Did You Know...

information you can use

STINGRAY® Parts Washers

Got Couplings?

How to Extend the Life of Pump & Motor Couplings

A drive couplings' two basic functions are to transmit torque and to allow for a small degree of shaft misalignment between the motor and pump. Elastomeric type couplings can accommodate as much as four times the misalignment than jaw type couplings. The term "Flexible Couplings" derives from the degree of flexibility designed into couplings to accommodate misalignment. STINGRAY® Parts Washers use two basic types of flexible couplings. Jaw couplings and Elastomeric flexible couplings.

JAW COUPLING

Jaw couplings are distinguished by a drive hub and driven hub that have axially oriented jaws (thick, stubby protrusions) arranged around their circumferences. Jaws of driving and driven hubs mesh loosely; filling the gaps between them are cushions of elastomeric material usually molded into a single asterisk-shaped element called a "spider".

Jaw coupling with hubs and spider.

Permanent compressive set occurs as the spider ages in service; a 25% reduction from original thickness signals the time to replace the elastomeric spider. Get more out of your elastomeric spider! When the spider begins to wear, just advance it one "leg" between the hub jaws. Because the pump only rotates one direction, just three of the legs transmit torque and only every other leg is worn.

ELASTOMERIC FLEXIBLE COUPLING

Elastomeric flexible couplings also have a drive hub and a driven hub. Instead of a spider the hubs are connected together by two half circle flexible elements secured with screws. The couplings flex elements allows for quick and inexpensive replacement because there is no need to disturb the hubs on the shafts.

Elastomeric coupling with hubs and flexible element.

A periodic visual inspection is all that is necessary to evaluate the condition of the flex element. Replace the element when fatigue cracks longer than 1/4" originating near the stress relief grooves (approximately 1/4"-1/2" above the metal shoe) are visible. Never replace just one half element, as matching an older and newer half element could create both torsional and balance inconsistencies. See figure below.