

# **VIBRATION SOLUTIONS**

ENHANCING THE FLOW OF MATERIAL

L3665



# WHY MARTIN?

# SOLUTIONS BY Application

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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<sup>™</sup> 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<sup>®</sup> 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<sup>®</sup> 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<sup>™</sup> 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<sup>™</sup> CCR

VIBRATOR



# BRUTE® CCV VIBRATOR

RAILCAR



- Long-lasting
- Easily mounted using brackets

- Clamp foot for portability and positive mounting
- Adjustable
  eccentrics





#### **GLOBAL LOCATIONS**



#### MARTIN ENGINEERING USA

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Part No. L3665-12/19