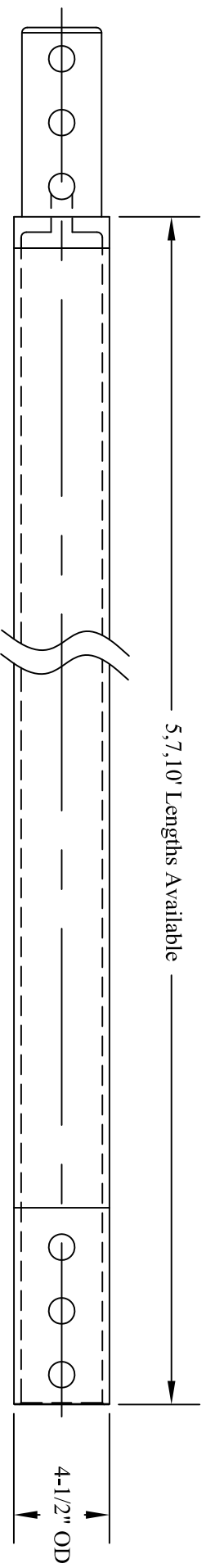


Standard Helix Sizes	
Diameter (in)	Area (ft ²)
8	.239
10	.435
12	.675
14	.959
16	1.286

SHAFT DESIGNATION	
4 1/2 Tubular Leads	Torque Rating (lb-ft)
(0.250 wall)	30,000
(0.337 wall)	48,000

- NOTES:
- HOT DIPPED GALVANIZED PER ASTM A123
 - LEAD LENGTHS AND HELIX SPACINGS ARE NOMINAL
 - MATERIAL YIELD STRENGTH: 80KSI MIN FOR TUBULAR SHAFT, 50KSI MIN FOR, 3/8" OR 1/2" THICK PLATE/HELIX PER ASTM A572 G50
 - ALL WELDING TO BE DONE BY WELDERS CERTIFIED UNDER SECTION 5 OF THE AWS CODE D1.1
 - REFER TO DRAWING TE412 FOR EXTENSION SECTIONS


<p>THIS DRAWING CONTAINS CONFIDENTIAL INFORMATION OF HELICAL ANCHORS INC. THIS DOCUMENT MAY NOT BE REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF HELICAL ANCHORS INC.</p>		<p>4-1/2 TUBULAR LEADS</p>	
<p>HELICAL ANCHORS INC.</p>		<p>HelicalAnchorsInc.</p>	
DRAWN BY:	DKM	SIZE:	A
DATE:	11/04/10	PART/ CAT NO. / SKU NO.	TL412
DWG NO.		REV	
SCALE: NOT TO SCALE		SHEET 1/1	

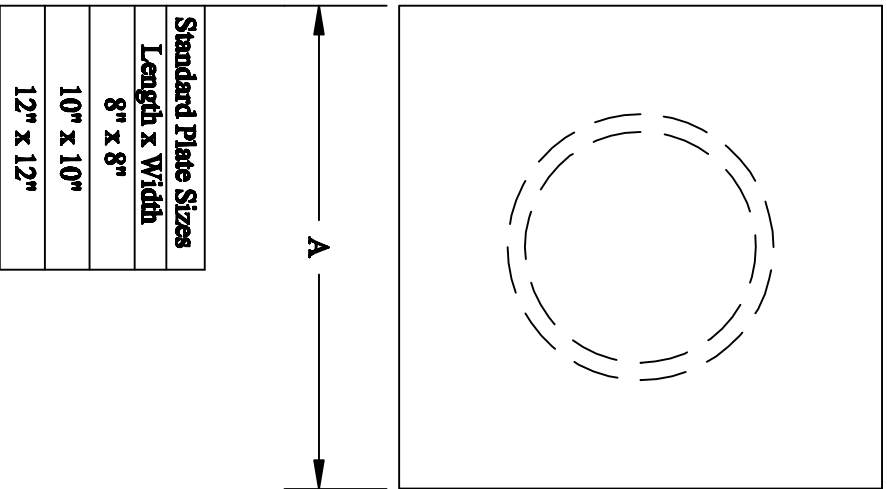


SHAFT DESIGNATION	
4 1/2 Tubular Extensions	Torque Rating (lb-ft)
(0.250 wall)	30,000
(0.337 wall)	48,000

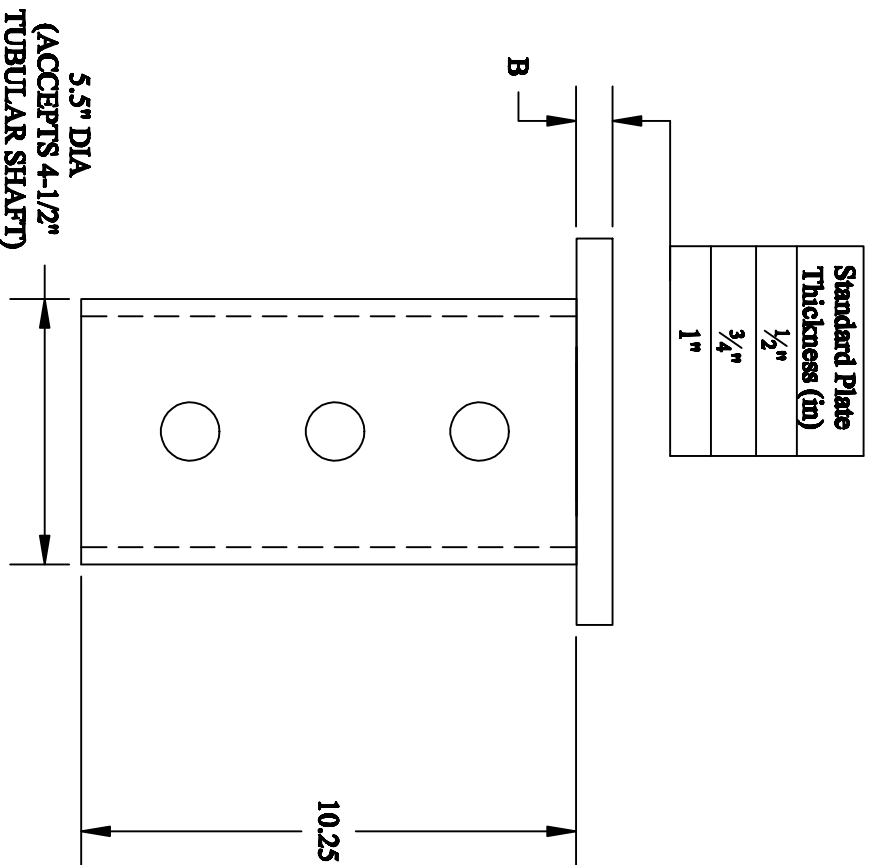
COUPLING BOLT AND NUT	
DESCRIPTION	BOLT TYPE
1-1/8" x 6.5" LONG H.H. BOLT	ASTM A325
1-1/8 HEX NUT	ASTM A325

- NOTES:
- HOT DIP GALVANIZED PER ASTM A123
 - MINIMUM YIELD MATERIAL STRENGTH: 80 KSI FOR TUBE, 107 KSI FOR PIN & BOX, 50 KSI FOR FLIGHTS (IF APPLICABLE)
 - HELICES ON EXTENSION ARE AVAILABLE IN 3/8" OR 1/2" THICK PLATE PER ASTM A572 G50
 - REFER TO DRAWING TL412 FOR LEAD SECTIONS
 - ALL WELDING TO BE DONE BY WELDERS CERTIFIED UNDER SECTION 5 OF THE AWS CODE D1.1

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DATE:	11/02/10	A	TE412
DWG NO.		SCALE:	NOT TO SCALE
			SHEET 1/1



Standard Plate Sizes
Length x Width
8" x 8"
10" x 10"
12" x 12"



Standard Plate Thickness (in)
1/2"
3/4"
1"

COUPLING BOLT AND NUT	
DESCRIPTION	BOLT TYPE
1-1/8" x 6.5" LONG HH. BOLT	ASTM A325
1-1/8 HBX NUT	ASTM A325

- NOTES:
1. FINISH: PLAIN OR GALVANIZED PER ASTM A123
 2. MATERIAL YIELD STRENGTH: 80KSI MIN FOR TUBE, 36KSI MIN FOR PLATE
 3. HOLE PATTERN SHALL MATCH THAT OF THE CORRESPONDING EXTENSION SECTION
 4. ALL WELDING TO BE DONE BY WELDERS CERTIFIED UNDER SECTION 5 OF THE AWS CODE D1.1

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THIS DRAWING CONTAINS CONFIDENTIAL INFORMATION OF HELICAL ANCHORS INC. THIS DOCUMENT MAY NOT BE REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF HELICAL ANCHORS INC.		4-1/2 New Construction	
		5-1/2 OD Pipe	
DRAWN BY:	DLW	SIZE:	PART / CAT NO. / SKU NO.
DATE:	02.04.16	A	NCCH412
DWG NO.		SCALE: NOT TO SCALE	
		SHEET	