

## Concrete Vibrators



Consolidation of concrete in forms is now made quicker and easier with Northrock concrete vibrators. With a wide range of poker vibrator heads, flexible shafts and power sources, Northrock has the right combination for concrete contractors, rental houses and equipment dealers looking for a rapid return on investment.

Northrock concrete vibrators offer just the right mid-frequency and force characteristics required to set material particles in motion fast, for rapid consolidation of homogenous mixes. At

the same time, these optimum frequencies avoid the possibility of destroying important pressure-relief chains produced by small air bubbles. These relief chains are known to resist damage during freeze-thaw cycles in colder climates. They are not protected by competitive higher frequency systems which tend to destroy them. And Northrock concrete vibrators are designed to maintain these optimum frequencies regardless of slump, head size, or other load factors.

### **Built Tough**

Northrock internal concrete vibrators are built to take a beating. Electric motors are protected by a high-strength cast aluminum housing that also dissipates potentially damaging heat. A rugged shock-absorbing frame protects the housing while acting as a convenient carrying handle for the

unit. Watertight, strain relief power cords take all kinds of abuse on the job and power switches are protected by the frame.

The vibrator heads themselves are factory sealed, require no maintenance and are warranted for life. Optional

soft tips and coated heads are available to provide protection for expensive forms and rebar.

## Mix & Match

Components of the Northrock system are interchangeable so that both contractors and rental organizations can put the right combination on the job quickly – no matter what the jobsite demands.

And the following components are designed to be interchangeable with all other major brands:

- Choose from three electric units from 1-½ to 3 hp and two fixed gasoline units of 5 and 8 horsepower plus a 2-½ hp gas backpack unit.
- Choose from flexible shaft lengths between 2' and 30' or up to 60' with connectors.
- Choice of head diameters from ¾" to 2-½."

### POWER SOURCE INDICATOR

How to select components for your Northrock system:

**1** – As a rule of thumb, the head size of the vibrator system should be selected to match the maximum aggregate size of the pour.

**2** – The shaft length should be chosen based on the job at hand.

**3** – Power sources are generally selected to maintain a vibration frequency of 10,000 vpm under maximum load.

**4** – Match components using the chart below.

	Head Diameter (inches)	Shaft Length (feet)					
		2	5	7	10	14	30
PRO 1.5 1-½ hp Electric	¾						
	1						
	1-¼						
	1-½			*	*	*	*
PRO 2.0 2 hp Electric/ PRO 5G/GW 5 hp gas	1-¾		*	*	*	*	*
	2	*	*	*	*	*	*
	2-½	*	*	*	*	*	*
							PRO 3.0 3 hp Electric/ PRO 8G/GW 8 hp Gas

\* Upgrade to next size power unit if any of the following conditions exist:

- A larger diameter head may be installed in the future
- Low-slump concrete or abnormal conditions exist which restrict flow
- Unit will run continuously as in a precast plant
- Shaft connectors will be used to extend shaft length
- Frequency is below 10,000 for any reason whatsoever
- NOTE: Shafts are available in lengths up to 60' with connector.

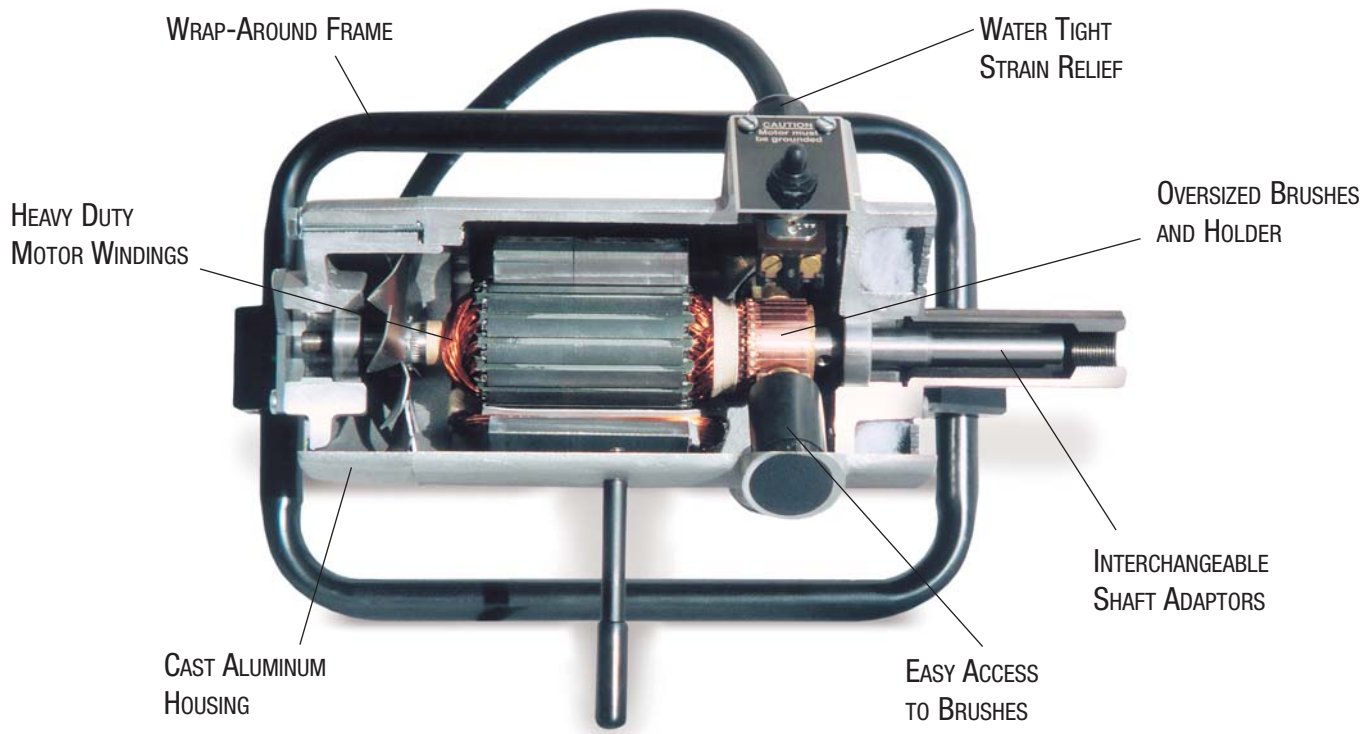
## Flexible Shafts

Northrock offers a choice of standard heavy-duty and light-duty pencil shafts in lengths from 1' up to 30' in convenient incre-



ments. Lengths up to 60' are available via a simple shaft connector.

Heavy-duty shafts are stiffer and are used primarily for better pokeability. The lighter duty pencil shafts are available for applications where better flexibility is required and may be used with all size Northrock poker vibrator heads.



## Power Units – Electric



Northrock electric power units are available in three different sizes to meet application, shaft length and head diameter needs up to 2- $\frac{1}{2}$ " in diameter. Motor size is selected to maintain an in-material working frequency of about 10,000 vpm under load.

Access ports are provided at the side of the units for easy maintenance of commutator and brushes. All

Northrock power units may be configured to drive alternate brand shafts and heads. All electrical systems are UL and cUL approved.

## Power Units – Gasoline

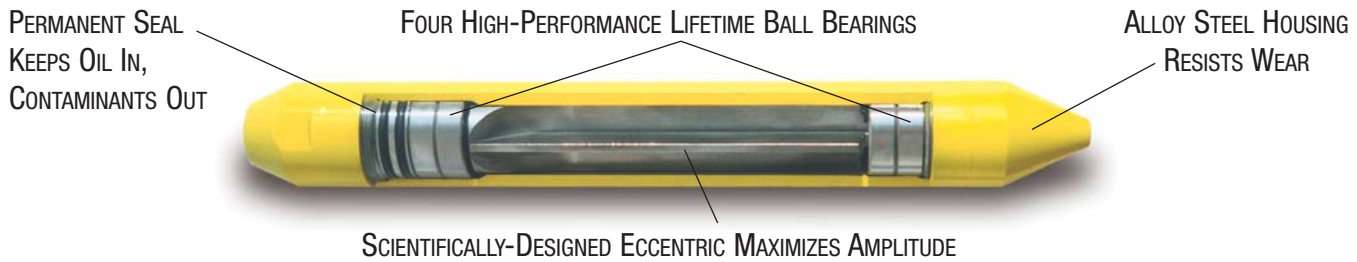
Northrock pedestal and wheelbarrow models are each available in a choice of 5hp or 8hp plus a 2- $\frac{1}{2}$  hp backpack version. While the pedestal version is designed for stationary applications, the mobile wheelbarrow model may be moved quickly around the site. The horsepower selected will be determined by the length of the shaft and the diameter of the head required to meet application needs with the vibrator under load.

These power units may be configured to drive alternative brand shafts and heads.

## Power Units – Backpack

When concrete consolidation is required for remote applications, there's nothing like a Northrock backpack power unit. These gas-driven power sources are designed for use where electrical power is not conveniently available or extra mobility is required. Lightweight yet powerful, these 50cc, 2- $\frac{1}{2}$  hp machines are strong enough to drive vibrator heads up to two inches in diameter while maintaining proper operating frequency.





## Vibrator Heads

Seven Northrock vibrator heads are available in a range of diameters from  $\frac{3}{4}$  inch up to 2- $\frac{1}{2}$  inches. Diameter is selected by the scope of the job and the speed required to complete it. For more information on selection of the components in this system, please check the charts on this page.

A high level of centrifugal force and amplitude are created by rotating Northrock's unique eccentric weights within the head at the desired frequency. A special oil bath system keeps the weights lubricated at all times. All heads are sealed at the factory and are maintenance free. Built for the busy contractor and a wide range of tough rental applications, they are designed for reliability and durability over extended periods of time.

Like other components of the system, Northrock vibrator heads are interchangeable with all other major brands on the market. For the dealer nearest you, call Northrock directly at 1-800-989-8423.



**Special Heads** – A short 4- $\frac{1}{2}$  inch head is available for slabs, tilt-up and other select precast work. Coated heads from 1- $\frac{1}{2}$ " to 2- $\frac{3}{4}$ " diameter are available to protect epoxy-coated rebar. Soft tips are available to protect expensive forms.

## VIBRATOR HEAD SPECIFICATIONS

Head Diameter & Length inches / mm	Centrifugal Force pounds / N	Amplitude to side at tip inches / mm	Radius of Influence inches / mm	Capacity y <sup>3</sup> /hr / m <sup>3</sup> /hr
$\frac{3}{4}$ x 12 19 x 305	112 498	.070 1.78	4 102	4 3.64
1 x 13 25 x 330	183 820	.075 1.91	5 127	6 5.46
1- $\frac{1}{4}$ x 13 32 x 330	430 1,913	.080 2.03	7 178	8 7.28
1- $\frac{1}{2}$ x 14 38 x 356	760 3,380	.090 2.29	14 356	12 10.92
1- $\frac{3}{4}$ x 14 44 x 356	1100 4,893	.110 2.79	18 457	24 21.84
2 x 14 51 x 356	1450 6,450	.130 3.30	22 559	35 31.85

## Other Northrock Products



Concrete Grinders



Backpack Vibrators



Power Screeds

## Lifetime Warranty

All Northrock products are manufactured to the highest quality standards. If a vibrator fails due to a manufacturing defect, we will repair or replace it at absolutely no charge for the life of the product.



Your Authorized Dealer:

3688 Horseblock Road • Medford, NY 11763  
phones: 800-989-8423 or 631-924-6130  
faxes: 800.315.1277 or 631.924.6369  
www.northrockindustries.com