PRODUCTS & SERVICES OVERVIEW

Polychem Chain & Flight Scraper Systems
Innovative Waste Water Treatment
Sedimentation Tank Scraper Flights
Sediment Dredge System

Stormwater Management Solutions
Specialised Products
Complete Gearbox & Drive Systems
Tube Settler Systems
Tank Enviro Systems - supplier of market leading products & technical engineering services for Polychem Scraper Systems & Power Transmission Products.

Tank Enviro is the distributor of Polychem Scraper Systems and associated Waste Water Treatment Products manufactured by Brentwood Industries. Tank Enviro Systems are part of the Mechanical Equipment Group, which also includes Chain & Drives, a leader in power transmission, Inquip, a Bulk Materials Handling provider and Techquip, technical services specialists.

Our team are trained in waste water treatment, associated power transmission and bulk materials handling products. We have the support and expertise from market leading manufacturers across the globe, enabling us to provide our products and services throughout Australasia.

Design
Our engineering team are proficient in the use of cutting edge drawing software, utilising AutoCAD and SolidWorks in the production of full 3D virtual space modelling and simulation, enabling prompt and accurate project installation and future servicing.

Supply
Our sales team can supply a large range of waste water treatment and power transmission products. We represent the premium brand Polychem and our association with Mechanical Equipment Group allows us to provide a variety of alternative machinery and products at the most competitive price possible.

Maintenance
Tank Enviro Systems can provide full and ongoing maintenance services for all your plant and equipment, including gearboxes, motors, drive controls and drive assemblies. Effective servicing and maintenance can be the difference between reliable, efficient equipment and one plagued with continuing problems, costing you time and money.

We offer ongoing maintenance plans that allow you to be assured your equipment will be able to operate at its peak performance and efficiency. We also offer after hours and breakdown assistance and ongoing maintenance training for your personnel as required.

Installation & Commissioning Support
Once your design is complete and equipment procured, our design division can provide installation services to complete your project (WA location only). Some of our value added services include project estimating, costing, scheduling, resource management and equipment hire, meeting our client’s confidence in completing their project’s unique requirements. After installation we also provide full commissioning of equipment and supplied systems.
About Us

Tank Enviro Systems supplies the market leading range of Brentwood Collector Systems. Polychem non-metallic collector systems have earned a reputation as the industry standard for performance and reliability. Operating in clarifiers over 300 feet long and 40 feet wide, as well as in heavy-duty stacked clarifiers, Brentwood’s top-quality Polychem products and components continue to produce field- proven results by handling the most severe sludge-loading and complex tank geometry situations. This has lead to Polychem supplying in excess of 60% of the non-metallic sludge scrapers in use worldwide and in excess of 80% of those used in Australia.

Collector Systems

4-Shaft Collector
This system removes bottom sludge and transfers it to a sludge hopper at the influent end of the clarifier while also skimming out floating surface scum and discharging it via a scum pipe or helical skimmer.

Cross Collector
When tanks reach widths of 18 feet or greater, cross collectors are often used to concentrate the sludge collected by the longitudinal collector into a corner sump. Cross collectors scrape perpendicular to the longitudinal conveyors and typically run at twice the speed of longitudinal collectors. Screw conveyor augers may also be used as cross collectors.

3-Shaft Collector
The 3-shaft clarifier system removes bottom sludge only. It is commonly used in drinking water treatment plants and is often combined with inclined plate or tube settler applications.
Collector Systems

Dissolved Air Flotation (DAF) Tank
These tanks contain separate systems for sludge removal and surface skimming. Power skimmers are also available for DAF tank applications.

Stacked Clarifier
Stacked clarifiers are often used when clarifier space is limited and include a 4-shaft collector for both upper and lower decks. This system is also available in trayed installations.

Grit Bucket
These 5- or 6-shaft collector systems remove grit by collecting it in non-metallic buckets, elevating it, and discharging it via a chute. Stainless steel barrel wrap is used to protect the collector chain clogging.

Contact Us for all your Collector Systems & Components

System Components

Tank Enviro Systems supplies the market leading range of Polychem system components. Brentwood’s Polychem chain and flight systems are comprised of the finest quality components available in today’s market. Reliably constructed and economically designed, these products function efficiently as part of any clarifier system. We offer replacement components for competitors’ equipment and perform on-site inspection for evaluation of wear conditions through our complete aftermarket sales service and retrofit program. Our dedicated engineers and field service personnel are available to discuss any questions customers may have on their chain and flight sludge collector equipment.

Collector Chain
Drive Chain
Flights C-Channel Series
Flights Ultra Flight Series

Flights Box Series
Bridge E-Flight Series
Collector Head Shaft Sprocket
Driven Sprocket

Idler Collector Sprocket
Return Track
Standard Wear Strip
Slide-On Wear Strip

Sprocket NH-78 Shear Pin
Connecting Pin
Attachment Links
Filler Blocks
SYSTEM COMPONENTS

**System Components**

**Scum Removal**

Tank Enviro Systems supplies the market leading range of Brentwood Scum Remover products. The removal of scum during clarification is an essential step to decrease organic loadings and scum buildup in subsequent treatment processes. Brentwood’s rotating scum troughs and skimmers efficiently remove all grease, scum and floating material from the water surface in rectangular clarifiers and settling basins. Engineered for both corrosion-resistance and strength, Brentwood’s scum removal systems are available in non-metallic or metallic designs.

**System Components**

- Motor
- Gear Reducer
- Over-Torque Protection
- Limit Switch
- Drive Chain Tightener
- Chain Guard
- Head Shaft
- Stub Shaft
- Power Skimmers
- Scum Troughs (Non-Metallic)
- Scum Troughs (Metallic)
- Helical Skimmers (Non-Metallic)
- Helical Skimmers (Metallic)

**Tank Enviro Systems supplies SmartGuard Collector Monitoring Systems**

The SmartGuard® Collector Monitoring System for rectangular clarifiers identifies collector system overloads that cannot be detected by traditional shear-pin or torque monitoring devices. SmartGuard’s strategic placement allows it to monitor regular motion, warn of potential danger, and shut down the system before damage can occur. This cost-effective, early detection approach helps water and wastewater plants to avoid costly system failures by controlling up to four mechanisms, including longitudinal collectors, cross collectors, scum pipes and screw conveyors.

A power skimmer is a 2 or 3-shaft chain and flight system designed to remove grease, scum and other floating materials from the surface. Similar to 2, 3, and 4-shaft sludge collector systems, the power skimmer is operated by a gear motor, which translates rotation to collector sprockets to drive the chain and flight system. Flights transfer the scum up a beach plate through a scraping action and discharge it into a sloped trough. Power skimmers are standardly equipped with non-metallic components.

**Features:**
- Furnished with standard Polychem chain and flight components
- Can accommodate large variations in water level.
- De-watering prior to scum discharge reduces waste volume for processing.
- Replacement wiper blades available upon request.
Tank Enviro Systems supplies the market leading range of Brentwood SedVac Sediment Dredge System products. The SedVac Sediment Dredge System is a sludge removal system that effectively cleans the basin floor by removing the compression zone layer of sludge. Unlike clog-prone vacuum pipes, the SedVac system uses triangular header wings with 4-inch-high intakes to significantly reduce the opportunity for clogging. With a versatile cable drive that can be easily installed in existing basins, SedVac provides an ideal solution for plants that need to increase capacity without building new tanks or making large-scale alterations. Not only can SedVac handle heavy solids loadings, but it can also handle varying levels of influent quality, making it a perfect system for facilities with typically challenging fluctuations in intake levels.

**Features:**
- Supports both vacuum and pump configurations
- Single systems operate in basins over 300 feet long.
- Maintains flow rates while existing clogs.
- Operates in environments of high solids with no stoppage or clogging.

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**AccuGrid Surface Grating Applications:**
AccuGrid panels are designed to support foot traffic when placed directly over trickling filter media or adequately-supported tube settlers and are ideal for service walkways. The 2x2-inch grid pattern is sufficiently durable to act as a dampening system for hydraulic impact. These panels are moulded of corrosion-resistant polypropylene or filled HDPE for superior strength and maximum service life.

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**Tube Settler Systems**

Tank Enviro Systems supplies the market leading range of Brentwood Tube Settler System products. Tube settler systems are an inexpensive solution for drinking water and wastewater plants to increase treatment capacity, reduce new installation footprints, improve effluent water quality, and decrease operating costs. Constructed of lightweight PVC, tube settler modules can be easily supported with minimal structures that often incorporate effluent troughs and baffles. Modules are available in a variety of sizes to fit any tank geometry and tube lengths to accommodate a wide range of flows. With years of experience and extensive knowledge of the water treatment process, Brentwood can provide full process design for economically packaged systems.

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**Support System**
**Baffle Design**
**Trough Design**
**Available to Suit any Tank Geometry & Tube Lengths**
Tank Enviro Systems supplies TransDrive Cast Chain.

Proven over many years of service in the Australian market, the 720S TransDrive Cast Chains are manufactured to the highest industrial standards.

720 Series Chain Key Features:
- All chain links & bores are heat treated.
- Pins heat treated.
- Conveyor chain pins are located to prevent wear as a result of pin rotation.
- Conveyor cotpins in 304 stainless.

<table>
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<th>DESCRIPTION</th>
<th>PITCH (MM)</th>
<th>WORKING LOAD (KG)</th>
<th>WEIGHT (KG/M)</th>
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**720 Series Attachment**

720/720S Attachment Specification

*Dimensions Subject to Change*

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<th>[T]</th>
<th>[A]</th>
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<th>[O]</th>
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Tank Enviro Systems supplies TransDrive Sprockets.

Proven over many years of service in the Australian market, the 720S TransDrive Cast Sprockets are manufactured to the highest industrial standards.

720 Series Key Features:
- Sprocket material ductile iron, providing excellent abrasion resistance and wear life.
- 720 series sprockets have chain saver design. The sprockets have a flange either side of the teeth, this contacts the chain sidebars and maintains the chain pin on the true pitch line of the sprocket. This feature greatly improves chain life.
- The split design of these sprockets provides for easier assembly.
- 720 Series - 720 CAST 19 T, 720 CAST 23 T, 720 CAST 25 T
- H78 Series - H78 CAST 40T CAST STRAIGHT, H78 CAST 40T CAST 2.5" OFFSET, H78 CAST 40T CAST 6.25" OFFSET
Stainless Steel Sedimentation Tank Chain

Tank Enviro Systems supplies Stainless Steel Sedimentation Tank Chain.

SAV 715 Chain, the first stainless steel curved sidebar chain equivalent. Lightweight yet with a higher strength to weight ratio than cast chain, fabricated of 403 stainless steel and has been proven superior for the high load applications with readily available common attachment link designs. The SAV 715 is the result of brilliant design and the application of unique metals technology providing a collector chain of unmatched service life and a wide range application potential.

With the same design as the SAV715, the SAV 709 chain also has the ability to run on standard 720 series sprockets. The chain can be used with fibreglass or wooden flights.

Tank Enviro Systems also has access to a variety of Environmental Steel Sedimentation Tank Chain.

Dimensions of SAV 715 Stainless Steel Chain

<table>
<thead>
<tr>
<th>Chain No.</th>
<th>Pitch P (in.)</th>
<th>Minimum Ultimate Strength (lbs/ft)</th>
<th>Weight (lbs/ft)</th>
<th>Outside Dia Width Dia</th>
<th>Length (in.)</th>
<th>Pins Link</th>
<th>Brushed Link</th>
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SAV 715 Hybrid Sprocket

SAV 715 Stainless Steel Chain

Dimensions of SAV 709 Stainless Steel Chain

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<tr>
<th>Chain No.</th>
<th>Pitch P (in.)</th>
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<th>Weight (lbs/ft)</th>
<th>Outside Dia Width Dia</th>
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C.A.S.E Program

TANK ENVIRO SYSTEMS OFFERS THE C.A.S.E PROGRAM TO ALL CUSTOMERS TO ASSIST WITH PREVENTING PROBLEMS WITH CHAIN & FLIGHT EQUIPMENT AND EXTENDING THE LIFESPAN OF INSTALLATIONS.

Polychem products have been well known in the Waste Water Industry in Australia for over 25 years, and as the premium selected Sedimentation Scraper System in the world, we are proud to increase the support to all current Polychem users and new customers.

Based on the unique products manufactured specifically for the sedimentation process, we intend to provide site inspections and technical proposals on the current condition of sedimentation tanks, scraper system and mechanical power transmission equipment.

The Component Analysis and System Evaluation (C.A.S.E) Program, developed by Brentwood, helps customers to prevent problems with their chain and flight equipment and to extend the lifetime of the installations. The specialised tools and developed software provide facilities with cost-effective recommendations for budgeting future capital expenditures, maintaining inventory levels, and scheduling preventative maintenance.

Contact our team today to discuss your preventative maintenance requirements.
### Gearboxes & Motors

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<tr>
<td>AC Gearboxes</td>
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<td>AC Motors</td>
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<td>SMSR/HSM Helical</td>
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<td>Cyclo Drive</td>
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<td>Planetary Gearbox</td>
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<td>WEGEXN Motors</td>
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<td>Drives &amp; Controls</td>
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### Power Transmission Products

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<tr>
<td>Couplings</td>
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<tr>
<td>Chain &amp; Sprockets</td>
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<tr>
<td>Conveyor Chain</td>
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<tr>
<td>Clutches</td>
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<td>Specialised Products</td>
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<tr>
<td>Service Centre Site Services Tools &amp; Training</td>
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WASTE WATER TREATMENT

As part of our product range for Mechanical Pre-Treatment of waste water, WAM offers a wide range of Wastemaster products for solids-liquid separation.

TECHNICAL SERVICES

CONSULTING & DESIGN

Our WA team provide engineering consulting services for upgrades and new equipment designs. Utilising up to date information and the latest technology, we provide optimised solutions for your designs of plant improvements. Our engineers can design entire machines or individual components.

LASER ALIGNMENT

Using traditional alignment techniques incorporating straight edges and dial indicators are extremely time consuming, subject to methodology errors and physical limitations. Laser alignment techniques are both fast and accurate while reducing the potential for human error. Aligned equipment runs smoothly & avoids premature failure of bearings, belts & couplings.

PLANT MAINTENANCE

Our WA field service team have many years’ experience in plant maintenance. We can assist with break down installation of your power transmission requirements through to shut down maintenance programs. We will provide full plant audits and tailored maintenance programs across specialist industry sectors. Our maintenance team is backed by in-house engineers and specialists in consultation with our factory personnel.

TRAINING

Through continuous commitment to quality we strive to provide training solutions for industry. Utilising technical expertise we have developed comprehensive product training programs.

From the engineer seeking assistance with selecting the appropriate materials or components, a distributor who wants to provide the best available advice and products to your customers, or a maintenance person interested in getting the maximum uptime, we have a solution for your plant and equipment.

VIBRATION ANALYSIS

This is the predominant technology employed in condition monitoring to determine the condition of various mechanical components making estimating a prediction on service life expectancy and urgency of repairs. It is a non-invasive technique which collects vibration data from machines under normal operating conditions.

MECHANICAL EQUIPMENT REFURBISHMENT

Our WA service facility will provide repairs and services of all types of gearboxes, motors, couplings, bearings, actuators and drive assemblies. Our service staff are factory trained with many years’ experience in all types of power transmission equipment. We also can refurbish head and tail drum assemblies. Our service centre carries a large inventory of spare parts for immediate repairs and even in breakdown situations.

Welcome to MEG - Innovate > Build > Support.

Contact our friendly team today for your enquiry at info@meggroup.com.au.

tankenviro.com.au

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OUR NEW WEBSITE WITH TOOLS & IN-DEPTH TECHNICAL LIBRARY COMING SOON

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