



## APPLICATION - PVC RESIN

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### MATERIAL CHARACTERISTICS

PVC is a synthetic thermoplastic polymer used in making plastic pipe, residential siding, electrical insulation liners, etc. PVC resin is a white powder with a particle size of 90 to 180 microns created in a reactor process. Hard lumps can form during the process, making it necessary to screen the resin to remove oversize particles. The bulk density of PVC is 35 - 40 PCF (550 - 650 kg / m<sup>3</sup>).

### APPLICATION DATA

PVC resin is screened in the process as it comes out of the dryer (typically fluid bed) and at loadout as it is transferred into shipping containers. In process screening, overs are removed on a 20 - 40 mesh screen (420 - 800 microns). Typical loading is 500 pph/sq. ft. (2.4 tph/m<sup>2</sup>) on 40 mesh. Stainless steel light wire screens are normally recommended, however synthetic screens can also be used. During loadout, the resin is typically scalped at 10 mesh (2 mm). Very high screen loadings can be achieved at loadout.

### ROTEX ADVANTAGES

The gyratory motion of ROTEX Screeners quickly spreads the incoming powder leading to full utilization of the screen area. The relatively flat deck angle minimizes tailover of good product.

Availability of large ROTEX Screeners provides high process screening rates in single machine. ROTEX Screeners can be provided with an additional deck for screen failure detection.

### USER LIST (PARTIAL)

Atochem N. America  
CertainTeed  
Conoco Plastics  
Formosa Plastics  
Geon  
Indian Petrochemical Corp. Ltd.  
L.G. Chemical  
National Plastics Co.  
OxyChem  
Shintech Inc.  
Vipco

### ROTEXFEATURES

Automatic Tensioning Screen Attachment  
Ball Mesh Cleaning  
Totally Enclosed - Positive Sealing  
Low Maintenance  
Easy Access for Screen Changes  
Low Headroom Requirement

## ROTEX design features provide reliable, high efficiency performance

# ROTEX<sup>®</sup> SCREENERS

ROTEX Screeners are self-contained production screening machines for separating dry materials according to particle size. Through their unique gyratory motion of the near-horizontal screen surface, combined with a positive screen mesh cleaning system, ROTEX provides unusually high efficiency and capacity - all the result of continuing development for hundreds of applications throughout scores of industries.

ROTEX Screeners are made in over 100 standard models, ranging from 1 to 5 screen surfaces, for separations with openings from 1/2" to 325 mesh. They are available in Automatic-Tensioning all-metal and sanitary models, and General-Purpose models for applications not requiring all-metal construction.

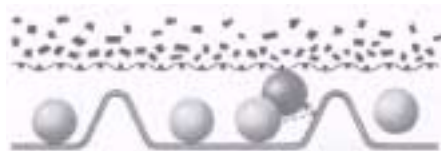
### ROTEX FLOW OF MATERIALS ... FAST, EFFICIENT, ACCURATE

Material enters at top where it is distributed over the entire width of the screen surface and conveyed toward the discharge end. Larger particles remain above the screen surface, while smaller particles pass through. Model shown (above right) is a typical two-surface ROTEX, which separates material into three different grades. Other ROTEX models have one to five screen surfaces, producing two to six separate grades,

### TWO SEPARATE SCREENING ACTIONS

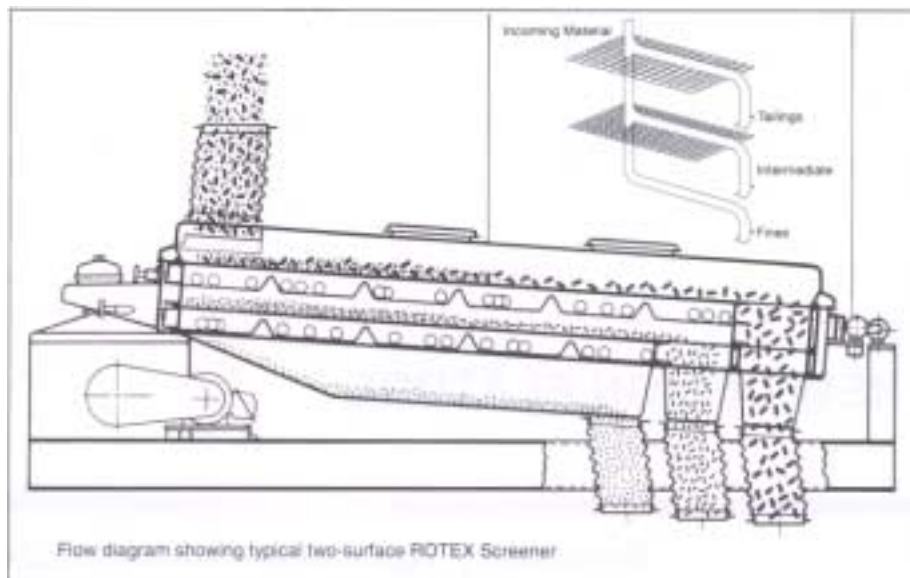
#### 1. Gyratory Motion rapidly distributes ... stratifies ... separates.

The unique gyratory motion of the near-level screen box distributes material rapidly over the screen surfaces with practically no vertical vibration or hop. Finer particles are quickly stratified and readily pass through the screen as larger particles are gently conveyed to the discharge end.



#### 2. Bouncing Balls control screen blinding

The bouncing action of balls confined in beveled pockets beneath each screen surface dislodges particles by direct contact. These resilient balls also keep the screen surface alive, providing agitation to aid particle stratification and to separate particles that may tend to stick together.



#### "QUICK-SNAP" PROVIDES AUTOMATIC SCREEN TENSIONING AND QUICK, EASY SCREEN REMOVAL

Quick-Snap is the patented design on all Automatic-Tensioning models for attaching screen clothing to the screen frame by spring tension clips. By maintaining a uniform tension across the entire screen surface, the system ensures superior screening accuracy, reduced screen blinding and increased screen life. The tension clip design also permits quick removal and replacement of screen clothing, which greatly reduces downtime.



#### SMOOTH COUNTERBALANCED DRIVE

The ROTEX counterbalanced drive produces a vibration-free screening motion that is never self-destructive - so smooth that ROTEX may be cable-suspended without loss of screening performance.

### VARIETY OF DESIGN OPTIONS

- Sanitary designs
- Special inlets and outlets
- Manual or pneumatic top cover clamps for positive seal
- Two-deck independently fed surfaces
- High temperature modifications
- Abrasion-resistant linings
- Floor mounting or cable suspension
- And many other options to suit the application

### MATERIAL TESTING SERVICE

Rotex takes the guesswork out of selecting the proper screening equipment by maintaining a fully-equipped materials testing laboratory. Here your materials are analyzed and tests conducted under simulated production conditions, to help determine the appropriate machine size, optimum screen openings and machine settings for a given application. To make use of this free testing service, first obtain a lab sample control number by contacting the ROTEX Test Lab Supervisor.

### CALL ROTEX FOR ASSISTANCE ON YOUR APPLICATION

ROTEX has specialized in process screening equipment for more than 80 years, leading the way with innovations that have become the standard of the industry. For assistance with your specific application, call your ROTEX Representative or Application Engineers in our Cincinnati office.

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