

# CUSTOM APPLICATION ENGINEERING

Quality Clutches, Brakes, Torque Limiters, and Web Control Systems Designed for You



Nexen's Custom Business Unit (CBU) will adapt and alter any Nexen product to meet your unique motion control, power transmission and power-off brake needs. Whether the application calls for a new unit or simply a modification to an existing unit, Nexen shows you how air-engaged clutches, brakes and torque limiters save time and money by providing the most efficient products in the industry. Our fast design, quotation and delivery response make this an easy, cost-effective option.

Nexen's extensive product line of more than 2500 component and systems for start-stop, disconnect and overload protection demonstrate our commitment to serve any motion control need. Nexen also offers products and systems for web tension applications that ensure proper web process control.

## Industries Served

Packaging  
 Food Processing  
 Material Handling / Conveyors  
 Foundry Equipment  
 Automotive Production Equipment  
 Commercial Laundry  
 Wind Turbine

Wood/Paper Processing, Converting  
 Printing  
 Newspaper Production  
 Linear Systems  
 Robotics  
 Machine Tool  
 ... and many more

## Product Experience

Pneumatically Engaged Brakes  
 Pneumatically Engaged Clutches  
 Pneumatically Engaged Torque Limiters  
 Pneumatically Engaged Clutch-Brakes  
 Spring-Engaged, Power-Off, Holding Brakes

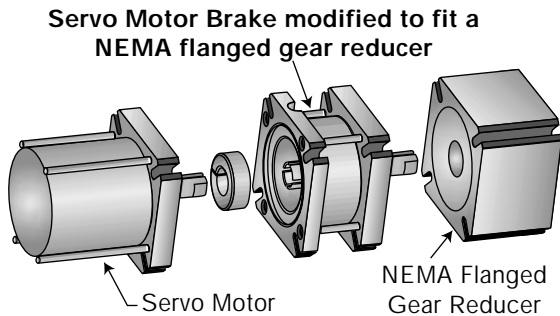
Servo Motor Brakes  
 Web Tension Control Brakes  
 Web Tension Control Clutches  
 Web Tension Electronic Controls  
 Web Guides

## Application Specialties

Power Transmission  
 Web Process control  
 Motion Control  
 Power-Off, Safety Brakes

# Custom Clutches, Brakes and Torque Limiters

## SAFETY, POWER-OFF BRAKES

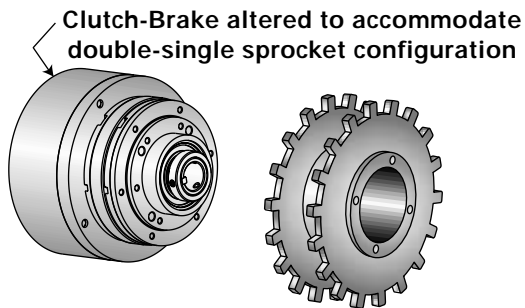


### Gantry Robot System

Nexen's CBU re-configured the flanges to mount the brake between a servo motor and a NEMA flanged gear reducer.

**RESULT:** New brake performs dynamic stopping and holding functions in power-off situations.

## HIGH TORQUE TRANSMISSION



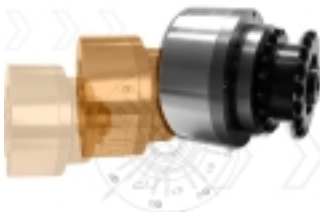
### Accumulating Conveyor System

Nexen's CBU combined a tooth clutch interface with a friction brake interface to construct a clutch-brake with an integral double-single sprocket.

**RESULT:** Single piston configuration prevents clutch/brake overlap in an efficient design for nonslip performance even on heavy loads.

## ADDITIONAL CUSTOM PRODUCT EXAMPLES:

- Multi-disc clutches in compact sizes for machines with space constraints
- Torque limiters to fit a drivetrain arrangement with a sensor for overload protection
- Clutch interfaces with ball/detents spaced for single and multiple positioning
- Spring-engaged units for specific holding torque and release pressure
- Unique drive flanges in a wide range of styles and diameters to fit all drive components
- IEC and NEMA flanged units designed to fit distinctly different sizes on the input and output ends
- Bore sizes, shaft sizes, bolt circles, and pilot diameters made to fit every motor up to 20 horsepower
- Corrosive resistant finishes to withstand severe environments
- Units shortened or lengthened to fit a specific envelop
- Clutches with customer-specified integral sprockets and pulleys
- Caliper brakes designed for a wide variety of disc widths to absorb large amounts of heat energy
- Special machined involute splines with minimum backlash units for machine accuracy
- Air-engaged clutch combined with a spring-engaged brake having different input and output flanges
- Unique mounting adapter to mount a tension control brake on a specific manufacturer's roll stand
- Miniature clutch and control valve combination for cycle rates up to 300 cycles per minute
- Friction interfaces with special high torque and energy capacity material
- Brakes with unique bores for linear stage braking and holding



## NEED HELP?

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21138-A-0202