

Molten Salt Cleaning of Cast Irons Technology for Braze and Babbitt Preparation

- Molten salt cleaning processes for removing sand, scale, and graphite from iron castings find broad application in critical fluid power, motive, and bearing applications.
- Robust industrial processes assure 100% clean parts without any risk of foreign materials such as casting sand, surface scale, or metallic shot blast residues breaking free during use. This helps prevent seal and shaft failures in pneumatic and hydraulic components that may cause shortened service life and/or catastrophic failure during use.
- Complete removal of exposed surface graphite from cast irons allows superior intermetallic bond formation in both brazing and babbitting applications. Complete surface wetting occurs, without the usual surface discontinuities common when graphite residues are present. Braze and babbitt alloys are capable of migrating into surface voids previously occupied by graphite flakes or nodules, resulting in improved bond strength and dependability.
- All machining may be performed prior to final processing in the molten salt process. Process results are reproducible and easily controlled.

Original Cast Iron Surface



After Final Reduction Cycle

Scale, sand, and graphite free surface



After Brazing or Babbitting

Alloy penetrates voids to form superior bond