BROKEN OR CRUSHED CORE

Massive, irregular projections whose surfaces have a fractured appearance and which are found in hollow portions of the casting formed by cores. The defect is generally accompanied by compact inclusions in the upper portion of the casting, which constitute the counterpart of the projections.

Possible Causes

- Weak area in the core: improper ramming or blowing of the core, careless coremaking, defective core box.
- Cracking of core during handling: rough handling, defective core handling equipment.
- Rupture during core setting or mold closing: poor dimensional fit, insufficient clearance, inadequate core support, misalignment of flask halves during closing.
- Rupture during pouring: excessive impact of the liquid metal against the core, high static pressure of liquid metal, insufficient core reinforcement, inadequate core support.

A 226 - Aluminum Alloy, Green Sand, Dry Sand Core

Aluminum alloy elbow fitting.

Core breakage caused by cracking of the core print; core fins also present.