

KRAUS GYRO EX™ Bin Activating Feeder and Discharger



The Kraus GYRO EX™ bin activating feeder and discharger produces a controlled gyratory motion to positively withdraw granular materials from bins, storage silos and hoppers at any desired feed rate for a more consistent and reliable discharge.

At the heart of the GYRO EX bin activating feeder and discharger is the drive that produces a radial force creating a uniform circular motion on both the upper activation cone and the lower discharge cone. It is this annular radial vibratory motion which imparts the force to the material, assuring a more reliable and predictable material discharge. This also minimizes any material stratification in the storage silo or bin and provides a better material mass flow discharge for a first in, first out discharge.

A unique feature of the GYRO EX bin activating feeder and discharger is that the stored material load is completely supported by the upper bin activation cone which has a lower cone angle than the discharge cone, assuring an uninterrupted and positive discharge of the stored material.

The GYRO EX bin activating feeder and discharger can also be started and stopped as desired because material is not allowed to accumulate or stagnate in the lower discharge cone which might create packing or plugging problems. Irrespective of the particle size, the GYRO EX bin activating feeder and

discharger is well suited for almost any size material and the rate can easily be increased or decreased by adjusting the gap between the inlet opening and the upper activation cone.

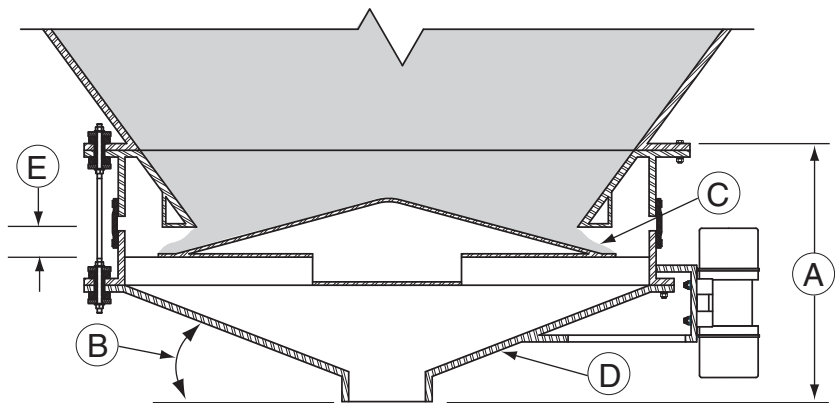
In addition, the GYRO EX bin activating feeder and discharger can operate either continuously or as a batch operation with a start/stop operation as desired for any given process situation. Also available is an optional variable speed drive for fast and slow feed rates as might be required for an integrated process system, or for precise feeding to weigh hoppers and other downstream process equipment.

Features

- Uniform material feeding
- Infinitely adjustable feed rates
- Positive discharge of difficult materials
- Prevents material from compacting
- Extremely low headroom allows for more material storage
- Eliminates the need for additional equipment such as discharge gates or feeders
- Positive material shut-off
- Effective on large or small particles
- Low power requirements

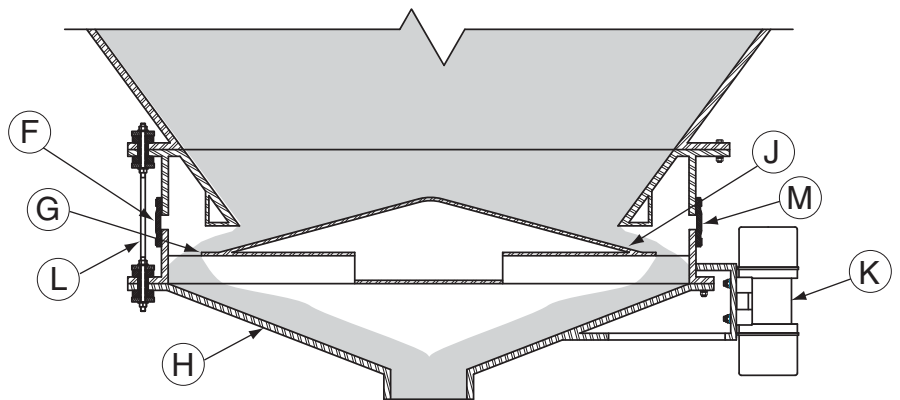
GYRO EX Bin Activating Feeder and Discharger Design Features

- A.** Minimal height due to feeding principle.
- B.** Cone angle can be very shallow as clogging is not an issue.
- C.** Material stops due to angle of repose.
- D.** Material is not allowed to consolidate in lower cone.
- E.** Gap is adjustable to increase or decrease feed rate.



GYRO EX Bin Activating Feeder and Discharger at Rest Position

- F.** Stored material does not put any stress on flexible connector, providing longer life.
- G.** Circular distance of activation cone creates a wide feed zone.
- H.** Circular motion of lower cone acts like a vibratory feeder and empties completely without material compaction or consolidation.



GYRO EX Bin Activating Feeder and Discharger during Discharge Cycle

- J.** Activation cone provides even distribution of the forces for a more consistent flow.
- K.** Exterior mounted vibrating motor.
- L.** High strength support rods with rubber isolators to maximize gyration.
- M.** High strength reinforced flexible connector with stainless steel band clamps to insure dust-tight connection.

How the **GYRO EX** Bin Activating Feeder and Discharger Works

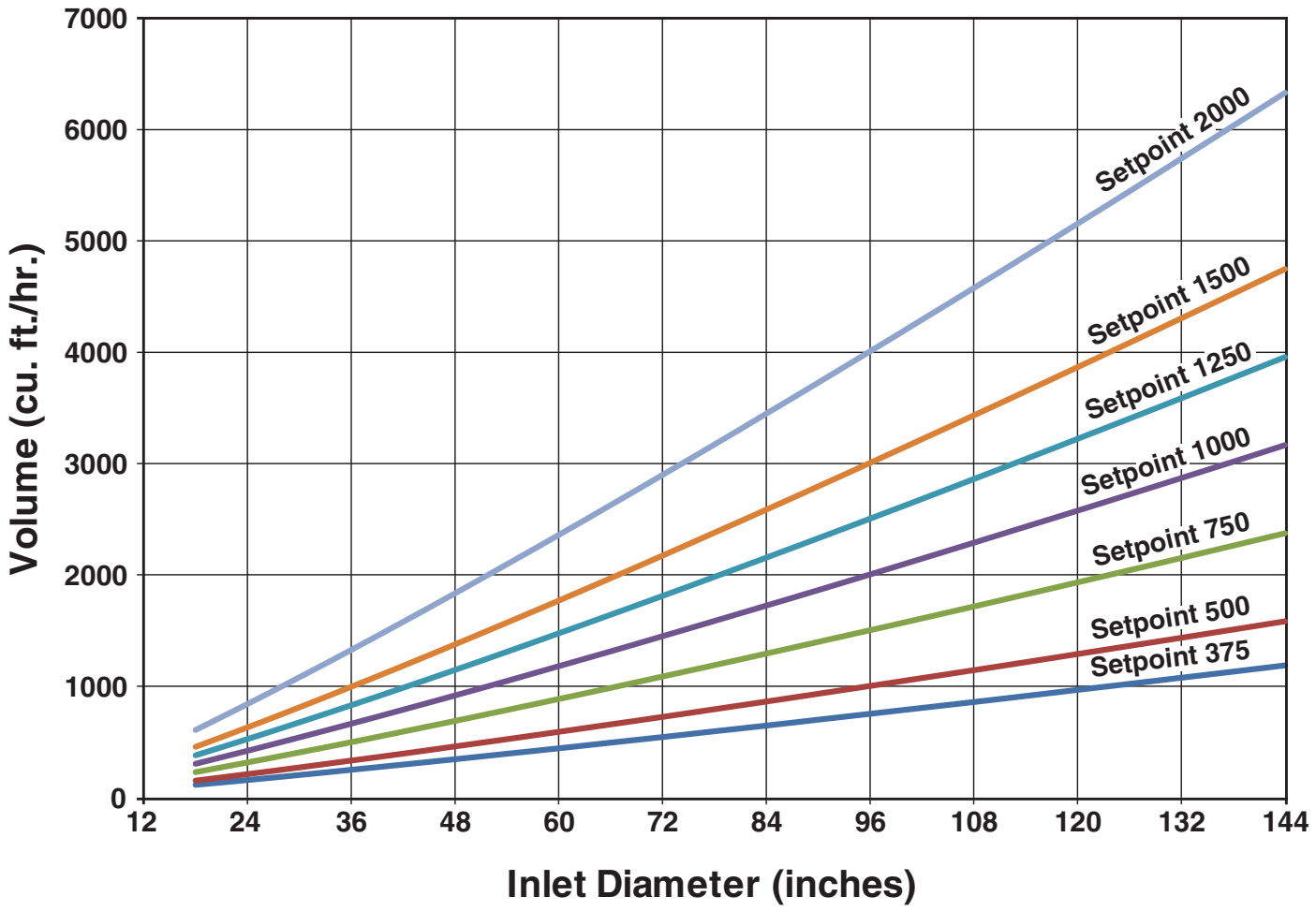
The GYRO EX bin activating feeder and discharger uses a vibrating motor to generate a gyratory motion for discharging dry granular bulk solids from bins, hoppers or storage silos. When the GYRO EX bin activating feeder and discharger is at rest, the stored material will not be allowed to move due to the angle of repose of the stored material.

When the GYRO EX bin activating feeder and discharger becomes activated, the vibrating motor imparts a gyratory and radial force which immediately discharges material from the upper activation cone to the lower discharge cone. Because the discharge angle of the upper cone has a lower discharge angle than the lower discharge cone, the stored material will move and discharge fast and efficiently with high reliability. In addition, the lower discharge cone serves as a vibratory

feeder and completely empties the material from the lower discharge cone area every time, without compaction or consolidation. The GYRO EX bin activating feeder and discharger also minimizes any restriction to material flow and creates a positive, and thus a more predictable, process.

It is important to notice the differences in design between the GYRO EX bin activating feeder and discharger and a conventional discharger. A conventional discharger by design allows material to accumulate in the lower cone area which can easily become clogged as a result of a combination of excess vibration and the material not discharging fast enough. In this situation the material can compact in the lower cone area which only exacerbates the discharge process.

**GYRO EX Bin Activating Feeder and Discharger
Nominal Capacity Chart**

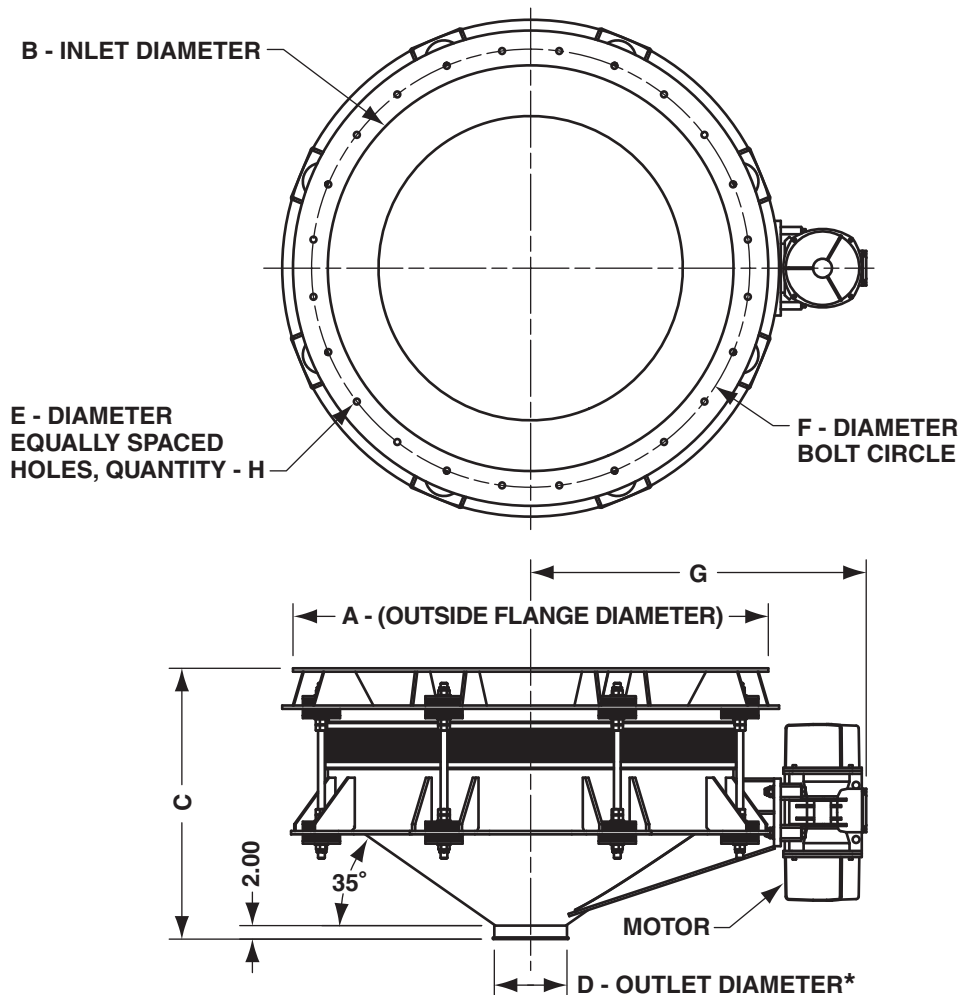


The above capacities are general in nature; testing is required to verify specific data.

GYRO EX Bin Activating Feeder and Discharger

Dimensions & Specifications

| Model | GYRO EX Bin Activating Feeder and Discharger Dimensions in inches (mm) | | | | | | | | | Approx. Ship Weight lbs (kg) |
|---------|--|------------|-----------|----------|-----------|------------|-----------|----|------------|------------------------------|
| | A | B | C | D* | E | F | G | H | Motor HP** | |
| EX-180 | 24 (610) | 18 (457) | 17 (432) | 6 (152) | 0.63 (16) | 21 (533) | 20 (508) | 12 | 1/2 | 240 (109) |
| EX-240 | 30 (762) | 24 (610) | 18 (457) | 6 (152) | 0.63 (16) | 27 (686) | 23 (584) | 15 | 1/2 | 400 (181) |
| EX-300 | 36 (914) | 30 (762) | 20 (508) | 6 (152) | 0.63 (16) | 33 (838) | 26 (660) | 19 | 1/2 | 550 (249) |
| EX-360 | 42 (1067) | 36 (914) | 22 (559) | 6 (152) | 0.75 (19) | 39 (991) | 29 (737) | 22 | 3/4 | 700 (318) |
| EX-480 | 56 (1422) | 48 (1219) | 27 (686) | 6 (152) | 0.75 (19) | 52 (1321) | 37 (940) | 30 | 1-1/2 | 1050 (476) |
| EX-600 | 68 (1727) | 60 (1524) | 35 (889) | 8 (203) | 0.75 (19) | 64 (1626) | 43 (1092) | 37 | 1-1/2 | 1500 (680) |
| EX-720 | 84 (2134) | 72 (1829) | 39 (991) | 10 (254) | 0.75 (19) | 78 (1981) | 51 (1295) | 45 | 3 | 1950 (885) |
| EX-840 | 96 (2438) | 84 (2134) | 43 (1092) | 10 (254) | 0.75 (19) | 90 (2286) | 57 (1448) | 51 | 5 | 2450 (1111) |
| EX-960 | 108 (2743) | 96 (2438) | 46 (1168) | 12 (305) | 0.88 (22) | 102 (2591) | 63 (1600) | 58 | 5 | 3025 (1372) |
| EX-1080 | 120 (3048) | 108 (2743) | 51 (1295) | 12 (305) | 0.88 (22) | 114 (2896) | 74 (1880) | 65 | 7-1/2 | 3520 (1597) |
| EX-1200 | 132 (3353) | 120 (3048) | 55 (1397) | 12 (305) | 0.88 (22) | 126 (3200) | 80 (2032) | 72 | 7-1/2 | 4300 (1950) |



* Custom outlet sizes available. ** Application dependent.
 Dimensions and specifications subject to change without notice.
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