7.5mm	0.8-7.5mm	0.8-7.5mm
Ferritic	STS 430 STS 434A	0.8-7.5mm	0.8-7.5mm	0.8-7.50mm	0.8-7.50mm
Martensitic	STS 410				
Application		Hexagonal Bolt Truss Screw	Bolt, Rivet, Screw, Piece	Piece	Bolt, Rivet



Specification

Grade & Type	Dia(mm)	T/S		R/L(%)	E/L(%)
		(kgf/mm ²)	(N/m ²)		
AISI 304HC WSA	0.80-1.60 1.60-7.50	60-75 55-65	590-740 540-640	70 above	30 above 40 above
AISI 304Cu WSA	0.80-1.60 1.60-7.50	52-67 53-60	510-660 520-590	70 above	30 above 40 above
AISI 316(LCU) WSA	0.80-1.60 1.60-6.00	60-75 55-65	590-740 540-640	70 above	20 above 30 above
AISI 302HQWSA (XM-7)	0.80-1.60 1.60-6.00	50-65 50-58	490-640 490-570	70 above	30 above 40 above
AISI 430WSA	0.80-6.00	47-62	460-610	60 above	10 above
AISI 434WSA	0.80-6.00	47-65	460-640	65 above	10 above
AISI 410WSA	0.80-6.00	47-65	460-640	65 above	10 above

Allowance & Ovality

Type Dia(mm)	Bright		Special Salt Coating	
	WSA-WSB		WSA-WSB	
	Allowance	Ovality	Allowance	Ovality
0.80-2.00	+0 -0.015	0.015below	+0 -0.015	0.015below
2.00-3.50	+0 -0.020	0.020below	+0 -0.020	0.020below
3.50-5.00	+0 -0.030	0.030below	+0 -0.030	0.030below
5.00-7.50	+0 -0.050	0.040below	+0 -0.040	0.040below

Inner Dia & Packing weight

Dia(mm)	WSA		WSB	
	Coil ID(inch)	Coil WT(kg)	Coil ID(inch)	Coil WT(kg)
0.80 - 2.00	16	upto 250	12(16)	upto 250
2.00 - 7.00	24	upto 500	24	upto 500

* Various packaging and weights are available, please contact us.

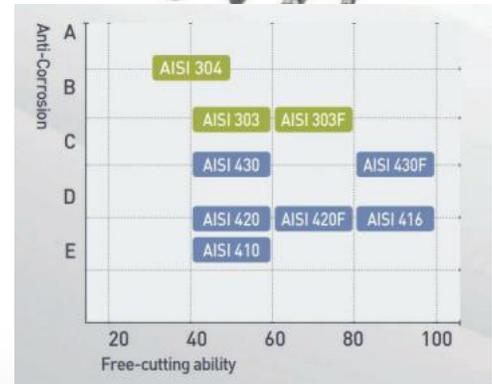
* Carrier : 250kg, 500kg Packing available



FREE MACHINING / SHAFT WIRE



- Strict control in chemical composition for better machinability
- Stabilized surface hardness
- Good straightness and roundness in cut-length
- Dimensional accuracy can be obtained by centerless grinding



Class	Grade	Type			Application
		Soft	Semi-Soft	Semi-Hard	
Austenitic	STS 304 STS 316 STS 303(C,F)	W1	1/4H	1/2H	Shaft 및 PIN
Martensitic	STS 420J2 STS 420F 416/440C	W1	1/4H	1/2H	

Application Dia & T/S 생산규격

* W1, 1/2H, 1/4H ALL SAME T/S (동일한 인장강도)

Class	Grade	Type	Dia(mm)	T/S	
				kgf/mm ²	N/mm ²
Austenitic	AISI 304 AISI 316	W1	0.70~7.50	55-75	540-740
		1/4H			
		1/2H			
	AISI 303 AISI 303C	1/4H			
1/2H					
Martensitic	AISI 410 AISI 420J2 AISI 420F	W1			
		1/4H			
		1/2H			

Allowance & Ovality

Dia(mm)	SOFT		1/8H, 1/4H	
	Drum Size (Inch)	Coil Wt. (kg)	Drum Size (Inch)	Coil Wt. (kg)
0.70 - 1.60	16	30~300	16	60~300
1.60 - 5.00	24	~500	24	~500
1.60 - 5.00	24	~500	24	~500

Packing Standard

Dia(mm)	Allowance(mm)	Max.Ovality(mm)
0.70 - 1.60	+0-0.01	0.005 below
1.60 - 5.00	+0-0.02	0.01 below
1.60 - 5.00	+0-0.03	0.015 below

* Various packaging and weights are available, please contact us.

ROPING WIRE

- Consistant tensil strength/ Exact diameter
- Ellegant shiny and outperforming flexibility
- Various packing devices on request



Grade & Features

Grade	Features
AISI 302	Higher tensile strength than AISI 304
AISI 304	Excellent anti - corrosion
AISI 305	Non-magnetic Similar anti-corrosion to AISI 302, 304
AISI 316	Excellent anti-corrosion & against sea water superior non-magnetic to AISI 304



Packing Weight

Spool	Material	Dia(mm)	Packing WT(kg)
DIN 100	Plastic	0.09~0.12	1.5
DIN 125	Plastic	0.10~0.25	3
DIN 160	Plastic	0.16~0.30	5
DIN 200	Plastic	0.20~0.80	10
DIN 250	Plastic	0.25~1.00	20
DIN 350	Plastic	0.25~0.80	40
NS - 5	Plastic	0.12~0.30	5
NS - 10	Plastic	0.20~0.80	10
P - 4B	Plastic	0.16~0.30	5
B - 40	Steel	0.25~1.00	30
B - 60	Steel	0.25~1.00	30
BP - 60	Plastic	0.25~1.00	30
Reel	Wooden	0.50~1.90	200
Reel	Wooden	1.80~2.60	500

* Various packaging and weights are available, please contact us.

Tensil Strength Chart

Dia(mm)	AISI 302, 304		AISI 305, 316	
	kgf/mm ²	N/mm ²	kgf/mm ²	N/mm ²
~0.18	225~249	2210~2445	173 above	1700 above
0.19~0.25	220~245	2160~2405	173 above	1700 above
0.26~0.38	218~242	2140~2375	169 above	1660 above
0.39~0.48	214~238	2100~2335	169 above	1630 above
0.49~0.64	207~231	2030~2265	166 above	1630 above
0.65~0.76	200~221	1960~2170	166 above	1630 above
0.77~0.89	193~217	1895~2130	166 above	1630 above
0.90~1.02	183~210	1795~2060	166 above	1630 above
1.03~1.27	179~200	1755~1960	162 above	1590 above
1.28~1.52	176~196	1725~1920	159 above	1560 above
1.53~1.78	162~193	1690~1890	155 above	1520 above
1.79~2.03	169~189	1660~1855	148 above	1450 above
2.04~2.29	168~189	1650~1855	148 above	1450 above
2.30~2.54	165~186	1620~1825	145 above	1420 above

* Size upto 5.00mm production possible.

WEAVING & MESH WIRE

- Fine meshes for chemical filters, sieves, screen printing and various knitting application
- Excellent workability
- Shiny surface condition



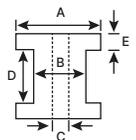
Dia Allowance & Max. Ovality

Dia(mm)	Type	Bright	
	Allowance	AISI 304, 304L, 316, 316L, 310S, 314	
		Ovality	
0.08~0.10	+ / -0.003	0.003 below	
0.11~0.16	+ / -0.005	0.005 below	
0.17~0.28	+ / -0.007	0.007 below	
0.29~0.50	+ / -0.010	0.010 below	
0.51~1.00	+ / -0.013	0.0013 below	

Specification of Weaving wire

Dia(mm)	Type	T/S psi (MPa)	Elongation (%)
0.05~0.13		145 000 (1000), max	30
0.13~0.23		135 000 (930), max	30
0.23~0.38		130 000 (900), max	35
0.38~0.51		125 000 (860), max	35
0.51~0.64		120 000 (830), max	40
0.64~0.89		115 000 (790), max	40
0.89~1.09		110 000 (760), max	45
Over 1.09		105 000 (720), max	45

Packing Type and Weight



Type of Spool	Dia(mm)	Winding WT (kg)	Spool Dimension				
			A(Flange)	B(Barrel)	C(Arbor Hole)	D(Traverse)	E(Thickness)
DIN 100	0.08~0.30	1.5	100	63	16	80	10
DIN 125	0.08~0.30	3	125	80	16	100	12.5
DIN 160	0.08~1.00	5	160	100	22	127	16.5
DIN 200	0.16~1.00	10	200	125	22	160	20
DIN 250	0.16~1.00	20	250	160	22	160	20
DIN 355	0.70~1.00	40	355	224	36	160	20
PT 10	0.16~0.50	10	160/180	96/110	29	200	15
PT 15	0.16~0.50	15	180/220	96/110	30	200	15
PT 20	0.16~0.50	20	215/230	131/160	32	250	15
PT 25	0.16~0.50	25	215/230	110/150	32	250	15
PT 2	0.08~0.30	2	100	65	20	125	10
PT 3	0.08~0.30	3	105	60	20	148	9
PT 4	0.08~1.00	5	125	80	20	160	15
NS 5	0.20~0.60	5	120	54	15	130	10
NS 10	0.20~0.60	12	200	118	32	152	17

GENERAL PURPOSE WIRE

- Redrawing Wire
- Lashing Wire
- EPQ Wire
- Bright Full Hard Wire
- Safety Lock Wire
- Others

Packing Type

* Various packaging and weights are available, please contact us.

Diameter(mm)	Packing	Coil ID(inch)	Packing WT(kg)
0.6~0.8	Coil	12	20~25
0.8~1.8	Coil	12, 16	30~50
	Pay - off Drum	16	200
	Carrier	16	250
DIN 250	Coil	24	100~500
	Carrier	24	250~500



Specification

Dia(mm)	Allowance (mm)	Max-Ovality (mm)	Tensile Strength AISI 302, 304, 304L, 304N1, 305, 310S, 316, 316L			
			SOFT (W1)	1/4H	1/2H	F.H
			N/mm ² (kg ² /mm ²)	N/mm ² (kg ² /mm ²)	N/mm ² (kg ² /mm ²)	N/mm ² (kg ² /mm ²)
0.6	±0.010	0.010 below	540-880	980-1,180	1,130-1,470	2,000-2,250
0.7	"	"	(55-90)	(100-120)	(115-150)	(204-230)
0.8	±0.015	0.015 below	"	"	"	"
0.9	"	"	"	"	"	1,950-2,250
1	"	"	"	"	"	(199-224)
1.2	±0.020	0.020 below	"	"	"	1,900-2,150
1.4	"	"	"	900-1,150	"	(194-219)
1.6	"	"	540-880	(92-117)	"	1,850-2,100
1.8	±0.030	0.030 below	(55-90)	"	1,080-1,420	(189-214)
2	"	"	"	"	(110-145)	"
2.6	"	"	"	"	"	1,800-2,050
2.9	"	"	"	"	"	(184-209)
3.2	±0.040	0.040 below	"	850-1,130	"	1,700-1,950
3.5	"	"	"	(87-115)	"	"
4	"	"	"	"	"	1,650-1,950
4.5	"	"	"	"	"	"
5	"	"	"	"	"	1,450-1,700
5.5	±0.050	0.050 below	"	"	"	(148-174)
6	"	"	"	"	"	"
6.5~7.5	"	"	"	"	"	"

PROCESSES



Wire rod



Packing



PRE-COATING



Quality Control



Initial Drawing

Wet Drawing



Annealing

Dry Drawing



Intermediate Drawing

Division	Grade	Chemical Composition	DIN No.	Characteristics and Application
AUSTENITE	202	18Cr-5Ni-8Mn-N	1.4371	Low Nickel, 302 alternative
	204Cu	17Cr-2Ni-2Cu-N	-	Low Nickel, 304 alternative
	202M	17Cr-7Ni-7Mn-N	-	Super hardness, Non-Magnetic, Shaft
	302	18Cr-8Ni-0.1C	1.4301	High Tensile strength, Spring, Constructional use
	303	18Cr-8Ni-0.2S	1.4305	Good free-cutting quality. Automatic lathe, Pin
	303Cu	18Cr-8Ni-2.5Cu	-	Improved free cutting and cold heading quality, Shaft
	303F	18Cr-5Ni-0.3S	-	Better free cutting quality than 303
	304	18Cr-8Ni	1.4301	Most various usage, General purpose, Kitchenware
	304L	18Cr-9Ni-lowC	1.4306	Extremely low carbon, High anti-corrosion
	304HC	18Cr-8Ni-2.5Cu	-	Cu addition into 304. Super cold heading, Bolt, Nut, Nail
	304J3	18Cr-8Ni-2Cu	-	Medium properties between 304 and XM7. Bolt, Nut
	304Cu	17Cr-8Ni-3.5Cu	-	Lower Nickel than XM7. Cold Heading, Bolt, Nut
	305	18Cr-13Ni-0.1C	1.4303	Low work hardening than 304, Cold heading quality
	309S	22Cr-12Ni	1.8330	High anti-corrosive and heat-resistant conveyor belts
	310S	22Cr-20Ni-2Si	1.4845	Oxidation resistance, Heat-resistant conveyor belts
	314	25Cr-20Ni-2Si	-	Enhanced hardness, Heat-resistant conveyor belts
	316	18Cr-12Ni-2.5Mo	1.4401	More corrosion-resisting than 304, Anti-rust purpose
	316L	18Cr-12Ni-2.5Mo-lowC	1.4404	Extremely low carbon 316, High anti-corrosion
	316LF	18Cr-12Ni-2.0Mo-0.1S	-	Extremely low carbon 316F
	316Ti	18Cr-12Ni-2.5Mo-Ti	1.4571	Improved intergranular corrosion resisting by adding titanium into 316
321	18Cr-9Ni-Ti	1.4541	Ti addition, High temperature purpose	
XM7	18Cr-9Ni-3.5Cu	1.4567	Cu addition into 304. Enhanced cold heading quality, Bolt, Nut, Nail	
FERRITE	430	18Cr	1.4016	Good anti-corrosion. Bolt, Nut, Scrubber
	434	18Cr-1Mo	1.4112	Improved grade. Better anti-corrosion than 430
	434A	18Cr-1Cu	-	Improved grade. High quality scrubber
	446	25Cr	-	Thermal expansion rate is similar to that of glass
MARTENSITE	410	13Cr	1.4006	High machinability Fasteners
	416	13Cr-highC	1.4005	Better free cutting for automatic lathe
	420J2	13Cr-0.3C	1.4028	Excellent hardness, Machine shaft, Electric shaft
	420F	13Cr-highC	-	Improved grade. Better machinability than 420J2
	440C	13Cr-1C	1.4125	Highest hardness among Heat-resistant steel, for nozzle, bearing

-Specification: AISI, ASTM, JIS, EN/ISO, BS

-SIZE: mm.Inch, SWG, BWG

-Application: Specific review of exact characteristics and uses is required.

-Surface: Coating and brightness, shiny items available.

-Type of Packing: Coil, Bobbins, Spool, Carriers etc.

-Weight: Required unit weight

-Please consult with us for special grade and specification