


All Heads, Shafts and Power Units Are Interchangeable\*

1. Select Head Size 2. Select Shaft Length 3. Select Power Unit (Do Not Exceed Maximum Head Size)

### HEADS

**Steel**



Part No.

*3/4"	HP 075 OZ
1"	H 100 OZ
1 1/4"	H 125 OZ
1 1/2"	H 150 OZ
1 3/4"	H 175 OZ
2"	H 200 OZ
2 1/2"	H 250 OZ


**Short Heads**

Part No.

*3/4 x 6"	HSP 075 OZ
1 1/4 x 6"	HS 125 OZ
1 3/4 x 6"	HS 175 OZ


\* Pencil Head requires Pencil Shafts

**High Efficiency RubberHead®**




Part No.

1 7/8"	HR 188 OZ
2 1/2"	HR 250 OZ
2 3/4"	HR 275 OZ
2 3/4x6"	HSR 275 OZ



**Rubber noses**  
Available for all steel heads. Add "RT" to Steel Head Part No.

### SHAFTS



Part No.


2'	FS 02 OZ
5'	FS 05 OZ
7'	FS 07 OZ
10'	FS 10 OZ
12'	FS 12 OZ
14'	FS 14 OZ
16'	FS 16 OZ
18'	FS 18 OZ
21'	FS 21 OZ

**Pencil Shafts**

3'	FSP 03 OZ
6'	FSP 06 OZ
9'	FSP 09 OZ
11'	FSP 11 OZ
15'	FSP 15 OZ
20'	FSP 20 OZ


### POWER UNITS

**Electric Motors**




Model	Amps	HP	Maximum Head Size	
			Steel	Rubber
1.2 OZ	9	1 1/4	1 1/2"	None
1.8 OZ	15	1 3/4	1 3/4"	None
2.4 OZ	17	2 1/4	2"	1 7/8" [ 2 3/4" short
3.2 OZ	19	3 1/4	2 1/2"	2 3/4"

**Gas Engines**




**Back Packs**

BP - 35	-	1 3/4	1 1/2"	None
BP - 50a	-	2 1/2	2 1/2"	2 1/2" [ 2 3/4" short



**Carry Handle Models (Briggs & Stratton/Honda)**

GV-5	-	5/5.5	2 1/2"	2 3/4"
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**Wheelbarrow (Briggs & Stratton/Honda)**

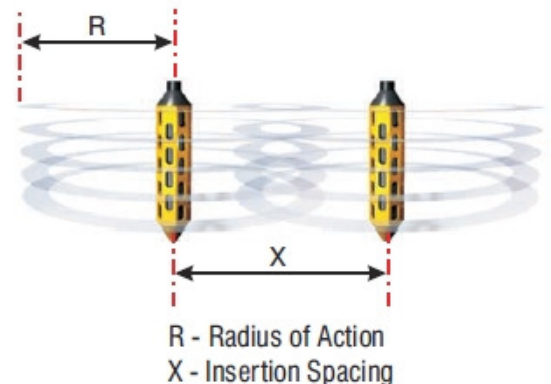
GV-5W	-	5/5.5	2 1/2"	2 3/4"
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All Oztec vibrators meet or exceed ACI specification #309

### Radius of Action - The most important bit of information needed for complete consolidation.

Radius of Action is the distance from the center of the vibrator to the outer edge, where complete consolidation takes place (see diagram). For quality concrete Oztec lists conservative values for "Radius of Action". Complete consolidation is necessary for low slump concrete with close meshed reinforcement bars, high strength concrete and architectural concrete. Radius of Action can be twice the listed values when slump is high or super plastisizers are used. It is important these values are used only as a general guide. Specifications are subject to change.

Head Diameter	Radius of Action (R- inches)	X = 1 1/2 Times Radius of Action	Amplitude Centerline to Side (inches)	Centrifugal Force (pounds)	Compaction Rate (cu. yds. / hour)
<b>Steel Heads</b>					
3/4"	3	5	0.03	155	1-3
1"	4	6	0.04	220	2-4
1 1/4"	5	8	0.04	510	2-5
1 1/2"	6	9	0.05	920	5-8
1 3/4"	9	14	0.08	1200	8-16
2"	11	17	0.075	1500	12-20
2 1/2"	13	20	0.08	1850	23-30
<b>Rubber Heads</b>					
1 1/2"	9	13.5	0.075	1050	9-13
1 7/8"	11	16	0.09	1400	10-18
2 1/2"	14	20	0.12	1900	14-22
2 3/4"	18	27	0.12	2100	25-35
2 3/4" short	15	22	0.12	1100	9-15



# Tips & Suggestions

"The benefits of even the finest concrete vibrator are lost if the proper operating technique is not followed".

**Proper vibrating techniques will:**

- Produce concrete with the maximum strength and qualities designed in the mix.
- Bond rebar to maximize strength.
- Slow penetration of rust causing liquids by increasing density.
- Eliminate rock pockets and lift lines.
- Minimize patchwork, improving surface appearance by removing trapped air.

**Proper consolidation techniques will not:**

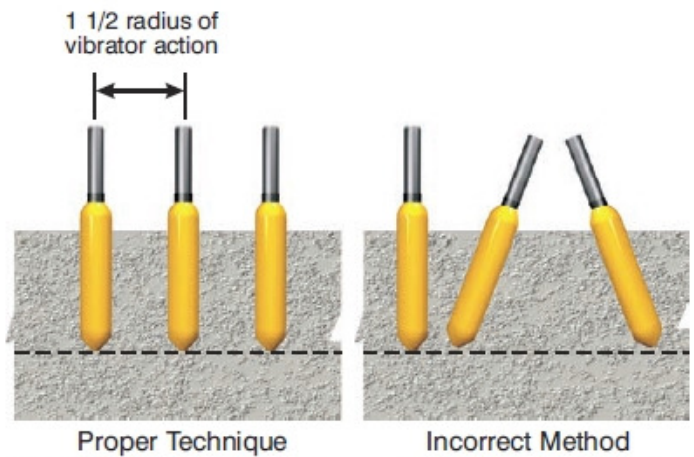
- Cause segregation in well designed concrete.
- Eliminate a significant amount of entrained air.
- Normally damage the lower layers, as long as the concrete in these lower layers becomes plastic under the vibrating action.

**For Quality Concrete, Oztec Suggests:**

1. Select the largest vibrator suitable for the job.
2. Insert the vibrator vertically, allowing it to sink to the desired depth by its own weight. Forcing it may lock it between rebars.
3. Hold the vibrator 5 to 15 seconds then slowly lift vibrator up, staying behind the trapped air's upward movement. Allow about 15 seconds for each 2 foot distance to avoid re-trapping air.
4. A slight up and down movement will close the hole formed by the vibrator.
5. Withdraw the vibrator quickly when near the top to prevent churning air into the top layer.
6. Move vibrator and re-insert at a distance 1 1/2 times the Radius of Action...As shown in the diagrams.
7. Allow vibrator to pass 3 to 6 inches into the preceding layer to ensure knitting the two layers together, ensuring a good bond and preventing "lift lines" when forms are removed.
8. Try to limit pours to 2 to 3 feet high, so air has less resistance to escape.
9. Do Not use vibrator to move concrete laterally...it causes segregation (use a shovel). Place vibrator in the center of mounds to knock them down.

Consolidation eliminates pockets of aggregate and air bubbles maximizing strength, eliminating surface voids, bringing sufficient fine material to the surface and against the forms to produce the desired finish. Vibrators consolidate concrete by sending out shock waves which allows aggregate to "float" freely while pushing lighter trapped air up and out of the mix. Vibrators allow pouring stiff mixtures which are stronger, more economical and result in less segregation, less bleeding and less shrinkage cracks.

You know that you have consolidated concrete properly when a thin line of mortar appears along the form near the vibrator or the coarse aggregate disappears into the concrete.

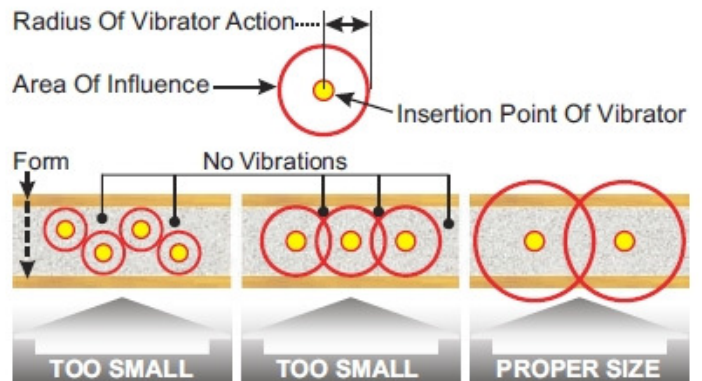


**IMPORTANT: Trapped air moves upward in the mix from 1 to 3 inches per second. (1 inch in near 0 slump; 3 inches in 4 to 5 inch slump).**

**Extension Cord Wire Size Per UL Specifications**

Too light an extension cord can cause poor performance and motor burn out.

Motor model#	Amps @120v	50ft	100ft	150ft	200ft	300ft
1.2	9	14	14	12	10	8
1.8	15	14	12	10	8	8
2.4	17	14	12	8	8	8
3.2	19	12	12	8	8	6



One page is not sufficient to describe the full scope of vibrating concrete. A fine source for more complete information are publications from ACI.