

Walker Process Equipment

Division of McNish Corporation

General Brochure



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Equipment for the Water Resources Industry

Municipal Wastewater

- *Grit Removal*
- *Clarification and Separation*
- *Biological Process*
- *Grease and Scum Separation*
- *Anaerobic Digestion*

Municipal Water

- *Solids Contact Clarifier Mechanisms*
- *Flocculation*
- *Flash Mixing*

Industrial

- *Clarification and Separation*

Rehab Products

Parts and Aftermarket Services

- *Complete Inventory of over 50 years of installations*



www.walker-process.com

OUR COMMITMENT TO THE WATER ENVIRONMENT INDUSTRY

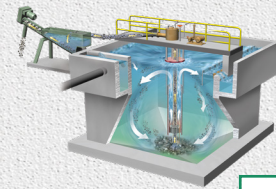
Since 1946 Walker Process has been dedicated to designing, manufacturing and providing equipment for the Water and Wastewater Industry. During the early years Walker Process engineers developed many of the devices, systems and techniques that are the basis of equipment design standards today. Today Walker Process offers proven technologies for biological treatment, anaerobic treatment, clarification, digestion, separation, and sludge treatment.

Many of Walker's installations continue to operate after 40 – 50 years of continuous service as a result of our comprehensive engineering and desire for quality at every step of manufacturing. Our products are designed and manufactured based on our 60+ years of experience combined with the most advanced engineering know-how. All key components of Walker's products are manufactured at our facility 75,000 square foot manufacturing in Aurora, IL

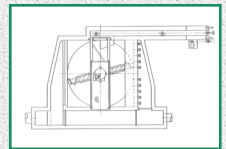
We provide assistance with product selection and sizing, specifications, drawings and recommendations on technical features of equipment.

Grit Separation and Removal Equipment

Rolling Grit – This system provides grit separation from the influent stream, grit removal and pre-aeration all without moving parts. This system is supplied with an air-lift pump to transfer settled grit to a grit washer.

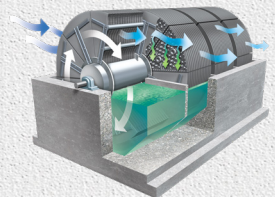


Hydro-Separator (Detritor) – This is a ruggedly designed outward scraping circular scraping mechanism for grit removal. The system typically includes flow deflectors and an inclined screw conveyor for grit removal.



Rotating Biological Contactor

EnviroDisc® RBC - has a proven record in a variety of applications spanning over 30 years. The EnviroDisc RBC offers a high degree of performance with low energy input, simplicity of operation, and only requires a small footprint.



Rotary Distributor

Rotary Distributors are reaction driven mechanisms that provide a uniform hydraulic load over the surface of filter media.

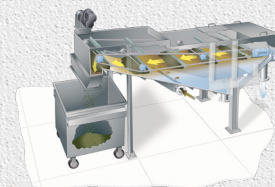
Mast Type are applied to relatively low flow and smaller bed diameter applications.

Mast-Tub Type are generally applied where flow rates exceed 5,000 gpm and large bed diameters up to 250 feet.

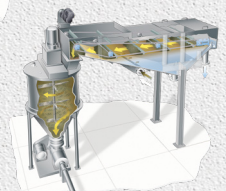


Scum and Grease Separation (available in stainless steel or shop finish painted carbon steel.)

Scum Separator – This completely shop assembled system provides an economical means to de-water clarifier skimming with the ability to collect and dispose of solids in a standard bin or bulk refuse bags



Scum and Grease Concentration System – This system combines de-watering by gravity separation in a separation tank with a heated day tank for further processing of concentrated scum and grease. This system provides the means to keep grease laden skimming pumpable and prepared for transfer to a digester for energy recovery or directly to disposal.



Circular Clarifier Mechanisms

Circular collector mechanisms by Walker Process, from the simplest bridge or pier supported mechanism to the most complex are designed in strict adherence to engineering design codes, specifications and the unique requirements of the end user.

Mechanism Types

- Bridge Supported
- Pier Supported

Special Features

- Plow with straight flights or rapid sludge removal spiral blades.
- Rapid (Hydraulic) Sludge Removal type with tapered suction headers or a series of sludge pipes.

Custom features are almost unlimited with only a few mentioned below.

- Custom Designed Bridges, Platforms, and Structural Elements
- Full Radius Scum Troughs and Skimmers
- Energy Dissipating Influent wells
- Stainless Steel Construction
- Seismic Design

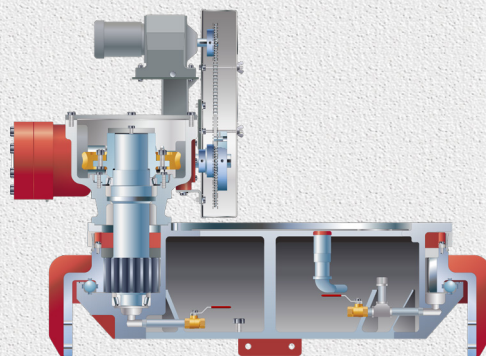
Rectangular

- Plastic Chain/Fiberglass Flights
- Metallic Chain/Fiberglass Flights

Collector Drive Assemblies

These drive assemblies are all **“Walker-Built”** in our own factory and have withstood the test of time with some units in continuous operation for over 60 years.

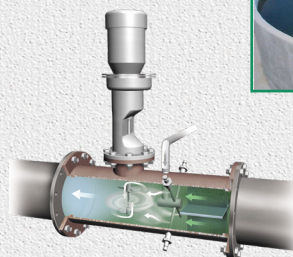
Spur Gears are ductile iron precision Class 6 gear assemblies with replaceable bearing race inserts and oil lubricated. Housings are machined from cast iron to provide the highest level of precision and superior corrosion resistance for long life.



Potable Water Treatment

Solids Contact Clarifier, Type MC ClariFlow – This mechanism provides a superior combination of rapid mix, flocculation settling and collection within one basin. The MC ClariFlow is available in a bridge or pier supported type configuration

Flash Chemical Mixing – The Walker Process InstoMix provides high-energy flash mixing to instantaneously disperse dilute coagulant or polymer solutions into raw water flow.



Equipment for Anaerobic Digestion Systems

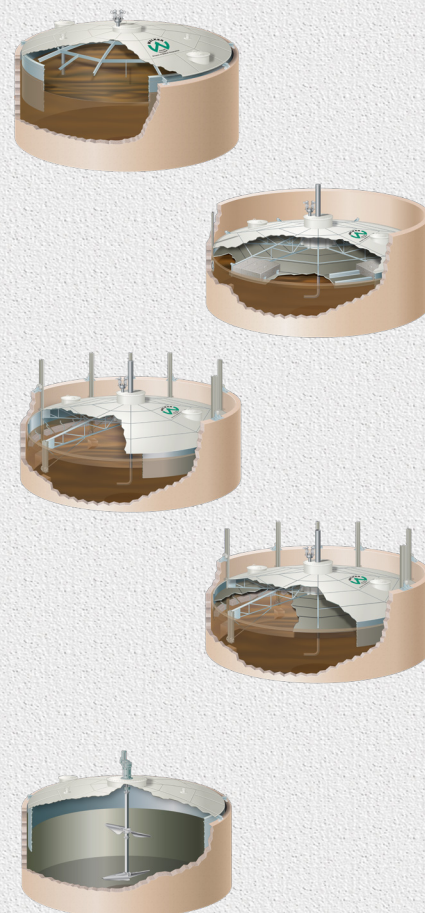
Covers — Designs available in both traditional Radial Truss or Arched Beam Type or Membrane Type with Hollow Structural Shapes

Fixed Cover — This cover is used in digesters with no variation in total volume and are often used on the primary digester in a two-stage system.

Floating Cover — This cover floats directly on the sludge, allowing variable sludge levels and gas volume is relatively constant. A floating cover provides for submergence of scum and is often applied on the primary digester in a two-stage system.

Gas Holder Cover — This type of cover provides for gas storage by riding on a constant pressure, variable volume of gas. This cover can be used with a constant or variable sludge level and is applicable on a second stage digester.

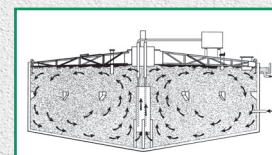
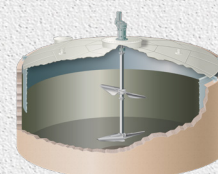
Combination Gasholder and Floating Cover - This cover combines features of the Floating Cover and the Gasholder and features both ceiling and roof plates with radial truss supports between the ceiling and roof plates.



Digester Mixing

Mechanical Mixing — The vertical shaft agitator by Stamo/Walker Process Equipment provides a low energy solution for effective and maintenance free mixing in anaerobic digesters.

Gas Mixing — The GasLifter is a confined gas system that provides mixing by release of gas within the confined space of an eductor tube.



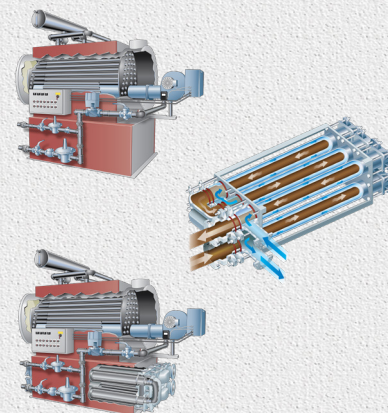
Digester Heating

Hot Water Boiler — This is a dual -fuel, forced draft, 2 – pass Scotch Marine type boiler that include the latest technology in materials and modulating flame control features.

Heat Exchanger — Tube-in-Tube type that utilizes counter-flow circulation of hot water and sludge to provide proven superior heat transfer with low headloss.

- Hot Water to Sludge Heat Transfer
- Sludge-to-Sludge Heat Transfer

Combination Boiler and Heat Exchanger — This combination assembly provides a complete sludge heating solution on a small footprint. The boiler and exchanger are integrated with water piping, fuel lines, instrumentation and a complete electrical control system.



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