Wire rope

Asahi Intecc makes full use of the proprietary wire processing technologies, such as ultra-thin wire drawing and die forming, to manufacture fine stainless-steel wires with diameters from 0.013mm to 0.50mm.

Main Lineup

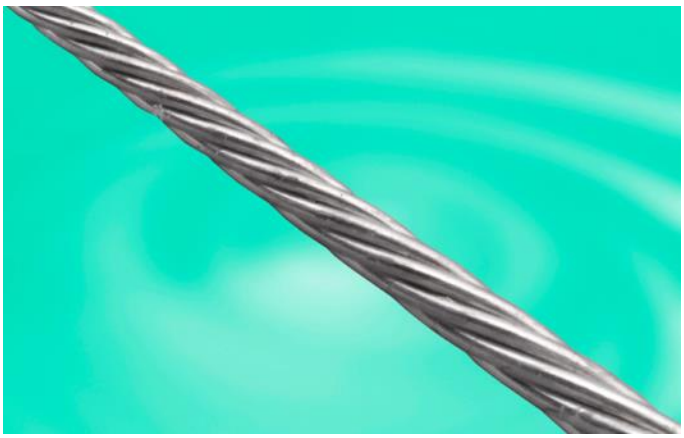
Type	Construction	Wire Rope O.D. Min.	Wire Rope O.D. Max.	Breaking load Min.	Breaking load Max.
Type-E	1x7	0.09	1.5	9	2548
Type-G	1x19	0.15	2.0	24	3670
Type-B	7x7	0.27	3.0	59	7154
Type-C	7x19	0.45	3.0	153	6762
Type-P	7x7x7	0.81	2.16	412	2940
		(mm)		(N)	

Wire Ropes are formed by twisting different sizes of fine wires and wire strands.
These are provided in stainless steel, nitinol and tungsten.

Comparison of properties at O.D. 1mm of each type

Type	Construction	Model	O.D. (tolerance)	fine wire O.D.	Total number of fine wires	Breaking load		Elongation / Flexibility	Min. bend radius
Type-E	1x7	E-105	1.05 (±0.03)	0.35	7	1127	High	Low	53
Type-G	1x19	G-100	1.00 (±0.05)	0.20	19	1078			30
Type-B	7x7	B-100	1.00 (±0.04)	0.11	49	784			17
Type-C	7x19	C-105	1.05 (±0.04)	0.07	133	833			11
Type-P	7x7x7	P-108	1.08 (±0.05)	0.04	343	715	Low	High	6
			(mm)	(mm)		(N)			(mm)

Tungsten wire rope



The wire rope made by Tungsten which is remarkable for its robustness, especially the fact that it has the highest melting point of all metals and the highest tensile strength. Ideal for heating elements and refractory parts in high-temperature furnaces, required with long fatigue life.

Specifications

O.D.	up to 3.0 mm
Breaking load	up to 8309N (@ OD = 3.0 mm)
Construction	7x7, 19x7, 7x7x7

Applications

Industrial, Surgical robot, office printer

Actual example

Cable for pulling up Silicon ingot, using in high-temperature furnaces

Wire for Corona discharge in Office printer

Single wire

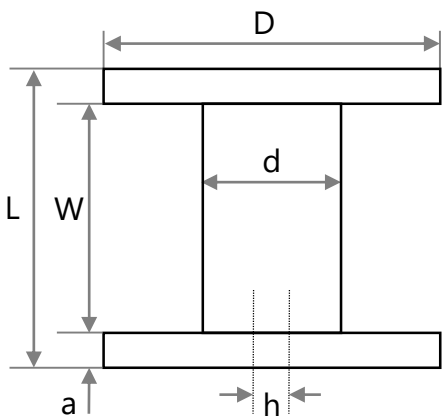
Asahi Intecc's wire drawing technology, with forming and maintaining the precision of diamond 'die' in-house, realize high precision and customized single wire.
Our continuous wire drawing process makes the wire with significantly higher tensile strength. Round wire and Flat wire is also available with our high precision rolling-press machine.

Specifications

Round wire diameter	0.013 – 0.66mm
Flat wire thickness	0.015 – 0.090mm (width/thickness ratio is 3 to 6)
Tensile strength	up to 2,300N/mm2 (*depend on diameter and material)
Production location	Thailand, Philippines
Material	SS304, 304V, 316, 316L
Spool available	NS-03, NS-05T, NR-80, NR-100
	P-3R, P-5R, P-15, P-30, P-40, SF-440

Spool dimensions (mm)

	D	d	W	h	a	L	
NS-03	50	35	60	10	10	80	(mm)
NS-05T	70	45	60	10	10	80	
NR-80	80	50	64	16	8	80	
NR-100	100	63	80	16	10	100	
P-3R	130	80	90	20	10	110	
P-5R	160	90	90	20	12	114	
P-15	250	110	110	32	15	140	
P-30	300	130	130	31	15	160	
P-40	350	150	130	32	18	166	
SF-440	440	300	190	50	16	222	



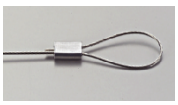
End termination

Eyelets, threaded screws, or balls may be crimped, laser welded, soldered, pressed, caulked, or swaged onto the ends of stainless steel cables to optimize mechanical performance and comply with space requirements. Asahi Intecc engineers carefully review both initial tension and initial cable elongation, and wire rope elongation after bending several cycles as well as the break load to help clients select the correct terminal and stainless cable configuration.

Eye end

Mainly used in connection to a pin or a screw.
Wire rope stake eyes can be bent to any specified angle.
Caulking is possible without removing the coating, even with coated wire rope.

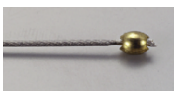
Loop end



Mainly used in connection to a pin.
Used for many applications as loop can be sized to suit specific need.

*With a thimble
Used in cables with loops when wear is a concern.
Provides wear resistance, greater strength and keeps shape of loop open.

Ball end



Ball can be swaged on in either the end or the middle of an assembly.
Mainly used in connection to a slit.

Threaded Studs end

Used in application which need to make fine adjustment to the length.

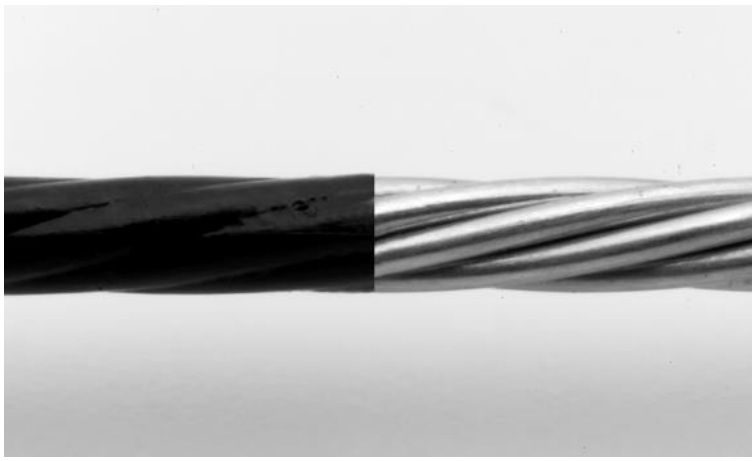
Flat end

Flat can be swaged on in the middle of an assembly.
Mainly used for intermediate attaching.

Stop end

Stop can be swaged on in either the end or the middle of an assembly.
Mainly used in application which permit rotation.

Outer coating



A stainless steel cable assembly may be sprayed, dipped, or extruded with PTFE, Nylon, and other coatings for your particular abrasion-resistance, lubricity, low coefficient of friction, and long-term durability requirements. Asahi Intecc can precisely mask the ends of the coated stainless steel cable assemblies to attach various in-house iron (FE), stainless steel (SUS, SS), Aluminum (AL), Copper (Cu), and other metallic finishes.

Comparison of properties

Type	Resin	Abbreviation	Cost (1=lowest)	Heat resistance	Flexibility	Chemical resistance	Lubricity	Minimum thickness
Polyamide	Nylon 12	PA	3	3	2	3	2	20μ
	Nylon 6	PA	3	5	2	3	2	20μ
Polyurethane	Polyurethane	PU	4	2	5	3	1	20μ
Polyethylene	Polyethylene	PE	1	2	3	3	2	20μ
Fluororesin	Fluorinated ethylene propylene	FEP	4	3	2	5	5	20μ
	Perfluoroalkoxy alkanes	PFA	4	5	2	5	3	20μ
	Ethylene tetrafluoroethylene	ETFE	3	3	2	3	2	20μ
	Polytetrafluoroethylene	PTFE	5	5	2	5	5	7μ

Legend

5 = Highest applicability

1 = Lowest applicability