# **VIBRA SCREW INC** VIBRATING FEEDERS / CONVEYORS & SCREENERS

Simple and Efficient Equipment to Meter and Convey Dry Bulk Materials



### TRAY, TUBE, SPIRAL and SCREENER FEEDER / CONVEYORS

### To handle virtually any material

Vibra Screw's line of vibrating feeder / conveyors offers a simple and efficient means to meter and convey your dry bulk materials. These open or closed units will handle nearly any material, regardless of size and bulk density in a reliable and economical manner.

### Maintenance-free Operation

The key to the line's success is its low cost and unparalleled simplicity and efficiency. No moving parts ever touch the materials. There are no augers, bearings, seals or other items that might degrade material or require replacement or maintenance.

Two highly efficient, externally mounted vibrators provide quiet, linear motion to smoothly move your product into the process. Vibra Screw's feeder/ conveyors are an excellent alternative to screw and belt feeders and conveyors.

### **Control Options**

Vibra Screw offers feeder/conveyors normally set for a single rate. You achieve rate adjustability by varying the eccentric force of the vibrators. For applications requiring wider, more frequent rate changes, a motor speed controller is recommended.

### Wide Range of Models

Vibra Screw offers standard feeder/conveyors with enclosed tubes or open troughs. Tube feeders are available up to 20 ft in length and can be connected in series for lengths up to 100 ft. Trough feeders are also ideal applications requiring screening, classification and dewatering with addition of appropriate wire mesh decks. Trough feeders are also often used to spread out materials in a uniform layer.

### **Special Feeders**

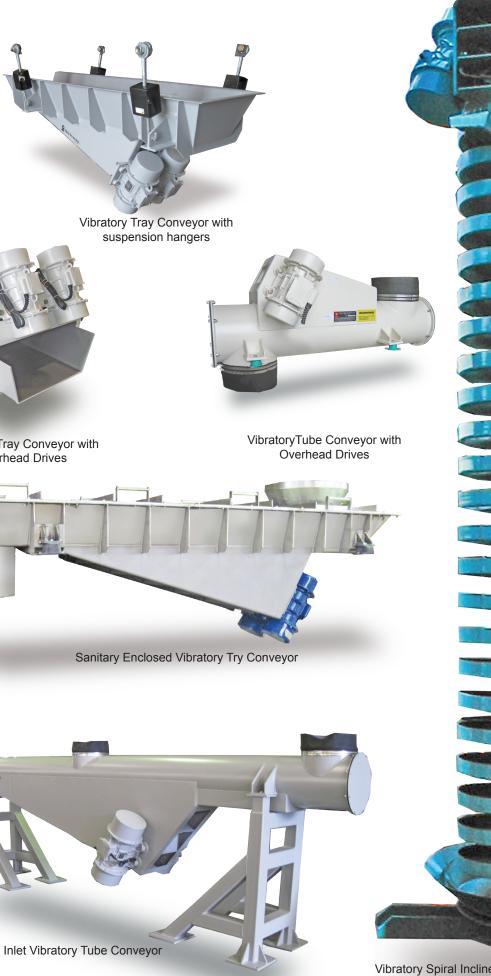
Special spiral elevating conveyors lift materials vertically up to 20 ft within a very small horizontal area. All vibrating feeder/conveyors are well suited to batching applications due to their characteristic quick cut-off of material flow. This can be further enhanced with an available dynamic motor brake.







Portable Vibratory Screener and Live Bottom Bin Package



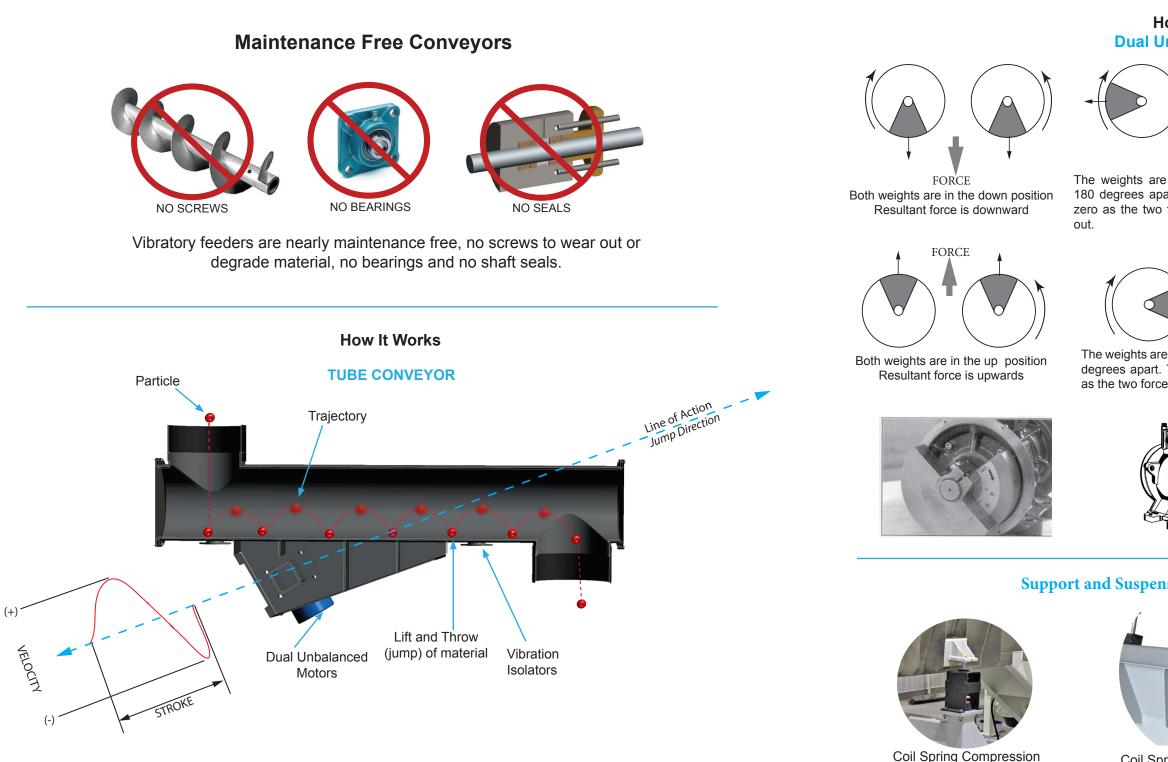


**Overhead Drives** 





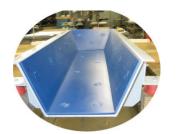
Convevor



A vibrating drive (electromechanical motors with adjustable eccentric weights) accelerates a trough or tube shaped steel structure in the jump direction, gently moving the bulk material forward in tiny jumps (exaggerated in the diagram). The transport process is determined by the frequency and amplitude of vibration (produced by the motors), the angle of impact and the trough or tube inclination. The drive system is selected on the basis of the conveying length, convey rate, the material handling characteristics and any additional functions.

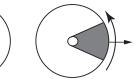
Coil Spring under tension with cable suspension

#### Pan and Tube Liners for abrasive or corrosive materials



UHMW and TIVAR Plastic Liners for abrasive materials

How It Works Dual Unbalance Motors

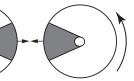


The weights are outwards and opposed, 180 degrees apart. The resultant force is zero as the two forces cancel each other



Dual Unbalanced Vibratory Motors





The weights are inwards and opposed, 180 degrees apart. The resultant force is zero as the two forces cancel each other out.



### Support and Suspension, Vibration Isolation



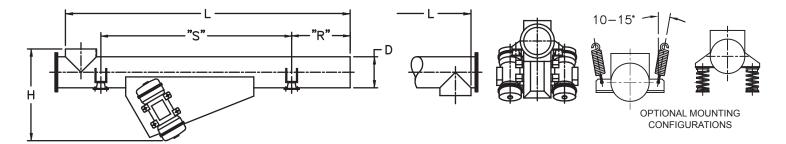


Rubber Compression Isolator



Replaceable stainless lineer for corrosive materials

## **VIBRATORY TUBE CONVEYORS**



| TUBULAR MODEL   | CAPACITY<br>TPH (CFH) | DIM - INCHES<br>DxLxH | TOTAL<br>HP (KW) | "R"     | "S"      |
|-----------------|-----------------------|-----------------------|------------------|---------|----------|
| GA750/160-U1Y   | 7.9 (158)             | 6x30x19               | 0.25 (0.19)      | 6 3/4"  | 19 3/4"  |
| GA1000/160-U1Y  | 7 (140)               | 6x40x19               | 0.25 (0.19)      | 12"     | 23 3/4"  |
| GA1250/160-U1Y  | 6 (120)               | 6x50x19               | 0.25 (0.19)      | 13 3/4" | 31 1/2"  |
| GA1000/200-U2Y  | 15 (300)              | 8x40x21               | 0.36 (0.27)      | 12"     | 23 3/4"  |
| GA1250/200-U2X  | 14 (280)              | 8x50x21               | 0.36 (0.27)      | 13 3/4" | 31 1/2"  |
| GA1500/200-U4X  | 26 (529)              | 8x60x21               | 0.62 (0.46)      | 15 3/4" | 39 1/2"  |
| GA2000/200-U4X  | 24 (475)              | 8x80x21               | 0.62 (0.46)      | 19 3/4" | 55"      |
| GA1250/260-U4X  | 42 (847)              | 10x50x23              | 0.62 (0.46)      | 13 3/4" | 31 1/2"  |
| GA1500/260-U4X  | 44 (880)              | 10x60x23              | 0.62 (0.46)      | 15 3/4" | 39 1/2"  |
| GA1750/260-U4X  | 40 (810)              | 10x70x25              | 0.62 (0.46)      | 17 3/4" | 47 1/4"  |
| GA2000/260-U4X  | 37 (740)              | 10x80x25              | 0.62 (0.46)      | 19 3/4" | 55"      |
| GA3000/260-U4X  | 49 (988)              | 10x120x26             | 0.62 (0.46)      | 23 3/4" | 82 3/4"  |
| GA4000/260-U6X  | 42 (847)              | 10x160x26             | 0.81 (0.60)      | 31 3/4" | 106 1/4" |
| GA5000/260-U10X | 44 (188)              | 10x200x26             | 1.5 (1.12)       | 35 1/2" | 136"     |
| GA6000/260-U10X | 42 (847)              | 10x240x26             | 1.5 (1.12)       | 39 1/2" | 165 1/2" |
| GA1500/320-U4X  | 49 (988)              | 12x60x31              | 0.62 (0.46)      | 15 3/4  | 39 1/2"  |
| GA2000/320-U6X  | 76 (1500)             | 12x80x32              | 0.81 (0.60)      | 19 3/4" | 55"      |
| GA3000/320-U10X | 81 (1600)             | 12x120x32             | 1.5 (1.12)       | 23 3/4" | 82 3/4"  |
| GA4000/320-U10X | 78 (1550)             | 12x160x33             | 1.5 (1.12)       | 31 3/4" | 106 1/4" |
| GA5000/320-U16X | 79 (1588)             | 12x200x32             | 1.68 (1.25)      | 35 1/2" | 136 3/4" |
| GA6000/320-U25X | 85 (1690)             | 12x240x32             | 2.5 (1.88)       | 39 1/2" | 165 1/2" |
| GA1500/400-U6X  | 95 (1900)             | 16x60x38              | 0.81 (0.60)      | 17 3/4" | 39 1/2"  |
| GA2000/400-U10X | 114 (2295)            | 16x80x38              | 1.5 (1.12)       | 19 3/4" | 55"      |
| GA3000/400-U10X | 61 (1218)             | 16x120x42             | 1.5 (1.12)       | 23 3/4" | 82 3/4"  |
| GA4000/400-U16X | 114 (2295)            | 16x160x42             | 1.68 (1.25)      | 31 3/4" | 106 1/4" |
| GA5000/400-U25X | 120 (2400)            | 16x200x42             | 2.5 (1.88)       | 35 1/2" | 136 3/4" |
| GA6000/400-U25X | 114 (2295             | 16x240x42             | 2.5 (1.88)       | 39 1/2" | 165 1/2" |

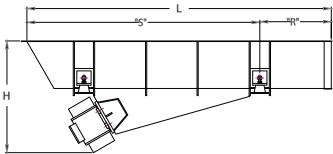
### Capacity: Selection based on:

- Material being 100 lb/ft3 density
- Horizontal positioning
- Voltage = 230-460/3/60

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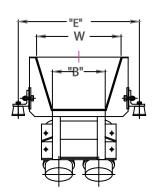
- Feed rate controller available • Carbon or stainless steel contact parts, carbon steel external parts •
- vibration isolators available as coil spring or rubber pad, compression or • tension mounting
- Unbalanced vibratory drives as shown
- Controlability by variable frequency controller offering stepless variable • output
- Dimensions stated nominal and are not to be used for construction purposes.

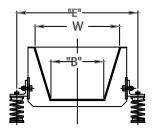
### **VIBRATORY TRAY CONVEYORS**



| OPEN TROUGH MODEL | CAPACITY<br>TPH (CFH) | DIM - INCHES<br>DxLxHxA | TOTAL<br>HP (KW) | WT<br>LBS |
|-------------------|-----------------------|-------------------------|------------------|-----------|
| OA500/300-U1Y     | 34 (670)              | 20x12x16x10             | 0.37 (0.28)      | 59        |
| OA750/400-U1Y     | 19 (388)              | 29x16x16x10             | 0.37 (0.28)      | 79        |
| OA1000/300-U1Y    | 19 (388)              | 40x12x18x10             | 0.37 (0.28)      | 81        |
| OA1000/400-U1Y    | 18 (353)              | 40x16x18x10             | 0.37 (0.28)      | 88        |
| OA1000/500-U2Y    | 55 (1,095)            | 40x20x18x10             | 0.62 (0.46)      | 103       |
| OA1250/400-U3Y    | 62 (1,236)            | 49x16x19x10             | 0.62 (0.46)      | 158       |
| OA1250/500-U4X    | 155 (3,107)           | 49x20x25x10             | 1 (0.74)         | 277       |
| OA1250/650-U4X    | 169 (3,390)           | 49x25x25x10             | 1 (0.74)         | 299       |
| OA1500/900-U4X    | 161 (3,213)           | 49x35x26x10             | 1 (0.74)         | 339       |
| OA1250/500-U4X    | 125 (2,507)           | 59x20x26x10             | 1 (0.74)         | 330       |
| OA1250/650-U4X    | 124 (2,472)           | 59x20x28x10             | 1 (0.74)         | 374       |
| OA1500/900-U6X    | 212 (4,237)           | 59x35x29x10             | 1.37 (1.02)      | 484       |
| OA1750/400-U4X    | 95 (1,907)            | 68x16x26x10             | 1 (0.74)         | 330       |
| OA1750/650-U4X    | 109 (2,189)           | 68x25x28x10             | 1 (0.74)         | 396       |
| OA1750/900-U6X    | 185 (3,708)           | 68x35x30x10             | 1.37 (1.02)      | 517       |
| OA2000/500-U4X    | 92 (1,836)            | 80x20x30x10             | 1 (0.74)         | 396       |
| OA2000/900-U6X    | 155 (3,107)           | 80x35x30x10             | 1.37 (1.02)      | 550       |
| OA2500/400-U4X    | 72 (1,448)            | 98x16x28x10             | 1 (0.74)         | 385       |
| OA2500/900-U6X    | 118 (2,366)           | 98x35x30x10             | 1.37 (1.02)      | 594       |
| OA3000/400-U6X    | 111 (2,225)           | 117x16x30x10            | 1.37 (1.02)      | 440       |
| OA3000/900-U10X   | 169 (3,390)           | 117x35x40x10            | 2.2 (1.66)       | 792       |
| OA4000/400-U10X   | 97 (1,942)            | 156x16x33x10            | 2.2 (1.66)       | 671       |
| OA4000/650-U25X   | 194 (3,884)           | 156x25x38x10            | 4 (3)            | 1,628     |
| OA4000/900-U23W   | 274 (5,473)           | 156x35x40x10            | 4.5 (3.34        | 1,861     |
| OA4000/1600-U35W  | 512 (10,240)          | 156x62x43x10            | 6 (4.6)          | 2,809     |
| OA5000/400-U16X   | 124 (2,472)           | 195x16x33x10            | 3 (2.2)          | 869       |
| OA5000/650-U25X   | 168 (3,354)           | 195x25x33x10            | 4 (3)            | 1,804     |
| OA5000/900-U37W   | 291 (5,826)           | 195x35x41x10            | 9 (6.6)          | 2,094     |
| OA5000/1600-U53W  | 565 (11,299)          | 195x156x47x10           | 7 (5.48)         | 3,997     |
| OA6000/500-U25X   | 132 (2,648)           | 234x20x38x10            | 4 (3)            | 1,628     |
| OA6000/650-U37X   | 221 (4,414)           | 234x25x41x10            | 9 (6.6)          | 2006      |
| OA6000/900-U37X   | 256 (5,120)           | 234x35x41x10            | 9 (6.6)          | 2,325     |
| OA6000/1600-U71W  | 618 (12,359)          | 234x156x49x10           | 10 (7.74)        | 4,730     |



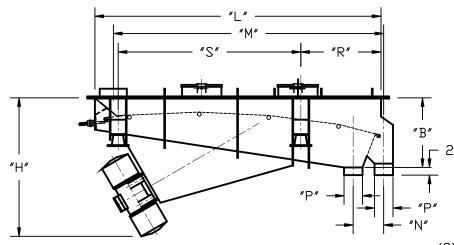


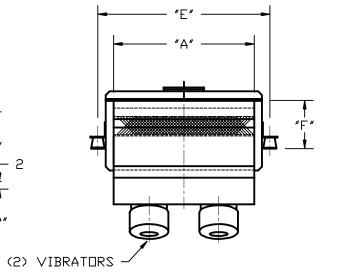


**OPTIONAL MOUNTING CONFIGURATION** 

Dimensions stated nominal and are not to be used for construction purposes.

## **VIBRATORY SCREENERS**



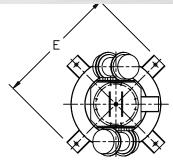


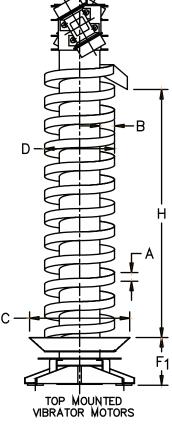
# SPIRAL CONVEYORS

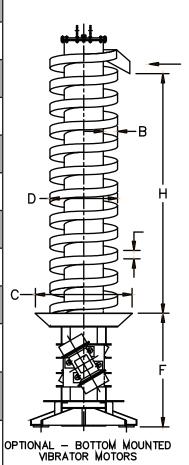
| MODEL                   | RATE<br>FT <sup>3</sup> /HR | "H" | "D" | " <b>A</b> " | "B"     | "C" | "E"    | "F" | "F1" | "J" | WGT<br>LBS |   |
|-------------------------|-----------------------------|-----|-----|--------------|---------|-----|--------|-----|------|-----|------------|---|
| WF1000/340-<br>U4X      | 67                          | 40  | 14  | 2            | 2 11/16 | 21  | 32     | 22  | 13   | 4   | 419        |   |
| WF1500/340-<br>U4X      | 67                          | 60  | 14  | 2            | 2 11/16 | 21  | 32     | 22  | 13   | 4   | 475        |   |
| WF2500/340-<br>U4X      | 67                          | 99  | 14  | 2            | 2 11/16 | 21  | 32     | 22  | 13   | 4   | 598        |   |
| WF3000/340-<br>U6X      | 67                          | 118 | 14  | 2            | 2 11/16 | 21  | 32     | 22  | 13   | 4   | 639        |   |
| WF3500/340-<br>U6X      | 67                          | 138 | 14  | 2            | 2 11/16 | 21  | 32     | 22  | 13   | 4   | 662        |   |
| WF5000/340-<br>U11X     | 67                          | 197 | 14  | 2            | 2 11/16 | 21  | 32     | 25  | 13   | 4   | 1058       |   |
| WF1500/560-<br>U10X     | 141                         | 60  | 22  | 3            | 4 5/8   | 32  | 43 3/8 | 30  | 15   | 5   | 926        |   |
| WF2000/560-<br>U10X     | 141                         | 79  | 22  | 3            | 4 5/8   | 32  | 43 3/8 | 30  | 15   | 5   | 992        |   |
| WF2500/560-<br>U10X     | 141                         | 99  | 22  | 3            | 4 5/8   | 32  | 43 3/8 | 30  | 15   | 5   | 1080       |   |
| WF3000/560-<br>U10X     | 141                         | 118 | 22  | 3            | 4 5/8   | 32  | 43 3/8 | 30  | 15   | 5   | 1180       |   |
| WF5000/560-<br>U11X     | 141                         | 197 | 27  | 3            | 4 5/8   | 32  | 43 3/8 | 35  | 15   | 5   | 1918       |   |
| WF2000/680-<br>U16W     | 247                         | 79  | 27  | 4            | 7 1/8   | 38  | 47 1/4 | 35  | 15   | 6   | 1433       |   |
| WF3000/680-<br>U18W     | 247                         | 118 | 27  | 4            | 7 1/8   | 38  | 47 1/4 | 35  | 15   | 6   | 1720       |   |
| WF5000/680-<br>U18W     | 282                         | 197 | 27  | 4            | 7 1/8   | 38  | 47 1/4 | 38  | 15   | 6   | 2536       |   |
| WF6000/680-<br>U18W     | 282                         | 237 | 27  | 4            | 7 1/8   | 38  | 47 1/4 | 38  | 15   | 6   | 2822       |   |
| WF2000/900-<br>U35W     | 459                         | 79  | 35  | 5            | 7 1/2   | 44  | 52     | 45  | 18   | 9   | 2646       |   |
| WF<br>3000/900-<br>U35W | 459                         | 118 | 35  | 5            | 7 1/2   | 44  | 52     | 45  | 18   | 9   | 3153       |   |
| WF<br>5000/900-<br>U53W | 388                         | 197 | 35  | 5            | 7 1/2   | 44  | 52     | 45  | 18   | 9   | 4564       |   |
| WF<br>6000/900-<br>U53W | 388                         | 237 | 35  | 5            | 7 1/2   | 44  | 52     | 45  | 18   | 9   | 5116       | ] |
| WF<br>7000/900-<br>U53W | 388                         | 276 | 35  | 5            | 7 1/2   | 44  | 52     | 45  | 18   | 9   | 5623       |   |

| MODEL                     | SCREEN<br>SURFACE<br>AREA | TOTAL<br>HP<br>(KW) | "L"     | " <b>A</b> " | "B" | "E"        | "F"        | "H"        | " <b>M</b> " | "N" | "P"    | "R"        | "S"        |
|---------------------------|---------------------------|---------------------|---------|--------------|-----|------------|------------|------------|--------------|-----|--------|------------|------------|
| VSB<br>300/1000-<br>U2.2X | 2.69                      | 0.44<br>(0.33)      | 39 3/8" | 12"          | 11" | 19"        | 7 7/8"     | 25"        | 37 1/2"      | 6"  | 3"     | 9 1/2"     | 25<br>1/2" |
| VSB<br>400/1000-<br>U2.2X | 3.55                      | 0.44<br>(0.33)      | 39 3/8" | 16"          | 11" | 23"        | 7 7/8"     | 25"        | 37 1/2"      | 6"  | 3"     | 9 1/2"     | 25<br>1/2" |
| VSB<br>400/1250-<br>U4X   | 4.63                      | 0.62<br>(0.46)      | 49 1/4" | 16"          | 12" | 23"        | 7 7/8"     | 27<br>1/2" | 47 1/4"      | 6"  | 3"     | 12<br>3/4" | 12<br>3/4" |
| VSB<br>500/1250-<br>U4X   | 5.81                      | 0.62<br>(0.46)      | 49 1/4" | 20"          | 12" | 27"        | 7 7/8"     | 27"        | 47 1/4"      | 6"  | 3"     | 12<br>3/4" | 12<br>3/4" |
| VSB<br>500/1500-<br>U6X   | 6.99                      | 0.62<br>(0.46)      | 59"     | 20"          | 14" | 28"        | 9 7/8"     | 28"        | 57"          | 7"  | 3 1/2" | 15<br>3/8" | 15<br>3/8" |
| VSB<br>650/1500-<br>U6X   | 9.15                      | 0.81<br>(0.60)      | 59"     | 25<br>1/2"   | 14" | 34"        | 9 7/8"     | 34"        | 57"          | 7"  | 3 1/2" | 17<br>3/4" | 17<br>3/4" |
| VSB<br>650/1750-<br>U6X   | 10.98                     | 0.81<br>(0.60)      | 69"     | 25<br>1/2"   | 16" | 34"        | 11 1/2"    | 34"        | 67"          | 8"  | 4"     | 17<br>3/4" | 17<br>3/4" |
| VSB<br>650/2000-<br>U10X  | 12.48                     | 1.5<br>(1.12)       | 79"     | 25<br>1/2"   | 18" | 34"        | 11 1/2"    | 34"        | 76 3/4"      | 10" | 4 3/4" | 17<br>3/4" | 17<br>3/4" |
| VSB<br>900/1750-<br>U10X  | 15.17                     | 1.5<br>(1.12)       | 69"     | 35<br>1/2"   | 16" | 34"        | 11 1/2"    | 34"        | 67"          | 7"  | 4"     | 17<br>3/4" | 17<br>3/4" |
| VSB<br>900/2000-<br>U16X  | 18.29                     | 1.69<br>(1.25)      | 79"     | 35<br>1/2"   | 18" | 44<br>1/2" | 12<br>1/2" | 44<br>1/2" | 76 3/4"      | 10" | 4 3/4" | 17<br>3/4" | 17<br>3/4" |
| VSB<br>900/2250-<br>U16X  | 19.58                     | 1.69<br>(1.25)      | 89"     | 35<br>1/2"   | 21" | 44<br>1/2" | 13<br>3/4" | 44<br>1/2" | 86 5/8"      | 10" | 4 3/4" | 17<br>3/4" | 17<br>3/4" |
| VSB<br>1200/2250-<br>U25X | 26.04                     | 2.5<br>(1.86)       | 89"     | 47<br>1/4"   | 21" | 58"        | 13<br>3/4" | 58"        | 86 5/8"      | 10" | 4 3/4" | 17<br>3/4" | 17<br>3/4" |

Dimensions stated nominal and are not to be used for construction purposes.







# Keeping Dry Materials Moving

With a wealth of knowledge and experience in the use of controlled vibration to process dry bulk materials, Vibra Screw engineers have devised systems to handle most materials -- probably your material included.

As the leader in dry solids processing, our name is recognized and trusted worldwide in such diverse industries as:

### FOODS

Flour, Soy, Meal, Sugar, Vitamin Supplements

#### MINING Aggregate, Kiln Feed, Crushed Ores, Coal, Lime

**CHEMICAL** Pigments, Additives, Starch, Carbon Black

**STEEL** Foundry Sand, Ores, Binders, Ferrous & Non-Ferrous Additives

### FOREST PRODUCTS Chips, Sawdust, Waste-by-products

PLASTICS Regrind, Virgin, Colorant, Talc

### **ENVIRONMENTAL CONTROL**

Filter Aids, Resource Recovery, Lime, Soda Ash, Activated Carbon, Fly Ash, Solid Wastes, Scrap

### ORDNANCE

Ammonium Nitrate, Oxidizing Salts, Solid Base Propellants, Ammonium Perchlorate, HMX, RDX

#### **AGRICULTURE** Cattle Feed, Soy Bean Meal, Nutricianal Supplements,

Mill Feed, Spent Grain

### PHARMACEUTICALS

Calcium Carbonate, Aspirin, Sodium Bicarbonate, Ascorbic Acid



# The Vibra Screw Product Line For additional information, ask for literature on the following:

- AccuFeed
- Batching Systems
- Bin Activator
- Bulk Bag Filler
- Bulk Bag Unloader
- DE Feeder
- Heavy Duty Screw Feeder
- Loss-In-Weight Feeder
- Live Bottom Bin
- Live Bin
- Live Bin Screw Feeder
- Pan & Tube feeder
- Portable Bin Unloader
- Screener
- Storage Pile Activator
- VersiFeeder
- Vibra-Blender
- Vibrating Screens
- Volumetric Belt Feeder
- Weigh Belt Feeder
- Water Treatment Systems



### THE VIBRA SCREW GUARANTE

If your Vibra Screw equipment doesn't perform in the service for which it was sold, we'll refund your money. Ask any other equipment manufacturer to put that in writing.

No time limits. No conditions.