

MINERAL PROCESSING SOLUTIONS



mclanahan.com



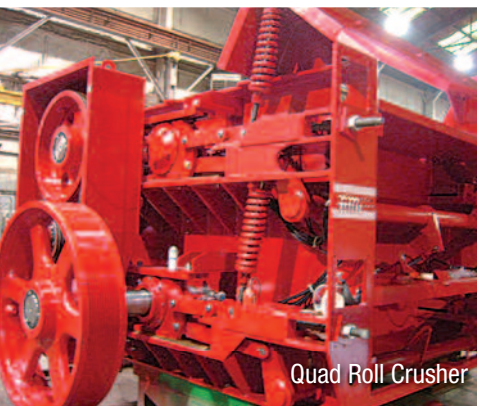
Single Roll Crusher



Double Roll Crusher



Triple Roll Crusher



Quad Roll Crusher



DDC-Sizer

McLanahan specializes in crushing low silica materials such as coal, salt, gypsum, trona, limestone and more. Our crushing equipment is designed to minimize fines generation while efficiently handling wet, sticky feeds. We are a world leader in the innovative design and manufacture of this type of equipment and you can count on us to deliver the best in quality, service and experience.

ROLL CRUSHERS

Roll Crushers rely on a combination of impact, compression and shearing action to break material along inherent fracture planes. They are available in Single, Double, Triple and Quad Roll configurations and various duty classes depending upon the application requirements. All McLanahan Roll Crushers employ V-Belt drives and use innovative tramp relief systems (no shear pins or gas cylinders) to pass uncrushable material.

Single Roll Crushers

Commonly used for primary crushing due to high reduction ratios (up to 6:1). The large throat opening and increased nip angle allow large material to be grabbed and reduced efficiently, eliminating slabs and reducing fines.



Double Roll Crushers

Typically used as a secondary or tertiary crusher due to a lower reduction ratio (up to 4:1). This crusher is ideally suited to follow a Feeder-Breaker, Rotary Breaker, Primary DDC-Sizer or Single Roll Crusher, where further reduction of primary crushed material is required.



Triple Roll & Quad Roll Crushers – Two Stage Crushers

Two stage crushers evolved out of the need to limit head-room and achieve greater size reduction in one pass. Combining a Single Roll and a Double Roll (creating a Triple Roll) or combining two Double Rolls (creating a Quad Roll) provides primary and secondary crushing all in one machine. The Triple Roll excels in its ability to grab larger feed sizes more efficiently, increasing reduction ratio and reducing wear on roll elements.



DDC-SIZERS

DDC-Sizers are an evolution of the Double Roll Crusher. McLanahan Corporation has been designing and manufacturing this type of crusher since the 1960s and first introduced them to the brick and clay industry to handle wet, sticky feeds. With a low profile, low headroom design, this crusher excels at primary, secondary and tertiary reduction.



McLanahan Corporation offers DDC-Sizers in either single or dual drive configurations. Power is transmitted to the rolls via heavy-duty, shaft-mounted gear reducers that are configured at a right angle or parallel to the rolls. Tramp iron protection is accomplished via a torque controlled coupling located between the motor and reducer. Direct hydraulic drives are also available for extremely tough applications to absorb shock loading.

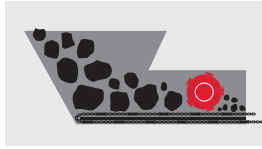


One of the unique features on the dual drive DDC-Sizer is the adjustability of one roll assembly to control product size and to compensate for roll wear. This is accomplished by using independent drives (motor, coupling and reducer) for each roll assembly. The end result is a more cost effective crusher.

FEEDER-BREAKERS & FEEDERS

Stationary & Crawler-Mounted

Feeder-Breakers are designed to accept ROM feed materials at irregular intervals, perform basic size reduction to achieve conveyable product and provide a regulated discharge rate of material. The three basic components of a Feeder-Breaker are a hopper, a drag-chain conveyor and a breaker roll. Hoppers are available in a wide variety of configurations, while conveyors are available as single or dual drag units. These units can also be fed at ground level in a dozer trap installation without a hopper. This configuration is common for reclaiming stockpiled material with dozers or front end loaders. When size reduction is not required, the breaker roll can be omitted from the design to create a Feeder.

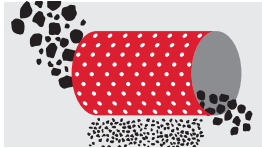


Feeder-Breakers are manufactured for stationary, portable or semi-mobile crushing operations and enable mining operators to increase production and improve material handling above and below ground. All McLanahan Feeder-Breakers can be customized to include sophisticated electrical PLC control systems, lubrication systems, fire extinguishing and dust suppression systems, lighting packages and more.

ROTARY EQUIPMENT

Rotary Breakers

Rotary Breakers were originally developed and patented by Hezekiah Bradford of Reading, Pa. McLanahan Corporation constructed the first two Bradford Breakers in 1893. A Rotary Breaker achieves reduction by repeatedly raising feed material and dropping it against perforated screen plates. This lifting and dropping action effectively crushes soft to medium-hard material, which then passes through the screen openings into a collection hopper or conveyor below. Hard rock and waste material are discharged out the end of the cylinder with the aid of a discharge plow. Adjustable lifter shelves raise the feed material and control the rate of material movement. By scalping and crushing in a single operation, the Rotary Breaker offers numerous advantages over other types of crushers.



Rotary Scrubbers

Rotary Scrubbers are used as primary washing devices to remove loamy, soluble clay completely or as prewashing devices prior to crushing, screening and additional washing equipment. These units can be outfitted with either single or double shell screen extensions to dewater and separate materials.

Rotary Screens

McLanahan has manufactured quality Rotary Screens for more than 60 years. Models engineered for use in municipal ash recovery, resource recovery facilities and in mining applications are currently in use throughout North America, Africa, Asia and Indonesia. McLanahan Rotary Screens are offered in rugged medium-duty and heavy-duty designs and include renewable or nonrenewable screen plate cylinders.

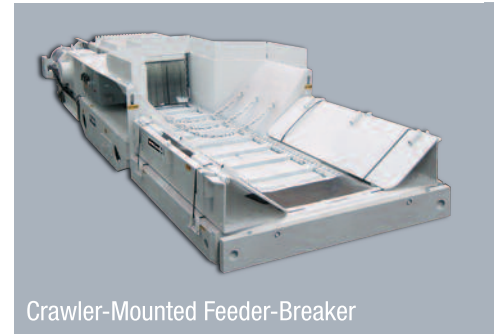
SAMPLING SYSTEMS

McLanahan is the industry leader in the design and manufacture of heavy-duty sampling equipment. The Sampling Division provides custom engineered solutions, superior and innovative design and outstanding customer service. Our sampling equipment is proven and reliable with a wide range of systems and services to meet your sampling needs.

McLanahan Sampling Systems offers sampling solutions for coal, coke, copper, precious metals, salt, sand, stone, iron ore and other bulk materials where material analysis, size, shape and capacity are of critical importance to the producer and end user.



Stationary Feeder-Breaker



Crawler-Mounted Feeder-Breaker



Reclaim Feeder



Rotary Breaker



Rotary Scrubber



Sampling System



FILTER PRESSES

McLanahan's cost-effective Recessed Chamber and Membrane Plate Filter Presses replace belt presses and eliminate the need for slurry ponds. The presses achieve maximum water recovery and produce extremely dry product.

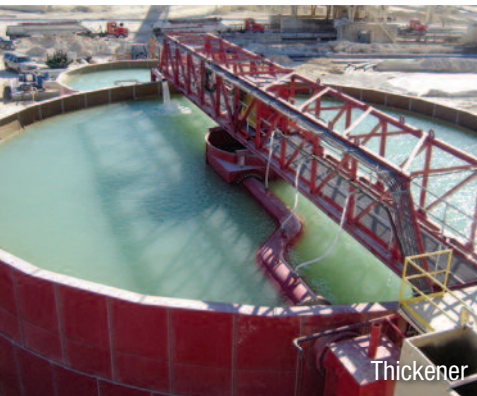
Easy to install, integrate and operate, McLanahan's fully automatic Filter Presses have revolutionized the fines dewatering process. The Smart Hydraulics system automatically aligns the hydraulic cylinders for fast, and precise opening and closing to shorten cycles.



Separator

SEPARATORS

McLanahan Separator Systems provide recovery of +200/325 mesh (75/45 micron) materials and are the simplest, most cost-effective way of recovering sellable fines from wash water streams. Systems feature the original Separator (single or multiple units) with a rubber lined Pump for trouble free, low maintenance operation.



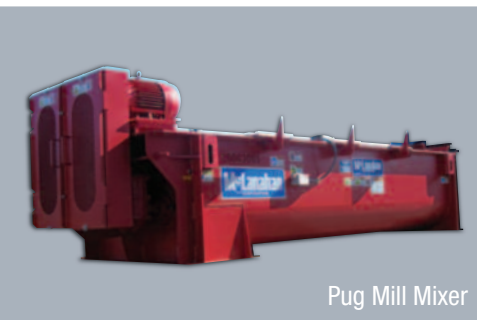
Thickener

THICKENERS

Our Thickeners are simple in design and operation. After having removed useable materials from the effluent stream, Thickeners recover immediately re-usable process water adjacent to the plant site. This design reduces pump HP, eliminates settling ponds, mitigates environmental issues and reduces water consumption.

PUG MILL MIXERS

McLanahan custom designs and builds Pug Mills to process specific application requirements such as capacity, corrosive or abrasive material handling, dust control, moisture content and others. All Pug Mill Mixers are designed for uniform, continuous feed applications.



Pug Mill Mixer

DEWATERING SCREENS

Dewatering Screens were introduced to the North American market in the late 1970s by McLanahan personnel and quickly became the standard in the industry. They are used for dewatering, desliming, degritting, rinsing, scrubbing and washing of various materials through the right combination of frequency and amplitude.



Dewatering Screen

**McLANAHAN OFFERS PARTS AND SERVICE
24 HOURS A DAY, EVERY DAY!**



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