



HAIRPIN

SHAFTSPACER EXTENDER

WHY USE IT?

In order to meet a designed clearance requirement that is unusual and cannot be provided with a ShaftSpacer wheel alone.

Hairpins are also used when the close spacing of the horizontal or spiral steel reinforcement prevents the ShaftSpacer wheel from being used as a standalone application.

HAIRPIN

Extension device used in tandem with the ShaftSpacer wheel in order to achieve eccentric spacing requirements and/or meet seismic design considerations.



APPLICATIONS

- Bridge Foundations
- Building Foundations
- Retaining Wall Foundations
- Street Light Foundations
- High Mast Foundations
- Transmission Line Foundations
- Sub-station Foundations
- Tower Foundations
- Slurry Walls

ADVANTAGES

- Saves time & money onsite
- Easy to install
- Lightweight, yet strong, durable
- Engineered with the contractor in mind
- Excellent guide system for placement of fabricated rebar cages into drilled or excavated shafts
- Economical with minimal installation costs

CONSTRUCTION BENEFITS

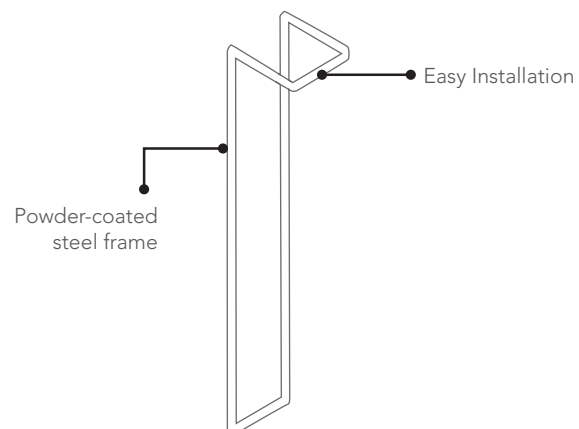
- Customizable to suit any project challenge.
- Insures the bar reinforcement is properly spaced and aligned within the confines of the drilled shaft or excavation.
- Provides quality assurance for the contractor and owner of the sub-contractor's performance.
- Provides quality assurance for the engineer and owner of the contractor's performance.
- Installs quickly and easily requiring only unskilled labor.
- Increases job profitability because skilled labor is released for more demanding tasks.
- Has low labor requirements resulting in project cost savings.

UNUSUAL DESIGN CLEARANCE

Example: the project specification and detail states 9 inch clearance. To achieve this clearance with a wheel alone, the wheel would need to have a diameter of approximately 18 inches. By using a Hairpin bar in conjunction with one of our standard model ShaftSpacer wheels, the 9 inch clearance can be achieved.

CLOSE SPACING OF HORIZONTAL STEEL

Example: the project specification and detail states 6 inch clearance, but the pitch of the spiral is 4 or 5 inches. Therefore, the ShaftSpacer wheel that is normally used for 6 inch clearance is too large and will not attach without interfering with the adjacent spiral bars. A Hairpin is then used to resolve the problem.



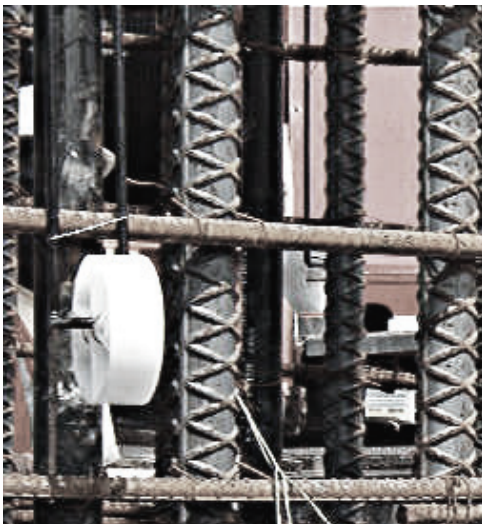
Guiding rebar cage into drilled shaft with Hairpin and ShaftSpacer system attached



| MODEL | OFFSET* | BAR SIZE | PACKAGING | WEIGHT |
|--------|---------|----------|-----------|--------|
| HP200E | 2.0" | NA | 25 | 35 lbs |
| HP275E | 2.75" | NA | 25 | 36 lbs |
| HP350E | 3.5" | NA | 25 | 37 lbs |
| HP450E | 4.5" | NA | 25 | 38 lbs |
| HP600E | 6.0" | NA | 25 | 39 lbs |

* When combined with a ShaftSpacer wheel, cover will be increased by this amount. All models are powder coated.

Hairpin attached to rebar cage



Attaching the Hairpin with tie-wire

