



Product datasheet

KREBS® gMAX® cyclones for WFGD in power generation

With decades of experience and a rich history of excellence, KREBS® is the industry leader in hydrocyclones and separators for wet flue gas desulfurisation scrubbers in power generation.

Our cyclones are critical to the optimisation in power generation process and with very minimal maintenance required. After installing KREBS cyclones our customers have seen less downtime and overall cost savings in a matter of months.

Benefits

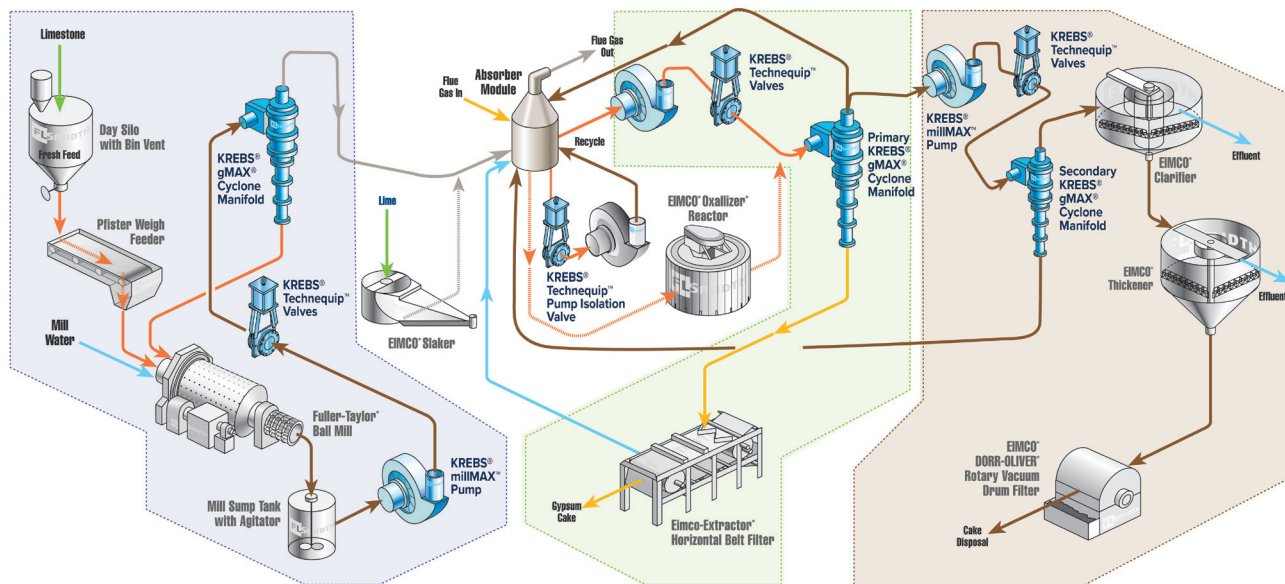
- Low capital cost and no moving parts
- Interchangeable parts between reagent preparation cyclones and gypsum dewatering cyclones
- High capacity in a small footprint
- Efficient separation with KREBS® gMAX® cyclone technology

Design features

- Wide range of KREBS cyclone sizes are available; diameters of 50–150 mm (2–6 in) are most common in WFGD applications
- Cyclones with steel housings are available with replaceable wear liners in gum rubber, synthetic elastomers or ceramic
- Cyclones are also available in molded urethane
- An epoxy paint is standard for corrosion resistance in a high-chloride environment

FLS

WFGD scrubber blowdown treatment process



How KREBS hydrocyclones can help

The WFGD system is made up of a limestone grinding and reagent preparation process, a gypsum dewatering area, and waste disposal. Our KREBS hydrocyclones use gMAX cyclone technology and they are an ideal solution for each of the three steps in this system.

In the limestone grinding circuit, the ball mill limestone discharges to hydrocyclones for classification. The overflow reports to reagent storage, and the underflow returns to the mill for further grinding.

In the gypsum dewatering area, the prepared limestone reagent reacts with absorbed SO_2 from the power plant boiler exhaust, and forms gypsum as a byproduct. Gypsum slurry from the absorber is pumped to the dewatering hydrocyclones, and is dewatered from about 15–20% solids by weight to around 50% solids by weight. The thickened slurry feeds a vacuum filter to produce a filter cake.

In the waste disposal area, the hydrocyclones are fed the overflow from the gypsum dewatering hydrocyclones. Overflow from the waste disposal hydrocyclones reports to a clarifier for further processing and later disposal, and the underflow is returned to the absorber module for gypsum dewatering.

Pumps and valves

Our millMAX-e™ slurry pumps and Technequip™ Knife Gate valves are ideal for moving abrasive slurry throughout the WFGD blowdown process. Our millMAX-e pump is designed for easy operation, low power consumption and increased wear life. Our TG knife gate valve models range from TGW designed for narrow spaces, TG standard and TGH able to handle high pressures.

Service sets us apart

Our award-winning customer service sets us apart from other manufacturers. Our experienced sales and technical staff will maximise your system process and separation performance.

Lab Testing

Our full-service lab provides performance testing and customer specific testing of our separation and pumping equipment. We also utilize this facility for product development test work to ensure we are always providing our customers with the highest quality and cutting-edge separation technology.

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