

SCREEN MACHINE INDUSTRIES™

AN AMERICAN MANUFACTURER OF PORTABLE CRUSHING AND SCREENING EQUIPMENT

CST / CONE

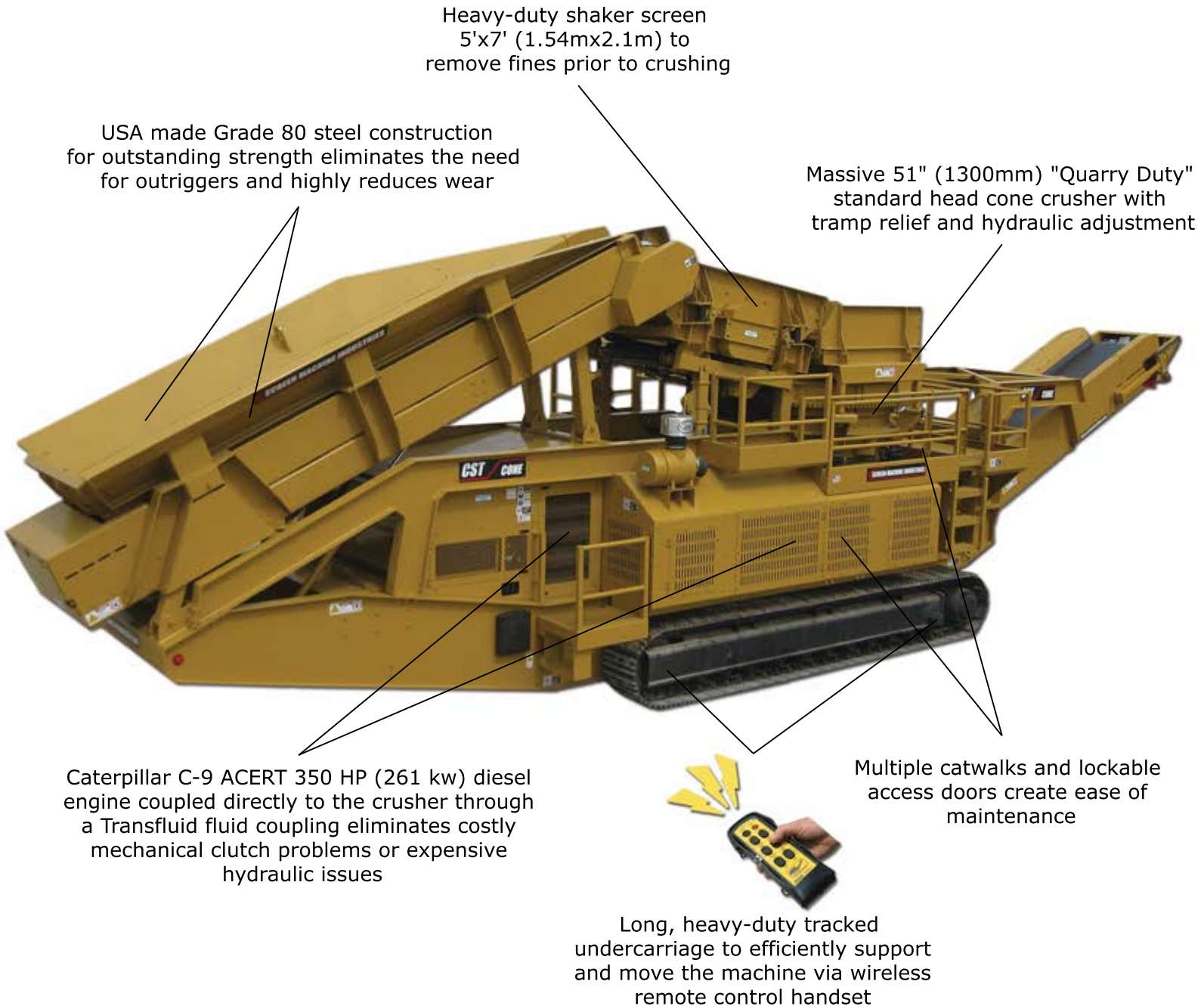


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OVERVIEW

Screen Machine Industries is a global leader in crushing and screening equipment with manufacturing headquarters located in Columbus, Ohio, USA.

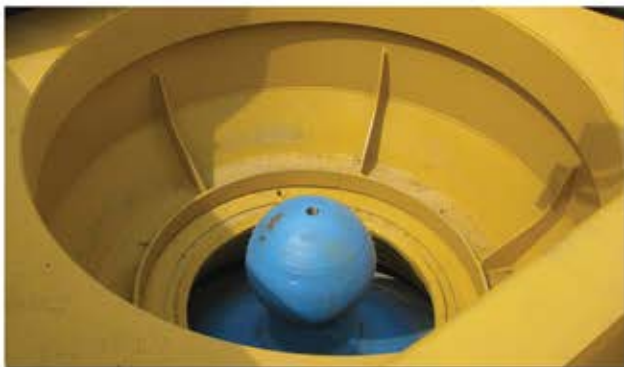


KEY FEATURES

The Screen Machine CST Cone Crusher is a medium to large size track mounted portable crusher plant designed for secondary crushing of hard rock into cubical sizes. Our team has designed and built a new type of portable crusher that will revolutionize the industry for years to come. Mounting a heavy built "QUARRY DUTY" cone crusher on a wireless remote controlled track mounted plant is rare. The decision to place a shaker screen to pre-screen the fines out before the crusher, thus increasing overall production and reducing wear costs is unique. The combination of a Pre-Screen with a "QUARRY DUTY" Cone Crusher is worthy of a Patent Pending. Please feel free to compare the CST Cone Crusher for productivity, durability and price.

CONE CRUSHER

- 51" (1300mm) Heavy-built "Quarry Duty" standard head cone crusher
- Rugged built "stand alone" cone crusher weighs in at 50,000 lbs (22.7 tonnes)
 - Most other plants use lighter duty crushers for track mounted applications
 - Proven design is time tested in aggregates and mining applications for 80 years
 - "Quarry Duty" optimized for hard rock operation
- Highest weight to power ratio of any tracked cone in the industry
- Hydraulic thread lock and tramp relief for quick adjustments and protection
- Active overload protection system compared to the passive system offered on other tracked cones
- Machined bronze bushings provide superior load carrying capability
 - More tolerant to contractor conditions than roller bearing cones
- With the screened removal of fines, crusher output is maximized to its absolute potential
 - All rock entering chamber gets crushed generating a higher overall production



- Crusher wear costs are significantly reduced by eliminating fines prior to crushing
- Heavy-duty socket liner with floating grease seal ring ensures a dust free environment for mechanical components
- Precision cut spiral bevel gears provide smooth and more efficient horsepower transmission. Induction hardened gears and carburized pinions are used to provide a more durable gear set
- Moveable head shaft
- Inner and outer eccentric bushings are made of machined bronze
- Large overhead feed box to control choke feeding
- Mounted sensor for cone overload protection
- Balanced at all speeds



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CST Cone Crusher

SCREEN

- Single deck 5' x 7' (1.54m x 2.1m) shaker screen
 - Pre-screening the fines prior to crushing will significantly increase overall production by introducing only oversized material into the cone crusher chamber
 - Significantly reduces the crusher maintenance costs by eliminating sand, dirt and fines from entering, wearing and potentially clogging the crusher chamber



- Patented Smooth Start® technology
- Operates at 1000 RPM with a 1/2" (13mm) circular throw
- Grade 80 steel construction for high wear and durability
- Choice of wire cloth side tension screens included
- Folds down for easy transport
- Easily accessed via catwalks



Smooth Start® technology eliminates the risk of machinery damage caused by slow speed, violent shaking during warm up or cool down periods.



RETRACTED (SLOW) EXTENDED (FAST)
Patented Smooth Start® Technology
U.S. Patent # 6,669,026

At slow speeds, shaker weight is retracted, creating no shake. As shaft spins up to operating speed, weight extends, creating shake necessary to screen material. This process works in reverse during shutdown.

ENGINE

- Caterpillar C-9 ACERT 350HP (261 kw) diesel engine (meets US EPA flex certifications)
- Large lockable engine compartment
 - Walk-in area provides ease of maintenance on all service access points
- Fuel tank 200 gallon (757 liters)
- Hydraulic tank with cooler 110 gallon (416 liters)
- Lube oil tank 85 gallon (321 liters)



FLUID COUPLING

- Transfluid® hydraulic fluid coupling
 - Provides smooth startup and shutdown operations of crusher without the risk of excessive wear or catastrophic failure
- Designed to permit instantaneous crusher stoppage due to steel or other large uncrushable material
 - Slips fluid on fluid, causing no wear, unlike mechanical clutches
- Operator can uniquely disengage the crusher, move the machine and re-engage the crusher as quickly as you can read this

STRUCTURE

- Massive unibody structure features unrivaled deep frame design
 - Heavily designed frame handles the high stresses of uneven loading, vibration during operation and rough terrain during movement
- USA made grade 80 steel construction
 - Grade 80 steel's yield strength of 80,000 psi is more than double the yield strength of mild steel's 36,000 psi. While Grade 80 steel may look the same as other steel, it will last significantly longer, prolonging the life of major wear components while helping keep the overall machine transport weight manageable
- Elevated frame design equates to rapid deployment and set up
 - High ground clearance uniquely eliminates the need for any machine disassembly or extensive site preparation prior to movement



REMOTE OPERATING SYSTEM & CONTROL PANEL

- Remtron® wireless remote control with 300 ft. (91m) range
 - Variable speed feeder with feeder shut-off
 - Full track motion and speed (high and low)
 - Machine shut-off control button
- Wireless remote means never leaving the safety of the loader cab to reposition the CST Cone and resume material processing
- Detailed control panel allows for ease of operation
- Digital crusher speed readout
- Operational push button controls and warning lights
- Four emergency stops mounted on machine for safety
- Optional tethered pendant controller



CONVEYORS

- Precision head & tail pulleys with spherical roller bearings
- Rubber disc return rollers and guide idlers on all belts
- Feeder Belt
 - 42" (1.06m) Wide 330 PIW variable speed conveyor with impact bed
 - Grade 80 steel hopper walls
 - Dual hydraulic drive with impact wrap idler for additional traction
 - Conveyor hydraulically raises from transport position to operating position
- Discharge Belt
 - 42" (1.06m) Wide 330 PIW material discharge belt with skirted liners
 - Large Dodge® gear reducer with hydraulic drive motor
 - Impact bed below crusher discharge prevents belt damage
 - Martin Engineering® belt scraper for optimal cleaning
- Underscreen Belt
 - 36" (.91m) Wide 220 PIW Wearlok® belt transfers screened fines directly to discharge belt
- Optional Dust Suppression System



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CST Cone Crusher

UNDERCARRIAGE

- Heavy-duty design for optimum grade climbing ability
 - Low speed for maneuvering and high speed for long distance travel
- Track operation is controlled from a safe distance via remote control
- Wide 20" (500mm) track pads create low ground pressure



SERVICEABILITY

- Multiple non-slip platforms with ladders
- Key lock doors to service locations and tool storage compartment
- Service manuals in book form and digital format
- Rapid response parts availability
- Free lifetime telephone and email technical support



CRUSHER-SCREENING COMBINATIONS

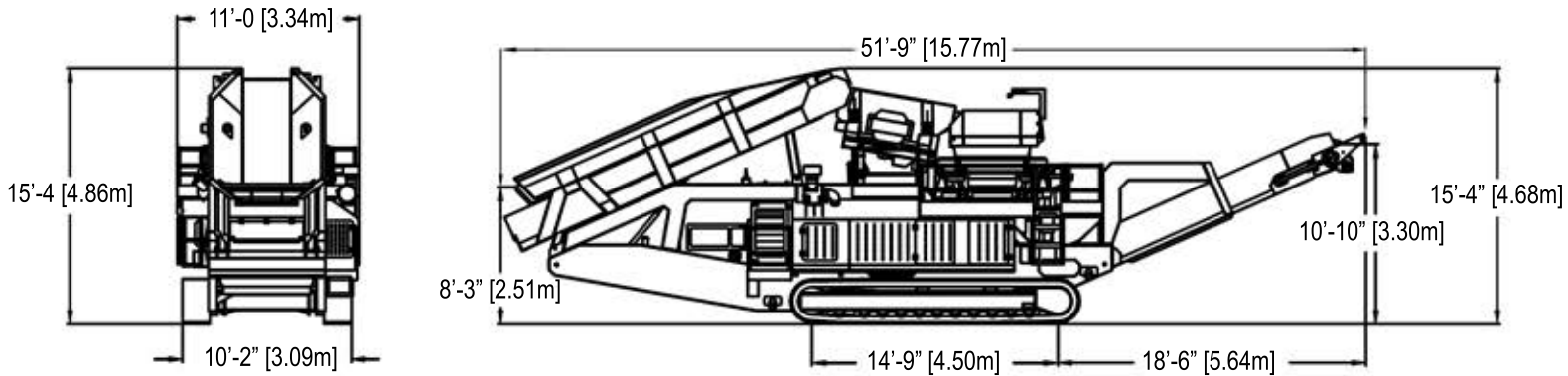
The Screen Machine CST Cone Crusher is designed to match up as a secondary crusher to The Screen Machine primary JXT/JHT Jaw Crushers or 4043T/5256T Impact Crushers. Add a Spyder Screening Plant to separate the CST Cone crushed aggregate into three different sizes. Track mounted portable stacking conveyors can be added to increase the stockpiling capacity and reduce the frequency of plant repositioning. Choose Screen Machine Industries to supply your mining operation with the entire portable processing plant and enjoy years of production and reliability.



Combination plant featuring a JHT Jaw, CST Cone & Spyder 516T



OPERATING DIMENSIONS

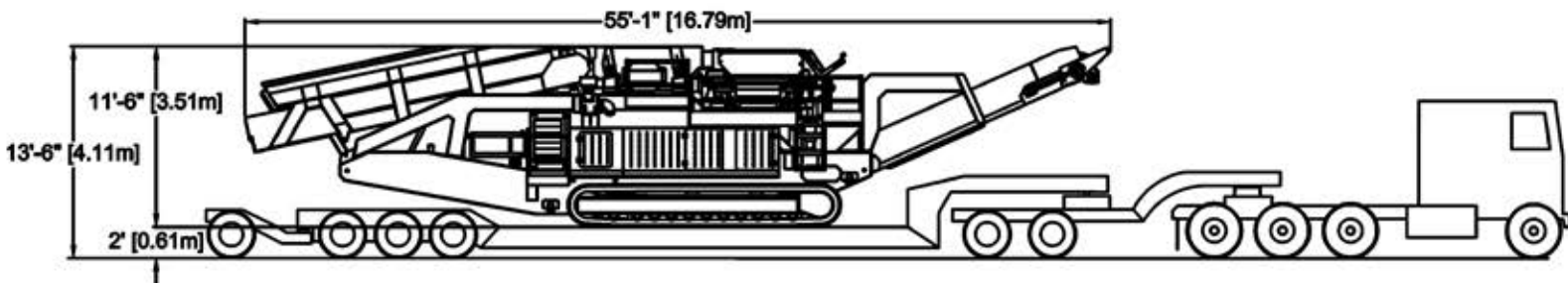


Operating Length: 51'-9" (15.77m)

Operating Width: 11'-0" (3.34m)

Operating Height: 15'-4" (4.68m)

TRANSPORTATION DIMENSIONS



DESIGNED FOR EASE OF TRANSPORT TO JOB SITE

Length: 55'-1" (16.79m)

Width: 11'-0" (3.34m)

Height (Machine): 11'-6" (3.50m)

Height (Machine on Trailer): 13'-6" (4.11m)

Trailer Deck Height: 24" (0.61m)

Weight: (Est.) 115,000 lbs (52,163 Kg)



SCREEN MACHINE INDUSTRIES™

AN AMERICAN MANUFACTURER OF PORTABLE CRUSHING AND SCREENING EQUIPMENT

Screen Machine Industries LLC is an innovative American manufacturer of portable machinery dedicated to material crushing, screening and stockpiling. Our product offering provides solutions ranging from 15-600 tons/yards per hour across a vast array of applications (such as sand & gravel, concrete & asphalt, topsoil & compost products). Our successful engineering philosophy is to incorporate reliable brand name components and industry leading features with the highest quality manufacturing techniques. This philosophy has prominently driven our success since 1966.



Screen Machine Industries LLC
Corporate Headquarters

The manufacturing process includes the utilization of CNC fabrication equipment, robotic welders, advanced painting facilities and highly skilled mechanical technicians assembling these machines. Multiple levels of quality control and thorough run-time inspections are in place to ensure the quality and reliability that we demand and that you expect.

Screen Machine Industries LLC continues to make substantial investments in research and development. Our highly skilled engineers combined with the latest computer technology, create the most innovative products in the crushing and screening industries. Numerous U.S. Patents have been awarded as a result of our creative ambition in developing machinery that we feel is superior to any in the industry. We also strive to add the best design engineers available to our organization. Our engineers are graduates of MIT and other prestigious universities throughout the United States.

Our diverse product line consists of heavy-duty, track-mounted Jaw, Cone and Impact Crushers, Spyders, Scalpers, Trommels and Conventional Screening and Shredding Plants. Our portable stacking conveyors complete the product lineup with sizes available to fit most every job.



SCALPER 107T



4043T IMPACT CRUSHER



6036T TRACK CONVEYOR



SPYDER SCREENING PLANTS



JXT/JHT JAW CRUSHER

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