CASE STUDY-1028

Parts Washer Equipped with a Sludge Removal Conveyor Saving Labor and Time

Background
Employing 6,000 workers, this mid-west company is the largest steel manufacturer in the country. This customer manufactures a variety of products including galvanized sheet metal for the big three (3) auto makers, Caterpillar, and John Deere. This application involves cleaning roller line parts such as bearings, gears, gear housings, fasteners, and couplings.

Problem
The old method of solvent cleaning and hand steam cleaning was very inefficient. The roller line parts listed above are packed with a heavy grease for lubrication. To assure peak performance, these parts are periodically removed, cleaned, repacked with grease and put back into production. While removing the high volume of grease from the parts was not particularly difficult, removing the amount of dirty grease and heavy sludge from the bottom of the wash tank was impossible via normal filtration devices. Limited production space for any new equipment was a matter of concern.

Solution
To conserve floor space, Better Engineering recommended a top loading aqueous cleaning system. This system was equipped with a customized sludge removal conveyor. This sludge drag-out system is attached to the rear of the machine and operates in conjunction with the patented Better Engineering "Purifier" system. The "Purifier" channels the sediment to a canal also located along the rear of the machine. A conveyor chain, fitted with scrapers, scrapes the bottom of this sediment canal and removes the sludge build-up. The sludge is transported through the system and is then deposited into a 55 gallon drum. This eliminates the laborious task of regularly cleaning out the sludge tank.

System
A stainless steel T-7000-P (70" turntable) with a customized sludge drag-out system. It was also equipped with the following: stainless steel 15 hp vertical pump, 5,000 lb. weight capacity, upgraded control panel, stainless steel side tray with an automatic foot switch, mist-pack for steam removal.

Special Note
Since installation of this machine, the company is realizing a savings of 300 gals. of solvents every week plus 40 hours of labor / week.