

POLYCLUTCH®

Miniature Precision Clutches

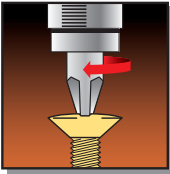
Continuous Slip Clutches Solve Many Design Engineering Problems

Polyclutch slip clutches can slip continuously or intermittently for over 30 million cycles. This opens up many design engineering options including...



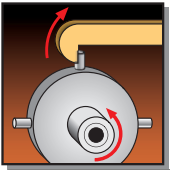
TENSION CONTROL

Maintain constant tension while winding or unwinding wire, paper, film, thread, etc. Slip clutch automatically compensates for changes in speed and diameter. Pneumatic clutch can change tension during operation.



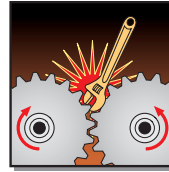
TORQUE CONTROL

Screw bottle caps, screws, controls, etc., to correct torque setting. Combine with one way clutch to slip at rated torque in one direction and freewheel or positive drive in other direction.



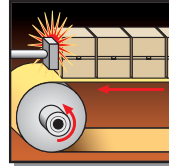
INDEXING

Hold index wheel with solenoid operated pin. Motor runs continuously with clutch slipping. Pin pulls back to index to next station. Can be single or partial revolution. Can index tables, conveyors, vending machines, controls, etc.



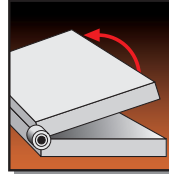
OVERLOAD PROTECTION

Protect machinery and operator. Clutch will slip when mechanism is jammed. Motion will continue when impediment is removed.



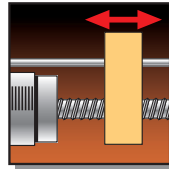
FORCE CONTROL

Push product against gate with constant force. Remove gate and move to next position. No damage to product or conveyor — clutch does all the slipping. Also used for overload protection when jammed and for indexing the conveyor.



POSITION RETENTION HINGE

Hold lid, cover, door, screen, etc., at any position. Fingertip control. Combine with one way clutch for free movement in one direction.



SOFT STARTS/CUSHIONED STOPS

Inertia makes clutch slip when starting and/or stopping. Results in less shock throughout the system. Ideal for slip at the end of stroke.



Constant Torque Gives You the Slip

A slip clutch acts as a continuous drag brake to meet the specific torque requirement for this unwind/rewind system application in a DATAMAX® bar code printer.

Other applications apply constant tension to film, wire, thread, paper, etc.



POLYCLUTCH® Extends Machinery Life and Eliminates Stiction

Polyclutch adjustable slip clutches control the precise amount of torque to tighten bottle caps, without wear or breakage, in this capping line application. All the slippage is in the clutch, with no appreciable wear.

Polyclutch mechanical slip clutches are available in both preset and adjustable torque versions. The torque of the adjustable version can be changed without it having to be removed from the shaft. The Polyclutch pneumatic slip clutch can be adjusted remotely while the machine is in operation. This is important for quick, repeatable, accurate setup.

Polyclutch's unique manufacturing process results in static friction being lower than dynamic friction. This means...

- No sudden shock on sensitive paper, film, wire, thread, etc.
- Repeatable cushioned torque for protection during overload

- Ideal for friction hinges when smooth movement of lids, doors, screens, covers, etc., is required
- Smooth, accurate starting/stopping of conveyors, indexing mechanisms, linear actuators, etc.
- Long life – over 30 million cycles
- Repeatable, accurate torque for capping machines, automatic screw driving, valve control, etc.

Our proprietary burn-in process ensures that all Polyclutch Slippers will perform consistently right out of the box, with no break-in period required. Custom Products, manufacturers of Polyclutch, is ISO-9001:2000 certified with emphasis on quality, delivery and customer satisfaction.



Continuous Slip Mechanical Clutches



Pneumatic Slip Clutches



Jaw Clutches



One Way Clutches

How To Order Miniature Precision Clutches

Application:

- Overload Protection Torque Control (*ie, Bottle Capping, screwdriver*)
 Constant Tension/Force Brake
 Soft Start/Cushioned Stop Position Retention
 Other (*Please fill out other application information*)

Operating Environment: (*list specific requirements, # corrosives, water, etc.*)

Orientation:

- Vertical Horizontal

Temperature Range: _____

Type of Equipment: _____

Other Application Information: _____

Clutch Information:

- Mechanical Pneumatic
 One-Way Jaw Clutch
 Combination

Torque Range: (*lb-in*) _____

Type of Mount: Shaft/Shaft Shaft Thru Other _____

If Shaft/Shaft:

Input Shaft Diameter _____

Output Shaft Diameter _____

If Shaft Thru:

Input Shaft Diameter _____

Output type (*gear, pulley, frame ...*) _____

RPM: (*at the clutch*) _____

Duty Cycle: (*percentage of time the clutch will be in slip condition*) _____

Maximum Space Limitations: (*envelope size, only if a limitation exists*) _____

Life Requirements: (*number of cycles, only if a specification exists*) _____

Contact Info:

First Name: _____ Last Name: _____

Company: _____

Address: _____

City: _____ State/Province _____ Zip Code: _____

Country _____

Tel _____

Fax _____

Email Address: _____

Does your equipment also use small motors, protective covers and/or cable and hose carriers?

- Yes No

ISO-9001:2000 CERTIFIED



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POLYCLUTCH®
Division