MOYNO

Always the Right Solution™

Moyno® Max-Flow Annihilator™ Grinder System

Custom Engineered Headworks Debris Handling System
Lower Initial and Lifetime Costs, Save Energy, and Improve System Performance

Installing and maintaining equipment to protect the downstream pumps, valves and process equipment in water treatment plants and its lift stations can be expensive and environmentally challenging. Bar rakes and screens and drum screen grinders all have their cost and performance disadvantages. Moyno has developed an alternative to both of these technologies, the **Moyno Max-Flow Annihilator Grinder System.**

Basic System Description:

The Max-Flow system contains two or more Annihilator grinders mounted side-by-side in a stainless steel retrieval frame in the headworks of a waste treatment system. The frame is engineered-to-order and pre-fabricated. It includes guide rails to permit the independent retrieval of each grinder for easy maintenance. Steel panels can also be inserted in place of a grinder to divert the flow to the remaining grinders during maintenance, eliminating the need for a diversion or by-pass channel. Stainless steel or FRP control panels can be installed to control the operation of each grinder independently using manual or automated control systems.

The Max-Flow system offers the following features and benefits:

Fewer Maintenance Issues

Bar rakes and bar screens can clog even when raked, and drum screens can become clogged and covered with debris. Because drum screens are not as robust as grinders, they are more susceptible to damage from large, floating debris. Bar rakes or bar screens also allow some large particles to pass posing a maintenance concern for other process equipment or the requirement for additional equipment to deal with these particles. None of these issues bother the Moyno Annihilators operating side-by-side in a channel.

Lower Maintenance Costs

Fewer maintenance issues translates to lower maintenance costs. When maintenance is required, removing and replacing one grinder or one grinder cartridge is much easier and less costly than removing and replacing an entire drum screen grinder or its drum screens or grinder parts. Servicing bar rakes and screens can also be a costly exercise.

Lower Initial Cost

The Max-Flow system's initial cost is often lower than competing technologies. If you are considering a new installation, the Max-Flow system's cost advantage increases substantially with the elimination of the space and construction costs

associated with by-pass channels, gates and controls to divert the flow during the maintenance of headworks equipment.

Lower Energy Usage

Very often waste treatment facilities do not operate at their maximum flow rates. When this occurs, floats or other flow monitoring devices can be used to reduce the number of Max-Flow grinders in operation. Bar rakes and screens and drum screen grinders generally operate continuously with little variation in their energy usage.

Better Performance

When compared to drum screens, the greater grinding capacity of the Max-Flow system means better performance in reducing the particle size of debris floating through your system. The Max-Flow system's cutting efficiency and longevity is aided by the Annihilator's patented cutter spacers which significantly increases the grinder's cutting surfaces and significantly reduces the incidence of failure due to ragging.

Better Environmental Choice

Bar rakes and screens used at remote lift stations can be a messy, noisy, and environmentally objectionable operation. Processing debris under ground in the lift station with a Max-Flow system is a much better environmental choice.

General System Design Guidelines

Although all Max-Flow Annihilator Grinder Systems are engineered to meet specific customer conditions, there are some general system design guidelines as shown in the table below. Grinders can be installed in an in-line or a staggered or offset design to accommodate a variety of channel widths. The custom retrieval frame can also be constructed in a variety of lengths, with the most common lengths being 5 feet to 25 feet. The retrieval frame can be mounted in a channel or mounted to a wall.

Model	Double Grinders Max. GPM Output	Triple Grinders Max. GPM Output
M08C3A	725	1,075
M12C3A	1,150	1,725
M18C3A	1,875	2,800
M24C3A	2,950	4,450
M32C3A	4,075	6,125
M40C3A	5,350	8,050
M60C3A	9,375	14,075

Note: Minimum Widths - Double Retrieval System 39", Triple Retrieval System 59"

The Annihilator… the Heart of the System

Moyno Max-Flow Annihilator Grinder Systems are built around the field-proven Moyno Annihilator Grinder. This high quality, twin-shaft grinder with patented spacer cutters and patent pending shrouded seal ensures that solids in the primary sludge stream are ground uniformly and efficiently. The Annihilator Grinder is supported by our customer assistance services and our national availability of replacement parts and repair services. For further information on this great piece of equipment, please visit us on our website listed below.

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