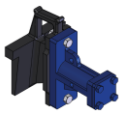
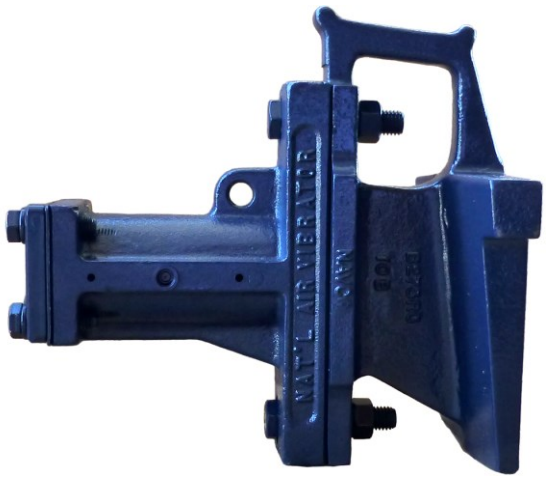
HCP 2.00



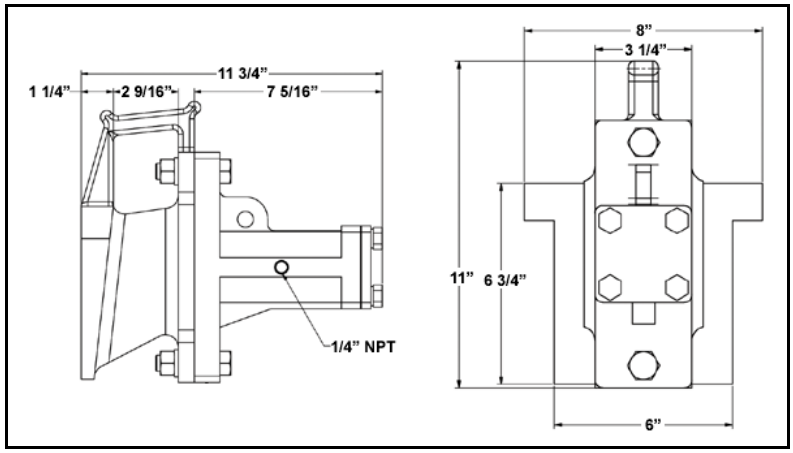
Hopper Car Portable Vibrator

The NAVCO HCP 2.00 pneumatic piston vibrator is designed to provide reliable and effective performance while operating in severe environments. The size and operating characteristics of the HCP 2.00 make it ideal for handling by personnel in lighter duty railcar unloading applications.

The HCP 2.00 incorporates a user friendly handle with a light weight and effective vibrator. The handle's design allows for the unit to be inserted without awkward movement by the operator, providing maximum user comfort and minimizing fatigue.



Operation and Construction



The HCP 2.00 vibrator incorporates a nominal 2 inch piston and bore. The vibrator housing is manufactured from a one piece, ductile iron casting. During operation, compressed air is alternately directed from one end of the piston to the other through a series of internal ports. The piston is the only moving part, which makes the HCP vibrator a reliable, low maintenance device.

Operation Specifications

Weight:	42 lbs
Air Consumption:	8 SCFM @ 50 PSI
Frequency:	2100 VPM

The HCP mounting head features a rugged, hardened steel construction and fits all dovetail brackets found on North American hopper cars. The HCP mounting head also incorporates a unique design that ensures a loose fit when inserted into the railcar's dovetail bracket.

The loose fit, "free ride" design is a feature exclusive to NAVCO HCPs that provides the following advantages:

- **Effectively maintains flow -** allows for the high amplitude, low frequency vibrations produced by the HCP unit to move the total mass of the vibrator back & forth in the dovetail bracket. This is the most efficient and effective means to transmit vibration energy through the railcar hopper and into the bulk material.
- **Minimizes maintenance costs -** most railcar manufactures recommend the use of only high amplitude, low frequency vibrators in order to minimize stress fatigue and railcar maintenance costs.
- **Eliminates "hang-ups"** - ensures the vibrator does not become lodged into the bracket, allowing for easy installation and removal of the HCP unit.

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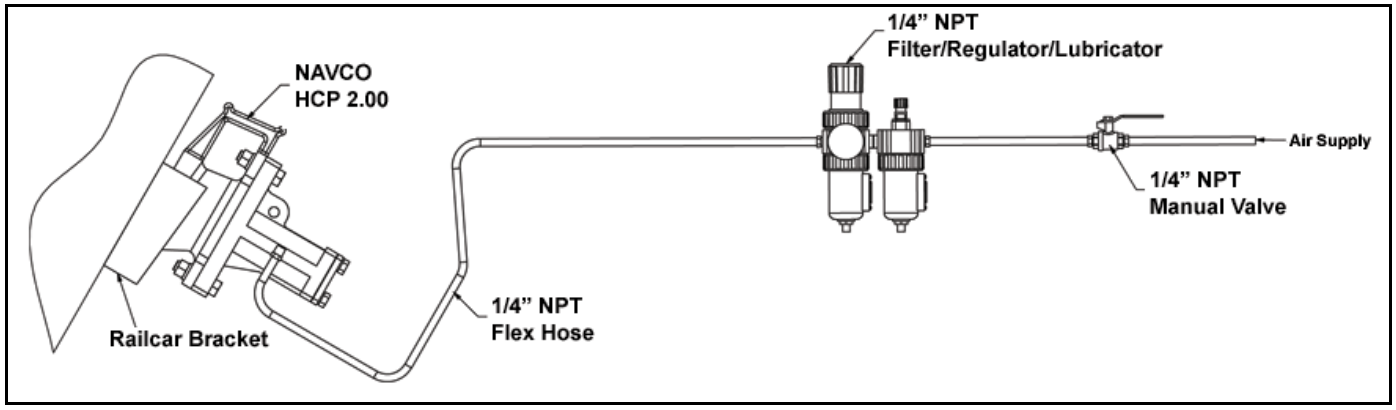
All HCP units come standard with Teflon coating on all internal surfaces. This enhances the durability and reliability of the HCP unit – providing optimum service life in even the most demanding environments.

Installation



The HCP 2.00 is designed to fit loosely in the hopper car's dovetail bracket upon installation. The unit should be allowed to move freely in the bracket during operation.

A well designed air supply line system is recommended to allow filtered and lubricated air to reach the vibrator. Care should be taken to keep air supply lines free from contaminants while the HCP unit is operated. Recommended operating air pressure is 20 to 60 PSI (at the vibrator).

Automatic on/off cycling is suggested to optimize the unloading process. Additional benefits of cycling include extended vibrator life, reduced utility consumption and lower average noise levels.

Any further questions concerning vibrator installation should be directed to NAVCO.

Accessories

All airline accessories required for the complete installation of HCP units are available through NAVCO.

Additional Sizes

NAVCO HCP units are also available in the following configurations: 3.00, 3.L0 and 4.00. Contact your local representative or NAVCO directly for assistance in selecting the appropriate vibrator for your application.