

# SUTTON-STEELE FLUIDIZED-BED SEPARATORS



SUTTON-STEELE FLUIDIZED-BED SEPARATORS — ALSO CALLED “GRAVITY SEPARATORS” OR “AIR-TABLES” — ARE UNMATCHED IN THEIR ABILITY TO GRADE DRY, GRANULAR MATERIALS ACCORDING TO PARTICLE SIZE, SHAPE OR SPECIFIC GRAVITY.

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## THE 260 SERIES

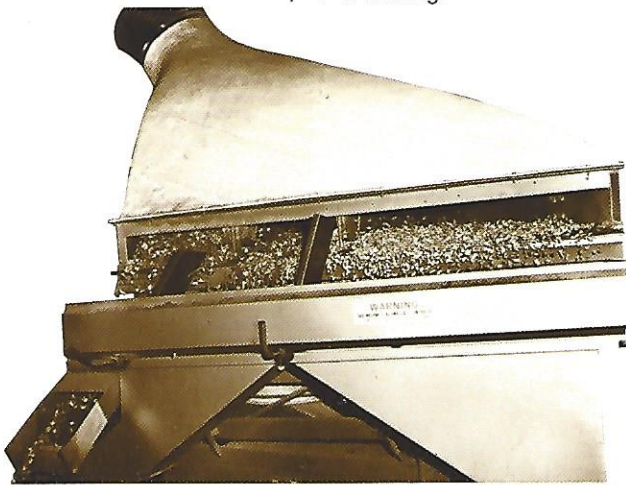
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TRIPLE/S DYNAMICS



# FLUIDIZED-BED SEPARATORS — UNMATCHED

This BX-260 Separator recovers LSK peanuts from a mixture of sticks and trash screened out on a stick reel prior to shelling.



## HOW A 260 SERIES FLUIDIZED-BED SEPARATOR WORKS

The material is introduced onto the narrow side of a flat porous trapezoidal deck, sloped in two directions, and vibrated with a straight-line reciprocating motion. Low-pressure air, blown upward through the deck, fluidizes and stratifies the material according to differences in the terminal velocity.

Heavy particles sink to the bottom of the stratified bed and are conveyed toward the high or "heavy" side by the deck's vibration. Light particles, lifted by the fluidizing air, flow downslope toward the light-end discharge. Particles with intermediate characteristics form a mixture between the light and heavy fractions, called the "middlings", which may be drawn off for retreatment.

Adjustable cutting fingers, positioned manually to make the final selection between separated fractions, direct each fraction to a separate discharge spout.

## DESIGN FEATURES

**FORCED AIR SUPPLY** — Essential for the development of maximum capacity in any fluidized-bed separator. Zero static pressure gradient, from enclosed separating chamber to atmosphere, eliminates the need for troublesome vacuum seals.

**SLIDE-OUT DECK CONSTRUCTION** — Metal deck covers mount to an easily removable

Toggle clamps lift the banking rail and exhaust hood for easy removal of the deck assembly.



steel-framed deck assembly which facilitates deck cleaning and inspection. All three 260 model separators have the same basic trapezoidal configuration and equal deck area.

**WIDE-SPAN TOGGLE PLATE DECK SUSPENSION** — Precisely controls the motion track of all points on the separator deck.

**DECK SLOPE ADJUSTMENTS** — Screw jacks with hand wheels adjust deck slope in two places. Secure locking arrangement prevents drift.

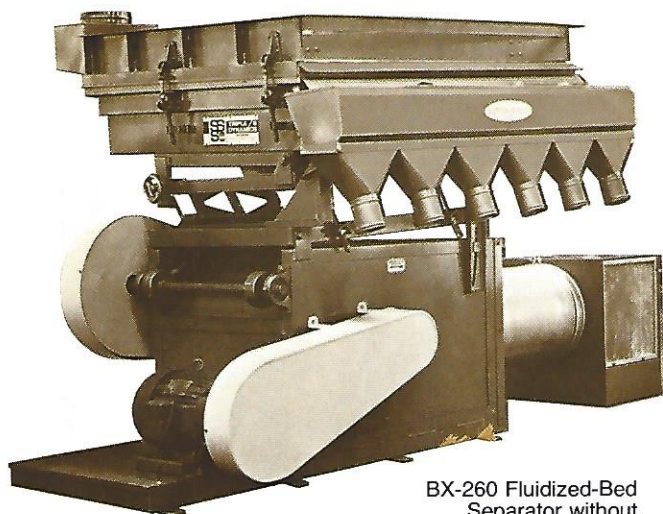
**AIR AND SPEED ADJUSTMENTS** — Precise adjustment for positive, sensitive control of airflow and eccentric speed. Also free of drift.

**EXHAUST HOOD** (Standard on the BXW-260; optional on the BX-260 and CX-260) — Completely encloses the separation chamber for total dust control. Exhaust blower required to provide suction air for units with exhaust hood. Power requirements are divided between the inlet and exhaust sides of the system. Matched exhaust system components and dust collectors are available to meet environmental control requirement.

**DYNAMIC COUNTERBALANCE** (Optional on all models) — Absorbs inertia forces at all speeds for smooth operation. Recommended for installations above ground level in wood or steel framing.



# FOR SEPARATING DRY, GRANULAR PRODUCTS



BX-260 Fluidized-Bed Separator without fiberglass exhaust hood.

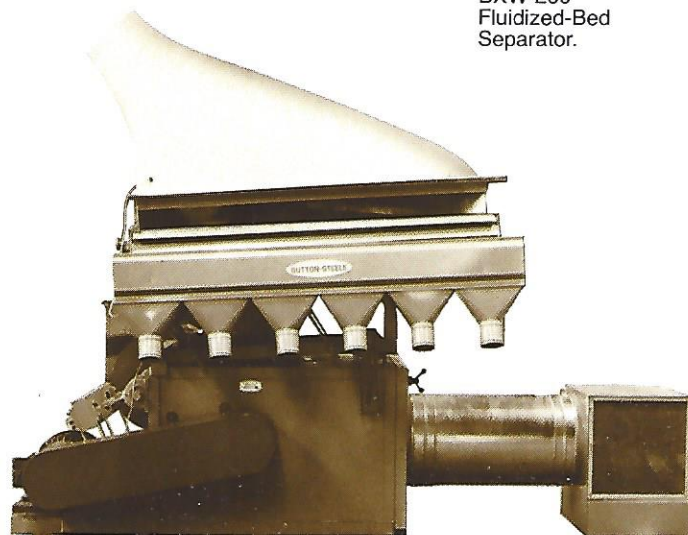
## BX-260

The BX-260 is an intermediate-sized fluidized-bed separator recommended for most general-purpose applications. It is used in such various processes as seed grading; spice cleaning; removing hulls, sticks and stones from shelled peanuts; concentrating high-protein meal; recovering metallic prills from slag or foundry sand, and mineral concentrating.

The BX-260 is equipped with a 6-spout discharge assembly and the standard steel-framed deck assembly. A molded fiberglass exhaust hood is recommended for cleanliness, but can be omitted in some applications.

### TYPICAL APPLICATIONS AND PERFORMANCE

FUNCTION	PRODUCT BULK DENSITY	CAPACITY
Recovery of zircon sand from reclaimed foundry sand.	110 PCF	4-5 TPH
Removal of stones, glass and insect parts from whole peppercorns.	40 PCF	3-4 TPH
"Tail-end" high-protein soybean meal concentration.	45 PCF	4-5 TPH
Separation of unshelled peanuts from shelled peanuts.	35 PCF	3-5 TPH



BXW-260 Fluidized-Bed Separator.

## BXW-260

Specially equipped for Triple/S Dynamics Wire Reclamation Systems, the BXW-260 is unsurpassed in capacity and efficiency for separating free insulation from granulated scrap copper or aluminum wire.

A fiberglass exhaust hood for dust control is standard on this model. A special high-capacity fan wheel provides extra fluidizing air to prevent insulation from being discharged with the clean metal concentrate.

### TYPICAL APPLICATION AND PERFORMANCE

FUNCTION	PRODUCT BULK DENSITY	CAPACITY
Separation of insulation from granulated scrap copper wire.	60-100 PCF	2,500-6,000 PPH

## CX-260

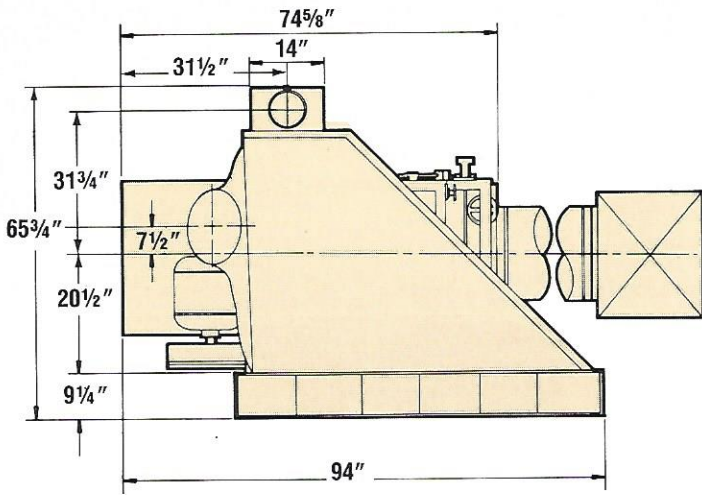
The CX-260 designates units specifically designed for corrosive, high-temperature or other special-purpose operations. Typical applications include continuous catalyst beneficiation (product improvement) in thermal catalytic cracking processes or beneficiation of filter media, such as bone char used in sugar refining. The CX-260 can be constructed in stainless steel and can be equipped with a metal exhaust hood.

### TYPICAL APPLICATION AND PERFORMANCE

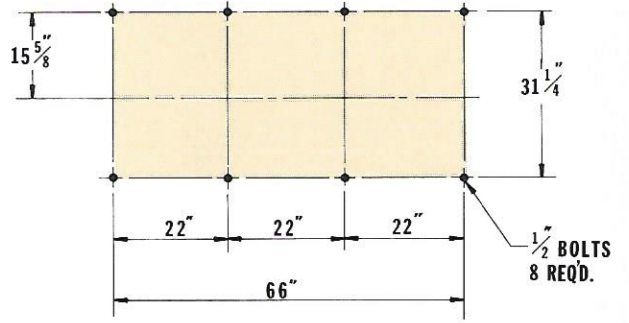
FUNCTION	PRODUCT BULK DENSITY	CAPACITY
TCC catalyst beneficiation	60 PCF	5,000 PPH
Regenerated bone char beneficiation	60 PCF	3,000 PPH



# BX-260 FLUIDIZED-BED SEPARATOR

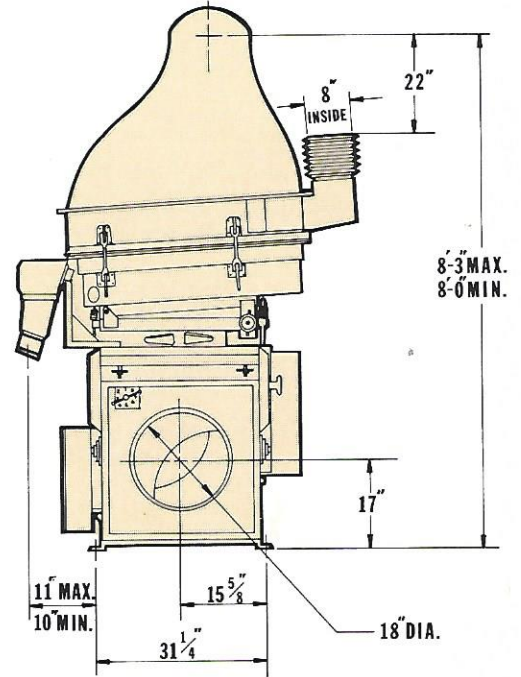
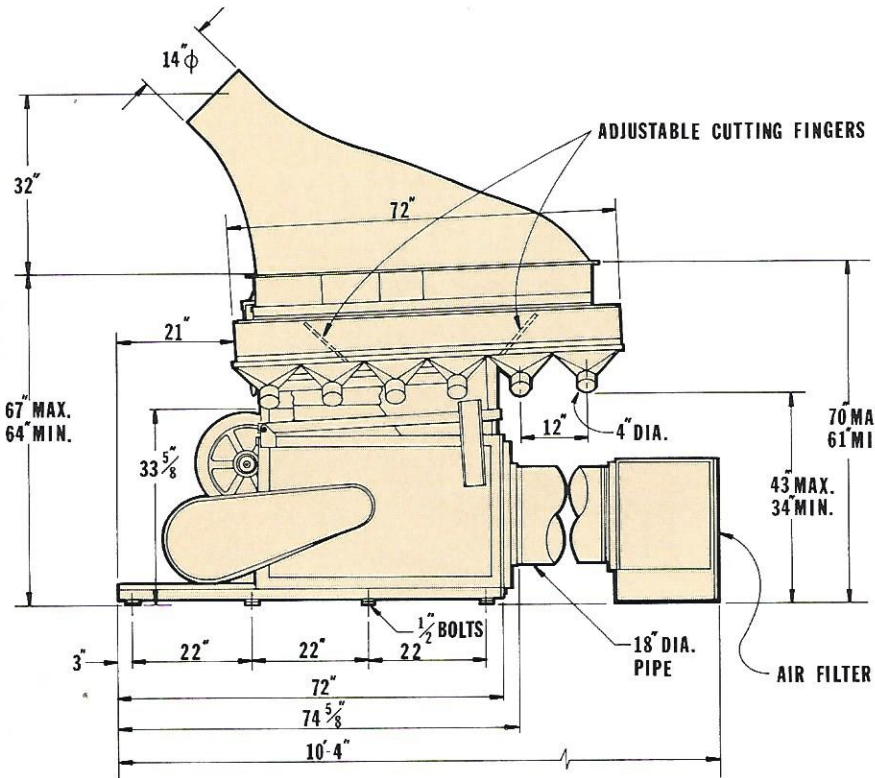


These dimensions are approximate for layout purposes only. Exact dimensions are furnished with certified drawing.



FOUNDATION PLAN

## RIGHT-HAND UNIT SHOWN (LEFT-HAND UNIT MIRROR IMAGE)



**TRIPLE/S DYNAMICS**

### BX-260 SPECIFICATIONS

Weight (without fiberglass exhaust hood)	2,150 lb. (977 kg.)
HP Required	10-15
RPM	300-500
Fluidizing Air Flow	1,500-6,000 ft. <sup>3</sup> /min. (42.6 - 169.9 m <sup>3</sup> /min.)
Exhaust Air Flow	2,500-7,000 ft. <sup>3</sup> /min. (70.8 - 198.3 m <sup>3</sup> /min.)