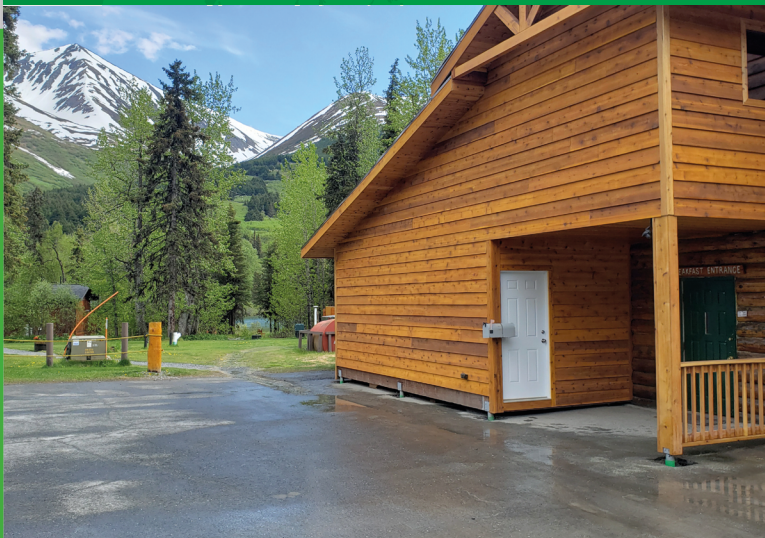


WORLD LEADER IN HELICAL PILES

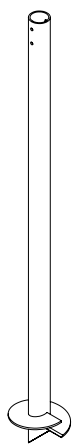






















SPEC BOOK



- Certifications
- Helical Piles
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Techno Metal Post (TMP) was founded in Canada in 1993. Through the founders' vision, dedication, and hard work, TMP has grown from a local family business to a worldwide network of more than 150 professionally trained and certified dealers. Along with this network expansion and progress, Techno Metal post has remained at the forefront of cutting-edge technology in the design and manufacturing of helical piles and installation equipment for over 25 years. TMP helical piles are engineered and tested to the highest quality standards; guaranteed and proven to be durable even in the most challenging soil conditions. As well, TMP designs and builds some of the most versatile, state-of-the-art proprietary installation equipment in the world. As a result of our innovative technology and our far-reaching network of dealers, Techno Metal Post has quickly become the world leader in helical piles.

QUALITY MANUFACTURING

PILES

In an era where many companies choose to source their raw materials from Asia, the Techno Metal Post team is committed to purchasing North American steel for the manufacturing of its piles. Techno Metal Posts helical piles are manufactured using structural steel according to ASTM A500 grade C, CSA G40.21-44W. They are also welded according to CWB, CSA Standard W47.1. They can be hot-dipped galvanized according to ASTM A123. The piles have been load tested according to ASTM standards in a variety of soil types around the world. The piles are designed to resist the calculated axial, lateral, and bending moment loads. The use of the helix maximizes the load bearing capacity of soil.

CONNECTION SYSTEM

Different types of structures require different pile caps and brackets. For post structures like decks, we offer a variety of pile caps for standard dimensional lumber sizes (4x4, 6x6, two plies, three plies). Techno Metal Post has also developed new construction pile caps with integrated rebar when using helical piles to support concrete foundations to deeply located load bearing soil. We also offer a line of foundation repair brackets. Techno Metal Post can also make custom brackets upon request, for special types of connections.

INSTALLATION EQUIPMENT

Techno Metal Post recognizes that its investment in the production of its own line of equipment, for the sole purpose of installing helical piles, is one of many advantages over other companies.

Because every helical pile project is different, TMP produces three machines varying in size, power, and capabilities; each of which is specially made for helical pile installations. Every machine is designed to deliver an accurate and reliable job and built to precisely measure the torque produced during the installation process. From this information, our certified installers know the exact allowable load capacities of each helical pile after its installation.

QUALITY MANUFACTURING BACKED BY INSTALLATION EXPERIENCE

Behind Techno Metal Post's quality product, there is control on the installation of that product. Professionally trained, certified installers and highly specialized, skilled engineers ensure the proper installation of Techno Metal Post's helical pile foundation system.

DEALER-INSTALLERS

New dealers and installers undergo a thorough and substantial hands-on training, equipping them with the skills and knowledge to succeed in their projects. Over the past 25 years, our dealers and installers have completed over 3 million pile installations for projects throughout the world. They have installed helical piles in almost every soil type that exists throughout North America and Europe.

ENGINEERING TEAMS

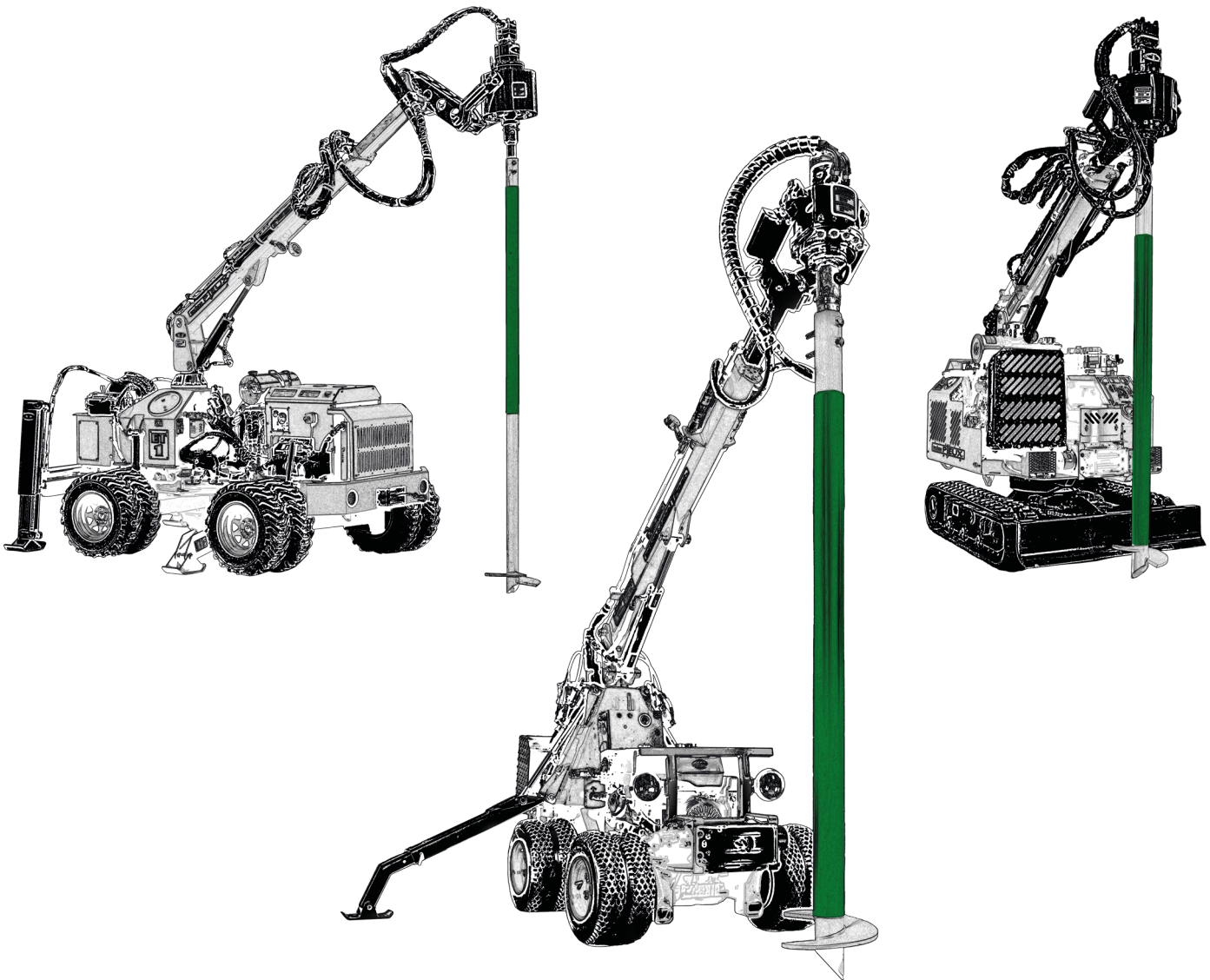
TMP's civil engineers are specialized in geotechnical and structural engineering and are here to assist and offer you personalized service – from small residential projects to large-scale industrial installations. Whenever you specify a helical pile foundation project, our engineers will determine the proper helical piles to use for each of your projects and will issue a certificate and guarantee the work according to standards.

GENERAL LIMITATIONS

The allowable capacities of helical piles shown in this Spec Book are only indicative and provide a general guidance to the reader in order to help specify the appropriate product for their project.

It is highly recommended to share site specific information with a Techno Metal Post engineer or the project's engineer. Site specific engineering may change the allowable capacities of the helical piles shown in this Spec Book.

The allowable capacities of helical piles are subject to a strict compliance with the installation procedure. Namely, the helical piles shall be installed to appropriate depth and soil bearing stratum. A minimum safety factor of 2.0 is required for determining allowable capacity from correlations with final installation torque. A higher safety factor may apply for some applications.



TECHNICAL CERTIFICATIONS - AN ASSURANCE OF QUALITY AND RELIABILITY

TMP has worked tirelessly to obtain the required accreditation and acceptance of its products throughout the world. Our engineers have spent countless hours ensuring that our products meet the strictest standards. TMP is the first helical pile company in the world to be recognized and to receive certifications from multiple countries.



CANADIAN CONSTRUCTION MATERIALS CENTRE (CCMC)

EVALUATION REPORT CCMC 13059-R

In 2002 (and renewed in 2018), Techno Metal Post received certification from the Canadian Construction Materials Centre (CCMC) attesting that Techno Pieux/Techno Metal Post products comply with the requirements of the **National Building Code of Canada (NBC)**.



ISO 9001

EVALUATION REPORT #481

ISO 9001 specifies requirements for a quality management system when an organization:

- a) needs to demonstrate its ability to consistently provide products and services that meet customer and applicable statutory and regulatory requirements, and
- b) aims to enhance customer satisfaction through the effective application of the system, including processes for improvement of the system and the assurance of conformity to customer and applicable statutory and regulatory requirements.

In 2017, Techno Pieux /Techno Metal Post was approved by NQA against the provisions of ISO 9001 for the sale and manufacture of steel helical piles and accessories.



CWB: Techno Metal Post is also certified by the **Canadian Welding Bureau (CWB) CSA W47.1.**



U.S.A.: Techno Metal Post received an evaluation report (**ESR-3418**) from the **International Code Council Evaluation Service (ICC-ES)**, the equivalent of the CCMC in Canada and the CCFAT in France.



U.S.A.: As of 2018, Techno Metal Post is the first helical pile company in the world to receive approval from the **Association of Plumbing and Mechanical Officers (IAPMO) ER-481.**



France: In 2006, Techno Metal Post's technology was the first to be granted **technical approval #3/16 873** by the **Commission Chargée de Formuler des Avis Techniques (CCFAT).**



Europe: Techno Metal Post has received the certification which confirms its products fulfill all the prescribed requirements for the **European Norm EN 1090-1:2009 + A1:2011**, including **Execution Class 2 in EN 1090-2.**



U.K.: Techno Metal Post was the first helical pile company to receive **BBA Approval Inspection Testing Certification (Certificate 18/5477)**, which is recognized in the United Kingdom by building control offices, government ministries, architects, specifiers and industry insurers.

Model (Outside Diameter)	Project Type	Maximum Bearing Capacity								Lateral Capacity ⁶		Factored Bending Resistance	
		Compression ^{1 2 4 5}				Tension ^{1 3 4}				SLS			
		SLS ⁷		ULS ⁸		SLS ⁷		ULS ⁸		SLS			
		(lb)	(kN)	(lb)	(kN)	(lb)	(kN)	(lb)	(kN)	(lb)	(kN)	(ft-lb)	(kN-m)
P1 48.3 mm (1.9 in)	Light Residential (deck without roof, stairs, etc.)	6,800	30	9,520	42	3,400	15	4,760	21	500	2.2	1,010	1.4
P2 60.3 mm (2.4 in)	Medium Residential and Light Commercial (deck, carport, sunroom, single-story residential addition, etc.)	11,000	49	15,400	69	5,500	24	7,700	34	1,000	4.4	1,785	2.4
P3 88.9 mm (3.5 in)	Heavy Residential, Light to Medium Commercial and Industrial (two-story residential addition, cottage, sign, carport, solar panel, new construction, underpinning, boardwalk, tie-back, etc.)	33,750	150	47,250	210	16,875	75	23,625	105	2,250	10	6,454	8.8
P4 101.6 mm (4 in)	Heavy Residential, Light to Medium Commercial and Industrial (cottage, sign, light post, solar panel, new construction, boardwalk, tie-back, bollard, etc.)	45,000	200	63,000	280	22,500	100	31,500	140	2,700	12	9,057	12.3
P3-HD 88.9 mm (3.5 in)	Heavy Residential, Light to Heavy Commercial and Industrial (new construction, underpinning, tie-back, etc.)	45,000	200	63,000	280	22,500	100	31,500	140	2,250	10	9,411	12.8
P4-HD 101.6 mm (4 in)	Heavy Residential, Light to Heavy Commercial and Industrial (new construction, retaining wall, tie-back, etc.)	50,625	225	70,875	315	25,313	113	35,438	158	2,700	12	13,165	17.9
P5 141.3 mm (5.6 in)	Heavy Residential, Light to Heavy Commercial and Industrial (cottage, sign, light post, new construction, boardwalk, solar panel, bollard, retaining wall, etc.)	50,625	225	70,875	315	25,313	113	35,438	158	4,500	20	21,507	29.2
P6 168.3 mm (6.6 in)	Heavy Residential, Light to Heavy Commercial and Industrial (sign, light post, new construction, solar panel, bollard, retaining wall, etc.)	50,625	225	70,875	315	25,313	113	35,438	158	5,625	25	33,876	45.9

- The bearing capacity values in the selection table are an indication and must be validated on-site according to the soil conditions encountered and the driving torque attained during installation.
- The compression load capacity (SLS) is determined by the driving torque which is provided by the installation equipment when installing the piles.
- The tension load capacity is obtained according to the driving torque which is attained during installation and according to the penetration depth of the pile. For tension applications, contact the TMP Engineering Department.
- The maximum compression/tension loads presented in the selection table to limit the settlement to 12 mm (1/2 inch).
- When the helical pile is laterally unsupported (very loose/soft soil, liquifiable soil, water and wind), the structural strength of the pile must be approved by the TMP Engineering Department.
- The lateral capacity values are just indicative. They are based on dense granular soil, a free head condition of the pile, an above-ground height of the piles of 150 mm (6 inches) and with the application of only a lateral load. For applications with lateral loads, contact the TMP Engineering Department.
- The compression load capacity (SLS) values are based on a minimum safety factor of 2 on the ultimate geotechnical resistance.
- Factored ultimate geotechnical resistance at ULS.

Comments:

- For all technical questions, please contact the TMP Engineering Department at 418 338-8735, or via email at eng@technometalpost.com
- Larger diameter Techno Metal Post piles can be used for applications requiring a lateral or bending resistance higher than shown in the selection table.

Shaft

Wall Thickness	3.7 mm (0.145")
Round HSS Outside Diameter	48.3 mm (1.9")
Available Standard Lengths	2.1 m (7'-0") / 3.2 m (10'-6")

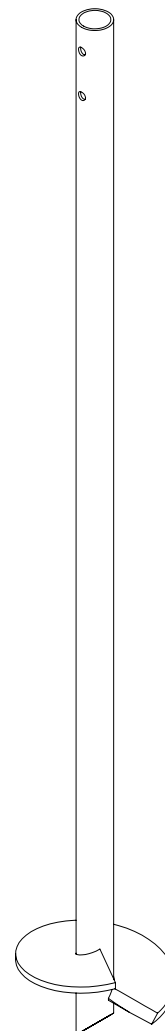
Load Specifications

Max. Allowable Capacity	30 kN (6,800 lb)
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Technical Specifications

Commonly Used Structure*	Light Residential
Code Evaluation	Listed per CCMC (13059-R)
Standard Steel	ASTM A500 Grade C Fy=350 MPa min (51 ksi)
Black Steel Design Life	Min 50 years
Coating	Galvanized or Black Steel
Galvanization Compliance	ASTM A123/A123M/A123M
Additional Corrosion Protection	Cathodic Protection System available

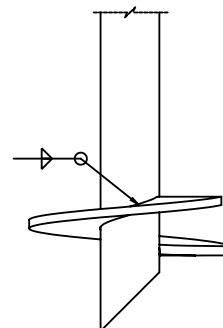
* Refer to the selection table on p.8.



Helix

Pitch	76.2 mm (3")
Thickness	9.5 mm (0.375")
Standard Steel	CSA G40.21-300W Fy=300 MPa min (44 ksi)
Coating	Galvanized or Black Steel
Multiple Welded Helix	Available
Helix Size*	152 mm (6") to 305 mm (12")

* Other sizes available upon request.

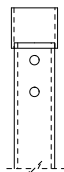


Sleeve (Available)

Function Utility	Protection against soil movements
Wall Thickness	1.6 mm (1/16")
Round HSS Outside Diameter	± 54.2 mm (± 2.125")
Length	± 1.67 m (± 66")
Weight	± 0.41 kg (± 0.9 lb)
Material	HDPE
Color	Green



Outside Couplings



	Regular
Assembly	Welded
Wall Thickness	4 mm (0.154")
Round HSS Outside Diameter	60.3 mm (2.375")
Standard Steel	ASTM A500 Grade C
	Fy=350 MPa min (51 ksi)
Length*	31.8 mm (1.25")

* Length of outside coupling welded on-site.

Pile Caps

Wood Structure Connectors	Pages 33
Steel Structure Connectors	Pages 27

Shaft

Wall Thickness	3.9 mm (0.154")
Round HSS Outside Diameter	60.3 mm (2.4")
Available Standard Lengths	2.1 m (7'-0") / 3.2 m (10'-6")

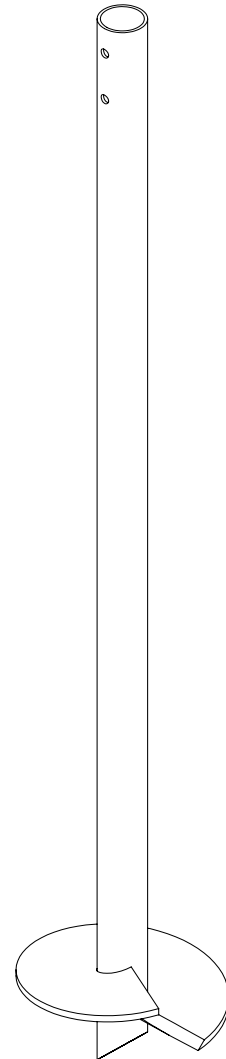
Load Specifications

Max. Allowable Capacity	49 kN (11,000 lb)
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Technical Specifications

Commonly Used Structure*	Medium Residential Light Commercial
Code Evaluation	Listed per CCMC (13059-R)
Standard Steel	ASTM A500 Grade C Fy=350 MPa min (51 ksi)
Black Steel Design Life	Min 50 years
Coating	Galvanized or Black Steel
Galvanization Compliance	ASTM A123/A123M/A123M
Additional Corrosion Protection	Cathodic Protection System available

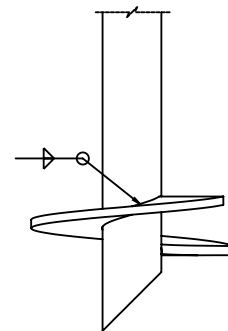
* Refer to the selection table on p.8.



Helix

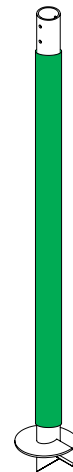
Pitch	76.2 mm (3") / 127 mm (5")
Thickness	9.5 mm (0.375")
Standard Steel	CSA G40.21-300W Fy=300 MPa min (44 ksi)
Coating	Galvanized or Black Steel
Multiple Welded Helix	Available
Helix Size*	152 mm (6") to 406 mm (16")

* Other sizes available upon request.

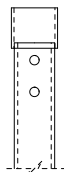


Sleeve (Available)

Function Utility	Protection against soil movements
Wall Thickness	1.6 mm (1/16")
Round HSS Outside Diameter	± 66.7 mm (± 2.625")
Length	± 1.67 m (± 66")
Weight	± 0.32 kg (± 0.7 lb)
Material	HDPE
Color	Green



Outside Couplings



Regular

Assembly	Welded
Wall Thickness	5 mm (0.203")
Round HSS Outside Diameter	73 mm (2.875")
Standard Steel	ASTM A500 Grade C Fy=350 MPa min (51 ksi)
Length*	31.8 mm (1.25")

* Length of outside coupling welded on-site.

Pile Caps

Wood Structure Connectors	Pages 33
Steel Structure Connectors	Pages 27
Concrete Construction Connectors	Pages 27,34-36

Shaft

Wall Thickness	5.5 mm (0.216")
Round HSS Outside Diameter	88.9 mm (3.5")
Available Standard Lengths	2.1 m (7'-0") / 3.2 m (10'-6")

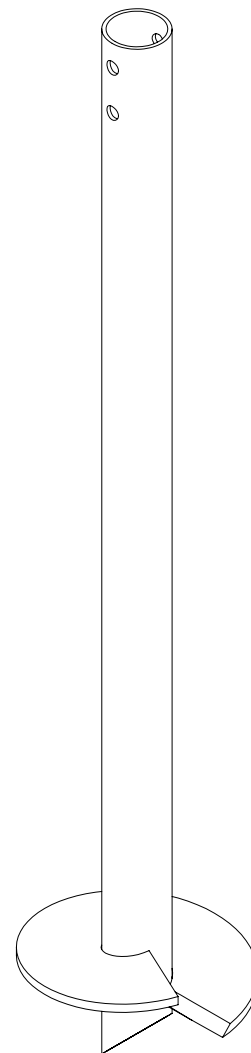
Load Specifications

Max. Allowable Capacity	150 kN (33,750 lb)
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Technical Specifications

Commonly Used Structure*	Heavy Residential
	Light to Medium Commercial
	Industrial
Code Evaluation	Listed per CCMC (13059-R)
Standard Steel	ASTM A500 Grade C Fy=350 MPa min (51 ksi)
Black Steel Design Life	Min 50 years
Coating	Galvanized or Black Steel
Galvanization Compliance	ASTM A123/A123M/A123M
Additional Corrosion Protection	Cathodic Protection System available

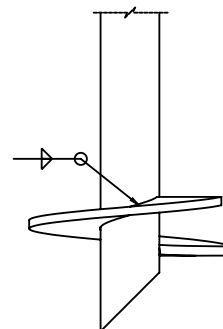
* Refer to the selection table on p.8.



Helix

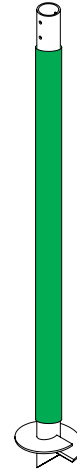
Pitch	76.2 mm (3") / 127 mm (5")
Thickness	12.7 mm (0.5")
Standard Steel	CSA G40.21-300W Fy=300 MPa min (44 ksi)
Coating	Galvanized or Black Steel
Multiple Welded Helix	Available
Helix Size*	203 mm (8") to 610 mm (24")

* Other sizes available upon request.

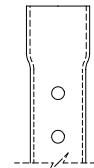
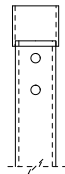


Sleeve (Available)

Function Utility	Protection against soil movements
Wall Thickness	1.6 mm (1/16")
Round HSS Outside Diameter	± 95.2 mm (± 3.75")
Length	± 1.67 m (± 66")
Weight	± 0.68 kg (± 1.5 lb)
Material	HDPE
Color	Green



Outside Couplings



	Regular	Reinforced	Expanded
Assembly	Welded	Welded	-
Wall Thickness	5.7 mm (0.197")	5.7 mm (0.197")	4.8 mm (0.188")
Round HSS Outside Diameter	101.6 mm (4")	101.6 mm (4")	101.6 mm (4")
Standard Steel	ASTM A500 Grade C Fy=350 MPa min (51 ksi)	ASTM A500 Grade C Fy=350 MPa min (51 ksi)	ASTM A500 Grade C Fy=350 MPa min (51 ksi)
Length*	88.9 mm (3.5")	222.3 mm (8.75")	63.5 mm (2.5")

* Length of outside coupling welded on-site.

Pile Caps

Wood Structure Connectors	Pages 33
Steel Structure Connectors	Pages 27
Concrete Construction Connectors	Pages 27,34-36

Foundation Repair Brackets

Concrete Wall	Page 38
Concrete Masonry Unit (CMU) Wall	Pages 39-41
Interior Concrete Wall	Page 42

Shaft

Wall Thickness	7.6 mm (0.300")
Round HSS Outside Diameter	88.9 mm (3.5")
Available Standard Lengths	2.1 m (7'-0") / 3.2 m (10'-6")

Load Specifications

Max. Allowable Capacity*	200 kN (45,000 lb)
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* Higher load ratings could be considered with site-specific engineering.

Technical Specifications

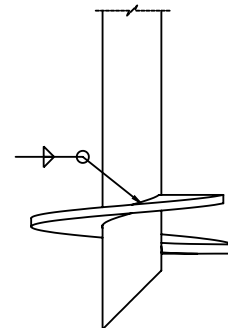
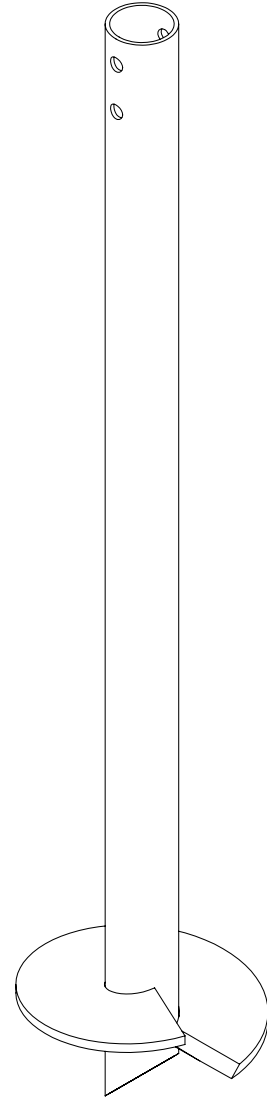
Commonly Used Structure*	Heavy Residential Light to Heavy Commercial Industrial
Code Evaluation	Listed per CCMC (13059-R)
Standard Steel	ASTM A500 Grade C Fy=350 MPa min (51 ksi)
Black Steel Design Life	Min 50 years
Coating	Galvanized or Black Steel
Galvanization Compliance	ASTM A123/A123M/A123M
Additional Corrosion Protection	Cathodic Protection System available

* Refer to the selection table on p.8.

Helix

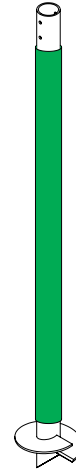
Pitch	76.2 mm (3") / 127 mm (5")
Thickness	12.7 mm (0.5")
Standard Steel	CSA G40.21-300W Fy=300 MPa min (44 ksi)
Coating	Galvanized or Black Steel
Multiple Welded Helix	Available
Helix Size*	203 mm (8") to 610 mm (24")

* Other sizes available upon request.

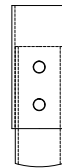
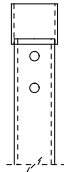


Sleeve (Available)

Function Utility	Protection against soil movements
Wall Thickness	1.6 mm (1/16")
Round HSS Outside Diameter	± 95.2 mm (± 3.75")
Length	± 1.67 m (± 66")
Weight	± 0.68 kg (± 1.5 lb)
Material	HDPE
Color	Green



Outside Couplings



	Regular	Reinforced
Assembly	Welded	Welded
Wall Thickness	5.7 mm (0.197")	5.7 mm (0.197")
Round HSS Outside Diameter	101.6 mm (4")	101.6 mm (4")
Standard Steel	ASTM A500 Grade C Fy=350 MPa min (51 ksi)	ASTM A500 Grade C Fy=350 MPa min (51 ksi)
Length*	88.9 mm (3.5")	222.3 mm (8.75")

* Length of outside coupling welded on-site.

Pile Caps

Wood Structure Connectors	Pages 33
Steel Structure Connectors	Pages 27
Concrete Construction Connectors	Pages 27,34-36

Foundation Repair Brackets

Concrete Wall	Page 38
Concrete Masonry Unit (CMU) Wall	Pages 39-41
Interior Concrete Wall	Page 42

Shaft

Wall Thickness	5.7 mm (0.226")
Round HSS Outside Diameter	101.6 mm (4")
Available Standard Lengths	2.1 m (7'-0") / 3.2 m (10'-6")

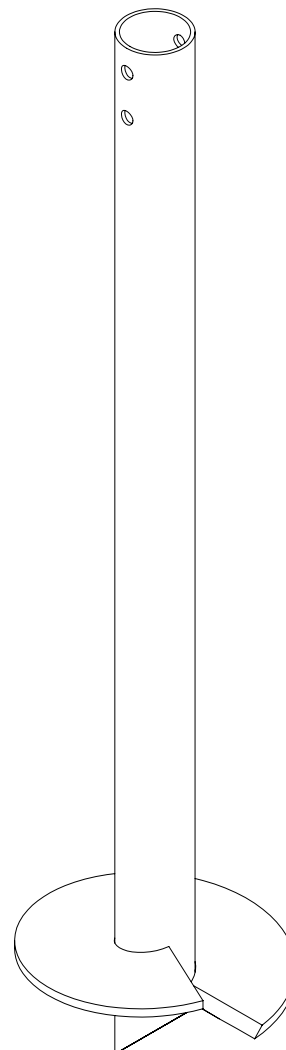
Load Specifications

Max. Allowable Capacity	200 kN (45,000 lb)
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Technical Specifications

Commonly Used Structure*	Heavy Residential Light to Medium Commercial Industrial
Standard Steel	ASTM A500 Grade C Fy=350 MPa min (51 ksi)
Black Steel Design Life	Min 50 years
Coating	Galvanized or Black Steel
Galvanization Compliance	ASTM A123/A123M/A123M
Additional Corrosion Protection	Cathodic Protection System available

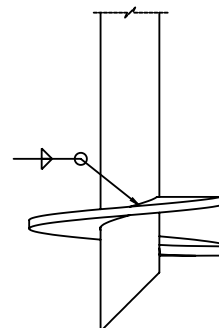
* Refer to the selection table on p.8.



Helix

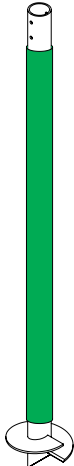
Pitch	76.2 mm (3") / 127 mm (5")
Thickness	12.7 mm (0.5")
Standard Steel	CSA G40.21-300W Fy=300 MPa min (44 ksi)
Coating	Galvanized or Black Steel
Multiple Welded Helix	Available
Helix Size*	203 mm (8") to 610 mm (24")

* Other sizes available upon request.

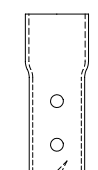
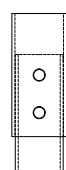
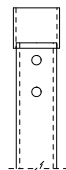


Sleeve (Available)

Function Utility	Protection against soil movements
Wall Thickness	1.6 mm (1/16")
Round HSS Outside Diameter	± 108 mm (± 4.25")
Length	± 1.67 m (± 66")
Weight	± 1.09 kg (± 2.4 lb)
Material	HDPE
Color	Green



Outside Couplings



	Regular	Reinforced	Expanded
Assembly	Welded	Welded	-
Wall Thickness	6 mm (0.237")	6 mm (0.237")	5.1 mm (0.201")
Round HSS Outside Diameter	114 mm (4.5")	114 mm (4.5")	114 mm (4.5")
Standard Steel	ASTM A500 Grade C Fy=350 MPa min (51 ksi)	ASTM A500 Grade C Fy=350 MPa min (51 ksi)	ASTM A500 Grade C Fy=350 MPa min (51 ksi)
Length*	88.9 mm (3.5")	222.3 mm (8.75")	68.5 mm (2.7")

* Length of outside coupling welded on-site.

Pile Caps

Wood Structure Connectors	Pages 33
Steel Structure Connectors	Pages 27
Concrete Construction Connectors	Pages 27,34-36

Shaft

Wall Thickness	8 mm (0.313")
Round HSS Outside Diameter	101.6 mm (4")
Available Standard Lengths	2.4 m (8'-0") / 3.7 m (12'-0")

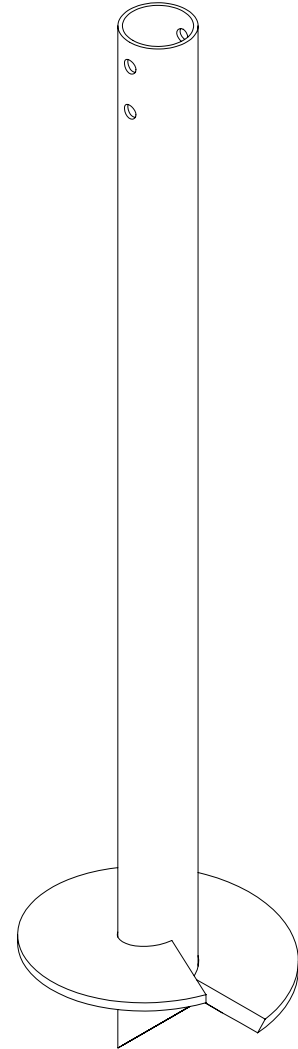
Load Specifications

Max. Allowable Capacity	225 kN (50,625 lb)
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Technical Specifications

Commonly Used Structure*	Heavy Residential Light to Heavy Commercial Industrial
Standard Steel	ASTM A500 Grade C Fy=350 MPa min (51 ksi)
Black Steel Design Life	Min 50 years
Coating	Galvanized or Black Steel
Galvanization Compliance	ASTM A123/A123M/A123M
Additional Corrosion Protection	Cathodic Protection System available

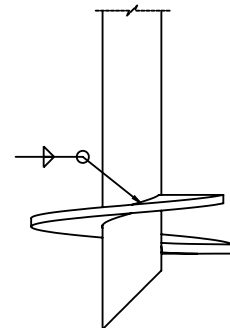
* Refer to the selection table on p.8.



Helix

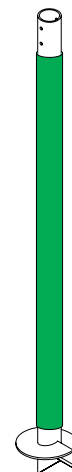
Pitch	76.2 mm (3") / 127 mm (5")
Thickness	12.7 mm (0.5")
Standard Steel	CSA G40.21-300W Fy=300 MPa min (44 ksi)
Coating	Galvanized or Black Steel
Multiple Welded Helix	Available
Helix Size*	203 mm (8") to 610 mm (24")

* Other sizes available upon request.

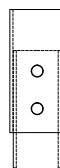
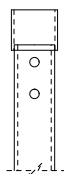


Sleeve (Available)

Function Utility	Protection against soil movements
Wall Thickness	1.6 mm (1/16")
Round HSS Outside Diameter	± 108 mm (± 4.25")
Length	± 1.67 m (± 66")
Weight	± 1.09 kg (± 2.4 lb)
Material	HDPE
Color	Green



Outside Couplings



	Regular	Reinforced
Assembly	Welded	Welded
Wall Thickness	6 mm (0.237")	6 mm (0.237")
Round HSS Outside Diameter	114 mm (4.5")	114 mm (4.5")
Standard Steel	ASTM A500 Grade C Fy=350 MPa min (51 ksi)	ASTM A500 Grade C Fy=350 MPa min (51 ksi)
Length*	88.9 mm (3.5")	222.3 mm (8.75")

* Length of outside coupling welded on-site.

Pile Caps

Wood Structure Connectors	Pages 33
Steel Structure Connectors	Pages 27
Concrete Construction Connectors	Pages 27,34-36

Shaft

Wall Thickness	6.6 mm (0.258")
Round HSS Outside Diameter	141.3 mm (5.6")
Available Standard Lengths	2.1 m (7'-0") / 3.2 m (10'-6")

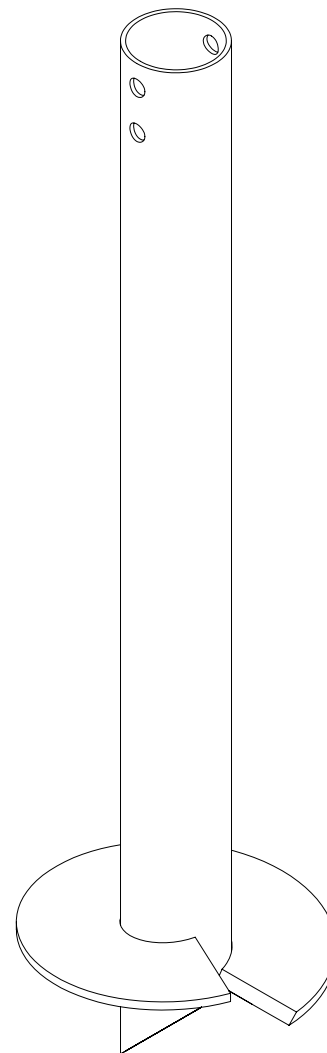
Load Specifications

Max. Allowable Capacity	225 kN (50,625 lb)
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Technical Specifications

Commonly Used Structure*	Heavy Residential Light to Heavy Commercial Industrial
Standard Steel	ASTM A500 Grade C Fy=350 MPa min (51 ksi)
Black Steel Design Life	Min 50 years
Coating	Galvanized or Black Steel
Galvanization Compliance	ASTM A123/A123M/A123M
Additional Corrosion Protection	Cathodic Protection System available

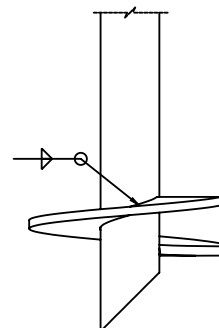
* Refer to the selection table on p.8.



Helix

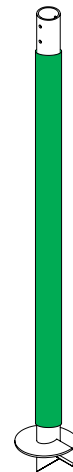
Pitch	127 mm (5")
Thickness	12.7 mm (0.5")
Standard Steel	CSA G40.21-300W Fy=300 MPa min (44 ksi)
Coating	Galvanized or Black Steel
Multiple Welded Helix	Available
Helix Size*	305 mm (12") to 610 mm (24")

* Other sizes available upon request.

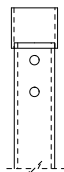


Sleeve (Available)

Function Utility	Protection against soil movements
Wall Thickness	1.6 mm (1/16")
Round HSS Outside Diameter	± 146 mm (± 5.75")
Length	± 1.67 m (± 66")
Weight	± 1.04 kg (± 2.3 lb)
Material	HDPE
Color	Green



Outside Couplings



Regular

Assembly	Welded
Wall Thickness	5 mm (0.188")
Round HSS Outside Diameter	152 mm (6")
Standard Steel	ASTM A500 Grade C Fy=350 MPa min (51 ksi)
Length*	76.2 mm (3")

* Length of outside coupling welded on-site.

Pile Caps

Wood Structure Connectors	Pages 33
Steel Structure Connectors	Pages 27
Concrete Construction Connectors	Pages 27,34-36

Shaft

Wall Thickness	7.1 mm (0.280")
Round HSS Outside Diameter	168.3 mm (6.6")
Available Standard Lengths	2.1 m (7'-0") / 3.2 m (10'-6")

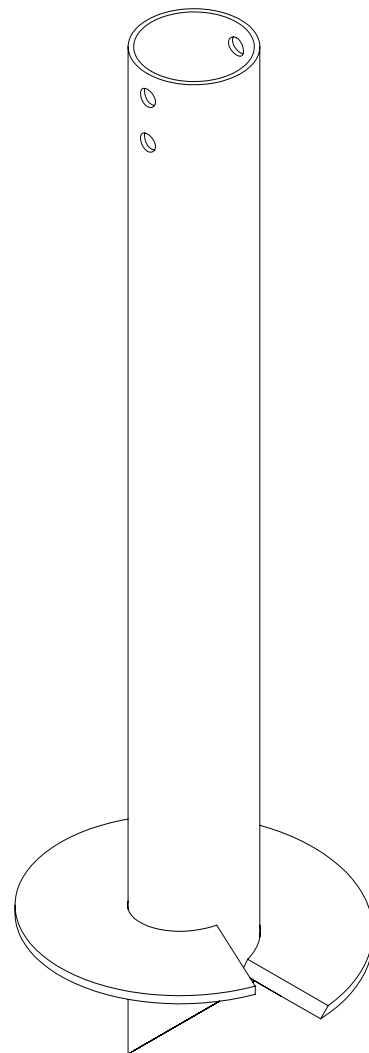
Load Specifications

Max. Allowable Capacity	225 kN (50,625 lb)
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Technical Specifications

Commonly Used Structure*	Heavy Residential Light to Heavy Commercial Industrial
Standard Steel	ASTM A500 Grade C Fy=350 MPa min (51 ksi)
Black Steel Design Life	Min 50 years
Coating	Galvanized or Black Steel
Galvanization Compliance	ASTM A123/A123M/A123M
Additional Corrosion Protection	Cathodic Protection System available

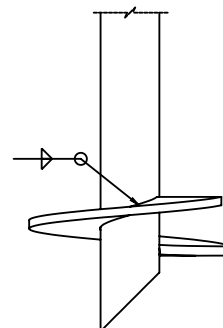
* Refer to the selection table on p.8.



Helix

Pitch	127 mm (5")
Thickness	12.7 mm (0.5")
Standard Steel	CSA G40.21-300W Fy=300 MPa min (44 ksi)
Coating	Galvanized or Black Steel
Multiple Welded Helix	Available
Helix Size*	305 mm (12") to 610 mm (24")

* Other sizes available upon request.



Sleeve (not available)

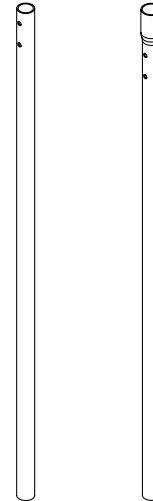
Outside Couplings (not available)

Pile Caps

Wood Structure Connectors	Pages 33
Steel Structure Connectors	Pages 27
Concrete Construction Connectors	Pages 27,34-36

Technical Specifications

Commonly Used Structure	Deep foundations
Code Evaluation	Listed per CCMC (13059-R)
Standard Steel	ASTM A500 Grade C Fy=350 MPa min (51 ksi)
Black Steel Design Life	Min 50 years
Coating	Galvanized or Black Steel
Galvanization Compliance	ASTM A123/A123M/A123M
Additional Corrosion Protection	Cathodic Protection System available



Extensions

Dimensions Specifications

Extensions	Wall Thickness	Outside Diameter	Available Standard Lengths	
R1	3.7 mm (0.145")	48.3 mm (1.9")	2.1 m (7'-0")	3.2 m (10'-6")
R2	3.9 mm (0.154")	60.3 mm (2.4")	2.1 m (7'-0")	3.2 m (10'-6")
R3	5.5 mm (0.216")	88.9 mm (3.5")	2.1 m (7'-0")	3.2 m (10'-6")
R3-HD	7.6 mm (0.300")	88.9 mm (3.5")	2.1 m (7'-0")	3.2 m (10'-6")
R4	5.7 mm (0.226")	101.6 mm (4")	2.1 m (7'-0")	3.2 m (10'-6")
R4-HD	8.0 mm (0.313")	101.6 mm (4")	8'-0" (2.4 m)	12'-0" (3.7 m)
R5	6.6 mm (0.258")	141.3 mm (5.6")	2.1 m (7'-0")	3.2 m (10'-6")
R6	7.1 mm (0.280")	168.3 mm (6.6")	2.1 m (7'-0")	3.2 m (10'-6")

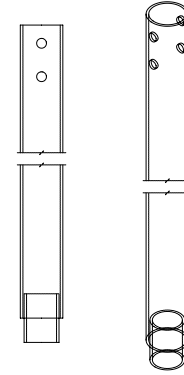
EXTENSIONS

Welded Inside Coupling

UI

Technical Specifications

Standard Steel	ASTM A500 Grade C Fy=350 MPa min (51 ksi)
Black Steel Design Life	Min 50 years
Coating	Galvanized or Black Steel
Galvanization Compliance	ASTM A123/A123M



Dimensions

For	Assembly	Outside Diameter	Wall Thickness	Length
R1	Welded	38.1 mm (1.5")	31.2 mm (0.125")	101.6 mm (4")
R2	Welded	48.3 mm (1.9")	3.7 mm (0.145")	101.6 mm (4")
R3	Welded	73 mm (2.875")	5.2 mm (0.203")	101.6 mm (4")
R4	Welded	88.9 mm (3.5")	5.5 mm (0.216")	101.6 mm (4")
R5	Welded	127 mm (5")	6.4 mm (0.25")	101.6 mm (4")
R6	Welded	152.4 mm (6")	4.8 mm (0.1875")	76.2 mm (3")

ALL STRUCTURE CONNECTORS

Flat Plate - Welded

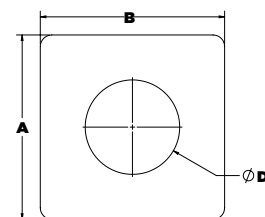
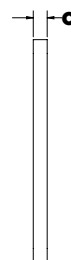
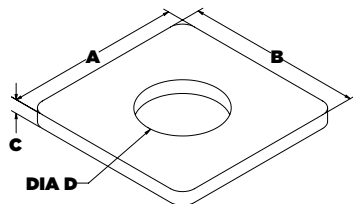
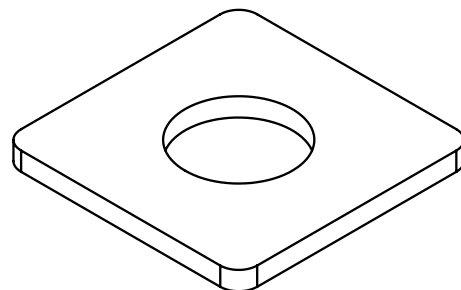
CP

Technical Specifications

Standard Steel	CSA G40.21-300W Fy=300 MPa min (44 ksi)
Black Steel Design Life	Min 50 years
Coating	Galvanized or Black Steel
Galvanization Compliance	ASTM A123/A123M

Other sizes available upon request.

For uplift requirements, plates shall be fixed to Techno Metal Post with welding, self-tapping, screws or bolted connection.



Pile Caps

Pile Model	Plate Dimensions			
	Length	Width	Thickness	Hole size
	A	B	C	D
P2	127 mm (5")	127 mm (5")	9.5 mm (0.375")	63.5 mm (2.5")
	152 mm (6")	152 mm (6")	12.7 mm (0.5")	
	203 mm (8")	203 mm (8")	19 mm (0.75")	
P3	127 mm (5")	127 mm (5")	9.5 mm (0.375")	92.1 mm (3.625")
	152 mm (6")	152 mm (6")	12.7 mm (0.5")	
	203 mm (8")	203 mm (8")	19 mm (0.75")	
P4	152 mm (6")	152 mm (6")	12.7 mm (0.5")	104.8 mm (4.125")
	203 mm (8")	203 mm (8")	19 mm (0.75")	
P5	203 mm (8")	203 mm (8")	19 mm (0.75")	127 mm (5.687")
P6	203 mm (8")	203 mm (8")	19 mm (0.75")	152.4 mm (6.75")

WOOD STRUCTURE CONNECTORS

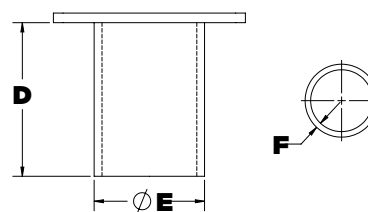
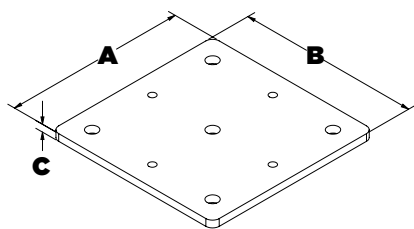
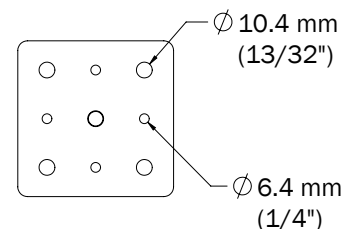
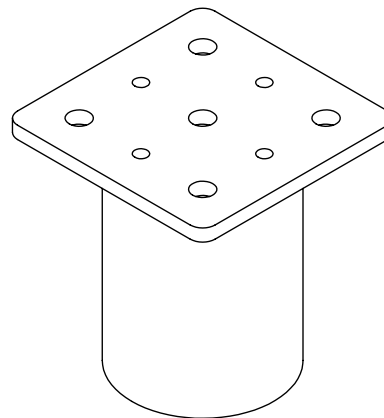
Flat Plate - Fixed

CF

Technical Specifications

Plate Standard Steel	CSA G40.21-300W Fy=300 MPa min (44 ksi)
Adapter Standard Steel	ASTM A500 Grade C Fy=350 MPa min (51 ksi)
Black Steel Design Life	Min 50 years
Coating	Galvanized or Black Steel
Galvanization Compliance	ASTM A123/A123M

Other sizes available upon request.
For uplift requirements, plates shall be fixed to Techno Metal Post with welding, self-tapping, screws or bolted connection.



Pile Model	Plate Dimensions			Adapter Dimensions		
	Length	Width	Thickness	Height	Out. Diameter	Thickness
	A	B	C	D	E	F
P1	101.6 mm (4")	101.6 mm (4")	6.4 mm (0.25")	101.6 mm (4")	38 mm (1.5")	3.6 mm (0.14")
	127 mm (5")	127 mm (5")	6.4 mm (0.25")			
P2	101.6 mm (4")	101.6 mm (4")	6.4 mm (0.25")	101.6 mm (4")	48.3 mm (1.9")	3.7 mm (0.145")
	127 mm (5")	127 mm (5")	6.4 mm (0.25")			
P3	101.6 mm (4")	101.6 mm (4")	6.4 mm (0.25")	101.6 mm (4")	73 mm (2.875")	5.2 mm (0.203")
	127 mm (5")	127 mm (5")	6.4 mm (0.25")			

WOOD STRUCTURE CONNECTORS

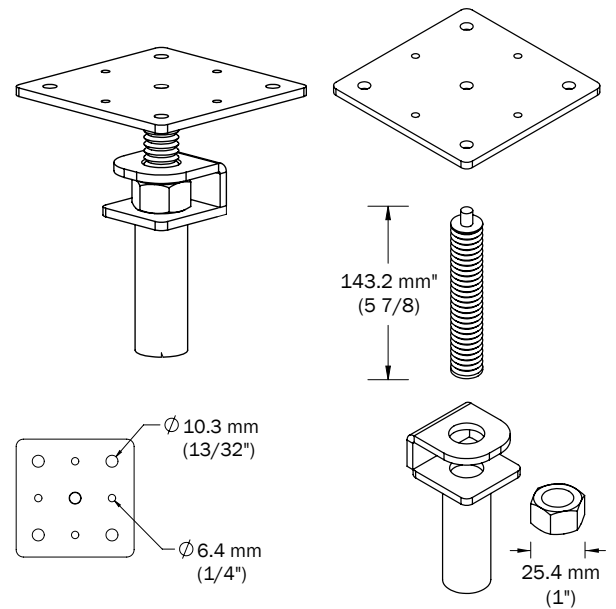
Flat Plate - Adjustable

CAS

Technical Specifications

Plate Standard Steel	CSA G40.21-300W Fy=44 ksi min (300 MPa)
Adapter Standard Steel	ASTM A500 Grade C Fy=51 ksi min (350 MPa)
Black Steel Design Life	50 years per AC358
Coating	Galvanized or Black Steel
Galvanization Compliance	ASTM A123/A123M

Other sizes available upon request.
For uplift requirements, plates shall be fixed to Techno Metal Post with welding, self-tapping, screws or bolted connection.



Pile Caps

Pile Model	Plate Dimensions			Adapter Dimensions		
	Length	Width	Thickness	Height	Out. Diameter	Thickness
	A	B	C	D	E	F
P1	102 mm (4")	102 mm (4")	6.4 mm (0.25")	102 mm (4")	38 mm (1.5")	3.6 mm (0.14")
	127 mm (5")	127 mm (5")	6.4 mm (0.25")			
P2	102 mm (4")	102 mm (4")	6.4 mm (0.25")	102 mm (4")	48.3 mm (1.9")	3.7 mm (0.145")
	127 mm (5")	127 mm (5")	6.4 mm (0.25")			
P3	102 mm (4")	102 mm (4")	6.4 mm (0.25")	102 mm (4")	73.0 mm (2.875")	5.2 mm (0.203")
	127 mm (5")	127 mm (5")	6.4 mm (0.25")			

WOOD STRUCTURE CONNECTORS

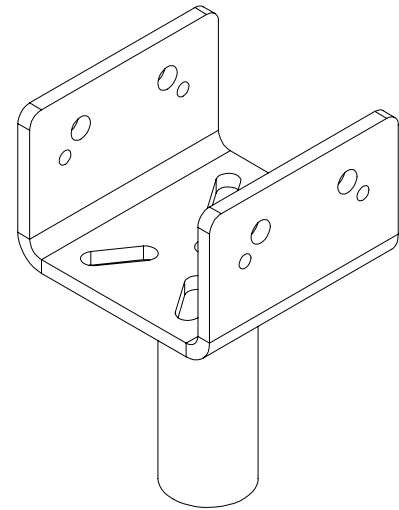
U Plate - Fixed

UF

Technical Specifications

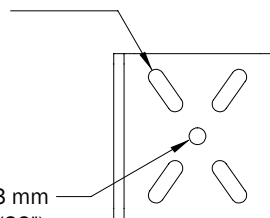
Plate Standard Steel	CSA G40.21-300W Fy=300 MPa min (44 ksi)
Adapter Standard Steel	ASTM A500 Grade C Fy=350 MPa min (51 ksi)
Black Steel Design Life	Min 50 years
Coating	Galvanized or Black Steel
Galvanization Compliance	ASTM A123/A123M

Other sizes available upon request.
For uplift requirements, plates shall be fixed to Techno Metal Post with welding, self-tapping screws or bolted connection.



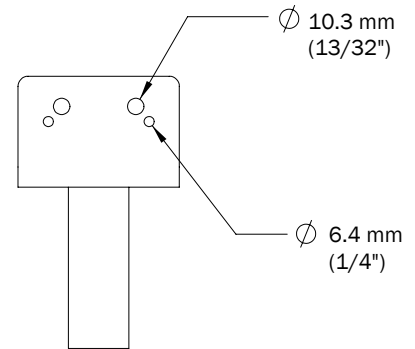
9.5 x 20.6 mm
(3/8" X 1 3/16")

Ø 10.3 mm
(13/32")



Ø 10.3 mm
(13/32")

Ø 6.4 mm
(1/4")



Pile Model	Plate Dimensions				Adapter Dimensions		
	Length	Width (inside)	Thickness	Height	Height	Out. Diameter	Thickness
	A	B	C	D	E	F	G
P1	101.6 mm (4")	90.5 mm (3.5625")	6.4 mm (0.25")	69.9 mm (2.75")	101.6 mm (4")	38 mm (1.5")	3.6 mm (0.14")
	101.6 mm (4")	141.3 mm (5.5625")	6.4 mm (0.25")	101.6 mm (4")			
P2	101.6 mm (4")	90.5 mm (3.5625")	6.4 mm (0.25")	69.9 mm (2.75")	101.6 mm (4")	48.3 mm (1.9")	3.7 mm (0.145")
	101.6 mm (4")	141.3 mm (5.5625")	6.4 mm (0.25")	101.6 mm (4")			
P3	101.6 mm (4")	90.5 mm (3.5625")	6.4 mm (0.25")	69.9 mm (2.75")	101.6 mm (4")	73 mm (2.875")	5.2 mm (0.203")
	101.6 mm (4")	141.3 mm (5.5625")	6.4 mm (0.25")	101.6 mm (4")			

WOOD STRUCTURE CONNECTORS

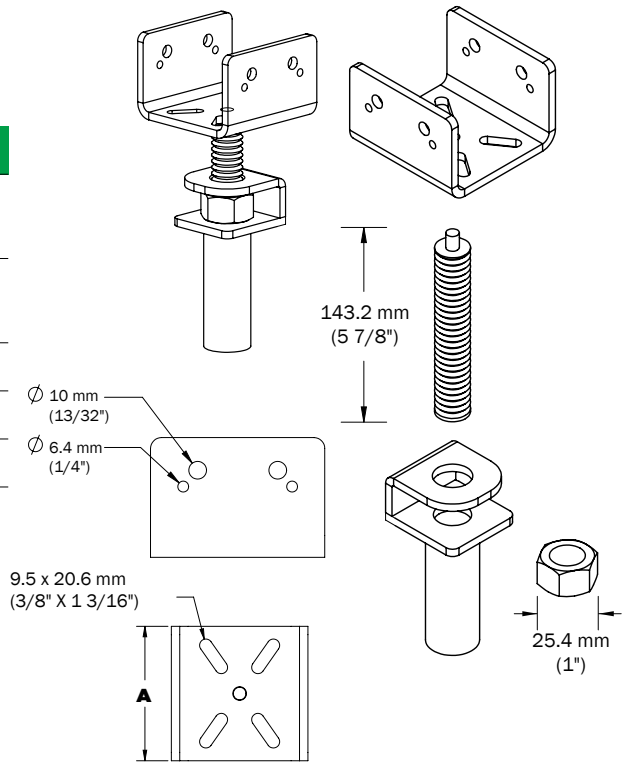
U Plate - Adjustable

UAS

Technical Specifications

Plate Standard Steel	CSA G40.21-300W Fy=300 MPa min (44 ksi)
Adapter Standard Steel	ASTM A500 Grade C Fy=350 MPa min (51 ksi)
Black Steel Design Life	Min 50 years
Coating	Galvanized or Black Steel
Galvanization Compliance	ASTM A123/A123M

Other sizes available upon request.
For uplift requirements, plates shall be fixed to Techno Metal Post with welding, self-tapping, screws or bolted connection.

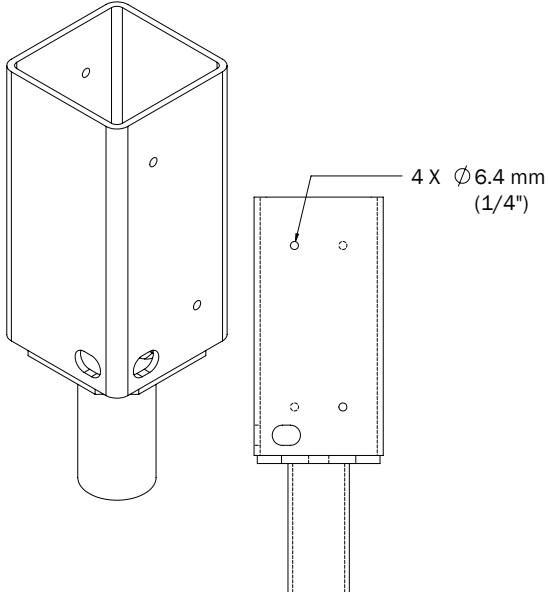


Pile Caps

Plate Number for P3	Plate Dimensions				Adapter Dimensions		
	Length	Width (inside)	Thickness	Height	Height	Out. Diameter	Thickness
	A	B	C	D	E	F	G
P1	101.6 mm (4")	90.5 mm (3.5625")	6.4 mm (0.25")	69.9 mm (2.75")	101.6 mm (4")	38 mm (1.5")	3.6 mm (0.14")
	101.6 mm (4")	141.3 mm (5.5625")	6.4 mm (0.25")	101.6 mm (4")			
P2	101.6 mm (4")	90.5 mm (3.5625")	6.4 mm (0.25")	69.9 mm (2.75")	101.6 mm (4")	48.3 mm (1.9")	3.7 mm (0.145")
	101.6 mm (4")	141.3 mm (5.5625")	6.4 mm (0.25")	101.6 mm (4")			
P3	101.6 mm (4")	90.5 mm (3.5625")	6.4 mm (0.25")	69.9 mm (2.75")	101.6 mm (4")	73 mm (2.875")	5.2 mm (0.203")
	101.6 mm (4")	141.3 mm (5.5625")	6.4 mm (0.25")	101.6 mm (4")			

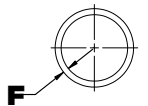
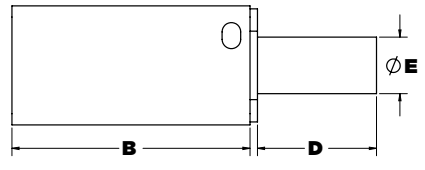
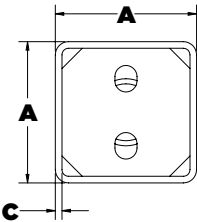
Technical Specifications

Plate Standard Steel	CSA G40.21-300W Fy=300 MPa min (44 ksi)
Adapter Standard Steel	ASTM A500 Grade C Fy=350 MPa min (51 ksi)
Black Steel Design Life	Min 50 years
Coating	Galvanized or Black Steel
Galvanization Compliance	ASTM A123/A123M



Other sizes available upon request.
For uplift requirements, plates shall be fixed to Techno Metal Post with welding, self-tapping, screws or bolted connection.

Pile Caps

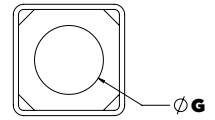
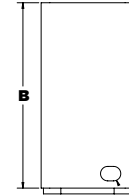
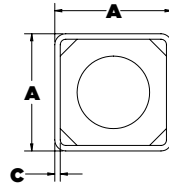
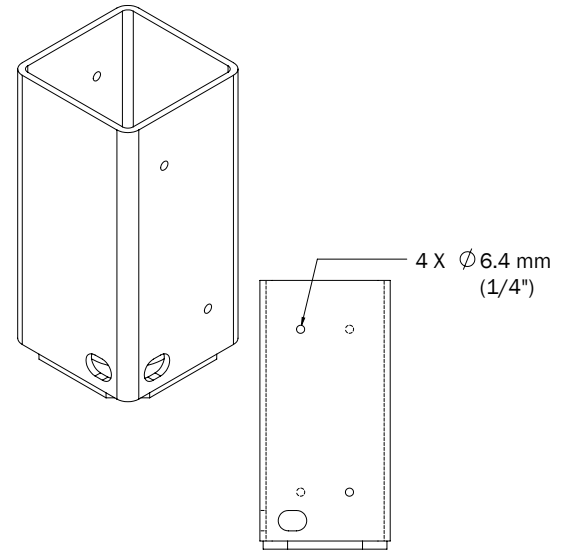


Pile Model	Type of Wood	Box Dimensions (interior)			Adapter Dimensions		
		Length / Width	Thickness	Height	Height	O.D.	Thickness
		A	C	B	D	E	F
P2	Lumber	92.1 mm (3.625")	4.8 mm (0.1875")	203,2 mm (8")	101.6 mm (4")	48.3 mm (1.9")	3.7 mm (0.145")
		142.9 mm (5.625")					
		193.7 mm (7.625")					
	Rough	104.0 mm (4.09")	6.4 mm (0.25")	203,2 mm (8")			
		154.7 mm (6.09")					
		205.5 mm (8.09")					
P3	Lumber	92.1 mm (3.625")	4.8 mm (0.1875")	203,2 mm (8")	101.6 mm (4")	73 mm (2.875")	5.2 mm (0.203")
		142.9 mm (5.625")					
		193.7 mm (7.625")					
	Rough	104.0 mm (4.09")	6.4 mm (0.25")	203,2 mm (8")			
		154.7 mm (6.09")					
		205.5 mm (8.09")					
P4	Lumber	142.9 mm (5.625")	4.8 mm (0.1875")	203,2 mm (8")	101.6 mm (4")	88.9 mm (3.5")	5.5 mm (0.216")
		193.7 mm (7.625")					
	Rough	154.7 mm (6.09")	6.4 mm (0.25")	203,2 mm (8")			
		205.5 mm (8.09")					
P5	Lumber	142.9 mm (5.625")	4.8 mm (0.1875")	203,2 mm (8")	101.6 mm (4")	114.3 mm (4.5")	6 mm (0.237")
		193.7 mm (7.625")					
	Rough	154.7 mm (6.09")	6.4 mm (0.25")	203,2 mm (8")		127 mm (5")	6.4 mm (0.25")
		205.5 mm (8.09")					

Technical Specifications

Standard Steel	CSA G40.21-300W Fy=300 MPa min (44 ksi)
Black Steel Design Life	Min 50 years
Coating	Galvanized or Black Steel
Galvanization Compliance	ASTM A123/A123M

Other sizes available upon request.
For uplift requirements, plates shall be fixed to Techno Metal Post with welding, self-tapping, screws or bolted connection.



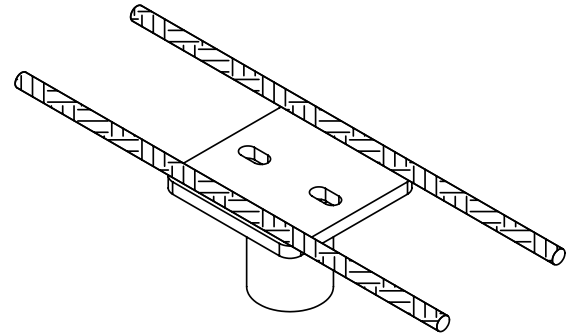
Pile Model	Type of wood	Box Dimensions (interior)			
		Length / Width	Thickness	Height	Hole Size
		A	C	B	
P2	Lumber	92.1 mm (3.625")	4.8 mm (0.1875")	203,2 mm (8")	63.5 mm (2.5")
		142.9 mm (5.625")			
		193.7 mm (7.625")			
	Rough	104.0 mm (4.09")	6.4 mm (0.25")	203,2 mm (8")	
		154.7 mm (6.09")			
		205.5 mm (8.09")			
P3	Lumber	92.1 mm (3.625")	4.8 mm (0.1875")	203,2 mm (8")	92.1 mm (3.625")
		142.9 mm (5.625")			
		193.7 mm (7.625")			
	Rough	104.0 mm (4.09")	6.4 mm (0.25")	203,2 mm (8")	
		154.7 mm (6.09")			
		205.5 mm (8.09")			
P4	Lumber	142.9 mm (5.625")	4.8 mm (0.1875")	203,2 mm (8")	108 mm (4.25")
		193.7 mm (7.625")			
	Rough	154.7 mm (6.09")	6.4 mm (0.25")	203,2 mm (8")	
		205.5 mm (8.09")			
P5	Lumber	142.9 mm (5.625")	4.8 mm (0.1875")	203,2 mm (8")	144.5 mm (5.6875")
		193.7 mm (7.625")			
	Rough	154.7 mm (6.09")	6.4 mm (0.25")	203,2 mm (8")	
		205.5 mm (8.09")			

CONCRETE STRUCTURE CONNECTORS

Flat Plate - With Horizontal Rebar

Technical Specifications

Code Evaluation	Listed per CCMC (13059-R)
Plate Standard Steel	CSA G40.21-300W Fy=300 MPa min (44 ksi)
Adapter Standard Steel	ASTM A500 Grade C Fy=350 MPa min (51 ksi)
Rebar Standard Steel	CSA G30.18-400W Fy=400 MPa min (58 ksi)
Black Steel Design Life	Min 50 years
Coating	Galvanized or Black Steel
Galvanization Compliance	ASTM A123/A123M



Other sizes available upon request.

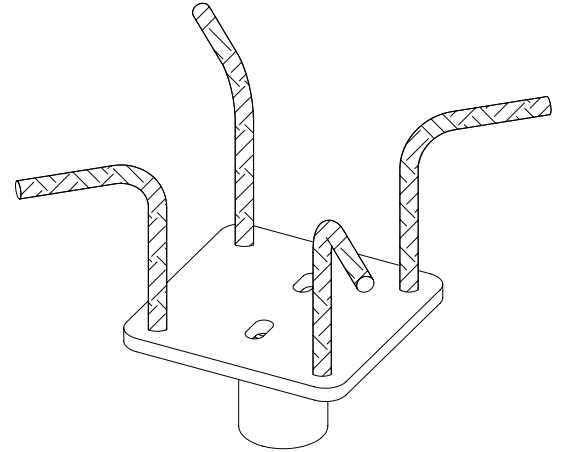
For uplift requirements, plates shall be fixed to Techno Metal Post with welding, self-tapping, screws or bolted connection.

Pile Model	Plate Dimensions			Adapter Dimensions			Rebar (15M)		
	Length	Width	Thickness	Height	O.D.	Thickness	Length	Number	O.D.
	A	B	C	D	E	F	G	H	I
P2	127 mm (5")	127 mm (5")	9.5 mm (0.375")	101.6 mm (4")	48.3 mm (1.9")	3.7 mm (0.145")	508 mm (20")	2 or 4	15.9 mm (0.625")
P3	152.4 mm (6")	152.4 mm (6")	12.7 mm (0.5")	101.6 mm (4")	73 mm (2.875")	5.2 mm (0.203")	508 mm (20")	2 or 4	15.9 mm (0.625")
P4	152.4 mm (6")	152.4 mm (6")	12.7 mm (0.5")	101.6 mm (4")	88.9 mm (3.5")	5.5 mm (0.215")	508 mm (20")	2 or 4	15.9 mm (0.625")

Technical Specifications

Code Evaluation	Listed per CCMC (13059-R)
Plate Standard Steel	CSA G40.21-300W Fy=300 MPa min (44 ksi)
Adapter Standard Steel	ASTM A500 Grade C Fy=350 MPa min (51 ksi)
Rebar Standard Steel	CSA G30.18-400W Fy=400 MPa min (58 ksi)
Black Steel Design Life	Min 50 years
Coating	Galvanized or Black Steel
Galvanization Compliance	ASTM A123/A123M

Other sizes available upon request.
For uplift requirements, plates shall be fixed to Techno Metal Post with welding, self-tapping, screws or bolted connection.



Pile Model	Plate Dimensions			Adapter Dimensions			Rebar (15M)		
	Length	Width	Thickness	Height	O.D.	Thickness	Length	Number	O.D.
	A	B	C	D	E	F	G	H	I
P2	152.4 mm (6")	152.4 mm (6")	12.7 mm (0.5")	101.6 mm (4")	48.3 mm (1.9")	3.7 mm (0.145")	Variable	Variable	15.9 mm (0.625")
P3	152.4 mm (6")	152.4 mm (6")	12.7 mm (0.5")	101.6 mm (4")	73 mm (2.875")	5.2 mm (0.203")	Variable	Variable	15.9 mm (0.625")

CONCRETE STRUCTURE CONNECTORS

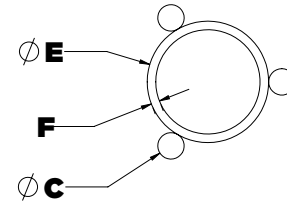
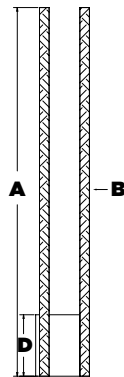
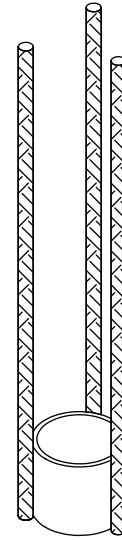
Coupling with Vertical Rebar

RC

Technical Specifications

Adapter Standard Steel	ASTM A500 Grade C Fy=350 MPa min (51 ksi)
Rebar Standard Steel	CSA G30.18-400W Fy=400 MPa min (58 ksi)
Black Steel Design Life	Min 50 years
Coating	Galvanized or Black Steel
Galvanization Compliance	ASTM A123/A123M

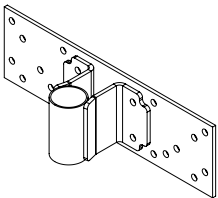
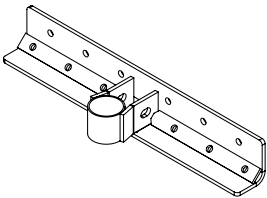
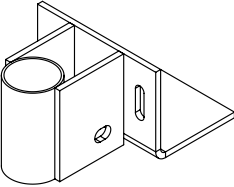
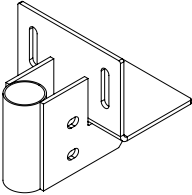
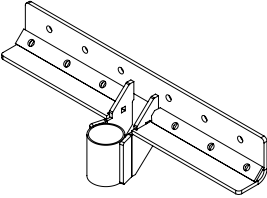
Other sizes available upon request.
For uplift requirements, plates shall be fixed to Techno Metal Post with welding, self-tapping, screws or bolted connection.



Pile Model	Rebar (15M)			Adapter Dimensions		
	Length	Number	Out. Diameter	Height	Out. Diameter	Thickness
	A	B	C	D	E	F
P2	610 mm (24")	2	15.9 mm (0.625")	101.6 mm (4")	73 mm (2.875")	5.2 mm (0.203")
P2	610 mm (24")	3	15.9 mm (0.625")	101.6 mm (4")	73 mm (2.875")	5.2 mm (0.203")
P3	610 mm (24")	2	15.9 mm (0.625")	101.6 mm (4")	101.6 mm (4")	5.7 mm (0.226")
P3	610 mm (24")	3	15.9 mm (0.625")	101.6 mm (4")	101.6 mm (4")	5.7 mm (0.226")

Technical Specifications

Standard Steel	CSA G40.21-300W Fy=300 MPa min (44 ksi)
Black Steel Design Life	Min 50 years
Coating	Galvanized or Black Steel
Galvanization Compliance	ASTM A123/A123M

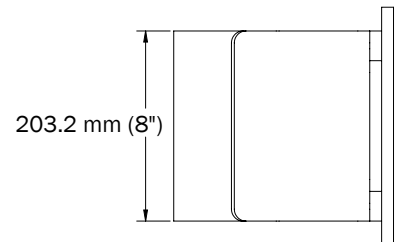
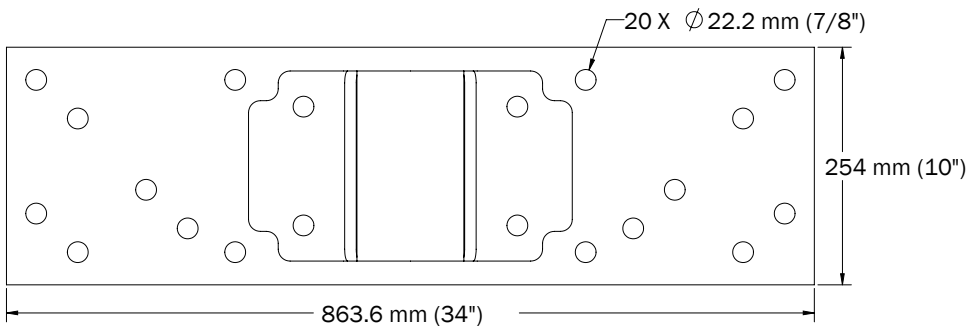
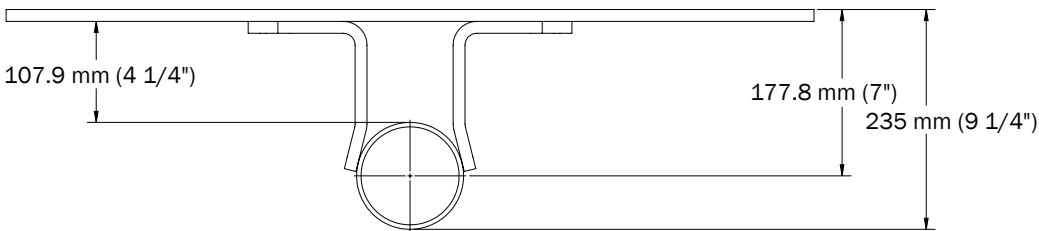
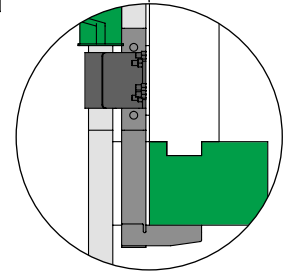
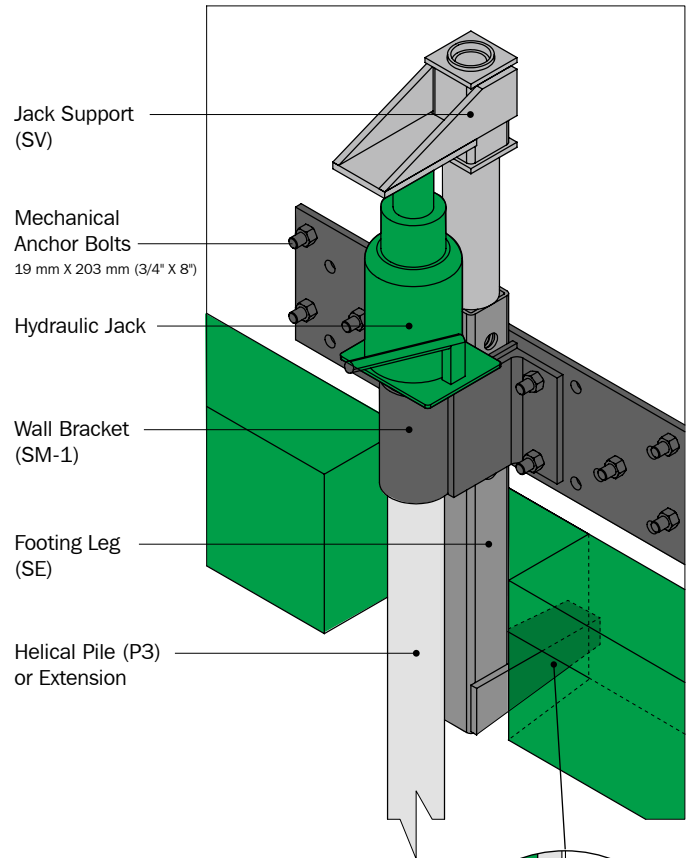
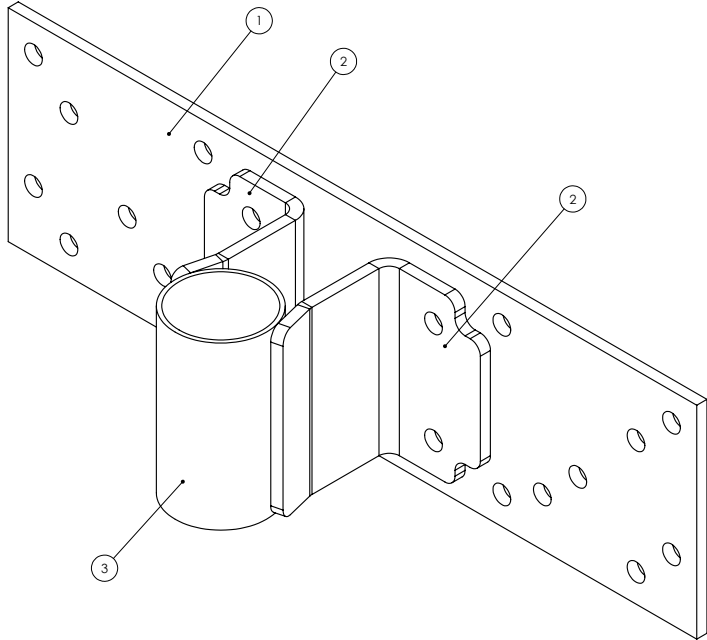
Pile Model	Bracket Model	Drawing	Dimensions			Max. Allowable Capacity
			Length	Width	Thickness	
			A	B	C	lbf
P3	SM-1 Concrete Wall		See shop drawings p.42			29,500
P3	SM-2 Concrete Masonry Unit (CMU) Wall #2		See shop drawings p.43			22,000
P3	SM-3 Concrete Masonry Unit (CMU) Wall #3		See shop drawings p.44			16,000
P3	SM-4 Concrete Masonry Unit (CMU) Wall #4		See shop drawings p.45			20,800
P3	SM-5 Interior Concrete Wall		See shop drawings p.46			22,000

Foundation Repair Brackets

FOUNDATION REPAIR BRACKETS

Concrete Wall #1 SM-1

ITEM#	MATERIAL
1	Steel Plate CSA G40.21-300W
2	Steel Plate CSA G40.21-300W
3	HSS 4.5" Round Tubing ASTM A500C



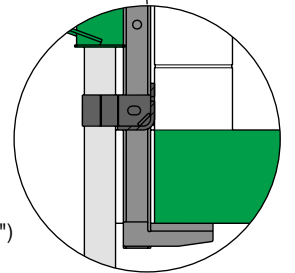
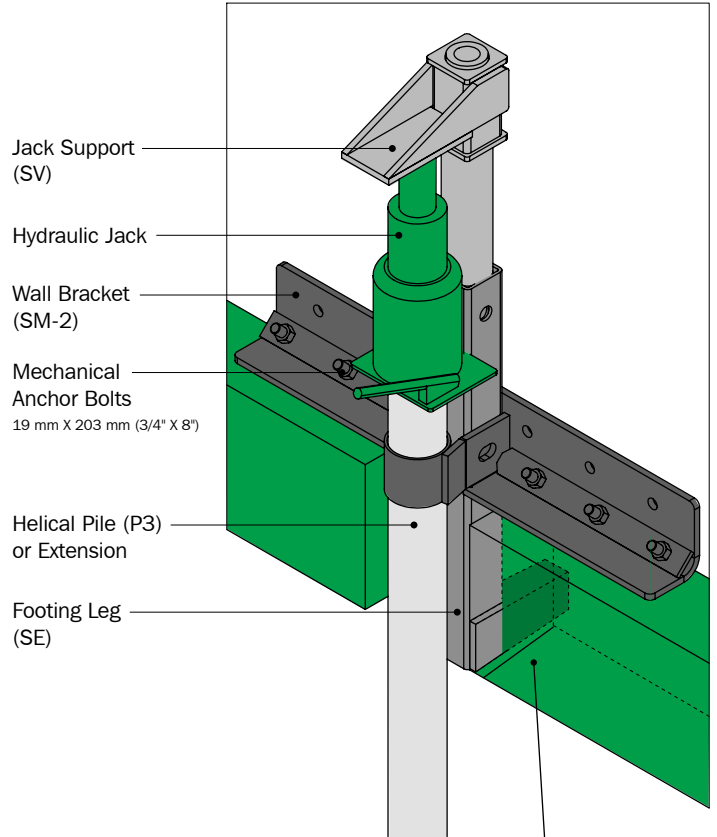
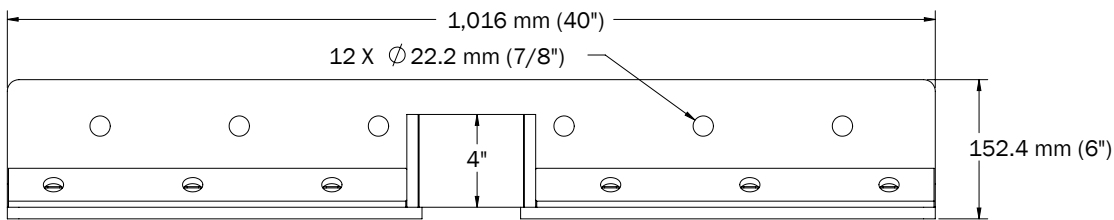
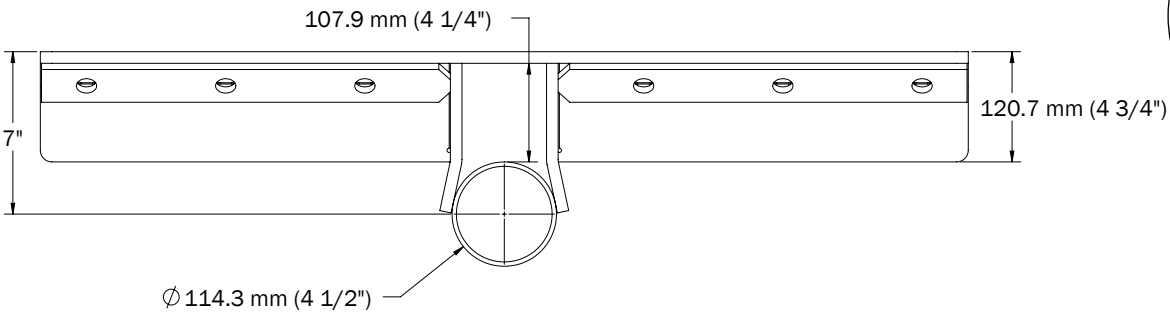
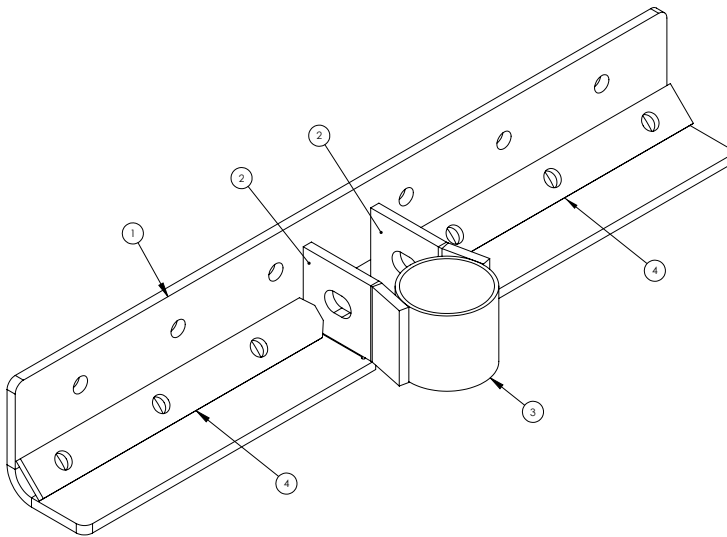
Foundation Repair Brackets

FOUNDATION REPAIR BRACKETS

Concrete Masonry Unit (CMU) Wall #2

SM-2

ITEM#	MATERIAL
1	Steel Plate CSA G40.21-300W
2	Steel Plate CSA G40.21-300W
3	HSS 4.5" Round Tubing ASTM A500C
4	Steel Plate CSA G40.21-300W

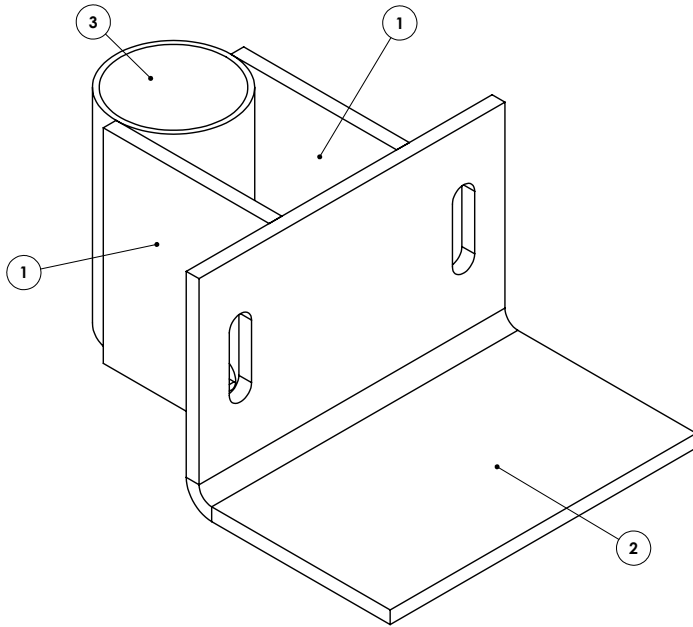


Foundation Repair Brackets

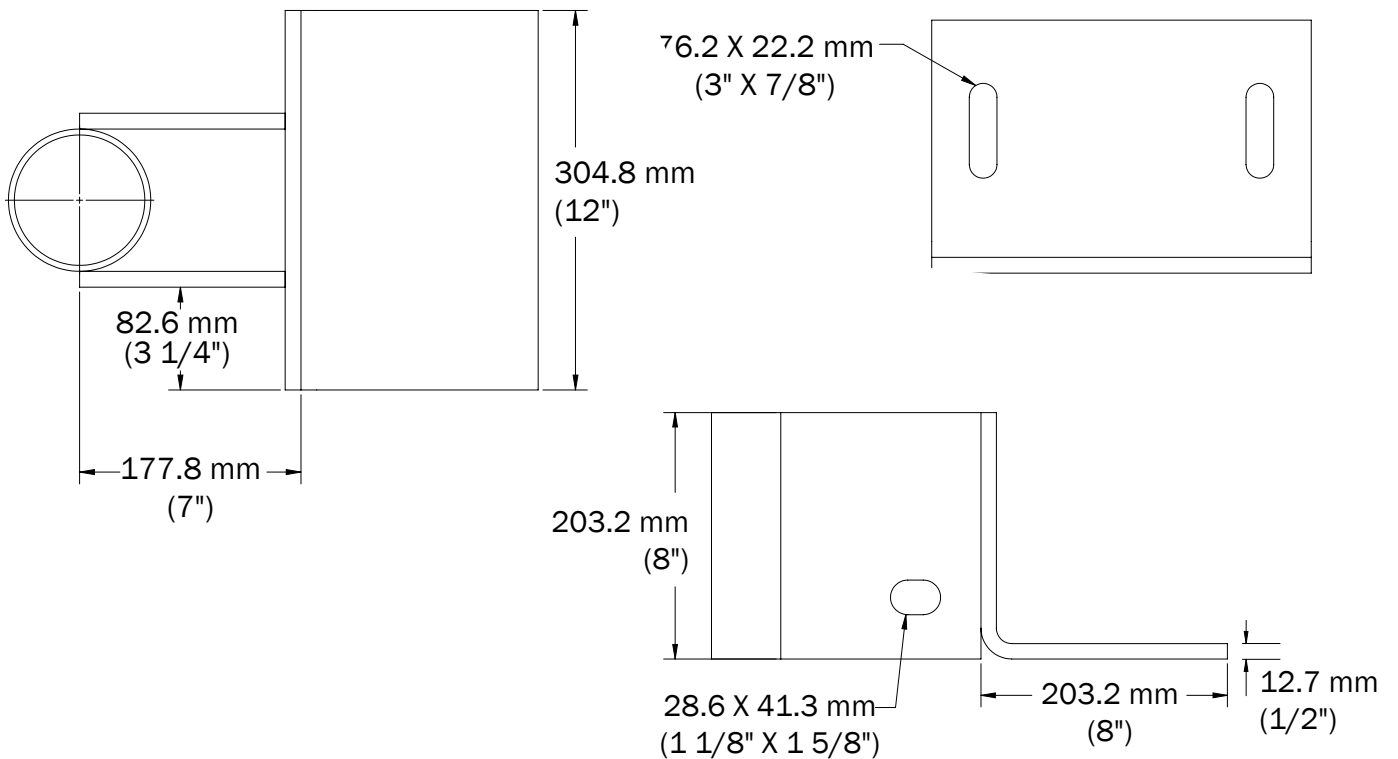
FOUNDATION REPAIR BRACKETS

Concrete Masonry Unit (CMU) Wall #3

SM-3



ITEM#	MATERIAL
1	Steel Plate CSA G40.21-300W
2	Steel Plate CSA G40.21-300W
3	HSS 4.5" Round Tubing ASTM A500C

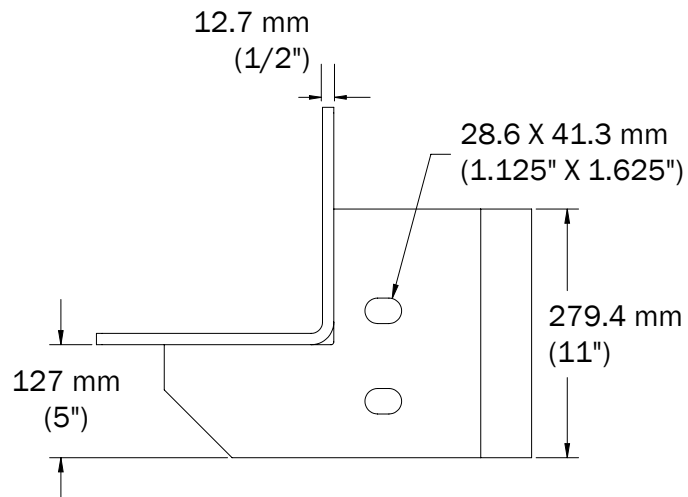
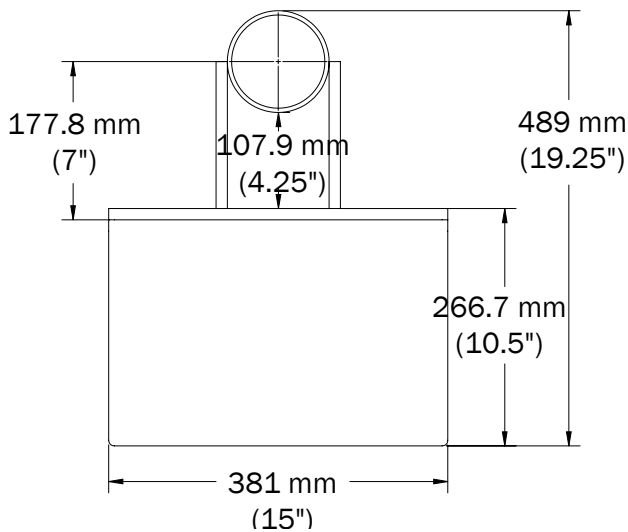
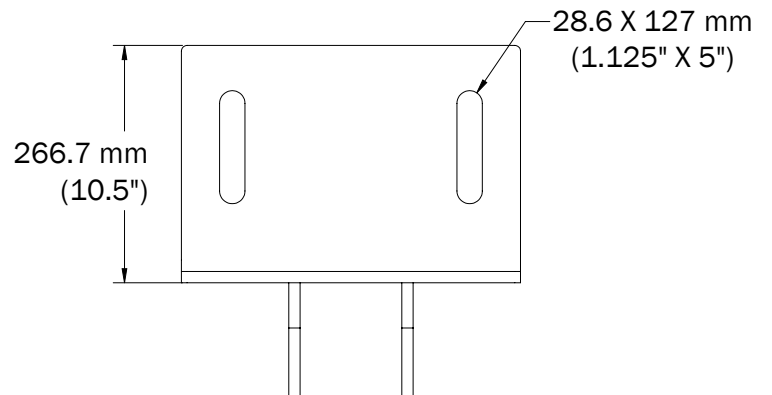
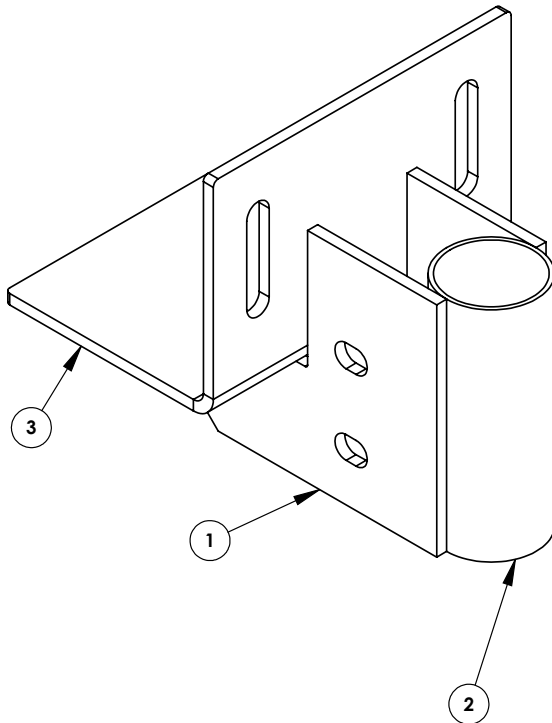


FOUNDATION REPAIR BRACKETS

Concrete Masonry Unit (CMU) Wall #4

SM-4

ITEM#	MATERIAL
1	Steel Plate CSA G40.21-300W
2	HSS 4.5" Round Tubing ASTM A500C
3	Steel Plate CSA G40.21-300W



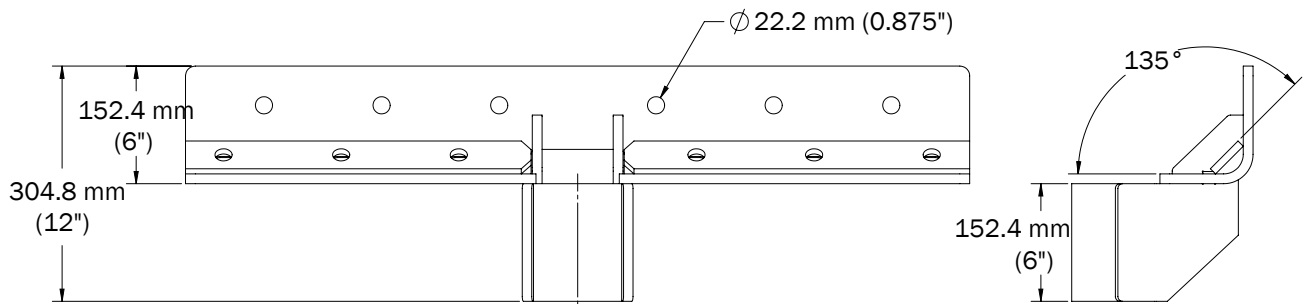
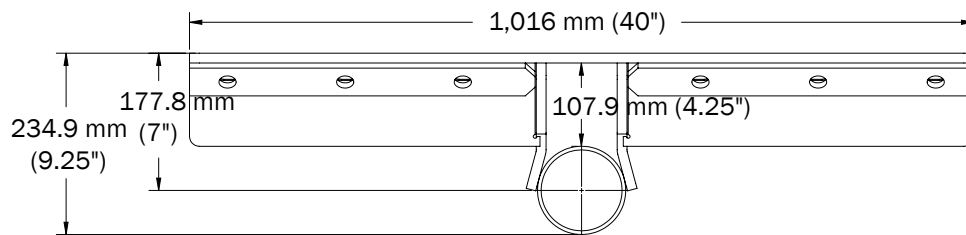
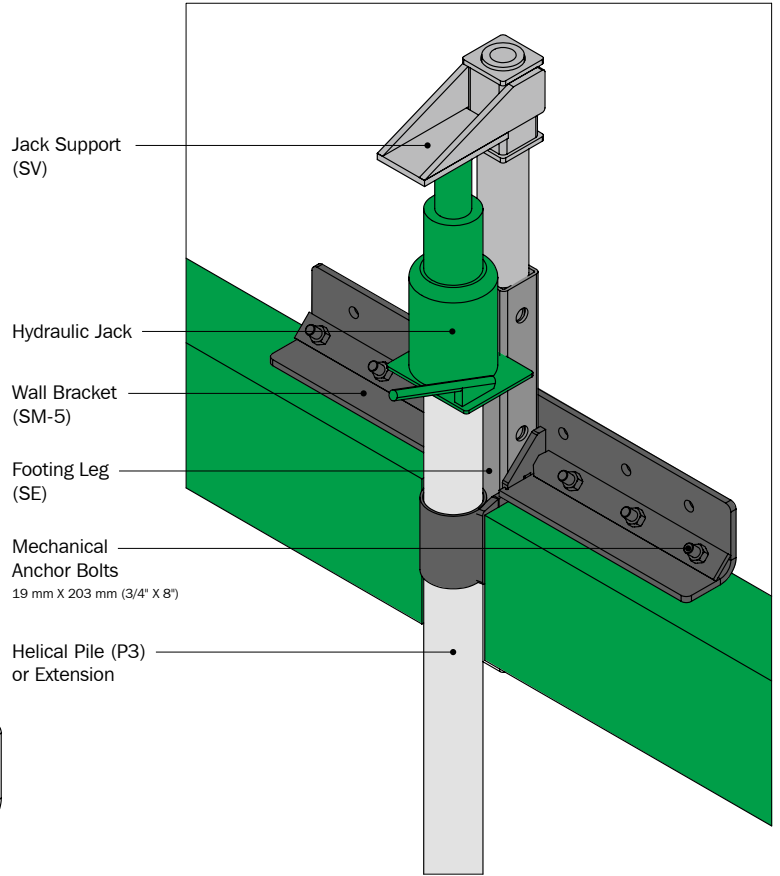
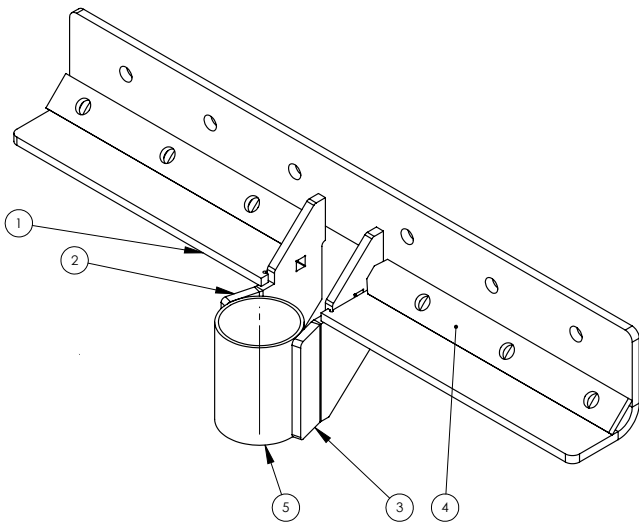
Foundation Repair Brackets

FOUNDATION REPAIR BRACKETS

Interior Concrete Wall #5

SM-5

ITEM#	MATERIAL
1	Steel Plate CSA G40.21-300W
2	Steel Plate CSA G40.21-300W
3	Steel Plate CSA G40.21-300W
4	Steel Plate CSA G40.21-300W
5	HSS 4.5" Round Tubing ASTM A500C



Foundation Repair Brackets



R2D

Dimensions (L x W x H):
2,500 mm x 760 mm x 1,500 mm (98 ½" x 29" x 59")

Weight:
750 kg (1,653 lb)

Maximal height of mast:
3,400 mm (133 ⅞")

Mast rotation:
+/- 60°

Minimum clearing required for installation:
178 mm (7")

Maximal allowable bearing capacity in compression per installed TMP helical pile:
111 kN (25,000 lb)



EM1

Dimensions (L x W x H):
2,362 mm x 1,219 mm x 1,676 mm (93" x 48" x 66")

Weight:
2,025 kg (4,464 lb)

Maximal height of mast:
3,683 mm (145")

Mast rotation:
360°

Minimum clearing required for installation:
203 mm (8")

Maximal allowable bearing capacity in compression per installed TMP helical pile:
150 kN (33,750 lb)



ET1

Dimensions (L x W x H):
4,267 mm x 1,727 mm x 2,133 mm (168" x 68" x 84")

Weight:
4,037 kg (8,900 lb)

Maximal height of mast:
4,572 mm (180")

Mast rotation:
360°

Minimum clearing required for installation:
229 mm (9")

Maximal allowable bearing capacity in compression per installed TMP helical pile:
225 kN (50,625 lb)

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