Magnetic Filter

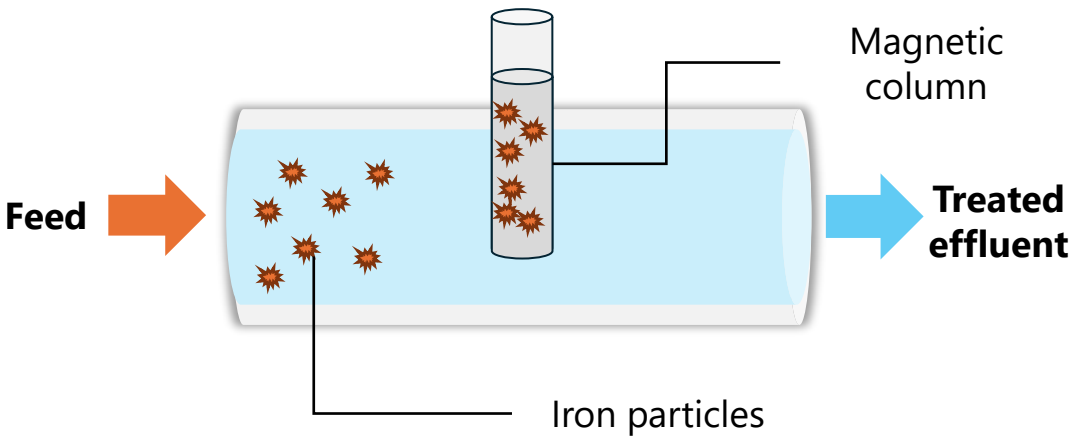
Process Description

Magnetic filters can be applied to remove ferromagnetic particles, primarily iron corrosion products, from industrial process streams.

Using permanent magnets or electromagnets, these systems capture iron particles on magnetic surfaces, including sub-micron particles that are often difficult to remove with conventional filtration. By reducing the accumulation of corrosion products, magnetic filtration helps improve fluid quality, minimize sludge formation, and reduce maintenance requirements.

One patented concept suggest that the process liquid stream can pass through columns with a magnetic field; where iron particles are attracted and retained on the column's surface. Once sufficient solids have accumulated, the magnetic field is deactivated and the column is removed from the stream, allowing the captured ferromagnetic particles to be dislodged during a cleaning cycle. The system is then returned to service for continued operation.

Process Schematic



Patent

Removal of ferromagnetic material from a fluid stream (Link)

For further information, please contact us at email: GWSC@conocophillips.com