

Models RE & RES

Rotary Electric Vibrators

Installation, Operating and
Maintenance Instructions



IMPORTANT:

The dependable performance and safe operation of the RE and RES rotary electric vibrator requires that this manual be read entirely before attempting installation. The recommended method of installation must be strictly adhered to.

CONSTRUCTION

The following tables, one through five, are grouped by the frequency of the vibrators. Each table provides the maximum force, amp draw, and diagram reference number for each vibrator within the group.

There are seven basic construction configurations, which are detailed on pages 4 and 5. Locate your model from the tables below and note which diagram depicts the construction.

TABLE 1 - Single Phase (3600 RPM)

MODEL	MAX FORCE	110v.		CONSTRUCTION DIAGRAM REF.
	(lbs.)	AMP DRAW		
RES 0.1-2	30	0.39		Fig. 1
RES 0.5-2	110	0.53		Fig. 1
RES 1-2	220	1.2		Fig. 1
RES 2-2	440	1.9		Fig. 1
RES 3.5-2	770	2.9		Fig. 1
RES 6-2	1,320	5.3		Fig. 1

TABLE 2 - Three Phase (3600 RPM)

MODEL	MAX FORCE	AMP DRAW		CONSTRUCTION DIAGRAM REF.
	(lbs.)	230v.	460v.	
RE 0.5-2	110	0.33	0.15	Fig. 1
RE 1-2	220	0.41	0.25	Fig. 1
RE 2-2	440	0.62	0.35	Fig. 1
RE 3.5-2	770	1.1	0.6	Fig. 1
RE 6-2	1,320	1.6	0.9	Fig. 1
RE 10-2	2,200	2.7	1.4	Fig. 2
RE 16-2	3,520	4.0	2.0	Fig. 5
RE 23-2	5,060	5.6	2.9	Fig. 5
RE 30-2	6,600	7.0	3.6	Fig. 5
RE 40-2	8,800	9.8	4.9	Fig. 5

WARNING - for mounting motor on an angle or vertically:

- Models with Snap Rings:** Note "BOTTOM SIDE" as per label on motor. If motor is not positioned correctly, the adjustable weight may fall and cause injury or damage.
- Models without Snap Rings:** BEWARE when adjusting bottom weight as it may fall when loosened and cause injury or damage.

TABLE 3 - Three Phase (1800 RPM)

MODEL	MAX FORCE	AMP DRAW		CONSTRUCTION DIAGRAM REF.
	(lbs.)	230v.	460v.	
RE 1.5-4	330	0.50	0.33	Fig. 3
RE 3-4	660	0.80	0.52	Fig. 3
RE 6-4	1,320	1.2	0.70	Fig. 3
RE 9-4	1,980	1.7	0.99	Fig. 3
RE 12-4	2,640	2.5	1.4	Fig. 3
RE 17-4	3,740	3.0	1.6	Fig. 6
RE 24-4	5,280	3.8	2.0	Fig. 6
RE 34-4	7,480	5.0	2.6	Fig. 6
RE 52-4	11,440	7.7	4.0	Fig. 7
RE 75-4	16,500	12.3	6.2	Fig. 7
RE 84-4	18,480	18.2	9.4	Fig. 7
RE 110-4	24,200	25	13	Fig. 7

TABLE 4 - Three Phase (1200 RPM)

MODEL	MAX FORCE	AMP DRAW		CONSTRUCTION DIAGRAM REF.
	(lbs.)	230v.	460v.	
RE 3-6	660	1.1	0.65	Fig. 3
RE 5-6	1,100	1.9	1.3	Fig. 3
RE 9-6	1,980	2.7	1.6	Fig. 3
RE 13-6	2,860	3.7	2.1	Fig. 3
RE 18-6	3,960	4.8	2.7	Fig. 4
RE 24-6	5,280	6.1	3.3	Fig. 4
RE 34-6	7,480	7.9	4.2	Fig. 6
RE 45-6	9,900	10.8	5.7	Fig. 7
RE 60-6	13,200	13.4	7.4	Fig. 7
RE 80-6	17,600	18.5	10	Fig. 7
RE 110-6	24,200	27	15	Fig. 7
RE 140-6	30,800	31	17	Fig. 7
RE 165-6	36,300	37	20	Fig. 7
RE 185-6	40,700	44	22	Fig. 7

TABLE 5 - Three Phase (900 RPM)

MODEL	MAX FORCE	AMP DRAW		CONSTRUCTION DIAGRAM REF.
	(lbs.)	230v.	460v.	
RE 5-8	1,100	2.4	1.5	Fig. 3
RE 7.3-8	1,606	3.3	2.0	Fig. 3
RE 10-8	2,200	4.3	2.5	Fig. 3
RE 20-8	4,400	7.5	4.4	Fig. 3
RE 35-8	7,710	9.5	5.5	Fig. 6
RE 60-8	13,200	14.6	8.6	Fig. 7
RE 100-8	22,000	25	15	Fig. 7
RE 125-8	27,500	31	18	Fig. 7
RE 150-8	33,000	37	22	Fig. 7
RE 185-8	40,700	43	26	Fig. 7

CONSTRUCTION

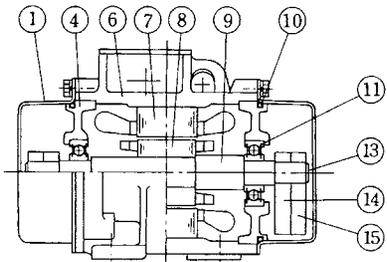


Figure 1

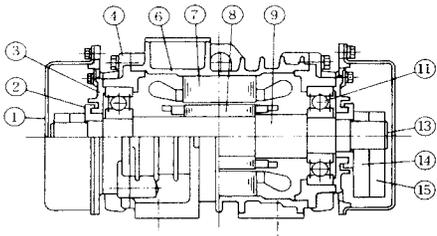


Figure 2

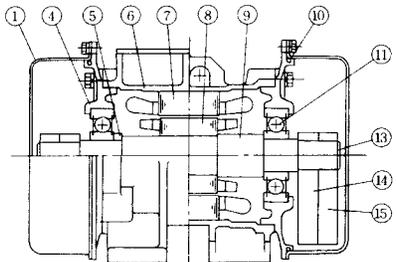


Figure 3

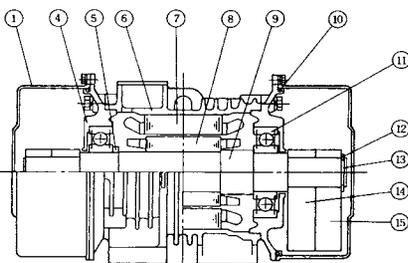


Figure 4

N0.	PART NAME
1	Weight Cover
2	Dust Collar
3	Bearing Cover
4	Bracket
5	Collar
6	Frame
7	Stator Core
8	Rotor Core
9	Shaft
10	Seal Ring
11	Ball Bearing
12	Snap Ring
13	Scale Plate
14	Fixed Wt
15	Adjustable Wt

DIAGRAMS

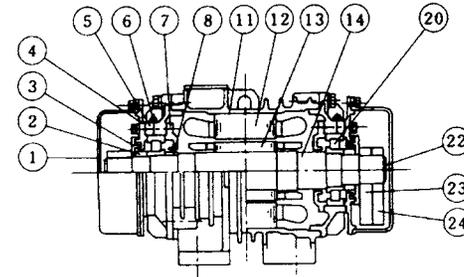


Figure 5

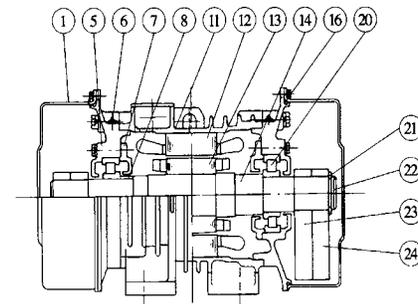


Figure 6

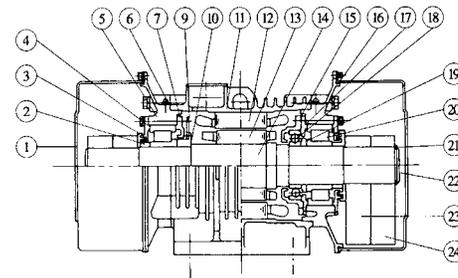


Figure 7

N0.	PART NAME
1	Weight Cover
2	Dust Collar
3	Dust Cover
4	Bearing Cover
5	Bracket
6	Grease Nipple
7	Bearing Cover
8	Collar
9	Grease Stopper
10	Sleeve
11	Frame
12	Stator Core
13	Rotor Core
14	Shaft
15	Housing
16	Seal Ring
17	Thrust Collar
18	Ball Bearing
19	Distance Collar
20	Roller Bearing
21	Snap Ring
22	Scale Plate
23	Fixed Wt
24	Adjustable Wt

MOUNTING

Regardless of the application or installation, care **must** be taken to insure that the structure to which the vibrator is being mounted is sufficiently rigid enough to withstand the vibration being

generated. Improper care in mounting the vibrator can result in either the cracking of the structure and/or the unit pulling excessive amperage.

VIBRATORY EQUIPMENT

When the model "RE & RES" style units are being used as vibratory drive on equipment such as feeders, conveyors, screeners,

tables, etc., it is assumed that the design of the equipment has taken into consideration the stresses being created.

HOPPERS, BINS and CHUTES

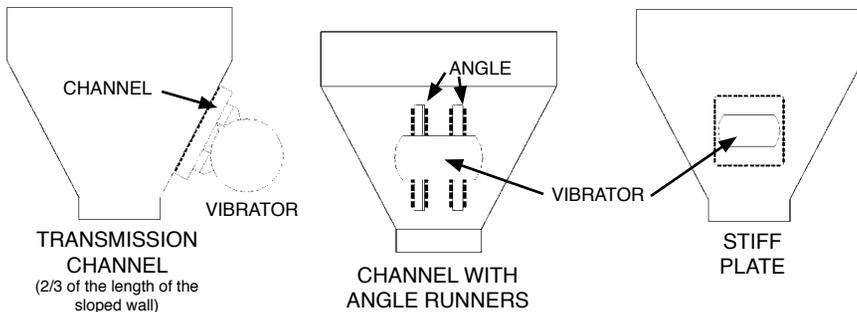
For hopper, bin and chute applications, the "RE & RES" style units have been designed to bolt directly onto a length of either structural channel or a stiff plate. The channel or plate is, in turn, stitch welded to the hopper wall or underside of the chute. Usually, a

conical hopper or bin will provide sufficient rigidity, so additional reinforcement will not be necessary. In such cases, CVC recommends the use of our "EB" channel (or suitable replacement) to be used as the mounting bracket.

UNDER NO CIRCUMSTANCES CAN A ROTARY ELECTRIC VIBRATOR BE BOLTED DIRECTLY TO A BIN OR HOPPER WALL.

If there is any question at all as to the hopper or bin being structurally sound enough to withstand the vibration, CVC recommends

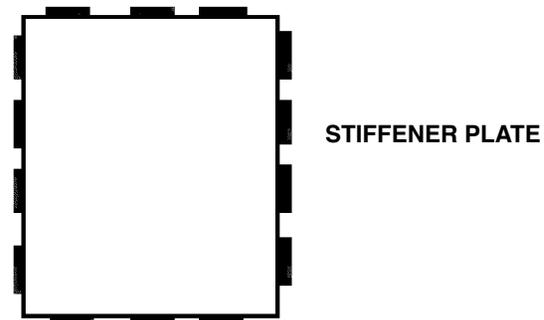
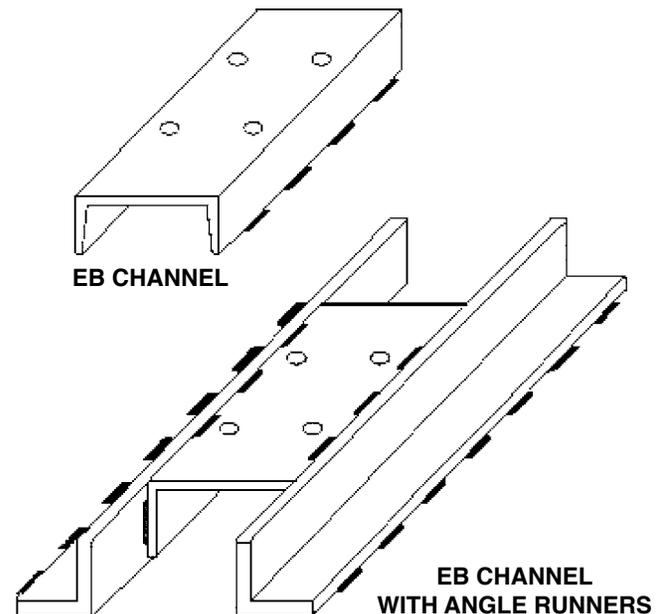
adding additional reinforcement. Some suggested methods of reinforcement are:



WELDING

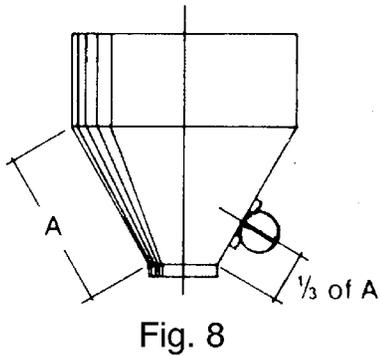
Regardless of the type of mounting bracket being used (channel, channel with angle runners, plate, etc.) NEVER CONTINUOUSLY WELD it to the hopper wall. A stitch weld should be used every one to two inches, skipping an equal distance between welds.

NEVER weld the ends or corners of the bracket, as cracking of the hopper wall could result. Keep all ends and corners of the bracket free for a distance of one inch. Typical welding patterns are shown below.

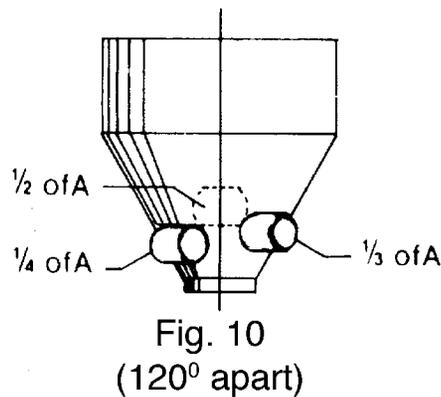
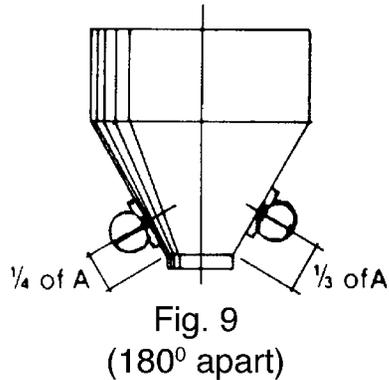


LOCATION

Most bin or hopper applications will require only one RE & RES rotary electric vibrator. CVC recommends mounting the single drive as indicated in Figure 8; locating the unit at a point on the sloped wall section that is $\frac{1}{3}$ the height of the wall.



Applications involved with particularly stubborn material hoppers larger than 100 ton capacity may require two or more vibrators. The recommended mounting is shown in Figures 9 and 10. Normally, not more than three vibrators would ever be required on a hopper or bin.

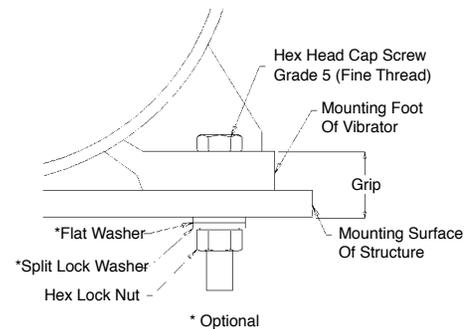


ATTACHMENT

The unit should be attached to the bracket so the terminal box is facing downward, toward the ground. The shaft of the motor should be horizontal, and the direction of rotation of the motor should be in the same direction as the flow of material (see diagram). After the unit is wired, should the direction of rotation be opposite of the flow of the material, simply reverse the polarity of the motor. Bolt the vibrator to the mounting bracket

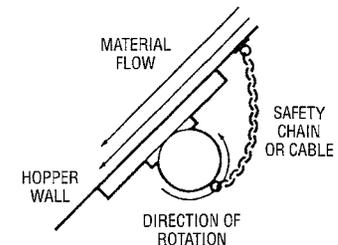
using only the fasteners provided with the unit. **Note bolt and washer arrangement in sketch below.** If the length of the mounting channel makes it difficult or impossible to get a wrench underneath it to tighten the nut and bolt, CVC recommends running the bolts through the underside of the channel and tack weld the heads **prior** to welding the channel to the hopper wall.

SINCE THE LOOSENING OF EVEN ONE FASTENER COULD RESULT IN DAMAGE TO THE UNIT, OR AN ACCIDENT, THE FASTENERS MUST BE RE-TIGHTENED AFTER ONE HOUR OF OPERATION. RE-FASTENING SHOULD BE PERFORMED AT LEAST ONCE A WEEK UNTIL NO LOOSE BOLTS ARE FOUND.



VIBRATOR MOUNTING ARRANGEMENT

ALL MODELS OF "RE & RES" VIBRATORS ARE PROVIDED WITH SUITABLE HOOK-UP FOR A SAFETY CABLE OR CHAIN. IN THE INTEREST OF SAFE OPERATION, IT IS IMPERATIVE THAT A SAFETY CHAIN OR CABLE BE ATTACHED TO THE UNIT AND SECURELY ATTACHED AT A LOCATION ABOVE THE VIBRATOR .



ELECTRICAL CONNECTION

IMPORTANT
ONLY A QUALIFIED ELECTRICIAN SHOULD
BE EMPLOYED TO MAKE THE ELECTRICAL
CONNECTIONS TO THIS UNIT.

CABLE and LEADS

Never permit the cable to be sharply bent at the position near the cable outlet. Refer to Table 6 and Figure 11.

TABLE 6			
MODEL NUMBER	PERMISSABLE RADIUS @ inches	MODEL NUMBER	PERMISSABLE RADIUS (R)
RE 0.5-2 to RE 23-2	3	RE 75-4 to RE 110-4	5
RE 1.5-4 to RE 24-4	3	RE 60-6 to RE 110-6	5
RE 3-6 to RE 18-6	3	RE 60-8 to RE 100-8	5
RE 5-8 to RE 10-8	3		
RE 30-2 to RE 40-2	3 1/2	RE 140-6 to RE 185-6	7
RE 30-4 to RE 52-4	3 1/2	RE 125-8 to RE 185-8	7
RE 24-6 to RE 45-6	3 1/2		
RE 20-8 to RE 35-8	3 1/2		

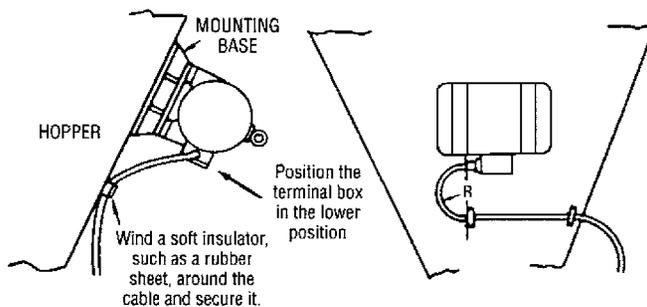


Figure 11

GROUNDING

The green lead (marked "E") of the four lead cable is the ground lead, and is connected through

the terminal box to the vibrator body. Be certain the green lead is properly grounded.

OVERLOAD PROTECTION

Under no circumstances should the vibrator be connected to a power source without going through properly sized overload protection. If the unit is operated without the proper overload

protection, all warranties are void. The Cleveland Vibrator Company recommends the use of its manual starter with overload protection, or a factory-approved equal.

CAPACITOR START MOTOR (RES Series)

Each of the Single Phase RES series units are capacitor-start motors. Model RES 0.1-2 has the capacitor factory installed within the end cover. The remainder of the series (RES 0.5-2, 1-2, 2-2, 3.5-2, and 6-2) must be used in conjunction with the capacitor

starter supplied with the motor. **UNDER NO CIRCUMSTANCES SHOULD THESE UNITS BE WIRED DIRECTLY TO THE 110 VOLT POWER SOURCE.**

All CVC capacitor starters are supplied in a NEMA 12/4 X box.

LOCAL ELECTRICAL CODES

When wiring the vibrator to the starter box and the starter box to the power source, be certain that

the electrician making the installation is familiar with all local codes and strictly adheres to them.

AMPERAGE DRAW

After all electrical connections are properly made, test the unit for amperage draw against the nameplate rating. The vibrator can be operated continuously when the current does not exceed the nameplate rating. If the unit is not to be run longer than one hour at a time, the vibrator may be operated at a current

which is 1.2 times the rating. Should the vibrator pull excessive current, immediately shut it down. In this case, the centrifugal force must be reduced by adjusting the adjustable eccentric weight to a setting low enough to bring the current down to the rated value.

ADJUSTMENTS & MAINTENANCE

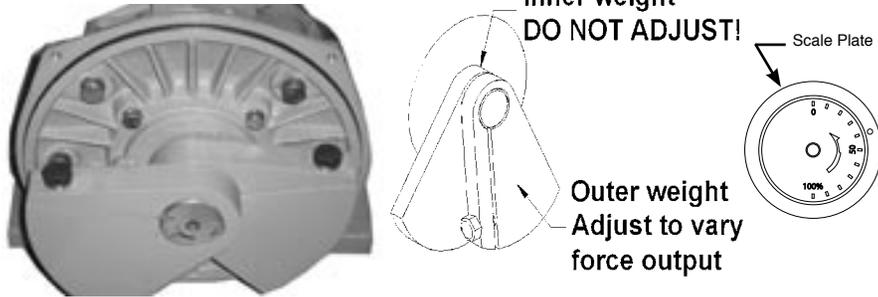
ADJUSTMENT of CENTRIFUGAL FORCE

Prior to shipment, each vibrator is factory set at 40% of maximum force output. Should a decrease in the centrifugal force be required, a simple adjustment can be made to the eccentric weights.

- 1) Disconnect all power to the unit.
- 2) Removing BOTH end covers on each end of the unit will expose the eccentric weights. Note that each end of the rotor shaft has a scale on it which is

graduated in terms of a percent of total maximum force. See photo.

- 3) Loosen ONLY the adjustable eccentric weight on each end and rotate it so that the round, indented mark on the adjustable eccentric aligns with the desired setting. Be certain that the exact same adjustment is made on both adjustable weights.
- 4) Re-tighten BOTH adjustable eccentric weights SECURELY and replace end covers.



NOTE:

1. Never loosen the fixed eccentric weight. The fixed eccentric weights are the "inside" weights, closest to the stator.
2. Never operate the vibrator with the adjustable eccentric weights of different settings.
3. Be certain to retighten the adjustable eccentric weights **securely** before replacing the end covers.

BEARING MAINTENANCE

The Cleveland Vibrator Company recommends the use of Shell Oil's Alvania Grease No. 3 as a bearing lubricant. Since the vibrator bearings are subjected to severe shock, the

specified grease should always be used. Should Alvania Grease No. 3 not be available, a substitute may be selected from the lithium group greases (Alvania Grease No. 2, Mobil Oil's Mobilux No. 3, or No. 2).

Refer to tables 7 through 10 for the recommended lubrication interval.

When the continuous operating time for these units employing sealed ball bearings expires, simply replace the entire

bearing. Those units employing roller bearings should be lubricated through the grease nipples provided.

BEARING REPLACEMENT

All RE and RES vibrators are factory equipped with special loose fit bearings (C3 or C4 fit). Replacing the bearings with tighter fitting bearings will put excessive

resistance on the motor and cause the unit to run at high current. If unable to obtain the proper fit bearing locally, contact Cleveland Vibrator to order the correct replacement.

LUBRICATION NOTES

1. Tables 7 through 10 indicate the amount of grease to be used at each re-greasing period. DO NOT EXCEED the recommended amount of grease, as excessive grease can cause too much resistance. Smaller amounts of grease at more frequent intervals is best.
2. Immediately after greasing, the temperature of the bearings may rise slightly. After approximately one hour of running, the temperature will return to normal.
3. Grease life and resistance can be affected by temperature. Consequently, during colder winter months, less grease can be used than during summer months.

24°F to 34°F: Use 1/4 of the maximum amount given in the tables.

44°F to 50°F: Use 1/2 of the maximum amount given in the tables.

50°F to 65°F: Use 3/4 of the maximum amount given in the tables.

SAE GRADE 5 RECOMMENDED BOLT TORQUE CHART

(1)	(2)	(3)	(4)	(5)	(6) *	(7) **
¼ - 20	.0318	120	2700	2020	8	6.3
¼ - 28	.0364	120	3100	2320	10	7.2
5/16 - 18	.0524	120	4450	3340	17	13
5/16 - 24	.0580	120	4900	3700	19	14
3/8 - 16	.0775	120	6600	4950	30	23
3/8 - 24	.0878	120	7450	5600	35	25
7/16 - 14	.1063	120	9050	6780	50	35
7/16 - 20	.1187	120	10100	7570	55	40
½ - 13	.1419	120	12100	9050	75	55
½ - 20	.1599	120	13600	10200	85	
9/16 - 12	.1820	120	15500	11600	110	80
9/16 - 18	.2030	120	17300	12950	120	90
5/8 - 11	.226	120	19200	14400	150	110
5/8 - 18	.256	120	21800	16350	170	130
¾ - 10	.334	120	28400	21300	260	200
¾ - 16	.373	120	31700	23780	300	220
7/8 - 9	.462	120	39300	29450	430	320
7/8 - 14	.509	120	43300	32450	470	350
1 - 8	.606	120	51500	38600	640	480
1 - 14	.679	120	57700	43300	720	540
1-1/8 - 7	.763	105	56500	42300	790	590
1-1/8 - 12	.856	105	63300	47500	890	670
1-1/4 - 7	.969	105	71700	53800	1120	840
1-1/4 - 12	1.073	105	79400	59600	1240	930
1-1/2 - 6	1.405	105	104000	78000	1950	1460
1-1/2 - 12	1.581	105	117000	87700	2200	1640

*Use these values if you do not lubricate the bolt.

**Use these values if we supplied equipment with vibrator drive(s) attached.

<DO NOT REUSE LOCK NUTS>

- (1) Diameter & Threads per Inch
- (2) Stress Area Square Inches
- (3) Tensile Strength Minimum KSI
- (4) Proof Load in Pounds
- (5) Clamp Load Pounds
- (6) Torque, Dry, Foot Pounds
- (7) Torque, Lubricated, Foot Pounds

NOTE: TORQUE VALUES FOR 1-3/4" DIA. BOLTS ARE THE SAME AS 1-1/2" DIA. VALUES

Nominal bolt size, in inches:	To determine req'd bolt length, add to grip in inches:
1/2	11/16
5/8	7/8
3/4	1
7/8	1-7/8
1	1-1/4
1 1/8	1-1/2
1 1/4	1-5/8
1 3/8	1-3/4
1 1/2	1-7/8

Special Instructions for Cold Storage/Operation

Standard units can be stored at temperatures no lower than -40 degrees Fahrenheit (-40 degrees Celsius). Lower temperatures will require an F-insulated coil, silicon lead-cable and low-temperature grease. Please contact factory for special prices for this option.

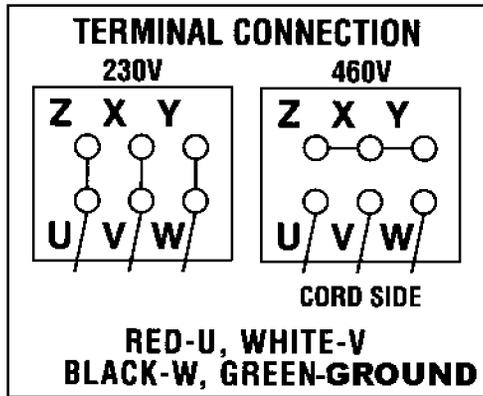
The vibrators must be covered by a sheeting material to protect them against direct rain, water, snow, and ice or wind.

Before starting operation:

1. The temperature must be 14 degrees Fahrenheit (-10 degrees Celsius) or above to begin operation. Please note that these vibrators should not be operated in temperatures above 104 degrees Fahrenheit (40 degrees Celsius).
2. Measure the "insulation resistance" to make sure the value is more than 3 Mega-ohms. Using an appropriate ohmmeter, measure resistance on each of the three power leads. Touch one of the ohmmeter leads to the vibrator power cord ground (green) wire and the other to one of the three power wires, black, red or white. Go from wire to wire and measure resistance between ground and each of the three power wires. Each wire should have a resistance equal to or greater than 3 Mega-ohms. If the insulation resistance is lower than 3 Mega-ohms, the motor coil must be dried. Once it is dried, the insulation resistance should return and be checked to insure that it measures over 3 Mega-ohms.
Please note: resistance should also be checked **every 5 months** during cold storage.
3. Inspect the lead-cable to make sure there is no damage. Please note the lead-cable should also be inspected every 5 months during cold storage.
4. **Very Important:** Remove the weight covers and manually rotate the motor-shaft about 70 to 100 times. If power is available, run the vibrator for 5 minutes with the load disconnected (eccentric weights set at 0). Please note rotation of the motor-shaft must be performed every 5 months during cold storage.

We recommend that any spare parts and/or spare vibrators are stored indoors.

TERMINAL CONNECTION



PERIODICAL INSPECTION

Interval	Points to Check	Procedures & Criteria
Daily	Load Current	Load current measured with an ammeter should be less than the rated value.
	Bearing Noise	Check bearing noise with or without rod. Bearings should not generate intermittent or metallic noise.
Monthly	Loose Screws	Screws should be tightened to a specific torque.
	Cables	Visually inspect cables. They should not be damaged.
Annually	Insulation resistance of starter coil	Insulation resistance across terminals of a starter coil, measured with a megger, should be 5 (min.).

TROUBLESHOOTING GUIDE

Trouble	Probable Reason	Inspection Procedures	How to Correct
Vibrator won't start	Two cables of the vibrator or two phases of the coil are broken	Measure the voltage drop across the two phases	Replace the broken cables or rewind the coil
The vibrator moans and does not accelerate	Single phasing	Same as above and check cables for looseness	Same as above or securely connect the cables
	Ambient temperature is too low or there is an excessive amount of grease	Remove the weight covers and rotate the shaft 30 to 50 turns by hand	Adjust the vibrating force to 20% to 30% of the maximum value
Abnormal bearing noise	Damaged raceway surface	Check bearing noise using rod	Replace the bearing
Temperature of the vibrator body is too high	Ambient temperature is too high	Measure ambient temperature	Decrease the ambient temperature to a maximum of 140°F
	A lot of foreign matter has adhered to the vibrator	Check the condition of the foreign matter attached to the vibrator	Carry out dust prevention measures
Thermal relay is tripped	Short circuit between phases of the coils	Compare the resistance between phases of the coils	If there is a large difference in resistance between the phases of coils, replace the coils
	Loose screws	Check screws for looseness	Tighten screws
	Abnormal vibration	Ensure that the vibrator rotates in the correct direction and that the vibrator body is free of defects	Correct vibrator rotation direction or repair
	Load is too large	Measure load current	Decrease vibrating force
	Damaged bearing	Rotate the shaft by hand and check that the bearings are not damaged	Replace the bearing

Table 7-3600 RPM Units

Model	Bearing No.	B ₁₀ Life (hrs)	Maintenance		
RES 0.1-2	6200ZZC3	1,400,000	No regreasing necessary. Replace bearing should it fail.		
RES 0.5-2	6201ZZC3	90,000			
RES 1-2	6202ZZC4	16,000			
RES 2-2	6303ZZC4	11,000			
RES 3.5-2	6305ZZC4	7,000			
RES 6-2	6306ZZC4	13,500			
RE 0.5-2	6201ZZC3	90,000	No regreasing necessary. Replace bearing should it fail.		
RE 1-2	6202ZZC4	16,000			
RE 2-2	6303ZZC4	11,000			
RE 3.5-2	6305ZZC4	7,200			
RE 6-2B	6306ZZC4	13,500			
RE 10-2B	6407ZZC4	9,200			
Model	Bearing No.	B ₁₀ Life (hrs)	Am't of grease per bearing (grams)	Oper. time between regreasing (hours)	Am't of grease after disassembly* (grams)
RE 16-2	NJ309EC3	21,500	10	1200	25
RE 23-2	NJ310EC3	9,200	12	1000	30
RE 30-2	NJ312EC3	10,900	15	700	40
RE 40-2	NJ313EC3	7,900	20	600	50

Table 8-1800 RPM Units

Model	Bearing No.	B ₁₀ Life (hrs)	Maintenance		
RE 1.5-4	6203ZZC4	18,500	No regreasing necessary. Replace bearing should it fail.		
RE 3-4B	6304ZZC4	22,900			
RE 6-4B	6306ZZC4	26,900			
RE 9-4B	6308ZZC4	16,400			
RE 9-4S	6309ZZC4	13,500			
RE 12-4B	6309ZZC4	13,500			
Model	Bearing No.	B ₁₀ Life (hrs)	Am't of grease per bearing (grams)	Oper. time between regreasing (hours)	Am't of grease after disassembly* (grams)
RE 17-4	NJ309EC3	35,200	10	2000	25
RE 24-4	NJ310EC3	15,800	12	1400	30
RE 34-4	NJ312EC3	14,400	15	1200	40
RE 52-4B	NJ2314C3	18,600	30	1200	65 30
RE 75-4B	NJ2316C3	13,700	40	1000	90
RE 84-4B	NJ2318C3	14,200	50	750	110
RE 110-4	NJ2320C3	for thrust	40	400	140
	6220		15		60

*Disassembly and cleaning of the roller bearing is necessary only when either excessive amounts of grease or the improper quality has been used.

Table 9-1200 RPM Units

Model	Bearing No.	B ₁₀ Life (hrs)	Maintenance		
RE 3-6	6305ZZC4	34,000	No regreasing necessary. Replace bearing should it fail.		
RE 5-6	6306ZZC4	16,200			
RE 9-6B	6308ZZC4	24,600			
RE 13-6B	6309ZZC4	15,900			
RE 18-6B	6312ZZC4	20,700			
RE 24-6B	6314ZZC4	14,400			
Model	Bearing No.	B ₁₀ Life (hrs)	Am't of grease per bearing (grams)	Oper. time between regreasing (hours)	Am't of grease after disassembly* (grams)
RE 34-6	NJ312EC3	21,500	15	2500	40
RE 45-6B	NJ314EC3	18,000	20	2200	40
RE 60-6B	NJ2316EC3	14,200	30	1600	40
RE 80-6B	NJ2318EC3	25,200	50	1600	110
RE 110-6	NJ2320EC3	26,200	65	1500	140
	6220	for thrust	25		60
RE 140-6	NJ2322EC3	21,000	80	1300	175
	6222	for thrust	30		80
RE 165-6	NJ2324EC3	20,400	90	1100	200
	6224	for thrust	35		90
RE 185-6	NJ2326EC3	22,600	105	1000	250
	6226	for thrust	40		100

*Disassembly and cleaning of the roller bearing is necessary only when either excessive amounts of grease or the improper quality has been used.

RECEIPT and STORAGE

All "RE & RES" style motor vibrators are thoroughly tested and inspected prior to shipping to ensure all quality standards are met or surpassed. However, damage that may occur while in transit is beyond control of the Cleveland Vibrator Company. For this reason, the unit should be inspected immediately upon receipt and any

damage reported to the carrier. Should this unit not be put into immediate service, it should be stored in a dry, temperate atmosphere. Under these conditions, the unit can be safely stored for 6 months. Longer storage may require regreasing.

Table 10-900 RPM Units					
Model	Bearing No.	B ₁₀ Life (hrs)	Maintenance		
RE 5-8	6306ZZC4	21,600	No regreasing necessary. Replace bearing should it fail.		
RE 7.3-8	6307ZZC4	13,700			
RE 10-8B	6308ZZC4	36,800			
RE 20-8B	6312ZZC4	20,000			
Model	Bearing No.	B ₁₀ Life (hrs)	Am't of grease per bearing (grams)	Oper. time between regreasing (hours)	Am't of grease after disassembly* (grams)
RE 35-8	NJ313EC3	48,700	20	3200	50
RE 60-8	NJ316EC3	19,000	30	3000	65
	6216	for thrust	15		40
RE 100-8	NJ2320EC3	48,300	60	2800	60
	6220	for thrust	25		60
RE 125-8	NJ2322EC3	41,000	80	2700	175
	6222	for thrust	30		80
RE 150-8	NJ2324EC3	37,400	90	2600	200
	6224	for thrust	35		90
RE 185-8	NJ2326EC3	130,400	105	2500	250
	6226	for thrust	40		100

*Disassembly and cleaning of the roller bearing is necessary only when either excessive amounts of grease or the improper quality has been used.

Warranty

The quality material, precision workmanship, and performance of Cleveland Vibrators are warranted **for one year** from the date of purchase, if the unit is installed and operated in accordance with the factory instructions. If at any time you need assistance with the vibratory equipment or are anticipating an expansion, please contact us and we will be glad to assist.



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