SEPAC Rotating Field Tooth Clutch
APPLICATION: Fly-by-Wire Coupling for Jet Fighter Control Stick
Specs: 2.87” dia x 1.80” long, 720 in-lb of torque
• Positive engagement
• 180 deg rotation
• Low backlash
• Stainless steel splined adapter

SEPAC Spring Engaged Dual Disc Power Off Brake
APPLICATION: Control Surface Actuator
Specs: 2.45” dia x 1.70” long, 66 in-lb of torque
• Lightweight aluminum backplate
• Supports a reverse mount configuration
• High torque to diameter ratio

SEPAC Multiple Disc Variable Speed Clutch
APPLICATION: Engine Cooling System for M113 Family of Vehicles
Specs: 8.50” dia x 5.50” long, 450 ft-lb of torque, 3,500 RPM
• Oil-cooled
• Variable torque output
• MIL-spec finishes

SEPAC Spring Engaged Multiple Disc Power Off Clutch
APPLICATION: Electric Turret Drive
Specs: 3.40” dia x 1.625” long, 200 in-lb of torque
• Unique power off operation
• Interchangeable gear options
• Operates in harsh desert conditions

SEPAC Stationary Field Wall Mounted Tooth Clutch
APPLICATION: Cannon Ammunition Feeder
Specs: 2.65” dia x 1.37” long, 420 in-lb of torque
• Operates under high vibration
• Battle tested, mission critical
• Zero defect reliability
• Maintenance free design
**INDUSTRIAL**

**SEPAC Spring Engaged Brake**
**APPLICATION:** CNC Lathe  
**Specs:** 3.36” dia x 1.60” long, 100 in-lb of torque  
- Power off design  
- Corrosion resistant coatings  
- Robust friction disc for long life and increased wear resistance  
- Stainless steel hardware

**SEPAC Hydraulically Released Spring Engaged Brake**
**APPLICATION:** Radar Antenna  
**Specs:** 14.50” dia x 4.00” long, 665 ft-lb of torque  
- Spring engaged, hydraulically released caliper type design  
- Rated for a maximum pressure of 2,000 PSI  
- Brake status sensors

**SEPAC Spring Engaged Power Off Tooth Brake**
**APPLICATION:** Factory Assembly Line  
**Specs:** 3.44” dia x 2.15” long, 80 ft-lb of torque  
- For use dry or in oil  
- 1° maximum backlash  
- Metric dimensions and fasteners available  
- Pilot feature on the magnet body for ease of installation

**ENERGY**

**SEPAC Multiple Disc Brake**
**APPLICATION:** Power Plant Valve/Door Actuator  
**Specs:** 6.38” dia x 3.55” long, 180 ft-lb of torque  
- Extremely high torque to diameter ratio  
- For use dry or in oil  
- High temperature magnet wire (Class “H” insulation)  
- High energy dissipation

**SEPAC Stationary Field Tooth Clutch**
**APPLICATION:** Natural Gas Processing Plant Valve/Pump Actuator  
**Specs:** 3.20” dia x 1.695” long, 40 ft-lb of torque, 12,000 RPM  
- Positive engagement  
- Corrosion resistant coatings on teeth  
- High speed design

Learn more about **SEPAC**  
Contact Your Clutch & Brake Specialist  
Toll Free: **1-800-331-3207**
## Military Applications

### HSEB-1450
- **Type:** HSEB Hydraulically Released, Spring Engaged Brake
- **Application:** X and Y axis brakes on a 70 meter radar antenna
- **Features:** Spline drive armatures and hub, cadmium plating, proximity sensor to indicate position of armature plate
- **Specs:** 14.5" dia. X 4.0" high, 665 lb. ft. torque, releases under 2000 psi hydraulic pressure

### SEB-175
- **Type:** SEB-175 Spring Set, Power Off, Fail-safe brake
- **Application:** Brake for actuator which holds the radar dish from moving when radar is not in use
- **Features:** High-torque friction material, e-nickel plating, hex drive
- **Specs:** 1.75" dia. X 1.06" high, 6.5 lb. in. torque

### SEB-140-2
- **Type:** SEB-140-2 Power Off, Spring Set, Fail-safe Brake, Double “D” Drive
- **Application:** Control surface actuators
- **Features:** Dual disks, high-torque friction material and high-torque plated plates, potted coil
- **Specs:** 1.45" dia. X 1.110" high, 7 lb. in. torque

### SEB-386-MR
- **Type:** SEB-386-MR Power Off, Spring Set, Fail-safe Brake
- **Application:** Antenna cable drum brake
- **Features:** Nitride treated parts, manual release, Mil-Spec connector and potted coil
- **Specs:** 3.86" dia. X 2.30" high, 100 lb. in. torque

### SEB-175
- **Type:** SEB-175 Spring Set, Power Off, Fail-safe Brake
- **Application:** Stabalator actuator holding brake.
- **Features:** Plating, potting coil wire and lead wire are designed to meet MIL-STD-810, designed for rear end motor mounting, e-nickel plating, hex drive hub, high torque friction material
- **Specs:** 1.75" dia. X 1.10" long, 6.5 lb. in. torque

### SEB-245-3
- **Type:** SEB-245-3 Dual Disk, Power Off, Spring Set, Fail-safe Brake
- **Application:** Boom Ruddervator actuator
- **Features:** Low-weight aluminum spider, reverse mount, spline drive dual disks, nitride treated plates and nickel magnet body
- **Specs:** 2.45" dia. X 1.70" high, 66 lb. in. torque
| Type: SEB-245-2 Dual Disk, Power Off, Spring Set, Fail-safe Brake |
| Application: Electric rescue hoist motor brake |
| Features: Low-weight aluminum spider, reverse mount, spline drive dual disks, electroless nickel plated magnet body, nitride treated plates |
| Specs: 2.45" dia. X 1.70" high, 66 lb. in. torque |

| Type: SEB-137 Spring Set, Power Off Brake |
| Application: Electric actuator to position ejection seat |
| Features: Plating, potting, coil wire and lead wire are all Mil-Spec requirements, designed for rear end motor mounting, nickel plated, potted coil, square drive hub, high coef., friction material |
| Specs: 21.375" dia X .750" long, one lb. in. torque |

| Type: WMTC-265 Stationary Field, Wall Mounted Tooth Clutch |
| Application: Ammo feed mechanism for the cannon |
| Features: Plating is cadmium with gold chromate, armature adapter is made of aluminum bronze, spline drive rotor and armature |
| Specs: 2.65" dia. X 1.37" in. high, 420 lb. in. torque |

| Type: SFTC-225 Stationary Field Tooth Clutch |
| Application: Ammunition feed mechanism for the Gatling guns |
| Features: Non magnetic armature teeth, e-nickel plated, aluminum bronze adapter plate, fully potted coil, ball bearing supported rotor |
| Specs: 2.25" dia. X 1.625" long, 450 lb. in. torque, 3500 rpm |

| Type: SEB-500-2 Dual Disk Power Off Spring Set Brake |
| Application: Leveling leg actuators on the Patriot missile radars |
| Features: Two discs, fully enclosed, Mil-Spec connector, nitride corrosion protection, internal and external splines |
| Specs: 5.50" dia. X 7.62" long, 45 lb. ft. torque |

| Type: MDC Multi Disk Clutch (Special) |
| Application: The clutch moves the optical sight, then holds it in position when the grenade launcher fires |
| Features: Six outer disks and five inner disks, moves +/- 15 degrees from null, magnet body has springs to provide pressure when power is removed from the coil providing the torque |
| Specs: 6.33" long X 2.2" high X 4.19" wide, 1000 lb. in. torque |
**RFTC-290**

**Type:** RFTC-290 Rotating Field Tooth Clutch

**Application:** A clutch to connect the servos in the throttle and navigation control joy sticks

**Features:** Rod end linkages provided by the two ears, rotor is supported by radial and thrust DU washers and splined rotor

**Specs:** 2.87" dia. X 1.80" long, 720 lb. in. torque

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**SFTC-225**

**Type:** SFTC-225 Stationary Field Tooth Clutch

**Application:** Ammunition feed for Gatling gun, ship mounted for missile protection

**Features:** (Pictured with cover removed) aluminum bronze adapter plate, e-nickel plating, ball bearing supported rotor, potted coil with Teflon lead wire, 28 VDC coil

**Specs:** 2.32" dia. X 1.7" long, 450 lb. in. torque, 3500 rpm

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**SSB-350**

**Type:** SSB-350 Housed Single Disk Power On Brake

**Application:** Boom hoist actuator

**Features:** Cadmium plating, gold chromate coated, single surface, dual coil, Mil-Spec connectors, potted coils and sealed

**Specs:** 3.50" dia. X 3.75" high, 235 lb. in. torque

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**MDVSC-850**

**Type:** MDVSC-850 Multiple Disk Variable Speed Clutch

**Application:** M-113 motor-mounted variable speed fan and direct-speed alternator clutch for all M-113 variants

**Features:** Oil cooled, Mil-Spec connector, fully potted coil, cadmium plating with gold chromate coating

**Specs:** 8.50" dia. X 5.50" long, 3000 rpm, 450 lb. ft. torque, weight 60 lbs.

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**SEMD-340-2**

**Type:** SEMD-340-2 Spring Engaged Multi Disk Fail-safe Clutch

**Application:** Electric turret drive mechanism

**Features:** Dual friction disks, dual coils, worm gear driven rotor, spline drive split locking hub and fully potted coils, nitride treated plates, e-nickel plated magnet body and rotor

**Specs:** 3.40" dia. X 4.62" long, 200 lb. in. torque

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**TC/B-525**

**Type:** TC/B-525 Tooth Clutch and Brake

**Application:** Clutch brake controls raising and lowering of radio antennas

**Features:** All stainless steel construction, Mil-Spec connectors, manual control of the clutch and brake

**Specs:** 8.50" dia. X 13.50" long, 1,000 lb. ft. torque, weight 70 lbs.
**SEB-300-3**

*Type:* SEB-300-3 Power Off, Spring set, Fail-safe Brake, Spline Drive  
*Application:* Thrust reverser brakes on the jet engines  
*Features:* Triple disks, Kevlar friction surfaces, manual release provisions, potted coil and electroless nickel plating  
*Specs:* 3.000” dia. X 2.200”. high, 550 lb. in. torque

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**SEB-245-3**

*Type:* SEB-245-3 Triple Disk, Power Off, Spring Set, Fail-safe Brake, Manual Release  
*Application:* Hydraulic pump motor brake  
*Features:* Low weight aluminum spider, reverse mount, spline drive triple disks, nitride treated plates and magnet body, submerged in MIL-H-5606 oil  
*Specs:* 2.45” dia. X 2.420” high, 22 lb. in. torque

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**SETB-320**

*Type:* SETB-320 Stationary Coil Tooth Brake  
*Application:* Antenna array actuator brake  
*Features:* Stainless steel rotor, nitride treated armature and magnet body, potted coil and DU bushings and thrust washers  
*Specs:* 2.87” dia. X 1.412” high, 20 lb. ft. torque

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**MDB-640**

*Type:* MDB-640 Power On Multiple Disk Brake  
*Application:* Brake to stop satellite spin table  
*Features:* Space rated materials, processes, potting and plating, six outer and seven inner disks  
*Specs:* 6.375” dia. X 2.437” long, 200 lb. ft. torque, speed 2500 rpm, weight 17 lbs.

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At SEPAC, innovation goes into everything we do from the design and manufacture of custom brake and clutch solutions for a variety of applications, to the enhancement of tried-and-true motion-control products. To view our range of expertise, visit our Web site: www.sepac.com.
WHO WE ARE:
SEPAC Inc., in Elmira, NY is a custom engineering company and manufacturer of motion control products including electromagnetic clutches and brakes. We provide innovative solutions of the highest quality and reliability to OEMs, distributors and end users around the world. Our brake and clutch applications range from aerospace and defense to robotics, energy, healthcare, and a wide variety of industrial markets.
Some of our customers include: Moog, General Electric, Honeywell, Boeing, Lockheed Martin, Zoll Medical, BAE, Raytheon, SL-MTI, Northrop Grumman, Hardinge, Eaton, and a variety of distributors.

THE SEPAC MISSION:
To provide the highest standard motion control products and solutions for a broad range of applications, and to consistently meet or exceed our customer expectations.

COMMITMENT TO QUALITY:
SEPAC Inc. is AS9100 and ISO 9001 certified. Our highly engineered and precision manufactured motion control products are consistently designed, manufactured and processed to high quality standards at every level of the business. We believe the development, implementation and continuous improvement of our quality system is the path towards continually meeting or exceeding the exacting requirements and ever-higher standards of our customers.

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