

The standard in
Gravity Belt
Thickener design.



The Premier Gravity Belt Thickener for y

Although some people consider Gravity Belt Thickeners to be “basically the same,” we at Charter Machine Company respectfully disagree. We believe our design and construction provides the premier Gravity Belt Thickener available and encourage you to compare our features and benefits against any other GBT in the marketplace.

Intelligent design. Robust construction.

Belt alignment is a major concern regarding GBTs. CMC has addressed this issue with their center-pivot alignment design. By pivoting in the center of the unit, both sides of the unit are adjusting simultaneously. This reduces the potential for blinding, extends belt life and makes corrections faster and smoother.

CMC utilizes self-aligning double-roll spherical bearings with a quadruple lip seal. The solid pillow-block housings and mounting pads are machined in-house to ensure absolute parallelism.

Standard frame construction is hot-dipped galvanized MC channel with stainless steel flock tank, trays, chutes, containment sides and hardware. Complete stainless steel units in 304 or 316 are available upon request. CMC offers four sizes of GBT: 1.2 meter, 1.7 meter, 2.2 meter and 3.2 meter.

Built-in simplicity.

Belt alignment and belt tensioning are pneumatically controlled. This provides a cleaner and easier system to maintain. Our unique plow-grid assembly eliminates the need to manually lift and lower each row of plows. All bearings and drives are easily accessible while the open design allows for easy clean up after completing a run.

All control panels are stainless steel, manufactured in-house and can be customized to meet any requirements of the facility. CMC also offers a filtrate-recycling feature that can be utilized in the belt wash system to minimize water consumption.

Durability that’s guaranteed.

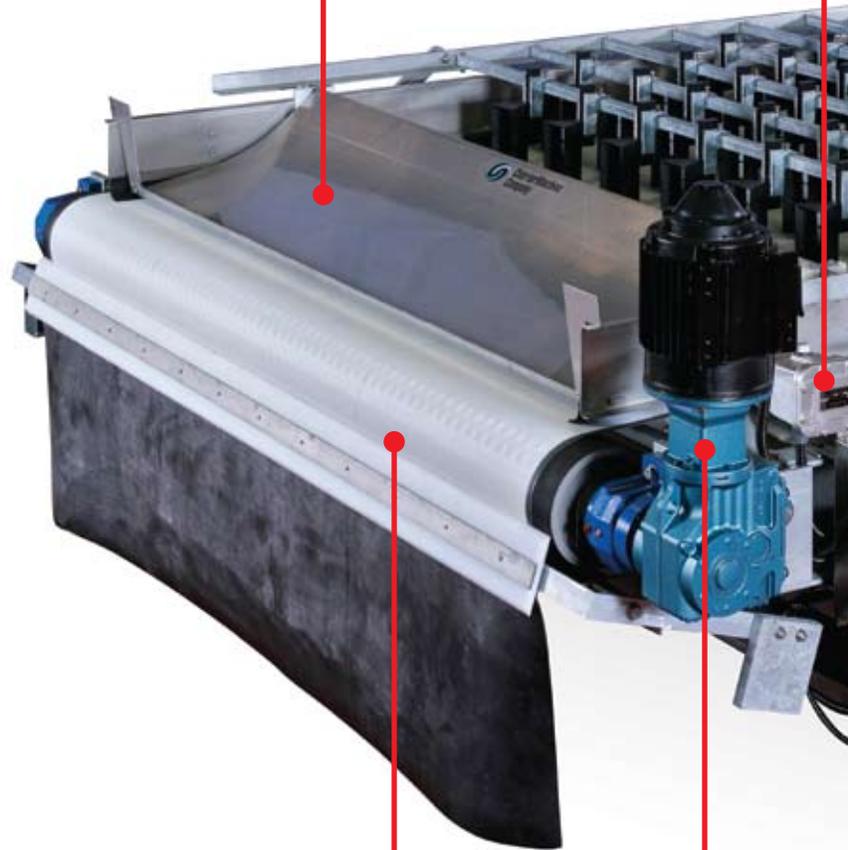
CMC’s design, materials of construction and fabrication provide tangible benefits. Our belts are guaranteed for 4,000 hours, twice as long as most other GBT suppliers. All bearings and bearing housings are guaranteed for the life of the unit. Our center-pivot design maintains even belt stretch providing a more consistent performance over the life of the belt. The units are manufactured in our 100,000 sq. ft. manufacturing facility in Metuchen, New Jersey where a complete inventory of spare parts is available for immediate shipment. Our engineering department and sales force would welcome the opportunity to address any questions or provide information.



CMC utilizes Rilsan Nylon coated one-piece pillow block bearing housings with gasketed end cap. Self-aligning double-row spherical bearings with quadruple lip seals. All bearings provided on Charter Machine Gravity Belt Thickener are guaranteed for the life of the equipment.

Optional stainless steel pressure plate provides additional dewatering without breaking the floc or creating pooling of the filtrate.

Lanyard Safety Switch



Variable-Speed Belt Drive

Drive and tracking roller are coated with 60 durometer synthetic rubber while the tensioning roller is coated to the point of insertion by the Rilsan Nylon Fusion Bonded Process.

TYPICAL SLUDGE CHARACTERISTICS	APPROX. SLUDGE FEED (% D.S.)	APPROX. THICKENED SLUDGE (% D.S.)	VOLUME REDUCTION (%)	CAPTURE RATIO (%)
Aerobically Digested	1.5–3.0	4.5–6.5	70	98–99+
Anaerobically Digested	2.0–5.0	4.5–10.5	55	98–99+
Primary + WAS	1.5–5.0	4.5–8.0	70	98–99+
Primary	2.5–7.5	7.5–12.5	70	98–99+
Waste Activated	0.5–1.5	4.5–6.0	90	98–99+
Coal Refuse	5.0–10.0	20.0–45.0	80	97–99+

our Municipal and Industrial Applications



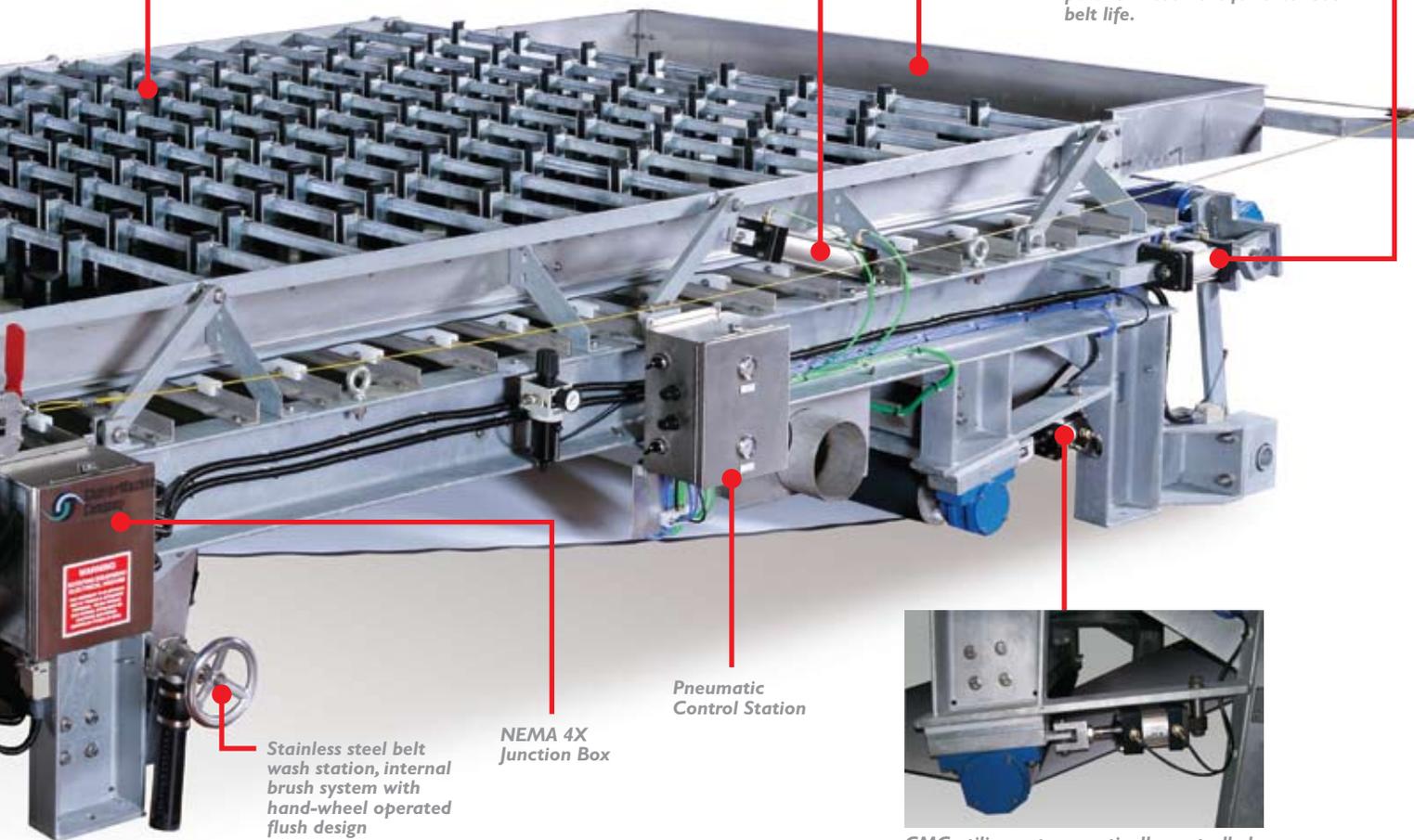
Individually adjustable UHMW polyethylene plows are free floating but properly weighted to always maintain contact with the belt. More rows and more plows increase belt exposure to allow filtrate to escape.



Pneumatic actuator lifts or lowers entire plow assembly for easier cleaning, eliminating manually lifting each row of plows.



Integral flocculation tank levels flow onto belt and provides ease of observation.



Pneumatically controlled rigid tensioning assembly adjusts and maintains belt tension with parallel movement for extended belt life.

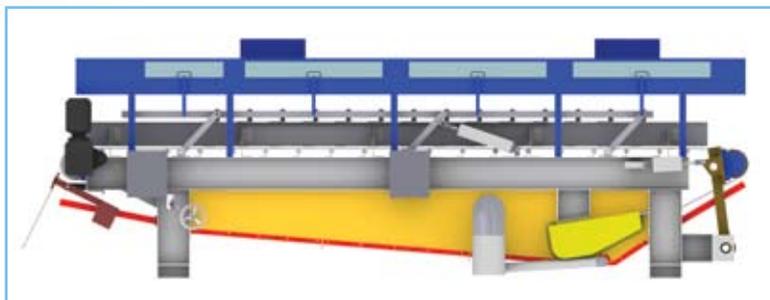
Pneumatic Control Station

NEMA 4X Junction Box

Stainless steel belt wash station, internal brush system with hand-wheel operated flush design



CMC utilizes a pneumatically controlled center pivot alignment system. This design reduces belt stretching, lengthens belt life and provides a more consistent performance over the life of the belt.



CMC's enclosed unit positions the stainless steel hood near the gravity deck to control odor while still allowing visual inspection. This design also promotes easier cleaning and maintenance.

Over four decades of precision machine manufacturing.

We're Charter Machine Company, and for years we've manufactured and serviced the best designed and finest performing sludge thickening and dewatering equipment under the Roediger Pittsburgh name.

Recently, Charter Machine Company acquired the rights to Roediger Pittsburgh. Today we offer the same exceptional equipment and service under our own name, Charter Machine Company.

Now you can be sure that the name on your equipment is the company that built it – and stands behind it.



Custom solutions.

Sludge varies, and so are the facilities that handle it. Charter Machine Company offers custom solutions designed to meet your needs, whether it is stainless steel units to mobile dewatering trailers. With our in-house staff of design engineers and complete control over the fabrication we are able to make modifications so the equipment you order is perfectly suited to your operation.

Parts ready to ship.

Occasionally our equipment will need servicing. At Charter Machine Company we maintain a complete inventory of replacement parts ready for immediate shipment. Assistance is a phone call away with help in troubleshooting and problem solving.

Total System Responsibility.

Charter Machine Company specializes in dewatering. Our staff of expert technicians can assist you in every aspect from sludge testing to design assistance to equipment start-up and training. We manufacture polymer systems and conveyors in addition to the dewatering units to provide total system responsibility. We strive very hard to meet all your dewatering needs and would welcome the opportunity to be of service.



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