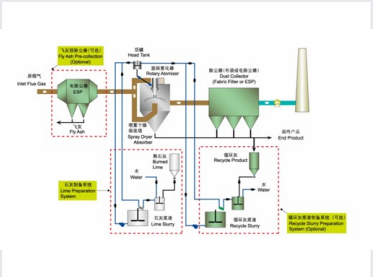
Flue Gas Desulfurization System with Dry Sorbent Injection

This system utilizes dry spray absorption technology to remove sulfur dioxide from flue gases. A lime slurry is dispersed into the flue gas stream, promoting SO2 absorption and producing a dry product that is then collected.



Overview

Efficient Dry Spray Absorption Technology

This Flue Gas Desulfurization (FGD) system utilizes Dry Sorbent Injection and spray dryer absorber modules to effectively remove pollutants like SO2, SO3, HCl, and HF. The technology is designed for low capital investment and minimal O&M costs, making it a cost-effective solution for power stations. Its compact structure and high availability ensure reliable performance in demanding industrial environments.

Performance Metrics

Operational Advantages

Low Capital Investment • Low O&M Cost • Low Power Consumption • High Availability • Space-Saving Design

Process Capabilities

Pollutants Removed	SO2, SO3, HCl, HF

System Components

Core System Components

- Spray Dryer Absorber Module
- Rotary Atomizer
- Lime Preparation System
- Downstream Particle Collector (Fabric Filter or ESP)
- Recycle Slurry Preparation System (Optional)
- Fly Ash Pre-collection ESP (Optional)

Technical Process

Reaction Reagents

- Lime Slurry
- Burned Lime
- Water
- Recycle Product

Absorption and Collection

Untreated flue gas enters the absorber where it contacts a fine spray of lime slurry dispersed by a rotary atomizer. The pollutants are rapidly absorbed and converted into dry reaction products. These products, along with fly ash, are then efficiently removed by a downstream fabric filter or electrostatic precipitator.