

# "The solution to rebar cage alignment"



## THE PROBLEM:

Rebar cage alignment in drilled shafts, drilled piers, caissons, cast-in-drilled-hole piling and cast-in-place pile.

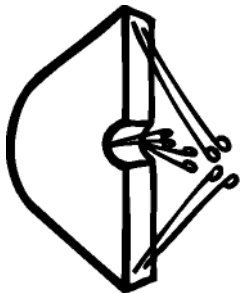
Without proper alignment, the rebar cage cannot perform the function for which it was designed. Proper positioning helps protect against long-term corrosion of the rebar. **Faulty alignment can cause foundation failure, which often leads to issues of contingent liability.** Because the rebar cage cannot be inspected or tested after the concrete is placed in the drilled shaft, the cage must be aligned properly the first time.

Often spacers, such as rocks, bricks, or sticks are used in an attempt to properly space the cage within the shaft. Usually these devices fail to stay attached to the cage and tend to gouge the side of the shaft, causing debris to clutter the shaft's floor. Also, several manufacturers produce products, such as plastic wheels and bolsters. Unfortunately, these products usually detach from the cage and get crushed. The wheel products tend to intrude into the cage and interfere with the tremie. Because of these and other problems, many contractors fail to use any device to properly align the cage.

## THE SOLUTION:

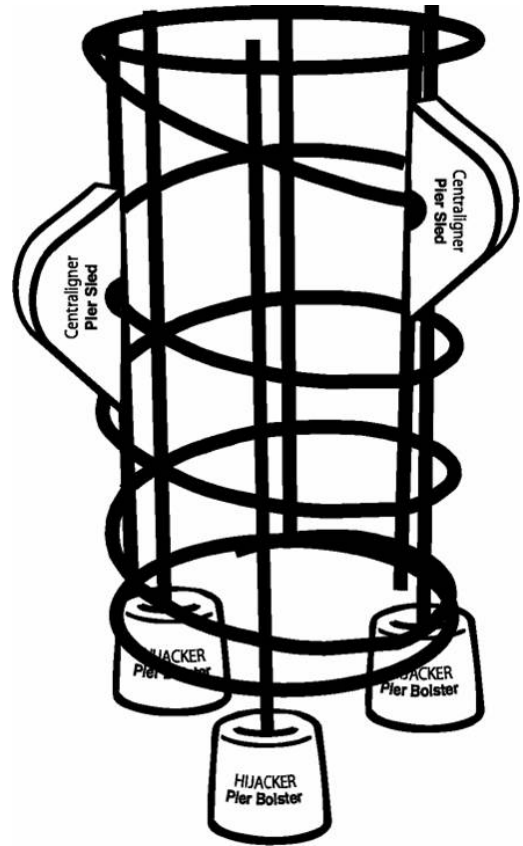
**PIERESearch of Arlington, Texas has developed a solution to these cage-positioning problems consisting of two 8,500 psi high-strength grout devices, the Centraligner® Pier Sled and Hijacker® Pier Bolster.**

Centraligner® Pier Sled contains a notch for the spiral or circle tie and has four sets of integral, embedded 16 gauge wires for ease of installation. The sled's shape prevents the cage from hanging on the casing and it doesn't protrude into the interior of the cage so interference with the tremie is not a concern.



Centraligner® Pier Sled

The Hijacker® Pier Bolster is disk-like in shape and contains 9 gauge looped tie wires for installation. The high-strength grout supports the weight of the cage and will



Centraligner® Pier Sleds and Hijacker™ Pier Bolsters attached to a demonstration cage.



Hijacker™ Pier Bolster

not shatter should the cage strike the casing or some other object. Because the sled and the bolster are tied to the cage, the possibility of them becoming detached is eliminated.

These products have been well received by the structural engineering and construction communities. They achieve a result that has long been sought by structural engineers.

For further information about these products, recommendations for their use, or a **FREE SPEC KIT**, contact:

## PIERESearch

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Or Exclusive Manufacturer's Representative

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Visit our web page at [www.piereseach.com](http://www.piereseach.com) for suggested specifications and other information.

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The tables below illustrate the recommended number of Centraligner® Pier Sleds and Hijacker® Pier Bolsters to be used on a per shaft basis. The actual number can vary subject to the number of vertical bars of the reinforcing steel cage. The structural engineer is the governing authority. When in doubt, please check with the structural engineer.

Recommended Centraligner® Pier Sleds per Reinforcing Cage					
Pier Shaft Depth in Feet	Pier Shaft Diameter in Inches				
	Under 30"	31" to 48"	49" to 72"	73" to 96"	97" to 120"
0' to 12'	6	8	12	16	20
13' to 24'	9	12	18	24	30
25' to 36'	12	16	24	32	40
37' to 48'	15	20	30	40	50
49' to 60'	18	24	36	48	60
61' to 72'	21	28	42	56	70
73' to 84'	24	32	48	64	80
85' to 96'	27	36	54	72	90
97' to 108'	30	40	60	80	100
109' to 120'	36	48	72	96	120
121' to 132'	39	52	78	104	130
133' to 144'	42	56	84	112	140

Recommended Hijacker® Pier Bolsters per Reinforcing Cage				
Pier Shaft Diameter in Inches				
Under 30"	31" to 48"	49" to 72"	73" to 96"	97" to 120"
3	6	8	10	12

**To order, call PIERESearch for current pricing, give quantity, size and name. Stainless steel or epoxy coated tie wires are available on special order.**

- 2" Centraligner Pier Sleds (Item # CPS-2) .....25 ea. per bag
- 3" Centraligner Pier Sleds (Item # CPS-3) .....25 ea. per bag
- 4" Centraligner Pier Sleds (Item # CPS-4) .....25 ea. per bag
- 5" Centraligner Pier Sleds (Item # CPS-5) .....10 ea. per bag
- 6" Centraligner Pier Sleds (Item # CPS-6) .....10 ea. per bag
- 7" Centraligner Pier Sleds (Item # CPS-7) .....10 ea. per bag
- 8" Centraligner Pier Sleds (Item # CPS-8) .....10 ea. per bag
- 9" Centraligner Pier Sleds (Item # CPS-9) .....10 ea. per bag
  
- 3" Hijacker Pier Bolsters (Item # HPB-3) .....20 ea. per bag  
(4" diameter x 3" high)
- 5" Hijacker Pier Bolsters (Item # HPB-5) .....Sold Individually  
(4" diameter x 7" high)
- 6" Hijacker Pier Bolsters (Item # HPB-6) .....Sold Individually  
(4" diameter x 8" high)

**Visit our web page at [www.pieresearch.com](http://www.pieresearch.com) for suggested specifications and other information.**

**Centraligner® Pier Sleds U.S. Patent No. 4,741,143 • Members of ACI • ADSC • OSEA • CRSI • CSI • SEAoT • SEAoC**

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