Polyclutch® precision slip clutches provide smooth breakaway, repeatable torque control, continuous slip, and a long operating life of 20 to 30 million revolutions in slip condition.
POLYCLUTCH® SLIP CLUTCH OVERVIEW

POLYCLUTCH ELIMINATES STICCTION

Dynatect’s clutches are manufactured utilizing a proprietary technique resulting in accurate and repeatable torque, smooth breakaway, and continuous slip durability. Stiction is the static friction that needs to be overcome to enable relative motion of stationary objects in contact. The elimination of static friction or “stiction” is a result of breakaway torque that is less than running torque, providing predictable performance and characteristics. Dynatect’s burn-in process ensures that all Polyclutch® slip clutches perform consistently right out of the box, with no break-in period required.

Key Benefits
- Smooth breakaway and continuous slip
- Accurate, repeatable cushioned torque
- Long life of 20-30 million cycles in slip condition
- Torque range from 0.5 lb-in to 1000 lb-in
- Fixed, adjustable and custom designs
- Clutches are bi-directional
- No break-in period required
- No lubrication needed

A Great Alternative To...
- Servo-motors: our solution costs less
- Magnetic clutches: smaller, less expensive
- Ball detent: no clicking, no reset required
- Torque limiters: consistent repeatability, continuous slip
- Electronic protection only: added mechanical safety in electronically controlled systems

DESIGN FUNCTIONS AND APPLICATIONS
Polyclutch slip clutches can slip continuously or intermittently for 20 to 30 million cycles. This opens up many design engineering options including...

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

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. No sudden shock on sensitive paper, film, wire, thread, etc.

Positioning Hinge
Hold lid or cover at any position. Fingertip control. Combine with one way clutch for free movement in one direction. Ideal for hinges when requiring smooth movement of lids, covers, doors, screens, medical equipment, light fixtures, etc.

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. Smooth, accurate starting/stopping of conveyors, indexing mechanisms, linear actuators, take-up reels, printers, etc.

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. Repeatable, accurate torque for capping machines, fastener driving, valve control, etc.

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.

A Great Alternative To...
- Servo-motors: our solution costs less
- Magnetic clutches: smaller, less expensive
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Limitations
- Maximum 1.25 inch shaft size
- Not to be used as a universal joint or a spring coupler
- Does not de-couple at overload
- Cannot be exposed to radiation
- If slip clutch would be directly exposed to weather or wash down, contact Dynatect to discuss

Polyclutch® is made in the USA
Automated Kiosks
Polyclutch® slip clutches are an integral part of many retail kiosks. As shown in this photo, a slip clutch is used to protect the sensitive drive mechanisms of these automated machines.

Bottle Capping
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.

Disabled Access Systems
A Polyclutch slip clutch provides safety in many disabled access systems, as seen in this photo, where it is being used for overload protection in an automated door opener.

Printers and Labelers
A slip clutch acts as a continuous drag brake to meet the specific torque requirement for this unwind/rewind system application in a bar code printer. Other applications apply constant tension to film, wire, thread, paper, etc.
APPLICATION EXAMPLES

Conveyors (left)
Polyclutch® slip clutches offer an added level of safety and protection to both the machine and its operators.

Ice-Dispensing Machines (right)
A Polyclutch slip clutch prevents overload to the drive mechanism during the forming and dispensing of ice cubes.

Military and Law Enforcement Robots (left)
An industry leader in defense robotics utilized two Polyclutch slip clutches in each robot arm for overload protection.

Retail Vending Kiosks (right)
A Polyclutch protects this machine against any type of overload or jamming during the process of dispensing a DVD.

MRI Beds (left)
A slip clutch adds mechanical safety to moving MRI beds.

Label Printer (right)
Polyclutch slip clutches are the perfect solution for adding just the right amount of tension to any reel or spool without having to worry about the tension varying over time or wearing out prematurely.

SEE PAGE 18 FOR ADDITIONAL EXAMPLES
SERIES 16 | MECHANICAL SLIP CLUTCHES

OUR MOST COMPACT MODEL FEATURES BIG TORQUE IN A SMALL PACKAGE

ADJUSTABLE

SAO, SAS, PAO, PAS
SAO SHOWN

shaft-through version shown
oil impregnated bronze bearing in housing
adapt pulley, sprocket, frame, etc. to boss

cartridge with adjusting nut

SAO SHOWN

shaft to shaft version shown
set screws in housing shafts must be in line within .020” and supported

cartridge with fixed collar (factory set)

FIXED FACTORY SET – NON ADJUSTABLE

SFO, SFS, PFO, PFS
SFS SHOWN

END VIEW TYPICAL

MODEL NO. A inches (mm) B STD. B MAX. C inches (mm) D inches (mm) E inches (mm) CAPACITY @ 50 RPM SURFACES

<table>
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<th>MODEL NO.</th>
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<th>C inches (mm)</th>
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PART NUMBER EXAMPLE

See page 16 for part number identification.

P  F  S  16  -  4  -  4  T*

1 2 3 4 5 6

4/16 = .250-inch bore dia. in clutch housing
4/16 = .250-inch bore dia. in clutch cartridge
Size 16 = 16/16 (1-inch outside dia.)
Shaft to shaft installation type
Fixed torque (factory preset)
Single-plate Slipper

*T = Preset Torque Value, customer-specified

QUOTE REQUEST FORM: SEE PAGE 17

To see how Polyclutch® slip clutches operate, visit dynatect.com/clutch-video
The Polyclutch® Slipper controls torque for intermittent, continuous or overload slip. It contains a number of brass plates interfaced with long life friction material. Soft springs maintain pressure on the friction plates, assuring constant torque. An adjacent component of your mechanism can often be used as the clutch housing reducing overall cost or space concerns. Torque control in one direction can be achieved by combining with our one-way clutch.

**NOTE:** Multi-plate clutches shown. Single-plate clutch supplied with one set of friction plates and pads.

**PART NUMBER EXAMPLE**
See page 16 for part number identification.

**SLIPPER | MECHANICAL SLIP CLUTCHES**

**ADJUSTABLE**

**FIXED FACTORY SET – NON ADJUSTABLE**

**END VIEW TYPICAL**

**NOTE:**

- Multi-plate clutches shown. Single-plate clutch supplied with one set of friction plates and pads.

**PART NUMBER EXAMPLE**
See page 16 for part number identification.

**SLIPPER | MECHANICAL SLIP CLUTCHES**

**END VIEW TYPICAL**

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**SLIPPER | MECHANICAL SLIP CLUTCHES**

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See page 16 for part number identification.

**SLIPPER | MECHANICAL SLIP CLUTCHES**

**END VIEW TYPICAL**

**NOTE:**

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**PART NUMBER EXAMPLE**
See page 16 for part number identification.
### SLIPPER | SPECIFICATIONS

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<th>CAPACITY @ 50 RPM</th>
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*Bore diameters (Dimension B) other than standards shown are available up to the maximum diameter.

Please note that torque capacities are only guidelines. Higher torques and speeds are possible depending on operating conditions. Consult factory for details.

**QUOTE REQUEST FORM: SEE PAGE 17.**

To see how Polyclutch® slip clutches operate, visit dynatect.com/clutch-video
The V-Series Slipper provides torque control for driving, capping and other applications where thrust loads are applied. Its integrated ball bearing allows thrust loads up to 650 pounds without any effect on torque. Self-supporting hub design allows for easy installation; shaft-through support is not required. The V-Series slipper may be used for pulley applications, and its design allows rebuilding, if necessary.

### V-Series Slipper | Mechanical Slip Clutches

See page 16 for part number identification.

**Part Number Example**

**V A S 20 - 4 - 4**

- **VAS 20 - 4 - 4**
- Size 20 = 20/16 (1.25-inch outside dia.)
- Shaft to shaft installation type
- Adjustable torque
- V-Series Slipper

**VAS 44 - 12mm - 10mm**

- Size 44 = 44/16 (2.75-inch outside dia.)
- Shaft to shaft installation type
- Adjustable torque
- V-Series Slipper

**Output bore diameter BB**
- 4/16 = .250-inch bore dia. in clutch housing
- 4/16 = .250-inch bore dia. in clutch cartridge
- Size 20 = 20/16 (1.25-inch outside dia.)
- Shaft to shaft installation type
- Adjustable torque
- V-Series Slipper

**Input bore diameter B**
- 10 mm bore dia. in housing
- 12 mm bore dia. in clutch cartridge
- Size 44 = 44/16 (2.75-inch outside dia.)
- Shaft to shaft installation type
- Adjustable torque
- V-Series Slipper
### V-SERIES SLIPPER | SPECIFICATIONS

**HORIZONTAL & VERTICAL INSTALLATION WITHOUT DRIVESHAFT MODIFICATIONS!**

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<tr>
<th>MODEL NO.</th>
<th>A inches (mm)</th>
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<th>BBD inches (mm)</th>
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</table>

* Bore diameters (Dimension B): other than standards shown are available up to the maximum diameter.

** Standard output bore (Dimension BB): other diameters (English and metric), hex sizes or custom configurations are available upon request.

### THRUST LOAD CAPACITY @ 50 RPM FRICITION SURFACES

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>THRUST LOAD lbs. (N)</th>
<th>CAPACITY @ 50 RPM lb-in (Nm)</th>
<th>Watts</th>
<th>SURFACES</th>
</tr>
</thead>
<tbody>
<tr>
<td>VAS 20</td>
<td>165 (37)</td>
<td>12 (1.36)</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>VAS 24</td>
<td>255 (57)</td>
<td>25 (2.82)</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>VAS 32</td>
<td>300 (67)</td>
<td>50 (5.65)</td>
<td>30</td>
<td>12</td>
</tr>
<tr>
<td>VAS 44</td>
<td>400 (89)</td>
<td>75 (8.47)</td>
<td>43</td>
<td>12</td>
</tr>
<tr>
<td>VAS 48</td>
<td>665 (149)</td>
<td>100 (11.29)</td>
<td>55</td>
<td>12</td>
</tr>
</tbody>
</table>

Please note that torque capacities are only guidelines. Higher torques and speeds are possible depending on operating conditions. Consult factory for details.

QUOTATION REQUEST FORM: SEE PAGE 17.

To see Polyclutch® slip clutches operate, visit dynatect.com/clutch-video
SLIP-EASE | MECHANICAL SLIP CLUTCHES

Utilizes an axial loaded multi-plate design. For applications where space is at a premium and low backlash is required.

PART NUMBER EXAMPLES
See page 16 for part number identification.

E A S 32 - 8 - 10

1 2 3 4 5 6

10/16 = .625-inch bore dia. in housing
8/16 = .500-inch bore dia. in clutch cartridge
Size 32 (relative size) 1.625-inch outside dia.
Shaft to shaft installation type
Adjustable torque
Slip-Ease

E F O 44 - 12mm - 12mm

1 2 3 4 5 6

12 mm bore dia. in clutch housing
12 mm bore dia. in clutch cartridge
Size 44 (relative size) 2.25-inch outside dia.
Shaft-through installation type
Fixed torque (factory preset)
Slip-Ease
<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>A inches (mm)</th>
<th>B* STD. inches (mm)</th>
<th>B MAX. inches (mm)</th>
<th>C inches (mm)</th>
<th>D inches (mm)</th>
<th>E inches (mm)</th>
<th>CAPACITY @ 50 RPM</th>
<th>FRICTION SURFACES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>+.002 / -.000 inches (+.05 / -.00 mm)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EAS 12 &amp; EAO 12</td>
<td>.750 (19.05)</td>
<td>.1875 (5)</td>
<td>.250 (6)</td>
<td>1.25 (31.75)</td>
<td>.562 (14.28)</td>
<td>.188 (4.78)</td>
<td>8.5 (.96)</td>
<td>4.5</td>
</tr>
<tr>
<td>EFS 12 &amp; EFO 12</td>
<td>.750 (19.05)</td>
<td>.1875 (5)</td>
<td>.250 (6)</td>
<td>1.00 (25.40)</td>
<td>.562 (14.28)</td>
<td>.188 (4.78)</td>
<td>8.5 (.96)</td>
<td>4.5</td>
</tr>
<tr>
<td>EFS 16 &amp; EFO 16</td>
<td>1.000 (25.40)</td>
<td>.250 (8)</td>
<td>.375 (9)</td>
<td>1.19 (30.2)</td>
<td>.750 (19.05)</td>
<td>.25 (6.35)</td>
<td>16 (1.81)</td>
<td>9</td>
</tr>
<tr>
<td>EAS 16 &amp; EAO 16</td>
<td>1.000 (25.40)</td>
<td>.250 (8)</td>
<td>.375 (9)</td>
<td>1.50 (38.1)</td>
<td>.750 (19.05)</td>
<td>.25 (6.35)</td>
<td>16 (1.81)</td>
<td>9</td>
</tr>
<tr>
<td>EFS 24 &amp; EFO 24</td>
<td>1.375 (34.90)</td>
<td>.375 (10)</td>
<td>.500 (13)</td>
<td>2.00 (50.8)</td>
<td>1.000 (25.40)</td>
<td>.38 (9.65)</td>
<td>25 (2.82)</td>
<td>15</td>
</tr>
<tr>
<td>EAS 24 &amp; EAO 24</td>
<td>1.375 (34.90)</td>
<td>.375 (10)</td>
<td>.500 (13)</td>
<td>2.50 (63.50)</td>
<td>1.000 (25.40)</td>
<td>.38 (9.65)</td>
<td>25 (2.82)</td>
<td>15</td>
</tr>
<tr>
<td>EFS 32 &amp; EFO 32</td>
<td>1.625 (41.28)</td>
<td>.500 (12)</td>
<td>.625 (16)</td>
<td>1.87 (47.5)</td>
<td>1.375 (34.93)</td>
<td>.50 (12.70)</td>
<td>50 (5.65)</td>
<td>30</td>
</tr>
<tr>
<td>EAS 32 &amp; EAO 32</td>
<td>1.625 (41.28)</td>
<td>.500 (12)</td>
<td>.625 (16)</td>
<td>2.44 (62.0)</td>
<td>1.375 (34.93)</td>
<td>.50 (12.70)</td>
<td>50 (5.65)</td>
<td>30</td>
</tr>
<tr>
<td>EFS 44 &amp; EFO 44</td>
<td>2.250 (57.15)</td>
<td>.500 (12)</td>
<td>.625 (16)</td>
<td>1.87 (47.5)</td>
<td>1.625 (41.28)</td>
<td>.50 (12.70)</td>
<td>75 (8.47)</td>
<td>43</td>
</tr>
<tr>
<td>EAS 44 &amp; EAO 44</td>
<td>2.250 (57.15)</td>
<td>.500 (12)</td>
<td>.625 (16)</td>
<td>2.44 (62.0)</td>
<td>1.625 (41.28)</td>
<td>.50 (12.70)</td>
<td>75 (8.47)</td>
<td>43</td>
</tr>
<tr>
<td>EAS 52 &amp; EAO 52</td>
<td>3.250 (82.55)</td>
<td>.750 (20)</td>
<td>1.250 (32)</td>
<td>4.00 (101.6)</td>
<td>2.000 (50.8)</td>
<td>.50 (12.70)</td>
<td>150 (16.95)**</td>
<td>85</td>
</tr>
</tbody>
</table>

*Bore diameters (Dimension B): other than standards shown are available up to the maximum diameter.

**Maximum capacity is 1,000 lb-in /112 Nm with design modification. Heat generation should not exceed maximum Watts capacity. Watts = Torque x RPM x Duty Cycle x 0.011

QUOTE REQUEST FORM: SEE PAGE 17
To see how Polyclutch® slip clutches operate, visit dynatect.com/clutch-video
SLIP-AIRE | PNEUMATIC SLIP CLUTCHES

The Polyclutch Slip-Aire is an air actuated version of the mechanical Polyclutch slip clutch. It has the same long life friction plates, assuring constant torque or tension. With air actuation it can be used to engage/disengage, to vary the torque during operation, or to adjust the torque remotely at any time. Ideal for servo mechanisms, it transmits higher torque levels than comparably sized mechanical slip clutches.

PART NUMBER EXAMPLES
See page 16 for part number identification.

A A S 32 - 12mm - 16mm

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>A</td>
<td>S</td>
<td>32</td>
<td>-</td>
<td>12mm - 16mm</td>
</tr>
</tbody>
</table>

- 16 mm bore dia. in clutch housing
- 12 mm bore dia. in clutch cartridge
- Size 32 = 32/16 (2-inch outside dia.)
- Shaft to shaft installation type
- Adjustable torque
- Slip-Aire

A A O 20 - 4 - 4

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>A</td>
<td>O</td>
<td>20</td>
<td>-</td>
<td>4 - 4</td>
</tr>
</tbody>
</table>

- 4/16 = .250-inch bore dia. in clutch housing
- 4/16 = .250-inch bore dia. in clutch cartridge
- Size 20 = 20/16 (1.25-inch outside dia.)
- Shaft-through installation type
- Adjustable torque
- Slip-Aire
<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>A inches (mm)</th>
<th>B* STD. inches (mm)</th>
<th>B MAX. inches (mm)</th>
<th>C inches (mm)</th>
<th>D** inches (mm)</th>
<th>E inches (mm)</th>
<th>EE inches (mm)</th>
<th>F inches (mm)</th>
<th>G inches (mm)</th>
<th>H inches (mm)</th>
<th>J inches (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAS 20 &amp; AAO 20</td>
<td>1.25 (31.75)</td>
<td>.250 (8)</td>
<td>.375 (10)</td>
<td>2.50 (63.50)</td>
<td>.760 (19.30)</td>
<td>.25 (6.35)</td>
<td>.50 (12.70)</td>
<td>2.00 (50.80)</td>
<td>1.062 (26.98)</td>
<td>.94 (2.39)</td>
<td>10-32</td>
</tr>
<tr>
<td>AAS 24 &amp; AAO 24</td>
<td>1.50 (38.10)</td>
<td>.375 (10)</td>
<td>.500 (13)</td>
<td>3.38 (85.85)</td>
<td>1.010 (25.65)</td>
<td>.38 (9.65)</td>
<td>.75 (19.05)</td>
<td>2.63 (66.80)</td>
<td>1.312 (33.73)</td>
<td>.125 (3.18)</td>
<td>10-32</td>
</tr>
<tr>
<td>AAS 32 &amp; AAO 32</td>
<td>2.00 (50.80)</td>
<td>.500 (12)</td>
<td>.625 (16)</td>
<td>3.63 (92.20)</td>
<td>1.385 (35.18)</td>
<td>.50 (12.70)</td>
<td>1.00 (25.40)</td>
<td>2.63 (66.80)</td>
<td>1.672 (42.47)</td>
<td>.188 (4.78)</td>
<td>10-32</td>
</tr>
<tr>
<td>AAS 44 &amp; AAO 44</td>
<td>2.75 (69.85)</td>
<td>.500 (12)</td>
<td>.625 (16)</td>
<td>3.63 (92.20)</td>
<td>1.635 (41.53)</td>
<td>.50 (12.70)</td>
<td>1.00 (25.40)</td>
<td>2.63 (66.80)</td>
<td>2.375 (60.33)</td>
<td>.188 (4.78)</td>
<td>10-32</td>
</tr>
</tbody>
</table>

*Bore diameters (Dimension B): other than standards shown are available up to the maximum diameter.

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>CAPACITY CONTINUOUS @ 50 PSI lb-in (Nm)</th>
<th>CAPACITY MAXIMUM @ 100 PSI lb-in (Nm)</th>
<th>WATTS</th>
<th>FRICTION SURFACES</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAS 20 &amp; AAO 20</td>
<td>12 (1.36)</td>
<td>20 (2.26)</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>AAS 24 &amp; AAO 24</td>
<td>25 (2.82)</td>
<td>50 (5.65)</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>AAS 32 &amp; AAO 32</td>
<td>50 (5.65)</td>
<td>100 (11.30)</td>
<td>30</td>
<td>12</td>
</tr>
<tr>
<td>AAS 44 &amp; AAO 44</td>
<td>75 (8.47)</td>
<td>300 (33.90)</td>
<td>43</td>
<td>12</td>
</tr>
</tbody>
</table>

*Rated torque for continuous operation at 50 RPM. Torque can be higher or lower depending on actual RPM and duty cycle.
**Maximum torque attainable (at 100 PSI).
ONE WAY CLUTCHES

POLYCLUTCH® SHELL-PAK
Right Drive: Shell drives hub clockwise when viewed from extension end of hub.
Torque capacity 8 lb-in.

Dimension B = 0.250 (Bore Diameter)   Dimension D = 0.0625 (Pin Diameter)
Polyclutch® Jaw type clutches permit simple, reliable phase adjustment, and/or engage-release between a shaft and gear, pulley, roller, etc. The D-Series is knob-operated, the J-Series is lever-operated. Clutch teeth are precision machined from solid steel blanks, 3° tooth spacing (120 teeth) is standard. Alternate spacing available. Polyclutch jaw clutches are stronger than the shaft driving them.

<table>
<thead>
<tr>
<th>Model Number</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>P</th>
<th>Q</th>
<th>R</th>
<th>S</th>
<th>KEY</th>
</tr>
</thead>
<tbody>
<tr>
<td>DH 20</td>
<td>1.25</td>
<td>.250</td>
<td>1.87</td>
<td>.562</td>
<td>.39</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>DK 20</td>
<td>1.25</td>
<td>–</td>
<td>–</td>
<td>.562</td>
<td>.39</td>
<td>.375</td>
<td>.338</td>
<td>.032</td>
<td>.833</td>
<td>.845</td>
<td>#212</td>
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<tr>
<td>DH 32</td>
<td>2.00</td>
<td>.500</td>
<td>2.50</td>
<td>1.252</td>
<td>.75</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>DK 32</td>
<td>2.00</td>
<td>–</td>
<td>–</td>
<td>1.252</td>
<td>.75</td>
<td>.750</td>
<td>.703</td>
<td>.048</td>
<td>.890</td>
<td>1.470</td>
<td>#606</td>
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<tr>
<td>DJ 20 (Jaws Only)</td>
<td>1.25</td>
<td>.375</td>
<td>1.10</td>
<td>.560</td>
<td>.39</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>DJ 32 (Jaws Only)</td>
<td>2.00</td>
<td>.750</td>
<td>1.95</td>
<td>1.250</td>
<td>.75</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

**DH CLUTCH – WITH HUB**

- Customer shaft will require keyway slot and snap ring grooves

**DK KIT – LESS SHAFT**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>P</th>
<th>Q</th>
<th>R</th>
<th>S</th>
<th>KEY</th>
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</thead>
<tbody>
<tr>
<td>JH 32</td>
<td>2.00</td>
<td>.500</td>
<td>3.37</td>
<td>1.252</td>
<td>.75</td>
<td>.750</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>JK 32</td>
<td>2.00</td>
<td>–</td>
<td>–</td>
<td>1.252</td>
<td>.75</td>
<td>.750</td>
<td>.703</td>
<td>.047</td>
<td>.890</td>
<td>1.625</td>
<td>.187 SQ</td>
</tr>
</tbody>
</table>

**JH CLUTCH – WITH HUB**

- Customer provision for pivot point required

**JK KIT – LESS SHAFT**

- Customer provision for pivot point required

- Customer shaft will require keyway slot and snap ring grooves

Phase adjustment shaft to pulley
Pulley pressed onto knurled housing

Prevent reversal gear
Adapted to housing

Engage and disengage mechanism
Drive roll adapted to housing
SLIP CLUTCH MOUNTING OPTIONS

All Polyclutch® slip clutches perform the basic function of controlling the torque between two elements. They can be supplied as a shaft-to-shaft coupling or a shaft to pulley, gear, or sprocket model. Polyclutch® custom slip clutches can be provided with non-standard bore sizes, keyways, low backlash or higher torque, minus housings and with pulley, gear or sprocket.

Note: To see how Polyclutch® slip clutches operate, visit dynatect.com/clutch-video.

---

**FIG. 1**
Shaft to Shaft. Shafts must be supported and aligned within .010” - .015”.

**FIG. 2**
Gear/Pulley/Sprocket adapted to housing with knurl, roll pin, cap screws, etc.

**FIG. 3**
Supply or rewind spool adapted to housing with knurl, pin, cap screws, set screw, key, etc.

**FIG. 4**
Gear/Pulley/Sprocket modified with pins for engagement. Housing is eliminated.

**FIG. 5**
Gear/Pulley/Sprocket integrated as part of cartridge.

**FIG. 6**
Knob adapted to housing knurl, set screw, pin, etc.

**FIG. 7**
Machine frame adapted with cap screws to housing.

**FIG. 8**
Rotary position holder (hinge).
BUILD A POLYCLUTCH® PART NUMBER

S A S 24 - 4 - 6

HOUSING BORE SIZE:
Generally represented in sixteenths of an inch. For metric, add MM after bore sizes. (e.g., SAS24-4MM-6MM).

CARTRIDGE BORE SIZE:
Generally represented in sixteenths of an inch. For metric, add MM after bore size (e.g., SAS24-4MM).

OUTER DIAMETER:
Generally represented in sixteenths of an inch, please see specifications for exact dimensions.

INSTALLATION TYPE:
“S” is shaft to shaft
“O” is shaft-through for mounting to pulley, gear, sprocket, etc.
“Y” is cartridge only

TORQUE SETTING:
“A” is adjustable torque.
“F” is factory preset (fixed) torque. Indicate torque value: T= __

TYPE OF SLIP CLUTCH:
S = Multi-Plate Slipper
P = Single-Plate Slipper
V = V-Series Slipper
E = Slip-Ease
A = Slip-Aire (air-actuated)

STANDARD OPTIONS
Poly clutch slip clutches are designed to cover a wide range of solutions. To help better fit the clutch to your specific application, here is a list of standard options:

• Bore size changes – English (inches) and metric (mm)
• High torque option, accomplished by extra springs – “H” part no. suffix
  – Will increase capacity of standard adjustable slip clutches by 50% (note: removing springs will lower capacity, increase sensitivity)
• Keyways – English and metric – “K” part no. suffix
• Low backlash in Slipper clutch – “UL” part no. suffix
• Heavy inner plates for extra cooling – “D” part no. suffix
• 303/304 stainless steel construction – “Q” part no. prefix
• Two-plate Slipper clutch – “R” version (part no. begins with “R”)
• Plastic cover for Slipper and Slip-Aire clutches

CUSTOMIZED CLUTCHES
If you are looking for something outside of our standard options, our engineers will work with you to help design a clutch for your specific application. Polyclutch® custom slip clutches can be provided with non-standard bore sizes, keyways, low backlash or higher torque, minus housings and with pulley, gear or sprocket.
1. Application Information

☐ Overload Protection  ☐ Torque Control (i.e. bottle capping, screwdriver)
☐ Constant Tension/Force  ☐ Brake
☐ Soft Start/Cushioned Stop  ☐ Positioning Hinge
☐ Other  ___________________________________________________________

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

Orientation:  ☐ Vertical  ☐ Horizontal
Temperature Range: ___________________________ Type of Equipment: _____________________________________________
Other Application Information: _____________________________________________________________

2. Clutch Information

Polyclutch Part Number (if known): _______________________________________

☐ Mechanical Slip Clutch  ☐ Pneumatic Slip Clutch  ☐ One-Way Clutch  ☐ Jaw Clutch  ☐ Combination

Torque Range: ___________________________  ☐ lb-in  ☐ Nm

Type of Mount:
☐ Shaft/Shaft Mounting* *Input Shaft Diameter: __________________    *Output Shaft Diameter: ________________
☐ Shaft Through Mounting** **Input Shaft Diameter: ________________ **Output Type (gear, pulley, etc.): _____________
☐ Other: ________________________________________________________________________________________

RPM (at the clutch): __________________

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

Maximum Space Limitations (envelope size, if limitation exists): ________________

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

TIPS:
Visit our website for an online version at dynatect.com/request-for-quote. If using the fillable PDF version, first save the PDF to your computer, then open up in Adobe Reader, fill out, then save.
APPLICATION EXAMPLES

Dental Tool - The Polyclutch® slipper provides precision torque control during the manufacturing of dental implants.

Surgical Device - A Slip-Ease clutch is used as a retention hinge on a mounting platform.

Capping - The V-Series slipper is the ideal solution for torque control on capping machines.

Mechanical Safety - The V-Series Slipper provides overload protection and increases operator safety to this manual cutting tool. This mechanical slip clutch limits the amount of torque that is transferred to the cutting tool, making this a safer operation for the user.
OTHER PRODUCTS & SERVICES

GORTITE®
BELLOWS, PROTECTIVE
COVERS, AND DOORS

GORTRAC®
CABLE & HOSE CARRIERS

LSI
PRECISION BALL SCREWS

RO-LAB
MOLDED RUBBER & URETHANE

DYNATECT
REPAIR SERVICES

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email: sales@dynatect.com   |   dynatect.com

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