



Building Solutions Together

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PRODUCT
GUIDE



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



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.

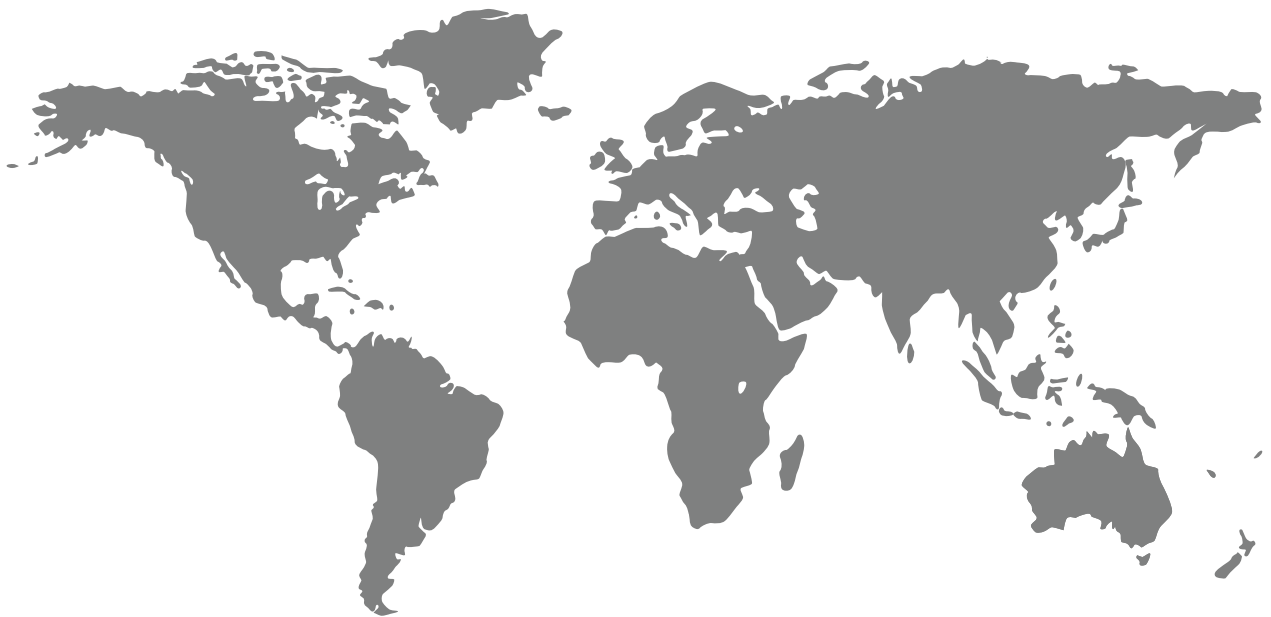




GLOBAL PRESENCE

TRIO's global corporate headquarters and main warehousing are located in Irwindale, near Los Angeles, California. TRIO's USA manufacturing center is located in Adelanto, California. We have warehouse's and service support staff in Birmingham, AL. and Miami, FL; enabling us to provide rapid parts support and factory trained service personnel for customers located in the Eastern USA and South America.

TRIO has established a strong global footprint with branches in USA, Europe, Africa, Middle-East, Russia, Singapore, Australia, South America, and India. Our global reach enables us to immediately serve local distributors, agents, end-users and OEM manufacturers.



TRIO's other global manufacturing centers are located in Shanghai and Jiangsu, China. Our facilities in China serve as both production centers and the management base for our domestic Asian and Asia/Pacific markets. These centers house purchasing, machining, fabrication, assembly, testing and R&D operations.





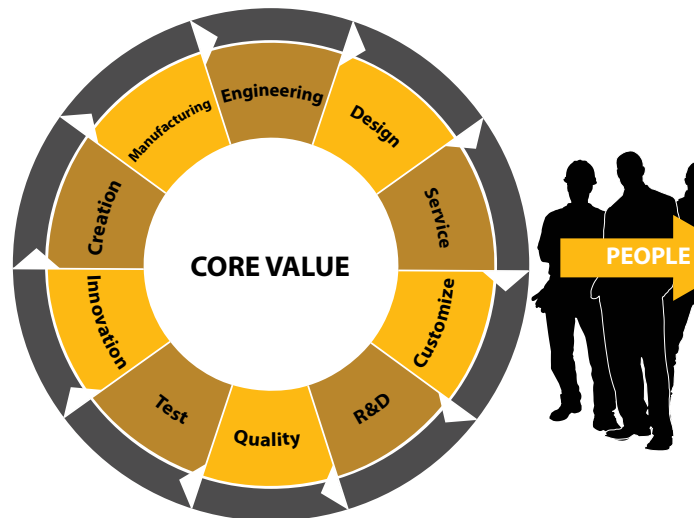
PRODUCT DEVELOPMENT AND ENGINEERING

TRIO's international engineering team is dedicated to sustainable development of our product line and the development of new products to meet our customers' needs. We utilize customer feedback, on-site staff, and independent R&D institutions, in collaboration with our engineering and manufacturing teams to produce reliable, highly effective, quality products for the mining, aggregate, and recycling industries. With years of experience, we have produced unique innovative products which have obtained both USA and World patents.

Our product line includes an extensive array of vibrating, crushing, screening, washing, electrical control centers and material handling equipment. We also provide a broad range of conveyor components for replacement parts and new OEM manufacturing. In addition, we are the leading solution provider for modular plants and customized portable plants in the industry. TRIO can provide complete on site machine assembly and "turn-key" projects.

GLOBAL SERVICE

TRIO's warehousing for finished products and spare parts can respond to customers' order requests within 24 hours. Our professional service team and global distributor network provide customers with personalized pre-sales technical support and after-sales installation, commissioning, and spare parts supply. TRIO's professional training services will help maximize operations and maintenance efficiency and create value for our customers.



OUTSTANDING PERFORMANCE

TRIO's Gyratory Crushers, Jaw Crushers and APP Series Impact Crushers are among the highest capacity primary crushers on the market. While the APS Series Impact Crusher and TC Series Cone Crushers are high performance secondary and tertiary crushers. TRIO's Vertical Impact Crushers are the best choice for tertiary and extra-fine quaternary crushing. All TRIO crushers can be widely applied to mining and aggregate applications, and are an ideal choice for contractors and the recycling industry. Combined with TRIO's vibrating screens and material handling equipment they can be configured to produce multiple specification products in open or close circuit operations.

RUGGED AND RELIABLE

TRIO's heavy duty design platforms, strict attention to quality control and modern manufacturing processes enable its products to reliably and continuously operate in the most demanding applications.





CUSTOMIZATION

TRIO is well known for its unique and innovative designs when customized equipment is required for specialized applications. We collaborate with customers to create high value solutions for their special needs.

MODULARITY

TRIO is the market leader for modular plant solutions. All of our feeders, crushers, screens, and washers can be configured into TRIO's semi-portable or stationary modular structures. Modular structure design creates extra value for customers by lowering the cost of construction, installation and shipment.



EASY TO OPERATE

We provide user-friendly features to operate, monitor and maintain our full range of products. Our service support teams provide multi level training, enabling workers on the front-line to quickly master the necessary operating and maintenance skills to provide lower operating costs.

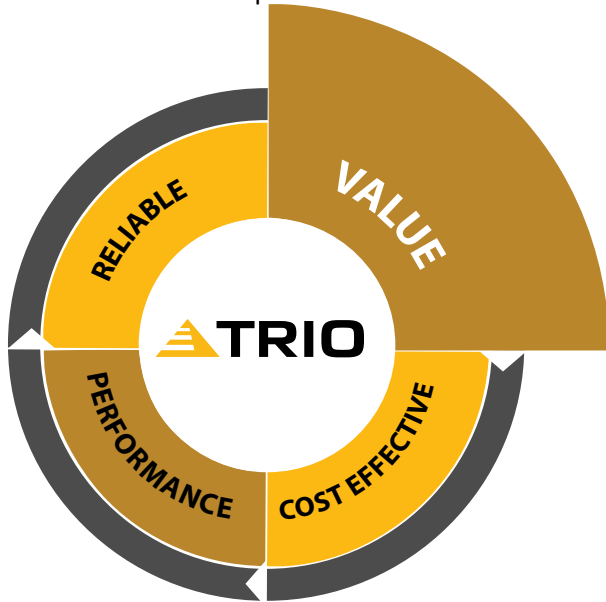
EASY TO SHIP AND ASSEMBLE

TRIO has perfected the art of containerized shipment. All structural components are optimized for container fit, weight and utilize bolted connections to eliminate on site welding. Oversize equipment is shipped on customized skids with industrial shrink wrap to insure safe handling.

All TRIO equipment is pre-assembled complete and test run to ensure proper fit and operation at our manufacturing facilities. Then disassembled, painted, match marked and packed in standard ocean containers, enabling quick and efficient delivery anywhere in the world.

ENVIRONMENTAL AWARENESS

TRIO pays keen attention to environmental protection. Portable plants are equipped with the most advanced diesel engines that conform to relevant environmental protection regulations. Our machines can link to an external power source lowering environmental pollution. Our products are equipped with the most advanced protection devices to ensure safe and stable operation in the most demanding environments. All TRIO products can be equipped to minimize dust and noise.





CT SERIES JAW CRUSHER

TRIO offers a wide range jaw crushers that can be widely applied in mining, aggregate, recycling and industrial minerals industries. TRIO jaw crushers incorporate steeply aligned toggle seats for efficient nip angles and high production rates. The larger models offer hydraulically adjusted wedges for quick and simple adjustments to closed side settings. All sizes incorporate a fixed jaw die configuration with a wrap-around design that protects the crusher frame and utilize an easy-to-maintain cheek plate bolt system. These crushers use an extra large, forged steel, overhead eccentric shaft; seated in closely-spaced, spherical, self-aligning roller bearings.



The modular design provides extra value by reducing transportation and installation cost for underground mining applications.



CT Series Jaw Crusher used in mining application.



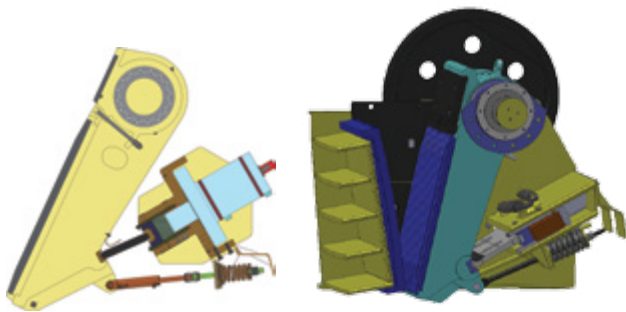
CT Series Jaw Crusher used in modular plant.



CT Series Jaw Crusher used in portable plant.

FEATURES:

- High processing capacity, high reduction ratio
- Hydraulic adjustment of CSS
- Open-pit & underground applications
- Easy access threaded side tensioning wedges for stationary jaw dies
- Rugged, robust and heavy duty



**Automatic Hydraulic Toggle
Now Available**



MODELS	FEED OPENING SIZE		MACHINE WEIGHT		CSS		POWER		SPEED	CAPACITY	
	IN x IN	MM x MM	LBS	KG	IN	MM	HP	KW	RPM	STPH	MTPH
CT1030	10"x30"	280x750	13230	6000	1" - 3 1/2"	25-90	40	30	300	23-61	21-55
CT1040	10"x40"	280x1000	15150	6872	1" - 3 1/2"	25-90	50	37	300	30-79	27-72
CT1048	10"x48"	280x1200	18500	8391	1" - 3 1/2"	25-90	75	55	300	35-95	32-86
CT1252	12"x52"	340x1300	23815	10800	1" - 3 1/2"	25-90	100~75	75~55	300	55-149	50-135
CT2036	20"x36"	500x900	25800	11700	2" - 5"	50-125	75	55	250	88-242	80-220
CT2436	24"x36"	650x900	32635	14800	3" - 7"	75-200	100	75	250	132-385	120-350
CT2645	26"x45"	660x1150	40000	18000	3" - 8"	80-200	125	90	300	160-450	175-500
CT3042	30"x42"	750x1060	54905	24900	3" - 8"	75-200	150	110	250	165-555	150-500
NCT3042	30"x42"	750x1060	44800	20321	3" - 8"	75-200	150	110	250	165-555	150-500
CT3254	32"x54"	800x1370	65710	29800	3" - 8"	75-200	200	132	250	265-860	240-780
CT3254B	32"x54"	800x1370	63790	28930	3" - 8"	75-200	200	132	250	265-860	240-780
CT3648	36"x48"	910x1200	97150	44066	4" - 10"	100-250	250	160	225	330-940	300-850
CT4254	42"x54"	1060x1370	126524	57390	5" - 11"	100-275	300	200	220	440-1220	400-1100
CT4763	47"x63"	1250x1600	176740	80167	6" - 12"	150-300	350	250	200	578-1390	520-1250
CT6080	60"x80"	1510x2000	325600	148000	6" - 12"	150-310	550	400	200	825-1777	750-1600

Results may vary depending on feed material gradation, density, moisture content, friability and crushing application. Please consult TRIO's application department for specific capacity for your application.

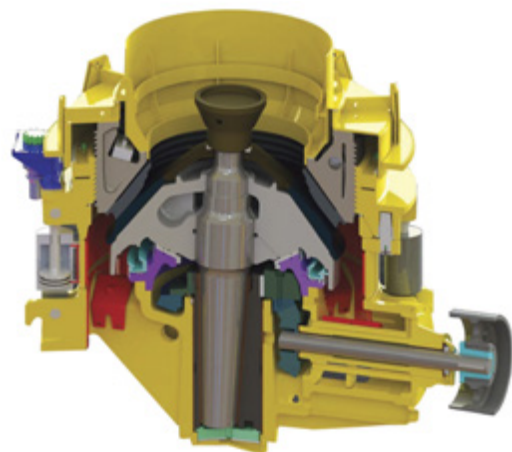
TRIO TC SERIES CONE CRUSHER

TC series cone crushers incorporate a heavy duty design. These crushers have large cone head diameters, which allow a medium-speed increase to equal the linear velocity and processing capacity of high-speed crushers in the market.

Operating at medium-speed, TRIO's larger socket assembly provides full support under both extreme and light load conditions, providing a longer crusher service life. The TC series is reliable in even the most difficult operating conditions. It is the best choice for large mining projects.

FEATURES:

- Rugged & reliable: Ideal for secondary & tertiary crushing
- Innovative design produces a high capacity of quality product
- Multiple hydraulic cylinder clamping & adjustment
- Advanced tramp relief and clearing system
- Safety & protection systems
- Advanced automatic control system and other optional equipment
- User friendly and simple to maintain





TRIO equipment is designed to operate in the harshest environments and the most demanding applications. No matter if it is -40 centigrade, or at 4000 Meters altitude TRIO products perform to the highest expectations.

MODEL	HEAD DIAMETER		MACHINE WEIGHT		CSS		FEED OPENING		MAX POWER		CAPACITY	
	IN	MM	LBS	KG	IN	MM	IN	MM	HP	KW	STPH	MTPH
TC36S	36	914	26500	12000	3/8"-1.5"	10-38	4"- 7 1/8"	100-180	100-125	75-90	30-205	27-186
TC36SH	36	914	26500	12000	1/8"-3/4"	3-19	1 5/8"-3"	40-75	100-125	75-90	30-150	27-136
TC51S	51	1295	49600	22500	1/2"-2"	13-50	5 3/8"-10 3/8"	140-260	200-300	150-200	150-470	136-425
TC51SH	51	1295	49600	22500	1/8"-1"	3-25	2 1/2"-5 1/4"	65-135	200-300	150-200	40-280	36-255
TC66S	66	1676	95900	43500	5/8"-2 1/2"	16-63	8 3/8"-14 1/2"	210-370	350-400	250-315	145-620	132-565
TC66SH	66	1676	95900	43500	3/16"-1"	5-25	2 3/4"-6"	70-150	350-400	250-315	115-420	105-380
TC84	84	2134	159800	72500	3/16"-1"	10-64	2 3/4"-18 1/8"	70-460	500-550	355-400	330-1653	300-1500
TC84X	84	2134	172000	78000	3/4"-2 1/2"	10-64	2 3/4"-18 1/8"	70-460	600	450	375-1929	340-1750

Results may vary depending on feed material gradation, density, moisture content, friability, equipment settings and crushing application. Please consult TRIO's application department for specific capacity for your application.

TRIO APS & APP SERIES IMPACT CRUSHER

TRIO offers two configurations of horizontal impact crushers: the APP Series for high-production primary applications and the APS Series for high production secondary or recycling applications. All models are available as bare units and in stationary and portable configurations. TRIO horizontal impactor's are all equipped with solid cast steel or fabricated stress relieved rotors in 2, 3 or 4 row blow bar configurations. These extra-heavy duty rotors provide the mass and strength necessary to crush feed material up to 1300mm (52 inches). TRIO crushers are among the most heavy-duty machines available. Important features to consider are: bearing size, shaft diameter, total machine weight and blow bar thickness.



FEATURES:

- High reduction ratio
- High production capacity
- High quality product gradation
- Hydraulic apron adjustment
- Multiple rotor & blow bar configurations

MODEL	ROTOR SIZE (DIA x L)		POWER		WEIGHT		SPEED	CAPACITY
	IN x IN	MM x MM	HP	KW	LBS	KG	RPM	TPH
APP4354	43"x54"	1100x1370	250	160-200	38500	17500	350-600	200-350
APP5148	51"x48"	1295x1220	300	200-250	48500	22050	350-600	200-500
APP5560	55"x60"	1400x1525	500	315-355	56595	25665	350-600	375-700
APP6384	63"x84"	1600x2130	350x2	315x2-355x2	101800	46273	350-500	500-1050
APP8084	80"x84"	2030x2130	1400	1000-1200	26756	59000	250-400	600-2000
APS3030	30"x30"	760x760	75	50	9218	4190	700-1000	Varies
APS4034	40"x34"	1015x865	150	90-110	20730	9400	450-700	100-250
APS4054	40"x54"	1015x1370	250	132-160	29110	13200	450-700	120-300
APS5148	51"x48"	1295x1220	300	200-250	40700	18500	450-650	160-350
APS5160	51"x60"	1295x1525	350	250-315	48800	22130	450-650	200-400
APS6084	60"x84"	1525x2135	350x2	400-250x2	93760	42620	300-500	320-600

Results may vary depending on feed material gradation, density, moisture content, friability, equipment settings and crushing application. Please consult TRIO's application department for specific capacity for your application.

TRIO TV SERIES VERTICAL IMPACT CRUSHERS

TRIO's vertical shaft impact crushers utilize the most advanced design platform, making it the VSI crusher with the widest range of capabilities in the market. TV Series crushers are tertiary or fine-stage crushers, which can be utilized in the most demanding applications to process many types of ores, minerals and aggregates. These Impactors can provide total solutions for aggregate, manufactured sand, industrial mineral powders, or pre-grinding for mining ore.

TRIO's vertical shaft impact crushers use high-speed rotors or heavy duty open tables. All our VSI crushers are convertible between three styles of crushing chamber designs for maximum flexibility. Configuration options include open shoe table and anvil ring, enclosed rotor and anvil ring, and enclosed rotor and rock shelf. These configurations maximize flexibility and allow the crusher to be configured as needed for the highest performance possible. TRIO's design platform offers maximum application versatility.



FEATURES:

- High production capacity
- Multiple configuration crushing chambers
- High quality product gradation
- Easy wear parts exchange
- Safe & easy maintenance access



MODEL	MAX POWER ALLOWED		*WEIGHT		** MAX FEED SIZE	SPEED RANGE	*** MAX CAPACITY	
	HP	KW	LBS	KG	MM	RPM	STPH	MTPH
TV65-ROR-SD	220	160	17688	8040	up to 40	1800-2700	200	180
TV65-ROS-SD	220	160	17688	8040	up to 40	1800-2700	200	180
TV85-ROR-SD	300	220	26180	11900	up to 50	800-1800	350	315
TV85-ROR-DD	150 x 2	110 x 2	29040	13200	up to 50	800-1800	400	360
TV85-ROS-SD	350	250	30580	13900	up to 40	800-1800	350	315
TV85-ROS-DD	200 x 2	160 x 2	34056	15480	up to 40	800-1800	400	360
TV85-SOS-SD	350	250	31460	14300	up to 90	800-1400	350	315
TV85-SOS-DD	250 x 2	200 x 2	35156	15980	up to 90	800-1400	500	450
TV95-ROR-SD	400	315	28248	12840	up to 63	800-1800	400	360
TV95-ROR-DD	350 x 2	250 x 2	34320	15600	up to 63	800-1800	600	540
TV95-ROS-SD	400	315	34848	15840	up to 63	800-1800	400	360
TV95-ROS-DD	350 x 2	250 x 2	40920	18600	up to 63	800-1800	600	540
TV95-SOS-SD	400	315	35948	16340	up to 125	800-1300	400	360
TV95-SOS-DD	350 x 2	250 x 2	42020	19100	up to 125	800-1300	600	540

*Machine weight shown does not include drive motor package

**Max Feed size; longest one way dimension-is subject to; application ,RPM required and power installed.

*** Results may vary depending on feed material gradation, moisture content, friability, RPM required, power installed, and application. Please consult TRIO's application department for specific capacity for your application.

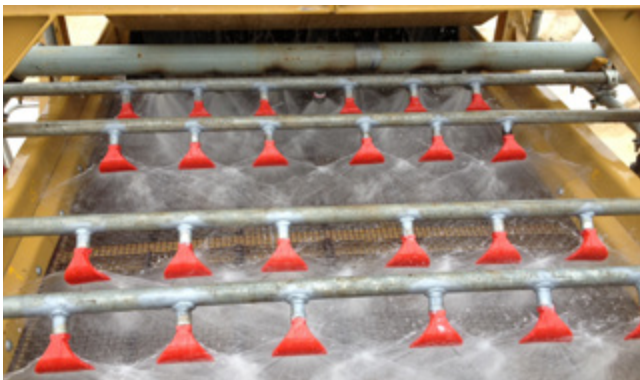
TRIO: TIH, TIO & TIOSP SERIES INCLINED SCREENS

TRIO Inclined Screens incorporate precision machined forged steel eccentric shafts that rotate on large spherical, self aligning, roller bearings. The stroke or amplitude is easily adjusted with counterweights that are bolted to the flywheels. The screen side plates are made from hot rolled steel with stiffener plates around the vibrating mechanism. Our screen side plates are plasma cut with CNC punched holes to eliminate stress fatigue. Screen support decks are robotically fabricated and stress relieved as one piece cambered deck frames, flat profile decks are available for Urethane and Rubber media applications. All components mounted to the screen side panels are attached with Huck bolts. The vibrating units are attached with threaded bolts for easy servicing. No welding is used, this process insures structural integrity and eliminates stress fatigue in the screen body insuring a long productive service life.



FEATURES:

- All Huck-bolt construction
- Accommodates all screen media types
- Ideal for wet or dry applications
- Easy stroke counterweight adjustment
- Available in single or twin shaft models
- Options for grease or oil lubrication





MODELS	DECKS	SIZE		WEIGHT		MAX POWER		MAX MATERIAL		SPEED	MAX AMPLITUDE	
		FT x FT	MM x MM	LBS	KG	HP	KW	IN	MM	RPM	IN	MM
TIH4101	1	4'x10'	1270x3048	4220	1918	10	7.5	8	200	900	9/32"	7
TIH4102	2	4'x10'	1270x3048	7328	3331	10	7.5	8	200	900	9/32"	7
TIH4103	3	4'x10'	1270x3048	6164	2802	10	7.5	8	200	900	9/32"	7
TIH4122	2	4'x12'	1270x3670	6325	2875	10	7.5	8	200	900	9/32"	7
TIH5142	2	5'x14'	1575x4268	9460	4300	15	11	8	200	860	5/16"	8.5
TIH5143	3	5'x14'	1575x4268	11312	5142	15	11	8	200	860	5/16"	8.5
TIH5162	2	5'x16'	1525x4878	9618	4372	15	11	8	200	860	5/16"	8.5
TIH5163	3	5'x16'	1525x4878	12454	5661	15	11	8	200	860	5/16"	8.5
TIH6162	2	6'x16'	1830x4878	10606	4821	20	15	8	200	860	5/16"	8.5
TIH6163	3	6'x16'	1830x4878	14054	6388	20	15	8	200	860	5/16"	8.5
TIH6202	2	6'x20'	1830x6096	11999	5454	25	18.5	8	200	860	5/16"	8.5
TIH6203	3	6'x20'	1830x6096	15776	7171	25	18.5	8	200	860	5/16"	8.5
TIO5143	3	5'x14'	1575x4260	12133	5515	15	11	8	200	860	5/16"	8.5
TIO5162	2	5'x16'	1575x4878	9838	4472	15	11	8	200	860	5/16"	8.5
TIO5163	3	5'x16'	1575x4878	12377	5626	15	11	8	200	860	5/16"	8.5
TIO6162	2	6'x16'	1830x4878	10903	4956	20	15	8	200	860	5/16"	8.5
TIO6163	3	6'x16'	1830x4878	13770	6259	20	15	8	200	860	5/16"	8.5
TIO6202	2	6'x20'	1830x6105	12364	5620	25	18.5	8	200	860	5/16"	8.5
TIO6203	3	6'x20'	1830x6105	15957	7253	25	18.5	8	200	860	5/16"	8.5
TIO6204	4	6'x20'	1830x6105	22590	10268	30	22	8	200	860	3/8"	9.5
TIO7202	2	7'x20'	2135x6105	19637	8926	30	22	8	200	860	3/8"	9.5
TIO7203	3	7'x20'	2135x6105	27951	12705	25x2	18.5x2	8	200	860	3/8"	9.5
TIO7204	4	7'x20'	2135x6105	35134	15970	30x2	22x2	8	200	860	3/8"	9.5
TIO7243	3	7'x24'	2135x7315	29643	13474	25x2	18.5x2	8	200	860	5/16"	8.5
TIO8202	2	8'x20'	2440x6105	22746	10339	25x2	18.5x2	8	200	860	3/8"	9.5
TIO8203	3	8'x20'	2440x6105	30083	13674	30x2	22x2	8	200	860	3/8"	9.5
TIO8204	4	8'x20'	2440x6096	44310	20141	40x2	30x2	8	200	860	3/8"	9.8
TIO8242	2	8'x24'	2400x7200	33000	15000	40x2	30x2	8	200	800	7/16"	11
TIO8243	3	8'x24'	2440x7315	40344	18338	40x2	30x2	8	200	800	7/16"	11
TIO9203	3	9'x20'	2490x6105	38153	17306	40x2	30x2	8	200	800	7/16"	11
TIO10203	3	10'x20'	3100x6105	44886	20360	40x2	30x2	8	200	800	7/16"	11
TIO12203	3	12'x20'	3700x6105	49295	22360	40x2	30x2	8	200	800	7/16"	11
TIO5P4101	1	4'x10'	1270x3058	9020	4100	20	15	16	400	860	3/8"	10
TIO5P4102	2	4'x10'	1270x3058	10230	4650	20	15	16	400	860	3/8"	10
TIO5P5141	1	5'x14'	1575x4268	12595	5725	25	18.5	16	400	860	3/8"	10
TIO5P5142	2	5'x14'	1575x4268	14808	6731	30	22	16	400	860	3/8"	10
TIO5P5163	3	5'x16'	1575x4878	20343	9247	30	22	16	350	800	3/8"	9.5
TIO5P6162	2	6'x16'	1830x4878	18788	8540	40	30	16	400	800	3/8"	10
TIO5P6163	3	6'x16'	1830x4878	23584	10720	40	30	16	500	800	3/8"	10
TIO5P7202	2	7'x20'	2135x6105	29082	13219	25x2	18.5x2	20	500	800	3/8"	10
TIO5P8243	3	8'x24'	2439x7315	45131	20514	50x2	37x2	12	320	760	7/16"	11.4

Data for marketing use, detail information subject to change without notice due to product updates and customization.



TRIO TTH SERIES HORIZONTAL SCREENS

The special applications for Horizontal screens include: when fine screening with a large percentage of near size product, wet washing or when low head room is critical such as mobile mounted equipment.

TRIO TTH Series Screens generate their power via three timed shafts with eccentric counterweights. The combination of three shafts; provide an oval stroke with adjustable amplitude, speed and operating angle that are determined by application, feed size and gradation. The vibrating unit utilizes an oil bath lubrication arrangement.

TRIO screen side plates are made from hot rolled steel and plasma cut with CNC punched holes. We use all Huck-bolt construction to insure structural integrity and eliminate stress fatigue in the screen body.

FEATURES:

- All Huck-bolt construction
- Customizable for all screen media types
- Ideal for wet or dry applications
- Easy stroke (amplitude) & speed adjustment
- Tripe shaft high “G” force vibrator assembly
- Spherical roller bearings in oil bath lubrication

MODELS	DECKS	SIZE		MACHINE WEIGHT		MAX POWER		MAX MATERIAL		SPEED	AMPLITUDE	
		FT x FT	MM x MM	LBS	KG	HP	KW	IN	MM	RPM	STPH	MTPH
TTH5162	2	5'x16'	1560x4880	14194	6452	30	22	10	250	675-850	3/8"-3/4"	10-19
TTH5163	3	5'x16'	1560x4880	17369	7895	30	22	10	250	675-850	3/8"-3/4"	10-19
TTH6162	2	6'x16'	1930x4880	14619	6645	30	22	10	250	675-850	3/8"-3/4"	10-19
TTH6163	3	6'x16'	1930x4880	18916	8598	40	30	10	250	675-850	3/8"-3/4"	10-19
TTH6202	2	6'x20'	1930x6100	18027	8194	40	30	10	250	675-850	3/8"-3/4"	10-19
TTH6203	3	6'x20'	1930x6100	21943	9974	40	30	10	250	675-850	3/8"-3/4"	10-19
TTH6204	4	6'x20'	1930x6100	21943	9974	50	37	10	250	675-800	3/8"-3/4"	10-19
TTH7202	2	7'x20'	2100x6100	22840	10382	50	37	10	250	675-850	3/8"-3/4"	10-19
TTH7203	3	7'x20'	2100x6100	27124	12329	50	37	10	250	675-850	3/8"-3/4"	10-19
TTH8202	2	8'x20'	2440x6100	24666	11212	50	37	10	250	675-800	3/8"-3/4"	10-19
TTH8203	3	8'x20'	2440x6100	29581	13446	50	37	10	250	675-800	3/8"-3/4"	10-19
TTHM9202	2	9'x20'	2745x6100	34833	15800	60	45	10	250	750	3/8"-3/4"	10-19
TTHI6203	3	6'x20'	1930x6100	22048	10022	40	30	10	250	675-800	3/8"-3/4"	10-19

Data for marketing use, detail information subject to change without notice due to product updates and customization.



FEATURES:

- Adsorbs heavy surge loads
- Excellent for sizing Rip-Rap
- Available with stepped grizzly section
- Honey-comb style reinforced pan assembly
- Adjustable Grizzly Bars

TF SERIES VIBRATING GRIZZLY FEEDERS

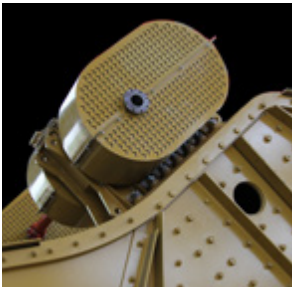
TRIO Vibrating Feeders are rugged, robust machines capable of absorbing the large surge loads from truck haulage equipment or wheel loaders providing an even, regulated flow of material to downstream processing. Deep ridged, low carbon steel side frames and a thick feeder pan are fabricated and stress relieved with honey comb style reinforcement. Grizzly sections have fully adjustable spacing with tapered openings in both dimensions to prevent clogging.

The material load on the feeder is moved along by two parallel contra-rotating eccentric shafts geared together. The forged steel eccentric shafts rotate on large spherical, self-aligning roller bearings running in an oil bath for minimum maintenance.



MODELS	SIZES		DECKS	MACHINE WEIGHT		BEARING SIZE	MAX FEED SIZE		CAPACITY		OPER SPEED	REQUIRED POWER	
	IN x FT	MM		LBS	KG		MM	IN	MM	STPH		MTPH	RPM
TF4010	40"x10'	1000x3050	1	7000	2950	90	24	600	320-500	290-450	650-800	15	11
TF4012	40"x12'	1000x3650	1	7780	3530	90	24	600	320-500	290-450	650-800	20	15
TF4016	40"x16'	1000x4875	1	10690	4859	90	24	600	360-545	325-495	650-800	25	18.5
TF4616	46"x16'	1124x4875	1	11000	5000	90	28	700	410-590	370-535	650-800	25	18.5
TF4620	46"x20'	1124x6000	1 or 2	14100	6000/6500	90	28	700	410-590	370-535	650-800	30	22
TF5217	52"x17'	1300x5200	1	14016	6328	110	32	800	455-680	410-615	650-800	40	30
TF5220	52"x20'	1300x6000	1 or 2	16400	7305/7685	110	32	800	455-680	410-615	650-800	40	30
TF5224	52"x24'	1300x7400	2	20170	10185	130	32	800	455-680	410-615	650-800	50	37
TF5820	58"x20'	1475x6000	1 or 2	18500	8650/9290	130	35	900	500-770	450-700	650-800	60	45
TF6420	64"x20'	1625x6000	1 or 2	22180	10450/10490	140	35	1100	660-905	600-820	650-800	60	45
TF6424	64"x24'	1625x7320	1 or 2	24550	11380/11725	140	35	1100	660-905	600-820	650-800	60	45
TF7220	72"x20'	1830x6000	1 or 2	25000	12319	160	43	1300	770-1360	700-1235	650-800	75	55
TF7224	72"x24'	1830x7320	1 or 2	30480	15830	160	43	1300	770-1360	700-1235	650-800	100	75
TF8420	84"x20'	2130x6000	1 or 2	44200	16500	160	59	1500	936-1598	850-1450	650-800	100	75

Results may vary depending on feed material gradation, density, moisture content, grizzly selection, equipment settings and application. Please consult TRIO's application department for specific capacity for your application.



TRIO TBS SERIES BANANA SCREENS

TRIO's TBS Series Banana Screens provide exceptional performance and are perfectly suited for applications which have a high percentage of fines in the feed stream. Multi-slope screening offers exceptional screening throughout the entire screen surface. These screens are high performance, thin layer, high velocity machines. TRIO banana screens are available in single and double deck configurations.

TRIO utilizes precision plasma cut and CNC drilled side plates that incorporate all bolted construction eliminating fatigue stress. Screen deck cross members are machine to insure precision fit and lined with urethane wear protection. An innovative stringer and deck design provide modular replacement of subassemblies. High quality surface preparation is used to maximize operating life by protecting against corrosion. Multiple deck configurations are available to accommodate rubber, urethane, and steel mesh media.

Out-of-balance twin geared exciters with easy access contra-rotating counterweights provide adjustable amplitude of the vibrating assembly. With geared exciters, the lubrication is optimized ensuring a long operating life.

FEATURES:

- High Capacity
- Thin layer high velocity screening
- Precision CNC drilled side plates
- Modular replacement deck assemblies
- Customizable for all screen media types

MODELS	DIMENSIONS		MACHINE WEIGHT		POWER		SCREEN AREA	DECK TYPE
	FT	M	LBS	KG	HP	KW	per DECK	
SINGLE DECK CONFIGURATION								
TBSS3060	10'x20'	3.0m x 6.0m	11574	5250	50	37	18.0	PU/Wire
TBSS3073	10'x24'	3.0m x 7.3m	14100	6396	60	45	21.9	PU/Wire
TBSS3660	12'x20'	3.6m x 6.0m	13888	6299	50	37	21.6	PU/Wire
TBSS3673	12'x24'	3.6m x 7.3m	16898	7665	60	45	26.2	PU/Wire
DOUBLE DECK CONFIGURATION								
TBSD3060	12'x20'	3.0m x 6.0m	16554	7504	50	37	18.0	PU/Wire
TBSD3073	10'x24'	3.0m x 7.3m	18468	8376	60	45	21.9	PU/Wire
TBSD3660	12'x20'	3.6m x 6.0m	17488	7932	50	37	21.6	PU/Wire
TBSD3673	12'x24'	3.6m x 7.3m	24582	11150	60	45	26.2	PU/Wire

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TRIO TLW SERIES LOG WASHER

TRIO Log Washers are designed to assist in the removal and breaking down of heavy plastic clay, conglomerates, and certain types of soft stone that may be present in gravel, crushed rock or ore. This job is accomplished by a severe abrading action of the corrugated faced Ni-Hard shoes mounted on spuds welded to the log shafts. The most important component in a TRIO Log Washer is the TRIO built “extreme duty” gear reducer with compound heat treated helical gearing to insure 100% of the thrust load is carried by the output shafts. The gearing runs in a sealed oil bath to insure protection from contamination. TRIO Log Washer successfully clean difficult materials other competitive manufactures avoid.



FEATURES:

- Extreme duty gear box with oil bath lubrication
- Seamless steel tub extreme duty log shafts
- Simple shaft replacement assemblies
- Outboard pillow block bearing assemblies



MODEL	SIZES (DIA x L)		WEIGHT		MATERIAL		MAX CAPACITY					POWER		SPEED
	IN x FT	MM	LBS	KG	IN	MM	STPH	MTPH	GPM	LPM	CMH	HP	KW	RPM
LW3630	36"x30'	905x8650	42990	19500	3"	75	55-138	50-125	500	1890	113	120-150	90-110	16-32
LW3635	36"x35'	905x10500	50160	22800	3"	75	55-138	50-125	500	1890	113	150	110	16-32
LW4430	44"x30'	1120x8650	60600	27500	4"	102	83-193	75-175	750	2840	170	150-200	110-160	13-26
LW4435	44"x35'	1120x10500	70300	31950	4"	102	83-193	75-175	750	2840	170	200	160	13-26

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



TRIO TCW SERIES COARSE WASHERS

TRIO's coarse material washers are designed to scrub and clean gravel and crush stone up to 3" (75 MM) in size. The unit's cast paddles provide a highly abrasive washing action that separates aggregate from very water soluble slimes, silts, soft clay, and organic particles. 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. Classifying is accomplished when coarse material containing deleterious material 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. All TRIO washers are built with an extreme duty, TRIO built, speed reducing gearbox that runs in an oil bath lubrication system. Outboard lower bearing assemblies provide easy maintenance access.

FEATURES:

- Numerous flight & paddle combinations
- Can remove deleterious materials
- TRIO built oil lubricated heavy duty gear box
- Seamless steel tub heavy duty shafts
- Simple replacement parts assemblies
- Easy access outboard bearing assemblies

MODEL	SIZE (DIA x L)		MACHINE WEIGHT		MAX MATERIAL		MAX CAPACITY					POWER		SPEED
	IN X FT	MM X MM	LBS	KG	IN	MM	STPH	MTPH	GPM	LPM	CMH	HP	KW	RPM
TBM3618	36"x18'	928x5450	13200	5990	0 - 2 1/2"	0-65	150-175	136-158	600	2274	136	40	30	32-16
TBM4420	44"x20'	1118x6350	19400	8800	0 -3"	0 -75	200-250	181-227	750	2842	170	50	37.5	26-13
TCW3618	36"x18'	928x5450	13670	6200	0 - 2 1/2"	0-65	150-175	136-158	600	2274	136	30	22	32-16
TCW4420	44"x20'	1118x6350	20500	9300	0 -3"	0 -75	200-250	181-227	750	2842	170	40	30	26-13
TTBM3618	36"x18'	928x5450	23670	10740	0 - 2 1/2"	0-65	300-350	272-317	900	3406	204	40x2	30x2	32-16
TTBM4420	44"x20'	1118x6350	33810	15340	0 -3"	0 -75	400-500	363-454	1100	4163	249	50x2	37.5x2	26-13
TTCW3618	36"x18'	928x5450	24230	10990	0 - 2 1/2"	0-65	300-350	272-317	900	3406	204	30x2	22x2	32-16
TTCW4420	44"x20'	1118x6350	36050	16350	0 -3"	0 -75	400-500	363-454	1100	4163	249	40x2	30x2	26-13

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

TRIO TSW SERIES FINE WASHERS

TRIO Fine Material Washers or Sand Screws are a simple method to clean, classify and dewater fine granular material (sand). Cleaning and classifying removes water soluble clay, silt, and micro sized fine particles typically less than 150 mesh. This is accomplished by hydraulic separation; using water to clean and classify by weight. Larger particles (Sand) weigh more so they sink and are collected in the bottom of the trough. They are discharged by a double pitched steel spiral shaft with replaceable cast wear shoes. The smaller lighter unwanted particles are floated to the surface and discharged over the weirs at the lower end of the machine.

All washers use a TRIO built, extreme duty gearbox that runs in an oil bath. Outboard lower bearing assemblies provide easy maintenance access.



FEATURES:

- Heavy duty steel plate construction
- TRIO built oil lubricated heavy duty gear box
- Standard cast Ni-hard outer wear shoes
- Simple parts replacement assemblies
- Easy access outboard bearing assemblies
- Available in single or twin shaft configurations



MODEL	SIZE (DIA x L)		MACHINE WEIGHT		MATERIAL		MAX CAPACITY					POWER		SPEED
	IN X FT	MM X MM	LBS	KG	IN	MM	STPH	MTPH	GPM	LPM	CMH	HP	KW	RPM
TSW3625	36"x25'	915x7620	14130	6420	3/8"	10	25-100	23-91	720	2725	164	15	11	10/21
TSW4432	44"x32'	1115x9700	22420	10190	3/8"	10	40-175	36-159	1720	6518	391	25	18.5	8/17
TSW5434	54"x34'	1370x10010	31970	14530	3/8"	10	70-275	64-249	2090	7921	475	40	30	7/14
TSW6636	66"x36'	1676x10670	40860	18570	3/8"	10	100-400	91-363	2590	9816	589	60	45	5/11
TTSW3625	36"x25'	915x7620	24860	11300	3/8"	10	50-200	45-180	1250	4737	284	15x2	11x2	10/21
TTSW4432	44"x32'	1115x9700	41490	18860	3/8"	10	80-350	72-318	2800	10612	636	25x2	18.5x2	8/17
TTSW5434	54"x34'	1370x10010	56340	25610	3/8"	10	140-550	128-498	3700	14023	841	40x2	30x2	7/14
TTSW6636	66"x36'	1676x10670	92250	41930	3/8"	10	200-800	182-726	4375	16581	994	60x2	45x2	5/11
TTSW7238	72"x38'	1830x11580	118430	53830	3/8"	10	237-950	215-862	5040	19101	1145	75x2	55x2	5/11

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



FEATURES:

- Welded stress relieved steel construction
- Honey-comb style steel pan reinforcement
- Standard A/R steel liners
- Quite high performance electric motors
- Vibrators with adjustable counterweights
- Available in suspended or floor mount models

TRIO EF SERIES PAN FEEDERS

Vibrating Pan Feeders are ideally suited for installation in surge tunnels and surge bin applications. These variable speed electric powered feeders control the material feed rate ensuring even process flow. With adjustable speed and eccentricity, TRIO EF Series feeders can be optimized for the most demanding applications.



MODEL	SIZE		WEIGHT		MAX MATERIAL		MAX CAPACITY		POWER		SPEED RPM	
	IN X FT	MM X MM	LBS	KG	IN	MM	STPH	MTPH	HP	KW	50Hz	60Hz
EF2404	24"x4'	600x1200	1200	550	8"	200	120-180	110-160	1x2	0.75x2	980	1176
EF3005	30"x5'	762x1524	1500	680	10"	260	180-270	160-240	1x2	0.75x2	980	1176
EF3605	36"x5'	914x1524	1800	810	10"	260	270-400	240-360	2x2	1.5x2	980	1176
EF3606	36"x6'	914x1829	2050	930	10"	260	270-400	240-360	2x2	1.5x2	980	1176
EF4806	48"x6'	1219x1829	3300	1500	13"	330	360-540	320-480	3x2	1.5x2	980	1176
EF6006	60"x6'	1524x1829	3850	1750	13"	330	450-650	400-580	3x2	2.2x2	980	1176

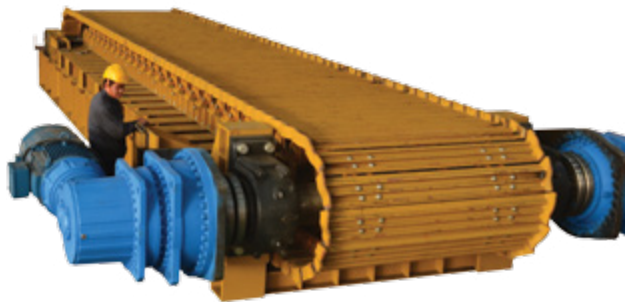
Results may vary depending on feed material gradation, density, moisture content, equipment configuration and application. Please consult TRIO's application department for specific capacity for your application.

TRIO AF APRON FEEDERS

TRIO is now offering rugged and reliable crawler tractor undercarriage type apron feeders with features that are preferred throughout the world. We offer a robust design and intense commitment to quality. This combination provides ruggedness and reliability in heavy duty operations. The result is increased operating time and reduced down time.

These units are offered in any number of widths and lengths in order to meet most tonnage and application requirements. With designs utilizing parts from the world's most popular crawler tractors, operators can be assured their wear parts are interchangeable and readily available.

TRIO Apron Feeders have adjustable tail frames with take-up assisted grease cylinder. Segmented tooth cast manganese alloy head sprockets for extended wear life, hot rolled steel head shaft and planetary gear reducer with oil lubrication.



Heavy duty structural frame weldments with impact rails prevent deflection. Using crawler tractor type lifetime lubricated carrying rollers and return roller assemblies provide a long extended service life.

TRIO AF FEEDERS ARE DESIGNED FOR A VARIETY OF APPLICATIONS:

- Feeding and withdrawing from primary crushers
- Feeding sticky material



FEATURES:

- Anti-friction bearings
- Forged steel head & tail shafts
- Crawler tractor style heavy duty chain
- Lifetime lubricated carrying and return rollers
- Segmented tooth drive sprockets
- Extreme duty abrasion resistant pans
- Heavy duty impact side rails





TRIO CR & CRS SERIES ELECTRO-MAGNETS

TRIO CR&CRS Series electro-magnets utilize electric powered magnets that efficiently work in heavy-duty applications. The CR Series is self-cleaning and equipped with a stainless steel clad belt conveyor, which can quickly attract iron and discharge it to ground or collecting containers. The CR Series is suitable for processing material with high iron content.

TRIO CRS Series is not equipped with a belt conveyor, and is suitable for material of lower iron content.

Both series are equipped with AC-DC converters that can adjust the magnet strength. These electro-magnets are rugged and reliable, and can be installed on a stationary structure or incorporated onto a portable conveyor.



MODEL	SIZE		MACHINE WEIGHT		POWER	
	IN X IN	MM X MM	LBS	KG	HP	KW
SELF-CLEANING						
CR36	36"X42"	915X1067	5281	23955		3.6
CR42	42"X48"	1067X1219	6200	28125		3.6
CR48	48"X54"	1219X1372	7155	3245	5	3.6
CR54	54"X60"	1372X1524	9407	4266	7.5	5.5
CR60	60"X66"	1524X1676	12000	5443	10	7.5
CR66	66"X72"	1676X1829	14400	6532	15	11.2
STATIONARY						
CRS36	36"X42"	915X1067	4200	1905	N/A	N/A
CRS42	42"X48"	1067X1219	4600	2087	N/A	N/A
CRS48	48"X54"	1219X1372	5400	2449	N/A	N/A
CRS54	54"X60"	1372X1524	2002	812	N/A	N/A



TRIO CRP & CRPS SERIES PERMANENT MAGNETS

Permanent magnets offer an economical ferrous removal solution. TRIO's powerful self-cleaning permanent magnets are suspended overhead, mounted in heavy-duty steel frames and equipped with a heavy-duty stainless steel armored belt conveyor. The magnets require no electric power and the conveyor belts can be driven either by electric or hydraulic power.

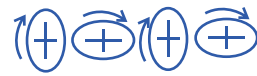


MODEL	SIZE		MACHINE WEIGHT		POWER	
	IN X IN	MM X MM	LBS	KG	HP	KW
SELF-CLEANING						
CRP30	30"X36"	762X915	1996	905	32	2.2
CRP36	36"X42"	915X1067	3600	1633	32	2.2
CRP42	42"X48"	1067X1219	4750	2155	54	
CRP48	48"X54"	1219X1372	6144	2786	54	
CRP54	54"X60"	1372X1524	7400	3357	54	
STATIONARY						
CRPS30	30"X36"	762X915	1000	454	N/A	N/A
CRPS36	36"X42"	915X1067	2000	907	N/A	N/A
CRPS42	42"X48"	1067X1219	3000	1361	N/A	N/A
CRPS48	48"X54"	1219X1372	4000	1814	N/A	N/A
CRPS54	54"X60"	1372X1524	5000	2250	N/A	N/A

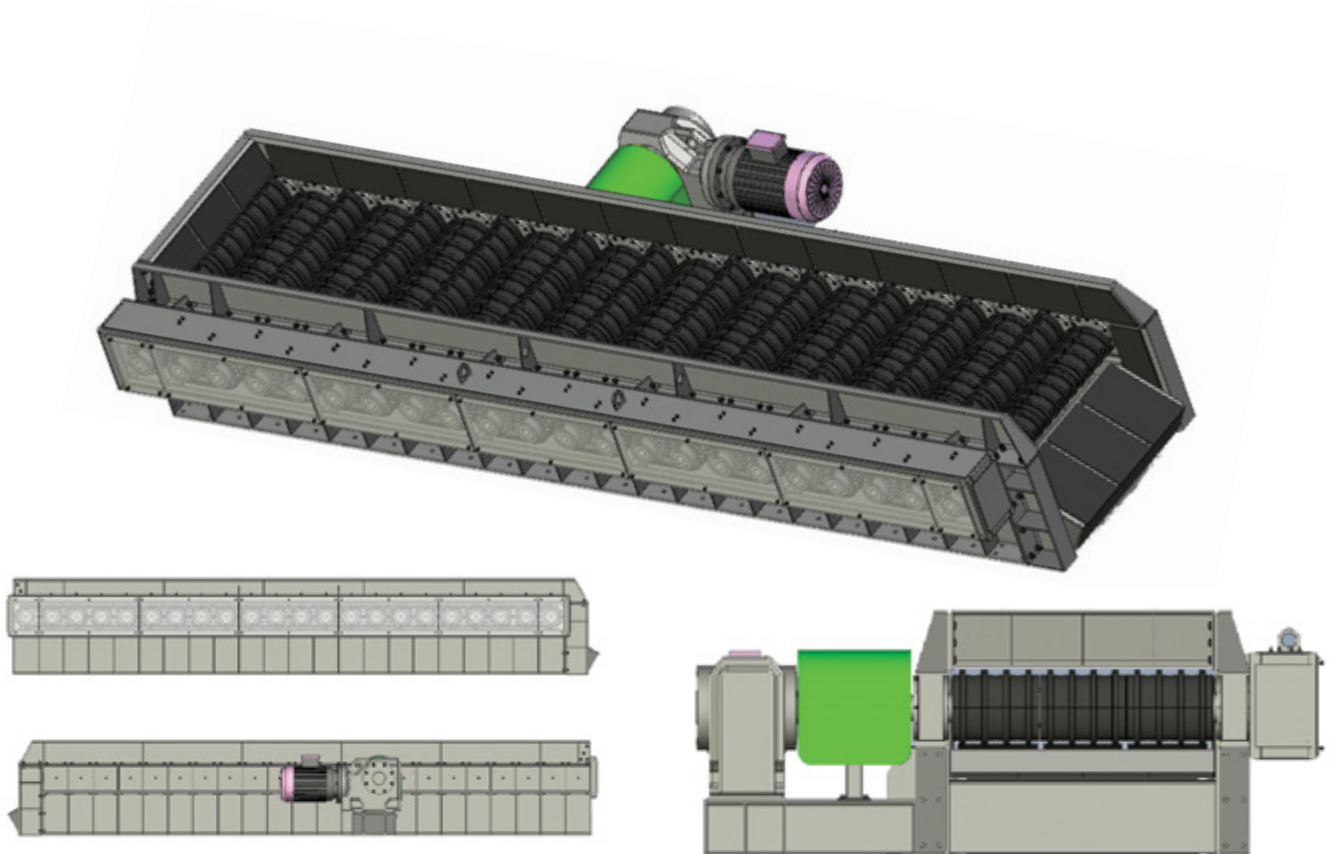
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WOBLER FEEDER

TRIO's wobbler feeders are a smart way to increase overall plant efficiency by scalping fines from the flow of feed material to crushers. The design is highly resistant to clogging and the rotating action continually cleans the bars making it equally effective with dry rock or wet, sticky material and clay. The Roller discharge clearance is adjustable.



Feed materials are dumped directly onto the oval roller shafts. When the shaft rotates, fine grains, mud and clay will drop through the discharge openings. This movement also allows large grains to move forward. Gravity not only cleans fine grains but also enables the material to directly contact roller shafts, which allows material to constantly stack and rotate.



Available in 1500, 1800 and 2200 mm widths

BELT CONVEYORS

We supply a diverse range of conveyors for applications ranging from a belt feeder conveyor, portable to radial stackers and complete plants with overland systems stretching for miles. Our product line includes truss and channel frame designs for stackers, radials, overland and specialty conveyors. We can deliver the most heavy duty conveyors in the industry with short lead-times and competitive pricing. Many modular designs are available and all are well suited for economical container shipment to global destinations.



CONVEYOR COMPONENTS

We offer a complete line of idlers, pulleys and speed reducers. These components are increasingly popular as after-market replacement parts and are used by a variety of conveyor manufacturers around the world.



Our component line is available through our retail distribution channels and is stocked in locations around the world.

IDLERS

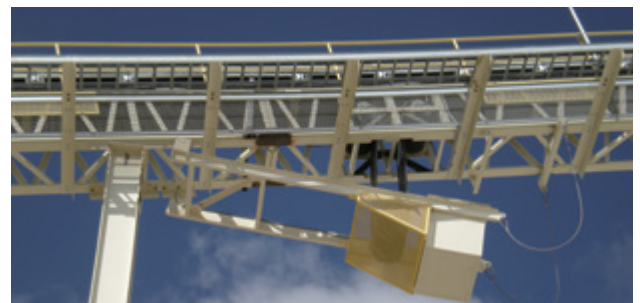
Using proven seal and can designs with heavy-duty frames, these idlers are ideal for aggregate and mining applications. Our line is currently comprised of 4" B Idlers, 5" C idlers, and 6" D idlers. TRIO idlers are widely available and used by both end users as well as large OEM conveyor manufacturers. The "Sealed for Life" bearings eliminate the need for any maintenance. Our idlers are interchangeable with a number of other manufacturer's idler lines.

PULLEYS

TRIO offers lagged head pulleys, steel drum pulleys and fabricated tail pulleys. These heavy-duty pulleys use engineered end discs, and standard XT style bushings for ease of installation onto shafting. Machined crowns and vulcanized lagging on all lagged drums.

GEAR REDUCERS

Helical gear tooth design and twin tapered bushings make these reducers the optimal gearbox for conveyors, mixer and packing machines. Corrosion resistant, precision machined, ductile iron cast housings with ribbed housing construction provides strong bearing and gearing support. Oil is channeled to all bearings for superior lubrication. Double lip seals retain oil while locking out dirt.



PORTABLE PLANTS

TRIO builds portable plant systems for feeders, crushers, screens, and washers. We manufacture both track mounted and wheel mounted portable plants. These plants can be highly customized into cost-effective solutions for complex applications.

Our portable plants boost efficiency; maximizes setup flexibility and provide access to high value resources. These plants can be delivered completely assembled and are also available in kit form for shipments to remote locations.



TRIO: MODULAR PLANTS

FEATURES:

- Customized for specific applications
- Heavy duty structural steel weldments
- Easy to assemble bolted connections
- Integrated stairways, catwalks & guarding
- Highly flexible configurations
- Convenient to ship
- Minimizes construction time and project cost



Over the years TRIO has designed and built an extensive array of modular structures for all of the crushing and screening equipment we manufacture. Trio is the market leader in modular plant designs, offering a larger selection of products than any other OEM. These Modular products are used in the harshest environments and most demanding aggregate/mining applications in the world.



TRIO modular structures incorporate heavy duty structural steel weldments using bolted connections. Safe and accessible work areas are built with grated stairways and work platforms equipped with hand, knee and toe rails providing labor saving installation. TRIO modular designed plants are re-locatable assets that represent the most economical way to build a stationary plant or to add onto an existing facility.



All TRIO modular plants are pre-assembled complete with drives and guarding and test run to ensure proper fit and operation at Trio's manufacturing facilities. Then disassembled, painted, match marked and packed in standard ocean containers, enabling quick and efficient delivery anywhere in the world. Combined with TRIO's on-site service our modular plant designs provide high value solutions and create unmatched value for customers.



TRIO COMPLETE SAND MANUFACTURING SYSTEM

TRIO offers a plant development service called TRIO Sand Solutions (TSS). This approach is focused on the production of sand and other fine material. The production of sand demands that the equipment be designed for the harshest environment possible, while also requiring that all of the equipment (feeders, crushers, screens, washers and conveyors) be correctly sized to ensure optimal plant operation. The TSS product line can be configured in many ways depending on each customer's special needs. Since TRIO offers one of the broadest product lines of any single manufacturer. TRIO Sand Solutions enables producers to purchase all of the equipment needed for sand production with the confidence that the entire circuit will work as required for the particular application.



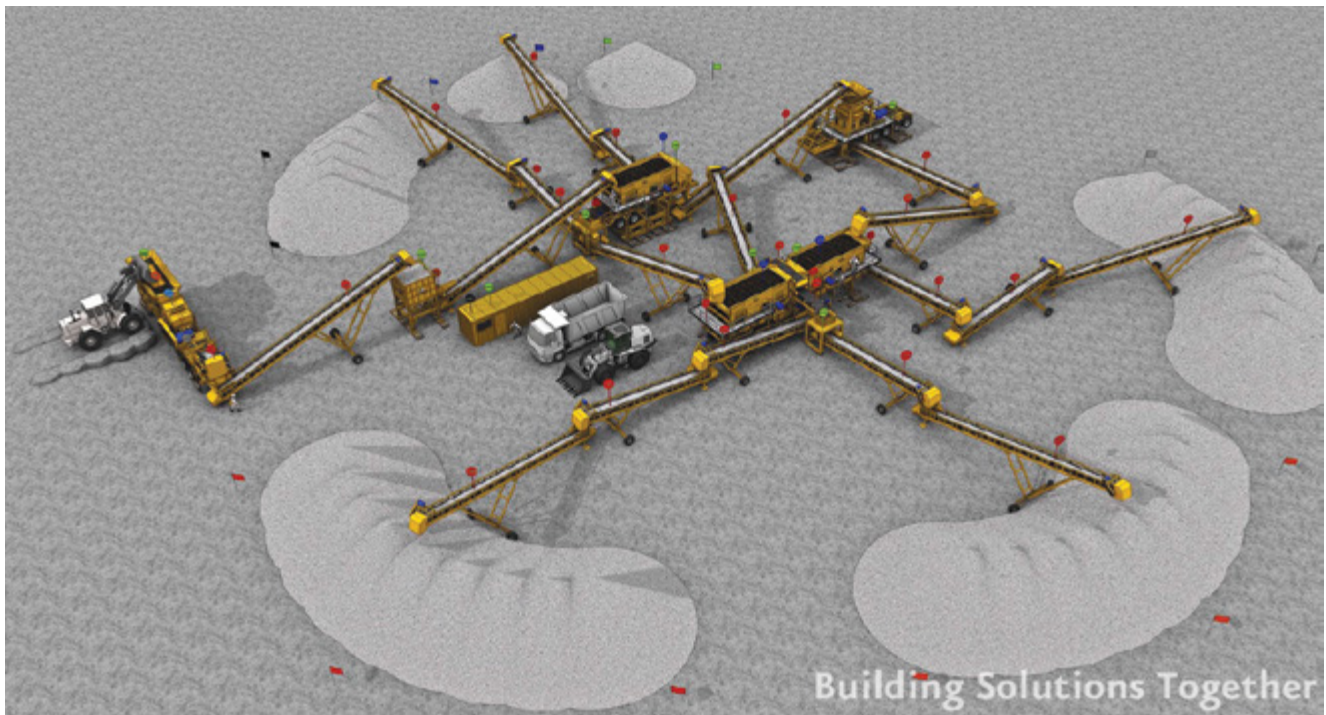
TOTAL PLANT SOLUTIONS

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.

These plants can be supplied as kits and can be economically shipped via multiple methods: flat bed truck or in containers. Local assembly and erection can be arranged to supplement our customers' internal resources for such work.





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.





Building Solutions Together

CRUSHERS

CT Series Jaw Crusher
TC Series Cone Crusher
APS& APP Series Impact
Crusher
TV Series VSI Crusher

Screens

TIH, THI&TIOSP Series
Inclined Screen
TTH Series Horizontal
Screen
TBSS& TBSD Series Banana
Screen

Portable Plants

Track mounted portable
plants
Wheel mounted portable
plants

Plant Solutions

'Turn-key' projects



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