



**HOT, COLD, WET OR DRY, GRAPHALLOY®
BEARINGS WORK WHEN OTHERS FAIL.**



GRAPHALLOY® Pillow Blocks: 20 Years of Service in a Submerged Environment

Reliable in Wastewater Treatment

After two decades of reliable service, the GRAPHALLOY® bushings in this wastewater treatment plant were replaced with new GRAPHALLOY bushings. The original bushings were still providing service 20+ years after installation.

A large condominium complex in the Northeast maintains a wastewater treatment facility on its premises. Wastewater treatment is a chemical and biological process that removes contaminants from household sewage. This process produces wastewater and solid waste suitable for discharge back into the environment.

The condominium complex used a Rotating Biological Contactor (RBC), a type of mechanical aeration treatment system, to treat the wastewater. The RBC is a secondary treatment process that allows the wastewater to come into contact with a biological medium. This process removes pollutants from the wastewater before releasing it into a nearby body of water.



An RBC unit consists of a large disk with radial and concentric passages slowly rotating in a concrete tank so that the surface of the wastewater passing through the tank almost reaches the shaft. As a result, nearly 40% of the total surface area is always submerged in the ambient wastewater. The rotation and exposure to oxygen allows organisms to multiply and cause the biological degradation of organic pollutants.

This facility had two RBC systems - one of which was running at all times. Each system had GRAPHALLOY pillow blocks at either end and each of the pillow blocks contained GRAPHALLOY bushings that had been installed in 1988.

Using the imprint code from the outside of the casting, Graphite Metallizing was able to identify the pillow blocks used in the unit. The maintenance manager at the condominium complex removed two of the pillow blocks and drove the insert assemblies to the Graphite Metallizing manufacturing facility in Yonkers. Once the units were disassembled, the original bushings proved to still be functional after 20+ years of operation in the abrasive conditions. The old bushings were removed and new GRAPHALLOY bushings were manufactured and installed in the housing.



GRAPHALLOY provided reliable, long-lasting service in this difficult wastewater treatment application.