

SCREEN MACHINE INDUSTRIES

AN AMERICAN MANUFACTURER OF PORTABLE CRUSHING AND SCREENING EQUIPMENT

SCALPER 107T

US Patent # 6,669,026

US Patent # 6,000,553



10685 COLUMBUS PARKWAY, ETNA, OHIO 43062 USA

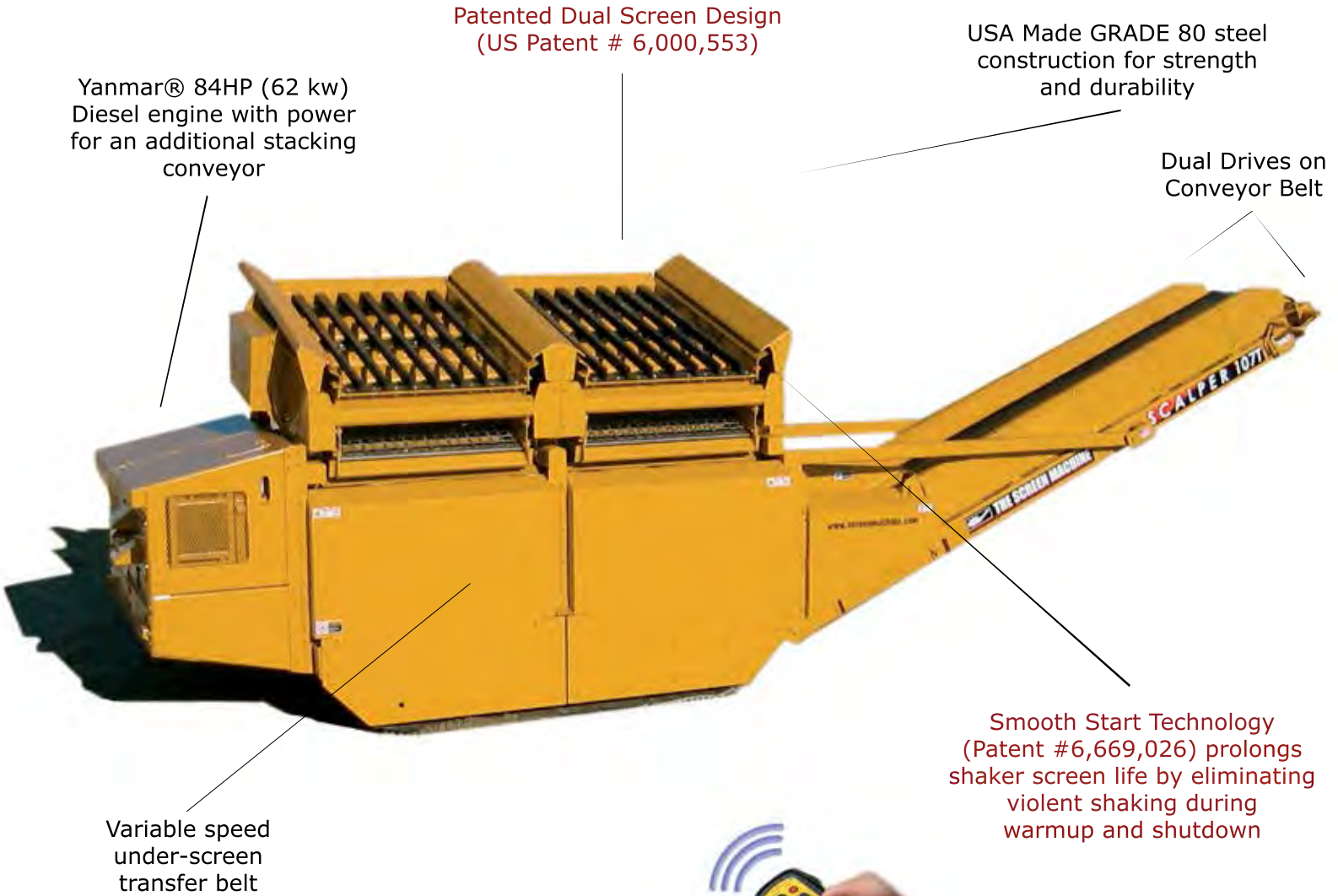
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1-800-837-3344

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OVERVIEW

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



Yanmar® 84HP (62 kw) Diesel engine with power for an additional stacking conveyor

Patented Dual Screen Design (US Patent # 6,000,553)

USA Made GRADE 80 steel construction for strength and durability

Dual Drives on Conveyor Belt

Variable speed under-screen transfer belt

Smooth Start Technology (Patent #6,669,026) prolongs shaker screen life by eliminating violent shaking during warmup and shutdown

Quality Engineering Requires Industry Leading Brands Such As:

- Eaton
- Weatherhead
- Charlynn
- Browning
- Precision
- Prince
- Sherwin Williams
- Parker
- Cattron
- Energy
- Oilair
- Zinga

Cattron® wireless remote control creates true portability by never having to leave the safety and comfort of the feed operators cab while in control of track movement and machine production

PATENTED FEATURES

DUAL SCREEN DESIGN

- U.S. patent # 6,000,553 dual screen design**

The use of dual screen boxes has several benefits. Structurally, the center support beam between the two screen boxes carries the load from the dump point through the frame and all the way to the ground. This beam provides strength at the point of highest stress, the center of the loading area.



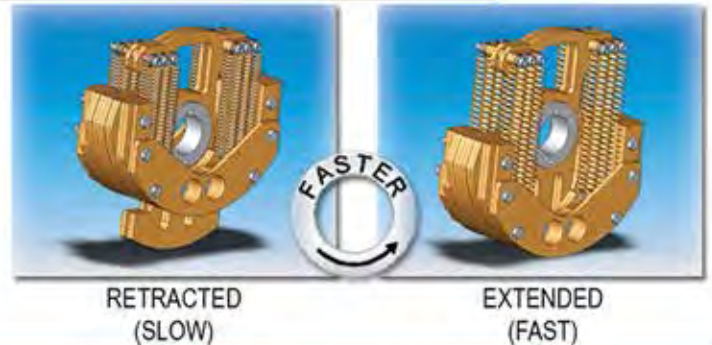
- The center support beam acts as guard during loading. This keeps the bucket or bucket teeth from hitting and damaging the screens when feeding material onto the screening area.

- The short span across each screen box allows the support members to maximize the clearance between the decks without sacrificing strength. This clearance improves productivity due to less clogging between the decks.



SMOOTH START TECHNOLOGY

- Smooth Start®** was designed to completely eliminate the violent shaking that occurs in all screening plants during machine start up and shutdown. This violent shaking can lead to increased wear and tear on bearings and other vital components as well as the welded structure, while creating a reduction in the overall life of the machine. Screen Machine Industries is the first and only manufacturer that offers a **Smooth Start®** patented solution.



How it works:

At slow speeds, the screen shaft rotates perfectly round, creating zero elliptical throw (no shake at all). As the screen shaft RPM approaches operating speed, the eccentric extends outward creating the appropriate elliptical shake necessary to screen your material. This process also works in reverse during your machine shutdown. Smooth Start technology eliminates the risk of machinery damage caused by slow speed violent shaking during your warm-up or cool-down periods. This fine example of American ingenuity is patented to deliver exclusive long term value.



KEY FEATURES

SCREEN BOX

- **Patented dual 5'-0" x 7'-0" (1.5m x 2.13m) double deck two bearing screens**
Creates a wide opening of 13'-9" (4.19m) matching perfectly with 3 - 5 yard loaders. Optional wing plate extensions will increase the feed width to 17'-1" (5.21m)
- **Low feed height**
10'-10" (3.3m) feed height allows front end loader feeding without a ramp. If you have to build a ramp to feed your machine, you've lost your tracked portability
- **Top deck accepts grizzly, punch plate or wire cloth screens**
T-1 tapered *grizzly* spaced at 5" or 6" (12.7cm to 15.24cm) for your heaviest rock and materials, Grade 80 *punch plate* 4", 5" or 6" (10.16cm, 12.7cm, 15.24cm) hex for general duty work, Square woven *wire cloth* in multiple sizes for lighter duty applications
- **Bottom deck screen accepts square or slotted wire cloths and harp style screens**
- **USA Grade 80 steel construction**
Shaker screens bolted together with USA made high strength 3/8" (9.5mm) Grade 80 steel will handle the material abrasion better than other screens typically made with imported mild steel
- **Hydraulically adjustable screen angle**
Match the screen angle to material consistency for efficient screening of various types of products
- **Patented dual screen boxes feature a large 8" (20.3cm) clearance between top and bottom decks**
Large screen openings on the top deck pose little risk of rock hang-ups on the lower center supports
- **Smooth Start® technology** (US Patent # 6,669,026)
Eliminates violent shaking during machine start up and shut down



STRUCTURE

- **USA Grade 80 steel construction**
All structural supports and wear surfaces are manufactured from high strength Grade 80 steel generating a yield strength of 80,000 psi. That's more than two times the yield strength of A36 steel (36,000 psi) commonly used in most other machinery. This single feature alone could double your machine's structural life span.
- **Elevated frame design equates to rapid deployment and set-up**
10" (254mm) ground clearance uniquely reduces the need for site preparation prior to movement.



POWER SYSTEM & CONTROLS

- **Yanmar® 84HP (62 kw) 4TNV98 diesel engine**
2200 RPM liquid cooled - ideal for dusty work sites
- **50 Gallon fuel tank (189 liters) with lockable fuel cap**
Approximately 12.5 hours of continuous runtime without the need to refuel
- **125 Gallon (473 liters) lockable hydraulic tank with Oilair® hydraulic oil cooler**
From large hose diameters and fittings, to baffled tanks and coolers, our hydraulics run cool so your productivity can run all day
- **Cattron® wireless remote control movement and operation**
Complete hand-held wireless remote control of machine movement and operation with a range of approximately 100 yards (91.4m)
True portability is found in never having to leave the safety and comfort of the feed operators cab while in control of production and movement
- **Five (5) emergency stops** (includes one on the wireless remote handset)
- **Locked control panels & electronic Murphy® shut offs**



UNDERCARRIAGE

- **Heavy-duty tracked undercarriage with 20" shoe width**
- **Sealed and lubricated pins and bushings**
- **Carrier rollers (one per side)**
- **Track gauge 6'-10" (2.08m)**
- **Maximum travel speed .75 MPH (1.2 km/hr.)**
- **Ground clearance minimum 10" (254mm)**
Clearance allows movement over rough terrain without damage



KEY FEATURES

BELT CONVEYOR SYSTEM

- **42" (1.07m) wide variable speed under-screen transfer belt**
A heavy-duty 3 ply 330 PIW conveyor belt is resistant to wear, tear and puncture. Hydraulic variable speed control helps regulate material surging especially if additional conveyors are used.
- **42" (1.07m) wide main discharge belt**
A heavy-duty 3 ply 330 PIW conveyor belt is resistant to wear, tear and puncture. Steel side walls allow for up to a 6" (152mm) depth of belted material discharging an 11'-0" (3.35m) high pile.
- **Dual drive hydraulic head pulley motors for main belt**
Provide the power needed to elevate massive volumes of screened product.
- **Guide rollers for belt tracking**
Guide rollers in each corner are mounted on both belts to ensure centered conveyor belt tracking.
- **Precision 5" diameter heavy-duty CEMA "C" idlers**
Large screen openings drop heavy material requiring idlers tough enough to last.
- **Precision® lagged head drive pulleys**
Vulcanized rubber head pulleys are needed to provide maximum belt traction to pull the heaviest loads.
- **Precision® wing type tail pulleys**
Engineered to protect the underside of the conveyor belt by scraping dirt and ejecting rocks outward to the side of the conveyor belt.
- **Rubber disc return idlers**
Rubber disc rollers, unlike metal cans, resist the typical buildup of sticky materials and aid greatly in the performance of centered belt tracking.
- **Optional magnetic head pulley for metal removal**
- **Optional conversion kit for additional stacking conveyor**
The hydraulics can be added to drive an additional 60'-0" (18.3m) stacking conveyor for higher radial stockpiling.



(Above) Optional magnetic head pulley shown



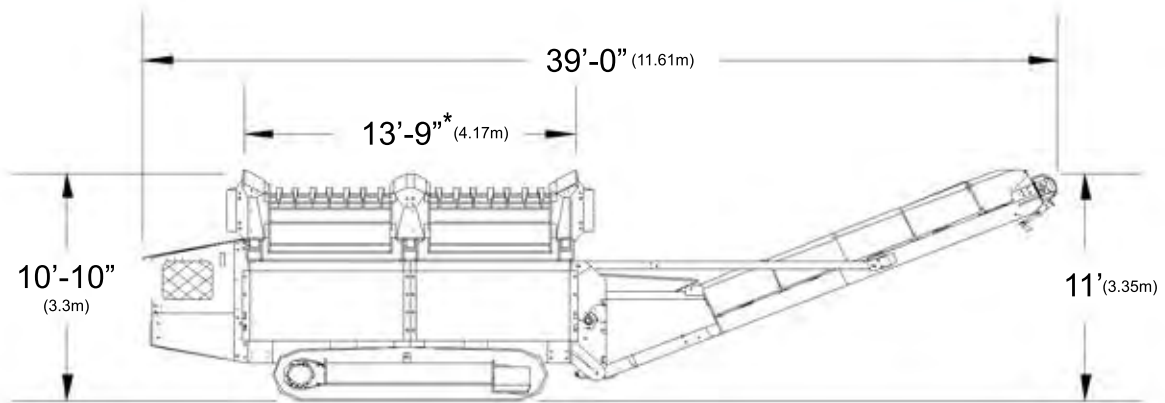
- **Optional tracked conveyor**
Model 6036T 36' x 60'-0" (914mm x 18.3m) hydraulic drive conveyor with self-contained power for massive stockpiling capabilities.



PRODUCT SUPPORT

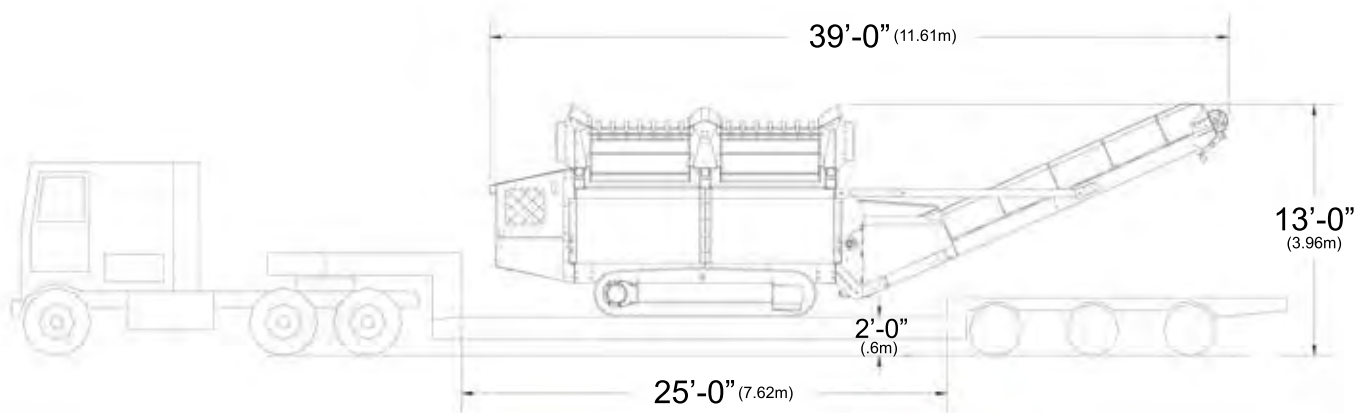
- Factory headquarters located near Columbus, Ohio
- Lifetime engineering telephone support
- Rapid response parts availability
- Extensive distributor network

OPERATING DIMENSIONS



* Optional wing extensions expand the feed opening from 13'-9" to 17'-1" (5.2m)

TRANSPORTATION DIMENSIONS



Length 39'0" (11.61m)
Width 8'6" (2.59m)
Height 11'0" (3.35m)
Weight 47,000 lbs. (21,240kgs)

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, Spydres, Scalpers, Trommels and Conventional Screening and Shredding Plants. Our portable stacking conveyors complete the product lineup with sizes available to fit most every job.



SPYDER 516T



612T TROMMEL



SCALPER 107D



4043T IMPACT CRUSHER



JXT/JHT JAW CRUSHER



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