

## **P45 Series 4-1/2" (Schedule 80) Helical Steel Pipe Piles**

### **New MacLean-Dixie 4-1/2" "Strength Squared™" Helical Pipe Piles/Anchors for Compression and Tension Applications (Patent Pending)**



<b>P45 Series 4-1/2" (O.D.) Schedule 80 Pipe Pile</b>	
Torque Capacity (ft-lbs)	26,000 ft-lbs
Ultimate Mechanical Axial Shaft Capacity	180 KIP
Ultimate Tension/Compression Geotechnical Capacity (pounds-force)	156/156 KIP (78/78 tons)
Pipe Pile O.D. (inches)	4-1/2"
Pipe Pile Wall thickness (inches)	Schedule 80 (.337" wall)
Pipe Material	ASTM A500 Grade B
Helix Material	AISI Grade 1011/1018 HSLA 55
Coupling Material	AISI 8620 ASTM A-958 SC1045
RCS lead option for combo pile	2" RCS



ISO9001:2008  
Certificate # QSR-938



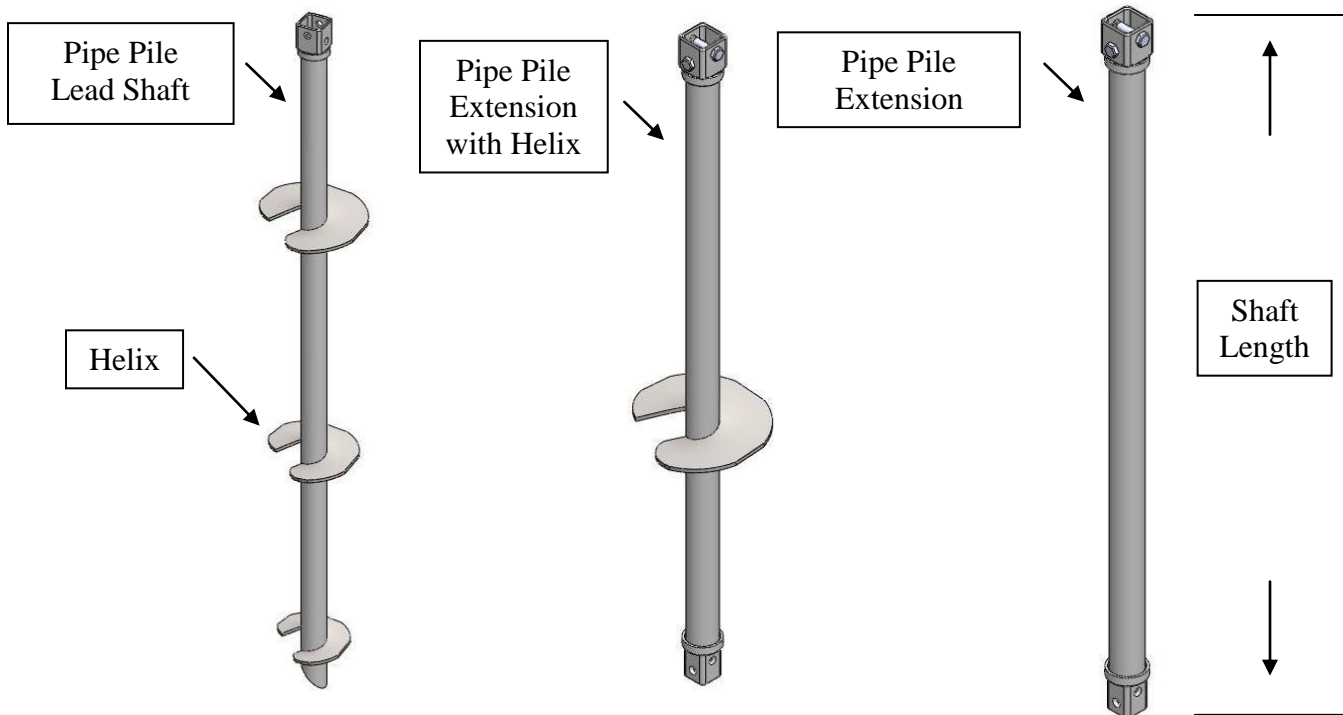
Building Solid Foundations

11411 Addison Avenue • Franklin Park, IL 60131  
T: (847) 455-0014 F: (847) 455-0029 • [www.macleandixie.com](http://www.macleandixie.com)

## P45 Series 4-1/2" (Schedule 80) Helical Steel Pipe Piles

### Features and Benefits:

- For Tension and Compression loads
- For new foundation construction or repair
- Installed with no vibration
- Available for immediate use --- no concrete or grout to cure
- No spoils
- Square engagement coupling system – no bolts in shear during installation – no elongated or torn bolt holes and no bent bolts during installation
- Improved productivity. Bolt holes align for faster assembly – just insert next extension and add bolt. No alignment issues when in tight quarters
- Greater torque capacity for size – best pipe pile performance value
- Best used in dense soils where higher torque requirements compared to pipe piles
- Can also used with D15, 2" RCS leads as combo piles where additional overturning resistance is required
- Helical piles/anchors may be removed
- Contributes to “Green” environment
- Available standard hot dip galvanized ASTM A-123 or black (not coated)

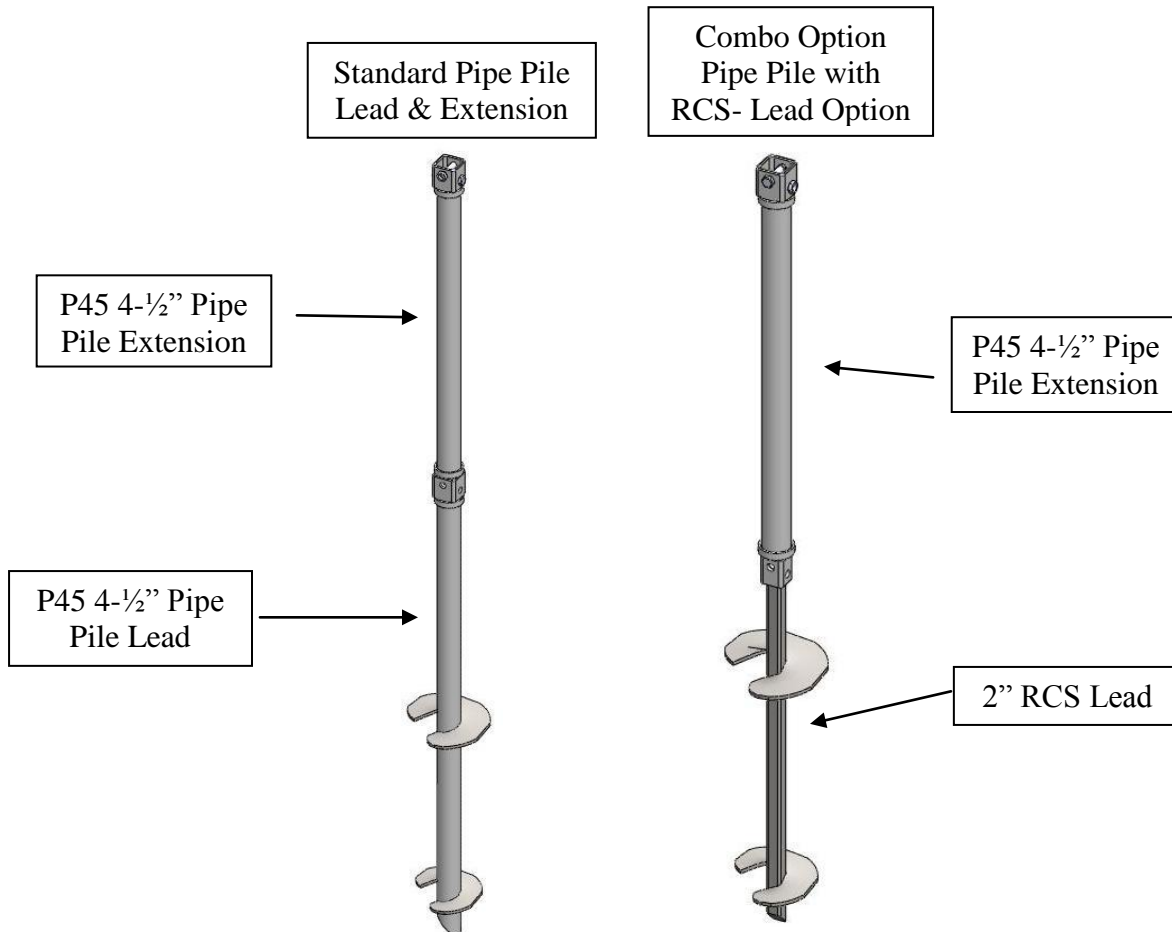


# P45 Series 4-1/2" (Schedule 80) Helical Steel Pipe Piles

## Combo Piles

The MacLeanDixie Strength Squared™ coupling system is a versatile system that provides additional flexibility and economic value by combining the benefits of a RCS (Round Corner Square) lead with the column strength of the pipe pile.

The MacLeanDixie D15 series 2" RCS lead can be used to replace the P45 lead. The 2" RCS lead will facilitate advancing into a tough soil strata with less torque than the pipe pile lead. The P45, 4-1/2" pipe pile extensions are then used to provide greater compression and lateral capacity.



Building Solid Foundations

11411 Addison Avenue • Franklin Park, IL 60131  
 T: (847) 455-0014 F: (847) 455-0029 • [www.macleandixie.com](http://www.macleandixie.com)

## **P45 Series 4-1/2" (Schedule 80) Helical Steel Pipe Piles**

### **MacLean-Dixie "Strength Squared™" coupling system (Patent pending)**



2-bolt Cross Connection



Pipe pile and coupling system remains undamaged during installation

Conventional Pipe Piles - Elongated/torn holes with round pipe pile coupling & bolts in shear.



Building Solid Foundations

11411 Addison Avenue • Franklin Park, IL 60131  
T: (847) 455-0014 F: (847) 455-0029 • [www.macleandixie.com](http://www.macleandixie.com)



## P45 Series 4-1/2"(Schedule 80) Helical Steel Pipe Piles

MacLean-Dixie Helical Piles and Anchors undergoing rigorous testing at an IAS accredited lab to ICC AC358 Acceptance Criteria For Helical Foundation Systems and Device. Ongoing quality control program per AC10 with inspections by an IAS accredited inspection agency per AC98



Full scale field testing-compression/tension/lateral



Measuring Deflection



Helix Strength Test



Torsion Testing



Bracket Testing