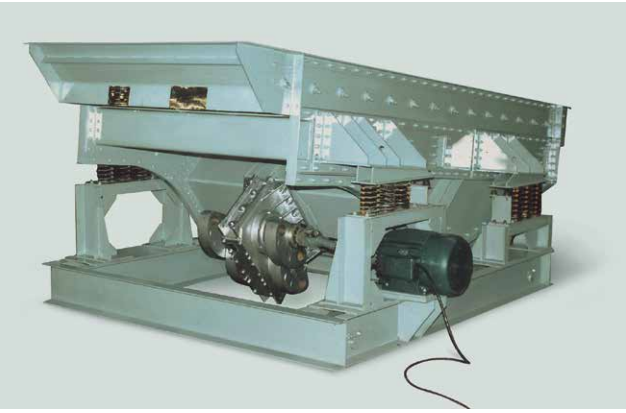
International Combustion (India) Limited

Linear Motion Vibrating Screens

For handling medium to large bulk solid flows





Application

IC Vibratory Linear Motion Screens are designed to cope with medium to large bulk solid flows, operating with equally great success in the Mining, Iron and Steel, Coal,Ore Dressing,Cement, Fertilizer, Chemical, Refractory/Ceramics and many other industries.

Principle of Operation

Operating in the supercritical range and nonrestrained, the linear motion screens are driven by the renowned Directional Force exciters, proven for many decades, which permit the vibration characteristics of the screen to be adapted with great ease to the particular screening task.

Relatively smaller size of linear motion machines can also be offered with a wide range of Unbalance Motor exciters.

Construction

The linear motion screens are made up of Sub-assemblies Huck/lock-bolted together, enabling wear parts to be readily replaced. Driven from standard AC motors via cardan shafts, the Directional Force exciters, arranged normally above the screen mat level, produce vibratory linear motion of the screen frame. Standard is a horizontal screen frame. Screen mats are available with aperature sizes ranging from 2 mm to 200 mm.

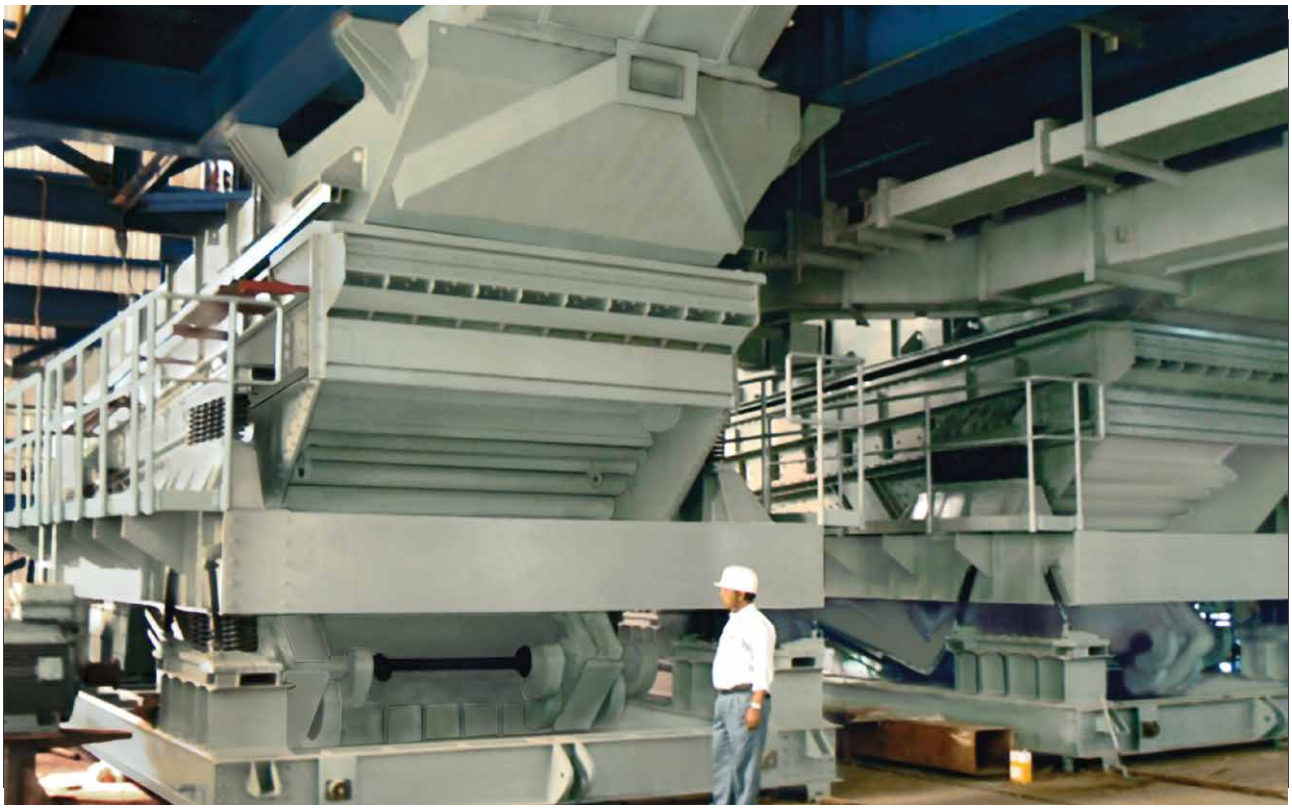
Advantages

IC Vibratory Linear Motion Screens are

- highly reliable due to their rugged overall design, with component parts made of fully killed steel, and those subjected to higher stress levels, annealed and stress-relieved.
- insensitive to heavy loads, as a consequence of their supercritical mode of operation.
- available in a well-graded size range made to suit the practical requirements of a particular application.
- easily maintained, due to readily replaceable wear parts.
- capable of having their vibrating characteristics easily adapted to the particular screening task.
- capable of easy screen mat change.
- using the renowned type DF, Directional Force exciters noted for quiet running and long service life, imparting to the foundations very low dynamic loads only, assured by well-tuned spring floating of the screen frame.



3.2mx 8.5m Double-deck Grizzly Screen for Line Stone



3.1m x 8.5m Linear Motion Screen on Isolation Frame and Trolley - Screening Sinter

Isolation Frame

In a large vibrating machine, substantial exciter forces are active and to avoid harmful vibration to building and support structure, particularly to relatively old buildings/ replacement jobs, Isolation Frames can be offered to reduce dynamic loads over 90%.

These Isolation Frames are mounted on springs and hydraulic shock absorbers.

Apart from eliminating risk of harmful vibration in remote building sections:

a. Quiet Start/Stop, and to reduce load during passage through resonance frequency.

b. No trickle feed.

c. Mechanical/electrical braking can be usually avoided.

d. Low cost of support structure.

Trolley

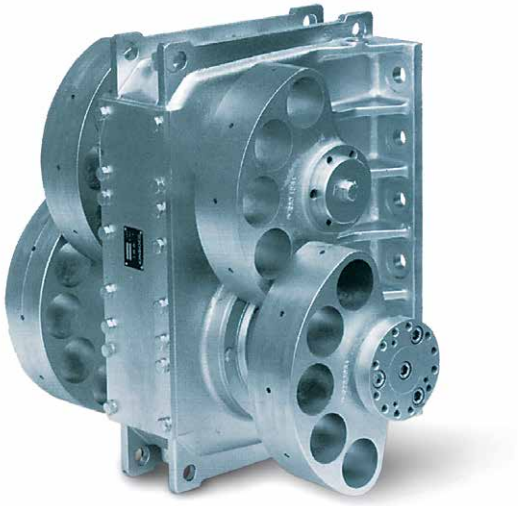
Vibrating screens mounted on trolleys are offered suitable for transverse or longitudinal movement. Trolley movement can be either manual or motorised. Special jack pads and wedge block mounting ensure that load is off the wheels when screening machine is in operation.

IC Vibrating Screens are offered with either Direct Force Exciters or Unbalance Motor Exciters, depending upon the type and duty requirements:

Direct Force Exciter

It comprises two shafts fitted with unbalance masses, rotated in opposite directions through a set of gears and generates Linear Motion.

These Exciters are particularly used for very heavy duty applications and fitted with special vibration duty bearings with exceptionally long service life. Exciters are driven by standard electric motors through a Cardan Shaft. Maintenance is limited to occasional checks of oillevel/oil change, at prescribed intervals.



Unbalance Motor Exciters

Two Unbalance Motors are used for each Vibro screen to generate Linear Motion. Centrifugal force can be infinitely varied through adjustment of unbalance discs. Rated for 54 duty with class “F” insulation and incorporated with IP 65 degree of protection, these Exciters give excellent service life with little or no maintenance.



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