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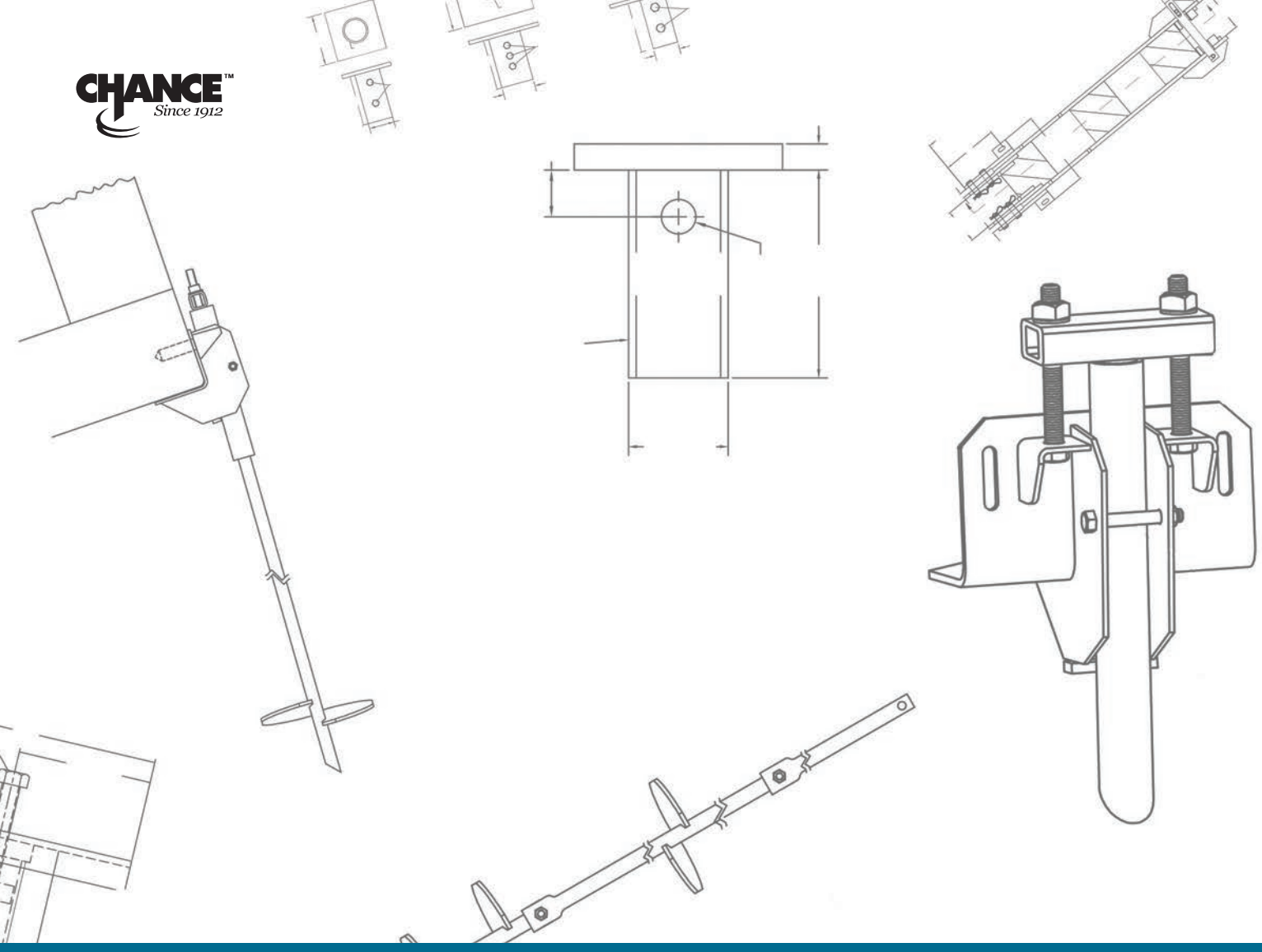
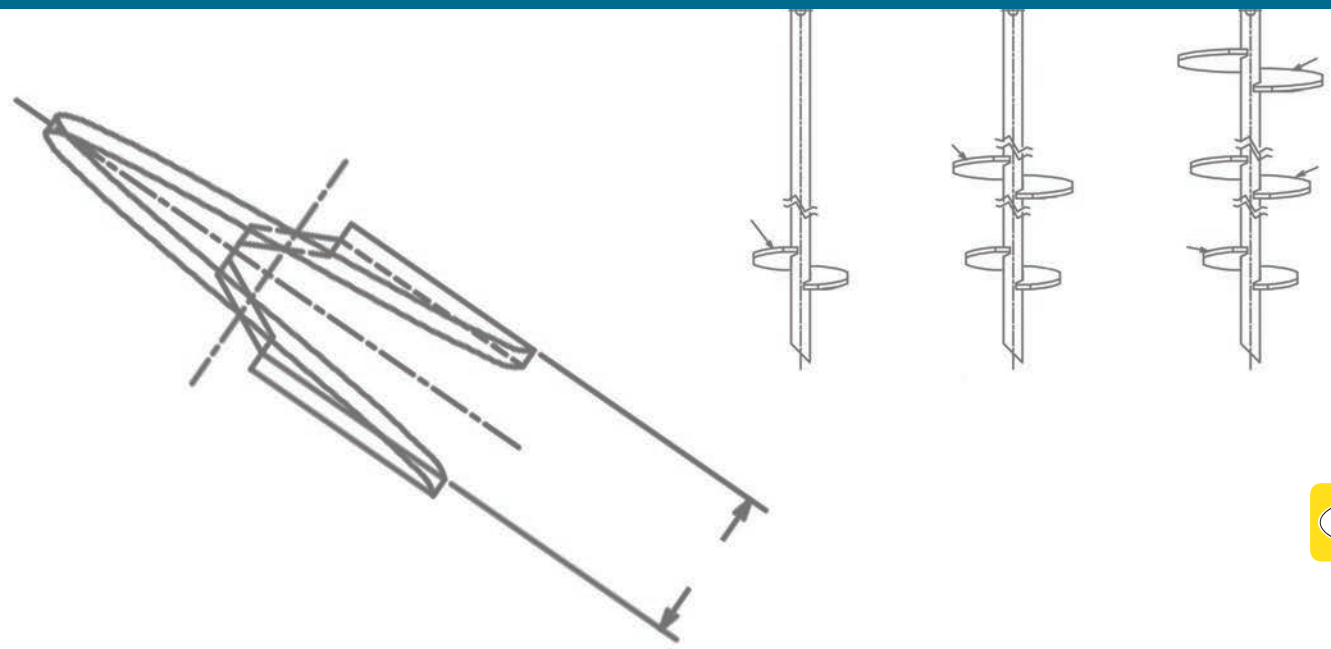


CHANCE® HELICAL SOLUTIONS

PRODUCT CATALOG



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INTRODUCTION TO CHANCE® HELICAL PILES

A helical pile is a segmented deep foundation system with helical bearing plates welded to a central steel shaft. The load is transferred from the shaft to the soil through bearing plates. Central steel shafts are available in either type SS (Square Shaft) series or type RS (Round Shaft) series. The type SS series are available in 1-1/4" to 2-1/4" square sizes. The type RS series are available in 2-7/8" to 8-5/8" diameter sizes. The type SS/RS combinations are also available for compression applications in soil conditions where dense/hard soils must be penetrated with softer/loose soils above the bearing strata. The Helical Pulldown® micropile (HPM) series is also used in applications similar to those requiring the use of the type SS/RS combinations.

Please refer to the CHANCE Technical Design Manual, 4th Edition for:

- Complete list of mechanical rating and section properties of the central steel shafts
- Product feasibility
- Installation methodology for guidelines on the proper shaft section based on application, soil conditions, site accessibility, etc.

Segments or sections are joined with bolted couplings. Installation depth is limited only by soil density and practicality based on economics. A helical bearing plate or helix is one pitch of a screw thread. All helices, regardless of their diameter, have a standard 3" pitch. Being a true helical shape, the helices do not auger into the soil but rather screw into it with minimal soil disturbance. Helical plates are spaced at distances far enough apart that they function independently as individual bearing elements; consequently, the capacity of a particular helix on a helical pile shaft is not influenced by the helix above or below it.

Lead Section and Extensions

The first section or lead section contains the helical plates. This lead section can consist of a single helix or up to four helices. Additional helices can be added, if required, with the use of a helical extension. Standard helix sizes are shown in Table 1. The helices are arranged on the shaft such that their diameters increase as they get farther from the pilot point. The practical limits on the number of helices per pile is four to five if placed in a cohesive soil and six if placed in a cohesionless or granular soil.

Plain extensions are then added in standard lengths of 3.5, 5, 7, and 10 feet until the lead section penetrates into the bearing strata. Standard helix configurations are provided in the product series tables in this section. Note that lead time will be significantly reduced if a standard helix configuration is selected.

STANDARD HELIX SIZES
TABLE 1

LEAD SECTION AND EXTENSIONS	
DIAMETER in (cm)	**AREA in² (cm²)**
6 (15)	27 (172)
8 (20)	48 (312)
10 (25)	76 (493)
12 (30)	111 (716)
14 (35)	151 (974)
16 (40)	199 (1,286)

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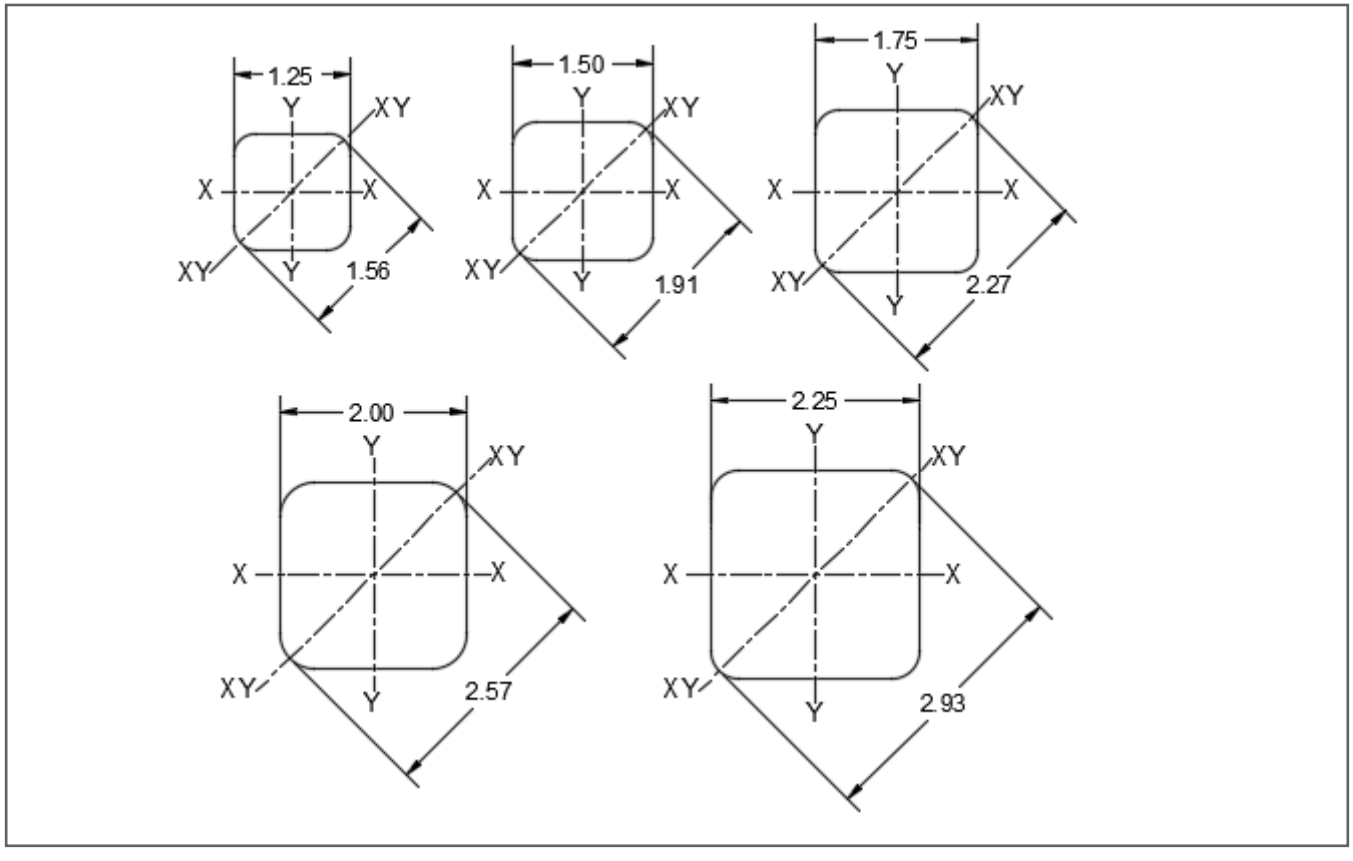
CHANCE® HELICAL SQUARE SHAFT PRODUCTS

PRODUCT RATINGS
TABLE 2

Product Series	Torque Rating Ft-lbs (Nm)	Ultimate Tension Strength* Kip (kN)	Uplift/Compression Capacity Limit** Kip (kN)
SS125	4,000 (5,400)	50 (222)	40 (178)
SS5	5,700 (7,700)	70 (312)	57 (254)
SS150	7,000 (9,500)	70 (312)	70 (312)
SS175	10,500 (14,200)	100 (445)	105 (467)
SS200	16,000 (21,700)	150 (668)	160 (712)
SS225	21,000 (28,500)	200 (890)	210 (934)

* *Based on Mechanical Strength of Coupling*
** *Based on Torque Rating – Uplift/Compression Capacity Limit = Torque Rating x K_t*
"Default" K_t for Type SS = 10 ft-1 (33 m-1)
Higher Compression Capacities Available with Helical Pulldown® micropile

SS CROSS SECTIONS



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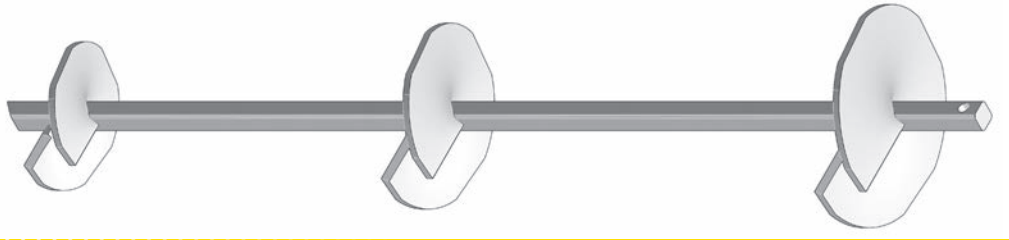
SS125 (1-1/4") LEAD SECTIONS
TABLE 3

Catalog No.	Plate Diameter (in)			Nominal Length (ft)	Effective Length (in)*	Weight (lbs)	Helix Grade	Coating
	A	B	C					
C1500564	8	-	-	1	5.9	9	50	GALV
C1500545	8	-	-	5	60.0	33	50	GALV
C1500548	8	10	-	5	60.0	44	50	GALV
C1500551	8	10	12	5	60.1	58	50	GALV
C1500565	10	-	-	1	5.9	12	50	GALV
C1500546	10	-	-	5	60.0	36	50	GALV
C1500549	10	12	-	5	60.0	48	50	GALV
C1500552	10	12	14	7	79.0	57	50	GALV
C1500566	12	-	-	1	5.9	17	50	GALV
C1500547	12	-	-	5	60.0	40	50	GALV
C1500567	14	-	-	1	5.9	21	50	GALV
C1500567SS	14	-	-	1	5.9	21	50	GALV
C1500601	14	-	-	5	60.0	43	50	GALV

* *Effective length: from leading edge of bottom helix to center of the bolt hole.*

COMMON SS125 LEAD CONFIGURATIONS



SS125 (1-1/4") EXTENSIONS
TABLE 4

Catalog No.	Nominal Length (ft)	Effective Length (in)*	Weight (lbs)	Coating
C1500553	3.5	38.0	21	GALV
C1500554	5	57.8	30	GALV
C1500555	7	80.8	39	GALV
C1500556	10	117.3	57	GALV

* *Effective length: from bolt hole to bolt hole. Contact your distributor for non-galvanized.*

COMMON SS125 EXTENSION CONFIGURATIONS

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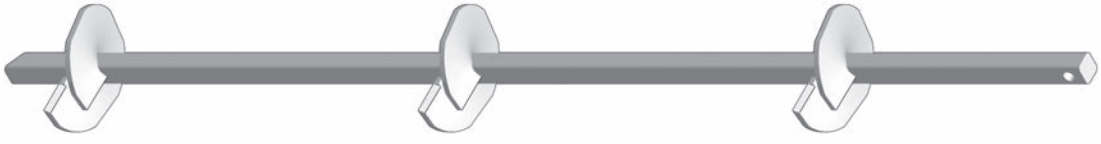
SS125 (1-1/4”) SOIL NAIL LEAD SECTIONS & EXTENSIONS
TABLE 5

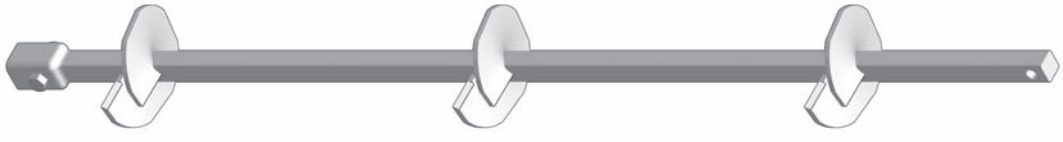
Type	Catalog No.	Helix Size	Number of Helix	Nominal Length (ft)	Effective Length (in)*	Length to First Helix (in)	Weight (lbs)	Helix Grade	Coating
Lead	C1500581	6	2	5	57.3	-	34	50	GALV
Lead	C1500582	8	2	5	57.3	-	38	50	GALV
Lead	C1500583	6	3	7	76.3	-	48	50	GALV
Lead	C1500584	8	3	7	76.3	-	52	50	GALV
Extension	C1500585	6	2	5	57.8	6	36	50	GALV
Extension	C1500586	8	2	5	57.8	6	40	50	GALV
Extension	C1500587	6	3	7	80.8	7	50	50	GALV
Extension	C1500588	8	3	7	80.8	7	54	50	GALV

* *Effective length: from bolt hole to bolt hole. Contact your distributor for non-galvanized.*

SS125 SOIL NAIL LEAD CONFIGURATION



SS125 SOIL NAIL EXTENSION CONFIGURATION



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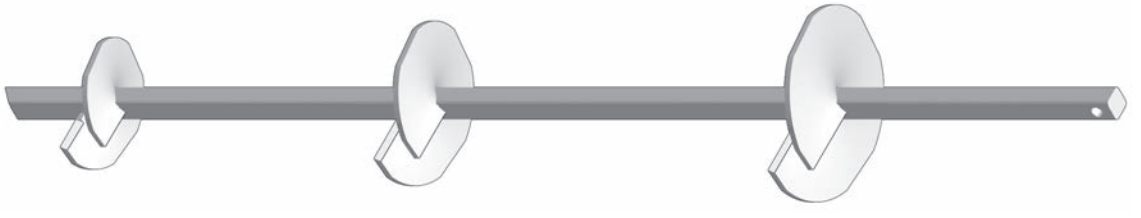
SS5 (1-1/2") LEAD SECTIONS
TABLE 6

Catalog No.	Plate Diameter (in)			Nominal Length (ft)	Effective Length (in)*	Weight (lbs)	Helix Grade
	A	B	C				
T1500086	6	6	-	3	29.7	49	50
C1500030	6	8	-	7	76.2	64	50
C1500244	6	8	-	3	29.7	50	50
C1500001	8	-	-	7	76.2	56	50
C1500002	8	-	-	5	52.9	44	50
C1500006	8	10	-	7	76.2	70	50
C1500160	8	10	-	3	32.7	39	50
C1500031	8	10	-	10	116.9	93	50
C1500397	8	10	12	7	76.2	79	50
C1500007	8	10	12	5	60.2	68	50
C1500003	10	-	-	7	76.2	62	50
C1500058	10	-	-	5	52.9	47	50
C1500051	10	12	-	7	76.2	77	50
C1500161	10	12	-	3	38.9	55	50
C1500489	10	12	14	7	76.2	93	50
C1500398	10	12	14	10	116.9	119	50
C1500004	12	-	-	7	76.2	68	50
C1500242	12	-	-	5	52.9	52	50
C1500399	12	14	16	10	116.9	140	50
C1500005	14	-	-	7	76.2	72	50
C1500243	14	-	-	5	52.9	55	50

* *Effective length: from leading edge of bottom helix to center of bolt hole.*

COMMON SS5 LEAD CONFIGURATIONS



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SS5 (1-1/2") EXTENSIONS
TABLE 7

Catalog No.	Plate Diameter (A)	Nominal Length (ft)	Effective Length (in)*	Length to First Helix (in)	Weight (lbs)	Helix Grade	Coating
C1500047	-	3.5	37.4	-	28	-	GALV
C1500008	-	5	57.2	-	40	-	GALV
C1500009	-	7	80.2	-	57	-	GALV
C1500048	-	10	119.7	-	78	-	GALV
C1500166	14	3	37.4	47-1/4	55	80	GALV
T1500440	14	5	57.2	3-1/4	60	80	GALV
T15004402001	16	5	57.2	3-1/4	88	-	GALV

* *Effective length: from bolt hole to bolt hole. Contact your distributor for non-galvanized.*

COMMON SS5 EXTENSION CONFIGURATIONS

Extension with Helical Plate

Plain Extension

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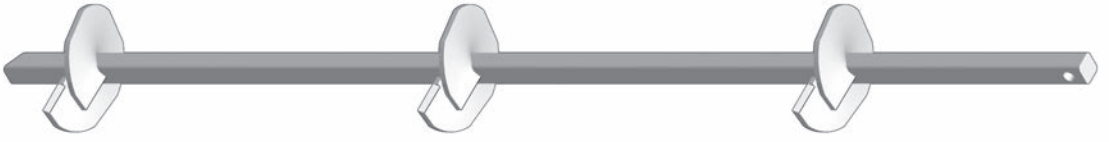
SS5 (1-1/2”) SOIL NAIL LEAD SECTIONS & EXTENSIONS
TABLE 8

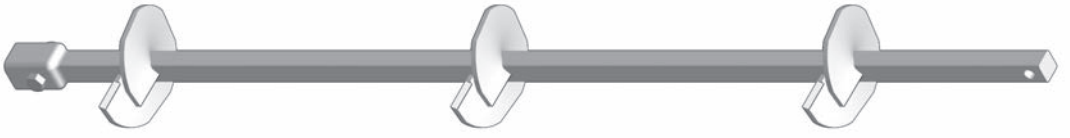
Type	Catalog No.	Helix Size	Number of Helix	Nominal Length (ft)	Effective Length (in)*	Length to First Helix (in)	Weight (lbs)	Helix Grade	Coating
Lead	C1100692	8	2	5	52.9	-	49	50	GALV
Lead	C1100691	8	3	7	77.9	-	69	50	GALV
Extension	C1100690	8	2	5	57.2	4-3/4”	51	50	GALV
Extension	C1100689	8	3	7	80.4	6-1/4”	71	50	GALV

* *Effective length: from bolt hole to bolt hole. Contact your distributor for non-galvanized.*

SS5 SOIL NAIL LEAD CONFIGURATION



SS5 SOIL NAIL EXTENSION CONFIGURATION

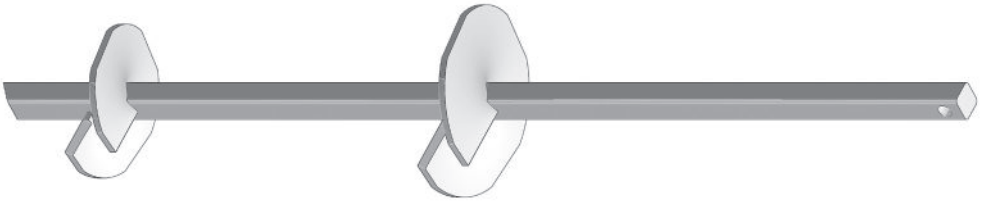


SS150 (1-1/2”) LEAD SECTIONS
TABLE 9

Catalog No.	Plate Diameter (in)			Nominal Length (ft)	Effective Length (in)*	Weight (lbs)	Helix Grade
	A	B	C				
C1500400	6	8	10	7	76.2	70	80
C1500168	8	10	-	3	29.7	39	80
C1500472	8	10	-	5	57.2	57	80
C1500490	8	10	-	7	76.2	68	80
C1500169	8	10	12	5	60.2	67	80
T1100521	8	10	12	10	116.9	127	80
C1500163	10	12	14	7	76.2	96	80
C1500165	10	12	14	10	116.9	143	80
C1500167	14	-	-	5	57.2	83	80
C1500170	14	14	14	10	116.9	135	80

* *Effective length: from leading edge of bottom helix to center of bolt hole.*

SS150 COMMON LEAD CONFIGURATIONS



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SS150 (1-1/2") EXTENSIONS
TABLE 10

Catalog No.	Plate Diameter (in)			Nominal Length (ft)	Effective Length (in)*	Length to First Helix (in)	Weight (lbs)	Helix Grade
	A	B	C					
C1500144	-	-	-	3	37.4	-	27	-
C1500145	-	-	-	5	57.2	-	41	-
C1500146	-	-	-	7	80.2	-	64	-
C1500175	-	-	-	10	127.2	-	81	-
C1500176	14	-	-	5	44.9	37	28	80
C1500177	14	14	-	7	80.2	37	93	80
C1500178	14	14	14	10	122.2	36	142	80

* *Effective length: from bolt hole to bolt hole.*

COMMON SS150 EXTENSION CONFIGURATIONS

Extension with Helical Plate

Plain Extension

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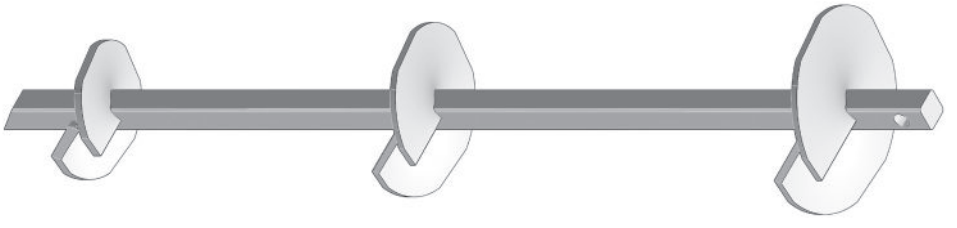
SS175 (1-3/4") LEAD SECTIONS
TABLE 11

Catalog No.	Plate Diameter (in)				Nominal Length (ft)	Effective Length (in)*	Weight (lbs)	Helix Grade
	A	B	C	D				
C1500010	8T	-	-	-	5	57.8	60	80
C1500012	8T	10	-	-	5	57.8	71	80
C1500493	8T	10	-	-	7	76.3	88	80
C1500179	8T	10	-	-	3	30.1	48	80
C1500180	8T	10	12	-	5	57.8	82	80
C1500401	8T	10	12	-	7	76.3	101	80
C1100247	8T	10	12	14	10	122.3	149	80
C1500011	10	-	-	-	5	57.8	64	80
C1500093	10	12	-	-	5	57.8	79	80
C1500402	10	12	14	-	10	122.3	156	80
T1100674	10	12	14	-	7	76.3	116	80
C1500181	14	14	14	-	10	122.3	158	80

* *Effective length: from leading edge of bottom helix to center of bolt hole.*
"T" after plate diameter means 1/2" thick helix (otherwise, common thickness is 3/8").

COMMON SS175 LEAD CONFIGURATIONS



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SS175 (1-3/4") EXTENSIONS
TABLE 12

Catalog No.	Plate Diameter (in)		Nominal Length (ft)	Effective Length (in)*	Length to First Helix (in)	Weight (lbs)	Helix Grade
	A	B					
C1500183	-	-	3.5	36.8	-	38	-
C1500013	-	-	5	58.3	-	56	-
C1500014	-	-	7	79.8	-	76	-
C1500184	-	-	10	123.1	-	112	-
C1500185	14	-	3	45.6	37	66	80
C1500470	14	-	5	58.3	4	80	80
C1500186	14	14	7	79.8	36	116	80

* *Effective length: from bolt hole to bolt hole.*

COMMON SS175 EXTENSION CONFIGURATIONS

Extension with Helical Plate

Plain Extension

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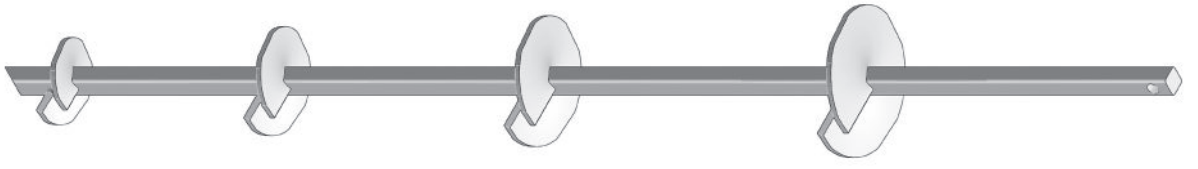
SS200 (2") LEAD SECTIONS
TABLE 13

Catalog No.	Plate Diameter (in)				Nominal Length (ft)	Effective Length (in)*	Weight (lbs)	Helix Grade
	A	B	C	D				
C1100569	6T	8T	10T	-	5	59.2	97	80
C1100571	6T	8T	10T	12T	7	78.9	136	80
C1500403	8T	10T	12T	-	8	78.9	135	80
C1100570	8T	10T	12T	-	5	59.2	120	80
C1100573	8T	10T	12T	14T	10	125.2	213	80
C1100791	10T	12T	14T	-	7	78.9	147	80
C1500404	10T	12T	14T	-	10	125.2	212	80
C1100572	14T	14T	14T	-	10	125.2	228	80

* *Effective length: from leading edge of bottom helix to center of bolt hole.*
"T" after plate diameter means 1/2" thick helix.

COMMON SS200 LEAD CONFIGURATIONS



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SS200 (2") EXTENSIONS
TABLE 14

Catalog No.	Plate Diameter (in)			Nominal Length (ft)	Effective Length (in)*	Length to First Helix (in)	Weight (lbs)	Helix Grade
	A	B	C					
C1100563	-	-	-	3	36.6	-	50	-
C1100564	-	-	-	5	58.6	-	75	-
C1100565	-	-	-	7	80.1	-	100	-
C1100566	-	-	-	10	123.2	-	150	-
C1100577	14T	-	-	3	45.6	35	78	80
C1100581	14T	14T	-	7	80.1	32	152	80
C1100586	14T	14T	14T	10	123.1	37-1/4	210	80

* *Effective length: from bolt hole to bolt hole.*

COMMON SS200 EXTENSION CONFIGURATIONS

Extension with Helical Plate

Plain Extension

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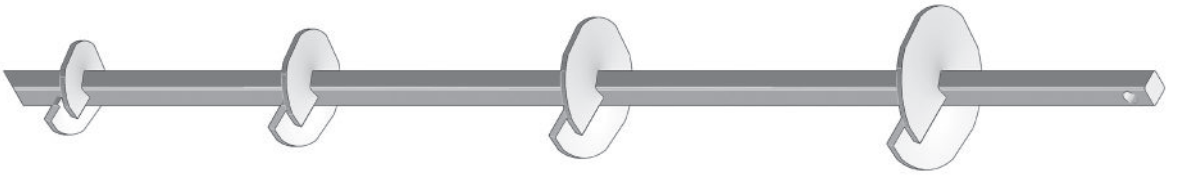
SS225 (2-1/4") LEAD SECTIONS
TABLE 15

Catalog No.	Plate Diameter (in)				Nominal Length (ft)	Effective Length (in)*	Weight (lbs)	Helix Grade
	A	B	C	D				
C1100543	6T	8T	10T	-	5	52.3	108	80
C1100544	8T	10T	12T	-	7	72.5	146	80
C1100591	8T	10T	12T	14T	10	112.8	142	80
C1100545	14T	14T	14T	-	10	142.8	250	80

* *Effective length: from leading edge of bottom helix to center of bolt hole.*
"T" after plate diameter means 1/2" thick helix.

COMMON SS225 LEAD CONFIGURATIONS

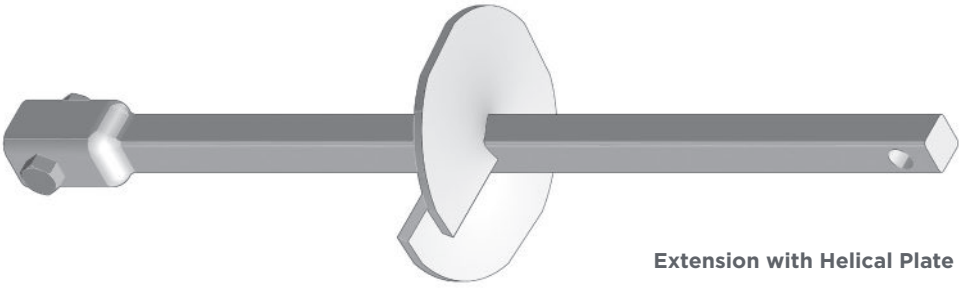


SS225 (2-1/4") EXTENSIONS
TABLE 16

Catalog No.	Plate Diameter (in)		Nominal Length (ft)	Effective Length (in)*	Length to First Helix (in)	Weight (lbs)	Helix Grade
	A	B					
C1100646	-	-	5	52.1	-	88	-
C1100647	-	-	7	72.1	-	116	-
C1100650	14T	-	5	52.1	24	79	80
C1100652	14T	14T	7	74.0	35-1/4	170	80

* *Effective length: from bolt hole to bolt hole.*
"T" after plate diameter means 1/2" thick helix.

COMMON SS225 EXTENSION CONFIGURATIONS



Extension with Helical Plate

Plain Extension

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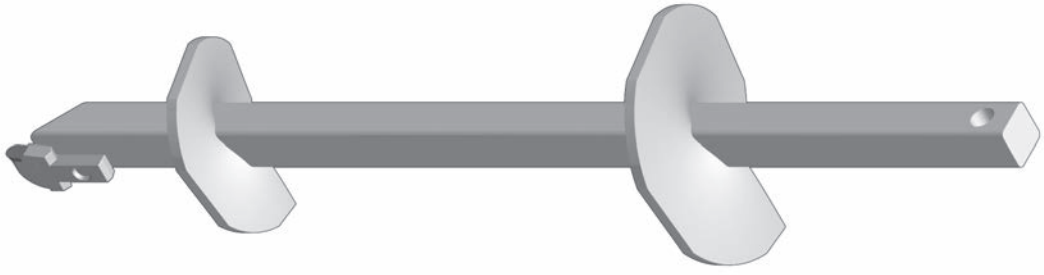
ROCK-IT™ Lead Sections

The CHANCE® ROCK-IT™ lead section is an innovative solution to penetrate rocky or high blow count soils without pre-drilling or field modifications. The single carbide, patent pending design was developed to provide an economical, yet proven solution to reach load-bearing depths in high blow count material.



Some features of the ROCK-IT are:

- Reduced installation time to save time and money
- Wear resistant, offset carbide tip designed to break through rocky soil
- Reduced spiking of torque and chatter during installation for a safer alternative

ROCK-IT LEAD SECTIONS
TABLE 17

Catalog No.	Product Series	Plate Diameter (in)			Nominal Length (ft)	Effective Length (in)*	Weight (lbs)	Ultimate Capacity (kip)	Helix Grade
		A	B	C					
C1501488	SS150	6	8	-	3	31	36	70	80
C1501489	SS150	8	10	-	3	31	43	70	80
C1501505	SS150	8	10	-	5	59	60	70	80
C1501511	SS175	6	8	-	3	31	46	105	80
C1501513	SS175	8	10	-	3	31	54	105	80
C1501507	SS175	8	10	-	5	59	76	105	80
C1501509	SS175	8	10	12	5	59	94	105	80
C1501532	SS200	8	10	12	7	81.3	131	150	80
C1501544	SS225	8	10	12	7	74.7	140	200	80

* *Effective length: from bolt hole to bolt hole.*

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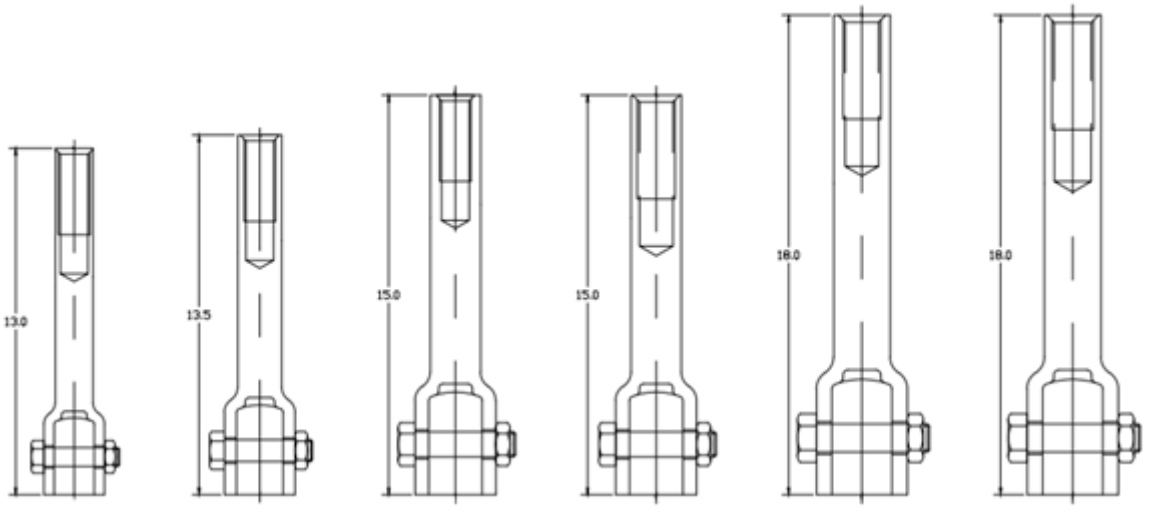
Threaded Dywidag Adapters, Chain Shackles and Adapters



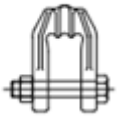
C1140009 C1140010 C1140227 C1140256 C1140262 C1140250

THREADED DYWIDAG ADAPTERS (WITH BOLTS AND NUTS)
TABLE 18

Catalog No.	Product Series	Overall Length (in)	Weight (lbs)	Ultimate Capacity (kip)	Coating	Dywidag Bar Size
C1101078*	SS5	9	7	70	GALV	*
C1140009	SS5/SS150	13	9	70	GALV	1”
C1140010	SS175	13-1/2	16	100	GALV	1”
C1140227	SS200	15	24	100	GALV	1”
C1140256	SS200	15	20	150	GALV	1-1/4”
C1140262	SS225	18	30	150	GALV	1-1/4”
C1140250	SS225	18	30	200	GALV	1-3/8”

* *C1101078 is used with 1” standard all thread (not Dywidag)*

T1100134
C1100557
C1100558



C1100574

CHAIN SHACKLES
TABLE 19

Catalog No.	Product Series	Description	Overall Length (in)	Weight (lbs)	Ultimate Capacity (kip)	Coating
C1100574	SS5/SS150	Tripleye Shackle	N/A	4	70	GALV
T1100134	SS175	Chain Shackle	6-5/8	6	100	GALV
C1100557	SS200	Chain Shackle	8.2	12	150	GALV
C1100558	S225	Chain Shackle	9	15	200	GALV

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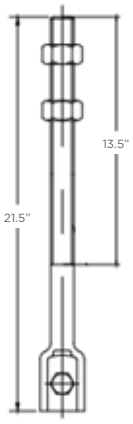
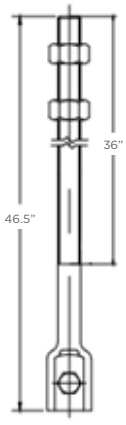
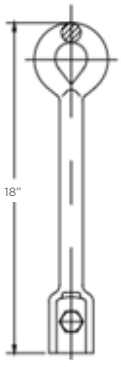


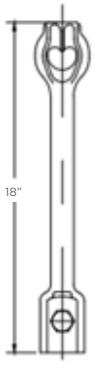
C1500032



T1500447



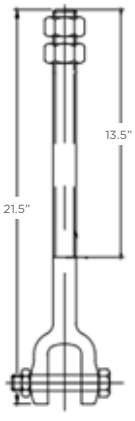
C1100041



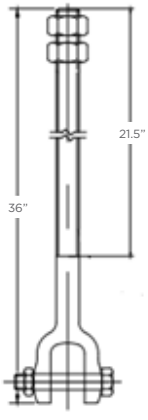
C1020024

C1020025

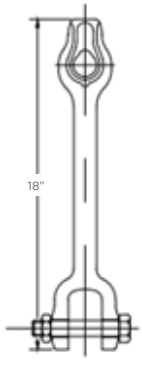
C1020023



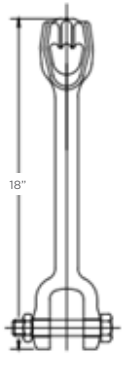
C1500037



T1100352



T1100311
T1100312



C1500039

ADAPTERS
TABLE 20

Catalog No.	Product Series	Description	Overall Length (in)	Weight (lbs)	Ultimate Capacity (kip)	Coating
C1500580	SS125	Threaded Adapter	20	11	40	GALV
C1100041	SS5/SS150	Ovaleye	18	11	70	GALV
C1020023	SS5/SS150	Thimbleye	18	11	70	GALV
C1020024	SS5/SS150	Twineye	18	10	70	GALV
C1020025	SS5/SS150	Tripleye	18	10	70	GALV
C1500032	SS5/SS150	Threaded Adapter	21-1/2	11	70	GALV
T1500447	SS5/SS150	Threaded Adapter	46-1/2	19	70	GALV
C1500039*	SS175	Tripleye	18	11	100	GALV
T1100311*	SS175	Thimbleye	18	11	100	GALV
T1100352	SS175	Threaded Adapter	36	24	100	GALV
C1500037	SS175	Threaded Adapter	21-1/2	12	100	GALV
T1100312	SS200	Thimbleye	18	11	150	GALV
T1100629	SS200	Tripleye	18	11	150	GALV

* *The 1-3/4" adapters have a clevis connection, not a forged coupling.*

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1-1/4” to 2-1/4” Square Shaft Notes

1. Included connection hardware:
    - SS125 1-1/4” material: 5/8” diameter bolt per ASTM A325 type 1 and nut.
    - SS5 and SS150 1-1/2” material: 3/4” diameter bolt per ASTM A325 type 1 and nut or ASTM A193 Grade B7 with cold weather properties and nut.
    - SS175 1-3/4” material: 7/8” diameter bolt per ASTM A193 Grade B7 and nut.
    - SS200 2” material: 1-1/8” diameter bolt per ASTM A193 Grade B7and nut.
    - SS225 2-1/4” material: 1-1/4” diameter bolt per ASTM A193 Grade B7 and nut.
2. Catalog numbers with an * after the number are lead sections that have been designed with a longer shaft above the top helix for the CHANCE® Helical Pulldown® micropile.
3. The letter “T” after the helix diameter stands for 1/2” thick helix material (otherwise common thickness is 3/8”).
4. All helices are spaced three times the diameter of the preceding helix unless otherwise specified by the customer.
5. The standard helix has a sharpened leading edge.
6. All products are hot dip galvanized per ASTM A153.
7. For plain steel and/or special order items contact your area CHANCE distributor for availability.

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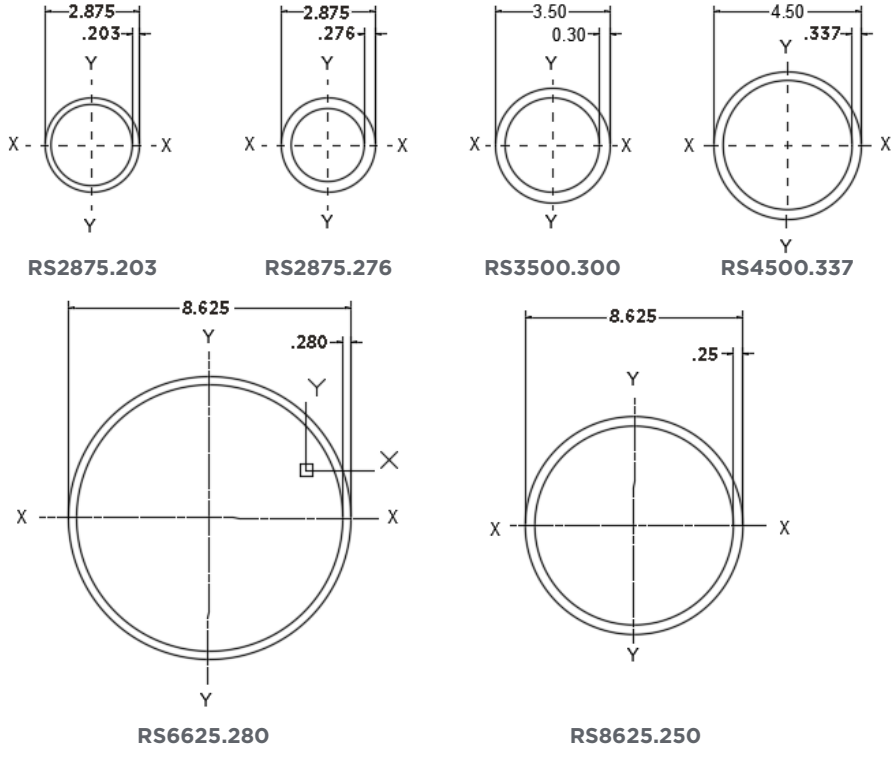
CHANCE® HELICAL ROUND SHAFT PRODUCTS

PRODUCT RATINGS
TABLE 21

Catalog No.	Torque Rating Ft-lbs (Nm)	Ultimate Tension Strength* Kip (kN)	Uplift/Compression Capacity Limit** Kip (kN)
RS2875.203	6,000 (7,500)	60 (267)	50 (220)
RS2875.276	8,000 (10,800)	90 (400)	72 (320)
RS2875.276BLDCO	8,900 (12,000)	98 (436)	80.1 (356)
RS3500.300	13,000 (17,600)	120 (534)	91 (405)
RS3500.300BLDCO	12,500 (17,000)	120 (534)	87.5 (389)
RS4500.337	25,000 (31,200)	160 (712)	138 (614)
RS6625.280	40,000 (54,200)	200 (890)	200 (890)
RS8625.250	60,000 (81,300)	300 (1,334)	300 (1,334)

* *Based on mechanical strength of coupling*
** *Based on torque rating – uplift/compression capacity limit = torque rating x K_t*
"Default" K_t for type RS2875 Series = 9 ft-1 (30 m-1); for type RS3500.300 = 7 ft-1 (23 m-1); for type RS4500.337 = 6 ft-1 (20 m-1); for type RS6625.280 = 5 ft-1 (13 m-1); for type RS8625.250 = 5 ft-1 (13 m-1).
*** *Product evaluated per AC358 for Building Code compliance, see ICC-ES ESR-2794.*

RS CROSS SECTIONS



RS2875.203 RS2875.276 RS3500.300 RS4500.337

RS6625.280 RS8625.250

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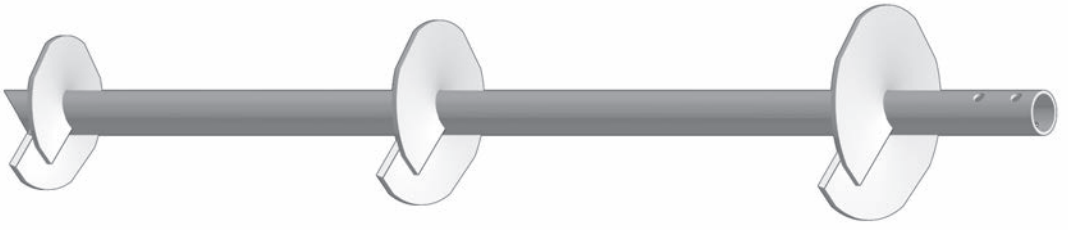
RS2875.203 (2-7/8") LEAD SECTIONS
TABLE 22

Catalog No.	Plate Diameter (in)			Nominal Length (ft)	Effective Length (in)*	Weight (lbs)	Helix Grade
	A	B	C				
C2784512	8	10	-	5	56.5	45	50
C2784513	8	10	-	7	78.3	57	50
C2784514	8	10	12	5	56.5	53	50
C2784510	10	-	-	5	58.5	38	50
C2784504	10	-	-	5	56.5	40	50
C2784519	10	-	-	7	76.3	48	50
C2784505	10	12	-	5	56.5	53	50
C2784506	10	12	-	7	76.3	60	50
C2784507	10	12	14	7	76.3	78	50
C2784508	10	12	14	10	188.3	122	50
C2784503	12	-	-	5	56.5	46	50
C2784509	12	-	-	7	76.3	54	50
C2784511	14	-	-	7	76.3	57	50
C2784515	14	-	-	10	118.3	100	50

* *Effective length: from leading edge of bottom helix to center of the bolt hole.*

COMMON 2875.203 LEAD CONFIGURATIONS



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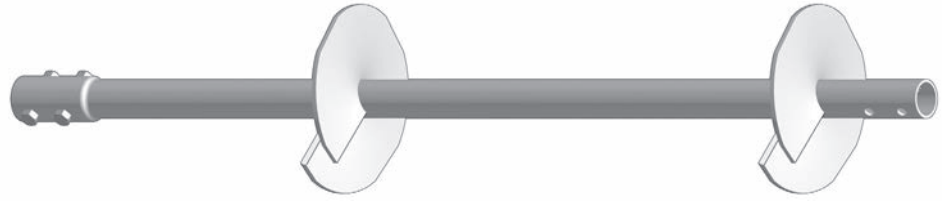
RS2875.203 (2-7/8") EXTENSIONS
TABLE 23

Catalog No.	Plate Diameter (in)		Nominal Length (ft)	Effective Length (in)*	Length to First Helix (in)	Weight (lbs)	Helix Grade
	A	B					
C2784300	-	-	3.5	36.0	19	-	-
C2784500	-	-	5	57.0	32	-	-
C2784700	-	-	7	78.3	42	-	80
C27841000	-	-	10	120.0	64	-	
C2784502	14	14	7	78.0	75	50	
C2784501	14	-	5	57.0	70	50	80

* *Effective length: from bolt hole to bolt hole.*

COMMON RS2875.203 EXTENSION CONFIGURATIONS



Extension with Helical Plate

Plain Extension

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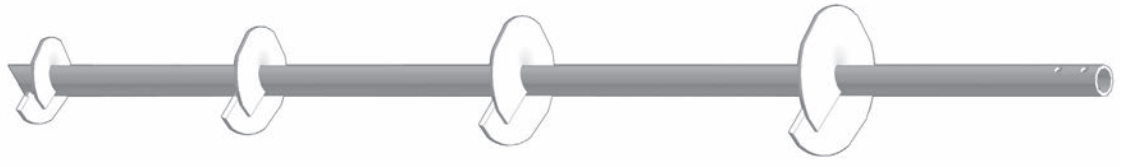
RS2875.276 (2-7/8") LEAD SECTIONS
TABLE 25

Catalog No.	Plate Diameter (in)				Nominal Length (ft)	Effective Length (in)*	Weight (lbs)	Helix Grade
	A	B	C	D				
C2788001	10	-	-	-	7	76.3	59	80
C2788002	10	-	-	-	5	56.3	48	80
C2788003	10	12	-	-	5	56.3	60	80
C2788004	8	10	12	-	7	76.3	80	80
C2788005	10	12	14	-	7	76.3	83	80
C2788006	8	10	12	14	10	118.3	128	80
C2788007	8	10	-	-	5	56.3	50	80
C2788008	8	-	-	-	7	76.3	55	80
C2788009	10	12	-	-	7	76.3	71	80
C2788179	10	12	14	14	10	118.3	134	80
C2788184	10	-	-	-	7	76.3	48	80
C2788188	8	-	-	-	3.5	34.3	32	80
C2788191	12	-	-	-	5	56.3	63	80

* *Effective length: from leading edge of bottom helix to center of the bolt hole.*

COMMON RS2875.276 LEAD CONFIGURATIONS



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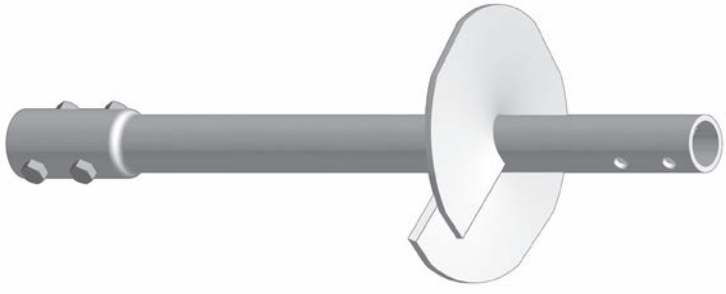
RS2875.276 (2-7/8") EXTENSIONS
TABLE 26

Catalog No.	Plate Diameter (in)	Nominal Length (ft)	Effective Length (in)*	Weight (lbs)	Helix Grade
C2788300	-	3.5	36	28	-
C2788500	-	5	57	42	-
C2788700	-	7	78	56	-
C27881000	-	10	120	79	-
C2788314	14	3.5	36	54	50

* *Effective length: from bolt hole to bolt hole.*

COMMON EXTENSION CONFIGURATIONS



Extension with Helical Plate

Plain Extension

RS2875.276 (2-7/8") ICC-ES BUILDING CODE EXTENSIONS
TABLE 27

Catalog No.	Plate Diameter (in)	Nominal Length (ft)	Effective Length (in)*	Weight (lbs)	Helix Grade
C2788225	-	3.5	38	29	-
C2788218	-	5	56	43	-
C2788219	-	7	80	57	-
C2788220	-	10	116	78	-
C2788228	14	3.5	38	55	50

* *Effective length: from bolt hole to bolt hole.*

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CHANCE™ Since 1912

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HUBBELL

RS3500.300 (3-1/2") LEAD SECTIONS
TABLE 28

Catalog No.	Plate Diameter (in)				Nominal Length (ft)	Effective Length (in)*	Weight (lbs)	Helix Grade
	A	B	C	D				
C1070560	8T	10T	-	-	3	33.3	50	50
C1070566	8T	10T	12T	14T	10	117.3	145	50
C1070563	8T	10T	12T	-	7	74.5	103	50
T1070813	10T	-	-	-	7	74.5	78	50
C1500023	10T	12T	-	-	7	74.5	97	50
C1070561	10T	12T	-	-	5	41.3	65	50
T1070812	10T	12T	-	-	10	117.3	121	50
C1070567	10T	12T	14T	14T	10	117.3	180	50
C1070565	12T	14T	14T	-	10	117.3	170	50
C1070568	12T	14T	14T	14T	10	117.3	185	50

* *Effective length: from leading edge of bottom helix to center of the bolt hole.*

COMMON RS3500.300 LEAD CONFIGURATIONS

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RS3500.300 (3-1/2") EXTENSIONS
TABLE 29

Catalog No.	Plate Diameter (in)		Nominal Length (ft)	Effective Length (in)*	Weight (lbs)	Helix Grade
	A	B				
C1070573	-	-	3.5	36.0	37	-
C1500025	-	-	5	56.0	54	-
C1500026	-	-	7	77.0	77	-
C1500216	-	-	10	119.0	115	-
C1500217	14T	-	3.5	43.5	72	50
C1500579	14T	14T	7	77.0	112	50

* *Effective length: from bolt hole to bolt hole.*
"T" after plate diameter means 1/2" thick helix (otherwise common thickness is 3/8").

COMMON RS3500.300 EXTENSION CONFIGURATIONS

Extension with Helical Plate

Plain Extension

RS3500.300 (3-1/2") ICC-ES BUILDING CODE EXTENSIONS
TABLE 30

Catalog No.	Plate Diameter (in)		Nominal Length (ft)	Effective Length (in)*	Weight (lbs)	Helix Grade
	A	B				
C1501291	-	-	3.5	38	39	-
C1501240	-	-	5	56	54	-
C1501241	-	-	7	80	75	-
C1501242	-	-	10	116	102	-
C1501293	14	-	3.5	38	87	50
C1501295	14	14	7	80	122	50

* *Effective length: from bolt hole to bolt hole.*

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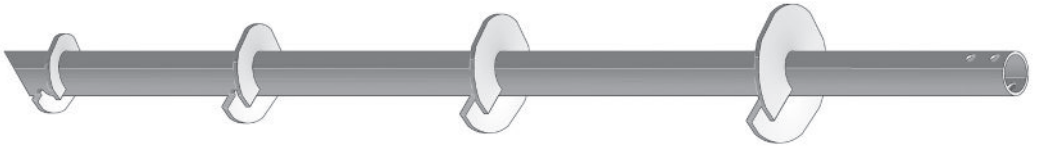
RS4500.337 (4-1/2") LEAD SECTIONS
TABLE 31

Catalog No.	Plate Diameter (in)				Nominal Length (ft)	Effective Length (in)*	Weight (lbs)	Helix Grade
	A	B	C	D				
C1070889	8T	10T	12T	-	7	74.5	130	80
C1070890	8T	10T	12T	14T	10	115.5	195	80
C1070892	10T	12T	14T	14T	10	115.5	204	80

* *Effective length: from leading edge of bottom helix to center of the bolt hole.*
"T" after plate diameter means 1/2" thick helix (otherwise common thickness is 3/8").

COMMON RS4500.337 LEAD CONFIGURATIONS



RS4500.337 (4-1/2") EXTENSIONS
TABLE 32

Catalog No.	Plate Diameter (in)	Nominal Length (ft)	Effective Length (in)*	Weight (lbs)	Helix Grade
C1070885	-	3	36	77	-
C1070887	-	5	57	101	-
C1070888	-	7	78	124	-
C1070910	-	10	120	175	-
C1070886	14T	5	57	125	80

* *Effective length: from bolt hole to bolt hole.*
"T" after plate diameter means 1/2" thick helix (otherwise common thickness is 3/8").

COMMON RS4500.337 EXTENSION CONFIGURATIONS

Extension with Helical Plate

Plain Extension

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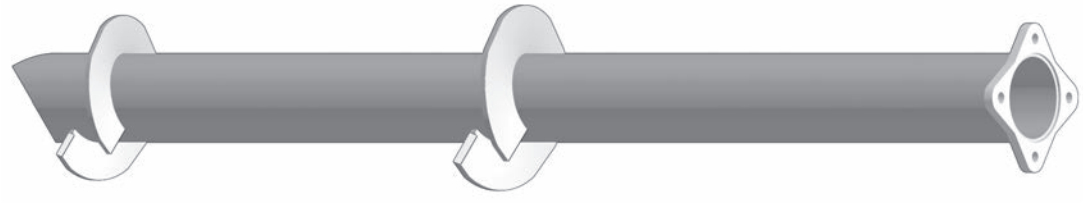
RS6625.280 (6-5/8”)
TABLE 33

Catalog No.	Plate Diameter (in)			Nominal Length (ft)	Effective Length (in)*	Coupling	Helix Grade	Pitch (in)	Coating
	A	B	C						
T1071365	14	16	-	10	274	Box	50	3	GALV
T1072037	14	16	-	10	274	Box	50	6	GALV
T1072038	14	16	18	10	313	Box	50	3	GALV
T1072039	14	16	18	10	313	Box	50	6	GALV
T1071568	14	16	-	10	274	Plate	50	3	GALV
T1072048	14	16	-	10	274	Plate	50	6	GALV
T1072049	14	16	18	10	313	Plate	50	3	GALV
T1072050	14	16	18	10	313	Plate	50	6	GALV

* *Effective length: from leading edge of bottom helix to center of the bolt hole.*

COMMON RS6625.280 COUPLING LEAD CONFIGURATIONS

Lead Section with Box Coupler



Lead Section with Plate Coupler

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RS6625.280 (6-5/8") EXTENSIONS
TABLE 34

Catalog No.	Pitch Diameter (in)	Nominal Length (ft)	Weight (lbs)	Coupling	Helix Grade	Pitch (in)	Coating
T1072044	18	10	285	Box	50	3	GALV
T1072045	18	10	285	Box	50	6	GALV
C1070969	-	5	141	Box	50	-	GALV
C1070973	-	10	246	Box	50	-	GALV
T1072054	18	10	285	Plate	50	3	GALV
T1072055	18	10	285	Plate	50	6	GALV
T1071537	-	5	141	Plate	50	-	GALV
T1071536	-	10	246	Plate	50	-	GALV

* *Effective length: from bolt hole to bolt hole.*

COMMON RS6625.280 COUPLING EXTENSION CONFIGURATIONS

Extension Section with Box Coupler

Extension Section with Plate Coupler

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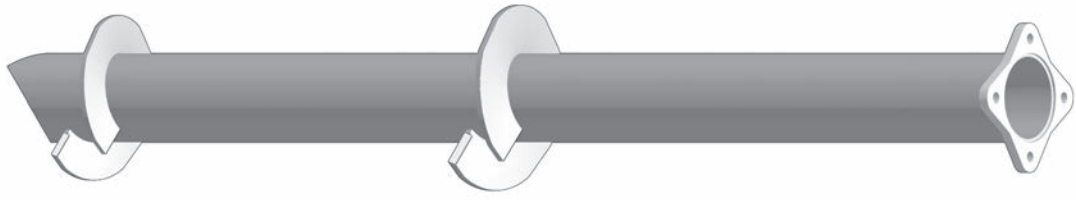
RS8625.250 (8-5/8") LEAD SECTIONS
TABLE 35

Catalog No.	Plate Diameter (in)			Nominal Length (ft)	Weight (lbs)	Coupling	Helix Grade	Pitch (in)	Coating
	A	B	C						
T1072040	16	18	-	10	326	Box	50	3	GALV
T1072041	16	18	-	10	326	Box	50	6	GALV
T1072042	16	18	20	10	371	Box	50	3	GALV
T1072043	16	18	20	10	371	Box	50	6	GALV
T1072051	16	18	-	10	325	Plate	50	3	GALV
T1071848	16	18	-	10	325	Plate	50	6	GALV
T1072052	16	18	20	10	370	Plate	50	3	GALV
T1072053	16	18	20	10	370	Plate	50	6	GALV

* *Effective length: from leading edge of bottom helix to center of the bolt hole.*

COMMON RS8625.250 COUPLING LEAD CONFIGURATIONS

Lead Section with Box Coupler



Lead Section with Plate Coupler

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RS8625.250 (8-5/8") EXTENSIONS
TABLE 36

Catalog No.	Plate Diameter (in)	Nominal Length (ft)	Weight (lbs)	Coupling	Helix Grade	Pitch (in)	Coating
T1072046	20	10	341	Box	50	3	GALV
T1072047	20	10	341	Box	50	6	GALV
C1070956	-	5	172	Box	-	-	GALV
C1070906	-	10	296	Box	-	-	GALV
T1072056	20	10	339	Plate	50	3	GALV
T1072057	20	10	339	Plate	50	6	GALV
T1071564	-	10	170	Plate	-	-	GALV
T1071849	-	10	294	Plate	-	-	GALV

* *Effective length: from bolt hole to bolt hole.*

COMMON RS8625.250 COUPLING EXTENSION CONFIGURATIONS

Extension Section with Box Coupler

Extension Section with Plate Coupler

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2-7/8” to 8-5/8” Round Shaft Notes

1. Included Connection Hardware:
   - RS2875.203 2-7/8” diameter material: (2) 3/4” x 4-1/4” bolt per SAE J429 Grade 5 and nuts.
   - RS2875.276 2-7/8” diameter material: (2) 3/4” x 4-1/4” bolt per SAE J429 Grade 5 and nuts.
   - RS3500.300 3-1/2” diameter material: (3) 3/4” x 5-3/4” bolt per SAE J429 Grade 5 and nuts.
   - RS4500.337 4-1/2” diameter material: (2) 1” x 5-1/2” bolt per SAE J429 Grade 8 and nuts.
   - RS6625.280 6” diameter material: (4) 1” x 8” threaded stud and nuts.
   - RS8625.250 8” diameter material: (4) 1-1/4” x 10-1/2” threaded stud and nuts.
2. The letter “T” after the helix diameter stands for 1/2” thick helix material.
3. All helices are spaced three times the diameter of the preceding helix unless otherwise specified by the customer.
4. All products are hot dip galvanized per ASTM A153.
5. For plain steel and/or special order items contact your area CHANCE® distributor for availability.

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SS/RS COMBINATION HELICAL PILES

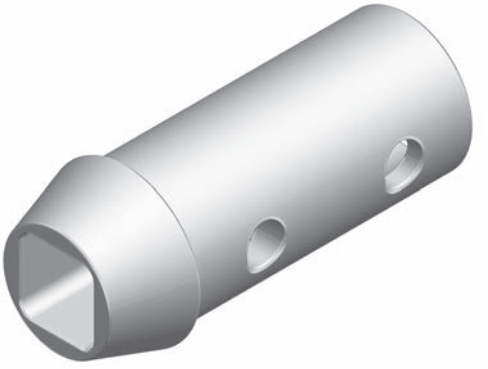
Helical Transition Coupler

Adapts Type SS to Type RS Pile Shafts

The type SS/RS combination piles are used mainly in compression applications in areas where soft/loose soils are located above the bearing strata (hard/dense soils) for the helices. The type RS material with a much greater section modulus will resist columnar buckling in the soft/loose soil. The type SS material allows for adequate penetration of the helices into the hard/dense material without "spin-out", i.e., loss of thrust of the helices in the soft/loose material.

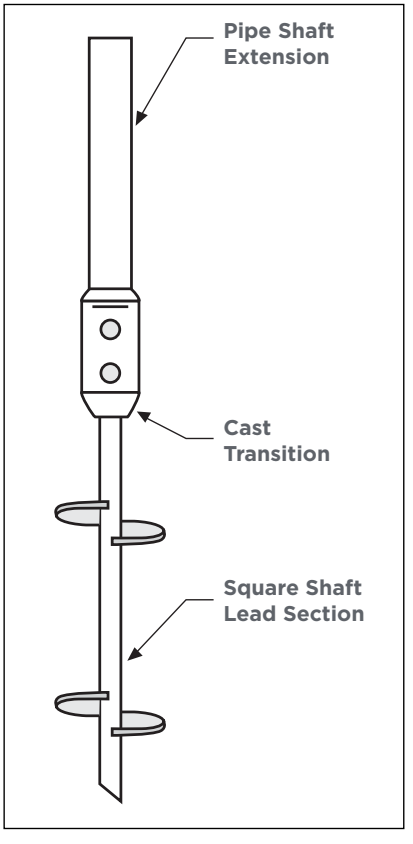
The transition section adapts type SS helical lead sections to type RS plain extensions. Installation of this combination pile is the same as a standard helical pile. Table 37 provides the various standard transition couplers that are available along with their ratings. Special transition couplers, such as RS2875 to RS4500, are also available. Please contact your CHANCE® distributor for availability and delivery times.

A Registered Professional Engineer with suitable soil information should prepare the design.



C1500896

PILE ASSEMBLY WITH RS CAST TRANSITION



CAST TRANSITIONS
TABLE 37

Catalog No.	Description	Weight	Torque Ratings
C1500896	SS5/SS150 square shaft to a RS2875.203 dia. round shaft	7.8	7,000 ft-lbs
C1500895	SS175 square shaft to a RS3500.300 dia. round shaft	13.0	11,000 ft-lbs
C1500937	SS200 square shaft to a RS3500.300 dia. round shaft	16.3	13,000 ft-lbs
C1501365	SS175 square shaft to a RS2875 dia. round shaft	10.3	Up to 8900 ft-lbs
C1101443	SS200 square shaft to a RS4500 dia. round shaft	26	16,000 ft-lbs
C1101418	SS225 square shaft to a RS4500 dia. round shaft	26	21,000 ft-lbs

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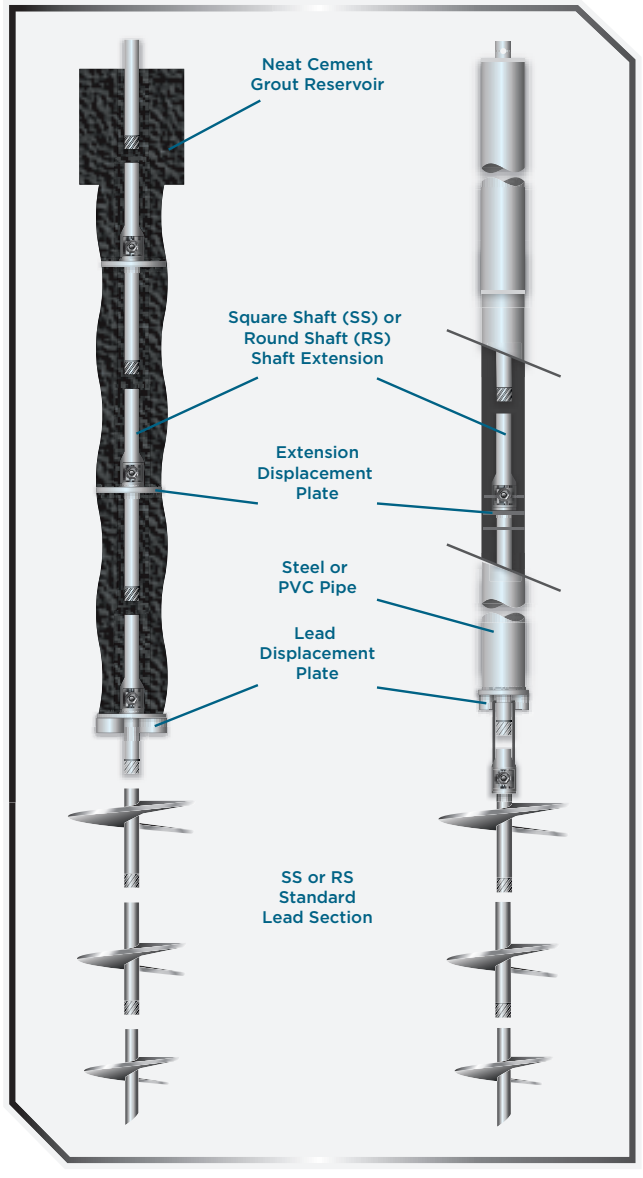
HELICAL PULLDOWN® Micropile

The CHANCE® Helical Pulldown® micropile (HPM) is a method used to form a grout column around the shaft of a standard helical pile. The installation process can employ grout only (see Figure 1) or grout in combination with either steel or PVC casing (see Figure 2).

To begin the process, a helical pile is placed into the soil by applying torque to the shaft. The helical shape of the bearing plates creates a significant downward force that keeps the foundation advancing into the soil. After the lead section with the helical plates penetrates the soil, a lead displacement plate and extension plates are placed onto the shaft. Resuming torque on the assembly advances the helical plates and pulls the displacement plate downward, forcing soil outward to create a cylindrical void around the shaft. From a reservoir at the surface, a flowable grout immediately fills this void surrounding the shaft. Additional extensions and displacement plates are added until the helical bearing plates reach the minimum depth required or competent load-bearing soil. This displacement pile system does not require removing spoils from the site.

UNCASED HPM
Figure 1

CASED HPM
Figure 2



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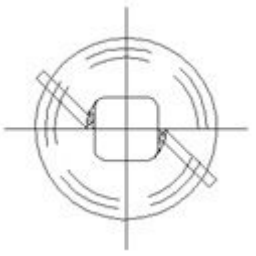
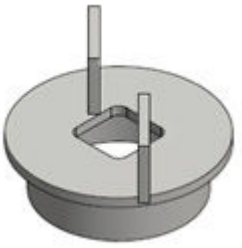
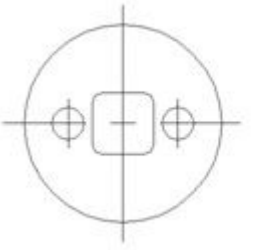
Displacement Plates for Uncased Grout Columns





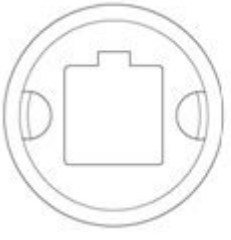


LEAD DISPLACEMENT PLATES
TABLE 38

Catalog No.	Plate Dia. (in)	Product Series
T1500334	5	SS5/SS150
T1500335	7	SS5/SS150
C1500383	5	SS175
C1500387	7	SS175
C1500389	8.5	SS175
C1500391	7	SS200
C1500393	8.5	SS200
C1500395	10	SS200
C1500405	10	SS175

EXTENSION DISPLACEMENT PLATES
TABLE 39

Catalog No.	Plate Dia. (in)	Product Series
T1500330	5	SS5/SS150
T1500331	7	SS5/SS150
C1500382	3.9	SS5/SS150
C1500384	5	SS175
C1500386	5.9	SS175
C1500388	7	SS175
C1500390	7.9	SS175
C1500392	5.9	SS200
C1500394	7.9	SS200
C1500406	10	SS175



CONICAL DISPLACEMENT PLATES
TABLE 40

Catalog No.	Dia. (in)	Product Series
C1501064	3.3	SS5/SS150
C1501352	3.25	SS5/SS150
C1501065	3.9	SS175
C1501353	4.0	SS175
C1501362	5.5	SS200
C1501360	5.5	SS200

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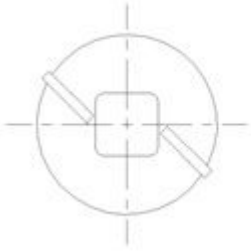
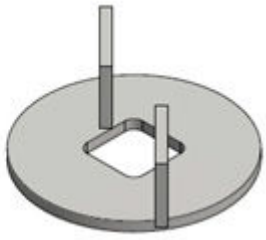
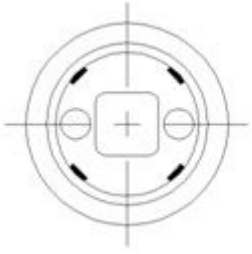
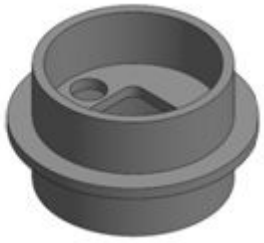
Displacement Plates for Cased Grout Columns









LEAD DISPLACEMENT PLATES
TABLE 41

Catalog No.	Plate Dia (in)	Casing Dia (in)	Product Series
T1500339	5	4	SS5/SS150
C1500424	7	6	SS175
C1500425	7	6	SS200

EXTENSION DISPLACEMENT PLATES
TABLE 42

Catalog No.	Plate Dia (in)	Casing Dia (in)	Product Series
T1500338	5	4	SS5/SS150
C1500426	7	6	SS175
C1500427	7	6	SS200

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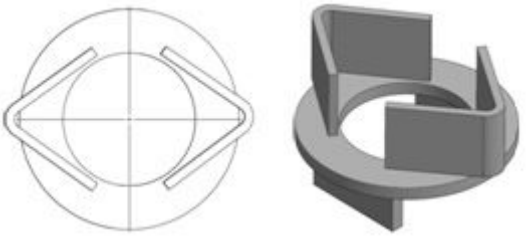
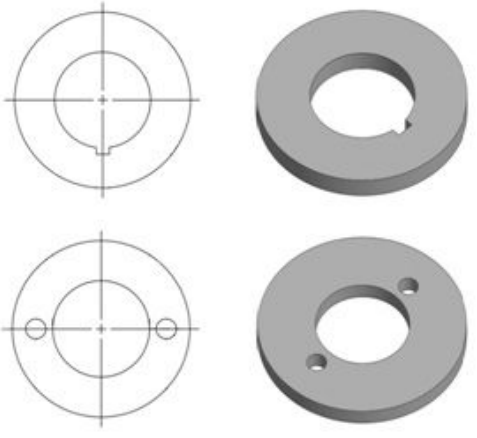
HPM Lead and Extension Displacement Assemblies for RS Helical Piles



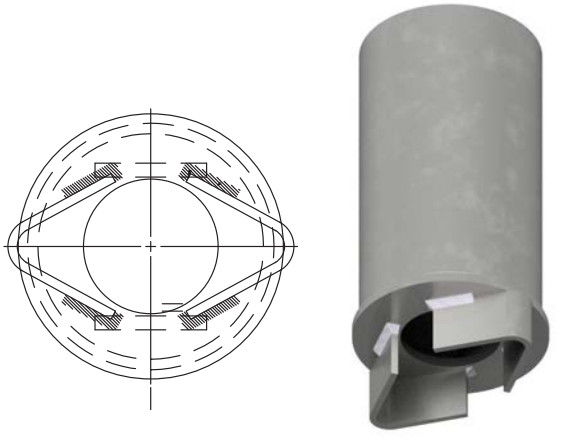
LEAD DISPLACEMENT PLATES
TABLE 43

Catalog No.	Plate Dia (in)	Product Series
C1500966	6	RS2875
C1500967	6	RS3500
C1500972	8	RS3500
C1500980	6	RS4500
C1500981	8	RS4500



EXTENSION DISPLACEMENT PLATES
TABLE 44

Catalog No.	Plate Dia (in)	Product Series
C1500961	5.9	RS2875
C1500962	5.9	RS3500
C1500963	7.9	RS3500
C1500964	5.9	RS4500
C1500965	7.9	RS4500



STEEL PIG DISPLACEMENT PLATES
TABLE 45

Catalog No.	Plate Dia (in)	Product Series
C1500989	7.13	RS2875
C1500993	7.13	RS3500
C1500994	9.13	RS3500
C1500995	7.13	RS4500
C1500996	9.13	RS4500

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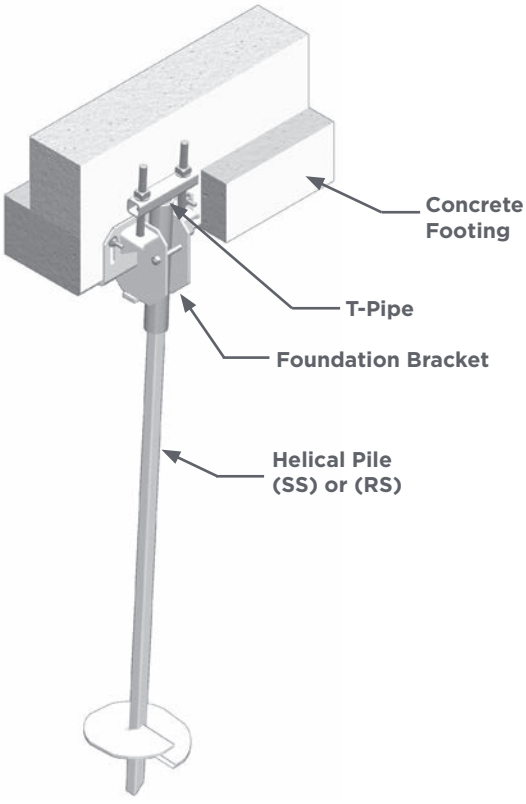
REMEDIAL REPAIR BRACKETS

C1500121 Standard Bracket and T-Pipe System

- Used with CHANCE® type SS5 & SS150, type RS2875.203, and type RS2875.276
- Use for lifts up to 4" (10 cm)
- System includes:
  - Foundation bracket
  - T-pipe
  - Hardware
- Order separately: two 5/8" (16 mm) diameter anchor bolts per pile as required.
- Standard finish is hot dip galvanized per ASTM A153.
- Ultimate mechanical strength of bracket body is 80,000 lbs (356 kN).
- Working mechanical strength of bracket body is 40,000 lbs (178 kN).



C1500121 STANDARD BRACKET AND T-PIPE RATINGS
TABLE 46

Catalog No.	Ultimate Mechanical Strength[1,3] lbs (kN)	Pile Size in (mm)	Product Series	Max Working Capacity[2,3] per Product Series lbs (kN)	Features
C1500486	40,000 (178)	1-1/2 (38) Square	SS5/SS150	20,000 (89)	Lowest cost with square shaft
C1500487	80,000 (356)	1-1/2 (38) Square	SS5/SS150	20,000 (89) 25,000 (111)	Higher capacity with SS150
C2780001	40,000 (178)	2-7/8 (73) Round	RS2875.203	20,000 (89)	Lowest cost with round shaft
C2780002	80,000 (356)	2-7/8 (73) Round	RS2875.203	25,000 (111)	Higher capacity with stronger T-pipe
C2780011	80,000 (356)	2-7/8 (73) Round	RS2875.276	30,000 (133)	Higher capacity with RS2875.276
C2780012	40,000 (178)	2-7/8 (73) Round	RS2875.276	20,000 (89)	Higher capacity with RS2875.203

Notes:

1. *Ultimate mechanical strength is for the bracket body and T-pipe combination.*
2. *The capacity of CHANCE helical pile systems is a function of many individual elements, including the capacity of the foundation, bracket, pile shaft, helix plate and bearing stratum, as well as the strength of the foundation-to-bracket connection, and the quality of the helical pile installation. The fifth column shows typical working capacities of the CHANCE helical pile system based upon maximum shaft exposure of 2 feet and soil strength having a minimum Standard Penetration Test (SPT) blow count "N" of 4. Actual capacities could be higher or lower depending on the above factors.*
3. *The ultimate capacity of the system, i.e., bracket, T-pipe, and pile shaft, can be increased to the pile shaft compression capacity limit as shown in the Technical Design Manual, provided the pile shaft is reinforced using a pipe sleeve or grout column. The maximum working capacity shall not be greater than one-half of the ultimate mechanical strength of the bracket and T-pipe combination given above.*

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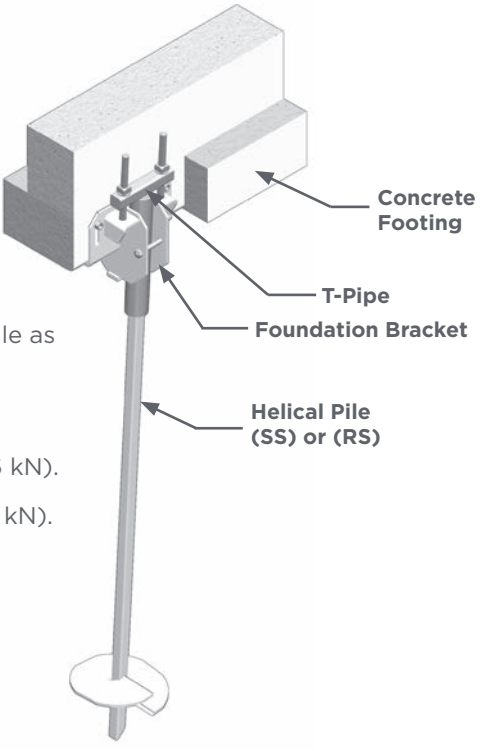
C1500299 Standard Bracket and T-Pipe System

- Used with CHANCE® type SS175
- Use for lifts up to 4” (10 cm)
- System includes:
  - Foundation bracket
  - T-pipe
  - Hardware
- Order separately: two 5/8” (16 mm) diameter anchor bolts per pile as required.
- Standard finish is hot dip galvanized per ASTM A153.
- Ultimate mechanical strength of bracket body is 80,000 lbs (356 kN).
- Working mechanical strength of bracket body is 40,000 lbs (178 kN).



C1500299 STANDARD BRACKET AND T-PIPE RATINGS
TABLE 47

Catalog No.	Ultimate Mechanical Strength[1,3] lbs (kN)	Pile Size in (mm)	Product Series	Max Working Capacity[2,3] per Product Series lbs (kN)	Features
C1500488	80,000 (356)	1-3/4 (38) Square	SS175	30,000 (133)	Lowest cost with Type SS175 product series

Notes:

1. *Ultimate mechanical strength is for the bracket body and T-pipe combination.*
2. *The capacity of CHANCE helical pile systems is a function of many individual elements, including the capacity of the foundation, bracket, pile shaft, helix plate and bearing stratum, as well as the strength of the foundation-to-bracket connection, and the quality of the helical pile installation. The fifth column shows typical working capacities of the CHANCE helical pile system based upon maximum shaft exposure of 2 feet and soil strength having a minimum Standard Penetration Test (SPT) blow count “N” of 4. Actual capacities could be higher or lower depending on the above factors.*
3. *The ultimate capacity of the system, i.e., bracket, T-pipe, and pile shaft, can be increased to the pile shaft compression capacity limit as shown in the Technical Design Manual, provided the pile shaft is reinforced using a pipe sleeve or grout column. The maximum working capacity shall not be greater than one-half of the ultimate mechanical strength of the bracket and T-pipe combination given above.*

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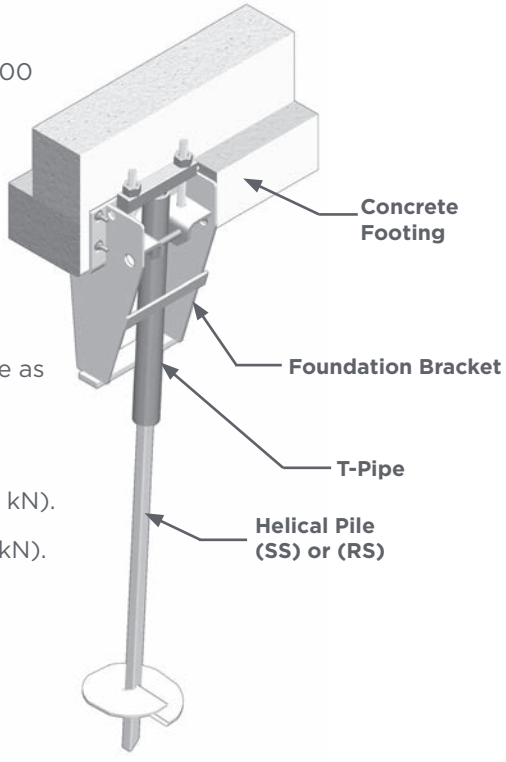
C1500147 Standard Bracket and T-Pipe System

- Used with CHANCE® type SS175, type SS200, and type RS3500.300
- Use for lifts up to 4" (10 cm)
- System includes:
  - Foundation bracket
  - T-pipe
  - Hardware
- Order separately: four 5/8" (16 mm) diameter anchor bolts per pile as required.
- Standard finish is hot dip galvanized per ASTM A153.
- Ultimate mechanical strength of bracket body is 120,000 lbs (534 kN).
- Working mechanical strength of bracket body is 60,000 lbs (267 kN).



C1500147 STANDARD BRACKET AND T-PIPE RATINGS
TABLE 48

Catalog No.	Ultimate Mechanical Strength[1,3] lbs (kN)	Pile Size in (mm)	Product Series	Max Working Capacity[2,3] per Product Series lbs (kN)	Features
C1500474	120,000 (534)	1-3/4 (44) Square	SS175	40,000 (178)	Lowest cost with square shaft
C1500475	120,000 (534)	3-1/2 (89) Round	RS3500.300	50,000 (222)	Higher capacity with RS3500.300
C1500508	120,000 (534)	2 (51) Square	SS200	50,000 (222)	Highest capacity with square shaft

Notes:

1. *Ultimate mechanical strength is for the bracket body and T-pipe combination.*
2. *The capacity of CHANCE helical pile systems is a function of many individual elements, including the capacity of the foundation, bracket, pile shaft, helix plate and bearing stratum, as well as the strength of the foundation-to-bracket connection, and the quality of the helical pile installation. The fifth column shows typical working capacities of the CHANCE helical pile system based upon maximum shaft exposure of 2 feet and soil strength having a minimum Standard Penetration Test (SPT) blow count "N" of 4. Actual capacities could be higher or lower depending on the above factors.*
3. *The ultimate capacity of the system, i.e., bracket, T-pipe, and pile shaft, can be increased to the pile shaft compression capacity limit as shown in the Technical Design Manual, provided the pile shaft is reinforced using a pipe sleeve or grout column. The maximum working capacity shall not be greater than one-half of the ultimate mechanical strength of the bracket and T-pipe combination given above.*

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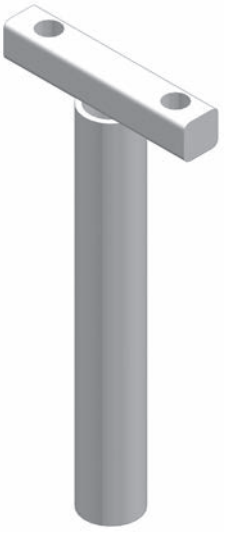
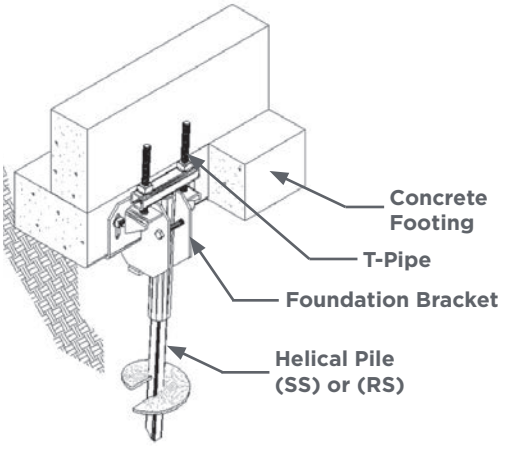
HUBBELL

PSAC1500499 Low Profile Bracket and T-Pipe System



- Used with CHANCE® type SS5 & SS150, type RS2875.203, and type RS2875.276
- Use for lifts up to 4" (10 cm)
- System includes:
  - Foundation bracket
  - T-pipe
  - Hardware
- Order separately: two 1/2" (13 mm) diameter anchor bolts per pile as required.
- Standard finish is hot dip galvanized per ASTM A153.
- Ultimate mechanical strength of bracket body is 30,000 lbs (133 kN).
- Working mechanical strength of bracket body is 15,000 lbs (67 kN



PSAC150049 LOW PROFILE BRACKET AND T-PIPE RATINGS
TABLE 49

Catalog No.	Ultimate Mechanical Strength[1,3] lbs (kN)	Pile Size in (mm)	Product Series	Max Working Capacity[2,3] per Product Series lbs (kN)	Features
PSAC1500503	30,000 (133)	1-1/2 (38) Square	SS5/SS150	15,000 (67)	Lowest cost with SS5 product series
PSAC2780003	30,000 (133)	2-7/8 (73) Round	RS2875.203	15,000 (67)	Lowest cost with RS2875.203 product series

Notes:

1. *Ultimate mechanical strength is for the bracket body and T-pipe combination.*
2. *The capacity of CHANCE helical pile systems is a function of many individual elements, including the capacity of the foundation, bracket, pile shaft, helix plate and bearing stratum, as well as the strength of the foundation-to-bracket connection, and the quality of the helical pile installation. The fifth column shows typical working capacities of the CHANCE helical pile system based upon maximum shaft exposure of 2 feet and soil strength having a minimum Standard Penetration Test (SPT) blow count "N" of 4. Actual capacities could be higher or lower depending on the above factors.*
3. *The ultimate capacity of the system, i.e., bracket, T-pipe, and pile shaft, can be increased to the pile shaft compression capacity limit as shown in the Technical Design Manual, provided the pile shaft is reinforced using a pipe sleeve or grout column. The maximum working capacity shall not be greater than one-half of the ultimate mechanical strength of the bracket and T-pipe combination given above.*

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Direct Jack (DJ) Underpinning Bracket

- Used with CHANCE® type SS5 & SS150, SS175, RS2875.276, and RS3500.300
- Use for lifts up to 4” (10 cm)
- System includes:
  - Foundation bracket
  - T-pipe
  - Two thread bar nuts
  - Order separately: two 1/2” (13mm) diameter concrete anchor bolts per pile as required.
  - Standard finish is hot dipped galvanized per ASTM A153.
  - Material specifications:
    - Bracket Body: 1/2” thick steel per ASTM A36 latest rev. T-pipe.
    - Pipe: steel pipe per ASTM A500 latest rev.
    - Lifting studs: Williams form #11 Grade 90.

C1500738

DIRECT JACK (DJ) UNDERPINNING BRACKETS
TABLE 50

Catalog No.	Ultimate Mechanical Strength[1,3] lbs (kN)	Pile Size in (mm)	Max Working Capacity[2,3] per Product Series lbs (kN)	Features
C1500738	70,000 (356)	1-1/2” (38) Square	35,000 (133)	Lowest cost
C1500733	100,000 (445)	1-3/4” (44) Square	50,000 (222)	Highest capacity
C1500840	72,000 (320)	2-7/8” (73) Round	36,000 (160)	
C1500841	91,000 (405)	3-1/2” (89) Round	45,000 (202)	

Notes:

1. *Ultimate mechanical strength is for the bracket body and T-pipe combination.*
2. *The capacity of CHANCE helical pile systems is a function of many individual elements, including the capacity of the foundation, bracket, pile shaft, helix plate and bearing stratum, as well as the strength of the foundation-to-bracket connection, and the quality of the helical pile installation. The fifth column shows typical working capacities of the CHANCE helical pile system based upon maximum shaft exposure of 2 feet and soil strength having a minimum Standard Penetration Test (SPT) blow count “N” of 4. Actual capacities could be higher or lower depending on the above factors.*
3. *The ultimate capacity of the system, i.e., bracket, T-pipe, and pile shaft, can be increased to the pile shaft compression capacity limit as shown in the Technical Design Manual, provided the pile shaft is reinforced using a pipe sleeve or grout column. The maximum working capacity shall not be greater than one-half of the ultimate mechanical strength of the bracket and T-pipe combination given above.*

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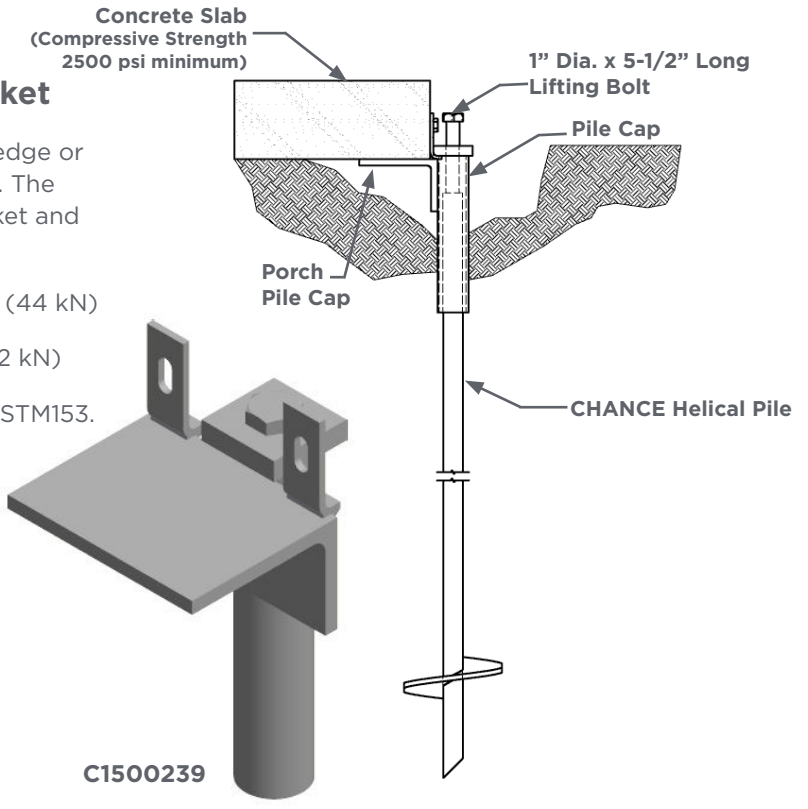
C1500239 Light Duty / Porch Bracket

This bracket is used to raise the concrete slab edge or non-load bearing wall using a screw lift system. The assembly consists of the light duty porch bracket and helical pile (order helical pile separately).

- Ultimate mechanical strength = 10,000 lbs (44 kN)
- Maximum working capacity = 5,000 lbs (22 kN)
- Standard finish is hot dip galvanized per ASTM153.
- Use only with SS5 and SS150 piles



T1500085 / C1501441
Concrete Slab Brackets

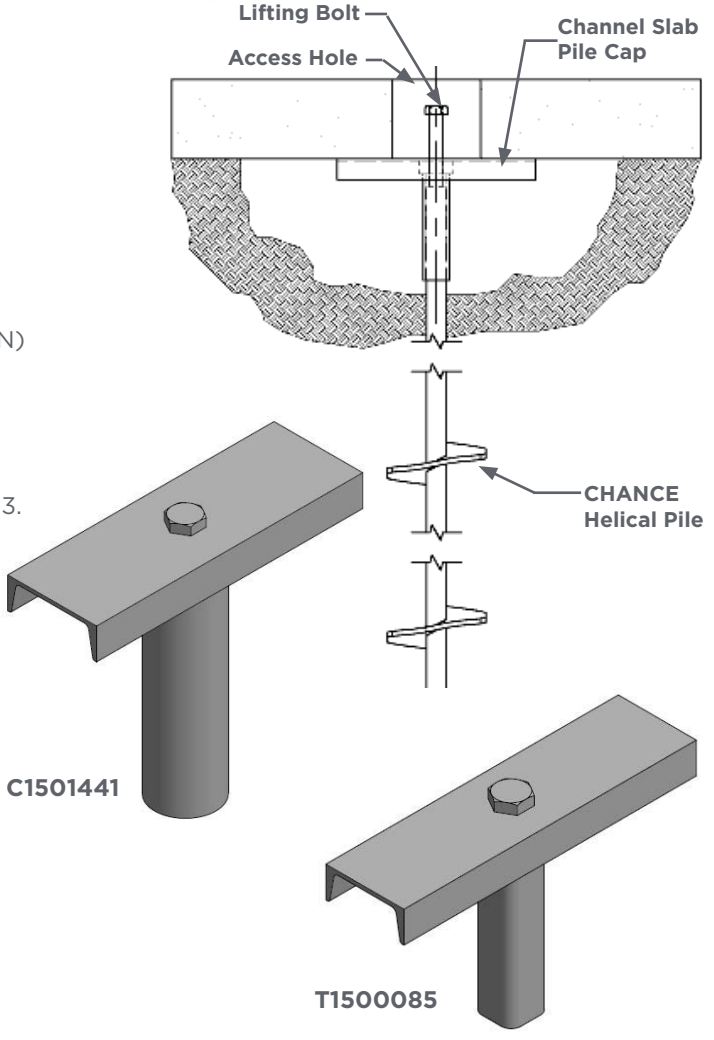
This bracket is used to raise the concrete slab using a screw lift system through the slab. The assembly consists of the screw lift slab brcaket and helical pile (order helical pile separately).

- Ultimate mechanical strength = 10,000 lbs (44 kN)
- Maximum working capacity = 5,000 lbs (22 kN)
- Maximum lifting capacity = 7,500 lbs (33 kN)
- Standard finish is hot dip galvanized per ASTM153.

STANDARD PILE SIZE(S):

- **T1500085** to be used with only SS5 and SS150 piles
- **C1501441** to be used with only RS2875 piles

NOTE: Standard access hole: 6"-8" dia. for SS piles.



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C1501339 Interior Slab Bracket (ISB)

When used in conjunction with the patented CHANCE® combo pile, the ISB can result in overall lower project costs and still achieve load requirements.

- Ultimate mechanical strength = 57,000 lbs (254 kN
- Maximum working capacity = 28,000 lbs (125 kN)
- Maximum lifting capacity = 28,000 lbs (125 kN)

STANDARD PILE SIZE(S):

- **C1501339** to be used with RS2875.203 and RS2875.276 piles
- Standard finish is hot dip galvanized per ASTM153

Walkway Support Brackets

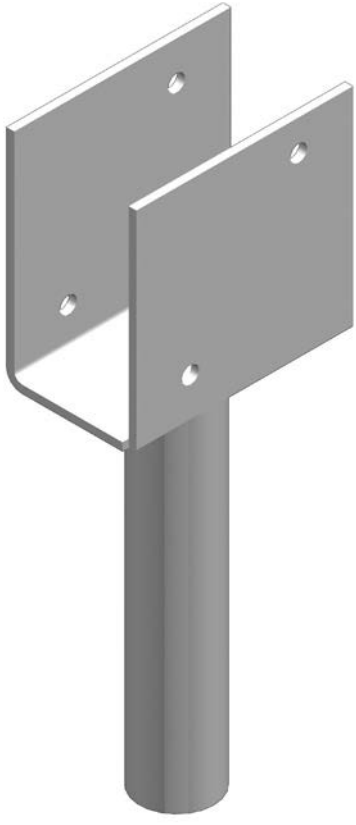
These brackets are used to connect timbers or girder beams to helical piles. The split bracket design is more universal because beam thickness or tolerance is not a problem. Both of these brackets fit over an SS5 or SS150 square shaft and inside an RS2875.203 round shaft.

Types of Walkway Brackets:

- **C1100682** and **C1100736** brackets are used only with SS5 and SS150 piles.
- **C1100936** and **C1100925** brackets are used only with RS2875 piles.

Standard finish is hot dipped galvanized per ASTM A153.

For different size shafts, mounting holes, or special finishes please contact your CHANCE distributor for availability.



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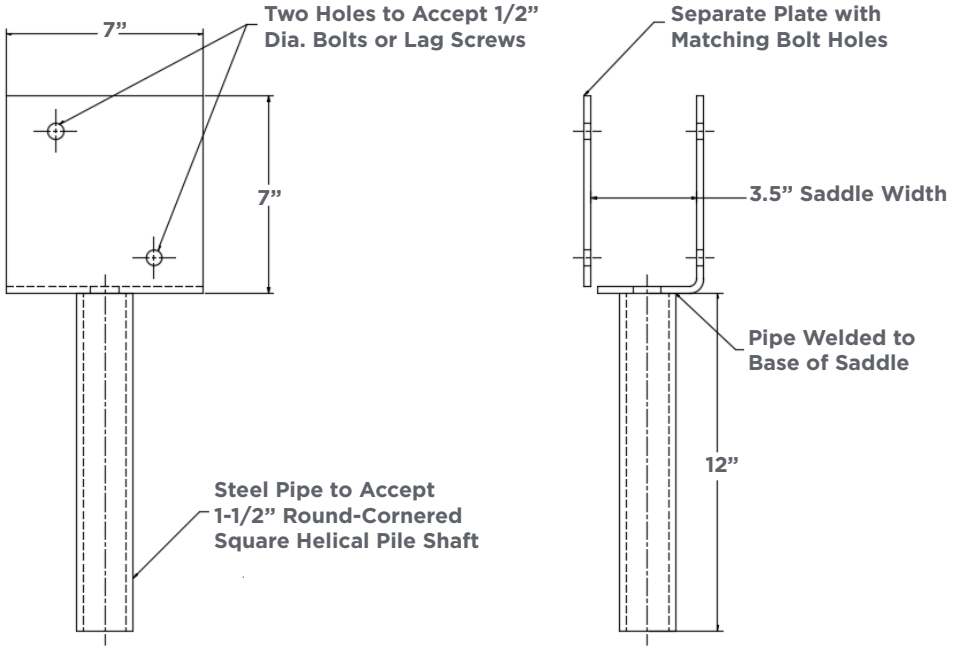
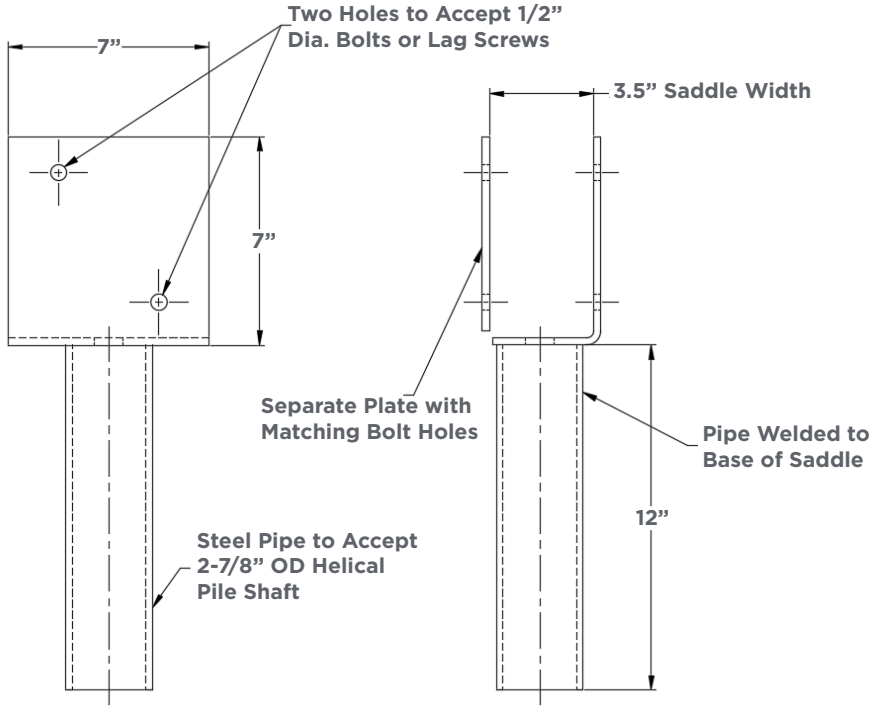
C1100682 WALKWAY BRACKET



C1100936 WALKWAY BRACKET



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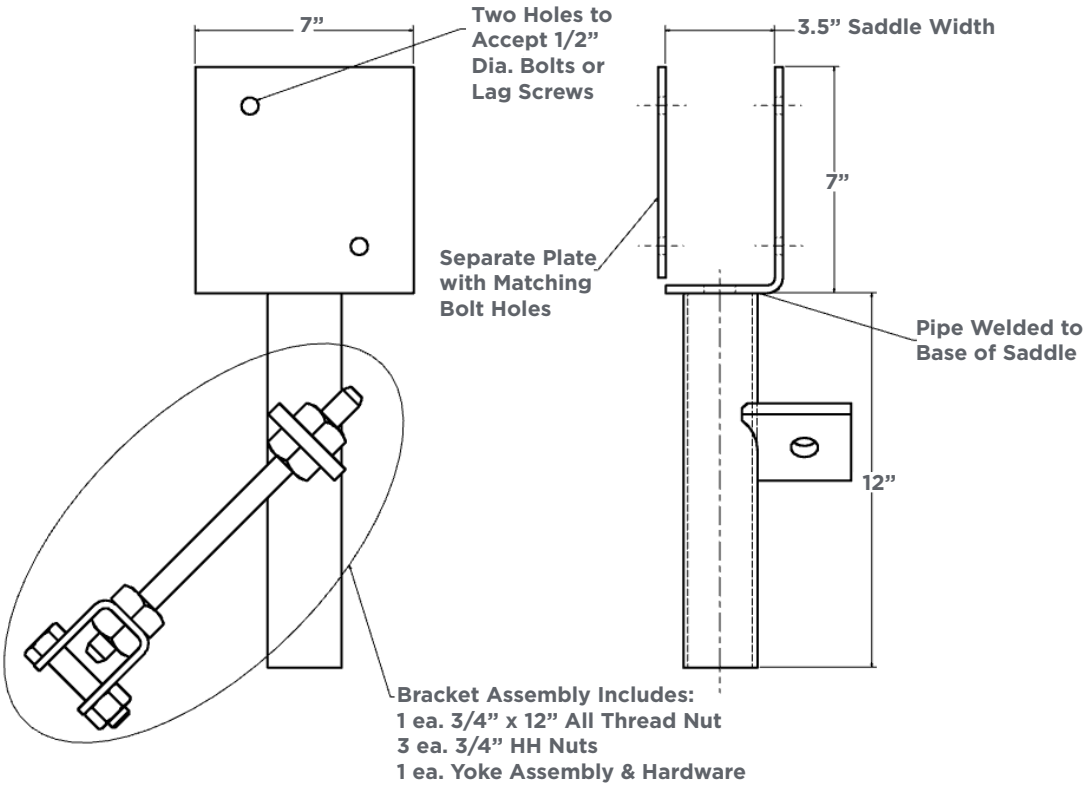
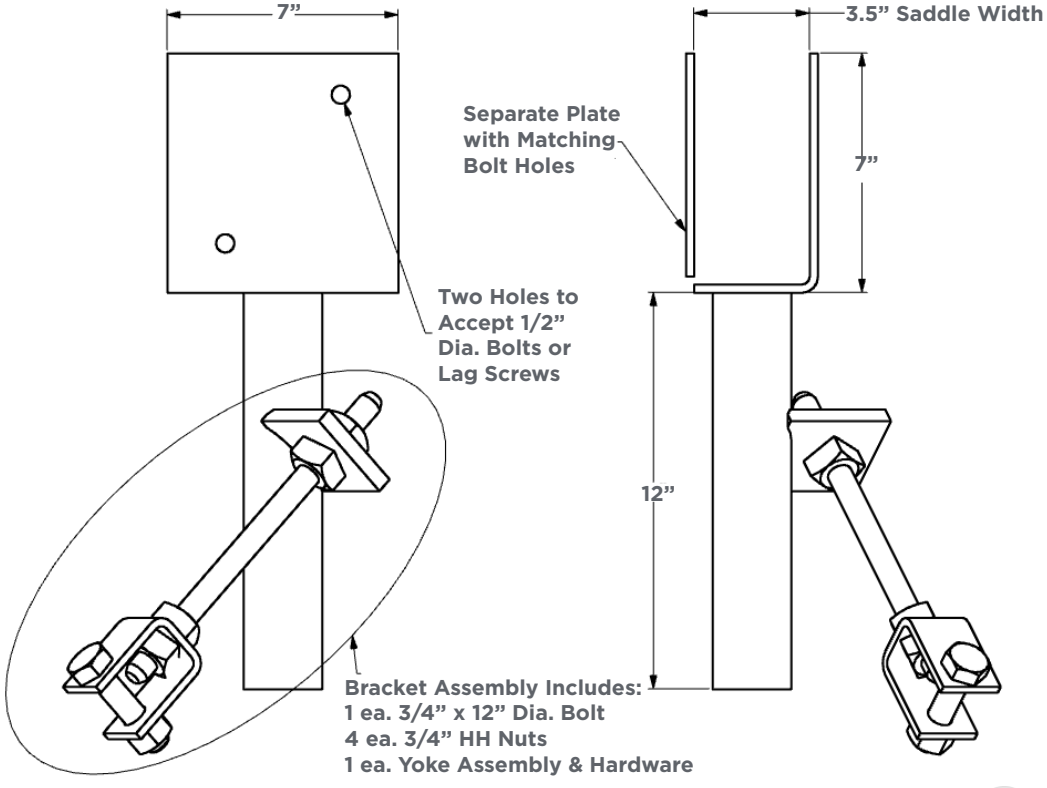
C1100736 WALKWAY BRACKET



C1100925 WALKWAY BRACKET



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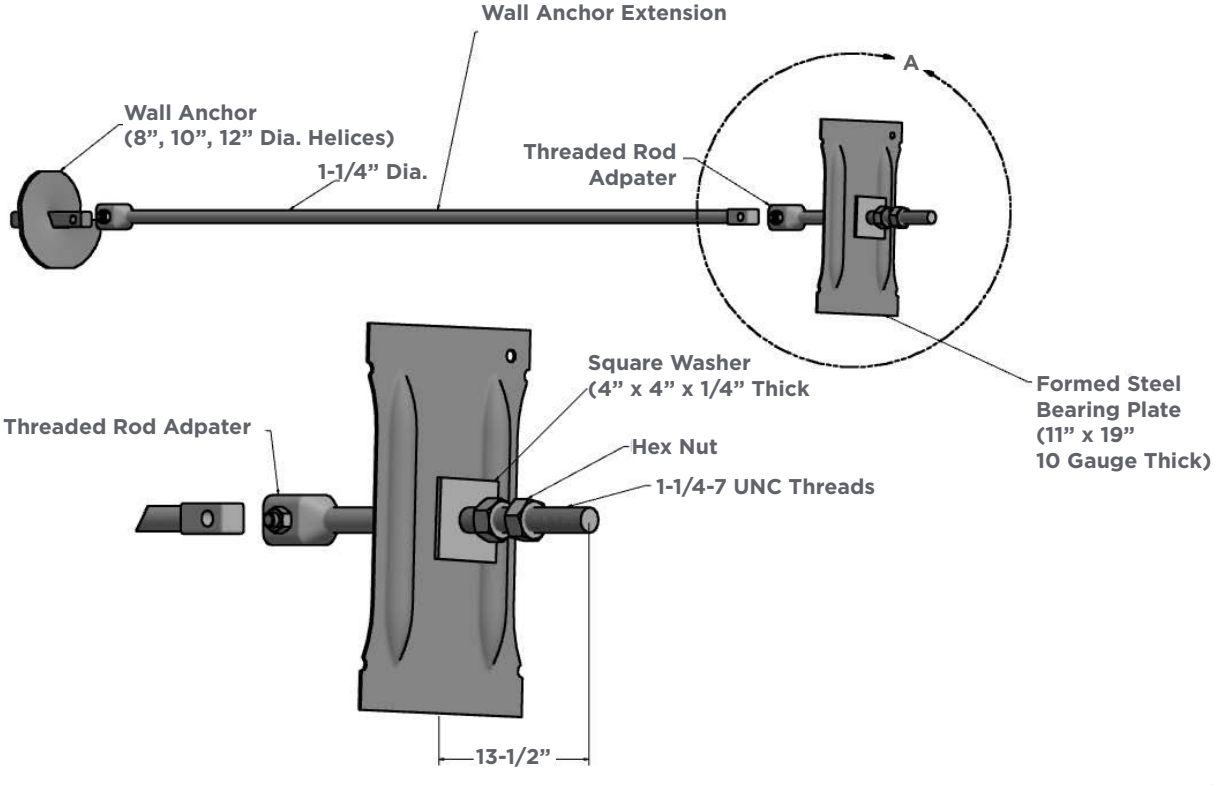
WILLIAMS FORM WALL PLATE AND TRANSITION KITS (AVAILABLE ONLY IN HDG)
TABLE 51

Catalog No.	Description	Weight (lbs)
C1500633	SS125 Transition Assembly Kit	19.1

WALL ANCHOR KITS AND COMPONENTS
TABLE 52

Catalog No.	Description (in)	C1500032 20" Threaded Bar Adapter	12698 7' x 1-1/4" Extension	E1500088 Plate and Washer Assembly	E1500079 8" Helix	E1500252 10" Helix	E1500254 12" Helix
T1500080	(8) Kit	X	X	X	X		
T1500253	(10) Kit	X	X	X		X	
T1500255	(12) Kit	X	X	X			X

"X" = Included in Kit.



OPTIONAL WALL ANCHOR COMPONENTS
TABLE 53

Catalog No.	Description	Weight (lbs)
T1500447	4' Threaded Adapter	19
12696	3.5' x 1-1/4" Extension	20
12697	5' x 1-1/4" Extension	28

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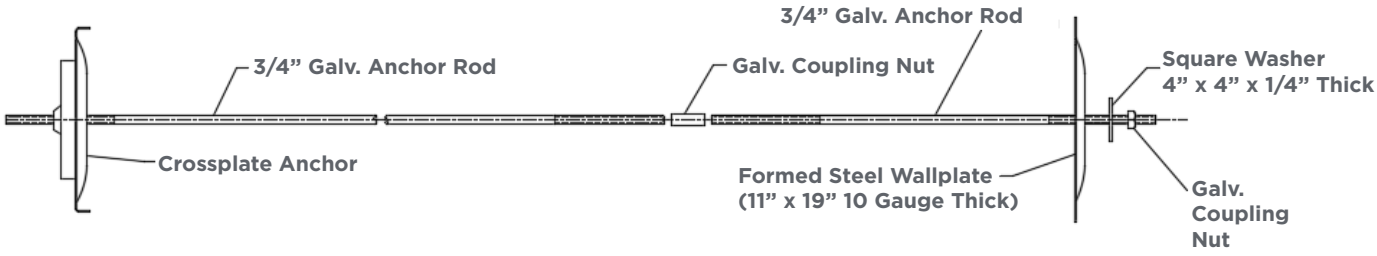
Wall Anchor System



KITS
TABLE 54

Catalog No.	Crossplate Anchor		Wallplate		Anchor Rod		Weight
	Size (in)	Description	Size (in)	Description	Rod Size	Accessories	
T1500362	20	Galvanized	19	Galvanized w/ washer	9' x 3/4"	2 nuts	39.2
T1500363	20	Clear-coat	19	Clear-coat w/ washer	9' x 3/4"	2 nuts	37.8
T1500364	20	Galvanized	19	Galvanized w/ washer	9' x 3/4"	2 nuts	46.2
					4-1/2' x 3/4"	1 Nut, 1 Coupling	
T1500366	20	Galvanized	19	Galvanized w/ washer	4-1/2' x 3/4"	1 Nut, 1 Coupling	40.2
					4-1/2' x 3/4"	1 Nut	
T1500367	20	Clear-coat	19	Clear-coat w/ washer	4-1/2' x 3/4"	1 Nut, 1 Coupling	38.8
					4-1/2' x 3/4"	1 Nut	

ACCESSORIES
TABLE 55

Catalog No.	Description	Weight (lbs)
T1500348	Four each: Galv washers, Galv square nuts, and Galv couplings (all for 3/4" rod)	5.0
T1500349	9' x 3/4" Galv rod w/ 18" of thread on both ends	13.5
T1500350	4-1/2' x 3/4" Galv rod w/ 18" of thread on both ends	6.5
T1500351	4-1/2' x 3/4" Rod, all-thread	7.4
T1500372	25" Galv wallplate w/ galv washer	16.8
T1500373	25" Clear-coated wallplate w/ clear-coated washer	18.0
T1500374	24" Galv crossplate anchor	34.0

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TERMINATION DEVICES

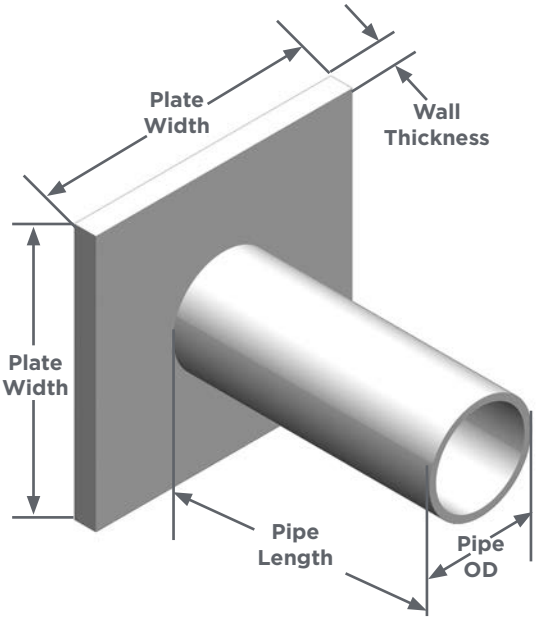
Specifying exactly what you need is simple with CHANCE® helical foundation support products. A variety of standard accessories and special termination devices are offered depending on the project and application. This section illustrates some of our standard termination devices along with their mechanical ratings. If your project requires a special termination device, please contact your CHANCE distributor.

New Construction Pile Caps

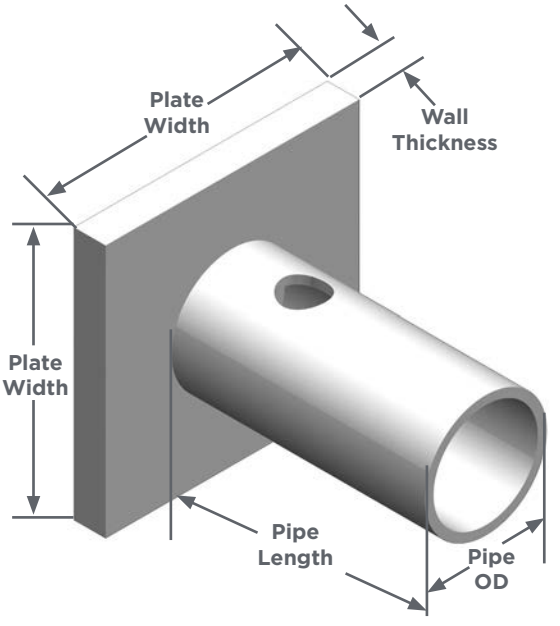
The CHANCE new construction pile caps are designed for use with CHANCE type square shaft (SS) and round shaft (RS) helical piles and for embedment in cast-in-place concrete foundations. For preliminary design, guidelines for reinforced pile caps refer to Section 4 of the Technical Design Manual, 3rd Edition.

SS SHAFTS:

COMPRESSION ONLY



COMPRESSION AND UPLIFT



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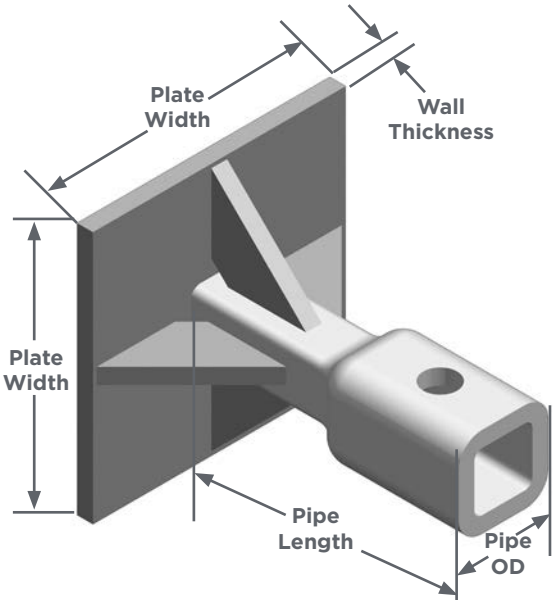
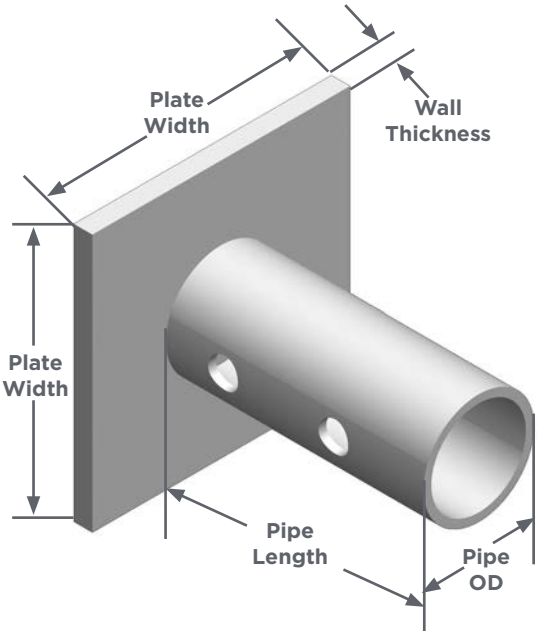
SS SHAFTS:

EQUAL COMPRESSION AND UPLIFT CAPACITY



RS SHAFTS:

COMPRESSION AND UPLIFT



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NEW CONSTRUCTION PILE CAPS
TABLE 56

Catalog No.	Fits Shaft Size	Plate Size			Pipe Dimensions		
		Length	Width	Thickness	OD	Wall Thickness	Length
C1500458	SS5/ SS150	6”	6”	1/2”	2.38”	0.154”	6”
C1500459	SS175	6”	6”	3/4”	2.88”	0.203”	6”
C1500465	SS5/ SS150	6”	6”	1/2”	2.38”	0.154”	6”
C1500467	SS175	6”	6”	3/4”	2.88”	0.203”	6”
C1500777	SS5/ SS150	7”	7”	1/2”	2.50”	0.154”	6”
C1500778	SS175	8”	8”	1/2”	2.88”	0.203”	6”
C1500779	SS200	12”	12”	1/2”	3.50”	0.300”	6”
C1500780	SS225	12”	12”	1/2”	3.50”	0.216”	6”
C1500781	RS2875	7”	7”	1/2”	3.50”	0.216”	6”
C1500782	RS3500	10”	10”	1/2”	4.50”	0.337”	6”
C1500783	RS4500	12”	12”	1/2”	5.56”	0.375”	6”
C1500793	SS5/ SS150	7”	7”	1/2”	2.50”	0.154”	6”
C1500794	SS175	8”	8”	1/2”	2.88”	0.203”	6”
C1500795	SS200	12”	12”	1/2”	3.50”	0.300”	6”
C1500796	SS225	12”	12”	1/2”	3.50”	0.216”	6”
C1500797	RS2875	7”	7”	1/2”	3.50”	0.216”	7”
C1500798	RS3500	10”	10”	1/2”	4.50”	0.337”	7”
C1500799	RS4500	12”	12”	1/2”	5.56”	0.375”	7”
C1500821	SS150	7”	7”	1/2”	2.40”	0.45”	5.5”
C1500822	SS175	8”	8”	1/2”	2.86”	0.555”	10”
C1500823	SS200	12”	12”	1/2”	3.30”	0.65”	10”
C1500824	SS225	12”	12”	1/2”	3.62”	0.685”	10.75”
C1501356	RS3500	8”	8”	3/4”	4.5”	0.337”	6”
C1501357	RS3500	8”	8”	1/2”	4.5”	0.337”	7”

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NEW CONSTRUCTION PILE CAPS RATING
TABLE 57

Catalog No.	Fits Shaft Size	Hole / No Hole	Bolt Diameter	Working Load Rating (kip)	
				Compression	Uplift
C1500458	SS5/ SS150	No Hole	N/A	40	N/A
C1500459	SS175	No Hole	N/A	60	N/A
*C1500465	SS5/ SS150	1 Hole	3/4”	40	20
*C1500467	SS175	1 Hole	7/8”	60	30
C1500777	SS5/ SS150	No Hole	N/A	35	N/A
C1500778	SS175	No Hole	N/A	52.5	N/A
C1500779	SS200	No Hole	N/A	75	N/A
C1500780	SS225	No Hole	N/A	100	N/A
C1500781	RS2875	No Hole	N/A	36	N/A
C1500782	RS3500	No Hole	N/A	50	N/A
C1500783	RS4500	No Hole	N/A	70	N/A
C1500793	SS5/ SS150	1 Hole	3/4”	35	23
C1500794	SS175	1 Hole	7/8”	52.5	37
C1500795	SS200	1 Hole	1-1/8”	75	45
C1500796	SS225	1 Hole	1-1/4”	100	40
C1500797	RS2875	2 Holes	3/4”	36	36
C1500798	RS3500	3 Holes	3/4”	50	50
C1500799	RS4500	2 Holes	1”	70	70
C1500821	SS150	1 Hole	3/4”	35	35
C1500822	SS175	1 Hole	7/8”	52.5	50
C1500823	SS200	1 Hole	1-1/8”	75	75
C1500824	SS225	1 Hole	1-1/4”	100	100
C1501356	RS3500	No Hole	N/A	60	N/A
C1501357	RS3500	3 Holes	3/4”	60	52

NOTE: All New Construction Caps are not galvanized. Add “G” to standard catalog number to order galvanized.
**Bolt and nut not provided.*

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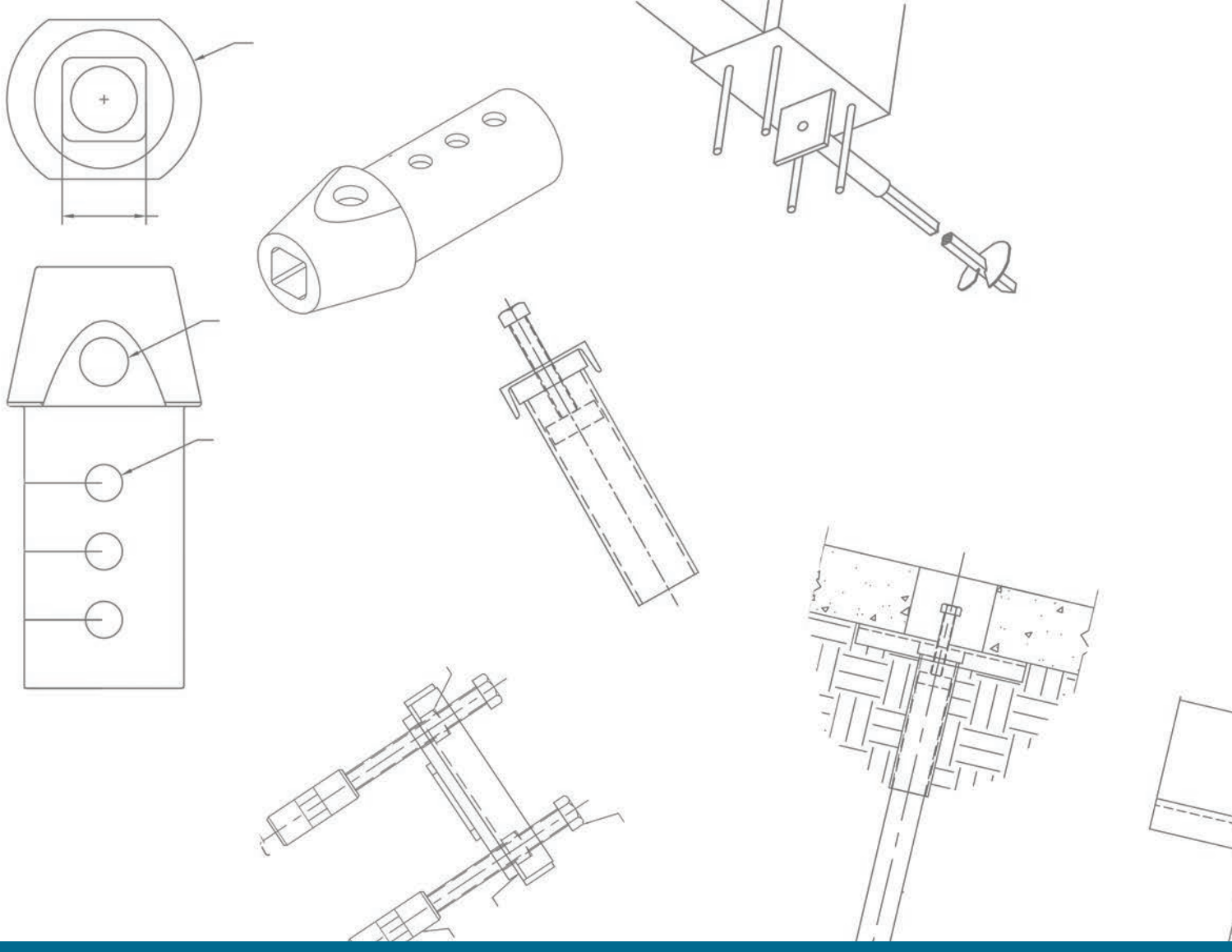

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