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Add Value to Your OEM Design by Using Force Control Products

Force Control Products Featuring Oil Shear Technology Offers the Ultimate in Reliability, Low Operating Cost, and Performance Increasing the Machines Overall Value

Using Force Control Industries clutches and brakes featuring Oil Shear Technology rather than the less expensive dry friction units can increase the value of your machines by providing longer intervals between maintenance, adjustment, and repairs (often 5 to 10 years). There are additional advantages in some applications such as better positioning accuracy, higher cycle rates, quieter operation, and smoother start stops.

So how does the OEM leverage these benefits? Although it is sometimes hard to get the capital equipment buyer to worry about maintenance cost and downtime it is a factor in the selling equation. For a higher end machine, the clutch brakes may be one of the major maintenance items, and certainly contribute to downtime. Showing the customer the reduced maintenance cost and particularly downtime for his facility is a significant advantage and should be aggressively proposed.



Force Control clutches and brakes with Oil Shear Technology are used and appreciated around the world. Use the brand name Force Control or Posidyne, Posistop, MagnaShear, and Positorq. You will find customers all recognize the quality, dependability and product support they will get from Force Control.

Force Control Industries application engineers will assist in selecting the right product for the job, and work with your sales and marketing team to develop selling points related to your machine advantages, industry, and application.

Why are the Force Control clutches and brake so much better than the low cost dry friction units commonly used?



Dry friction clutches and brake can functionally do the job on most applications. However they have a sacrificial surface, the friction discs, that constantly wear away. This causes the need for adjustment especially on spring set brakes where wear will cause a change in torque and may cause release issues. The friction material is also susceptible to heat damage causing cracking, wear, and glazing. This can significantly reduce the torque rating which can be a safety issues particularly on a crane application.

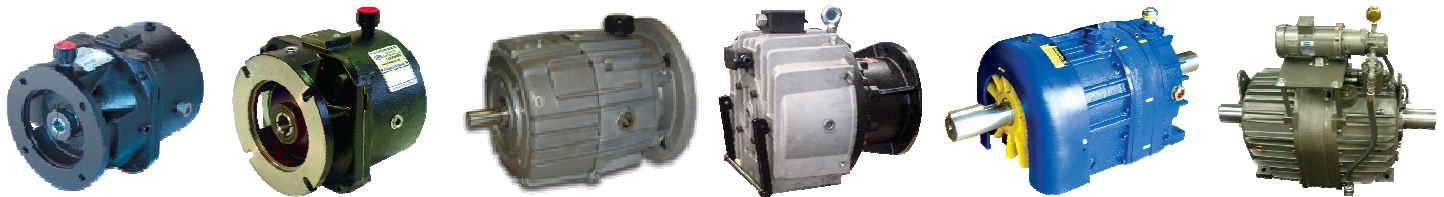
Reducing the heat in the dry friction brakes often involves allowing air flow through the unit allowing dust, dirt, scale, and moisture to enter the clutch or brake. This can in tern cause corrosion, rust, failed components such as clips, levers, coils, bearings, and immanent failure. Totally sealing the unit causes even more heat problems and early failure, or limited capacity.



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Typical OEM Products Manufactured by Force Control Industries



This all causes maintenance to check, adjust, repair or replace the clutches or brakes on a constant regular basis—weekly monthly, or bi-monthly. Not only does this cause man hour labor cost. How long does it take to make a repair on a crane brake? But it also requires training of personnel cost, repair parts cost, inventory cost, purchasing cost, and very possible downtime cost or cost of lost production.

Force Control Industries, Inc. solves these problems with clutches and brakes featuring Oil Shear Technology. Oil Shear Technology is made up of several components. First there is a clutch, brake or clutch brake stack consisting of multiple friction discs and drive plates installed in a heavy duty totally enclosed housing. The friction discs ride on a splined shaft with uniquely designed annular pump openings. A volume of transmission fluid resides in the unit housing. In operation the transmission fluid is drawn up through the splined shaft openings to flow through the friction disc stack, out to the housing, back to the bottom to be recirculated.

Oil Shear Technology is the combination of circulating transmission fluid through the multiple disc friction stack out to run down the housing walls to the bottom to be returned to the friction stack. This process provides two purposes; 1. The fluid film between the friction disc and drive plate separates the two parts during the high speed slip portion of the engagement virtually eliminating wear while transmitting torque between the two surfaces. This eliminates most of the wear of friction material. 2. The fluid circulating through the unit pulls the heat from the friction surface (again reducing wear), and transferring it to the housing to be dissipated. 3. In addition the lubricating transmission fluid lubricates the internal components such as bearings and splines.

If you are building high quality machinery for heavy duty high production applications Force Control Industries Clutches and Brake featuring Oil Shear Technology should be a must when selecting a clutch or brake.

Specify Oil Shear Technology on Your Next Machine