

## High Capacity, Efficient Performance, Accurate Separations

The Minerals Separator is a high-volume screener specifically designed to meet the demands of minerals applications.



Rotex Minerals Separator™ ➤

### The Minerals Separator is designed and built to meet your requirements:

- Unique long stroke, Gyratory-Reciprocating motion for effective product stratification and separation
- Aggressive ball mesh cleaning system to maintain high capacity
- Easy access to screens
- Durable construction with replaceable abrasion resistant linings in high wear areas

### FREE MATERIAL ANALYSIS

#### Over 100 years of proven correlation between lab test results and actual field performance:

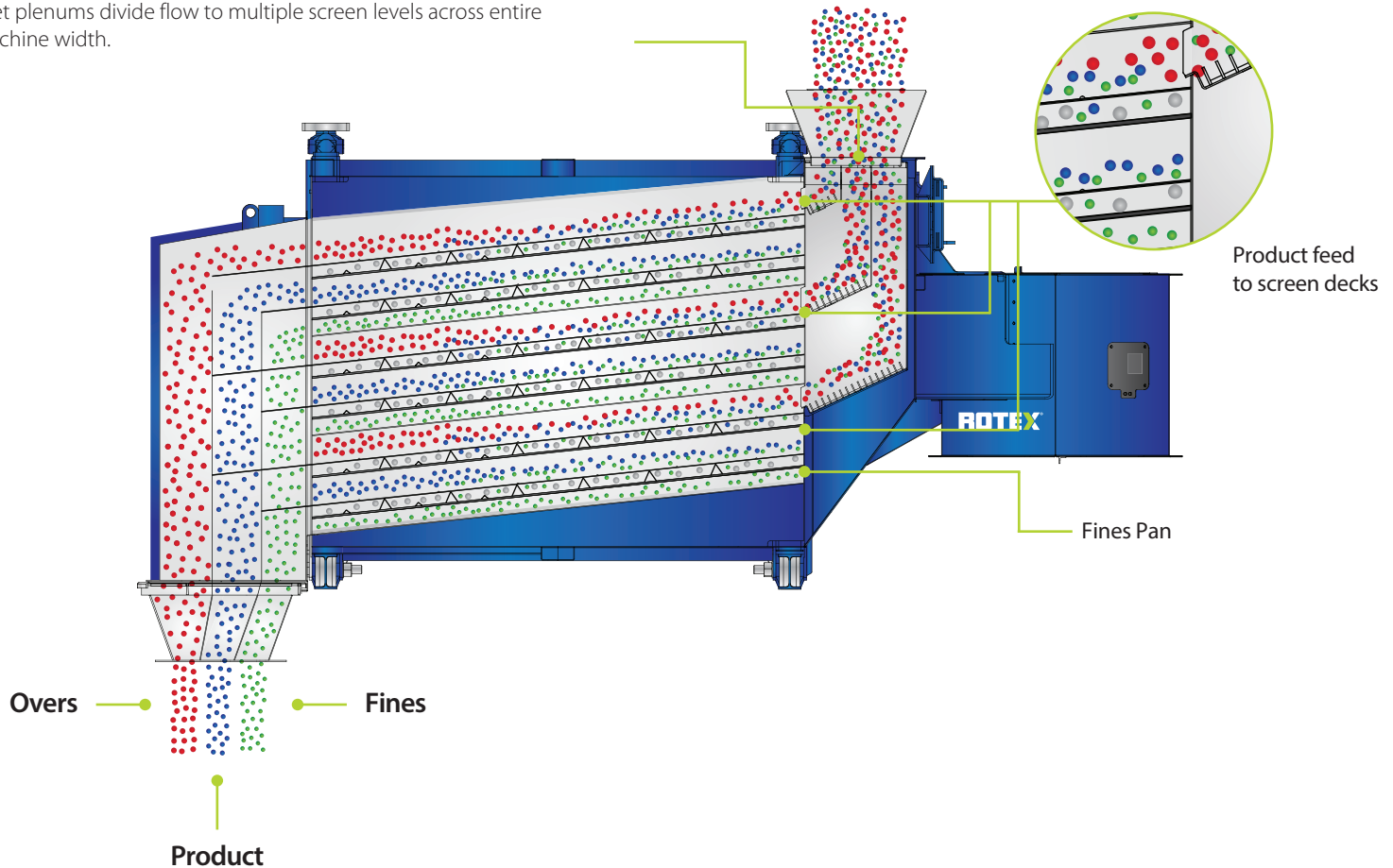
- Experienced Lab Technicians and Application Engineers recommend machine size, settings and screen openings to ensure accurate, efficient separations
- Comprehensive separation analysis
- Summary report provides data to support ROI decisions

➤ **Nearly 700 Minerals Separators are installed worldwide**

# Minerals Separator™ Benefits

## Feed split into equal parts

Inlet plenums divide flow to multiple screen levels across entire machine width.



## Gyratory Reciprocating Motion



The Gyratory Reciprocating Motion gradually diminishes along the length of the machine to an elliptical path and finally to a nearly straight line motion at the discharge end.

### Circular motion at the feed end

- Spreads the material across the full width of the screen surface
- Stratifies the material
- Aggressively conveys material forward

### Changing to elliptical motion at the middle of the deck

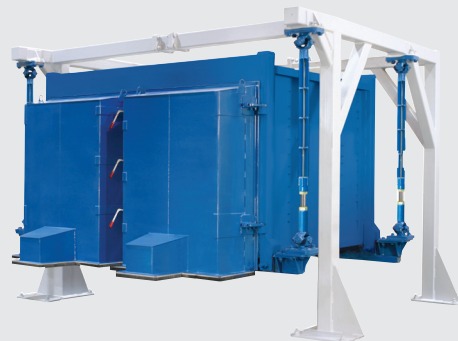
- Long stroke elliptical action
- Enhances product stratification
- Conveys material at high capacity

### Reciprocating motion at the discharge end

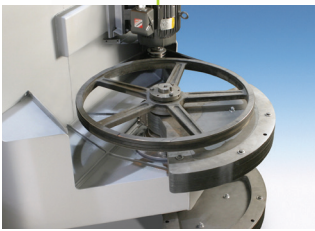
- Removes near-size particles
- Improves screening efficiency
- No vertical component ensures material is in constant contact with the screen surface

## Minerals Separator Benefits

- Proven Rotex Gyratory-Reciprocating motion for unmatched product recovery efficiency
- Designed and built with application-specific features for abrasive, high volume processes
- Proportional feeding of each screen level eliminates the need for multiple feed points
- Full width doors, easy release locking handles and an external drive reduce downtime
- A sleeveless discharge system uses brushes to control dust as product falls into take away boxes beneath the machine



## ➤ Minerals Separator™ Features



### **Accessible External Drive**

Simple reaction drive cartridge with two spherical roller bearings for years of service



### **Quick Release Clamp Handle**

Improved access to screens with the new quick release clamp handle



### **Aggressive Screen Cleaning**

A wide variety of mesh cleaning ball sizes and compounds for abrasive and high temperature applications



### **Seals**

Easily replaced seals are available in compounds for temperatures up to 400°F/204°C

## **Installation Options**

The Minerals Separator is a reaction drive screener and is suspended from an existing structure or a Rotex-supplied support stand. The suspension system consists of four LTS hanger assemblies to isolate forces.

### **Existing structure**

The Minerals Separator suspension system has low transmitted forces, so it can be mounted directly to a structural steel framework.

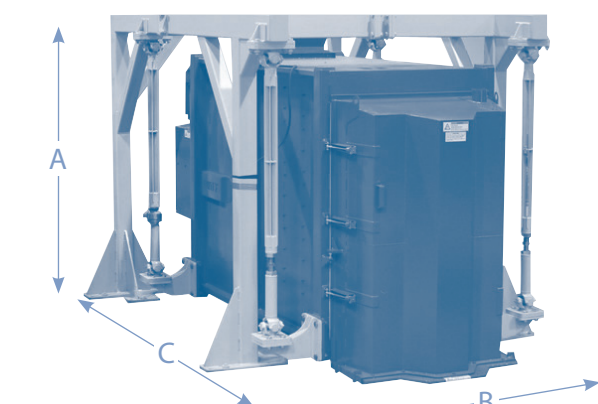
### **Rotex-supplied stand**

Minerals Separator can be floor mounted using a support stand designed for a specific model.

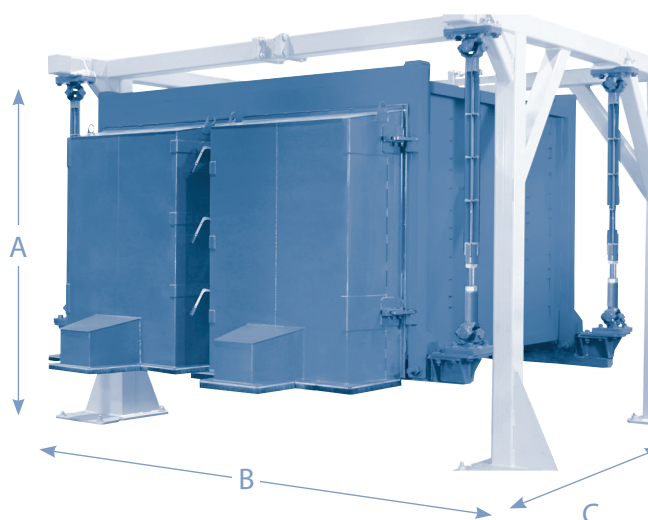


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A = Overall Height  
B = Installation Width  
C = Installation Length (Includes space for screen frame removal)



The specifications below are for Minerals Separators of standard construction, ranging from a single surface model (2 grades – 1 separation) to a four deck model (5 grades—4 separations). Drawings are representative, but overall dimensions may vary depending on the application requirements and mounting method.

### Minerals Separator™ Models

No. of Screen Surfaces	Number of Levels	Megatex Model No.	Normal Area per Surface		Motor		Principal Dimensions						Shipping Weight	
							A		B		C			
			ft²	m²	hp	kW	in	mm	in	mm	in	mm	lb	kg
1	3	3090-1†	90	8.4	15	11	86	2184	114	2896	246	6248	8600	3900
	3	3180-1	180	16.7	15	11	106	2692	106	2692	252	6401	13200	5986
	4	4120-1†	120	11.2	15	11	94	2388	114	2896	246	6248	9500	4308
	4	4240-1	240	11.2	15	11	100	2540	180	4572	252	6401	12400	5624
	5	5150-1	150	13.9	15	11	112	2845	114	2896	246	6248	10500	4762
	6	6180-1†	180	16.7	15	11	Contact Rotex							
	5	5300-1	300	27.9	15	11	106	2692	180	4572	265	6731	13600	6168
	6	6360-1	360	33.5	15/20**	11/15**	109	2769	180	4572	265	6731	15000	6803
	6	6360-1-S*	360	33.5	20	15	130	3302	180	4572	265	6731	17000	7710
2	8	8480-1	480	44.6	20	15	132	3353	180	4572	265	6731	20000	9070
	3	3090-2†	90	8.4	15	11	91	2311	117	2972	246	6248	9500	4318
	4	4120-2†	120	11.2	15	11	113	2870	130	3302	260	6604	10500	4762
	5	5150-2†	150	13.9	15	11	118	2997	117	2972	246	6248	11900	5397
	2	2120-2	120	11.2	15	11	100	2540	190	4826	252	6401	12600	5714
	3	3180-2	180	16.7	15	11	106	2692	190	4826	265	6731	13600	6168
	3	3180-2-S*	180	16.7	20	15	Contact Rotex							
	4	4240-2	240	22.3	20	15	117	2972	190	4826	265	6731	15500	7029
	5	5300-2	300	27.9	20	15	133	3378	190	4826	265	6731	18100	8209
3	3	3090-3	90	8.4	15	11	112	2845	140	3556	260	6604	10500	4762
	2	2120-3	120	11.2	15	11	103	2616	210	5334	265	6731	13600	6168
	2	2120-3-S*	120	11.2	20	15	119	3023	210	5334	252	6401	17100	7755
	3	3180-3	180	16.7	15/20**	11/15**	117	2972	210	5334	265	6731	15500	7029
	4	4240-3†	240	22.3	20	15	135	3429	210	5334	252	6401	19900	9025
4	2	2120-4†	120	11.2	15	11	108	2743	217	5512	217	5512	15800	7182
	3	3180-4†	180	16.7	20	15	129	3277	214	5436	220	5588	19000	8636

\* Indicates integral coarse scalp deck

\*\* Power requirement is volume/application specific (Contact Rotex).

† indicates single discharge door - "Half machine"

‡ indicates this model is available only with 4 degree decks. (Standard slope is 6 degrees.)

### Minerals Separator Design

Minerals Separators have a unique stacked design within a compact machine. Several parallel-fed surfaces do the job of multiple screeners, saving floor space, energy and installation cost. At higher capacities, additional screen width (12 ft–48 ft / 3.7 m–4.6 m) is more effective than adding screen length because additional width reduces bed depth on the screen. As a result, material stratification and separation occurs quickly, resulting in higher recovery efficiency and product accuracy.

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