FLSmidth Krebs gMAX® Cyclones are simple, yet highly effective at removing and concentrating solids or separating oil from water in downstream oil and gas processes.

The size and number of Krebs Cyclones is dependent on what is being processed and the objectives of the separation (e.g., maximum solids recovery, separate oil from water, etc.). Generally, the smaller the particle size to be recovered, the higher the separation force required and, hence, the smaller the Cyclone diameter needed. Krebs has supplied Cyclones as small as 12 mm (0.5 in.) and up to 2.3 m (90 in.). Our specialists and representatives are available to assist in selecting the right hydrocyclone for your application:

**Solids from Water:**
- Waste water grit removal and clean-up
- Coke fines removal from cutting water and calciners
- Intake water and fire suppression water systems
- Solids removal from desalter water system

**Solids from a Hydrocarbon Stream:**
- Catalyst removal
- Wash sands from tank residues
- Refinery amine system to separate solids, metals, and coke fines
- Hydrocracker and fluid unit feed to separate coke fines from HGO/LGO product streams

**Oil and Hydrocarbons from Water:**
- Waste water clean-up
- Hydrocarbon recovery
- Oil removal from desalter brine
- Dewater amine
- Coke blowdown / sour water treatment
- Treat feed to sour water stripper

**Krebs Cyclones Deliver:**
Krebs Cyclones are compact which means capital and installations costs are low. They are simple to operate as they have no moving parts. Wear areas in the cyclones typically have replaceable abrasion resistant liners which results in low maintenance costs. Each cyclone system is engineered for the customer’s specific application and design requirements such as materials of construction, temperature and pressure.

Krebs Cyclones deliver high capacity in a small footprint, high “G” separating force and high efficiency with our new Krebs gMAX® technology. Krebs Cyclones are used to protect downstream equipment such as jet pumps, valves, and high pressure cutting nozzles.

For more information on any of our products please contact one of our Regional Sales Offices. See reverse side for contact list. Visit us at: [www.flsmidthkrebs.com](http://www.flsmidthkrebs.com)
Krebs cyclones offer significant advantages when used to remove fine coke solids in the high pressure cutting water circuit. The cyclones will remove solids down to about 20 microns. By removing the larger solids, maintenance on the jet pumps, high pressure valves and high pressure cutting water spray nozzles is significantly reduced, thus lowering downtime and maintenance costs.

Another benefit is that the cut water tank does not fill up with solids as frequently, significantly reducing downtime for cleaning out the cut water tanks. With the cyclone, the solids that do report to the cut water tank are very light and typically can be removed with a hose to flush them out instead of needing to dig them out.