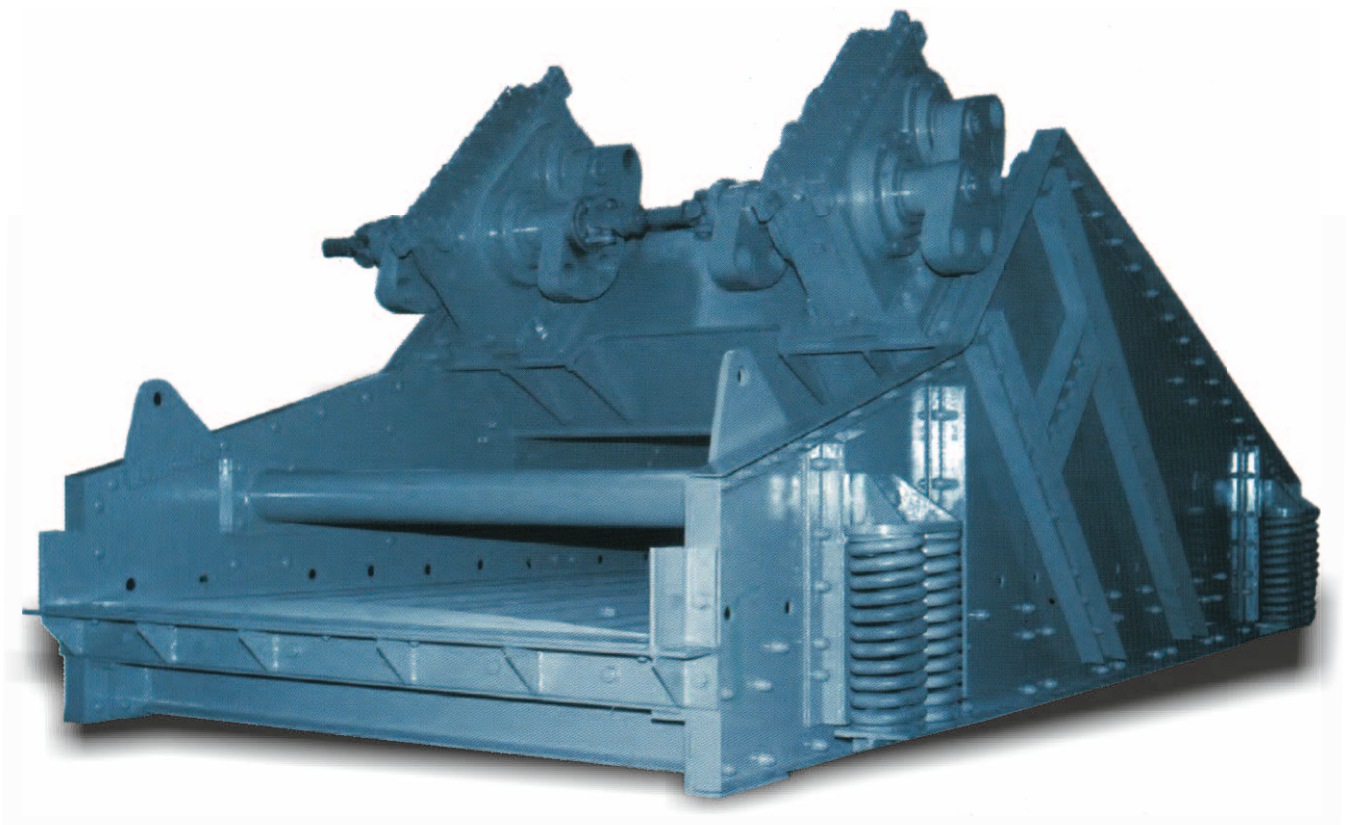


Ultraflo Vibrating Feeders & Screens



- Stroke and slope adjustment feature
- Uniform motion throughout ensures accurate sized product
- All permanent joints are Huck Bolted
- True linear motion helps easy screening of material
- Oil lubrication uses double lip oil seal

Ultraflo Vibrating Feeders & Screens

General

TRF Vibrating Screens are synonymous with high quality and efficiency in all industries where bulk materials, solids and powders are processed. TRF Vibrating Screens are rugged and designed for a long life time.

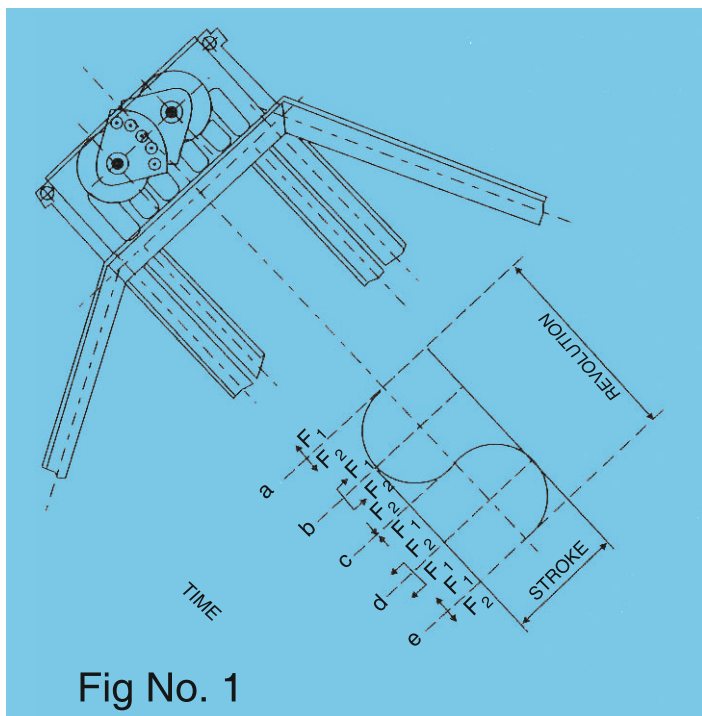
Due to wide choice of available design of TRF Vibrating Screens, it is possible to select and deliver the most efficient and advantageous Screen for each particular application. Any type of screening problem can be solved on the basis of the vast experience gathered by TRF on account of large number of screens supplied for wide variety of materials.

Ultraflo Vibrating Unit

TRF ultraflo vibrating units consist of one or two units connected together by cardon shaft. Ultraflo type vibrating units produce linear vibrations. They are used for large and ultra large Screens and for heavy duty applications. These are also used for dewatering purposes.

Principal of Operation (Refer. Fig. No.1)

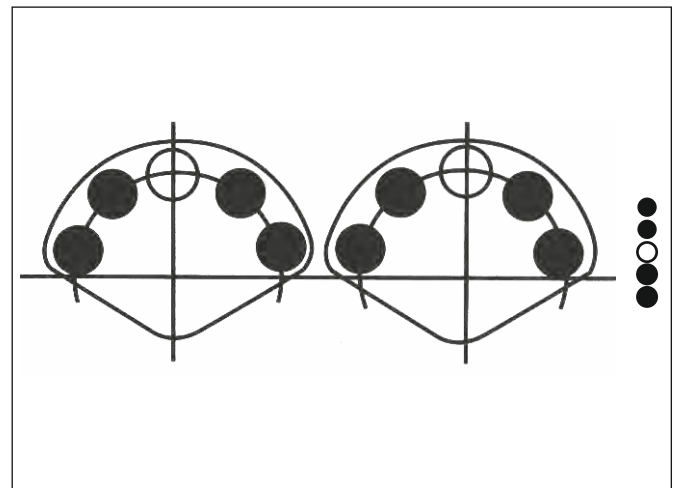
The oscillating motion of the vibratory equipment [Screen/Feeder] is imparted by the unbalance masses mounted on the two extended shafts rotating at the same speed in opposite direction. The exciters are placed symmetrically about a line at right angle to the exciter base passing through the centre of gravity of the frame. As the resultant force due to unbalance masses passes through this line, it is called drive line or line of action. The total displacement in either direction is called "stroke".



Performance

The exciter has two shafts equipped with eccentric weight. They rotate in opposite directions by means of built-in gear and produce linear motion.

There are five holes on the eccentric weight for making adjustment in static moment in assembly. The desired stroke can be achieved by removing or adding adjusting weight in these holes.



These direct force exciters generate the typical vibratory moment [Fig.-1). The exciters are attached to the screen or feeder frame in such a way that the line of action of the exciter forces passes close to centre of gravity and makes-with the screening plane-the angle of throw. The vibration frequency of the screen is same as the exciter frequency.

Static Moment

An important characteristics of the exciter is the so-called static moment.

The static moment is the result of the weight of all unbalance masses multiplied by their radii of centre of gravity; usually it is given in cm. kg.

The static moment and with it the centrifugal force generated by the exciter can be gradually adjusted by adding or removing the unbalance weights. The magnitude of the static moment - as a function of number and configuration of unbalance weights-can be taken from the chart "Static Moment of Directed Force Exciters".

Number and configuration of unbalance weights are marked by white and dark circles.

Cardon Shaft Drive Arrangement

Two or three exciters are connected together side by side by cardon shaft. The intermediate flanges bolted on the exciter segment are provided with spigot fitting. This ensures correct positioning of the cardon shaft.

The squirrel cage induction motor is generally directly connected with the exciter unit by the cardon shaft. The exciter units can also be driven by V-belts and sheaves, if desired.

Advantages

Ultraflo Screen offers all benefits of horizontal mounting. Because of minimum head room, utilisation of space is optimum.

Ultraflo Screens produce more tonnage at lower cost. Maximum clearance between decks eliminates the blockages caused by surging of feed material. The exciter mounted on the top of the unit or under slung in case of the feeder causes no impediment to free material flow.

Easy maintenance - The exciter unit can be removed from the frame and maintenance can be carried out on the floor.

The complete range of models, type and sizes you ever need

The Ultraflo Screens are designed for varied duty conditions. Styles **TUF-7**, **TUF-9**, **TUF-11**, **TUF-12** and **TUF-13** are designated in respect to the internal diameter of the double row spherical roller bearings fitted with the exciter shafts, such as **TUF-7** for **70 mm**, **TUF-9** for **90 mm**, **TUF-11** for **110 mm**, **TUF-12** for **120 mm** and **TUF-13** for **130 mm ID** bearing, respectively.

The Screen size can vary from 915 mm to 2500 mm width and length from 3 M to 6 M with single, double and triple deck arrangements.

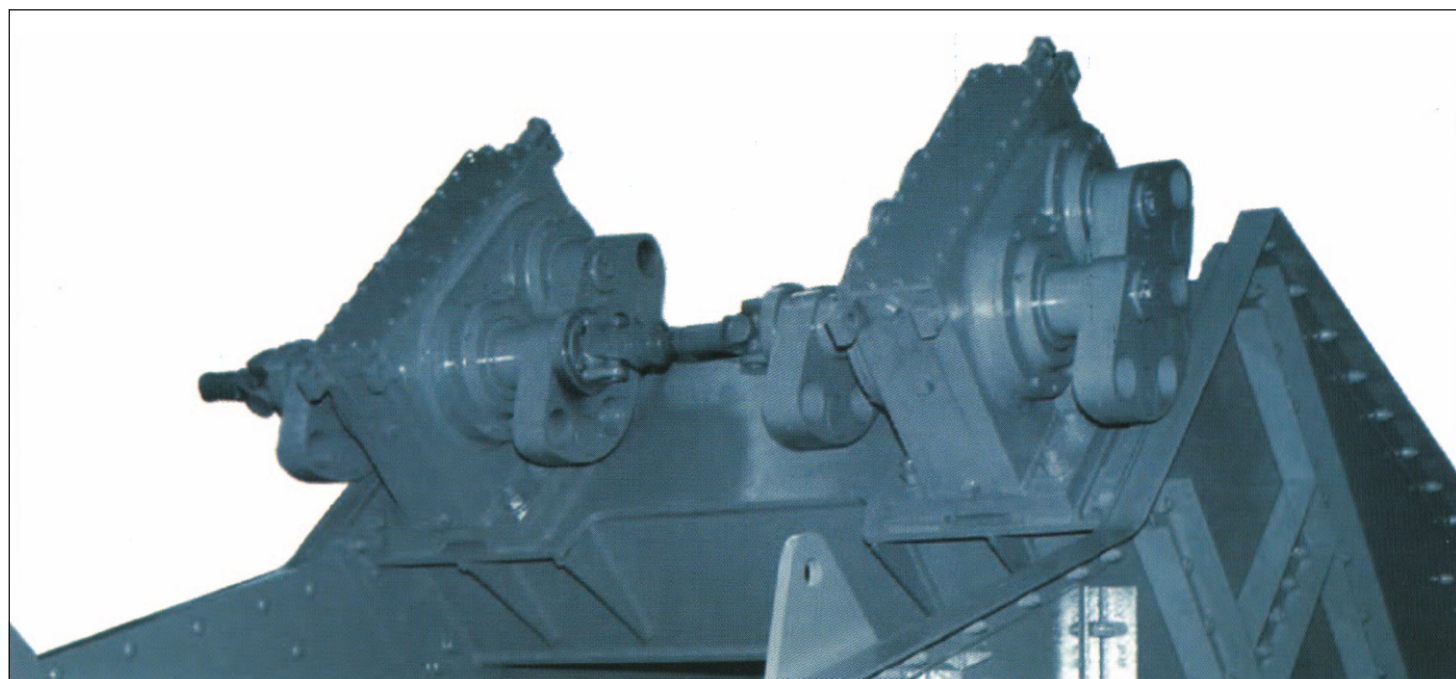
Screens are designed to suit all types of screening media such as perforated plates, welded grates, mesh clothes,

rubber or polyurethane panels. In case of dewatering application, stainless steel wedge wire panels are fitted.

Vibrating Unit

The correct selection of vibrating unit is very important for constant long life, screening efficiency, low operating cost and highest possible output. TRF has the solution due to the availability of the design of different types of drive units apart from Ultraflow unit.

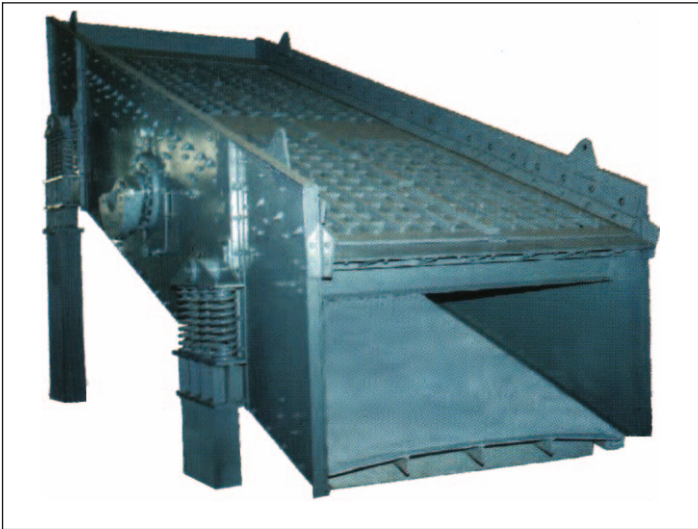
Salient Features		
Range & Capacity	The range & capacity of any screen depend on sieve analysis, half size factor, % of fines etc. TRF has a very advance system of screen selection which has been developed based on its vast knowledge base & field data. TRF screen can handle a vast range of material. Few example is are:	Coal - 0-450 mm Sinter - 0-50 mm
Moisture	TRF screen has capability to handle entire spectrum of material having varied moisture content. Different technology used depends upon moisture content. Generally dry screening is used up 10% moisture. More than 10%, wet screening is recommended.	
Temperat-ure	TRF has screen with special arrangement to handle high temperature material. The exciter assembly is suitably designed to handle high temperature	



Ultraflo Screen

(i) Circular motions

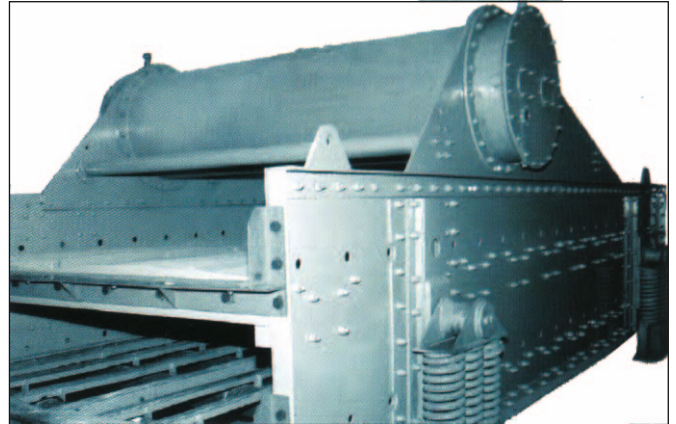
The traditional drive unit of screens consist of single shaft with counter weights. These are mostly used for medium to large size screens and for coarse separation. These screens are inclined and very versatile because of the available provisions for changing the stroke and rotation, if required.



Vibropulse Screen

(ii) Elliptical motions

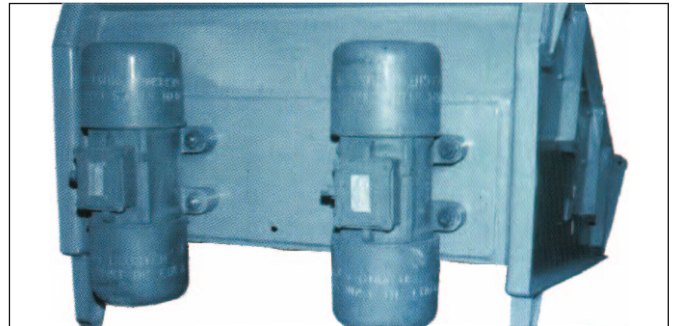
TRF Truflo Vibrators produce three-way motion with horizontal, vertical and elliptical components. These are used for rugged duty condition for medium to very large size screens. These are also very widely used for dewatering purposes.



Truflo Screen

(iii) Unbalance Motor

These vibrating units produce circular or linear vibrations, depending on the number of unbalance motors used. They are primarily used for small to medium sized screens and have fixed speed. These screens are generally used for fine separation with low capacity.



Unbalance Motors

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