HANDI PIER®

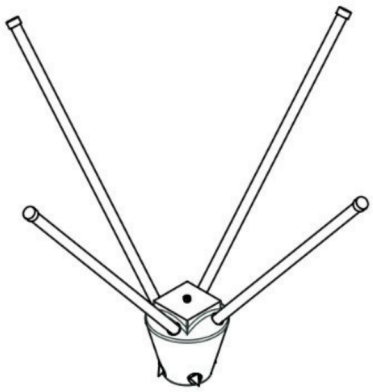
ENGINEERED BY NCP INDUSTRIES

INSTALLATION MANUAL

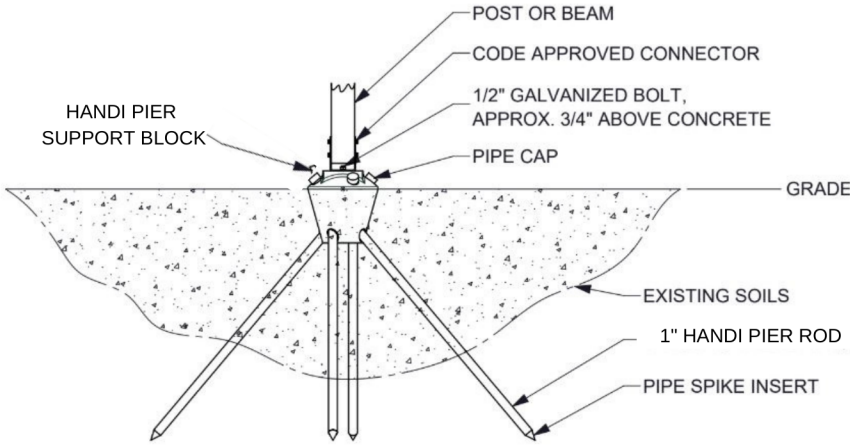
NCP Industries | 3607 East Hwy 24 | Norfolk, NE | 888.379.2210 | info@NCPIndustries.com

HANDI PIER® is an EASIER way to install structural support foundation systems. Stop digging holes and waiting for concrete to dry. The HANDI PIER® system saves you time & money on the job-site.

HANDI PIER® has been engineered using high-strength concrete with a steel reinforced rod core for extra durability and longevity and is designed to be used with a 4" or 6" post bracket or connector. (not included)



BEFORE PIPE INSTALLATION



ELEVATION VIEW

WARNING: It is important to read all Warranty Information and Installation Instructions BEFORE installation. Safety first is the number one priority with any construction project. Always wear safety glasses, gloves, and ear protection when installing HANDI PIER®.

- Before installing HANDI PIER®, confirm that there are no underground utilities, wires, cables, etc. in the area where the HANDI PIER®(s) will be located keeping in mind the width of the installed HANDI PIER® 50" rod is approximately a 3' radius or a total of 6' diameter while the 63" rod is approximately a 3.5' radius or a total of 7' diameter.
- Calculate the spacing of the project so that each HANDI PIER® is supporting no more than its maximum load capacity. HANDI PIER® should not be installed in any un-compacted fill or loose soil.
- HANDI PIER® is designed to be used on structures supported by posts and beams, no rotational or dynamic loads should be supported on the HANDI PIER®. (See Load Chart on Page 2)
- Please read all soil condition requirements in the next section before installing your HANDI PIER® support block system. See Soil Condition Requirements on Page 3.

The following load chart is intended for residential use only on decking and foundation projects such as decking, covered walkways, gazebos, platforms, columns and post supports for simple structures. Please follow all load chart requirements before using HANDI PIER® support block systems on your desired project. The information provided is in comparison to standard poured concrete footings including load bearing capacity and frost heave resistance.

HANDI PIER® | Minimum 1500PSF | SILTS & CLAYS

(Design Safety Factor = 2.0, Residential Use Only)

PIER TYPE	BEARING CAPACITY	PIER PIN LENGTH	EQUIVILENT PIER SIZE	CYLINDER COMPARISON	FROST DEPTH	UPLIFT CAPACITY	LATERAL CAPACITY
HP-R (50)	3400 LBS	4' - 2"	2.2 SQFT	20" DIA	4' - 0"	1200 LBS	500 LBS
HP-R (63)	3400 LBS	5' - 3"	2.2 SQFT	20" DIA	5' - 0"	1200 LBS	500 LBS

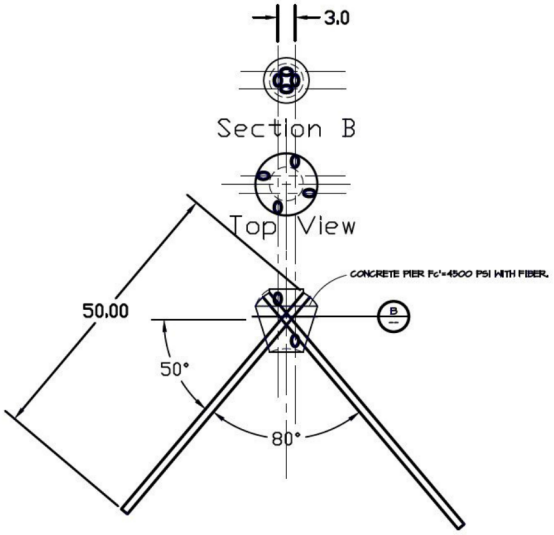
COMPARED TO STANDARD POURED CONCRETE FOOTINGS

HANDI PIER® | Minimum 2000 PSF | SAND SOILS

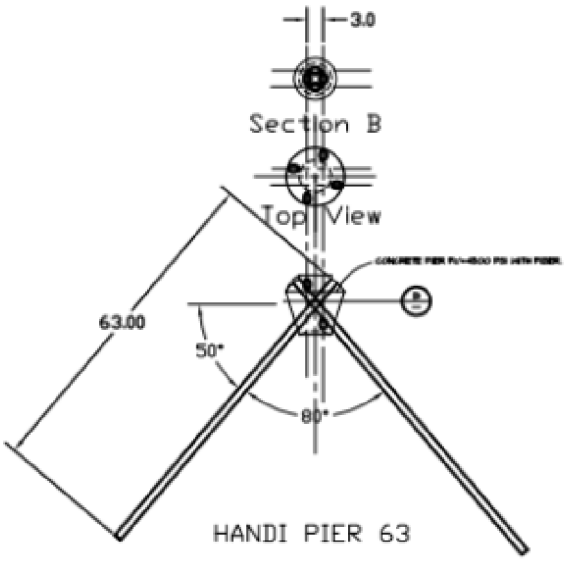
(Design Safety Factor = 2.0, Residential Use Only)

PIER TYPE	BEARING CAPACITY	PIER PIN LENGTH	EQUIVILENT PIER SIZE	CYLINDER COMPARISON	FROST DEPTH	UPLIFT CAPACITY	LATERAL CAPACITY
HP-R (50)	4400 LBS	4' - 2"	2.2 SQFT	20" DIA	4' - 0"	1200 LBS	500 LBS
HP-R (63)	4400 LBS	5' - 3"	2.2 SQFT	20" DIA	5' - 0"	1200 LBS	500 LBS

COMPARED TO STANDARD POURED CONCRETE FOOTINGS



HANDI PIER 50



HANDI PIER 63

NCP Industries has received confirmation from ICC Evaluation Service, LLC (ICC-ES), that its HANDI PIER® complies with the provisions of the 2018, 2015,2012,2009 and 2006 International Residential Code® (IRC)

This confirmation, as evidence in ICC-ES evaluation report ESR-4404, provides guidance to code officials faced with approving the use of HANDI PIER® under these codes.

The evaluation report is available online at https://icc-es.org/report-listing/esr-4404.

SOIL CONDITIONS

HANDI PIER® support block has been engineered to withstand normal soil conditions throughout the region. When using HANDI PIER® support block on a residential project, it is important to know that it cannot be installed with soil conditions less than 2000 psf sands/gravel and 1500 psf silt/clay. HANDI PIER® is designed to be installed in normal soil conditions. Soils that do not meet these requirements can result in failure of the structure and void all warranties. Please check your local building codes or research soil conditions in your area online through the US Department of Agriculture.

HANDI PIER® is not designed to be used on slopes greater than 27 degrees or on any location that may have shifting or sliding soils. Do not install in soils less than 1500psf. Doing so will result in inconsistent support of the structure and may be affected by frost heave. This also pertains to soils that can be compromised due to improper drainage, standing water, or highly saturated soils. Poor drainage on or around a HANDI PIER® support block system can result in unsound soils and structure failure. This also relates to job-sites near standing bodies of water such as lakes, rivers, ponds, pools, water features and/or downspouts. Always ensure proper drainage and soil saturation levels before installing HANDI PIER®.

USES & APPLICATIONS

The general use for HANDI PIER® support block system is for residential decking and foundation projects such as, but not limited to, decking, covered walkways, gazebos, platforms, columns and post supports for simple structures. Please follow all load chart requirements before using HANDI PIER® support block systems on your desired project. See HANDI PIER® Load Chart on Page 2 for complete specifications, cylinder comparisons and frost zone values. This information will compare the size of a traditional concrete pier foundation including load bearing capacity and frost heave resistance.

FROST HEAVE & RESISTANCE

It is important to know that frost is common throughout most of the United States due to the natural freeze/thaw cycle. In frost zones, make sure all areas are properly drained to help prevent heaving within the soil. Properly treated and sound soils will help decrease the chance of potential frost heave and hold foundations in place.

In most cases, HANDI PIER® is engineered to resist frost heave by using pressure driven rods installed at an angle, giving the foundation a stable structure for both bearing and uplift forces caused by frost. These rods are free to shift without compromising the original position of the pier allowing HANDI PIER® to absorb strains caused by frost heave or expanding conditions.

HANDI PIER® installation is not recommended when working in areas where required traditional footings are required to be deeper than 60" to resist frost heave.

YOUR HANDI PIER® KIT INCLUDES:

- HANDI PIER® CONCRETE HEAD (1)
- GALVANIZED STEEL RODS (4)
- ROD DRIVER PLUGS (4)
- ROD CAPS (4)
- INSTALLATION INSTRUCTIONS
- WARRANTY INFORMATION

YOU WILL ALSO NEED FOR INSTALL:

- 1-1/8" HEX DRIVING BIT & BREAKER HAMMER
- SAFETY GLASSES, GLOVES & EAR PROTECTION
- SHOVEL, LEVEL & TAPE MEASURE
- SLEDGEHAMMER OR MAUL
- SILICONE CAULK AND CAULKING GUN
- TWO OR MORE PEOPLE TO ASSIST IN INSTALL

STEP 1:

Identify the location of each HANDI PIER® needed for the project. Dig a hole the approximate size and shape of the HANDI PIER® head. This hole should be slightly larger than the head allowing for some loose fill under it. Position the head in the hole and ensure it is level. Pack soil around it to help maintain its position during the rest of the install.

STEP 2:

Using a mallet, assemble the rod driver points into one end of each rod (4 per HANDI PIER®).

STEP 3:

Insert the rods in the 4 holes in the head with the driver point down and insert to a depth of a foot or so with the sledge or maul.

WARNING! Driver Points should fit snug. If not, rotate the points until tight and continue tapping with a mallet to ensure that they do not fall out during installation. Be sure to read the full installation manual for Cold Weather Installation tips & more!

STEP 4:

Using the automatic hammer, carefully drive in each rod alternately and in increments. Finish driving the rods to the appropriate depth leaving approximately 3/4" of the rod exposed.

CAUTION: If the rod meets an obstacle that cannot be driven through, you may need to attempt to remove the obstacle. If this is not feasible, the head can be rotated.

STEP 5:

After all 4 rods are inserted, caulk around the rod at the head sleeve. This will help alleviate any concerns of moisture penetrating the head assembly.

STEP 6:

Finish filling in dirt around the HANDI PIER® head. Place the 4 caps on the rods and continue the project. Caps can be removed for building inspection.

COLD WEATHER INSTALL: Extreme cold can affect plastic parts & pieces. It is best to keep warm until needed and use caution when installing. Do not force cold caps onto the pipe. See COLD WEATHER INSTALL tips in our complete installation manual for more information.

Visit our website at www.NCPIndustries.com or more information including Warranty Information, Registration and Installation Video.

DAMAGED HANDI PIER® HEAD

Before installing your HANDI PIER®, it is always best to inspect the head for cracks, faults or defects. Keep in mind that minor chipping, flaking, pitting and/or color variation is common and will not affect the installation. The HANDI PIER® support system is reinforced with a steel core to keep the rods in position and to help protect the head from structural damage during installation and load bearing pressures. DO NOT install a HANDI PIER® support block head that has significant cracking or structural damage.

DAMAGED HANDI PIER® ROD

Before installing your HANDI PIER® support block system, run each rod through the holes to ensure proper fit. Each rod should slide in and out of the sleeve by slightly tapping with a sledge or maul. Use ONLY the HANDI PIER® rods provided with your kit. Failure to do so will void the warranty. DO NOT use a sledgehammer to drive the rods completely into the ground. Only use a sledgehammer to get the rods started and then continue installation with an automatic hammer. DO NOT attempt to use bent or damaged rods.

DIFFICULTY INSERTING RODS

It is sometimes common for traces of concrete to dry inside the steel insert during production. If this happens, gently tap away excess concrete inside the steel insert. Keep in mind that the HANDI PIER® rod is galvanized and engineered to fit tightly inside the support block head sometimes resulting in difficulty getting the rod started. Make sure you are inserting each rod at a 50° angle by using a sledge or maul until the rods are securely in the ground. Once the rods are started, continue installation using the automatic hammer.

KEEPING THE HEAD LEVEL

While you are installing your HANDI PIER® support block system, remember to keep the head level throughout the entire installation. Keeping a small level on top of the head will help you monitor the position during installation. To help with this process, it is best to not dig a hole any bigger than the head. Once level and the pins are inserted, have one person monitor the level and adjust the position by slightly moving the rods during installation. Work your way around the head driving the rods in short increments. This will provide you with consistent installation and keep the head level. Adjust as you go.

SETTLING

Due to heavy loads or settling over a period of time, you may notice the rods have risen slightly from the HAND PIER® support block head. If this is the case, simply remove the caps, lightly tap the pins with a sledge or maul, re-caulk around the rods at the head sleeve and replace the caps.

REPLACEMENT/MISSING PARTS

If you are missing or need replacement parts for your HANDI PIER® support block system, either return to the original retailer or call NCP Industries at 888-379-2210 for assistance. Please keep your original receipt and documentation on hand for replacement, exchange and warranty purposes.

LIMITED WARRANTY

Product must be registered within 30 DAYS of purchase to qualify for limited warranty. For more information visit www.NCPIndustries.com. (See Limited Warranty on Page 7)

COLD WEATHER INSTALLATION TIPS

PIPE CAPS

It is best to keep plastic parts at room temperature during cold weather installation. Extreme cold can cause top caps to split during final installation. To prevent this, keep at room temperature until needed and use caution when using a mallet to tap them on. Do not force cold caps onto pipe.

DRIVER POINTS

Exposure to extreme cold may cause plastic parts to shrink. Driver Points should fit snug. If not, rotate the points until tight in the pipe and continue tapping with a mallet to ensure that they do not fall out during installation. If needed, adhere a small amount of silicone between the driver tip and pipe for proper fit.

OBSTRUCTIONS & REMOVING HANDI PIER®

OBSTRUCTIONS

Call before you DIG by checking with your local utility companies! Before installing HANDI PIER® support block system, confirm that there are no underground utilities, wires, cables, etc. in the area where the HANDI PIER®(s) will be located keeping in mind the width of the installed 50" HANDI PIER® rod is approximately a 3' radius or a total of 6' diameter while the 63" rod is approximately a 3.5' radius or a total of 7' diameter.

If at anytime you come upon an obstruction while driving a pin, stop immediately to assess the obstruction. If it is determined that the obstruction IS NOT a utility but rather a natural object, (rock, roots, etc.) attempt to drive through the obstruction by driving the pin with a sledge or maul. Once you have worked through the obstruction, continue installing the rods in equal increments around the head with the automatic hammer to complete the installation.

If you are unable to move past the object, it is possible to remove all of the rods, rotate the support block head one half turn and start over with the installation process. When doing so, remember to check the area again for underground utilities, level the head and continue with installation.

Another option would be to remove the HANDI PIER® support block head completely, carefully dig up the obstruction, re-compact the work area by tamping the soils and start over with the installation process.

ROD REMOVAL

Using a pipe wrench, carefully work the HANDI PIER® rod up and out of the support block head. Continue twisting and pulling the rod until you are able to easily pull it out by hand. DO NOT use force to remove the rod. Doing so may cause severe damage to the head or bend the rod. DO NOT reuse bent rods or damaged HANDI PIER® support block heads.

Limited Warranty

THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS, WHICH VARY FROM STATE TO STATE. THE LIMITED WARRANTY CAN BE FOUND ONLINE AT WWW.NCPINDUSTRIES.COM. THE PRODUCT MUST BE REGISTERED WITHIN 30 DAYS OF PURCHASE TO QUALIFY FOR A WARRANTY. (see registration information below)
WE WARRANT THAT DURING THE WARRANTY PERIOD, THE PRODUCT WILL BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP. OUR RESPONSIBILITY FOR DEFECTIVE GOODS IS LIMITED TO REPLACEMENT OR REFUND AS DESCRIBED IN THIS WARRANTY STATEMENT.
WE LIMIT THE DURATION AND REMEDIES OF ALL IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, TO THE DURATION OF THIS EXPRESS LIMITED WARRANTY. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

What does this warranty cover?

This limited warranty covers defects in materials and workmanship of the HANDI PIER® (the "product") for the Warranty Period defined below. Only one warranty claim is allowed per product.

Who may use this warranty?

NCP Industries, located at 3607 E. Hwy 34, Norfolk, NE 68701 ("we") extends this limited warranty only to the consumer who originally purchased the product ("you"). It does not extend to any subsequent owner or other transferee of the product.

What does this warranty not cover?

This limited warranty does not cover cosmetic issues (such as weathering, pitting, or chipping) or general maintenance issues (such as adjusting the rods or setting the rod caps) nor does it cover any damage due to: (a) transportation; (b) storage; (c) improper use; (d) failure to follow the product instructions; (e) modifications; (f) normal wear and tear; or (g) external causes such as accidents, abuse, or other actions or events beyond our reasonable control.
We are not responsible for failure due to (1) related parts supplied by others, (2) unsound soils, or (3) special conditions that require additional measures beyond those typically required by the local building code. Such special conditions could include soil-bearing strengths below 1500 psf, hydric soils, uncompacted or fill soils, contaminated soils, peats, highly expansive or improperly drained soils, structures with asymmetric, overturning or dynamic loads, sites with steep slopes or sliding or shifting soils, sites with historic evidence of conventional foundation failure or sites in frost zones exceeding those published per specific pier application.

What is the period of coverage?

This limited warranty lasts for the lifetime of the original, unmodified structure supported by the product. The Warranty Period is not extended if we replace the product.

What are your remedies under this warranty?

With respect to any defective product during the Warranty Period, we will, in our sole discretion, either (a) replace such product free of charge or (b) refund the purchase price of such product.

How do you obtain warranty service?

To obtain warranty service, you must call 888-379-2210 or email our Customer Service Department at info@ncpindustries.com during the Warranty Period to obtain a claim number. No warranty service will be provided without a claim number.

What other requirements apply to a Warranty Claim?

To make a warranty claim, the following requirements must be satisfied:

- The project where the product is installed must be registered with us within thirty (30) days of project completion. (see Warranty Registration Information online at www.NCPIndustries.com.
- The product must be installed in Normal Soil Conditions according to the HANDI PIER® Installation Manual, and used in compliance with the design criteria and other product specifications. We reserve the right to inspect the project to confirm the proper installation of the product and compliance with the terms of this limited warranty.
- We must be notified of a claim for apparent defects prior to installation, and all claims for defects (apparent or otherwise) must be made within thirty (30) days of you becoming aware of such defects.
- The project must be approved, built, and inspected in compliance with local building codes.

Limitation of liability

THE REMEDIES DESCRIBED ABOVE ARE YOUR SOLE AND EXCLUSIVE REMEDIES AND OUR ENTIRE LIABILITY FOR ANY BREACH OF THIS LIMITED WARRANTY. OUR LIABILITY SHALL UNDER NO CIRCUMSTANCES EXCEED THE ACTUAL AMOUNT PAID BY YOU FOR THE DEFECTIVE PRODUCT, NOR SHALL WE UNDER ANY CIRCUMSTANCES BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, OR PUNITIVE DAMAGES OR LOSSES, WHETHER DIRECT OR INDIRECT. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.