

Known for durability. Trusted for quality.

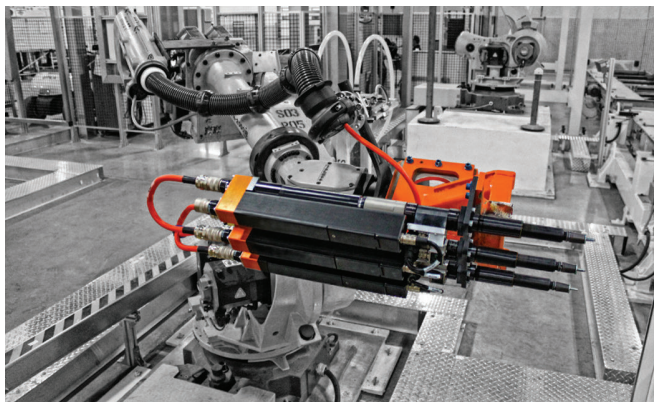
The ultimate **automated** tightening solutions.

Cleco DGD™ Intelligent Spindles are the exclusive fixtured assembly solution, combining reduced floor space, fewer cables and high-speed uptime availability for automated fastening applications. Intelligent spindles provide a wide range of torque capability and industry-leading free speeds.



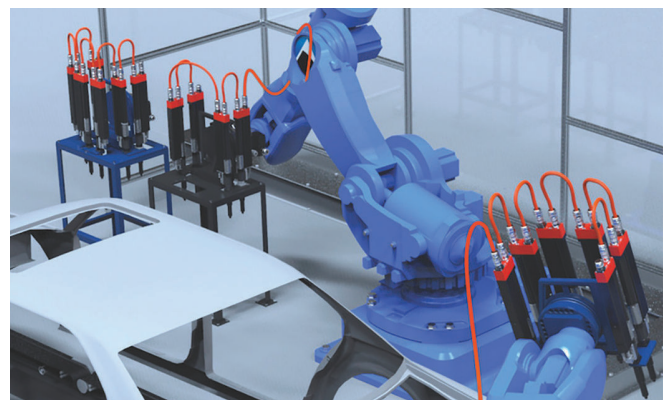
Reduce your **footprint and total cost of ownership** via our exclusive intelligent spindle cabling technology.

When you're looking to run robotic tightening applications, look to Cleco DGD intelligent spindle solutions. By utilizing our exclusive daisy-chain connectors, we offer the only solution in the industry that enables you to run multiple spindles using a daisy-chained cable solution. This results in reduced system complexity, simple cable management and smaller pay-load capacity.



Same cell, same robot: **Intelli-Swap**, an industry first.

Combining Cleco DGD Intelligent Spindles and daisy-chain connectors with our patented Intelli-Swap system technology, plus an automatic, intelligent tool changer enables your system to rapidly switch from one group of spindles to another using the same controller. Cleco DGD solutions enable you to effortlessly manage multiple applications in a single cell.



Fixtured Spindles

Intelligent Spindle - BTS Size 1-4 (2-660 Nm) - Angle Drive - Single Torque Transducer - Single Angle Encoder

On board servo module, Patented daisy chain, Twin Torque transducer, TwinAngle Encoder, Modular construction



- Long Service Life, Maximum Precision, High Accuracy, World class free speed, On-Board trouble shooting
- Floating adapter not included with spindle

MODEL	TORQUE RANGE				FREE SPEED R/MIN	FLOAT MM	DRIVE TYPE	MIN CENTER TO CENTER		WEIGHT		LENGTH	
	MIN NM	MAX NM	MIN FT LB	MAX FT LB				MM	LB	KG	IN	MM	
1BTS-1B012A-1WK3B	2	12	1.48	8.9	1801	25	3/8" SQUARE DRIVE	52	12.6	5.7	21.3	542	
1BTS-1B035A-1WK1B	5	35	3.69	25.8	681	25	3/8" SQUARE DRIVE	52	12.6	5.7	21.3	542	
1BTS-1B060A-1WK2B	15	53	11.1	39.1	400	25	3/8" SQUARE DRIVE	52	12.6	5.7	21.3	542	
2BTS-2B110A-2WK1B	25	110	18.5	81	838	25	1/2" SQUARE DRIVE	59	19.2	8.7	22.9	581	
2BTS-2B200A-2WK3B	40	200	29.5	148	472	25	3/4" SQUARE DRIVE	59	19.2	8.7	22.9	581	
3BTS-3B300A-3WK2B	50	300	36.9	221	437	25	3/4" SQUARE DRIVE	81	39.2	17.8	26.7	678	
4BTS-4B500A-4WK2B	100	500	74	369	245	25	1" SQUARE DRIVE	112	60	27.1	28.7	729	
4BTS-4B660A-4WK3B	130	660	96	487	167	25	1" SQUARE DRIVE	112	60	27.1	28.7	729	

Intelligent Spindle - BTSE Size 1-4 (2-660 Nm) - Angle Drive - Single Torque Transducer

On board servo module, Patented daisy chain, Torque transducer, modular construction



- Long Service Life, Maximum Precision, High Accuracy, World class free speed, On-Board trouble shooting
- Floating adapter not included with spindle

MODEL	TORQUE RANGE				FREE SPEED R/MIN	FLOAT MM	DRIVE TYPE	MIN CENTER TO CENTER		WEIGHT		LENGTH	
	MIN NM	MAX NM	MIN FT LB	MAX FT LB				MM	LB	KG	IN	MM	
1BTSE-1B012A-1WM3B	2	12	1.48	8.85	1801	25	3/8" SQUARE DRIVE	52	12.6	5.7	21.3	542	
1BTSE-1B035A-1WM1B	5	35	3.69	25.8	681	25	3/8" SQUARE DRIVE	52	12.6	5.7	21.3	542	
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3BTSE-3B300A-3WM2B	50	300	36.9	221	437	25	3/4" SQUARE DRIVE	81	39.2	17.8	26.7	678	
4BTSE-4B500A-4WM2B	100	500	73.8	369	245	25	1" SQUARE DRIVE	112	60	27.1	28.7	729	
4BTSE-4B660A-4WM3B	130	660	95.9	487	167	25	1" SQUARE DRIVE	112	60	27.1	28.7	729	