



TRIO SERIES TCW COARSE WASHERS

Efficient Aggregate Washing & Cleaning



DIAMOND
diamondequip.com

TRIO Engineered Products offers World Class Design, Engineering and Manufacturing to provide high value solutions for your crushing, screening, washing and material handling requirements.

Our core goals are to pursue product improvement, product quality, and provide our customers with the highest value processing solutions.

TRIO - Building Solutions Together

Coarse Material Washers

TCW3618

TCW4420

TTCW3618

TTCW4420

Blademills

TBM3618

TBM4420

TTBM3618

TTBM4420



TRIO continues to expand as a world-class designer & manufacturer of crushers, screens, washers, and conveyors for the aggregate, mining, recycling, and industrial minerals industries.

We strive to provide the most rugged, robust, and reliable equipment for the most demanding applications. We provide customized high value solutions according to our customers' needs, from single machines to stationary or portable plants, including turnkey projects.

TRIO: CREATES VALUE FOR YOU

TRIO's design and manufacturing teams have many years of experience building Coarse Material Washers and Blademills. These washing and classifying tools are the combination of quality, reliability, and performance. These Washers can be widely applied in the aggregate and mining industries.

TRIO manufactures both single and twin spiral CMW and Blademills in 36" and 44" sizes. Trio washers are a combination of durability, lower maintenance and operating costs, making these washers an exceptional value.

TRIO: CMW SERIES WASHERS

TRIO Coarse Material Washers and Blademills are a simple straight forward method to cost effectively; Clean, Classify and Dewater rock nominally sized less than 2-1/2 inches and larger than 3/8".

In the washing function, coarse material containing very water soluble slits and soft clay, roll and tumble while carried up the spiral shaft. The waste material absorbed by the water is discharged over the adjustable weirs at the back of the machine. The cleaned coarse product is discharged at the inclined section of the machine.



HIGH EFFICIENCY CLEANING



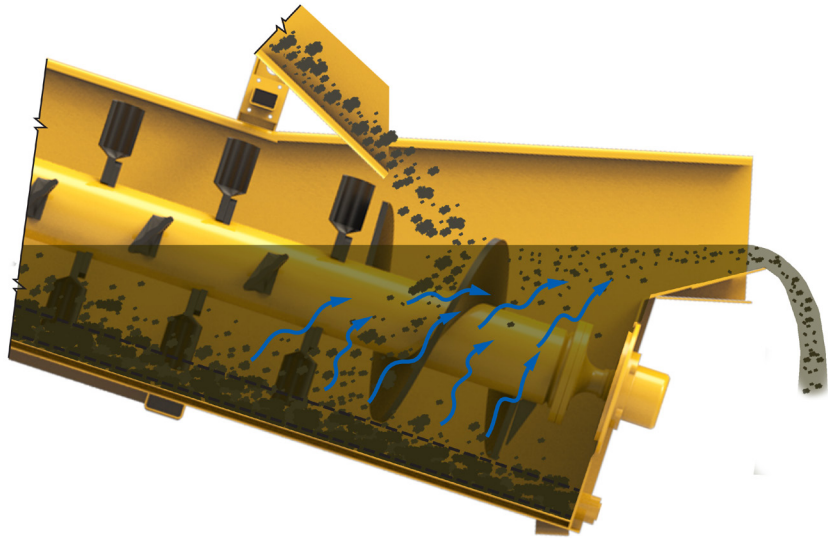
Coarse material washers can be adjusted to accommodate a variety of applications by: varying the spiral flights and paddle combinations; changing the amount of water used and adjusting the height of the overflow weirs.

TRIO: CMW SERIES COARSE WASHERS

HIGH EFFICIENCY CLASSIFYING

Classifying is accomplished when coarse material containing deleterious matter that has a specific gravity less than the coarse material, is floated upwards and carried over the adjustable weirs at the back of the machine. The velocity to float the deleterious material is provided by an incoming water supply from the manifold on the bottom rear section of the tub or tank.

Typical materials that can be removed are wood, coal, mica and trash that have a specific gravity less than the coarse material product.



Specifications for TRIO "TCW Series" Single Sprial Coarse Material Washers

Models	Spiral Size	Approximate Weight		Max Feed Size	Max Capacity		Est. Water Required		Power Required		Speed
	MM	Lbs.	Kgs	MM	STPH	MTPH	GPM	LPM	HP	Kw	RPM
TCW3618	915 x 5450	13670	6200	65 x 10	150 - 175	136 - 158	600	2274	30	22	16 - 32
TCW4420	1118 x 6350	20500	9300	75 x 10	200 - 250	181 - 227	750	2842	40	30	13 - 26

Specifications for TRIO "TTCW Series" Twin Sprial Coarse Material Washers

TTCW3618	915 x 5450	24230	10990	65 x 10	300 - 350	272 - 317	900	3406	2 x 30	2 x 22	16 - 32
TTCW4420	1118 x 6350	36050	16350	75 x 10	400 - 500	363 - 454	1100	4163	2 x 40	2 x 30	13 - 26

Results may vary depending on material feed gradation, silt & clay content, density, amount of water used, equipment configuration and application. Please consult TRIO's application department for specific capacity for your application.



RUGGED RELIABLE DESIGNS

TRIO builds an ultra heavy duty speed reducer for all of its washing equipment. These reducers are capable of up to an 85:1 reduction ratio to achieve low spiral speeds and high torque outputs. TRIO reducers utilize a sealed oil bath lubrication arrangement for maintenance-free operation.

A head-end gearbox coupling (insures proper shaft alignment) in conjunction with a flexible spider coupling protecting the rotating shaft and gear reducer against vibrations.



SAFE EASY MAINTENANCE



All TRIO Washers utilize lower outboard grease lubricated, anti-friction, self-aligning spherical roller bearing assembly with replaceable rubber “donut” seals and stainless steel wear sleeves. The mounting of the bearing outside the tub protects the bearing from water and dirt, and provides easy inspection and fast maintenance access.

The Left: photo is the outboard bearing assembly used on the smaller TRIO washers and The Right: photo is the pillow block type of bearing that is available as an option on some models. The Center: photo is the Lower end shaft coupling that insures precise alignment and an easy method for removing the shaft for maintenance.

TRIO: TBM SERIES BLADEMILLS

Although Blademills look very similar to Coarse Material Washers the application is very different. Blademills are used to pre-condition material that is a combination of aggregates and fine sand sizes.

The top sized feed is limited to a nominal 2-1/2". Blademills are normally used prior to a wet washing and screening process and operate at 0 to 4 degrees inclination with all the water and material being discharged together at the head end. The amount of water used in a Blademill application is generally 25% to 30% less than the amount used in a coarse material washer. Excess water inhibits the scrubbing action of the paddles.

The capacity and effectiveness of a Blademill is a function of the materials retention time. The retention time and therefore the capacity will vary depending on the material in each application.



SPECIFICATIONS FOR TRIO "TBM & TTBM SERIES" BLADEMILLS

MODEL	SPIRAL SIZE		WEIGHT		MAX FEED SIZE		CAPACITY		WATER REQUIRED		MAX POWER		SPEED
	IN X FT	MM X MM	LBS	KG	IN	MM	STPH	MTPH	GPM	LPM	HP	KW	RPM
TBM3618	36"x18'	928 x 5450	13200	5990	2 1/2"	65	150-175	136-158	600	2274	40	30	32-16
TBM4420	44"x20'	1118 x 6350	19400	8800	3"	75	200-250	181-227	750	2842	50	37.5	26-13
TTBM3618	36"x18'	928 x 5450	23670	10740	2 1/2"	65	300-350	272-317	900	3406	2 X 40	2 X 30	32-16
TTBM4420	44"x20'	1118 x 6350	33810	15340	3"	75	400-500	363-454	1100	4163	2 X 50	2 X 37	26-13

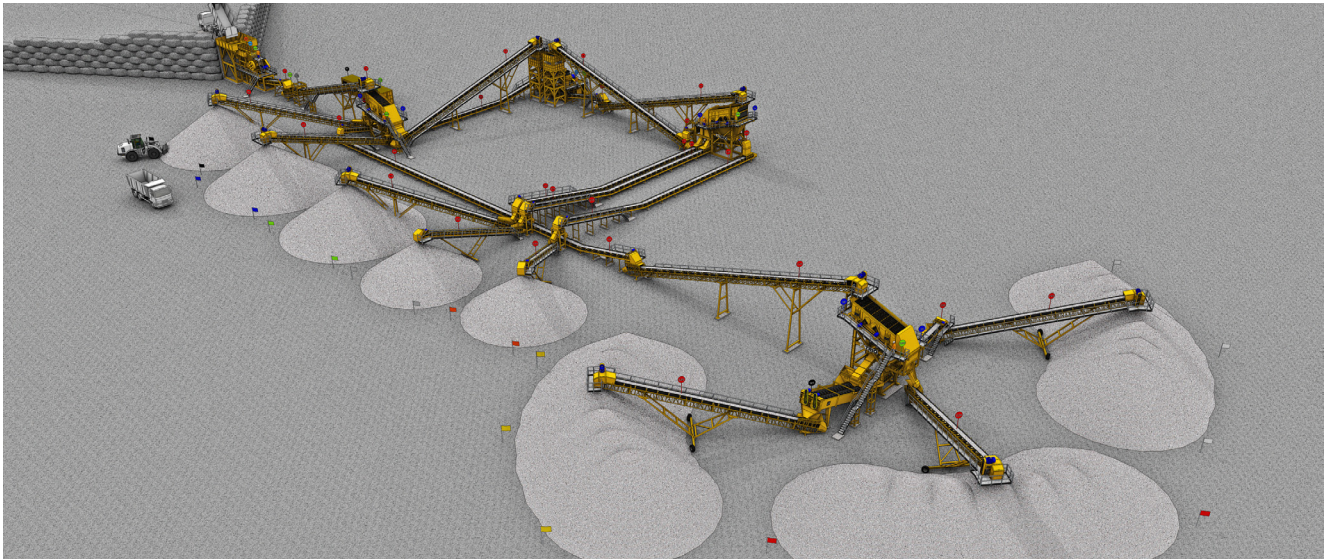
Results may vary depending on material feed gradation, silt & clay content, density, amount of water used, equipment configuration and application. Please consult TRIO's application department for specific capacity for your application.



COMPREHENSIVE SOLUTIONS

TRIO can provide not only key single machines, but also complete crushing, screening, washing, and material conveying solutions. We take your budget, working environment, capacity and product gradation requirements into consideration to provide a customized solution. Our optimized solutions include machine model selection, operating simulation, and on-site layout drawing.

TRIO's outstanding design, engineering and manufacturing capabilities, together with complete after-sales service, will ensure the successful implementation of your project, creating value to help you achieve your objectives.



GLOBAL SERVICE & SUPPORT

From Europe to mid-Asia, Africa to America, China to Australia, no matter what you order (a complete system, single machine, or a spare part). TRIO will provide you with professional service and support.

Combined with off-the-shelf availability, global distribution and superior quality, TRIO replacement parts and skilled service personnel make TRIO a valued partner in the global mining and aggregate industries.

All TRIO products are assembled and test run in our factory to ensure reliable performance. We also provide professional training for maintenance and operations personnel to insure smooth and efficient plant operations along with safe and easy maintenance.





CRUSHERS

CT Series Jaw Crusher
CTHT Series Jaw Crusher
TC Series Cone Crusher
T Series Cone Crusher
APS Series Impact Crusher
APP Series Impact Crusher
TV Series VSI Crusher

Screens

TIH Inclined Screens
TIO Inclined Screens
TIOSP Inclined Screens
THDS Scalping Screens
TTH Horizontal Screens
TBS Banana Screens
TLBU Banana Screens

Portable Plants

Track mounted plants
Wheel mounted plants

Plant Solutions

'Turn-key' projects

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