

Failure Analysis

Failure analysis is the logical, systematic examination of an item, its construction, application, and documentation to identify the failure mode and to determine the failure mechanism and its basic cause.

Failure analysis without recommendations to prevent similar, subsequent failures does not do justice to the client's true needs.

The Hendrix Group specializes in root cause failure analysis, corrosion investigations, materials and metallurgical engineering, fitness for service to API 579, and product liability analysis. We determine how and why equipment, components, metals, alloys and non-metals fail, as well as performing complete, thorough investigations to determine the fitness of equipment that has deteriorated due to corrosion, fracture, mechanical damage, or exposure to fire.

Equipment and Components analyzed:

- Pumps
- Compressors
- Turbines
- Earth Moving Equipment
- Fasteners and Bolts
- Marina Flotation Devices
- Distillation Columns
- Welded Structures
- Heat Exchangers
- Drilling Equipment
- Pelletizer Knives
- Bearing Valves
- Storage Tanks
- Gears
- Drums
- Reactors
- Piping



- Oil & Gas
- Petrochemical
- Refining
- Power
- Marine
- Medical Instruments
- Commercial Properties
- Government Agency
- Alloy Producers
- Equipment Manufacturers
- Ship and Ship Building
- Commercial Laundry
- Water and Wastewater

failure analysis

Corrosion failures
Mechanical failures
High-temperature failures
Downhole failures
Pipeline failures
Stress Corrosion Cracking
Hydrogen Embrittlement
Pitting and Crevice Corrosion
De-alloying
Fractures
Fire Damage
Fatigue
Stress rupture/Creep

