



**MATERIAL SPECIFICATIONS AND PRODUCT GUIDELINES**

**HELICAL PIERS-**

- ALL PIPE USED FOR PIERS, 3-1/2" O.D. AND SMALLER, SHALL BE IN ACCORDANCE WITH THE CHEMICAL AND PHYSICAL REQUIREMENTS OF API 5CT GRADE J55 PIPE or PIPE WITH GREATER REQUIREMENTS.

PIER SIZES:

Pipe Shaft	Wall Thickness	Pipe O.D.	Pipe I.D.	Tensile Strength	Yield Strength
2-7/8"	0.217"	2.875"	2.441"	75 ksi (min.)	55 ksi (min.)
3-1/2"	0.254"	3.500"	2.992"	75 ksi (min.)	55 ksi (min.)

Note: These are our most common shaft sizes, but we will custom manufacture helical piers to suit your specified material requirements and standards.

- HOLES: 2 -15/16"Ø @ 2" FROM TOP TO CENTER AND 2" O.C.
- DESCRIPTION: SHAFT LENGTHS – 60", 72", and 84" STANDARD.  
HELIX DIAMETERS – 8", 10", 12", 14" and 16" STANDARD.  
HELIX THICKNESS – 3/8" and 1/2" STANDARD.
- CONNECTIONS: 2-7/8" PIER – EXTERNAL – 3-1/2" COLLAR ON EXTENSION SECTIONS TO MATCH LEAD SECTIONS.  
3-1/2" PIER – INTERNAL – 2-7/8" XXH INSERT ON EXTENSION SECTIONS TO MATCH LEAD SECTIONS (2-7/8" XXH – In accordance to ASME SA-106/95/GR B).  
3-1/2" PIER – EXTERNAL – 4-1/2" COLLAR ON EXTENSION SECTIONS TO MATCH LEAD SECTIONS (4-1/1" Sch. 120 – In accordance to ASME SA-106/95/GR B).

Connector Pipe	Wall Thickness	Pipe O.D.	Pipe I.D.	Tensile Strength	Yield Strength
2-7/8"	0.552"	2.875"	2.323"	60 ksi (min.)	35 ksi (min.)
3-1/2"	0.254"	3.500"	2.992"	75 ksi (min.)	55 ksi (min.)
4-1/2"	0.438"	4.500"	3.624"	60 ksi (min.)	35 ksi (min.)

- ALLOWABLE TORQUES: 2-7/8" PIERS – 8,000 FT.LBS.  
3-1/2" PIERS – 12,000 FT.LBS.
- ULTIMATE CAPACITY: 2-7/8" PIERS- 80,000 Lbs.  
3-1/2" PIERS- 120,000 Lbs
- ALL PIERS ARE OPEN ENDED AND THE BOTTOM END SHALL BE CUT AT A 45°, UNLESS SPECIFIED OTHERWISE.
- HELIX(S) ARE EITHER 3/8" OR 1/2" IN THICKNESS, WHICHEVER IS SPECIFIED, AND WILL BE ASTM STANDARD A36 (Minimum) OR ASTM GRADE 44 MATERIAL.
- HELIX(S) IS WELDED TO THE PIPE SECTION USING A CONTINUOUS FILLET WELD ON BOTH SIDES OF THE HELIX TO PIPE CONNECTION.

GENERAL NOTES:

- THE WELDING DESIGN AND WELDING FABRICATION OF STRUCTURAL STEEL WILL BE IN ACCORDANCE WITH THE AWS D1.1
- GALVANIZING HOT DIPPED PER ASTM A 123.