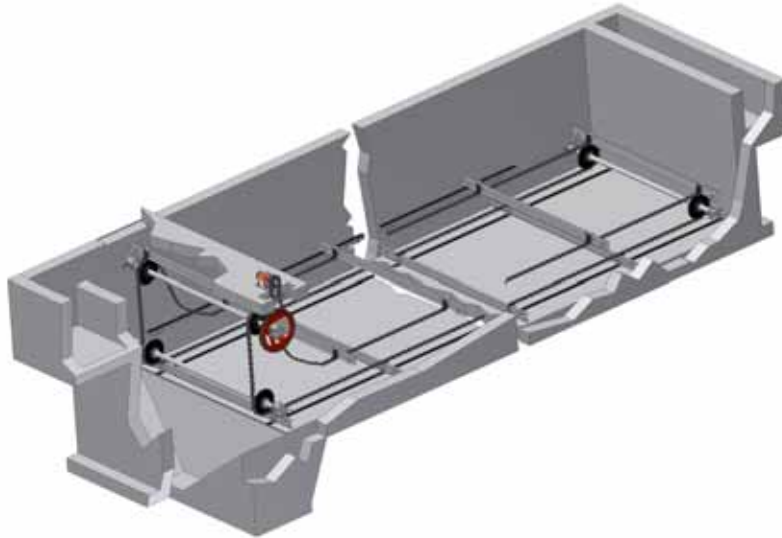


Three Shaft System

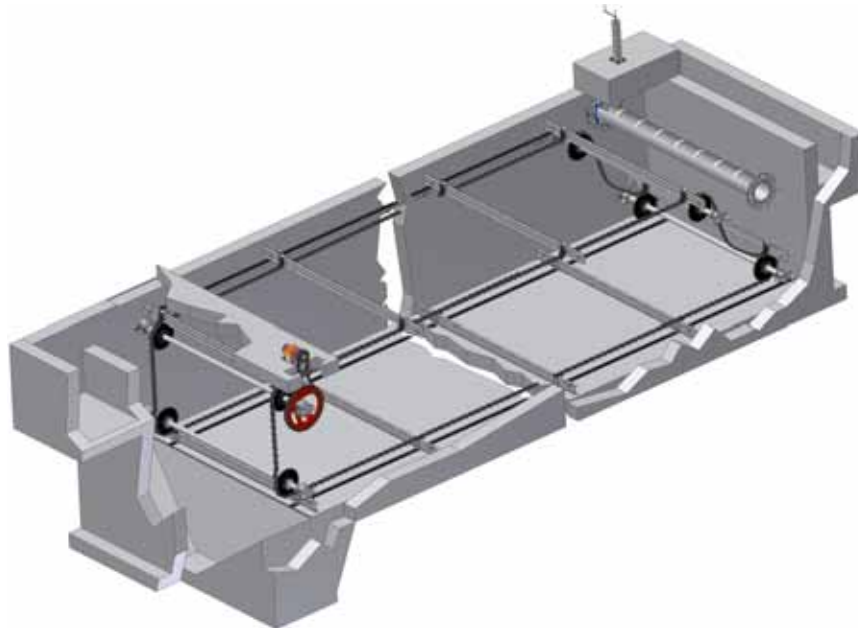
A three shaft system excels in removing solids from a settling tank. It is mainly used following a four shaft system or in treatment plants where floating debris is not a problem. The flights sweep all settled solids to a sludge hopper (shown) to be pumped away or a cross collector for further removal.



Typical 3 Shaft System

Four Shaft System

Four shaft systems have the benefit of skimming the surface of the water as well as displacing settled solids. Collectors such as these are very efficient at removing suspended debris such as oil and grease. Thus they can be used as either a primary or secondary clarifier.



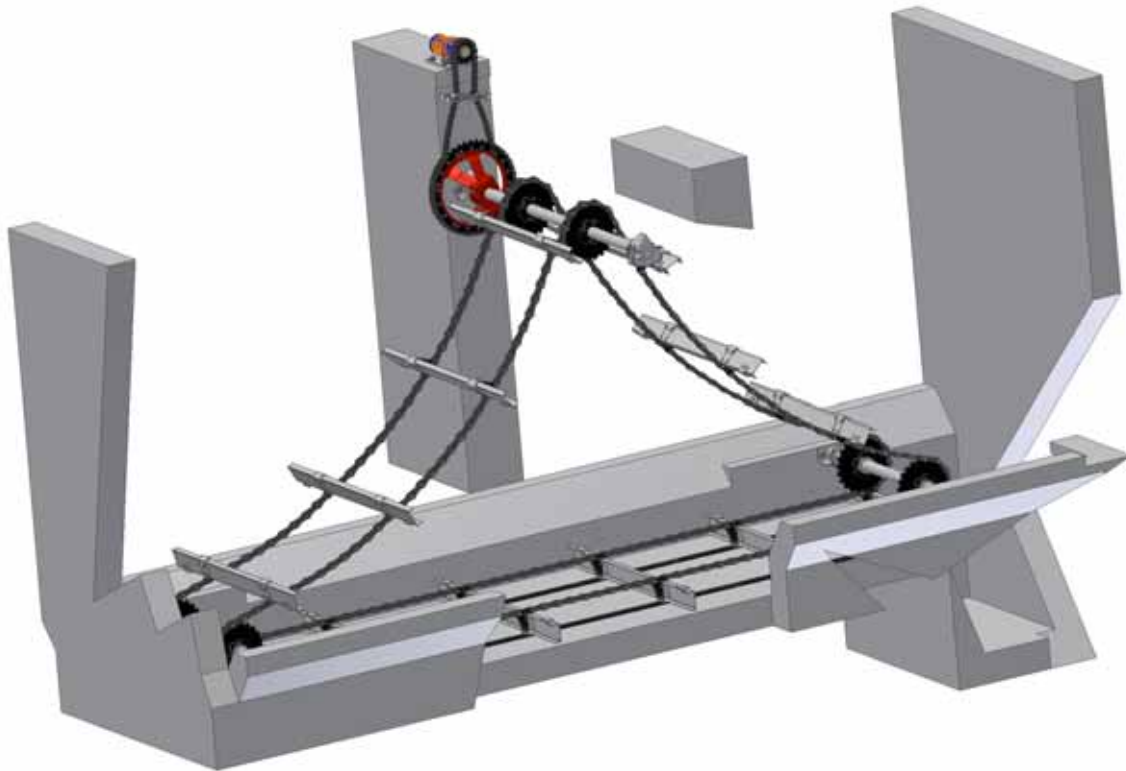
Typical 4 Shaft System

Five Shaft System

While five shaft systems are uncommon, they are used where the fifth shaft acts either as a support for longer tanks or to help get around baffles placed in the tank. They are very similar to four shaft designs in that they both skim the surface and convey settled debris.

Chain & Flight Cross Collector

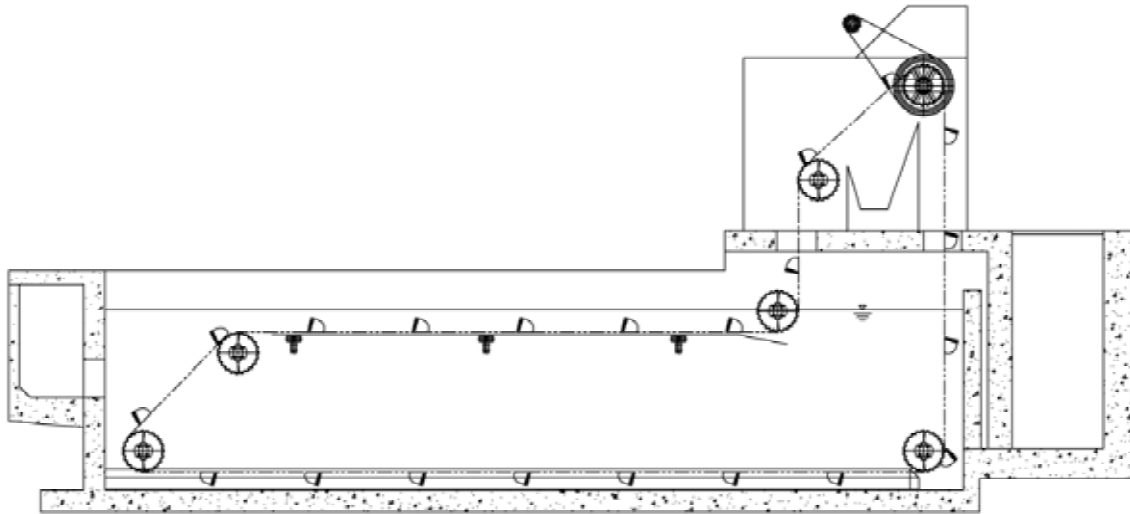
Wider tanks or tanks with multiple passes can use another chain and flight collector. This assembly is called a cross collector because it runs perpendicular to the longitudinal collector. The purpose of this is to concentrate the sludge in a single corner sump thus eliminating the need for multiple sludge pits and simplifying the sludge withdrawal piping system. The flights are typically spaced in 5 ft. intervals, are 3 to 6 ft. wide, and generally run at twice the speed of the longitudinal collectors.



Typical Cross Collector

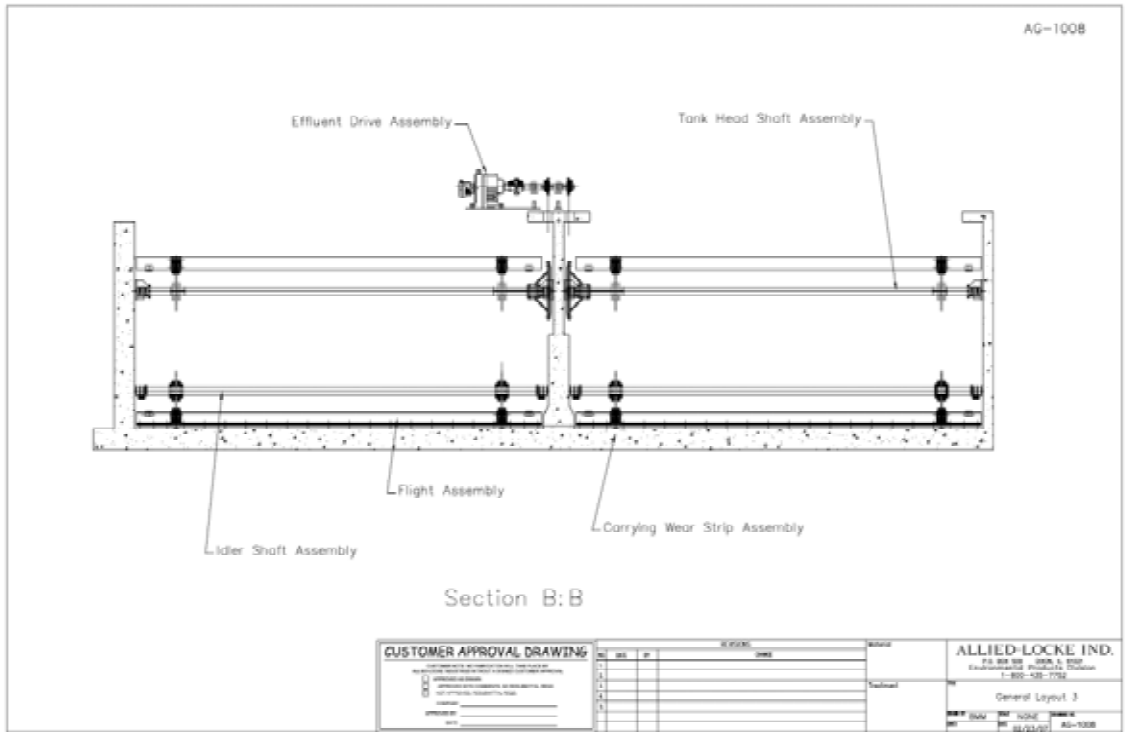
Grit Bucket Systems

Allied-Locke Industries standard for grit collectors is to use mainly non-metallic parts. The buckets can come in polyurethane, but can also come in cast iron or steel to meet any need. The polyurethane offers the least amount of load and wear while generally meeting grit collector requirements. If metallic chain is desired Allied-Locke Industries offers a wide variety of cast and steel chain that can be used in grit collector applications. Attachments for affixing buckets are readily available for these cast and steel chain.

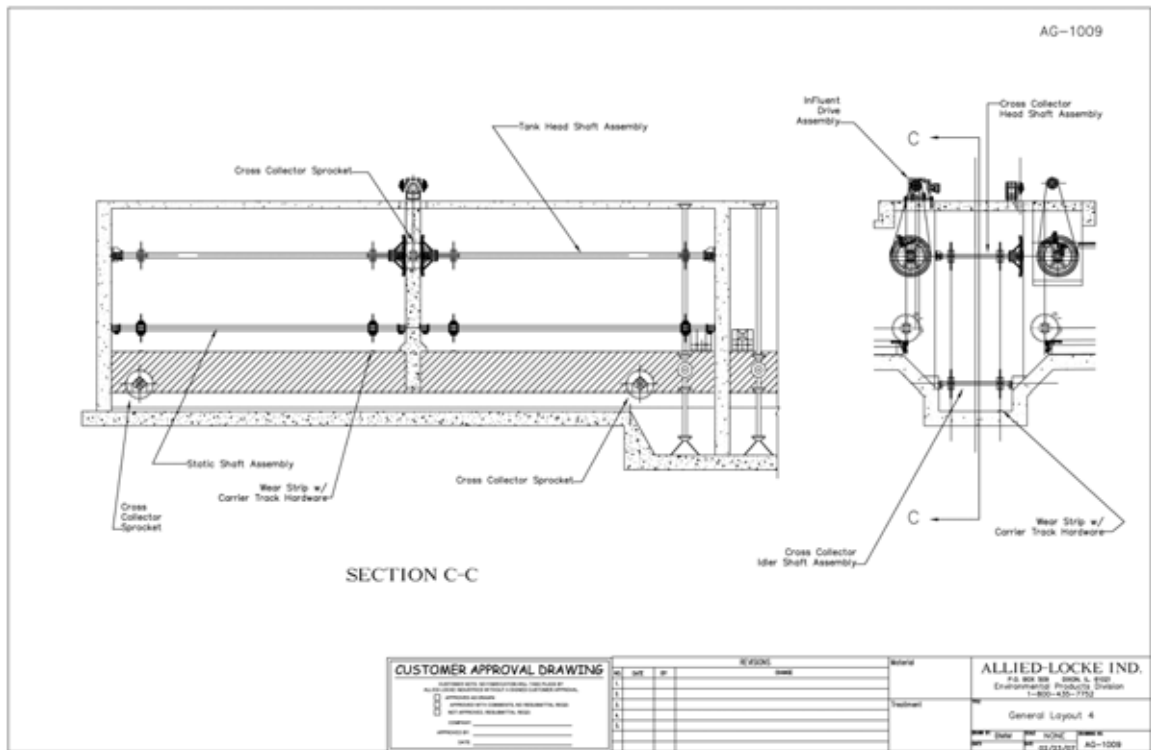


Typical Grit Collector

General Tank Layouts

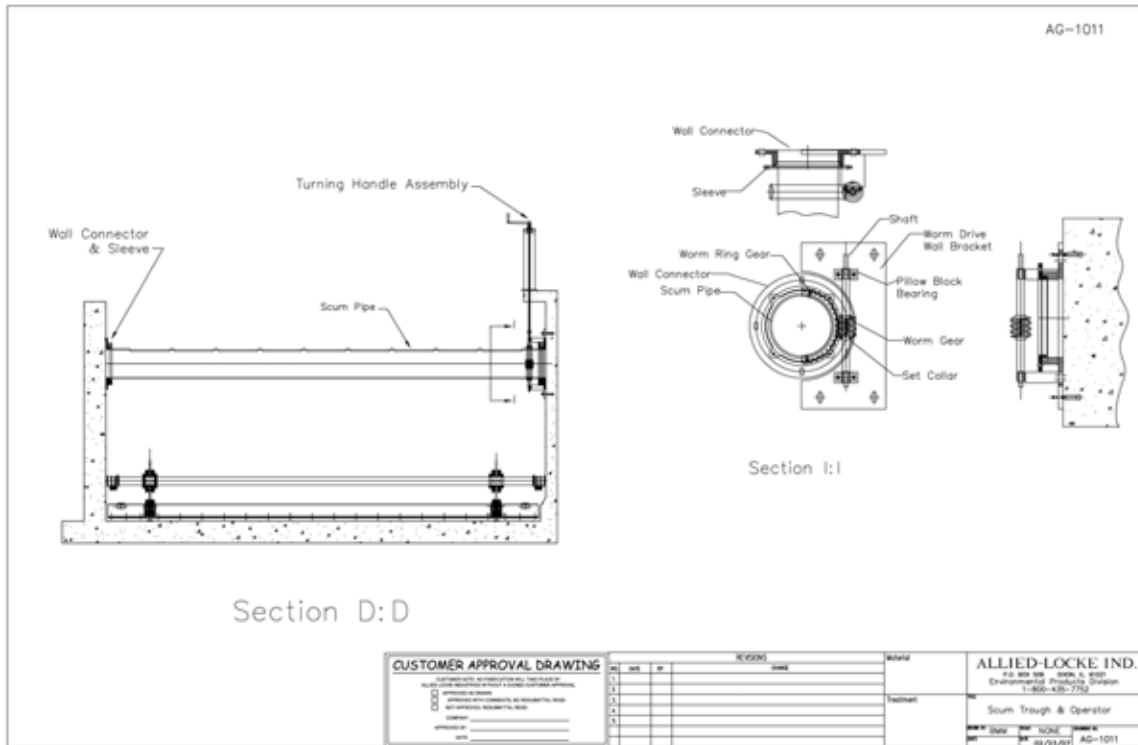


Detailed Effluent Cross-Section View – Drive End

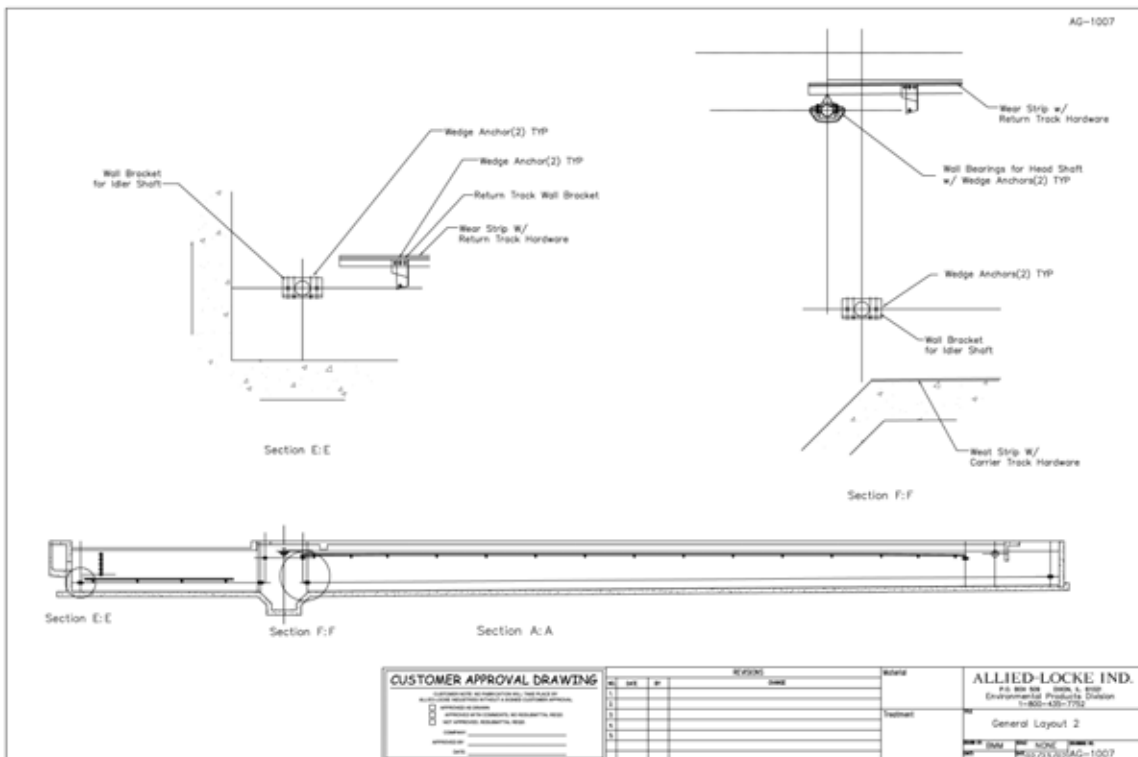


Detailed Influent Cross-Section View

General Tank Layouts



Detailed Effluent Cross-Section View – Scum Trough End



Detailed Side View for Bracket and Bearing Placement