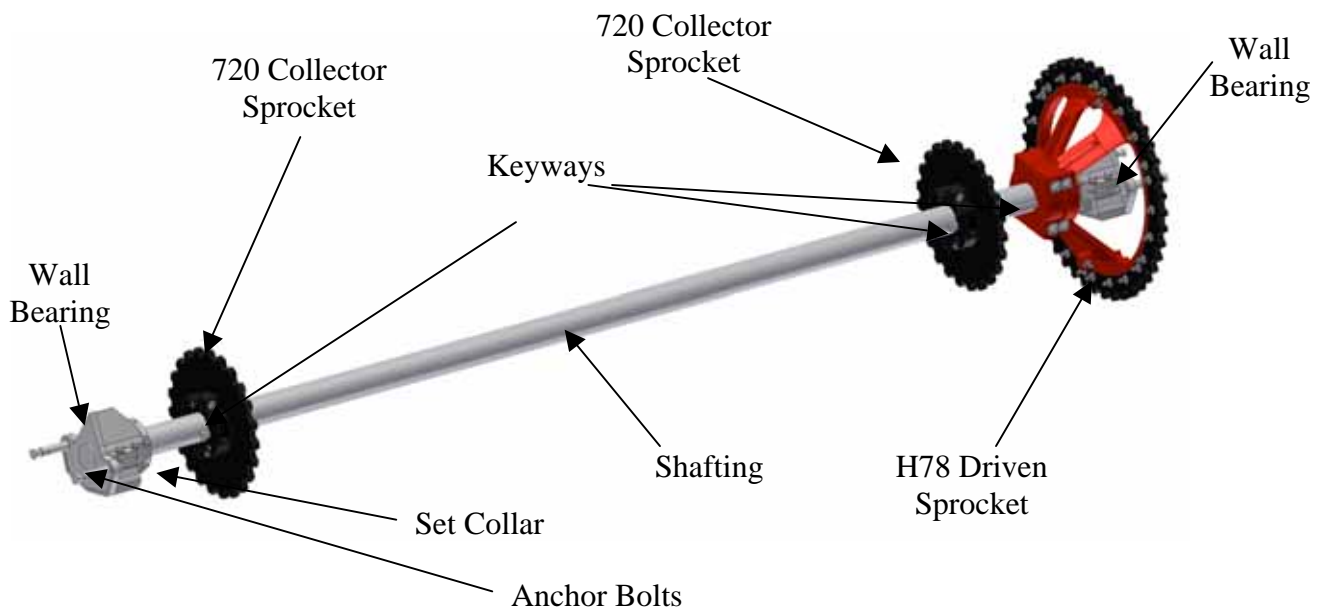


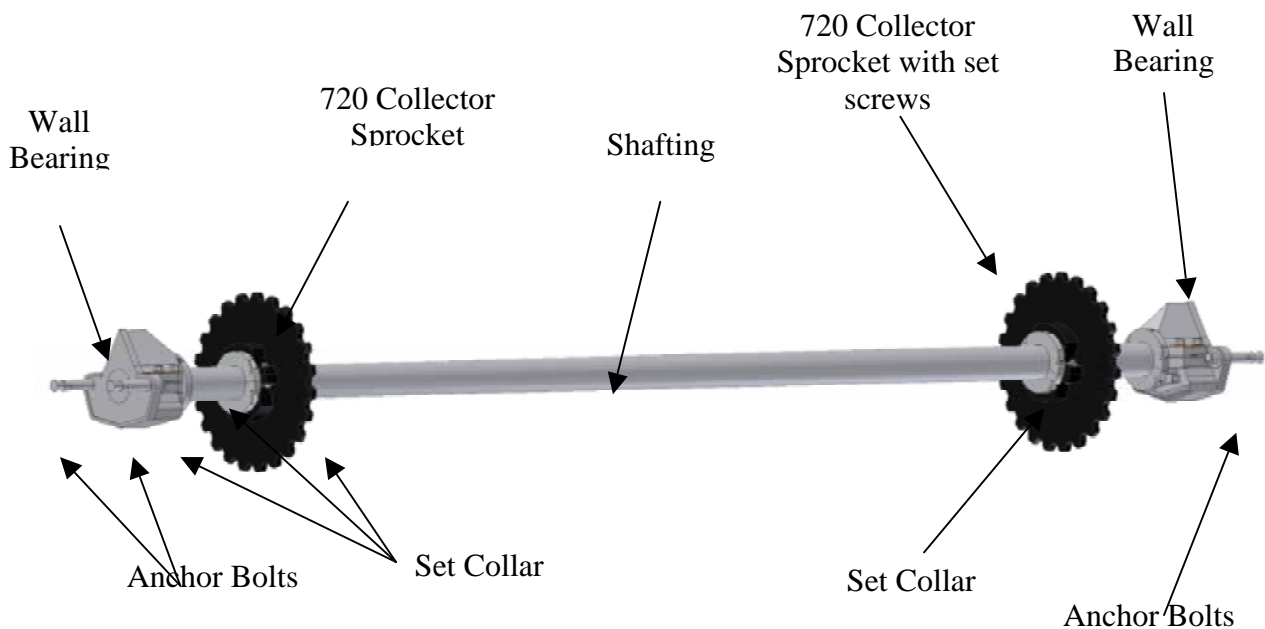
Head Shaft (Typical)

Head shafts are the driving shaft of the rectangular clarifier, with the driven sprocket being driven by chain connected to the motor drive unit. The driving shaft normally experiences greater forces than the other shafts and is normally the largest diameter. Typical Head shafts are made of C1018 or C1045 Steel. 304 and 316 Stainless Steel is available or other materials per customer request. The wall bearings can be made of many materials per customer request but are commonly constructed of cast iron with different contact surface liners. These liners are usually UHMW-PE or babbit. Typically wall bearings are supported with 1" diameter anchor bolts. All sprockets are keyed and locked with set screws so that the collector chains are aligned and move together at the same rate. Keyways are machined in such a way so that the sprockets can be adjusted along the shaft for proper alignment. A set collar is used to hold the shaft in place at the bearing and can be made from a variety of materials. This includes UHMW-PE, cast iron, or stainless steel but other options are available per customer request. All items on the head shaft **can be** of split construction for easy assembly but non-split items are available.



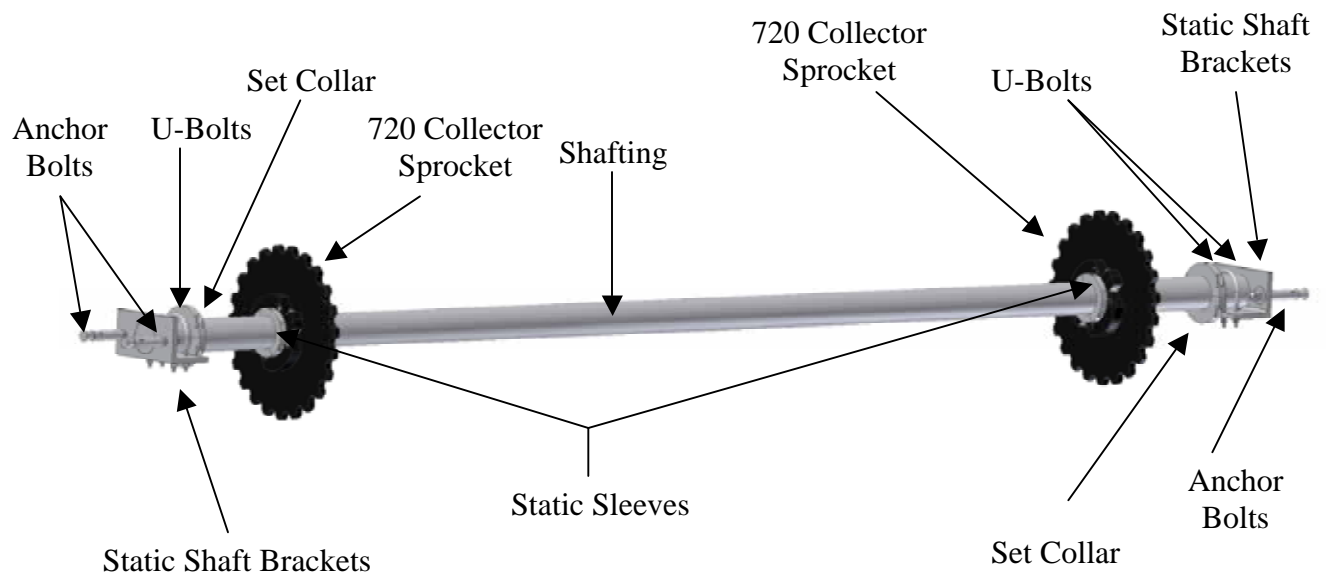
Lower Corner Shaft *(Typical)*

The corner shaft of a rectangular clarifier is normally positioned underneath the head shaft. This shaft usually experiences very similar stresses as the head shaft and thus is ordinarily the same diameter. The materials for the components are the same. The sprockets do **not** have keyways machined into them but instead have a solid bore. One of the sprockets is set and locked onto the shaft with set screws. This allows the shaft and the sprockets to rotate together without slippage while the shaft rotates in the bearings. The other sprocket is free to rotate and held in place between two set collars to keep it from displacing itself along the shaft. This corner shaft can also be mounted as a static shaft, discussed next.



Static Shaft *(Typical)*

The static shaft is the shaft that is normally furthest from the drive shaft. In a four shaft system this means that it is normally the 2 shafts on the opposite end of the tank. These shafts can be mounted as a rotating corner shaft, previously discussed, or as a static shaft. Instead of a shaft rotating about in a wall bearing the sprockets rotate about a static shaft. This shaft is held into place by static shaft brackets which range in materials from steel to polypropylene to stainless steel and other materials available upon request. The static shaft is held onto the bracket by U-Bolts made from stainless steel. Sprockets revolve around static sleeves which are secured to the shaft with thru bolts and set screws. The static sleeves are normally made of UHMW-PE, but can also be made from Nylon. These shafts normally experience less stress than a drive shaft or corner shaft, so they can be made slightly smaller in diameter. For similar reasons the sprockets can be made smaller as well, if desired.



Stub Shafts are an alternative to idler shafts. They are available in both cast iron and non-metallic.