

Posidyne®

Today's Posidyne is a modern motion control device capable of rapid and precise stopping, starting, reversing, speed changing and positioning. The Posidyne clutch brake being designed to handle the energy of rapid acceleration and deceleration has a field proven history under normal use demonstrating its ability to reduce maintenance normally associated with cycling applications.



Benefits:

1. Higher Production Rates

- a. Higher cycle rates - because the Posidyne can cycle at rates faster than most prime movers, machine speeds can be increased for higher production levels.
- b. Reduced downtime - The Posidyne's patented fluid recirculation system, and quality components, enables a long life with a minimum of maintenance. The reduced loads and stress on other components can also reduce maintenance on those items. This reduced downtime means more production time, increasing overall production.

2. Energy Savings

- a. By reducing the high starting inrush currents and associated power factor imbalance, energy costs can be reduced.

3. Hostile Environments

- a. The totally enclosed sealed unit prevents contamination by chips, dust, dirt, chemicals, coolant, caustic wash-down, weather, etc.

- b. The enclosed unit also prevents contamination of the surrounding environment.

4. High Torque - Small Package

- a. The multiple disc design provides a small package with high torque capacity. Because inertia increases by the fourth power of the diameter as torque increases proportional to the diameter or number of surfaces the Posidyne's multiple disc design increases torque capacity with a minimum increase in inertia.
- b. The recirculating fluid efficiently removes the heat of engagement from the working surfaces for increased capacity.

5. Precision Control

- a. Due to the simple actuation system, torque in the clutch and brake can be precisely controlled. Adjustment for rapid or soft starts and stops is simple with a Posidyne.
- b. Advanced friction materials provide consistent and repeatable output torque for controlled starts and stops especially important for positioning applications.

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Posidyne Benefits

- c. Many different standard control logic options are available, ranging from fully adjustable torque control to fixed settings and combinations of both.
- d. Encoders provided for CLPC (Closed Loop Position Control) option.

6. Ultra-Quick Response

- a. Manifold mounted control valves reduce response time by eliminating hoses and fittings.
- b. A new lightweight piston in the 1.5 Posidyne allows for a faster response time.
- c. DC valve solenoid for further improvement of control response and consistency.

7. Ease of Installation

- a. Totally self contained and ready to use. Installation requires only mounting to a base and coupling to the prime mover and load. Normal care in alignment such as that used when installing a motor or gear reducer is all that is required.
- b. NEMA C-Face and piggyback mounting options are available for many of the sizes.

8. Flexibility

- a. 9-Basic Unit Sizes - 1/2 to 250 HP to cover the majority of applications including high horsepower.
- b. 7-Control Logic Options - for flexibility in type of control required.
- c. 4-Cooling Systems - Standard, fan cooled, water-cooled and forced lube for any degree of thermal load.
- d. 8-Mounting Arrangements - Basic, C-Face input, C-Face output, piggyback, vertical up, vertical down and 2 wall mounts to fit even the most difficult applications.

9. Easy Maintenance

- a. Normal maintenance of the Posidyne requires only periodic checking and maintaining the oil level. A simple method of checking stack wear is also provided to predict and schedule maintenance. Since wear is minimal in normal applications, out of service time is greatly reduced.

We at Force Control Industries strive to make our clutch brake products as reliable and maintenance free as other components in the drive system. In many cases this has been done so well that the Posidyne may actually outlast many other components.