



PRODUCTS
FOR THE

PACKAGING INDUSTRY

APPLICATION GUIDE

NEXEN SOLUTIONS FOR YOUR PACKAGING MOTION CONTROL CHALLENGES

Nexen has a wide range of products designed for use in all areas of the packaging industry. With high torque and reliable performance, Nexen's air- and spring-engaged products out-last the competition. In addition to the four areas listed here, Nexen offers products for bag filling systems, pouch packers, cartoning machines, and shrink wrappers.

Torque Limiters

Synchronized engagement after an overload can be a critical element in form/fill/seal operations. Nexen's torque limiters offer single position engagement features to do just this. Top quality and long-life ensure the overload protection element is worry-free.

Form Fill & Seal

Overload Protection System

The remotely-adjusted OPS detects clutch slip in torque overload conditions and disconnects downstream equipment from the power source for ultimate protection. Nexen's OPS allows the motor to run while the obstruction is cleared. Re-engagement of the clutch, at any speed, is accomplished with a simple push of a button.

FMCBE Clutch/Brakes

Stop/start demands of a form/filling/seal sequence require a clutch/brake for drive train control. Nexen's high performance Air Champ® product line has a proven record of long-life and unmatched performance in packaging equipment demanding high and low torque management.

Palletizer

FMCBE Clutch/Brakes

Nexen's line of flange-mounted clutch/brakes provide accurate stop/start control for the in-feed conveyor.

Caliper Brakes

Designed for holding and stopping applications, Nexen's caliper brakes are available in a wide range of torque and mounting configurations to fit several machine functions.

FMBES Motor Brakes

Nexen's cool operating motor brake is perfect for repeated and cyclic stop-starts of the out-feed drive.

TSE Brakes

With product size versatility to meet your needs, these spring-engaged, air-released brakes provide holding torque in power-off conditions. The brakes attach to shafts with QD (quick detachable) bushings.

Overload Protection System

Nexen's OPS provides protection for filling machine components by disconnecting the motor from the load when an overload occurs. The OPS prevents the motor's rotor inertia from contributing to machine/product damage caused by torque overloads. The clutch torque level is easily adjusted with a simple air regulator.

FMCBE BISSC Approved Clutch/Brakes

Specifically designed for wash-down, Nexen's line of BISSC certified clutch/brakes ensures reliability in filling/capping systems with high performance demands.

Torque Limiters

Synchronized engagement of the drive-train is critical after a torque overload situation; Nexen's torque limiters offer single position engagement to time the interdependent sequences within a filling and bottling machine.

Bottler/Filler Capper

B-275 Clutches

Ideal for precision controlled capping applications, Nexen's B-275 clutches provide the torque for twist-on cap mechanisms. Nickel-plated for wash-down, the B-275 clutch is perfectly suited for harsh environments and chemical exposure.

TSE Brakes

Ideally suited for stop and hold applications within filler and cappers, the TSE line of brakes provide accurate stop location during intermittent and/or repeated stopping action.

Case Packer

Caliper Brakes

Nexen's caliper brakes provide high torque braking and holding for case packers. Caliper brakes are easy to incorporate and can fit into tight areas with limited available space.

FMCBE Clutch/Brakes

The FMCBE model provides reliable performance and a long life of delivering stop-start torque control to the case packer. Nexen designed the Air Champ line with simplicity in mind so you can focus on the sophisticated elements of case packing equipment.

Torque Limiters

Disengagement of the drive train is essential in overload conditions to protect expensive case packer components. Nexen's air-adjusted, ball/dent, single-position torque limiter is designed for ultimate overload protection. A unique limit switch and spring arrangement provides an instantaneous disconnect of the power source from the downstream equipment if a jam-up occurs.

Tooth Clutches

When high torque transmission is essential, Nexen's tooth clutches provide positive torque transmission in a small package. With a proven history in packaging equipment, the 5-H series tooth clutch delivers every time.

Overload Protection System	B-275 Clutches	FMBES Motor Brakes	Torque Limiters	FMCBE Clutch/Brakes	TSE Brakes	Tooth Clutches	Caliper Brakes	FMCBE BISSC Clutch/Brakes	Servo Motor Brakes	Stage Brakes
<ul style="list-style-type: none">• Combination flange-mounted, air-engaged clutch, and control system that electronically detects clutch slip in torque overload conditions and disconnects downstream equipment from the power source• Push-button re-engagement at any speed	<ul style="list-style-type: none">• Nickel-plated friction clutch with adjustable torque range of up to 11 Nm at 5.5 bar [100 in-lb at 80 psi]• Engineered for repetitive duty applications• The through-shaft mounting design for sheave mount, pilot mount or clutch coupling half	<ul style="list-style-type: none">• NEMA C-flange mounted, spring engaged, air released, nickel plated• Excellent overhung load capacity and long bearing life• Longer facing life from dual friction interface with a large volume of usable friction material	<ul style="list-style-type: none">• Ball detent design for re-engagement in the same position every time• Flexible couplings allow higher shaft misalignment and excellent torsional rigidity	<ul style="list-style-type: none">• Flange mounted, totally enclosed clutch/brakes for controlled starts/stops in hostile, dirty environments• Easy installation• Fits NEMA C-faced motors and reducers• Optional foot mounting with a Nexen input shaft	<ul style="list-style-type: none">• Tapered, QD Bushing bores, spring engaged, 6 sizes (torque variations for each)• Easy replacement of split friction facings without taking the brake off the shaft• High heat dissipation with finned friction disc	<ul style="list-style-type: none">• Open or enclosed, nickel plated, inch or metric models• Flange or pilot mount• Single or multiple position• Flexible couplings allow higher shaft misalignment and excellent torsional rigidity	<ul style="list-style-type: none">• Spring or air-engaged models• Stopping and holding torque capacity up to 5650 Nm [50,000 in-lb]• Several disc diameters available for each caliper brake	<ul style="list-style-type: none">• Meets the Baking Industry Sanitation Standards Committee (BISSC), USDA and National Dairy 3-A standards• NEMA flange-mounted, totally-enclosed, nickel-plated, smooth housing surface, and sealed seams for easy cleanup in bakery and food processing industries• Stainless steel fasteners eliminate corrosion	<ul style="list-style-type: none">• Spring-engaged, air-released, power-off brakes• High holding and stopping torque• Anodized aluminum housing meets IP6 ratings• Seven model sizes	<ul style="list-style-type: none">• Spring-engaged, air-released, power-off brakes for the non-driven end of linear stages• Six bore sizes available

Torque Ranges Available



MOUNT CONFIGURATION	MODEL	TORQUE RANGE
Caliper/Disc Brakes	SPB, BC, DB	0,2–2147 Nm [2–19,000 in-lb]
Flange Mounted Brakes, NEMA	FMBES	11–102 Nm [100–900 in-lb]
Flange Mounted Clutch-Brakes, NEMA, totally enclosed	FMCBE	1,2–190 Nm [11–1680 in-lb]



Sheave Mount, Pilot Mount and Clutch Coupling Half	B-275, F-46, L-600, M-800, H-1000	0,6–316 Nm [5–2,800 in-lb]
Shaft Mounted	TSE	27–1130 Nm [240–10,000 in-lb]
Flange Mounted, AC and Servo Motors, NEMA, IEC and Metric	Eclipse Motor Brakes	2,3–124 Nm [20–1100 in-lb]



Flange Mounted	Stage Brakes	2,3 Nm [20 in-lb]
Torque Limiters	TL	4–1356 Nm [35–12,000 in-lb]
Overload Protection System	OPS	3–166 Nm [25–1,470 in-lb]

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