

# Metso Mining Screens







Where we've been



Where we're going

Announcing the new benchmark for minerals separation...

# ...the Metso Mining Screen Range

Metso has leveraged its deep product knowledge, unequalled industry experience and exceptional design expertise to create a breakthrough product range of vibrating screens for the mining industry.

With its extraordinary pedigree, which includes names like Svedala, Allis-Chalmers, Hewitt-Robins and Nordberg, Metso is in a strong position to engineer customer success with an outstanding value package that includes innovative and proven screening technology.

Metso is launching a mining screen range designed specifically for the mining industry of the future, providing total solutions with:

- Groundbreaking technology
- Expert systems
- Guaranteed circuits
- Machines to fit any application
- A global supply chain

In other words – a mining screen range that is good enough to be called Metso.

### Range includes the following models:

- MF (Multi-Flo) - linear motion curved decks
- RF (Ripl-Flo) - circular motion curved decks
- LH (Low-Head) - linear motion horizontal decks



3.6 m x 8.2 m DD secondary Multi-Flo screening -7" material  
at up to 4,000 tph at copper mine in North America

Testing and Product Centers

# Global Network

Metso's custom-built proprietary testing equipment more accurately predicts customers' circuits. Through-life service and support, and purpose-built application test labs equal improved efficiency.



*Columbia, South Carolina – SSP server network, assembly plant, warehouse, engineering, training center.*



Metso Mining Screen Team



MAP KEY

- Testing Center
- Product Center

Our expertise is confirmed by our testing and product centers around the world.



*Sorocaba, Brazil – test center.*



*Milwaukee, Wisconsin – complete crushing and screening plant, lab.*



*Sorocaba, Brazil – factory, foundry, warehouse, proprietary test equipment, full testing circuit, lab, engineering, FEA.*



*Mannheim, Germany – assembly, design, warehouse.*

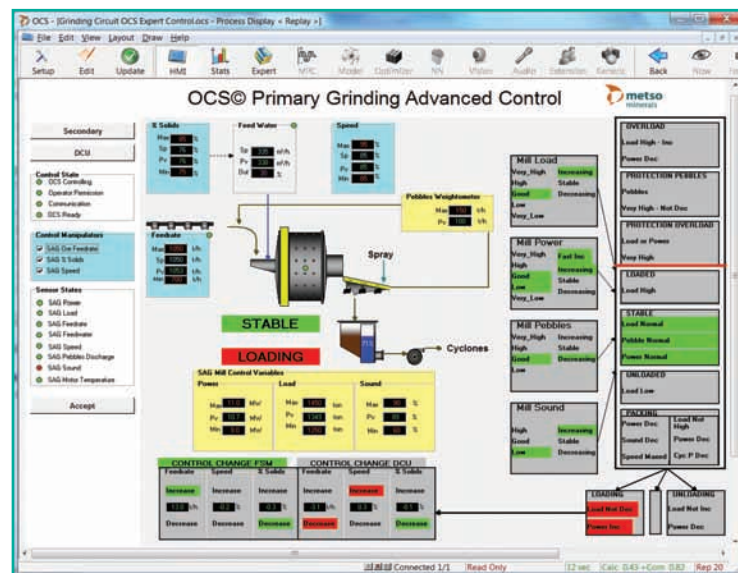
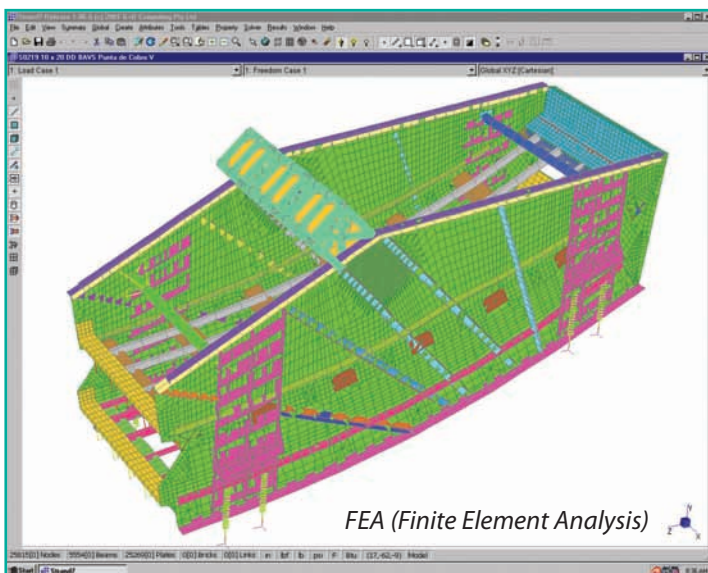


*Newcastle, Australia – full fabrication and machine, engineering/FEA, assembly, warehouse.*



*Bawal, India – fabrication, machinery, assembly, warehouse, engineering.*

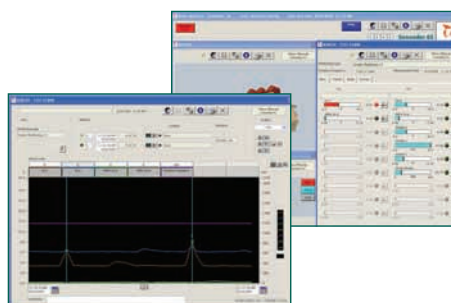




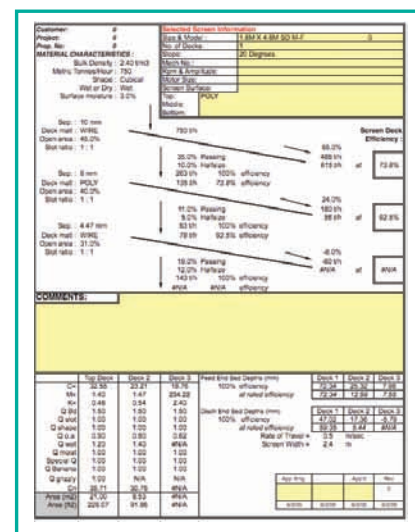
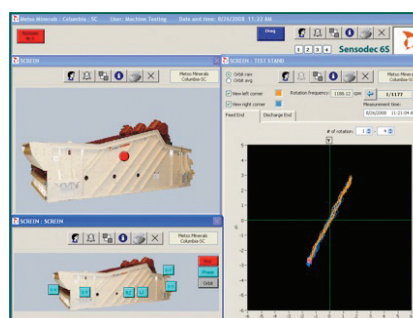
Perfecting the process with Metso's exclusive application and design knowledge.

# Expert Systems

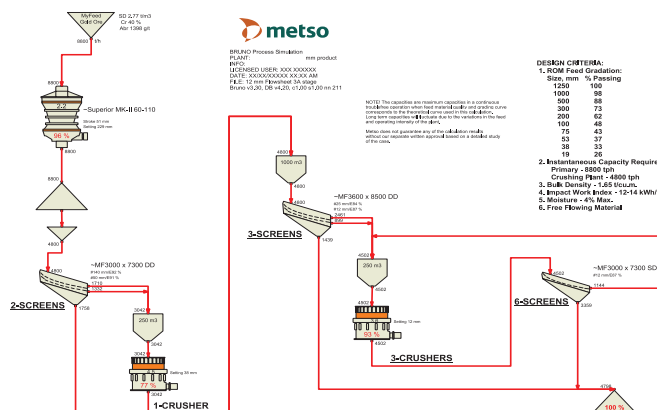
**Metso leads the industry with these powerful systems.**



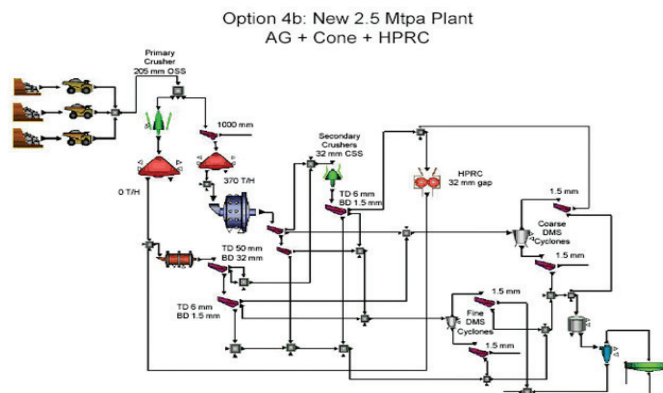
### Screen Security Package (SSP)



### Australian sizing program



### Bruno crushing and screening flow sheet



Mineral process flow sheet



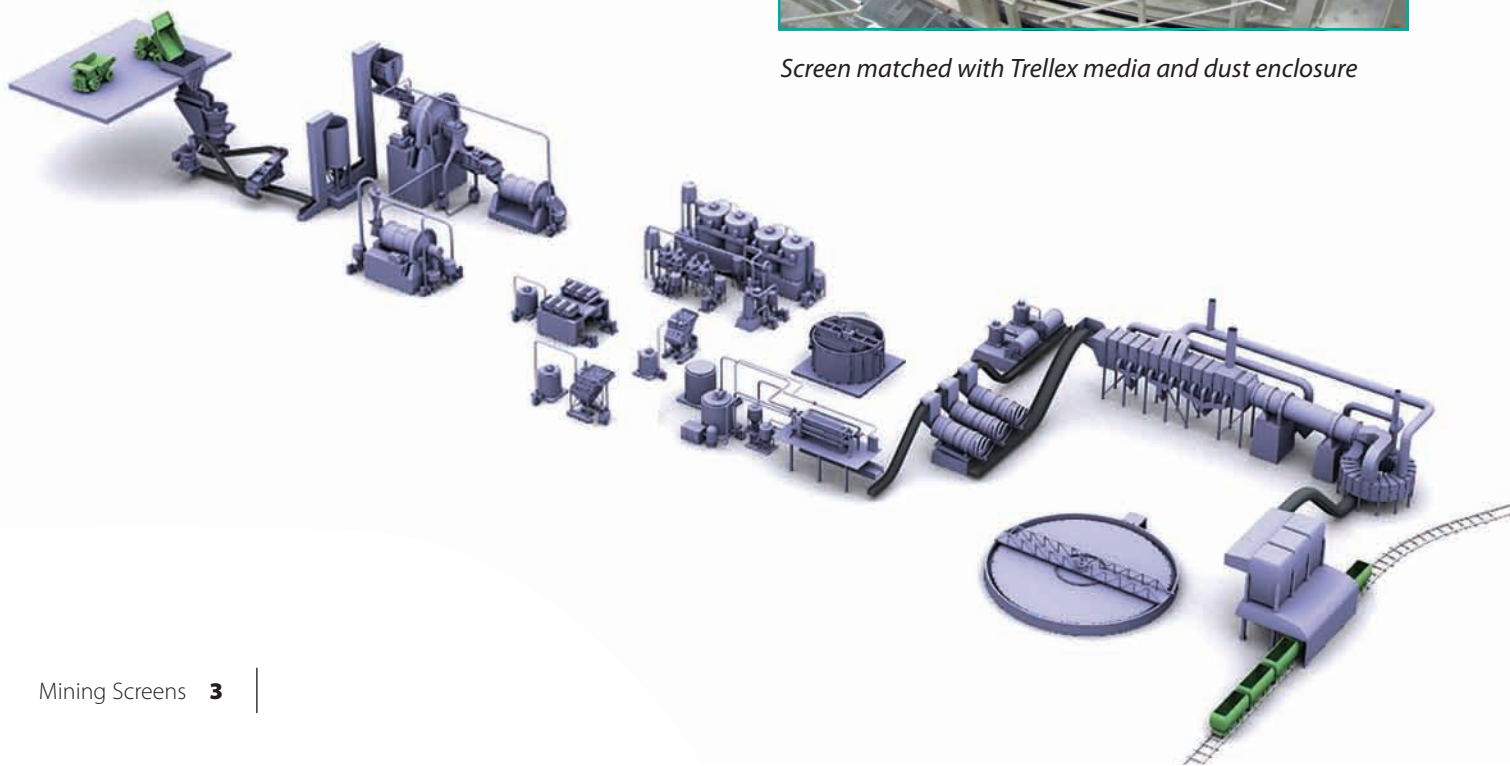
## Circuit Machinery with Matched Performance

# Circuit Solutions

- Engineering customer success
- Optimized body design for SAG mill "super screens"
- Packaging capability ensures crushing circuit integrity
- One process guarantees "No Risk Circuits"
- "Ready to Run" screens with Trellex media and dust enclosures



Screen matched with Trellex media and dust enclosure







## Monitoring Technology...

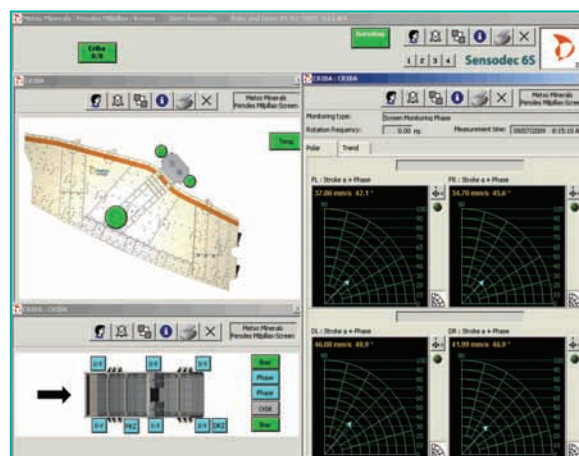
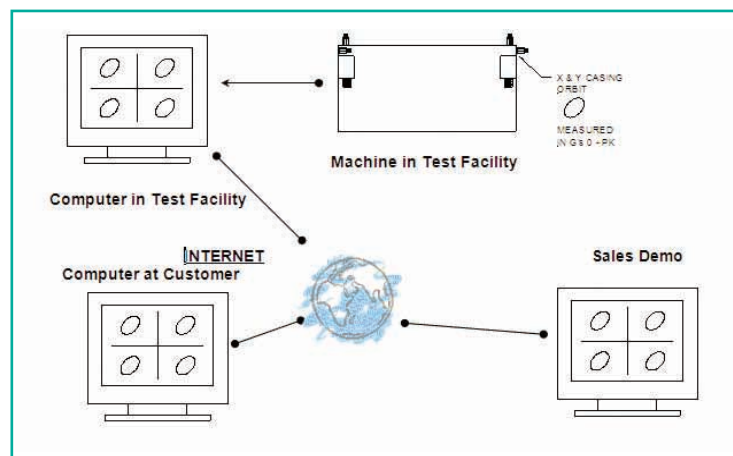
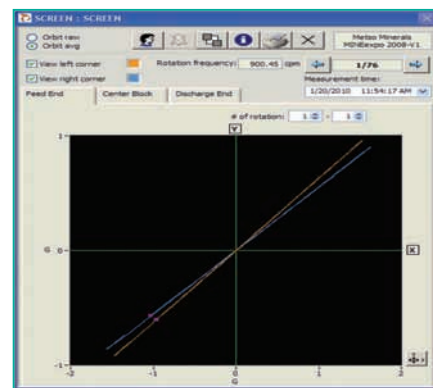
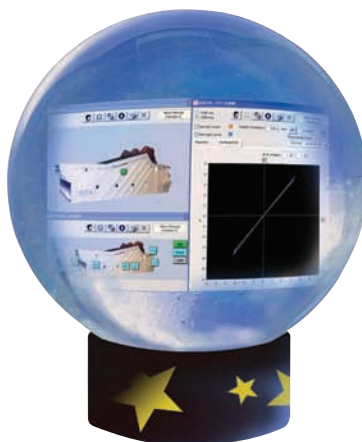
# Screen Security Package (SSP)

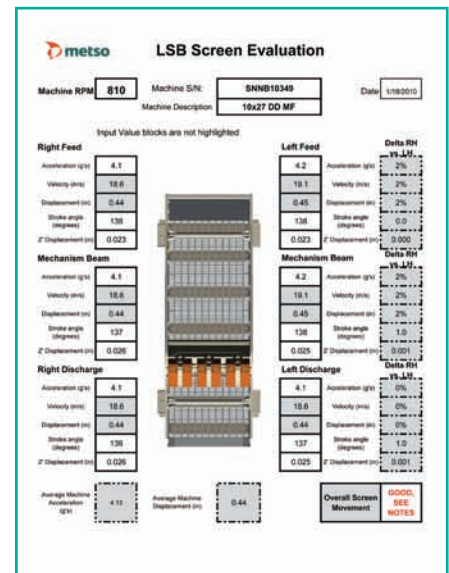
### Complete protection:

- 24-hour condition monitoring
- Online maintenance support
- Improves profits and uptime
- Increases MTBF
- Decreases operating expenses

### Innovative technology:

- Patent pending stress monitoring
- Performance optimization



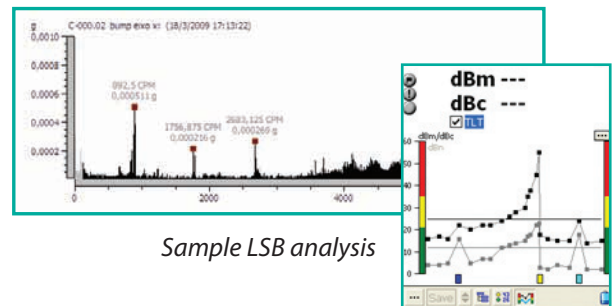


## Monitoring Technology...

# Linear Structural Bearing (LSB)

### Expert field audits:

- Bearing condition
- Structure analysis
- Orbits
- Speed (RPM)
- FFT frequency analysis
- Cradle-to-grave audit program



Frequency Test Form - Rev B

Serial #: SV500526-01

**Frequency Test Results:**

Design Throw = 0.38 in.

**Recording Test Results**

Screen Description: W= 4 ft, L= 8 ft, Brand: SV, Type: SVSH, Slope: 20 deg, Throw: 0.38 in, Screen w: 800 cpm, Motor w: 1800 cpm, Motor HP: 10 hp, Sc. Weight: 4500 lbs, # of Decks: 1, x-bracing: N, med wgt: 0 lbs, med/sc%: 100.000%

**Other Information:**

Meas. Throw: Adj: 0.00, %Off: 0.00, F.L.: 0.00, %Off: 0.00, D.R.: 0.00, %Off: 0.00, D.L.: 0.00, %Off: 0.00

Avg% Diff Throw: 0.0000, Hand of Drive: RH

Tester: STEVEN W, Engineer: R. NAVARRETE, Engr. Aprvl: YES, Engr Mgr.: MA

**Screen Information:**

X - Paralleling, Y - Torsional, Z - Sideplate Bending

**Frequency Test Summary:**

X - Paralleling		Y - Torsional		Z - Side Plate Bending	
530	@ 0.0018 FE	1470	@ 0.0257 FE	1470	@ 0.0292 FE
1470	@ 0.0104 DE	1470	@ 0.0092 DE	1470	@ 0.0344 FE
				1500	@ 0.0025 DE
				1470	@ 0.0320 DE
				1470	@ 0.0133 MID
				1470	@ 0.0054 MID



Sample frequency test report

LSB hand-held device





## Secondary and Tertiary Applications, Large Tonnage

# Metso Mining Screens

### Standard screen range:

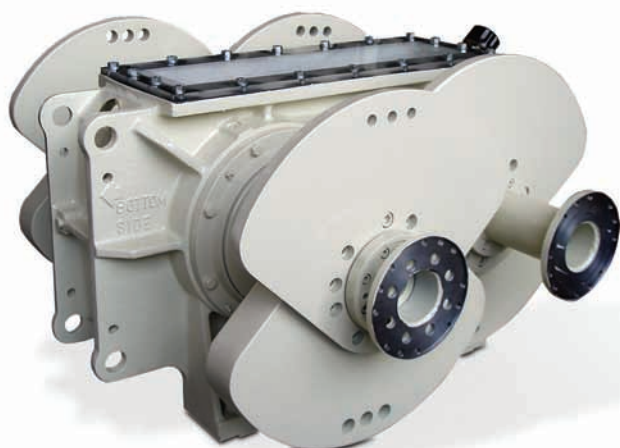
- Features a full line of products for any type of application
- Single and double deck
- From 1.8 m to 4.2 m wide
- From 4.8 m to 8.5 m long

For other sizes, consult local office for details.

### Low Head:

- 2.4 m x 6.0 m DD
- Isolation frame
- Dust Enclosure

3-D model available for Engineering Layout



### ML Exciter:

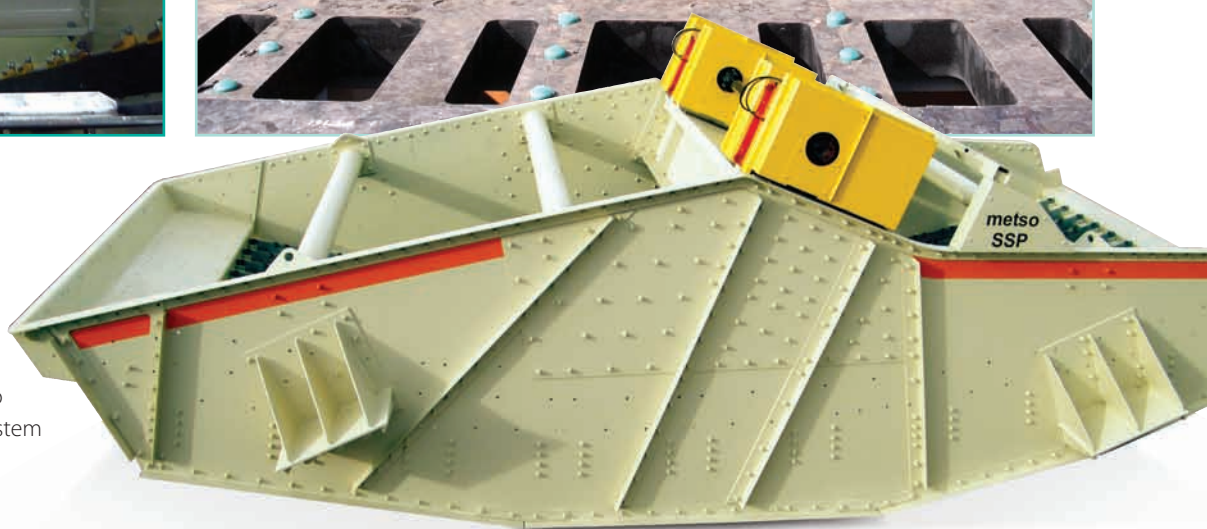
- Two exciter sizes supply the whole range of equipment
- Oil lubricated lip seals
- Gears optimized
- SSP/LSB compatible
- Externally adjusted flywheels
- Electronic brakes





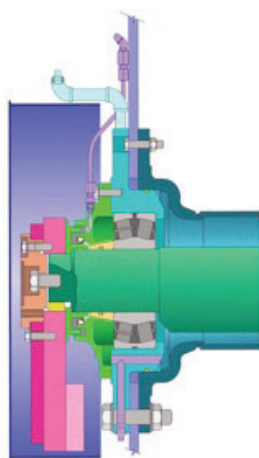
#### Multi-Flo:

- 3.6 m x 8.2 m SD Multi-Flo screen set up with SSP system



#### Ripl-Flo :

- New moderate banana incline series screens
- Improved performance
- No compromise on space
- 3.0 x 7.3 double deck incline screen



#### V-Series cartridge Ripl-Flo mechanism:

- Lower stopping inertia
- Easy stroke adjustments



#### Additional screen types:

- Dewatering
- SAG mill
- Four bearing
- Fine dry sizing
- Trash screens
- Hot pellet screens



## Primary and Scalping Applications, Large Tonnage Feeders and Grizzlies

### Vibrating grizzly feeder

Control feeding across the width

- Fabricated or cast grizzly bars
- Stepped deck configuration
- Adjustable openings
- Heavy duty side plate reinforcement (bi-duty cycle)
- AR sideplate liner protection
- AR pan liners (up to 1-1/2" thick) protecting impact areas
- Extra heavy duty cross members

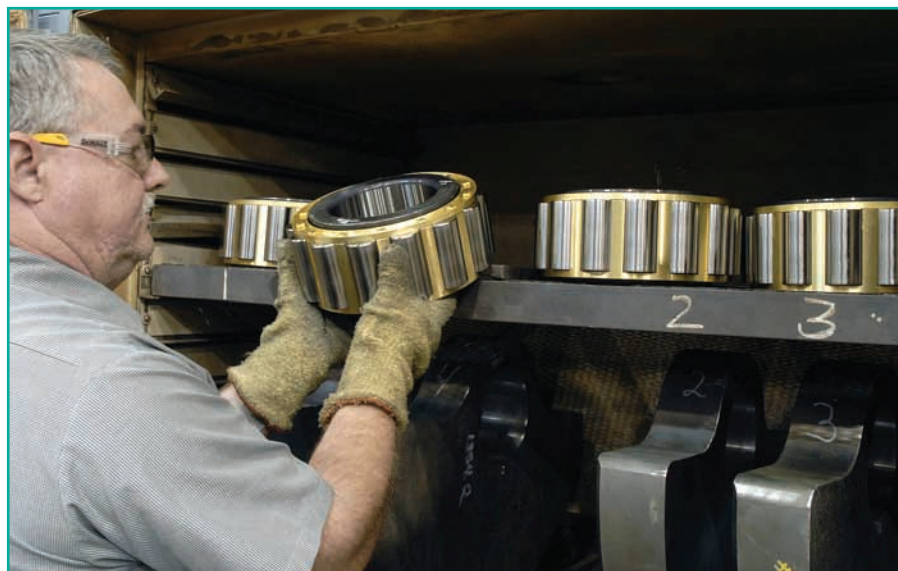


Grizzly Scalper



Pan Feeder





# Parts

## Replacement Parts:

For Nordberg, Svedala, Hewitt-Robins, SECO, Allis-Chalmers, Tyler and more\*

## Metso workshops around the world offer:

- Local part availability and emergency service
- Genuine OEM replacement parts
- Competitive prices
- Thousands of parts in stock
- Immediate shipping



## Service products offer:

- Field audits
- On-site assembly
- Rebuild programs

## Trellex:

- Screen media
- Liners
- Dust enclosures

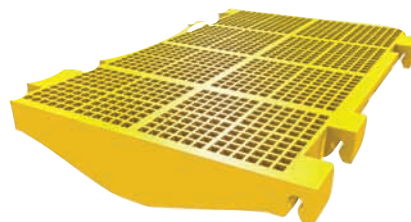
## Trellex LS HiPer Life

Built tough for maximum load handling



## Trellex LS HiPer Flo

At least 20% more active screening surface



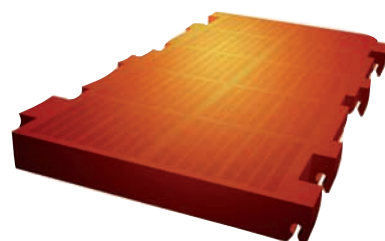
## Trellex LS HiPer Clean

Precision production without interruptions

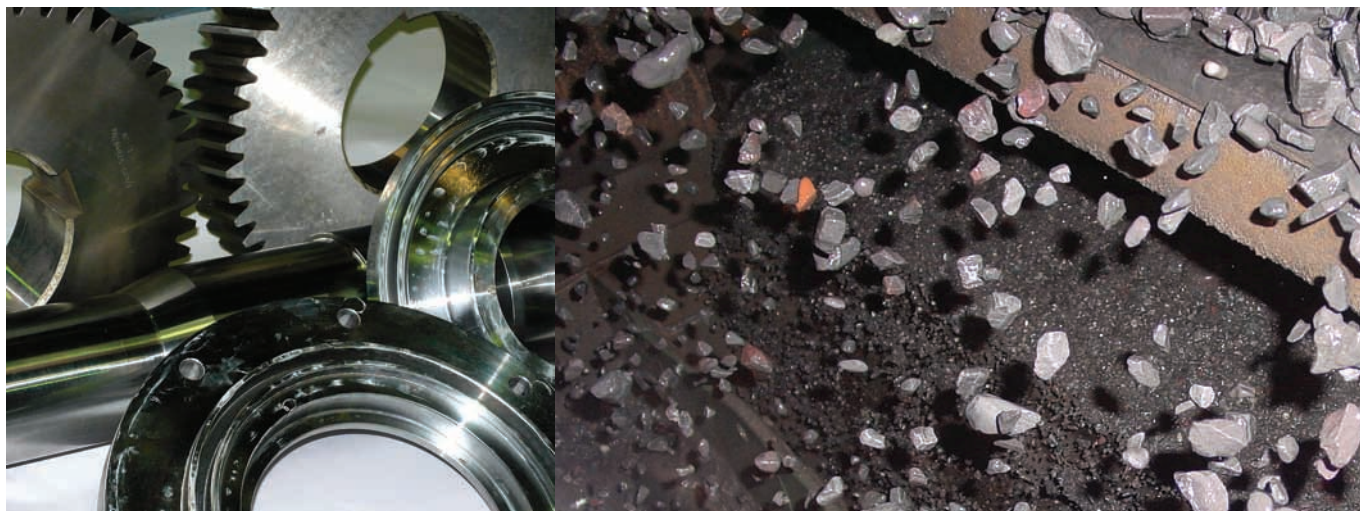


## Trellex LS HiPer Drain

Precision and exceptional dewatering



\* North America only



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