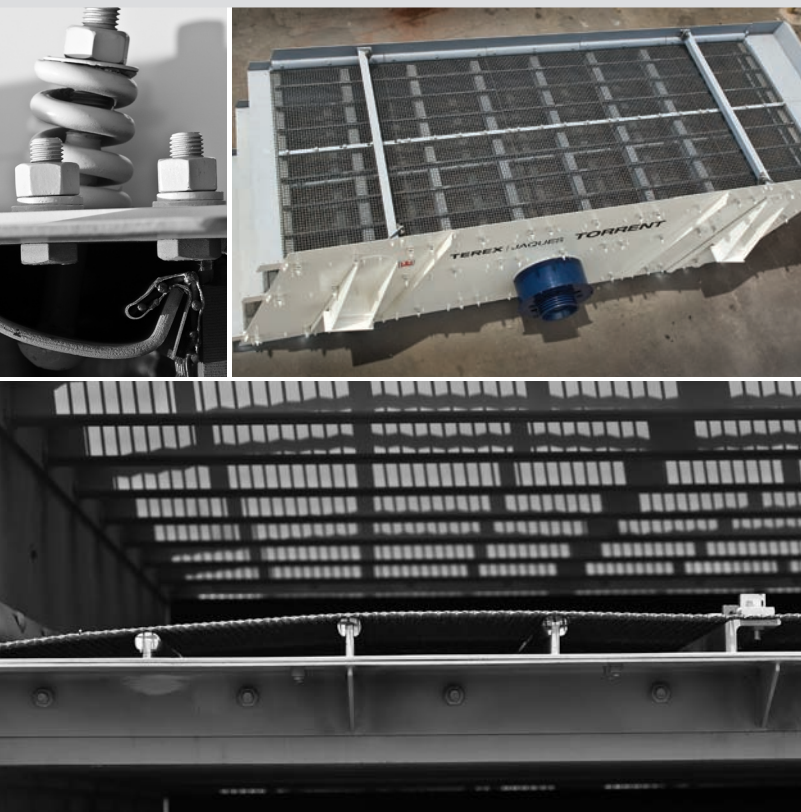


TEREX JAQUES TORRENT SCREENS

- ▲ Proven design, with well over 1,000 in the field
- ▲ Expertise to solve difficult screening problems
- ▲ Standard, heavy-duty and extra heavy-duty screens
- ▲ Sizes range up to 2.4m wide x 7.2m long

Torrent Screen

The Terex Jaques Torrent Screen is the product of over 50 years experience in the design, manufacture and installation of vibrating screens. We have built more than 1400. Typical applications are sizing, scalping, washing, trash removal, recycling, beneficiation and de-dusting. The screens are used in a wide range of industries, including mining, quarrying, sand and gravel pits, cement plants, recycling and fertiliser production.



Our screens have a two-bearing mechanism and a unique spring-loaded centrifugal counterweight assembly. The counterweight reduces the start-up power requirements and eliminates excessive resonance motion when the screen is starting and stopping.

Reliability and ease of maintenance are major factors in the repeat orders from our customers.

Our experienced design team can offer a solution for your screening requirements, whether it is for a complete system or single-screen application.

Each machine is backed by the Terex Jaques total after-market service and spare parts.

Please note: certain photos in this publication show Terex Jaques Vibrating Screens with the safety guards removed. This is only in order to make technical features of the machine easier to see. It is not meant to show the machines as they are normally used.

Benefits and Features

▶ **Long life, low maintenance and reduced operating costs.**

Proven heavy-duty design.

▶ **Suits both large and small screening applications.**

Screen sizes range from 3000 x 1200mm to 7200 x 2400mm.

▶ **Multiple product separations.**

Single, double, triple and four deck screens.

▶ **Can be configured to suit different screening requirements.**

Range of deck constructions to suit wire, rubber and polyurethane screen panels.

▶ **Screens available for primary and secondary separations.**

Heavy-duty and primary Torrent XS scalping screens.

▶ **Sizing screens for separations less than 50mm.**

Standard duty Torrent final sizing screens.

▶ **Operational parameters adjustable to suit the material.**

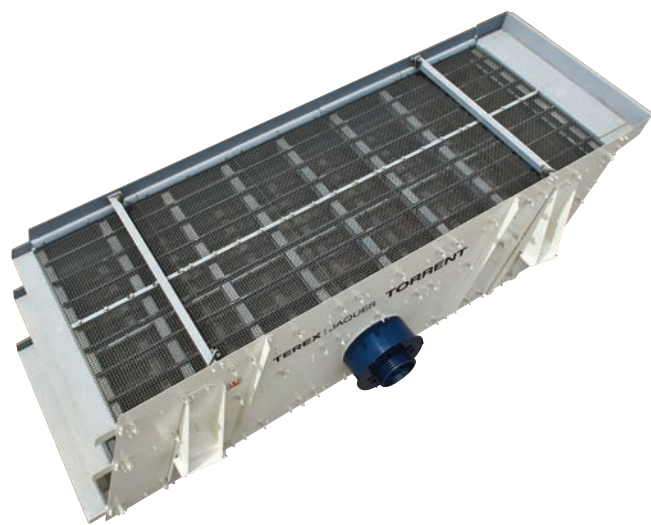
Adjustable circular screen motion.

▶ **Low power requirements and little resonance motion when starting and stopping.**

Centrifugal counterweight assembly.

▶ **Screen bearings selected for long life.**

Self-aligning double-row spherical roller screen bearings designed specifically for vibrating applications.



▶ **Long-life and robust mesh frames.**

Fabricated one-piece deck construction with rectangular tube or I beam cross members.

▶ **Simplified field maintenance.**

Bolt-on feed box with replaceable liners and discharge spouts.

▶ **Improved performance and increased bearing life on large screens.**

Twin mechanism option on large screens.

▶ **Reduced vibration to the supporting members.**

Steel coil or alternative rubber buffers support springs.

▶ **High-efficiency screens for washing.**

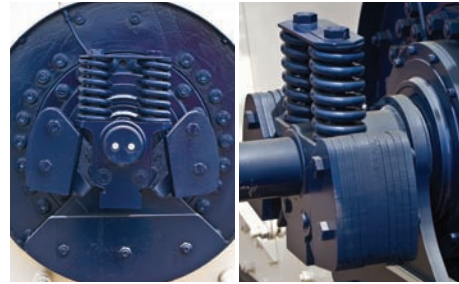
Washing screens, configured to suit wet conditions and provision for spray bars between decks.

Torrent Screen Construction Details



▲ Centrifugal counterweight assembly

This innovative feature eliminates excessive resonance motion when the screen is starting and stopping. At start-up, the counterweigh assemblies have a small 'mass x radius' value. This means that they accelerate to operating speeds with a smaller driving torque and drive motor than for a fixed counterweight.



▲ Screen throw

The screen mechanism is positioned to ensure an even motion over the whole screening surface. For optimum screen performance, the amplitude of vibration can be varied by increasing or decreasing the number of counterweights (bolted to the counterweight arms on either side of the screen mechanism).

The spring-controlled centrifugal counterweight assemblies prevent resonant motion during starting and stopping, and reduce starting torque to a minimum.



▲ Screen drive

The driving pulley may be fitted to either side of the screen in the field without disturbing the shaft. This means that the drive can be positioned to suit the installation. Depending on the screen size, two or four 'C' section vee belts are required for the drive.

Shaft

The shaft is amply proportioned and precision machined.



▲ Guards

There are fully enclosed steel plate guards over the counterweight assemblies. They are easily removable to allow inspection or maintenance of the counterweights or mechanism.

Torrent Screen Construction Details



▲ Screen body

The well-reinforced screen body ensures long life without excessive weight.

Stiffeners

Vertical stiffening angles add rigidity to the side plates.



▲ Screen isolation springs arrangement

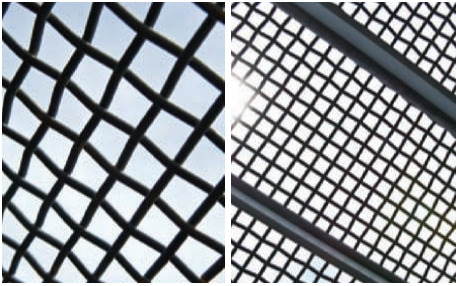
Each corner of the screen is supported on springs. This isolates the support structure from vibration.

Wire coil springs are supplied as standard. Rubber buffer springs are available as an option for heavily loaded screens. Corrosion resistant oxo-sealed springs are fitted in wet applications.



▲ Housing tube

A replaceable steel cover protects the housing tube from wear. The tube maintains the correct spacing between the bearings and excludes dust. It also serves as a stiffener for the screen body and protects the shaft. Neoprene rubber seal-rings between the ends of the housing and bearing cartridges protect the bearings from water and dust penetration.



▲ Screen media

The Torrent Screen will accept meshes, or can be arranged to suit modular panel systems, flat-deck configurations for heavy-duty rubber, or steel bolt-down panels. The panels can be removed through either the discharge or feed end of the screen. Screens are arranged to suit multiple mesh panels for ease of removal and replacement.

Screen surfaces can be selected from wire, steel plate, rubber or polyurethane. The wire may be woven from numerous types of steel alloys to reduce abrasive or corrosive wear. Patterns of square, slotted or long slots are all available.

Special surfaces such as 'piano' wire can be supplied. Plate, rubber or polyurethane can be fitted with round, slotted or square apertures to suit the particular duty.

Our application specialists will help you to select the right screen surface. Due to the large variation in open area of different screen media it is important to consider the type of screen cloth to be used when selecting screen size.



▲ Rubber buffer strips

Self clamping, wear-resisting rubber buffer strips are fitted to the screen frame mesh supports and prevent metal-to-metal contact. Their cushioning greatly increases screen-cloth life.



▲ Cross-tensioned meshes

The mesh-tensioning system ensures permanent and uniform tautness of the mesh over the mesh frame. Clamp plate bolts with compression springs maintain a uniform tension on the screen cloth. This prevents mesh flap and increases cloth life.

Torrent Screen Construction Details



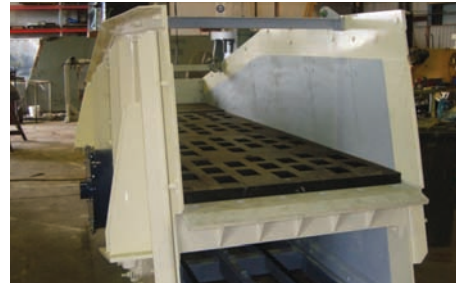
▲ Single camber deck

Single transverse-crown tubular deck for narrow screens and for wider screens carrying mesh with large wire diameter.



▲ Double camber deck

Double transverse-crown tubular deck, with centre hold-down strips for 1500mm and wider, with wire mesh up to a maximum of 9mm diameter.



▲ Flat deck

Flat deck bolted system (rubber or steel). For heavy-duty rubber or steel deck panels, the mesh frame can be supplied in a flat configuration for direct bolting of the panels to the deck.

Flat deck modular systems (polyurethane or rubber). Polyurethane and rubber screening media can be used in a variety of flat-deck retention systems. The Torrent Screen can be provided with the hold-down method to suit the screening media selection (consult Terex Jaques for details).

Mounting arrangements

Torrent screens are normally mounted at 20°, but this angle may be varied in increments of 2.5°. Please consult us for recommendations.



▲ Feed box

A feed box absorbs the impact of incoming material, reduces wear on the screen cloth and makes more effective use of the screen's deck area. A feed box with a renewable liner is fitted to all screens.



▲ Deck arrangement

The Torrent Screen can be arranged as a single-deck, double-deck or triple-deck.

On single-deck screens, a lower stiffening frame rigidly supports the screen body. This frame can be removed and a second deck bolted in.



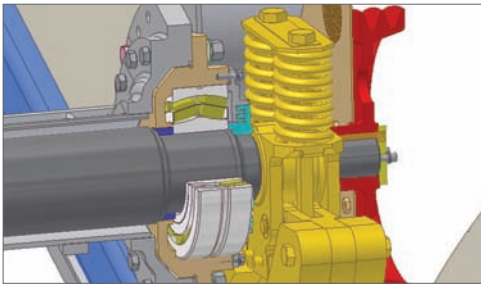
▲ Discharge spouts

Discharge spouts simplify the installation of chutes and are standard on all screens.

Flexible back plate covers

The screen is fitted with a flexible rubber back plate cover above each deck. This allows the inspection and removal of the mesh panels.

Torrent Screen Construction Details



▲ Bearing arrangement

The self-aligning, double row, spherical roller bearings were developed specifically for vibrating screens. To eliminate locking of the bearing to the shaft (which leads to premature failure), the inner rings of the bearings have self-lubricating sleeves.

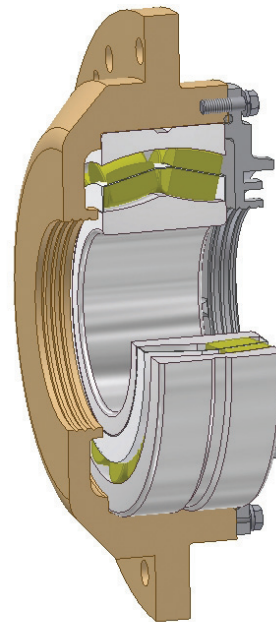
The bearings are protected from dust and dirt by grease-purged labyrinth seals.

Lubrication

Grease lubrication is standard for Torrent Screens.

▼ Bearing cartridge

The load-carrying roller bearings in the vibrating mechanism, together with their mounting cartridge and cover, can be assembled in the dust-free atmosphere of a workshop and fitted to the screen in the field as a complete unit. This means the bearings are not exposed to dust particles during assembly and can be relied on for their rated lifetime.



Options



▲ Twin mechanism

Large Torrent Screens are supplied with twin mechanisms, if required.

Extended side plates

To suit installation requirements, Torrent Screens can be fitted with extended side plates if required.

Spray bars

Materials can be washed and rinsed on the screen surface using high-pressure water from spray bars positioned above the screen mesh. We can supply the Torrent Screen with a complete spray-bar system. It is either mounted independently from the screen and with holes in the side plates to suit the spray-bar arrangement for screens over 1800mm in width or with bars attached directly to screen side plates.

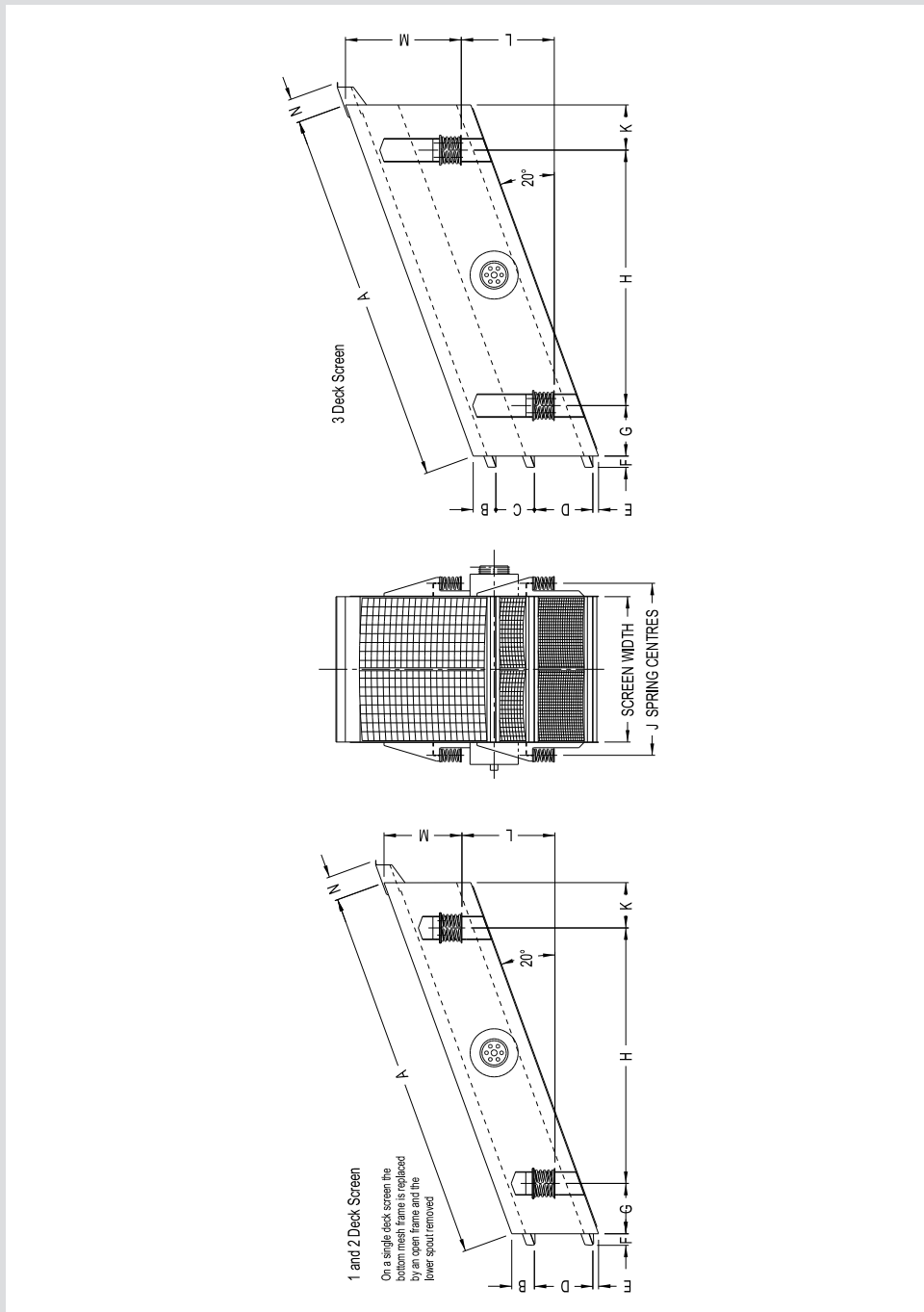


▲ Dust sealing

A flexible rubber dust-sealing system with its own feed and discharge chute attachments are available, if required.

The dust enclosure consists of a steel frame (supports not included) with flexible, retractable rubber covers and flexible rubber connections to be fitted between frame, screen and discharge chutes.

Torrent Screen Specifications & Dimensions



Dimensions and Weights																						
Screen Size		Nominal Weight Tonnes			Motor Power kW			Dimensions mm						1 and 2 Deck		3 Deck						
mm (feet)	1 Deck	2 Deck	3 Deck	1 Deck	2 Deck	3 Deck	All Screens A	B	E	F	G	H	J	K	L	N	Screen Width	D	M	C	D	M
3000 x 1200 (10 x 4)	1.5	1.7	2.3	5.5	5.5	7.5	3150	286	45	102	392	2148	1508	420	781	366	1225	638	1172	486	638	1649
3600 x 1200 (12 x 4)	1.7	2.0	2.7	7.5	7.5	7.5	3759	286	45	102	392	2721	1508	420	991	366	1225	638	1183	486	638	1661
3000 x 1500 (10 x 5)	1.6	2.0	0.7	5.5	5.5	7.5	3150	286	45	102	392	2148	1813	420	781	366	1530	638	1170	486	638	1641
3600 x 1500 (12 x 5)	1.9	2.3	3.0	5.5	7.5	11	3759	286	45	102	392	2721	1813	420	991	366	1530	638	1180	486	638	1661
4200 x 1500 (14 x 5)	2.1	2.5	3.8	7.5	7.5	11	4369	286	45	102	392	3294	1813	420	1199	366	1530	638	1180	486	724	1754
4900 x 1500 (16 x 5)	2.5	3.1	4.2	7.5	11	15	4978	286	45	102	392	3867	1813	420	1408	366	1530	724	1257	486	724	1738
3600 x 1800 (12 x 6)	2.0	2.5	3.7	7.5	7.5	11	3759	286	45	102	392	2721	2118	420	991	366	1835	638	1180	486	724	1743
4200 x 1800 (14 x 6)	2.6	3.1	4.0	7.5	11	15	4369	286	45	102	392	3294	2118	420	1199	366	1835	724	1260	486	724	1741
4900 x 1800 (16 x 6)	2.7	3.4	4.5	11	11	15	4978	286	45	102	392	3867	2118	420	1408	366	1835	724	1260	486	724	1767
6100 x 1800 (20 x 6)	4.4	5.4	6.9	15	15	22	6283	381	95	191	848	4296	2284	720	1564	403	1835	983	1269	648	983	1959
6100 x 2100 (20 x 7)	5.0	6.1	8.1	15	18.5	22	6283	381	95	191	848	4296	2589	760	1564	403	2140	983	1262	648	983	1952
4900 x 2400 (16 x 8)	4.7	5.7	7.5	15	18.5	22	5064	381	95	191	706	3435	2894	618	1251	403	2445	983	1272	648	983	1908
6100 x 2400 (20 x 8)	5.1	6.3	8.4	15	18.5	30	6283	381	95	191	848	4296	2894	760	1564	403	2445	983	1260	648	983	1948
7200 x 2400 (24 x 8)	5.5	6.9	9.4	18.5	30	2x22	7503	381	95	191	848	5443	2894	760	2566	403	2445	983	1948	648	983	1948

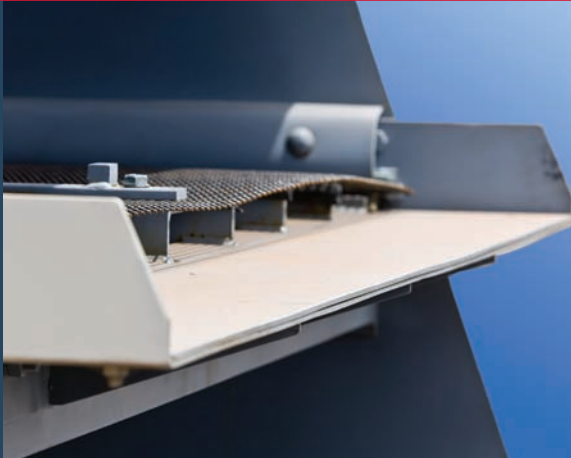
Checklist for Purchasing a Torrent Screen

Terex Jaques Torrent Screen		Why it matters
✓	Proven heavy-duty design.	Long life, low maintenance and reduced operating costs
✓	Screen sizes range from 3000 x 1200mm to 7200 x 2400mm.	Suits both large and small screening applications
✓	Single, double and triple deck screens.	Multiple product separations
✓	Custom screen design.	Can be configured to suit different screening requirements
✓	Range of deck constructions to suit wire, rubber and polyurethane screen panels.	Flexibility to suit different applications
✓	Heavy-duty and Primary Torrent XS scalping screens.	Special duty screens to accept large feed lumps.
✓	Standard duty Torrent final sizing screens.	Sizing screens for separations less than 50mm
✓	Adjustable circular screen motion.	Operational parameters adjustable to suit the material.
✓	Centrifugal counterweight assembly.	Low power requirements and little resonance motion when starting and stopping.
✓	Self-aligning double-row spherical roller screen bearings designed specifically for vibrating applications.	Screen bearings selected for long life.
✓	Fabricated one-piece deck construction with rectangular tube or I beam cross members.	Long-life and robust mesh frames.
✓	Twin mechanism option on large screens.	Improved performance and increased bearing life on large screens.
✓	Wire or alternative rubber buffers support springs.	Reduced vibration to the supporting members.
✓	Washing screens, configured to suit wet conditions and provision for spray bars between decks.	High-efficiency screens for washing.
✓	Screen angle from 15 to 22.5 degrees.	Improved efficiency from controlled material velocity over the screen deck.
✓	Guard fitted over mechanism cross tube.	Mechanism well protected to ensure low maintenance and safe operation.
✓	Single and double camber decks.	Superior feed distribution and mesh tensioning.
✓	Direction of rotation can be either uphill (counter flow) or downhill (with flow).	Field adjustment to improve efficiency or capacity.
✓	Extensive branch network for spares and service support.	Greatly reduces downtime and lets you plan production confidently.
✓	Process knowledge of technical staff.	Expert help in integrating vibrating screens into your plant.
✓	Proven in the field.	A factor in your Duty of Care in selecting equipment.

Torrent Screen Enquiry Form

When enquiring about the Terex Jaques range of Torrent Screens please supply the following details so that the screen best suited may be recommended (email or fax this form to your local Terex Jaques office).

Type of material to be screened	
Quantity of feed to screen, including recirculating load	Tonnes/Hour
Maximum lump size to be fed to screen	mm
Weight per cubic metre of material	Kg/cu. metre
Required cut sizes (i) Top Deck (ii) Middle Deck (iii) Bottom Deck	mm
% of Screen Feed passing Top Deck approx. % of Screen Feed passing Middle Deck approx. % of Screen Feed passing Bottom Deck approx. Half undersize through Bottom Deck approx.	Tonnes/Hr. or %
Is Screen for finished sizing or scalping application?	
Characteristics of feed to screen - e.g. sticky or free flowing.	
If damp material, moisture content	%
Shape of openings (square, round, slotted) (i) Top Deck (ii) Middle Deck (iii) Bottom Deck	
Type of screen media to be used e.g. woven wire, rubber etc	
Is screening wet or dry? If wet, quantity of water available is at	Litres/Min. Pressure
Any special surface treatment requirements?	
Number of Spray Bars required per deck (i) Top Deck (ii) Middle Deck (iii) Bottom Deck	
Hand or Drive (looking in direction of material flow)	
Is a dust enclosure required?	
Any limiting dimensions, e.g. width, length and overhead height, etc.	
Any other factors	



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- ▲ Sizes range up to 2.4m wide x 7.2m long

The Terex Jaques product range also includes cone crushers, jaw crushers, apron feeders, grizzlies and impactors. For more information about Torrent Screens or other products, contact a Terex Jaques technical advisor.

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