

Flexible Shaft

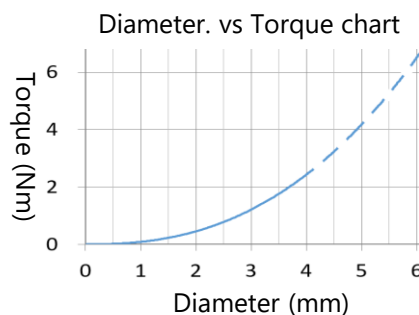


Flexible shaft (Product name: Drive cable) offers high torque force and excellent rotational performance during high-speed rotation, Designed for transmitting power or rotary motion through obstructed or curved path, either between fixed shafts or shafts having relative movement.

It can solve problems of misalignment, absorb and isolate vibration, and simplify power transmission designs and applications.

Specifications

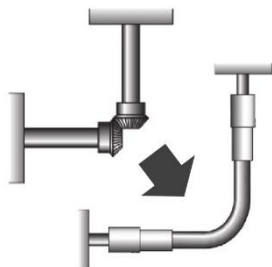
- Diameter: 0.5 - 4.0mm (Trial : up to 6.0mm)
- Max. Torque: up to 2.4Nm (Trial : up to 6.5Nm)
- Construction: 3 – 6 layers
- Material: Stainless steel, Ni-Ti



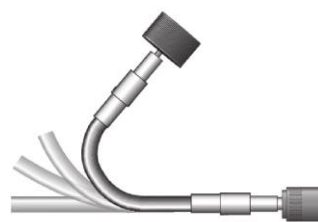
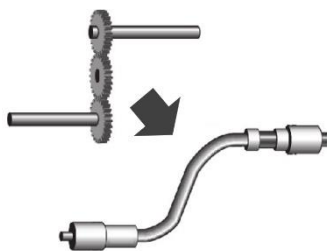
Applications

Flexible shaft tools in dental, jewelry and industrial applications.

Power transmission example



Simplify the designs solving misalignment



Between shafts having relative motion

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*	-	-															
	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	0.21-4.70	0.16-3.95															
		ultra thin auger*	0.42-3.90	0.34-3.35															
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	OD(mm)						ID(mm)						↑	5	5	4	2
			0.41-6.00						-										
	Torque rope	1x3,1x7, 1x12,1x19	0.30-3.00						-	4	3	5	4	3					
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.														