

High-capacity ROTEX Screeners are widely used throughout the fertilizer industry for the removal of oversize and fines in processing and warehousing operations. To meet the higher capacity requirements of even larger fertilizer plants, ROTEX INC. now offers its latest development, MEGATEX Screeners.



Bank of 17 ROTEX Screeners sizing potash at Potash Division, Cominco, Ltd. Saskatchewan, Canada

**PROCESS SCREENING**

Process screening of fertilizer materials is very demanding for several reasons:

- 1. High capacities.** In process screening, the screener must handle high capacities and yet make accurate separations, in order to provide an on-spec product and to minimize recycling usable product back into the process.
- 2. Dependable operation.** Since the screener is located directly in the processing stream, dependable operation is of utmost importance in order to minimize costly downtime.

**WAREHOUSE SCREENING**

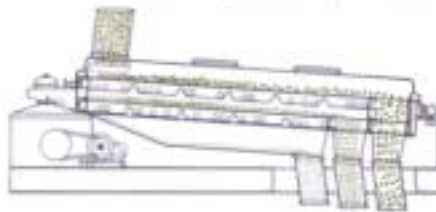
After storage, the fertilizer must be screened again to remove any lumps which may have developed during storage, and also to remove objectionable fines which may have been generated during storage and handling. High-capacity screening equipment is required, with rates up to 400 tons per hour on a single unit. Because of the high tonnages, there is a tendency for plugging or blinding of the screening surfaces; thus an effective screen mesh cleaning system is very important. Also, since many fertilizer warehouse operations involve buildings with comparatively light structures, it is important to isolate machine vibration to prevent damage to the structure or building itself.

**HIGH CAPACITY IN A SINGLE UNIT**

ROTEX Screeners are manufactured in single and double-deck configurations with capacities up to 150 TPH, while the larger MEGATEX Screeners can handle capacities up to 400 TPH. For both process and warehouse screening applications, it is possible to handle a greater volume with fewer ROTEX or MEGATEX units, resulting in significant installation and operating savings.



MEGATEX Screener for applications up to 400 TPH



ROTEX Screener for applications up to 150 TPH

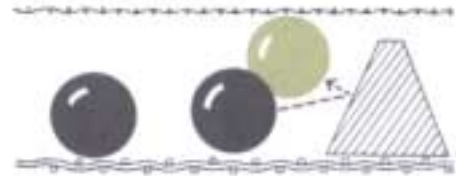
**GREATER ACCURACY AND YIELD**

The key to ROTEX and MEGATEX capabilities for making efficient separations at high feed rates is the long stroke/low frequency gyratory motion. This motion causes rapid stratification of the material without violent agitation and remixing—allowing the fines to go to the bottom of the bed of material for maximum exposure to and passage through the screen openings. This permits selection of screen openings closer in size to the separations required, which reduces the passage of off-size material, thereby increasing product yield.



ROTEX long stroke low frequency gyratory motion provides sharp, well-defined separations without violent agitation — increasing product yield.

**BLINDING CONTROL**



ROTEX and MEGATEX Screeners effectively control screen blinding through a system of bouncing balls confined in pockets beneath each screen surface

The long horizontal stroke and low speed motion of ROTEX and MEGATEX Screeners combines ideally with the ball mesh cleaning system to provide a positive anti-blinding action. The mesh cleaning balls are deflected against bevel strips in the screen frames, causing them to bounce continuously against the underside of the screen mesh. This provides a continuous cleaning action which maintains high production rates and minimizes costly downtime for cleaning and changing the screen mesh.

**VIBRATION ISOLATION**

Because of the smooth counter-balanced drive, ROTEX Screeners can be cable suspended at any desired location to meet space and structural limitations. This saves installation costs when the machine is used in an elevated location or in light building structures not otherwise suitable for equipment with dynamic loads.

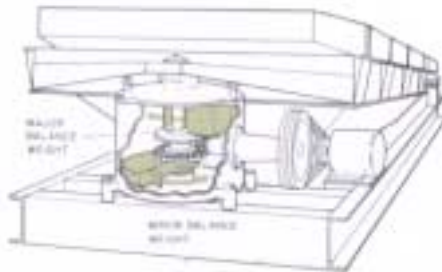
The larger MEGATEX Screeners are cablesuspended in all applications. Along with the low speed, centrally located drive, this effectively isolates as much as 90% of the dynamic forces of the moving assembly, and virtually eliminates the transmission of destructive forces to adjacent structures.



Cable-suspended ROTEX and MEGATEX Screeners minimize transmission of motion to adjacent structures. Two Model M4260 MEGATEX are shown.

## DEPENDABLE OPERATION

ROTEX and MEGATEX Screeners are designed for 24 hour per day, year-round operation, and many ROTEX machines are still operating after more than 50 years of service. The drive systems employed in both designs are an important factor in this reliability since they result in lower stress levels within the machines. Their smooth vibration-free motion is never self-destructive.



The patented ROTEX drive uses two oppositely rotating balance weights to counterbalance the forces of the moving screens, providing smooth, quiet operation.

## WIDE RANGE OF MODELS

ROTEX Screeners are available in over 100 different model sizes ranging from one to five surfaces and from five to 100 square feet of screen area per surface. MEGATEX Screeners are available in one and two-deck configurations with up to 320 sq. ft. of screening surface in a single unit. With this number of models to choose from, it is usually possible to provide a standard model sized just right for the application. This often saves in both the initial cost of the equipment and in the amount of space required for the installation.



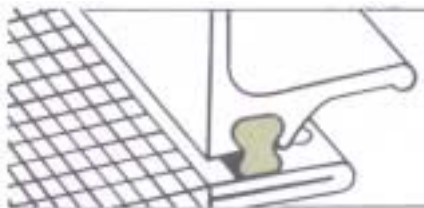
ROTEX INC. manufactures over 100 standard models of screening equipment, providing just the right model for each application.

## TOTALLY ENCLOSED CONSTRUCTION

For fertilizer screening applications, all ROTEX and MEGATEX Screeners are manufactured with a totally enclosed design to contain the product within the machine and to prevent contamination from without. To prevent cross-contamination between product fractions, ROTEX Screeners incorporate sealing strips in the following areas:

1. Between top cover and screen frame
2. Between individual screen frames in multiple surface machines
3. Between screen frame and bottom pan
4. Between product hoppers

Inspection ports in the top cover provide a means for viewing the top screen surface without removing the cover.



ROTEX plug-in sealing strips are easily removed for cleaning or replacement, providing a seal between all screen decks to protect product quality.

## FERTILIZERS SCREENED ON ROTEX

Ammonium nitrate  
Ammonium sulfate  
Dicalcium phosphate  
Monocalcium phosphate  
Diammonium phosphate  
NPK  
Potash  
Sulphur  
Triple superphosphate  
Urea

## TYPICAL ROTEX INSTALLATIONS

Agrico Chemical Company  
Allied Chemical Corporation  
American Cyanamid Company  
Badische Corporation  
Bethlehem Corporation  
CF Industries, Inc.  
Camex, Inc.  
Canadian Fertilizers Limited  
Canadian Industries Limited, Inc.  
Chevron Chemical Company  
Cominco Limited  
Cooperative Farm Chemicals Association  
Cyanamid Canada, Inc.  
E. I. Dupont Company  
Farmers Chemical Company  
Farmland Industries, Inc.  
Fertilizantes Mexicanos, S.A.  
GENSTAR Chemical Limited  
W. R. Grace & Company  
Hercules, Inc.  
International Minerals & Chemical Corp.  
Kalium Chemicals  
Mississippi Chemical Corporation  
Potash Company of America  
Potash Corporation of Saskatchewan  
St. Paul Ammonia Products, Inc.  
Sherritt Gordon Mines Limited  
Sulphur Chemicals Limited



Removing fines from granular triple superphosphate fertilizer at C.F. Chemicals Inc., Bartow, Florida.

# ROTEX INC.

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## ROTEX INC. REPRESENTATION

Call TOLL-FREE 1-800-243-8160 for name of your nearest ROTEX INC. representative.

They are located in the following principal cities

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