



**Terex<sup>®</sup> Minerals Processing Systems  
Cedarapids LJ-TS**

# **LJ-TS SERIES HORIZONTAL SCREENS**



**WORKS FOR YOU.**

# DEPENDABLE

## Quality Equipment and Support You Can Depend On

Terex® Minerals Processing Systems understands your business and we are dedicated to offering cost-effective solutions for your needs.

In today's competitive environment, you need to have high quality equipment. It's even better to know that your equipment is backed by an outstanding support network.

Customer satisfaction is our goal. Our service, parts, applications and sales teams are trained to provide our customers with crushing and screening process knowledge and fast friendly service. With over eight decades of experience, you can depend on us.





## Shape Your Opportunities

### Quality and Quantity from LJ-TS Horizontal Screens

Whether it is precisely-shaped aggregate for Superpave or closely-sized stone for landscaping, your customers are requiring tighter specifications for product these days. As a result, you have to exercise tighter control over your process. The most effective point to do that is at your screen. For extreme high efficiency, choose a Terex® Cedarapids LJ-TS horizontal screen. The proven ElJay® oval stroke design increases production, reduces recirculation load and can add profit to your daily operation. The innovative oval-throw action makes our screens virtually non-plugging and raises quality output. The ability to fine tune stroke angle, amplitude and speed adds versatility in meeting changing screening conditions. And extra-strong box construction, robotic welds and durable bearing mountings extend service life. Screening is your last opportunity to ensure that quality material reaches your customer. Don't trust that critical step to anything other than Terex® Cedarapids LJ-TS horizontal screens.

**WORKS FOR YOU.™**

# BUILT TOUGH

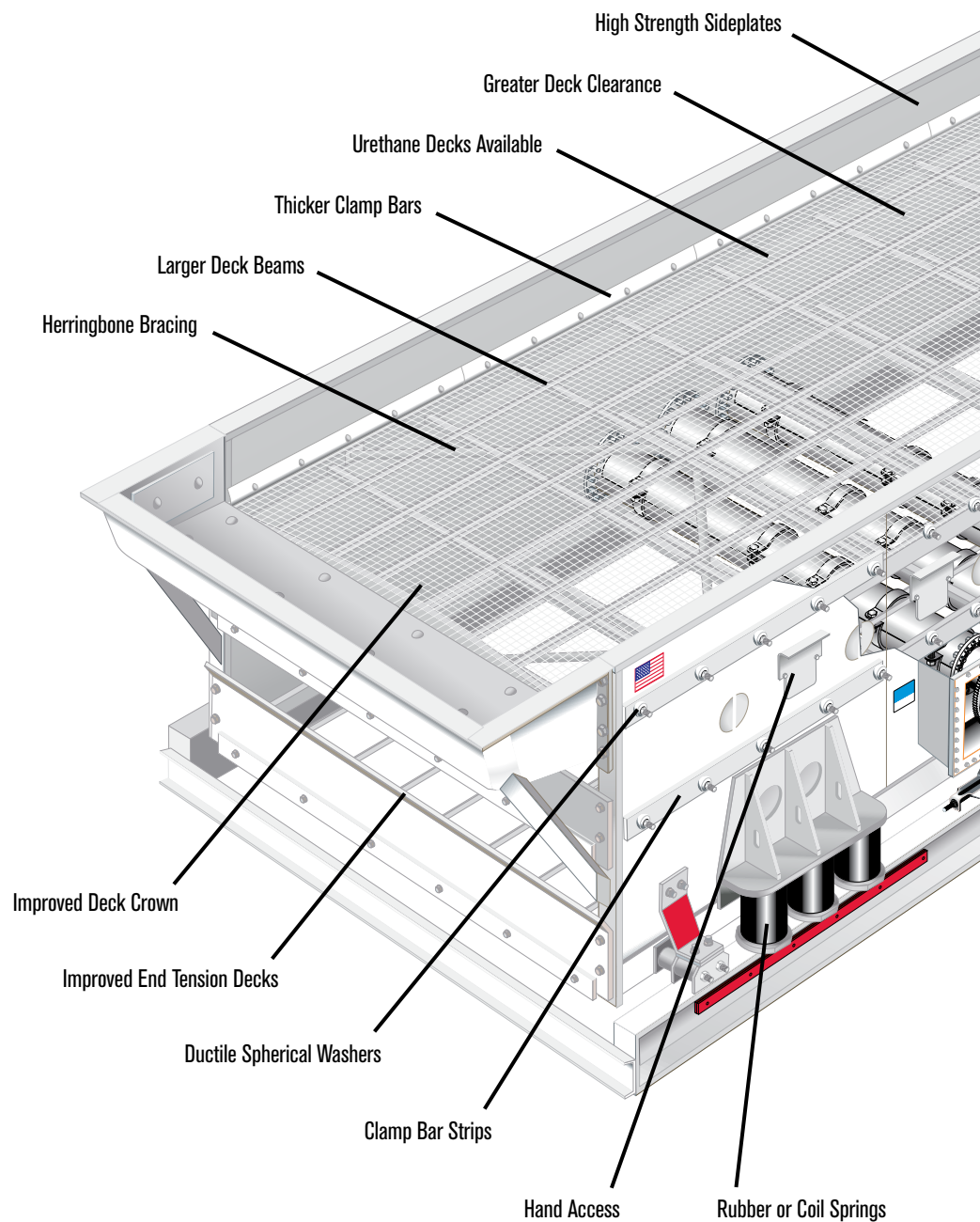
## Often Imitated, Never Equaled

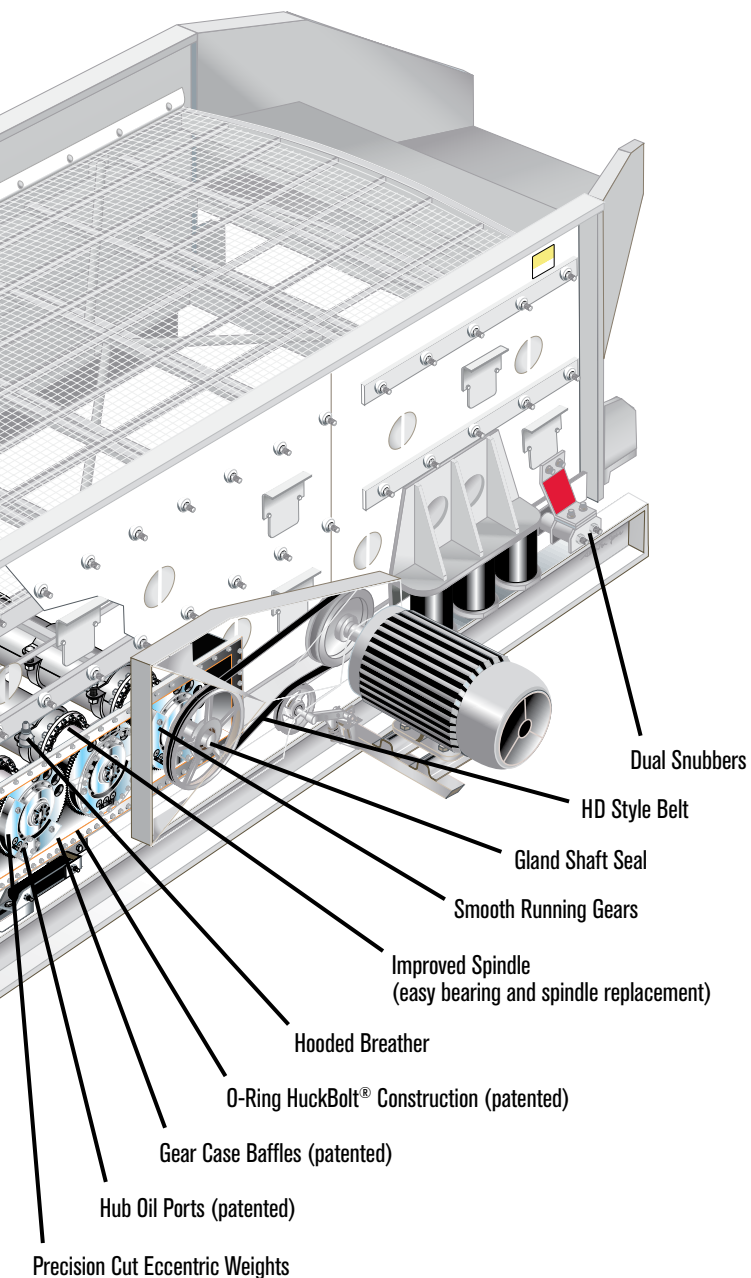
### Enduring Value

Our screen makes a case for itself based on performance alone. But if you want further convincing, just examine the heavy-duty construction. From unique herringbone bracing to triple-wall reinforcements, the Terex® Cedarapids LJ-TS horizontal screen is built to endure. And that can help you build your business to succeed.

### High-Strength Screen Box

- High strength steel sidewalls extend wear life
- All HuckBolt® construction to withstand the stresses of day-to-day operation
- Stiffened sideplates
- Triple wall around drive and impulse shafts adds extra strength in the area of greatest stress
- Vertical angles at each corner increase rigidity
- Continuous welded cross beams on large size screens





## Geared To Productivity

The heart of the oval-throw design is a three-shaft impulse mechanism located in the center of the screen box. This gear-driven vibrating assembly has been improved to be even more durable and reliable. The accessible location permits easy stroke adjustment to fine-tune the screening action.



## Designed For Low Maintenance and Long Life

- **Patented** strategic oil flow holes in wall of drive hubs eliminate trapped lubrication and allow free-flow through the bearing, reducing temperature, extending equipment life
- **Patented** wheel case baffles improve lubrication and reduce operating temperature for increased bearing life
- **Patented** “sealed-for-life” O-ring HuckBolt® wheel case construction for low maintenance
- Precision cut eccentric weights provide optimum balance and smooth screen action
- Computer designed chrome-moly-nickel gear set with premium metallurgy and optimized tooth profile for smooth running and extended life
- High-tech rotary non-contact “gland type” oil seal in hooded wheel case cover increases seal effectiveness and operating life
- Eccentric spindle has slip fit pilot and wide bearing removal groove for high clamping force and easy bearing removal

# COST-EFFECTIVE

## Move More Product

### Oval Stroke Innovation

The ElJay® oval stroke screen action was originally developed to make production of right-sized material more efficient. This design combines the best features of the circle and straight line throw into a unique oval stroke. You gain the plug-resistant, exacting screening of the circle throw with the conveying action of the straight line. Other benefits include:

- Less horsepower required
- Smooth running—eliminates jerking action of straight stroke screens
- Adjustable angle and length of stroke
- High capacity and efficiency
- High G-force action for better material stratification, reduced plugging and greater range of screenable material

### Fine Tuning

Another profitable advantage of the oval-stroke design is the ability to change the length and angle of the stroke to best suit your screening needs. The more vertical short stroke provides maximum accuracy for separating fines, while the longer, more horizontal stroke moves coarse materials faster. These adjustments are easily made in a matter of a few minutes.



#### Scalping

Angle—35° to 45°  
Stroke—Full .718\*  
Speed—Slow



#### Medium Size Material

Angle—40° to 60°  
Stroke—Medium .680\*  
Speed—Medium



#### Medium Size Material

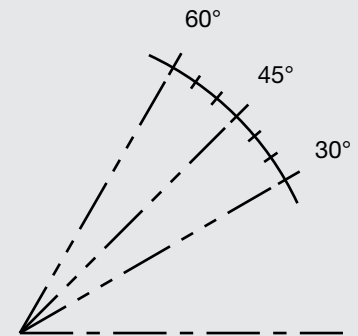
(maximum efficiency bottom deck)  
Angle—45° to 55°  
Stroke—Medium .663\*  
Speed—Medium



#### Fine Screening

Angle—45° to 60°  
Stroke—Short .646\*  
Speed—Fast

\*Stroke dimensions will vary with different size screens.



Available stroke angles,  
adjustable in 5° increments

### Adjustments Made Easy

- Stroke angle changed by removing the locking keybolt from center gear and rotating center impulse wheel to desired angle, then re-locking impulse weights in new position
- Amplitude changed by adding or removing plug type counterweights on impulse wheels
- Speed increases from 675 to 875 rpm made with the adjustable speed motor sheave

## Maximum Efficiency

The oval stroke is the most efficient screening motion in the industry. Because the motion is nearly vertical through the initial lift phase of the stroke, the openings in the screen cloth are perpendicular to the material. This provides optimum alignment and maximum probability of material passage through the screen openings. Other screen designs utilize a linear diagonal motion or a circular motion. Both of these motions create conditions in which the screen cloth openings are a constantly moving target. This makes it difficult for particles to align and pass through the screen holes. Circular stroke inclined screens have even more difficulty aligning and passing particles because particles tumble down the sloped screen at a higher speed. With the holes tilted away from the approaching material, the tumbling material bounces over the openings and also has a tendency to climb out of

the screen holes. There is little probability of passing any near size particles. To compensate for these inefficiencies, other screen designs must be much larger to get similar capacity. Adjusting the stroke angle has been found to be the most influential in optimizing the screen efficiency. Higher stroke angles increase the number of chances the material has to pass through the openings and also increases the impact to shake fines loose. Lowering the stroke angle increases the travel rate for heavy screening or scalping operations. Higher speed is sometimes desired for fine screening and lower speed is sometimes desired for scalping duty. It is always recommended to run a screen no faster than necessary to do the job. It is not uncommon that higher speeds cause too much action which reduces the ability for material to pass through and increases wear on the screen.

Stroke length is controlled by the imbalance of six weight discs relative to the weight of the screen basket plus any material in it. Alteration of shaft speed will not alter stroke length. Stroke length can only be changed by altering the degree of imbalance.

**Position A**—Starting position in cycle\*

- All 6 weight discs in phase
- Weights on all shafts add together

\*During operating cycle. The weights are not in this upward position before start-up.

**Position B**—Shafts turned 90°

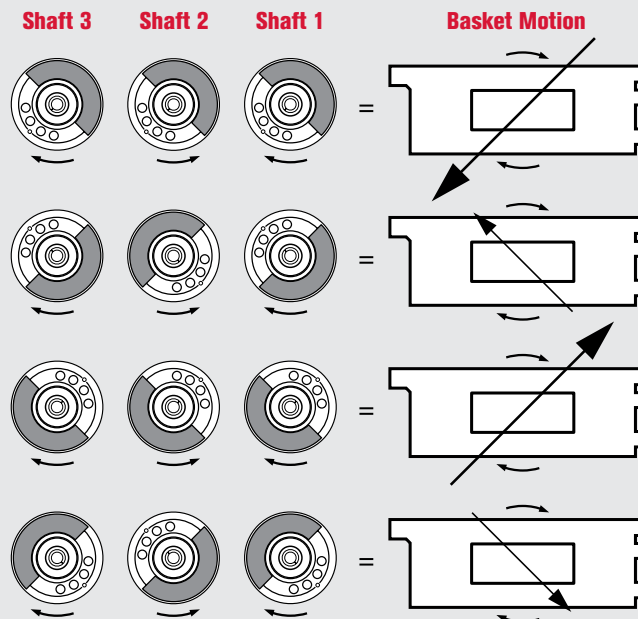
- No. 2 out of phase with Nos. 1 and 3
- Weights on shaft No. 2 subtract from total of Nos. 1 and 3

**Position C**—Shafts turned 180°

- All 6 discs in phase again
- Weights on all shafts add together

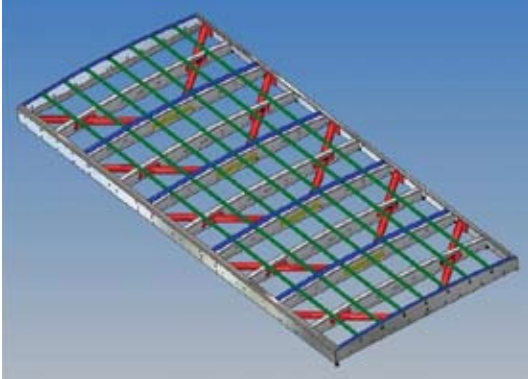
**Position D**—Shafts turned 270°

- No. 2 out of phase with Nos. 1 and 3
- Weights on shaft No. 2 subtract from total Nos. 1 and 3



# Performance Under Pressure

Not only must a screen deck support the weight of the material, but it must also withstand the high G-forces of the stroking action. Our deck designs capably shoulder the load, while lesser models crack under pressure. Special engineering and construction details give our decks an advantage in providing exceptional performance and meeting expectations for service life. Along with every other advanced feature, they make Terex® Cedarapids LJ-TS horizontal screens an excellent choice for the higher quality requirements of customers today.



## Herringbone Bracing

- Fully braced entire length
- Eliminates residual weld stress
- Increased strength to allow heavier deck loads
- Allows installation of heavier modular media

## Optional Decks

- Computer designed flat decks for use with urethane and rubber panels
- Medium scalper and end tension (HARP) wire decks
- Engineered to support extra weight of media
- Install and replace easily



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**Give us a call to learn more about our extensive equipment range.**

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Form 25524 (2/11)



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