

VIBRATION SOLUTIONS

ENHANCING THE FLOW OF MATERIAL

L3665



WHY MARTIN?

SOLUTIONS BY Application

- **3 Vibration Basics**
- 4-6 Bin, Chute, Hopper
 - 7 Vibratory Equipment
- 8-9 Mobile Truck
- 10 Concrete
- 11 Railcar

With over 100 years of combined experience in applied vibration, we provide the highest quality products with the highest level of service at a fair price. Offering an extensive line of electric, pneumatic, and hydraulic vibrators, every product comes with our industry-leading and unsurpassed manufacturer's warranty and fast delivery times.

APPLIED VIBRATION TECHNOLOGY

Using the power of applied vibration, Martin Engineering Vibration Technologies **energize material**, reducing friction against container walls as well as internal particle-to-particle cohesion. With properly sized and applied vibration, the **material moves** more freely, **feeds** more effectively, **sorts** more consistently, **compacts** more efficiently and **handles more easily.**

APPLICATION

Each application is unique. No matter what industry your operation serves, Martin vibration has a product to suit your needs.

AIR vs ELECTRIC POWER

INITIAL COST

Initial purchase price for electric vibrators is typically greater than air vibrators.

OPERATION COST

Electricity is less expensive than air, therefore long-term operating costs will typically be lower for electric vibrators.

NOISE LEVEL

Electric vibrators are quieter than air vibrators; rotary is quieter than linear.

POWER SOURCE AVAILABLE Availability of compressed air, electric, or hydraulic power may dictate choice.



LINEAR vs ROTATIONAL FORCE



LINEAR FORCE for WET/STICKY MATERIAL

> Linear vibrators activate the material inside a chute or bin by using heavy blows on the outside of the structure's steel walls.



ROTATIONAL FORCE

for DRY MATERIAL

Rotary vibrators create
 a vibratory force
 through the rotation of
 an eccentric weight.

NECESSARY MOTOR SPECIFICATIONS PER APPLICATION (ELECTRICS ONLY)

| Application | Frequency (rpm) | Acceleration (G's) | Amplitude | |
|---------------------------------|--------------------|--------------------|-------------|--|
| Conveying or Feeding | 900 - 1800 | 2.0 - 5.0 | High | |
| Screening | 900 - 1800 | 5.0 - 7.0 | High | |
| Draining or Dewatering | 900 - 1800 | 3.0 - 5.0 | Medium | |
| Bin/Hopper and Chute Evacuation | 1800 - 3600 | 0.05 - 0.15* | Medium | |
| Compaction of Bulk Materials | 1800 - 7200 | 2.0 - 4.0 | Low | |
| Consolidation of Concrete | 3600 - 10800 | 0.8 - 1.5 | Very Low | |
| Testing of Parts or Assemblies | 450 - 7200 | 0.5 - 5.0 | High to Low | |

* Material Weight in Sloped Section

BIN, CHUTE, AND HOPPER

Durable, energy-efficient vibrators that are ideal for numerous flow aid applications.

FOOT-MOUNTED ELECTRICS





- Engineered for continuous-duty
- Fully-interchangeable drives with other major manufacturers





- Class II explosion-proof
- Dual voltage





ROTARY PNEUMATIC

VIBROLLER®

ROLLER VIBRATORS



- Low air consumption
- High frequency

VIBROLATOR®

BALL VIBRATORS



- Most cost-effective on the market
- Original ball vibrator

ATU SERIES

TURBINE VIBRATORS



- Energy efficient
- Quiet operation



AP5 SERIES PISTON VIBRATORS



- Service-free with use of FRL
- Great for sticky, coarse, or high-moisture material

THUMPER[™] SERIES

TIMED IMPACTOR



- · Timer controlled
- Variable vibration from 1 to 60 impacts per minute

PV SERIES PISTON VIBRATORS



- Stronger robust design
- Suitable for high temperature applications





- Broad application range
- High-frequency, highimpact energy

VIBRATORY EQUIPMENT

VIBRATORY EQUIPMENT

Durable, energy-efficient vibrators that are ideal for numerous applications such as feeders, conveyors, tables, and bin activators.



- Provides up to 16,500
 Ibsf
- Direct replacement for Derrick[®] screen vibrators*

MARTIN® **F-SERIES** AND **MFD-SERIES** VIBRATOR



- Designed specifically for round separators
- Available in any rating

MARTIN® HSV SERIES HYDRAULIC VIBRATOR



- Ideal for remote applications
- Used in screening applications





- Engineered for continuous-duty
- Fully-interchangeable drives with other major manufacturers

MARTIN® MMX SERIES ELECTRIC VIBRATORS



- Class I explosion-proof
- Larger C4 fit bearings
- Higher force outputs

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MOBILE TRUCK

MOBILE **TRUCK VIBRATION**

Cougar® Truck Vibrators boost productivity by thoroughly and evenly unloading material. After patenting the world's first 12-volt truck vibrator in 1964, we continue to make the most rugged and reliable truck vibrators on the market.

COUGAR® DC SERIES TRUCK VIBRATOR



DC-3200/-2700/-2500/-1600/-1100

- 4000-5000 vpm
- volt

COUGAR® MDC SERIES TRUCK VIBRATOR



MDC12-400/700

- 1000-3200 force-lbs at Available in 400 or 700 pounds of force
- Available in 12 and 24 Available in 12 or 24 volt

COUGAR® SDC SERIES TRUCK VIBRATOR



SDC12-40/100/200

- Up to 200 pounds of force
- Available in 12 volt

THD **TRUCK VIBRATOR**



THD-2500/1600

- Ideal for dump trucks
- · Good for self-powered heavy equipment

TRUCK APPLICATION

| Model | Dump Truck | | | | Spreaders | | | L | er | ų | | | Ś | |
|--------------------------|--------------|---------------|--------------|--------------------------|---------------|---------------|---------------|--------------|-----------------|---------------------------------------|-------------------|--------------|----------------|--------------------|
| | Standard | | | Tandem Live Bottom | Slide- In | Mount- ed | Tailg or A | | Concrete Pumper | Sanitation, Pumper & Vacuum Trucks | Volumetric Mixers | Mixer Trucks | Grain Trailers | Fertilizer Tenders |
| | 1-5 yards | 5-10 yards | 11+ yards | 15-30 yards | 5-10 yards | 5-10 yards | .2-2 yards | 2-4 yards | Conc | Sanita & Vac | Volun | Mi> | Gra | Fertil |
| DC 3200 | | | х | х | | х | | | | х | | | | |
| DC 2700 | | х | | | | х | | | | х | | | | |
| DC 2500 | | х | | | | х | | | | х | | | | |
| DC 1600 | х | | | | х | х | | | | | | | | |
| DC 1100 | х | | | | х | | | | | | | | | |
| MDCV-700 | | | | | х | | | | | | х | | | х |
| MDC 400 | | | | | х | | | | х | | | | | |
| SDC 200 | | | | | | | | х | Х | | | | | |
| SDC 100 | | | | | | | х | | | | | | | |
| SDC 40 | | | | | | | х | | | | | | | |
| THD-2500 (hydraulic) | | х | х | x | | | | | | x | | | | |
| THD-1600 | Х | | | | | | | | | | | | | |
| AP5-200-Y (pneumatic) | | | | | | | | | | | x | | x | |
| ATU-43 | | | | | | | | | | | | Х | | |

AP5 SERIES

PISTON VIBRATORS



AP5-200-Y

- Never need service when used with filtered or lubricated air
- Great for sticky, coarse, or high-moisture material

ATU SERIES

TURBINE VIBRATORS



ATU-62

- Mounts easily with cradle lug brackets
- Low-noise for indoor application

CONSOLIDATION

Martin[®] vibrators solve common problems in the precast concrete industry. With electric and pneumatic options, Martin vibrators will improve productivity and increase material strength and compaction.

MB36-3000

CONCRETE-FORM VIBRATOR



U1-1600 HIGH-FREQUENCY



VIBROTOR[™] CCR VIBRATOR



- · CSA certified
- Fully interchangeable with Hawkeye* and BRECON** units

- Includes overload and current protection
- Optional speed control

- Long-lasting
- Easily mounted using brackets

*There is no affiliation between HawkeyePedershaab and Martin Engineering.

**There is no affiliation between BRECON Vibrationstechnik GmbH and Martin Engineering.



RAILCAR VIBRATION

Railcar vibrators from Martin Engineering provide powerful vibration that enhances material flow for faster and safer unloading.

3-INCH IMPACTING RAILCAR VIBRATOR



- Includes a handle for easy placement and removal
- Lightweight at 49 pounds

VIBROTOR[™] CCR

VIBRATOR



BRUTE® CCV VIBRATOR

RAILCAR



- Long-lasting
- Easily mounted using brackets

- Clamp foot for portability and positive mounting
- Adjustable
 eccentrics





GLOBAL LOCATIONS



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