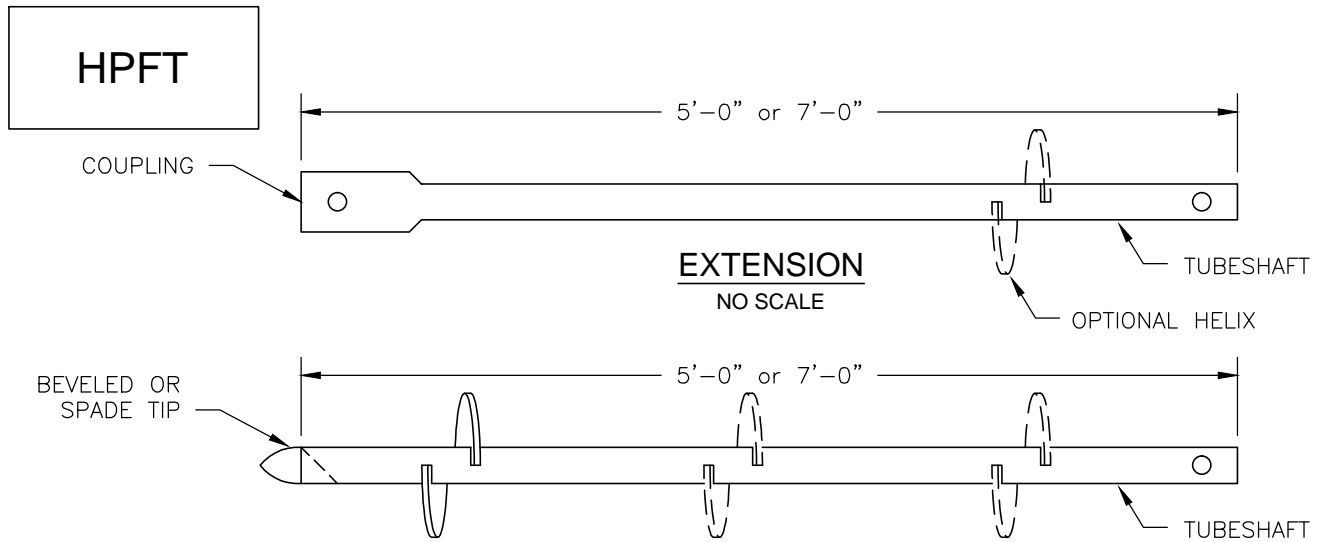


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LEAD SECTION
SINGLE OR MULTIPLE HELIX

NO SCALE

NOTES:

1. THIS DRAWING COVERS 2" (1/4" WALL), 2.5" (1/4" WALL), 3" (1/4" WALL), 3" (5/16" WALL), 4" (1/4" WALL), 4" (3/8" WALL), AND 4" (1/2" WALL) TUBULAR HELICAL PILE MATERIAL MANUFACTURED BY IMR.
2. HPFT2: 2"x2" STRUCTURAL TUBING, 0.25" WALL THICKNESS. THE CONNECTION BOLT IS 0.75" DIAMETER SAE J429 Gr 5 STEEL (Ft=120 KSI) OR EQUIVALENT. MAX. TORQUE CAPACITY IS 4,000 FT-LBS.
3. HPFT25: 2.5"x2.5" STRUCTURAL TUBING, 0.25" WALL THICKNESS. THE CONNECTION BOLT IS 0.75" DIAMETER SAE J429 Gr 5 STEEL (Ft=120 KSI) OR EQUIVALENT. MAX. TORQUE CAPACITY IS 7,000 FT-LBS.
4. HPFT3: 3"x3" STRUCTURAL TUBING, 0.25" WALL THICKNESS. THE CONNECTION BOLT IS 0.875" DIAMETER SAE J429 Gr 5 STEEL (Ft=120 KSI) OR EQUIVALENT. MAX. TORQUE CAPACITY IS 11,000 FT-LBS.
5. HPFT331: 3"x3" STRUCTURAL TUBING, 0.313" WALL THICKNESS. THE CONNECTION BOLT IS 0.875" DIAMETER ASTM A193 Gr B7 STEEL (Ft=120 KSI) OR EQUIVALENT. MAX. TORQUE CAPACITY IS 15,000 FT-LBS.
6. HPFT425: 4"x4" STRUCTURAL TUBING, 0.25" WALL THICKNESS. THE CONNECTION BOLT IS 1.25" DIAMETER SAE J429 Gr 5 STEEL (Ft=105 KSI) OR EQUIVALENT. MAX. TORQUE CAPACITY IS 20,000 FT-LBS.
7. HPFT438: 4"x4" STRUCTURAL TUBING, 0.375" WALL THICKNESS. THE CONNECTION BOLT IS 1.25" DIAMETER SAE J429 Gr 5 STEEL (Ft=105 KSI) OR EQUIVALENT. MAX. TORQUE CAPACITY IS 30,000 FT-LBS.
8. HPFT4: 4"x4" STRUCTURAL TUBING, 0.5" WALL THICKNESS. THE CONNECTION BOLT IS 1.25" DIAMETER SAE J429 Gr 5 STEEL (Ft=105 KSI) OR EQUIVALENT. MAX. TORQUE CAPACITY IS 30,000+ FT-LBS.
9. ALL STRUCTURAL TUBING IS PER ASTM A500 Gr B, FOR 2" TO 3" Fy=60 KSI Fu=69 KSI, 4" AND LARGER Fy=60 KSI Fu=70 KSI BY SPECIAL ORDER.
10. ALL WELDS ARE 0.25" FILLET MINIMUM WITH ER70S ELECTRODE.
11. ALL STEEL MATERIAL IS GALVANIZED PER ASTM A153, A123, OR B633 FE/ZN 5, TYPE III. (LATEST REVISION)
12. ULTIMATE HELIX MECHANICAL CAPACITY: (UNLESS FULL-SCALE LOAD TEST SHOWS OTHERWISE)
 - 6" THROUGH 12" DIAMATER = 70,000 LBS
 - 14" DIAMETER = 56,000 LBS
13. ULTIMATE AXIAL CAPACITY:
 - HPFT2: 40,000 LBS. COMPRESSION, 40,000 LBS TENSION.
 - HPFT25: 70,000 LBS. COMPRESSION, 60,000 LBS TENSION.
 - HPFT3: 110,000 LBS. COMPRESSION, 62,000 LBS TENSION.
 - HPFT331: 150,000 LBS. COMPRESSION, 62,000 LBS TENSION.
 - HPFT425: 200,000 LBS. COMPRESSION, 65,000 LBS TENSION.
 - HPFT438: 300,000 LBS. COMPRESSION, 105,000 LBS TENSION.
 - HPFT4: 400,000 LBS. COMPRESSION, 105,000 LBS TENSION.

<h1 style="margin: 0;">HELI-PILE®</h1> <p style="margin: 0;">IMR, Inc. - DENVER</p> <p style="margin: 0;">5135 Ward Road, Wheat Ridge, Colorado, 80033 USA</p> <p style="margin: 0;">303-423-0591 Fax: 303-423-9155</p> <p style="margin: 0;">www.helipile.com</p>	<p style="margin: 0;">SPECIFICATION SHEET</p>	<p style="margin: 0;">TUBULAR HELICAL PILES</p>
	<p style="margin: 0;">DRAWN BY: RJV</p>	<p style="margin: 0;">ENGINEER: JSP</p>