



Enviro Systems

WATER > PROCESS > INNOVATION

# PRODUCTS & SERVICES OVERVIEW



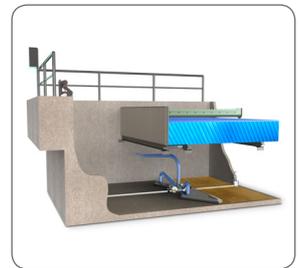
Polychem Chain & Flight Scraper Systems



Innovative Waste Water Treatment



Sedimentation Tank Scraper Flights



Sediment Dredge System



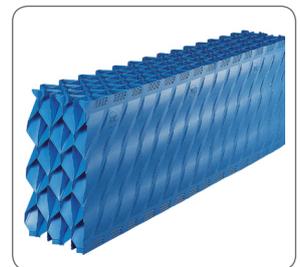
Stormwater Management Solutions



Specialised Products



Complete Gearbox & Drive Systems



Tube Settler Systems

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## 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.

### 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.

### 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.



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## TANK ENVIRO SYSTEMS SUPPLIES BRENTWOOD POLYCHEM SCRAPER SYSTEMS AND POWER TRANSMISSION PRODUCTS AND SERVICES.

Tank Enviro Systems was established in Australia as the exclusive distributor of Brentwood USA – Polychem Systems and associated products. Our head office and warehouse location is based on the Central Coast of NSW to provide distribution centrally for the East and South coast's of Australia. In order to expand our services to the West coast, we have recently opened an office in Perth to service local utilities and industry.

Our team has over 85 years' combined experience in Non-Metallic and Metallic Scraper Systems and Power Transmission products to assist you with any queries or site visits to discuss your new projects.

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 be selected by Brentwood 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 not only work with providing increased service to the existing installed system customers but be vigilant in providing site inspections and technical proposals on the current condition of sedimentation tanks scraper system and mechanical power transmission equipment.



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 led 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.



### 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.



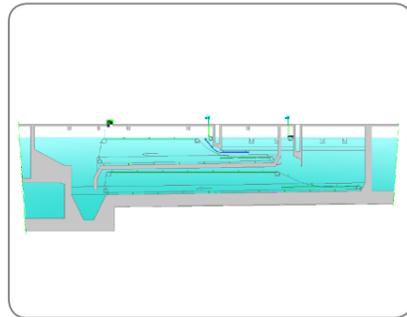
### 3-Shaft Collector

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.



### 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

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



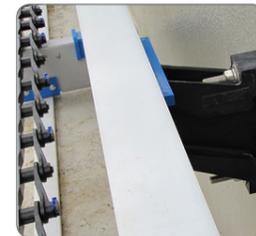
Collector Head Shaft Sprocket



Driven Sprocket



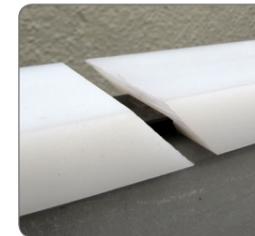
Idler Collector Sprocket



Return Track



Standard Wear Strip



Slide-On Wear Strip



Sprocket NH-78 Shear Pin



Connecting Pin



Attachment Links



Filler Blocks



Motor



Gear Reducer



Over-Torque Protection



Limit Switch



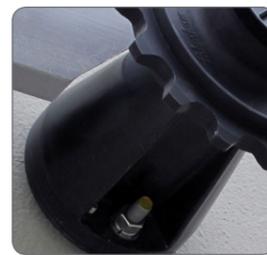
Drive Chain Tightener



Chain Guard



Head Shaft



Stub Shaft

### 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.



SmartGuard Collector Monitoring System



Control Panel



Sprocket Motion Monitoring



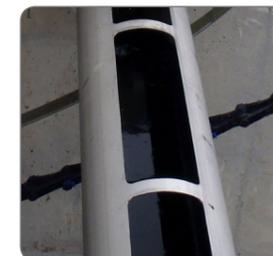
Flight Monitoring

### Tank Enviro Systems supplies the market leading range of Brentwood Scum Remover products.

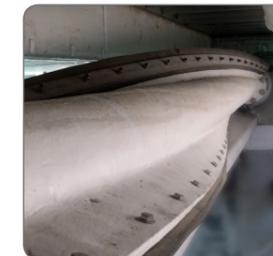
The removal of scum during clarification is an essential step to decrease organic loadings and scum buildup in subsequent treatment processes. Brentwood's rotating scum troughs and skimmers efficiently remove all grease, scum and floating material from the water surface in rectangular clarifiers and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



Scum Troughs (Non-Metallic)



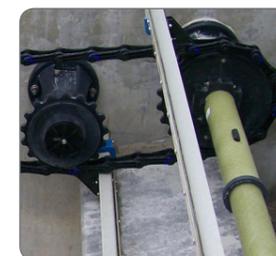
Scum Troughs (Metallic)



Helical Skimmers (Non-Metallic)



Helical Skimmers (Metallic)

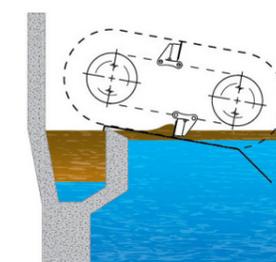


Power Skimmers

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:

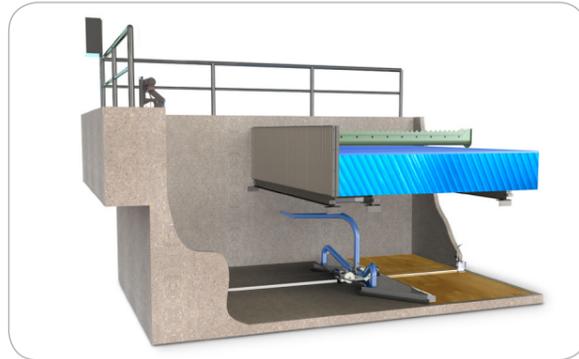
- Furnished with standard Polychem chain and flight components
- Can accommodate large variations in water level.
- De-watering prior to scum discharge reduces waste volume for processing.
- Replacement wiper blades available upon request.



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

## SedVac Sediment Dredge System

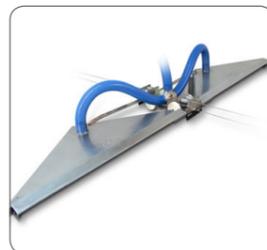


### Features:

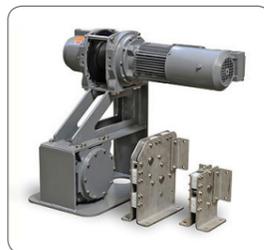
- Supports both vacuum and pump configurations
- Single systems operate in basins over 300 feet long.
- Maintains flow rates while existing clogs.
- Operates in environments of high solids with no stoppage or clogging.



Track Assembly



Triangle-Shaped Header



Traction Winch System



Chassis



Flexible Wipers



Pumps



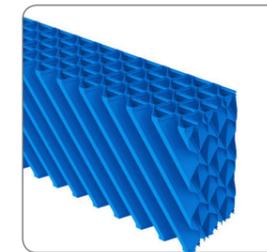
Sheave Assemblies



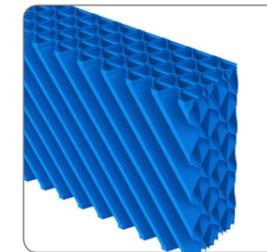
Operates in Environments with High Solids

Tank Enviro Systems supplies the market leading range of Brentwood Tube Settler System products.

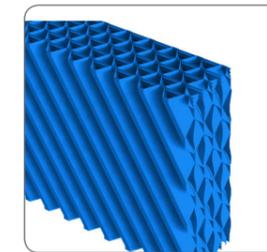
Tube settler systems are an inexpensive solution for drinking water and wastewater plants to increase treatment capacity, reduce new installation footprints, improve effluent water quality, and decrease operating costs. Constructed of lightweight PVC, tube settler modules can be easily supported with 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.



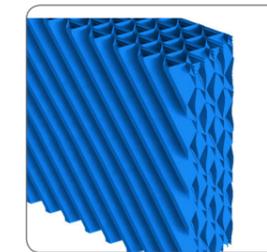
Tube Settler IFR-6024



Tube Settler IFR-6030



Tube Settler IFR-6036



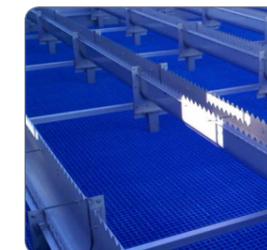
Tube Settler IFR-6041



Support System



Baffle Design



Trough Design



Available to Suit any Tank Geometry & Tube Lengths



AccuGrid Surface Grating

### 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.

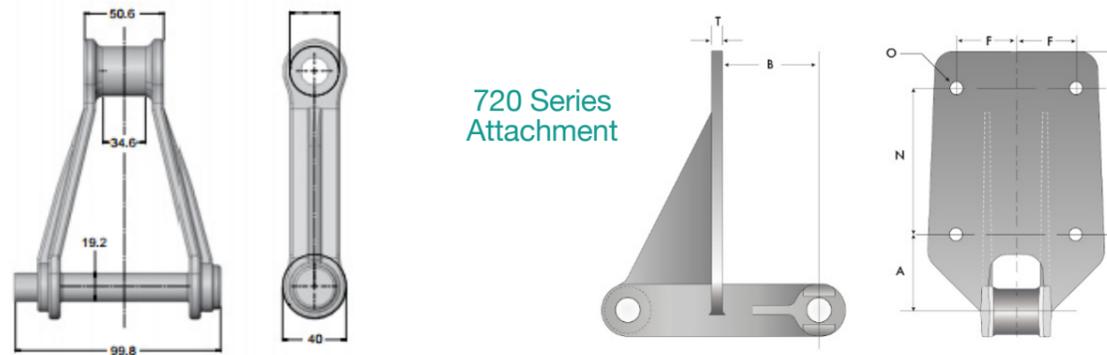
Tank Enviro Systems supplies TransDrive Cast Chain.

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.

DESCRIPTION	PITCH (MM)	WORKING LOAD (KG)	WEIGHT (KG/M)
720SC CAST CHAIN	152.4	2000	8.1
H78 CAST CHAIN	66.27	1300	6.3



**720/ 720S Attachment Specification**

*\*Dimensions Subject to Change*

Attachment Part No.	Dimension						
	B	T	A	N	O	F	F <sup>2</sup>
F-226	3.000	0.250	2.375	2.625	0.438	1.875	3.750
F-228	3.000	0.250	2.375	4.500	0.438	1.875	3.750



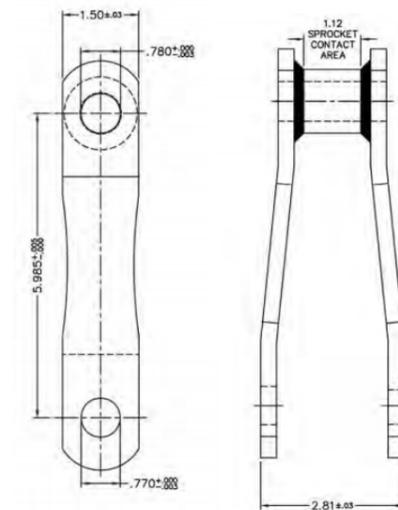
Tank Enviro Systems supplies TransDrive Sprockets.

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

**Sprockets**

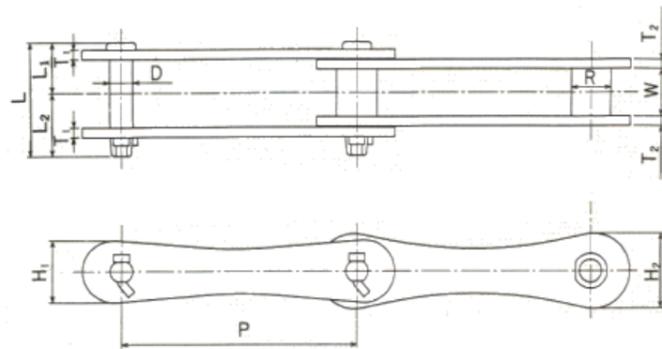


Tank Enviro Systems supplies Stainless Steel Sedimentation Tank Chain.

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 fiberglass or wooden flights.

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



SAV 715 Stainless Steel Chain



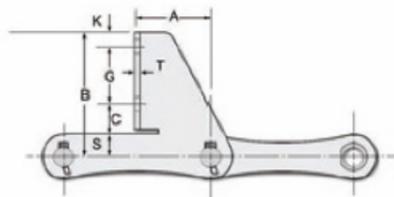
### Dimensions of SAV 715 Stainless Steel Chain

Chain No.	Pitch P (in.)	Minimum Ultimate Strength (lbs.)	Weight (lbs./ft.)	Barrel			Pin			Side Bars			
				Outside Dia	Width	Dia	Length (in.)			Pin Link		Brushed Link	
							D	W	d	L	L <sub>1</sub>	L <sub>2</sub>	H <sub>1</sub>
SAV 715	6.00	29,000	3.9	1.024	1 3/16	0.569	2 27/32	1 9/32	1 9/16	1 37/64	15/64	1 57/64	15/64

SAV 715 Hybrid Sprocket



SAV 715 Chain Attachment



### Dimensions of SAV 709 Stainless Steel Chain

Chain No.	Pitch P (in.)	Minimum Ultimate Strength (lbs.)	Weight (lbs./ft.)	Barrel			Pin			Side Bars			
				Outside Dia	Width	Dia	Length (in.)			Pin Link		Brushed Link	
							D	W	d	L	L <sub>1</sub>	L <sub>2</sub>	H <sub>1</sub>
SAV 709	5.844	19,000	2.2	0.882	1 17/64	0.453	2 37/64	1 11/64	1 13/32	1 7/32	3/16	1 29/64	3/16

**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 their 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.





AC Gearboxes



AC Motors



SMSR/HSM Helical Shaft Mount



Cyclo Drive



Planetary Gearbox



Cyclo Bevel Buddybox



Paramax Drive Assemblies



Heavy Duty Gearboxes



WEGEXN Motors



Explosion Proof Motors



Mining Specification Moto



Stainless Steel Motors



GC Seisa Gear Coupling



Hyponic Drive



Screw Jack



Stainless Steel Gearboxes



Gearboxes



Motors & Brakes



Drive Assemblies



Drives & Controls



Couplings



Chain & Sprockets



Belts & Pulleys



Bearings



Conveyor Chain



Clutches



Specialised Products



Service Centre Site Services Tools & Training



Tank Enviro Systems supplies associated waste water treatment products from SPECO. 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.



Archimedean Screw Pumps



Screw Screens



Drum Screens



Grit Classifier



Compact Mechanical Pretreatment Plants



Screw Compactors



Aggregate Reclaimers for Concrete Plants



Screw Separators

## TECHNICAL SERVICES (WA LOCATIONS ONLY)



### 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

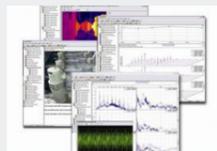
Our WA field services team have many years' experience in plant maintenance. We can assist with break down installation of your power transmission requirements through to shut down maintenance programs. We will provide full plant audits and tailored maintenance programs across specialist industry sectors. 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.



**MECHANICAL EQUIPMENT GROUP**

**CHAIN & DRIVES**  
COMPLETE POWER TRANSMISSION  
POWER > SPEED > TORQUE

**INQUIP**  
BULK MATERIAL & ORE HANDLING  
PRODUCT > DENSITY > FLOW

**TECHQUIP**  
DESIGN > INSTALLATION > SERVICE

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**TANK**  
Enviro Systems  
WATER > PROCESS > INNOVATION

INNOVATE >> BUILD >> SUPPORT

meggroupp.com.au



MEG, Mechanical Equipment Group, was established as an identity to bring together our specialised companies; Chain & Drives, Inquip, Techquip, Parts Book & Tank Enviro Systems and provide our clients with the complete solution for mechanical equipment & engineering services.

Our goal is to provide Design > Supply > Installation > Maintenance across a large range of industry sectors utilising Bulk Materials Handling and Power Transmission.

Our team provides 24/7 experienced personalised technical service and direct e-commerce access & supply solutions to our manufacturers & supply partners globally through our newest company, Parts Book.

With the advantage of five companies, MEG now provides a larger range of quality & great value products, technical 3D-design, advice, installation & maintenance services; both on our premises or onsite within Western Australia and New South Wales; to our ever growing customer base.

To assist our customers, we also offer fast delivery from our distribution partners located throughout major centres in Australia.

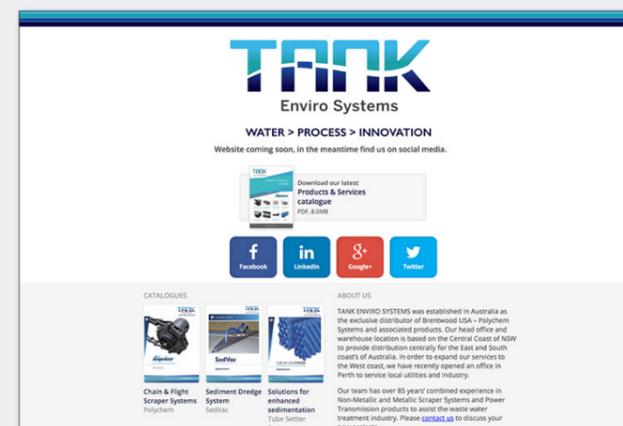
**Welcome to MEG - Innovate > Build > Support.**

Contact our friendly team today for your enquiry at [info@meggroupp.com.au](mailto:info@meggroupp.com.au).

**tankenviro.com.au**

Visit Us Online Today!

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



## Contact Us

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(08) 9303 4966

**Email**

[tankadmin@tankenviro.com.au](mailto:tankadmin@tankenviro.com.au)



# TANK

Enviro Systems

WATER > PROCESS > INNOVATION

*Polychem*<sup>®</sup>

 BRENTWOOD<sup>®</sup>



TRANS<sup>S</sup>DRIVE

WATER > PROCESS > INNOVATION