TITAN CONE CRUSHERS

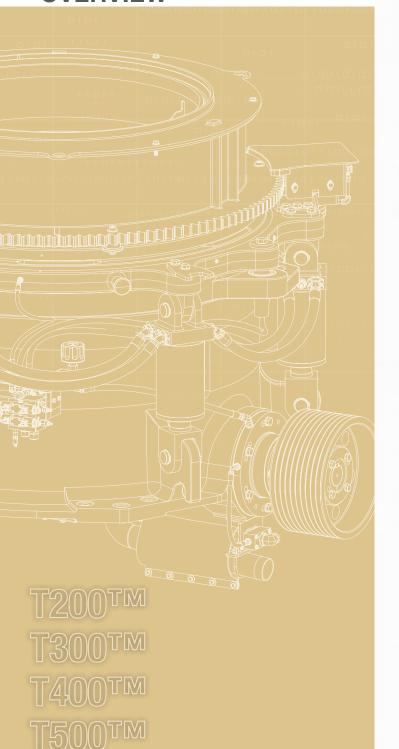
PRODUCTIVE - RELIABLE - SAFE





TITAN CONE CRUSHERS

OVERVIEW



elsmith Titan™ Cone Crushers are engineered to deliver un-compromising productivity, safety and ease of maintenance for maximum uptime in tough, abrasive aggregate and mining applications.

- Currently available in 4 sizes (T200[™], T300[™], T400[™] & T500[™])
- Output capacities ranging from 100 to 760 metric tons per hour (depending on desired final output size)
- Up to a 14-inch (355mm) feed size, rated largestin-class clearing stroke
- 200hp (147kw) to 500hp (370kw) performance, highest-in-class crushing force

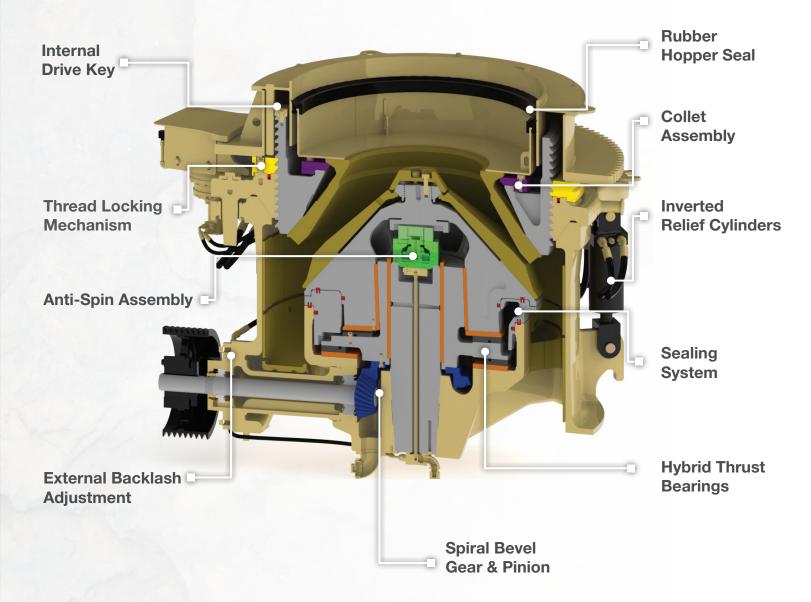
Titan™ Cone Crushers have large clearing circuits, and are designed to safely and quickly allow uncrushable materials to pass, avoiding costly damage and associated downtime for repairs.

A patented anti-spin feature prevents head spin to help extend manganese service life. Like other key components, it's mounted on top of the machine for safe, top-service access. TitanTM Cone Crushers anti-spin operates with pressure lubrication oil, eliminating the need for a gear box, separate hydraulic circuit and associated maintenance.

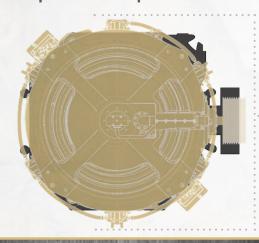
The use of a single bowl for all liners over its range of operation helps reduce downtime and inventory costs while allowing optimum versatility, flexibility, and efficiency in any aggregate application.





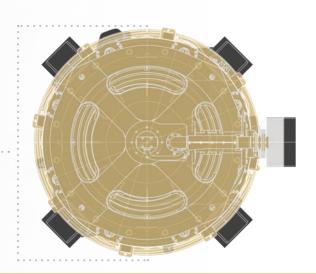


Identical Mounting Footprint To Competition



Replace existing crushers within same footprint

- Shorter than competition
- Equally as strong
- FEA Stress Analysis



Hydraulic Relief and Clearing

Large clearing circuits safely and quickly allow uncrushable materials to pass;

Fewer cylinders help reduce maintenance costs

- T200™ 5 Cylinders
- T300™ 6 Cylinders
- T400™ 6 Cylinders
- T500™ 8 Cylinders

Inverted relief cylinders stay cleaner longer, extending life of seals

Top-service for tramp cylinder maintenance

• Located above-deck, at standard work height for safe repair or replacement

No accumulators – *nitrogen-free* release system eliminates associated maintenance and costs required with hydraulic accumulators

Largest in-class clearing stroke

- T200™ 178mm (7.0")

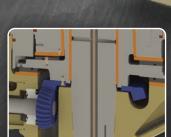
- T300™ 178mm (7.0") T400™ 178mm (7.0") T500™ 178mm (7.0")

Hydraulic Anti-Spin System I

Patented anti-spin system prevents head spin to extend manganese life. An automatic reset feature requires no parts replacement or repair time, since shear bolts are not used in this assembly.

Benefits

- Compact design
- Hydraulic restraint
- Uses cone-lube oil
- Automatic reset
- Less parts /repair cost
- More torque capacity
- More flow capacity
- Less wear (Close to pivot)



TRAC10°

Combined as a standard feature on Titan™ Crushers, the proven TRAC10[®] control system allows integration into the network of any plant control system, regardless of type or brand!

The TRAC10® system allows even the most demanding tasks in the areas of controls engineering and motion control to be combined into a single network and provides an ideal foundation for future upgrades and modular machine concepts.



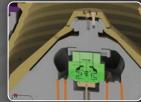


TITAN™ SERIES TECHNOLOGY



Hybrid Thrust Bearing Technology

Patented hybrid bearings improve both static and dynamic lift. This design provides the ability to crush at lower horsepower from improved lift that helps carry the crushing forces, when compared to roller bearing machines. Hybrid bearings replace conventional socket, socket liner and head ball design with a simplified washer and ramp design, for increased service life and quick, easy repair.



Renefits

More stable cone head

High-capacity

Less friction

Allows easy, more frequent bearing inspection

- Less costly to repair/replace
- No socket liner
- No upper head bushing
- No head ball

No socket

Eccentric Assembly

More balanced design

Eccentric removal is quick and easy,

• No socket or socket liner to remove

Setting adjustments machined for smooth operation

Adjustment Threads with Patented Thread Scraper **Benefits**

Shorter for a lighter (not weaker) crusher Keeps contaminants out of system Direct loading of bowl

Concave Retaining System

A patented concave (bowl liner) retention system consists of a specially-design and positioned collet that centers the bowl to achieve retention without the use of hammers and other hand tools. The system's easy-to-service lip ring helps keep the concave centered using jack-bolts and an impact or torque wrench.

Benefits

- Reusable
- Installed with power tools
- Predictable loading

Features include the capability to run up to four crushers with a single touch-screen and the ability to connect to TRAC10[®] via a Wi-Fi hotspot and laptop, or Smartphone.

- "Auto-wear" keeps track of liner wear and makes adjustments on-the-fly, without operator input.
- "Auto-power" feature automatically maintains the desired horsepower level on the crusher(s).



DIMENSIONS & SPECIFICATIONS

Titan™ Cone Crusher Capacities

			Cri	(CSS)	SS)					
Crusher		3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	1 3/4"	2"
Model	CSS	(10 mm)	(13 mm)	(16 mm)	(19 mm)	(25 mm)	(32 mm)	(38 mm)	(45 mm)	(51mm)
Т200тм	mtph	100-121	112-138	134-164	147-181	178-221	207-259			
1200***	stph	110-134	125-154	149-182	163-202	197-245	230-288			
Т300тм —	mtph	119-148	156-194	184-225	204-250	242-295	266-338	306-387	312-414	394-462
1300	stph	130-163	172-213	203-247	225-275	267-325	293-373	337-427	380-478	435-510
Т400тм	mtph	138-179	186-234	231-286	256-326	298-377	338-432	371-481	415-540	459-594
1400''''	stph	153-198	205-258	255-315	282-360	328-417	373-477	408-532	457-598	505-657
TEOOTM	mtph	179-224	237-296	286-356	329-405	373-464	418-527	463-592	521-673	586-760
T500™	stph	198-245	262-327	315-392	363-445	410-510	460-582	510-653	573-742	645-840

Titan™ Cone Weights

Crusher Model	T200™		T300™		T400™		T500™	
Complete Crusher	9,979 kg	22,000 lbs	16,000 kg	35,300 lbs	23,269 kg	51,300 lbs	34,019 kg	75,000 lbs
Main Frame Assembly	3,987 kg	8,790 lbs	5,350 kg	11,800 lbs	8,074 kg	17,800 lbs	12,202 kg	26,900 lbs
Eccentric Assembly	1,007 kg	2,220 lbs	1,470 kg	3,240 lbs	2,009 kg	4,430 lbs	2,928 kg	6,455 lbs
Head Assembly	1,356 kg	2,990 lbs	2,360 kg	5,210 lbs	3,425 kg	7,550 lbs	2,869 kg	6,325 lbs
Upper Frame Assembly	3,629 kg	8,000 lbs	5,810 kg	12,800 lbs	7,893 kg	17,400 lbs	9,149 kg	20,170 lbs

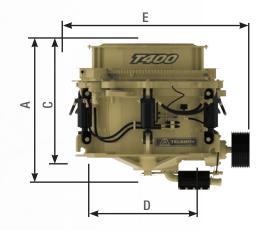
Titan™ Cone Crusher Dimensions

	А	THE POLLS			C	pit go	D	以角膜		
Т200™	1,831 mm	72.1"	2,020 mm	79.5"	1,495 mm	58.9"	1,090 mm	42.9"	2,200 mm	86.6"
Т300™	1,956 mm	77.0"	2,261 mm	89.0"	1,727 mm	68.0"	1,320 mm	52.0"	2,463 mm	97.0"
Т400™	2,119 mm	83.4"	2,686 mm	105.75"	2,064 mm	81.3"	1,660 mm	63.4"	2,686 mm	105.75"
Т500™	2,361 mm	93.0"	3,286 mm	129.4"	2,036 mm	80.2"	2,120 mm	83.5"	3,516 mm	138.4"



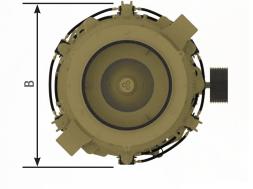
T200™ Chamber Profiles

		mended Closed Side	Feed Opening at Minimum Closed Side Setting					
Bowl	Setting (CSS)		Ор	en	Closed			
No. 2	12 mm	.47"	84 mm	3.3"	46 mm	1.8"		
No. 3	14 mm	.55"	105 mm	4.1"	69 mm	2.7"		
No. 4	18 mm	.71"	120 mm	4.7"	86 mm	3.4"		
No. 5	20 mm	.79"	138 mm	5.4"	106 mm	4.2"		
No. 6	26 mm	1.02"	178 mm	7.0"	148 mm	5.8"		
No. 8	29 mm	1.14"	212 mm	8.3"	186 mm	7.3"		



T300™ Chamber Profiles

		mended Closed Side	Feed Opening at Minimum Closed Side Setting					
Bowl	Setting (CSS)		Ор	en	Closed			
No. 1 RT*	8 mm	.31"	54 mm	2.1"	24 mm	.95"		
No. 2	10 mm	.39"	83 mm	3.3"	39 mm	1.5"		
No. 3	13 mm	.51"	105 mm	4.1"	68 mm	2.7"		
No. 4	16 mm	.63"	119 mm	4.7"	83 mm	3.3"		
No. 5	18 mm	.71"	137 mm	5.4"	103 mm	4.0"		
No. 6	22 mm	.87"	175 mm	6.9"	143 mm	5.6"		
No. 9	29 mm	1.14"	230 mm	9.1"	202 mm	8.0"		
No. 11	36 mm	1.42"	281 mm	11.1"	253 mm	10.0"		



^{*} Reduced Throw Eccentric Required

DIMENSIONS & SPECIFICATIONS

T400™ Chamber Profiles

		mended Closed Side	Feed Opening at Minimum Closed Side Setting					
Bowl	Setting (CSS)		Ор	en	Closed			
No. 1 RT*	8 mm .31"		59 mm	2.3"	24 mm	.94"		
No. 2	10 mm	.39"	93 mm	3.7"	45 mm	1.8"		
No. 3	13 mm	.51"	111 mm	4.4"	62 mm	2.4"		
No. 4	16 mm	.63"	128 mm	5.0"	81 mm	3.2"		
No. 5	19 mm	.75"	152 mm	6.0"	109 mm	4.3"		
No. 6	22 mm	.87"	131 mm	5.2"	173 mm	6.8"		
No. 8	25 mm	.98"	226 mm	8.9"	189 mm	7.4"		
No. 12	36mm	1.42"	319 mm	12.6"	287 mm	11.3"		

^{*} Reduced Throw Eccentric Required

T500™ Chamber Profiles

		mended Closed Side	Feed Opening at Minimum Closed Side Setting					
Bowl	Setting (CSS)		Ор	en	Closed			
No. 2	11 mm	.43"	90 mm	3.6"	39 mm	1.5"		
No. 3	13 mm	.51"	109 mm	4.3"	57 mm	2.3"		
No. 4	16 mm	.63"	130 mm	5.1"	81 mm	3.2"		
No. 6	22 mm	.87"	181 mm	7.1"	137 mm	5.4"		
No. 8	27 mm	1.06"	235 mm	9.2"	195 mm	7.7"		
No. 10	32 mm	1.26"	279 mm	11.0"	239 mm	9.4"		
No. 14	42 mm	1.65"	355 mm	14.0"	318 mm	12.5"		







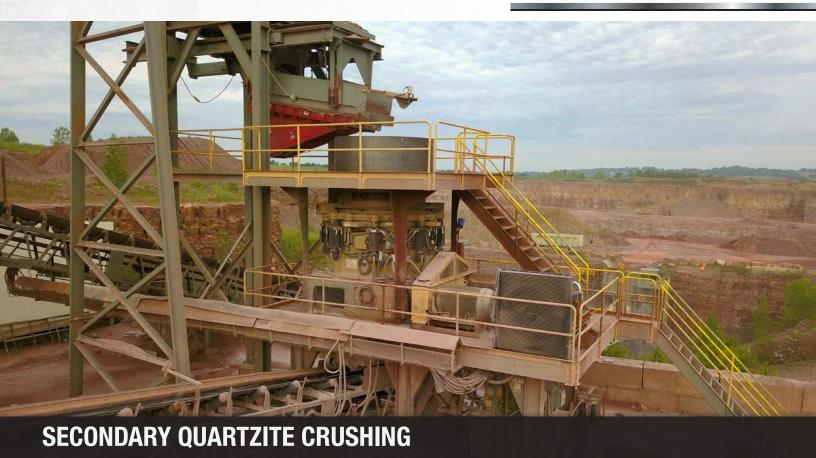




TERTIARY GRAVEL CRUSHING



APPLICATIONS



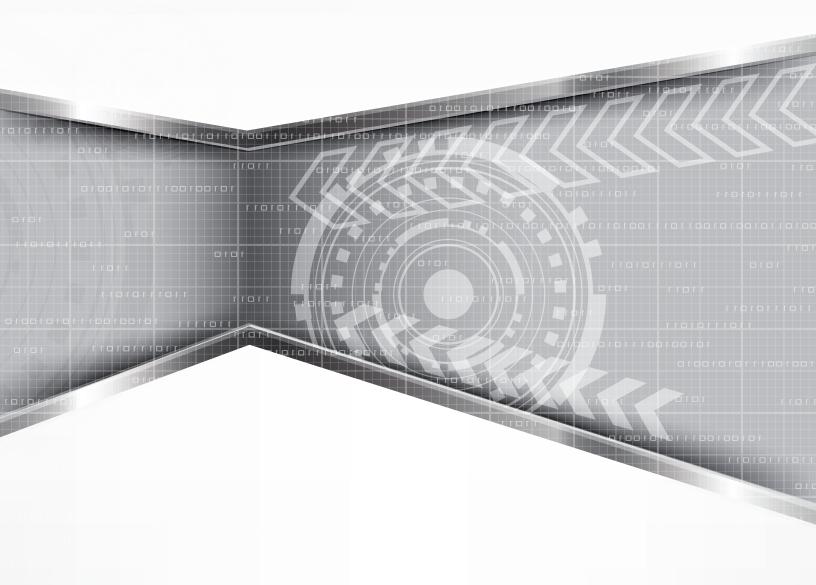


TERTIARY DOLOMITE CRUSHING

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