

Product lineup

Specifications and Comparison of properties

Legend : 5=Highest, 1=Lowest applicability

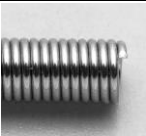

Category	Item	Type	Specification(Trial)		1to1 Torque response	High-speed rotation	Push/Pull	Compression	Flexibility	Feature							
			OD(mm)	ID(mm)													
Hollow cable	Torque coil	3layer	0.36-6.05	0.18-5.25	↑	5	3	2	4	bi-directional (3 layers) or unidirectional (2 layers) rotation *Archimedes screw with spiral wire							
		2layer	0.30-5.17	0.15-3.55													
		flat auger*	-	-													
	Torque Hypotube		0.20-1.10	0.10-0.70						5	2	5	5	1	high breaking strength and elongation resistance		
ACT ONE	standard	0.21-5.22	0.13-4.00	4	3	4	3	3	well balanced properties *Archimedes screw with spiral wire								
	flat ultra thin auger*	0.21-4.70	0.16-3.95														
Wire coil		round	0.10-3.50	~1.80	1	1	2	4	5	high flexibility and compression resistance							
		flat	0.10-5.90	0.07-5.30													
Cable	Drive Cable	2-6layer	0.41-6.00	-	↑	5	5	4	2	Optimized for high speed rotation and power transmission							
		Torque rope	1x3,1x7, 1x12,1x19	0.30-3.00							-	4	3	5	4	3	1:1 torque transmission at hand-speed rotation
		Wire rope	1x7,1x19 7x7,7x19 7x7x7, etc.	0.09-3.00							-	1	1	5	4	3	High breaking strength and elongation resistance
Coating	Outer coating	Extrusion Dip coat Spray	Floropolymer Nylon, etc.							To add lubricity, ablation resistance or biocompatible sealing to cable							
	Inner tube		Floropolymer							Inner coating applied to a hollow cable							
	Precoating		PTFE							Coating for both inner and outer of hollow cable without losing the property of the cable							
Assembly	Machining & Assembly		Laser welding, Grinding Tube assembly							Variety of welding and machining available for assembly or additional mechanical property							
	End termination		Ball, Eye, Loop, etc.							For the end of a cable or used for intermediate attaching.							
Power transmission	Synchromesh wire rope		AWS40 -AWS120	1.10-3.40						Synchronous round belt, ideal for linear-motion system drawn in 3-dimensional.							
	Cable rack		CL0.8S / H	W3.0xH3.6						With stainless cable core, ideal when the Rack needs to be flexible and high-force movement required.							

Wire coil



Asahi's round and flat wire coils have great compression resistance and excellent flexibility properties, making them ideal for endoscopic, medical robotics, distal guidewire components. Typical applications are, for example, endoscopic clips and protective flexible tubes with internal pull wires.

Specifications

Type		Push/Pull	Compression resistance	Flexibility	OD	ID		Length
Round wire coil		1	4	5	0.48-2.30 mm (Trial : 0.10-3.50)	0.28-1.10 mm (Trial : ~1.80)	$4 \leq D/d \leq 8$ D : Coil OD d : wire OD	up to 3000mm
Flat wire coil		2	5	4	0.38-2.11 mm (Trial : 0.10-5.90)	0.24-1.07 mm (Trial : 0.07-5.30)	$5 \leq D/t \leq 8$ D : Coil OD t : wire thickness	up to 3000mm

Legend 5 = Highest applicability
1 = Lowest applicability

Machining & Assembly

Processing on surface



Swaging process

We can decrease O. D. without both I. D. change and decrease of stiffness by beating surface of rope. It improves the anti-elongation



Flat-grinding process

We can perform Flat-grinding on surface of rope in whole length . It improves flexibility of rope without changing I. D..



Auger

We can set additional filar on rope. This structure adds the transportation function to rope.



Marking process

We can put marking to make clear the its position of the wire rope.

End treatment



Electric discharge method

This method makes individual filars avoid being crushed by cutting with nipper.



End treatment by laser

We can unite individual filars into one end by laser welding.



Plasma welding

We can make hemisphere shape at the end of rope. It improves both safety and sliding performance.



L-grinding process

We can perform high precision grinding process to make L-shaped end of rope. This shape helps to connect rope to other materials.

Assembly



Laser welding

We can weld different kind of materials by laser welding.



Solder welding

We can weld different kind of materials by soldering.