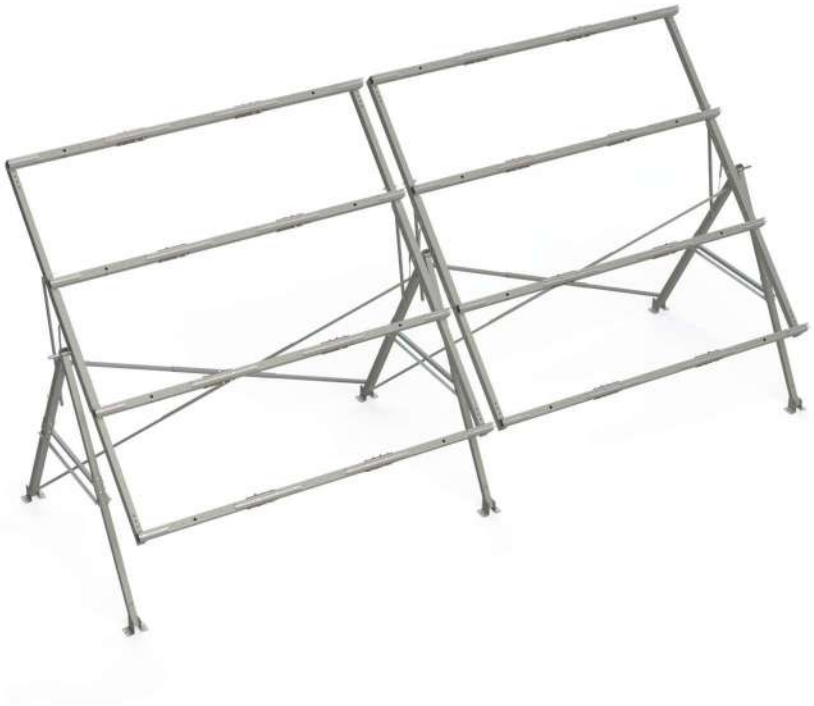
Kinetic
SOLAR RACKING AND MOUNTING

ADJUSTABLE GROUND MOUNT INSTALLATION GUIDE

GENERATION 3



UL 2703, TIL A-40 Listed

C SA® US

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Commercial | Residential | Industrial | Institutional

DISCLAIMER

Before attempting to install, operate or service a Kinetic Solar Racking and Mounting Inc. Ground Mount all instructions should be read and understood. Failure to follow these instructions/guidelines may result in injury, property damage or death.

Kinetic Solar Racking and Mounting Inc. (Kinetic Solar) does not install any racking or mounting systems components. Kinetic Solar Racking and Mounting does not hold any duty or responsibility for the safe and proper installation and/or maintenance of its racking and mounting systems, including job site safety standards and procedures. Position fully assembled Klein Rails according to the solar module manufacturer's mounting specifications. A solar module's width and/or length will determine the exact rail spacing based on the clamping requirement.

As specified in UL 61730-1 5.2.3DV, PV modules are considered to be in compliance with the mechanical loading and bonding and grounding requirements of UL 61730-1 when mounted, bonded and grounded in the manner specified by either the PV module mounting instructions, or the mounting system manufacturer's instructions when the mounting, bonding, and grounding means have been evaluated with the PV module to UL 2703. Fasteners shall be clean and free of damage or signs of corrosion during installation.

All installation work must comply with the applicable regional and local regulations or other national or international electrical standards and are the sole responsibility of the installer, contractor and/or developer.

Kinetic Solar Racking and Mounting shall not be held responsible for damages of any kind, including but not limited to injury, property damage or death. Kinetic Solar Racking and Mounting Inc. shall not be held responsible for misuse or non-compliance with the instructions detailed in this manual including handling solar modules, solar racking or system installation.

Packing materials, including plastic bags and foam, may pose suffocation, choking, or injury hazards. Keep away from children and animals. Dispose of packing materials responsibly per local and provincial regulations. Recycle through local programs where applicable.

Installation should not be performed during adverse weather conditions, which can compromise personal safety and the integrity of the installation. Exercise caution during installation.

Please retain this manual for future reference. Kinetic Solar reserves the right to make additions, deletions and modifications to the content of this document without prior notice. This manual is only valid for the following Kinetic Solar Racking Systems: Adjustable Ground Mount Gen 3.0 Models.

The instructions contained in this manual are exclusive to the products referenced. Use of any other products in conjunction with the listed products is done at one's own risk.

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PRODUCT CERTIFICATIONS

KHBW – Bonding Washer
CL501TN – Terminal Lug

The above products are tested to UL 467, CAN/CSA-C22.2 No.41 US/Can safety standards for safety grounding and bonding equipment.

Deckel Rail, Mid Clamps, and Kinetic Ground Lugs have been certified to meet the bonding requirements of UL 2703 and TIL A-40. Please contact us for more details.

GENERAL NOTES

- The hot dip galvanizing process may sometimes cause zinc accumulation inside holes or along edges, this is normal. Bolts/hardware can be lightly tapped through the holes to clear the buildup. Alternatively, they can be cleaned up with a drill (no larger than bolt diameter) so long as the zinc is **not** completely stripped.

- When installing components do not fully tighten components until specified.

- Before installation, verify that you possess all the required components and tools for installation.

- The orientation reference is based on the installer standing in front of the ground mount, facing the front side of the solar panels.

- Verify that the chosen foundation is level before beginning assembly. The K3AGM system allows for a height adjustment of up to 2 inches on legs to accommodate minor surface variations. The first installed L-Base becomes the datum foot and should be at the highest point of your foundation.

- Before installation, confirm that the foundation spacing in both the East-West (145”) and North-South (94.6”) directions matches the K3AGM foot spacing.

- At 6 months and 12 months after installation and at least once yearly afterwards, check to ensure that all bolts remain at the proper torque setting.

REQUIRED TOOLS LIST FOR INSTALLATION.

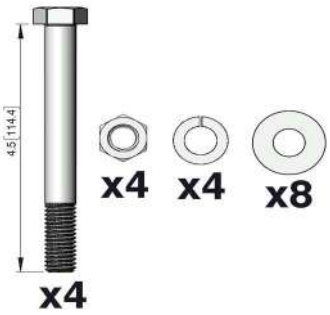
- ✓ Measuring Tape.....
- ✓ Impact Driver.....
- ✓ 1/2” and 3/4” Wrench.....
- ✓ 1/2” and 3/4” Socket.....
- ✓ Torque Wrench.....
- ✓ Rubber Mallet.....
- ✓ Flathead Screwdriver.....
- ✓ Pliers.....
- ✓ Ladder 6 Foot minimum.....

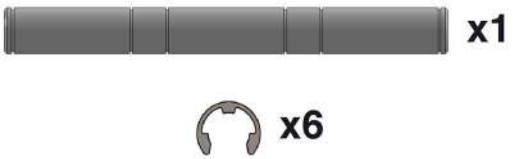
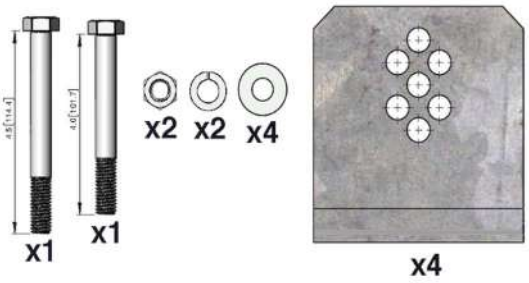


STEP 1: A-FRAME ASSEMBLY

Table 1: A-Frame Components Table

ITEM	COMPONENT	DESCRIPTION	QTY.
1		L-BASE	4
2		A-FRAME LOWER BACK SECTION (SQ. TUBE 3”)	1
3		A-FRAME LOWER FRONT SECTION (SQ. TUBE 2.5”)	1
4		A-FRAME UPPER BACK SECTION (SQ. TUBE 3”)	1
5		A-FRAME UPPER FRONT SECTION (SQ. TUBE 2.5”)	1

6		HORIZONTAL SUPPORT (ANGLE IRON 1.5” X 1.5” X 53.5” LONG)	2
7		PIVOT SHAFT	1
8		EXTERNAL RETAINING RING	2
9		BACK CONNECTION BRACKET (3” X 3”)	2
10		FRONT CONNECTION BRACKET (2.5” X 2.5”)	2
BAG **A**		ZINC PLATED HEX HEAD BOLT ½”-13 X 4.5” ZINC PLATED HEX NUT. ZINC PLATED LOCK WASHER. ZINC PLATED FLAT WASHER.	1

BAG **B**		ZINC PLATED HEX HEAD BOLT ½”-13 X 4” ZINC PLATED HEX NUT. ZINC PLATED LOCK WASHER. ZINC PLATED FLAT WASHER.	1
BAG **C**		PIVOT SHAFT RETAINING RING	1
BAG **D**		ZINC PLATED HEX HEAD BOLT 5/16”-18 X 4” ZINC PLATED HEX NUT. ZINC PLATED LOCK WASHER. ZINC PLATED FLAT WASHER.	1
BAG **E**		ZINC PLATED HEX HEAD BOLT ½”-13 X 4.5” ZINC PLATED HEX HEAD BOLT 1/2”-13 X 4” ZINC PLATED HEX NUT. ZINC PLATED LOCK WASHER. ZINC PLATED FLAT WASHER. L-BASED PLATE	1

For detailed specifications and measurements, please refer to the **A-Frame** engineering drawing provided in **Appendix 1**.

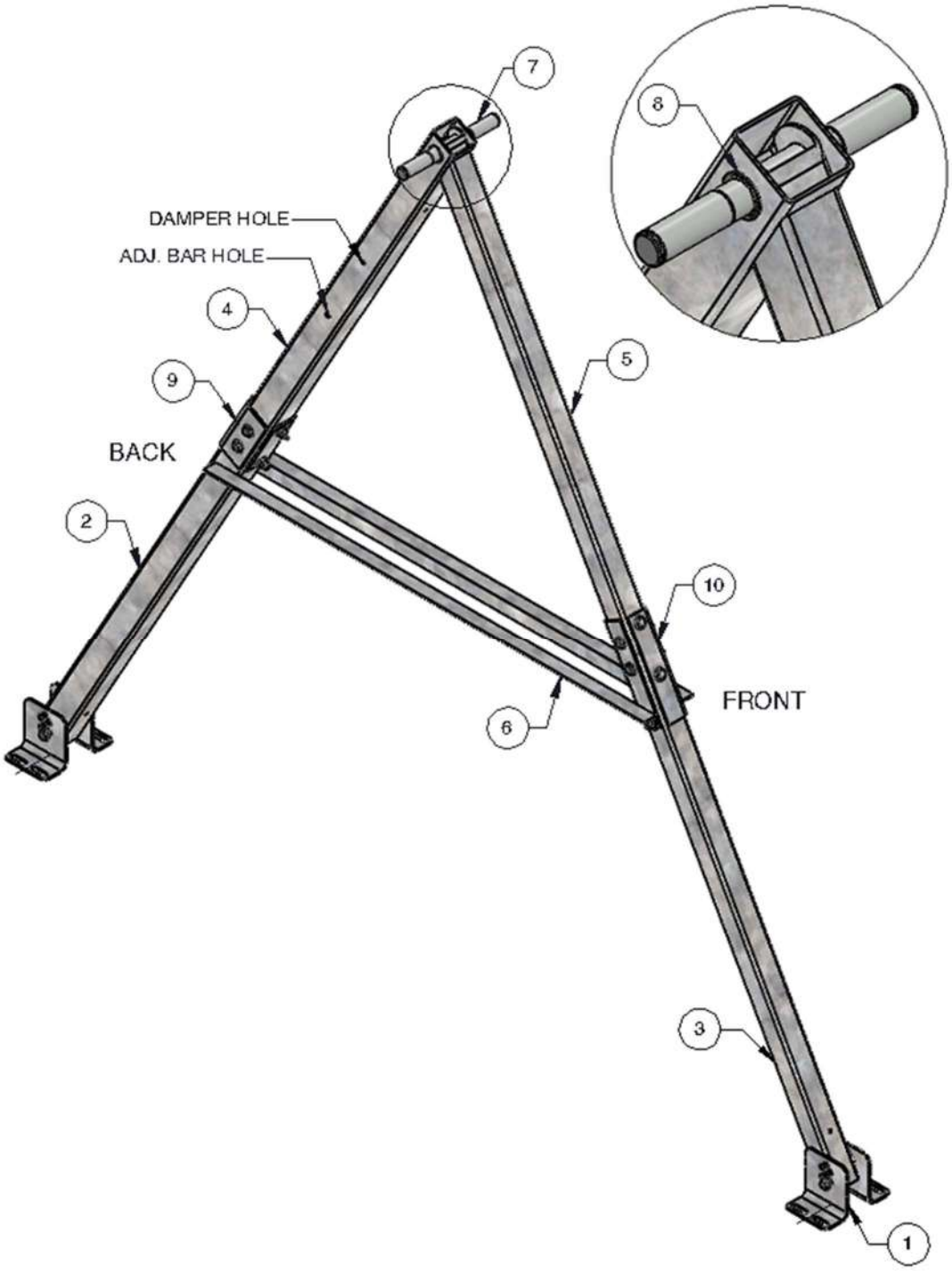


Image 1: *Typical A-Frame Isometric View*

STEP 1.1: A-FRAME BACK SECTION ASSEMBLY

I. Identify all corresponding structural components (Table 1: Item **2, 4**, **9**) and the hardware included in **Bag A**.

II. Lay the following structural members on a flat surface: **Lower Back Section** (Item **2**) and **Upper Back Section** (Item **4**) (3" sq. tubing).

III. Inspect all components for zinc accumulations. If present, clean carefully to ensure proper fit.

- *Note: Only remove excess zinc; maintaining the coating is essential for corrosion resistance.*

IV. Align both sections with the Back Connection Bracket (3" angle). Refer to **Image 2.**

V. Secure the components using the hardware in the **Bag A** (1/2" x 4.5" Zinc Plated Bolt + Flat Washer + Lock Washer + Hex Nut).

VI. Hand-tighten all bolts to allow for alignment adjustments.

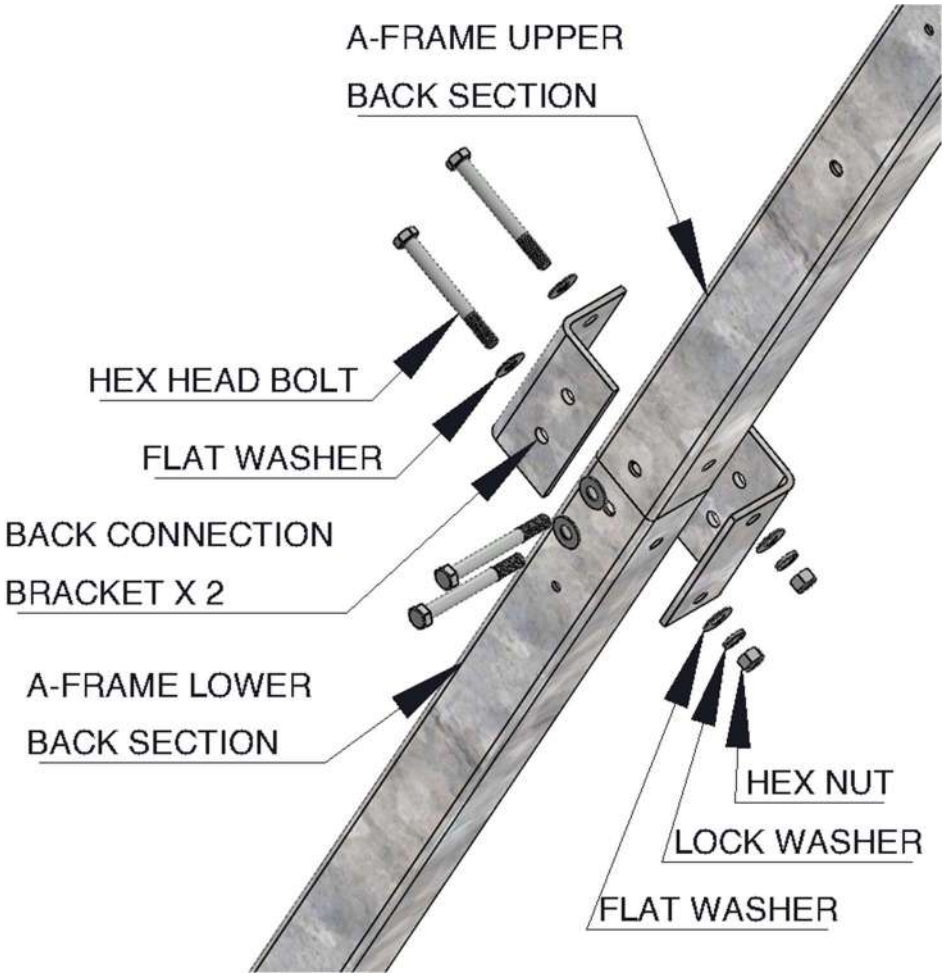


Image 2: *Typical A-Frame Back Sections Assembly*

STEP 1.2: A-FRAME FRONT SECTION ASSEMBLY.

I. Identify all corresponding structural components (Table 1: Items **3, 5** & **10**) and the hardware included in **Bag B**.

II. Lay all structural members on a flat surface: **Lower Front Section** (Item **3**) and **Upper Front Section** (Item **5**) **(2.5" sq. tubing).**

III. Inspect all components for zinc accumulations. If present, carefully clean to ensure proper fit.

IV. Align both sections with the Front Connection Bracket (2.5" angle). Refer to **Image 3.**

- *Note: Align all three component holes to ensure correct bracket positioning.*

V. Secure the components using the hardware in **Bag B** (1/2" x 4" Zinc Plated Bolt + Flat Washer + Lock Washer + Hex Nut).

VI. Hand-tighten all bolts to allow for alignment adjustments.

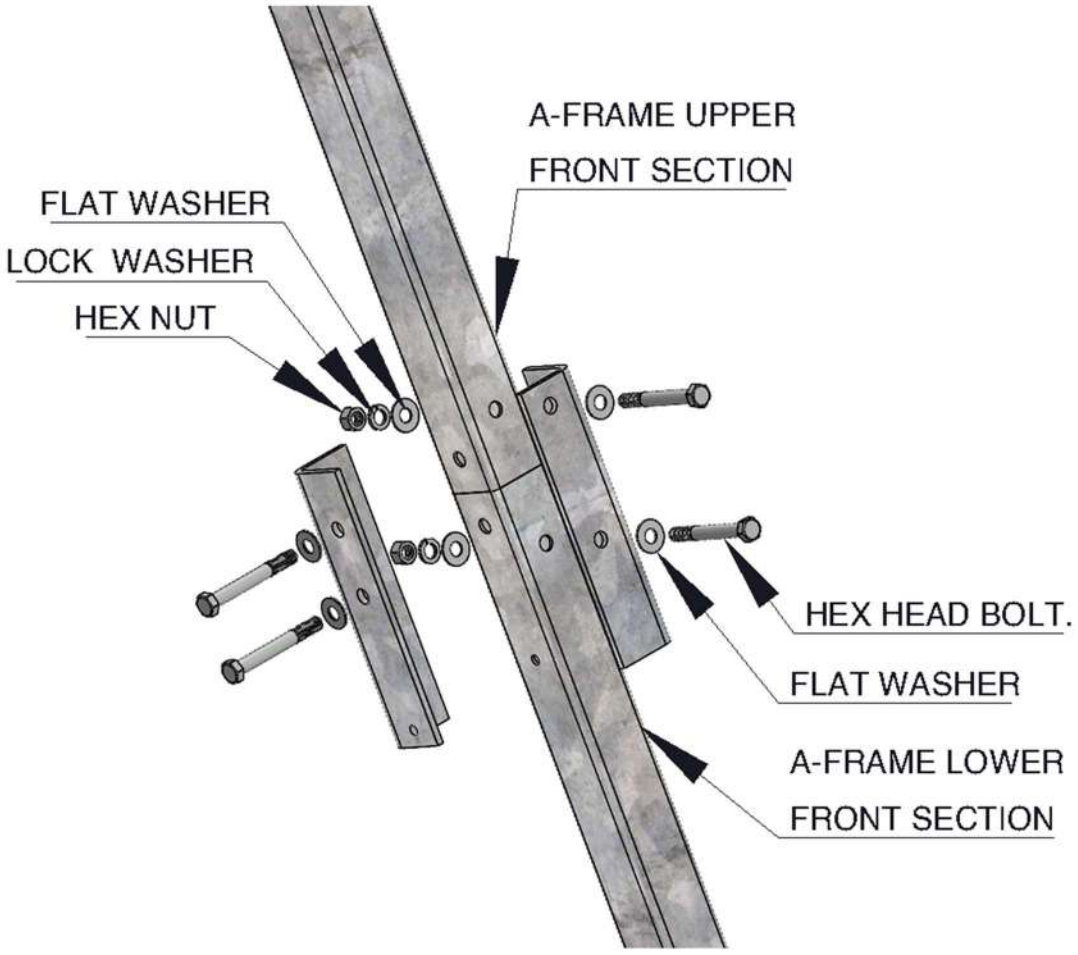


Image 3: *Typical A-Frame Front Sections Assembly*

STEP 1.3: PIVOT SHAFT ASSEMBLY

I. Identify the **Pivot Shaft** (Table 1: Items **7** & **8**) and the corresponding hardware included in **Bag C** (Pivot Shaft and Retaining Rings).

II. Install one **Retaining Ring** on the third groove from the end of the shaft. Refer to **Image 4**.

III. Insert the **Front Upper Section** into **Back Upper Section**, ensuring that the holes are properly aligned.

IV. Slide the **Pivot Shaft** through the aligned holes until the first retaining ring makes contact with the side of the **Back Upper Section**.

V. Secure the **Pivot Shaft** by installing the **second Retaining Ring** in the third groove from the opposite end of the shaft. Refer to **Image 4**.

VI. Verify both retaining rings are properly seated and the **Pivot Shaft** is locked in place.

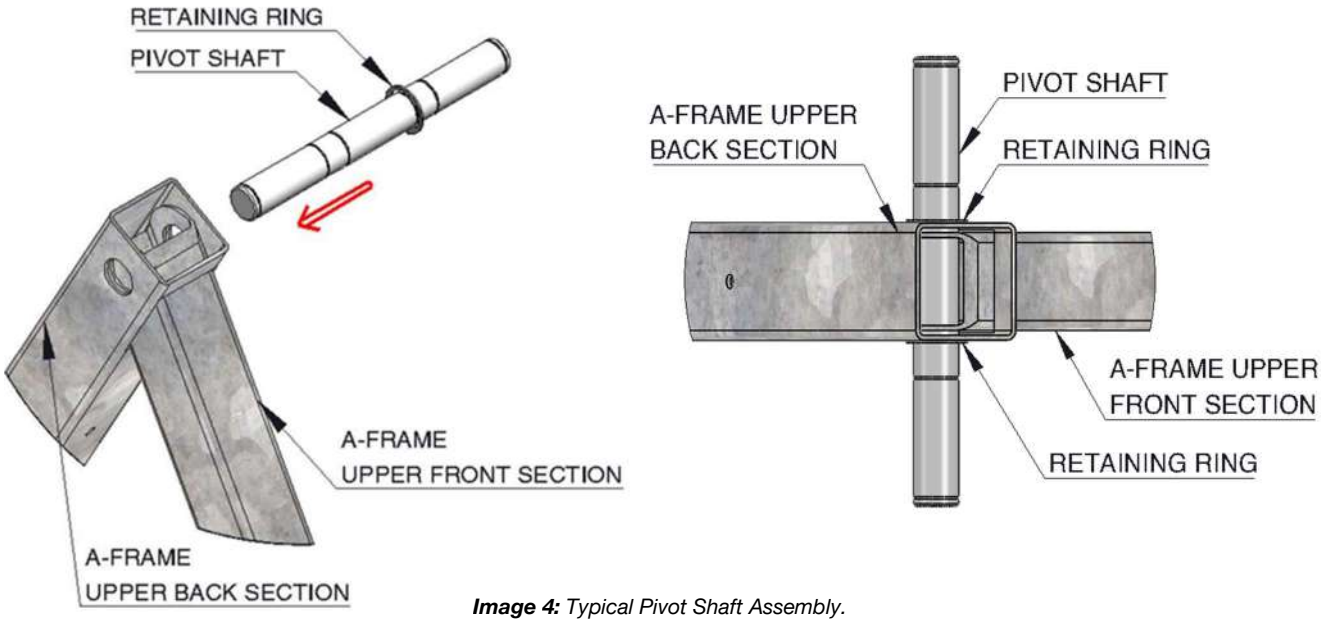


Image 4: *Typical Pivot Shaft Assembly.*

STEP 1.4: HORIZONTAL SUPPORT ASSEMBLY

I. Identify the Horizontal Support (Table 1: Item **6 -** angle iron 1.5”x1.5”x 53.5”) and the corresponding hardware included in **Bag D**.

II. Align the two **Horizontal Supports** with holes located below the connection brackets on the back leg, and on the connection bracket for the front leg.

III. Install the hardware from **Bag D** (5/16”x 4” Zinc Plated Bolt + Flat Washer + Lock Washer + Hex Nut) through the aligned holes on both sides of the legs.

IV. Hand-tighten the bolts to allow for alignment adjustments.

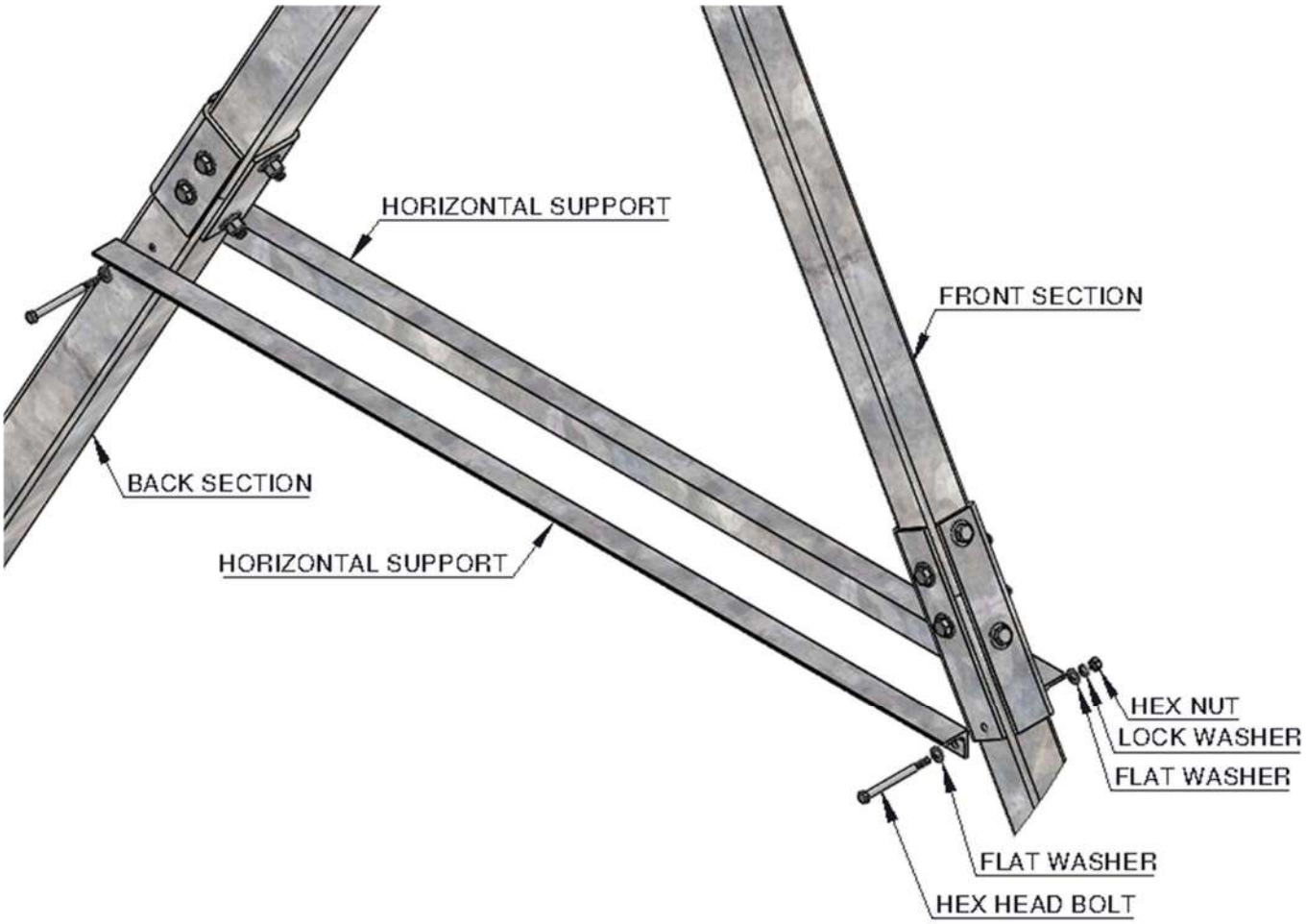


Image 5: *Typical Horizontal Support Assembly.*

Once alignment is verified, torque all bolts per **Table 2** and **repeat steps 1.1.I – 1.4.IV** for each remaining **A-Frame**.

Table 2: Recommended Torque Values

Recommended Torque for Zinc-Plated Grade 5 UNC Bolts		
Bolt Specification	**Torque (ft-lb)**	**Torque (Nm.)**
1/2”-13	40-50	54-68
5/16”-18	10-13	14-18

STEP 1.5: UNDERSTANDING L-BASE (DATUM FOOT)

The **L-Base Plate** allows 0.5” vertical incremental adjustments (2.0” max). The **lowest hole (Datum Hole)** must be used for the first A-Frame that is on the datum foot. Refer to **Image 6**.

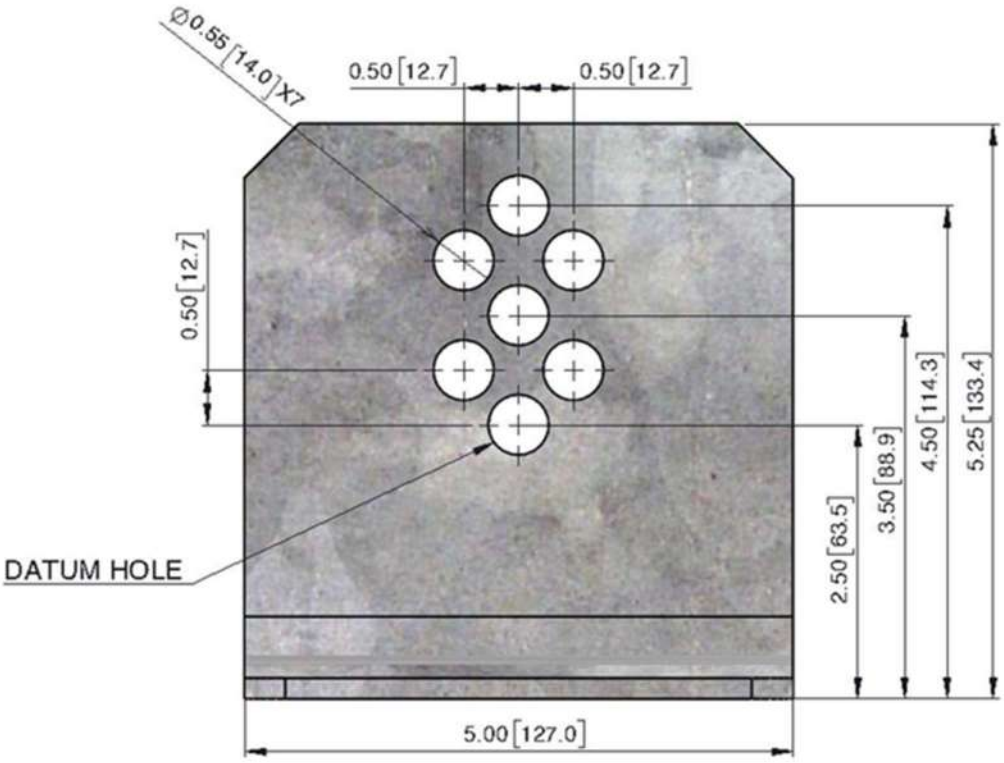


Image 6: *Base Plate Adjustment – Front View*

Measure the height differences between the next foundations and choose the appropriate holes in relation to the datum foot to secure the subsequent **A-Frames**. This is to maintain level across the length of the array.

STEP 1.5.1: FIRST L-BASE (DATUM FOOT) INSTALLATION

I. Identify the **L-Base Plates** (Table 1: Item **1**) and the corresponding hardware included in **Bag E**.
   - (1/2”x 4” Zinc Plated Bolt + Flat Washer + Lock Washer + Hex Nut). **For Front Section**.
   - (1/2”x 4.5” Zinc Plated Bolt + Flat Washer + Lock Washer + Hex Nut). **For Back Section**.

II. Align the **L-Base Plate** on each side of the frame, use the bottom hole of the A-Frame with the lowest hole (Datum Hole) of the **L-Base Plate**.

III. Install the hardware from **Bag E** through the aligned holes on both sides. Refer to **Image 7**.

IV. Hand-tighten the bolts to allow for alignment adjustments.

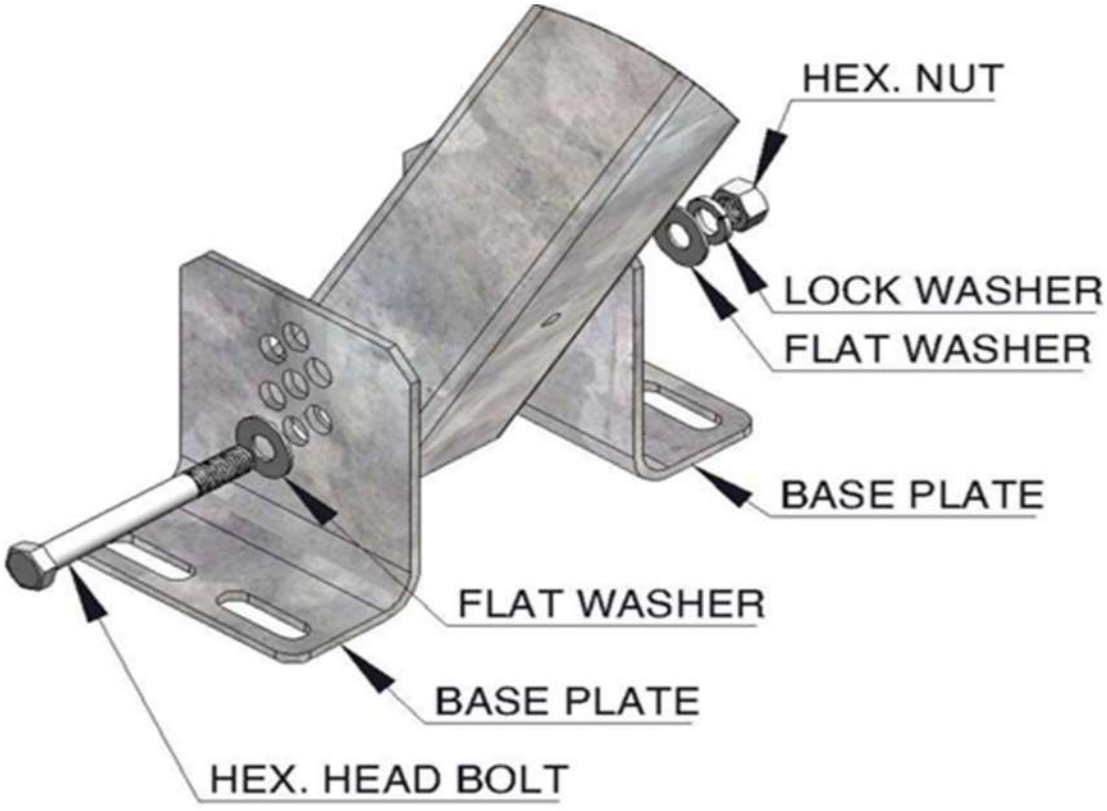


Image 7: *Typical Base Plate Assembly Detail.*

STEP 1.6: SUBSEQUENT L-BASE INSTALLATION

I. Identify the **L-Base Plates** (Table 1: Item **1**) and the corresponding hardware included in **Bag E**.

II. Align the **L-Base Plates** on each side of the frame. Select the appropriate starting hole based on the required height alignment of the first **A-Frame**. Keep structure level using 0.5” (12.7mm) increments as needed.

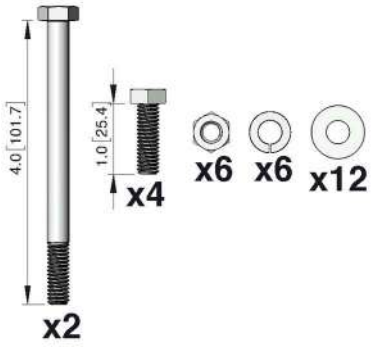
III. Repeat step **1.5.1.I to 1.5.1.IV**

IV. Hand-tighten the bolts to allow for alignment adjustments.

V. **Repeat step 1.6 on all other A-Frames as needed**.

STEP 2: CROSS BRACING ASSEMBLY

Table 3: Cross Bracing Components

ITEM	COMPONENT	DESCRIPTION	QTY.
1		CROSS BRACING END SECTION (ANGLE IRON 1.25” X 1.25” X 58” LONG)	2
2		CROSS BRACING CENTER SECTION (ANGLE IRON 1.5” X 1.5” X 56.78” LONG)	1
BAG **F**		ZINC PLATED HEX HEAD BOLT 5/16”-18 X 4” ZINC PLATED HEX HEAD BOLT 5/16”-18 X 1” ZINC PLATED HEX NUT. ZINC PLATED LOCK WASHER. ZINC PLATED FLAT WASHER.	1

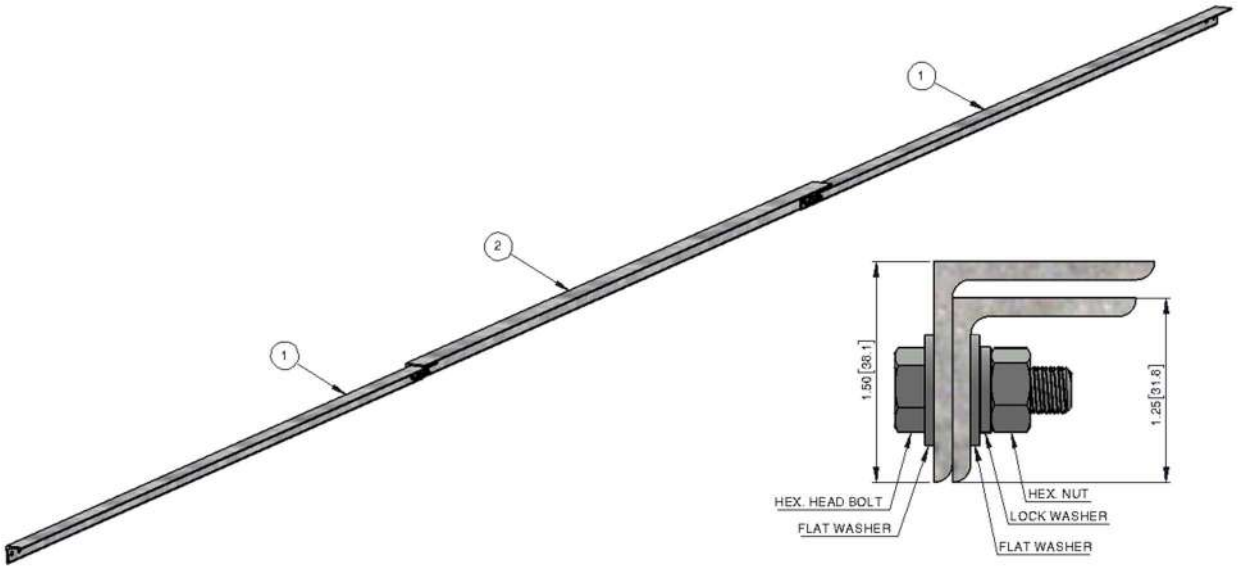


Image 8: *Typical Cross Bracing Assembly*

I. Identify the Cross Bracing Sections and the corresponding hardware included in **Bag F**. Each cross brace consists of **two End Sections (1-¼" angle iron)** and one **Center Section (1-½" angle iron)**.

II. Join the three sections together using two bolts per end of the center section (5/16"x 1" Zinc Plated Bolt + Flat Washer + Lock Washer + Hex Nut).

III. Ensure all three components are completely parallel before tightening the nuts.

IV. Once alignment is confirmed, fully tighten the nuts to secure the assembly, the recommended torque is **12-13 ft-lb (16-18 Nm)**.

V. Repeat for all subsequent Cross Bracing assemblies.

STEP 3: A-FRAMES + CROSS BRACING INSTALLATION

I. Starting with the datum foot, place the **A-Frames** onto the chosen foundations, spaced East-West 145" (3683 mm) apart.

II. Identify proper hardware from **Bag F** (5/16"x 4" Zinc Plated Bolt + Flat Washer + Lock Washer + Hex Nut). Align the **Cross Bracing** with the holes at the top and bottom of each **A-Frame**. Refer to **Image 9**. Insert the bolt connections and hand-tighten.

III. Ensure proper placement of the Cross Bracing:

- One must be installed on the external side of the **A-Frame**, and the second must be installed on the internal side of the **A-Frame**.

- When using more than two **A-Frames** the **Cross Bracing** will share attachment points on subsequent **A-Frames**.

IV. Confirm alignment and squareness by verifying the dimensions given **(refer to Appendix 7)**. Once square is verified, fully tighten and torque the **Cross-Bracing** to the **A-Frames** (**5/16”-18 bolts**, **10-13 ft-lbs / 14-18 Nm**).

V. Fully tighten and torque the **L-Bases** to the **A-Frames (1/2”-13 bolts, 40-50 ft-lbs / 54-68 Nm)**, and check that they are correctly positioned onto the foundations. Verify that the vertical, horizontal, and diagonal squareness is maintained across all **A-Frames**.

VI. Attach the **A-Frame** assemblies to the foundations through the feet.

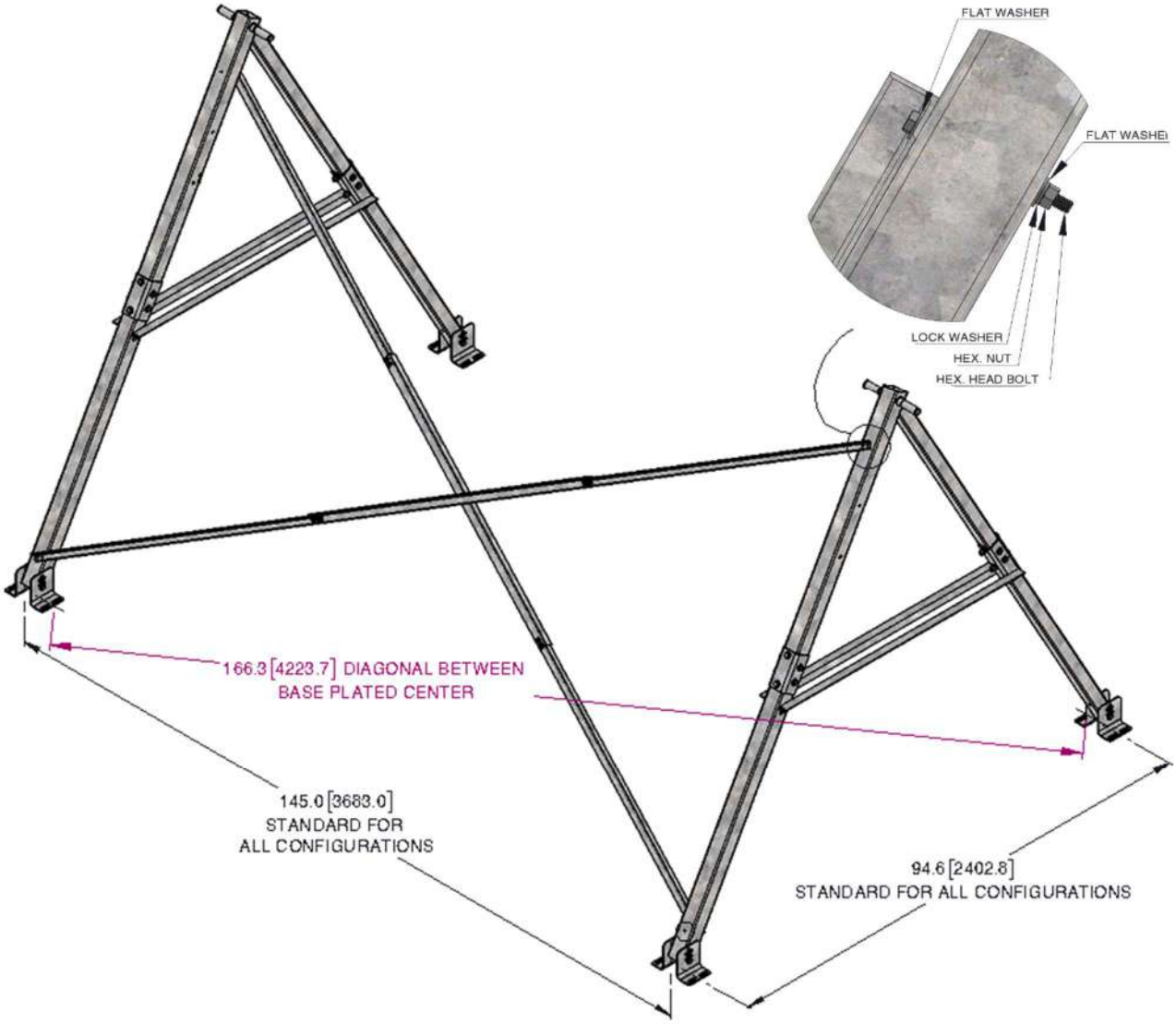
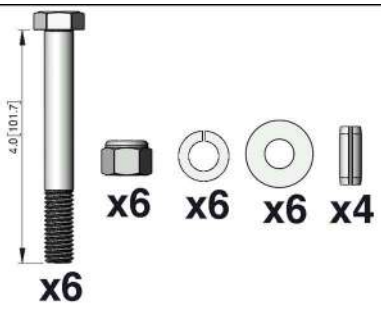


Image 9: *Typical Cross Bracing Installation.*

STEP 4: RAIL SUPPORT ASSEMBLY – COMPONENTS CHART

Each Rail Support consists of the following items:

Table 4: Rail Support Components

ITEM	COMPONENT	DESCRIPTION	QTY.
1		RAIL SUPPORT BODY SECTION	1
2		RAIL SUPPORT ARM SECTION	2
BAG G		ZINC PLATED HEX HEAD BOLT 1/2”-13 X 4” ZINC PLATED HEX LOCKNUT. ZINC PLATED LOCK WASHER. ZINC PLATED FLAT WASHER. COILED SPRING PIN 3/8” X 1”	1

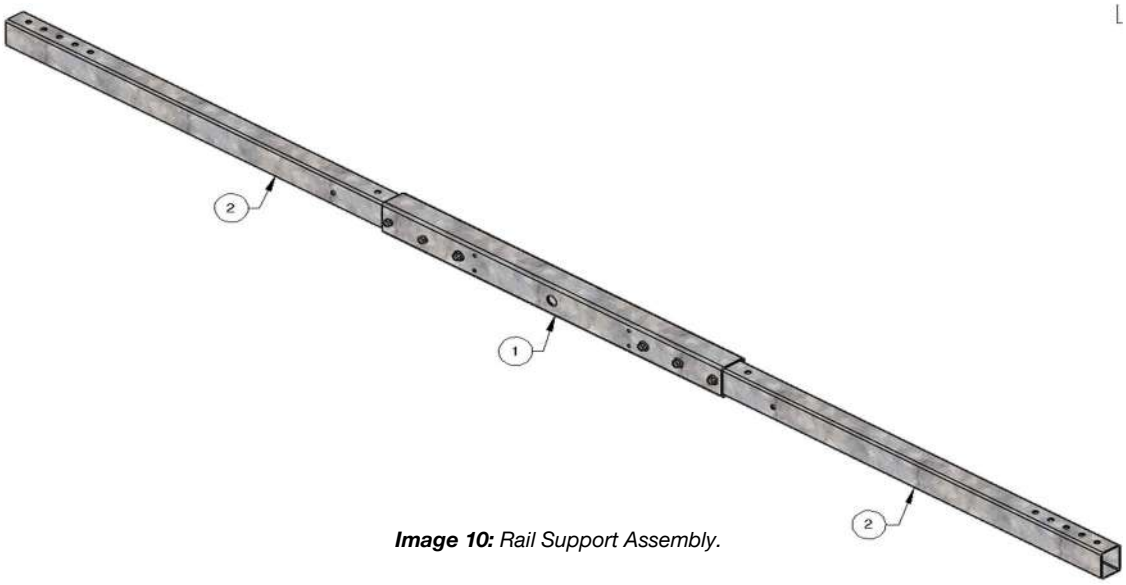


Image 10: *Rail Support Assembly.*

For detailed specifications and measurements, please refer to the **Rail Support** engineering drawing provided in **Appendix 2.**

STEP 4.1: RAIL SUPPORT ASSEMBLY

I. Identify all corresponding structural (Table 4: Item **1 & 2**) components and the hardware included in **Bag G**.

II. Inspect all components for zinc accumulations. If present, carefully clean to ensure proper fit.

- *Note: Only remove excess zinc; maintaining the coating is essential for corrosion resistance.*

III. Insert **Rail Support Arms** into **Rail Support Body**, aligning all three holes. Secure the components using the hardware in **Bag G** (1/2" x 4" Zinc Plated Bolt + Flat Washer + Lock Washer + Hex Locknut).

- *Note: When installing, the bolts must be inserted through the round holes. Ensure the Lock nuts are seated in the hex holes. This will clamp the arms against one side of the body. Refer* to ***Image 12.***
- *Note: Use the lock washer on the bolt-head side.* Refer to ***Image 11.***

IV. Hand-tighten all bolts to allow for alignment adjustments.

V. Insert and hammer two **Slotted Locating Pins (3/8" diameter Slotted Pin)** into the **Rail Support Body**. Repeat for the **Rail Support Arm** on opposite end of the support body**.**

VI. Tighten and torque all bolt connections **(40-50 ft-lb / 65-68 Nm. recommended torque)**.

VII. Repeat for all other **Rail Support Assemblies**.

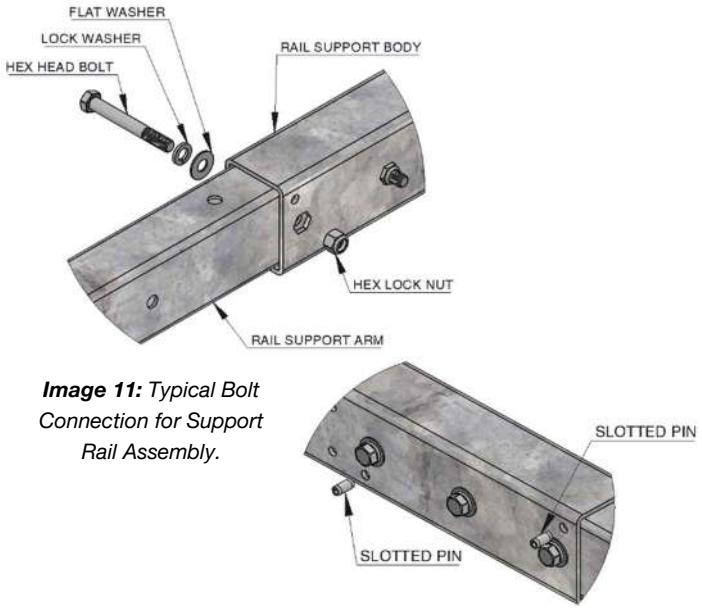


Image 11: *Typical Bolt Connection for Support Rail Assembly.*

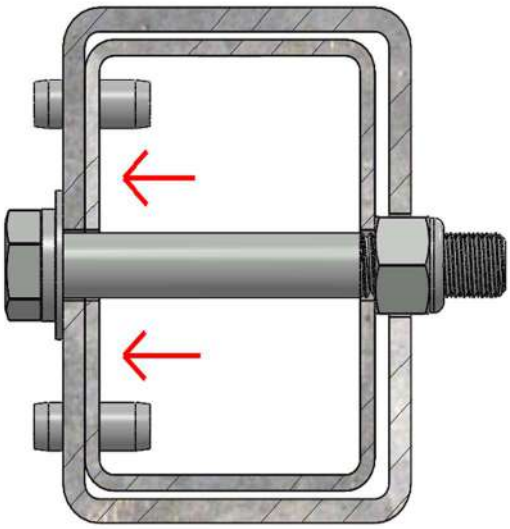


Image 12: *Typical Assembly for Rail Support -Side View.*

STEP 5: RAIL SUPPORT INSTALLATION

I. Retrieve **two Retaining Rings** from Hardware **Bag C**.

II. Install one **Retaining Ring** in the inner groove of the **Pivot Shaft**, use the closest groove to the **A-Frame** as shown in **Image 13**.

III. Lift the **Rail Support** and position it onto the **Pivot Shaft**, aligning the hole in the **Rail Support Assembly** with the shaft. Verify that the nuts seated within the hexagonal cutouts of **the Rail Support Assembly are positioned facing away from the A-Frame,** Refer to **Image 14 & 15**.

IV. Place the **Rail Support** onto **Pivot Shaft** until it contacts the **Retaining Ring**.

V. Install the second **Retaining Ring** onto the groove at the end of the **Pivot Shaft** to secure the **Rail Support Assembly** onto the **A-Frame**. Refer to **Image 14**.

VI. Repeat for all subsequent **Rail Supports**.

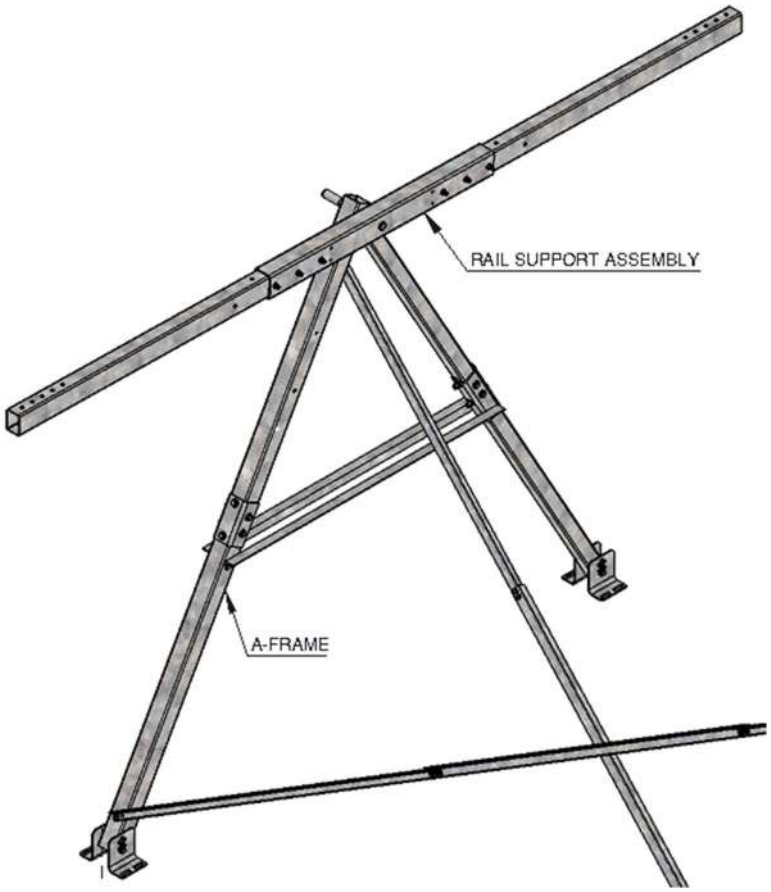


Image 14: *Typical Rail Support Installation.*



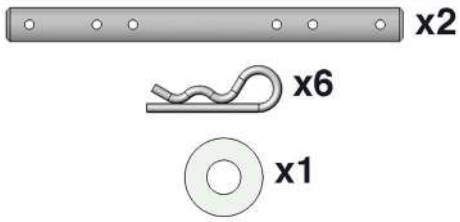
Image 13: *Third Retaining Ring Location.*



Image 15: *Four Retaining Ring Location.*

STEP 6: ADJUSTMENT BAR INSTALLATION

Table 5: Adjustment Bar Components

ITEM	COMPONENT	DESCRIPTION	QTY.
BAG H		POSITIONING PIN ½" DIAMETER COTTER PIN 3/32" DIA. X 1 5/8" LENGTH 1/2" FLAT WASHER	1

I. Identify **Positioning Pins (1/2" diameter pins)** and hardware In **Bag H**.

II. Insert the **Positioning Pins** into the holes located at the **A-Frame Upper Back** Section and the **Rail Support Arm.** Refer to **Image 16**.

III. Secure each **Positioning Pin** by installing a **1/2" Cotter Pin** on both sides of the structural members to lock it in place.

- *Note: Select the appropriate set of holes in the Positioning Pin. Refer to **Image 17.***

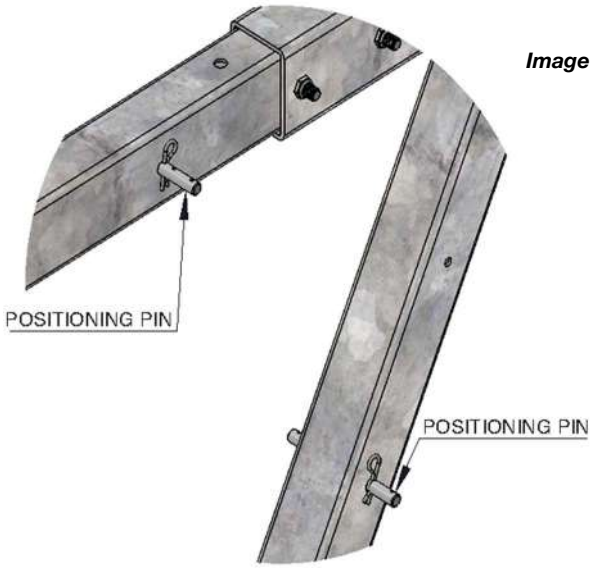


Image 16: *Typical Positioning Pins Location.*

IV. The **Adjustment Bar** (numbers down) is to be positioned between the **A-Frame** and the **Rail Support**; on the inside of the **A-Frame** and on the outside of the **Rail Support Assembly**. Refer to **Image 18**.

V. Once the **Positioning Pin** is properly installed onto the **Rail Support Assembly**, place the **Adjustment Bar,** add a **1/2" flat washer** and lock into place with a cotter pin.

VI. Place the **Adjustment Bar** onto the A-Frame **Positioning Pin,** set at 60° and insert the Cotter Pin to lock the assembly in place.

VII. Repeat **Steps 6.I to 6.VI** with all subsequent **Adjustment Bars**.

- *Note: If you use three or more A-Frames, the interior **A-Frame(s)** will require **two Adjustment Bars— one on each side.***

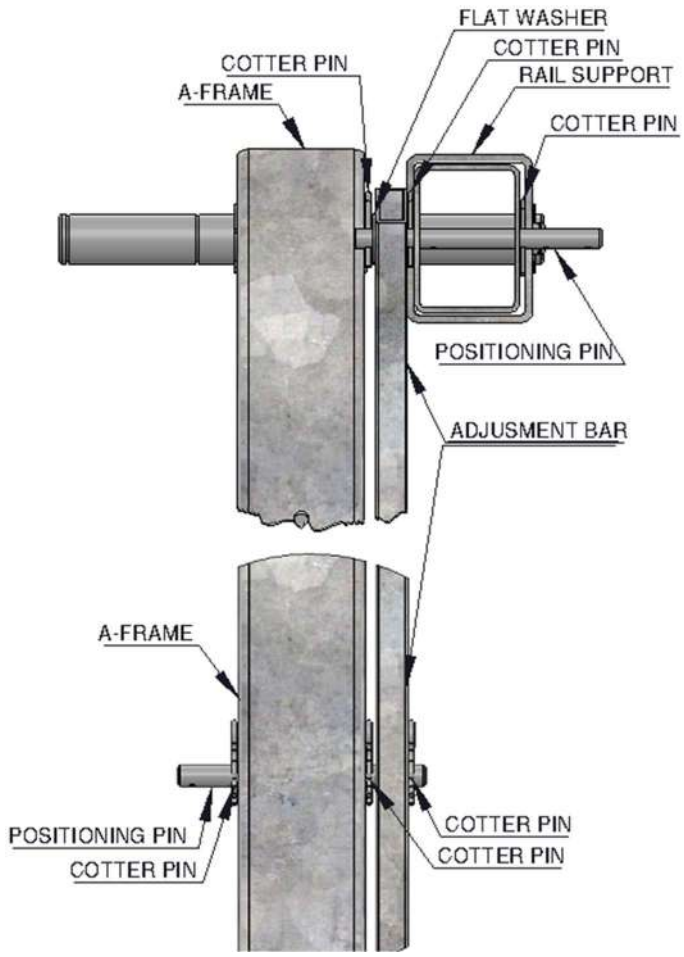


Image 17: *Typical Adjustment Bar installation – Side View*



Image 18: *Typical Adjustment Bar Installation*

STEP 7: DAMPER INSTALLATION

Table 6: Damper Components

ITEM	COMPONENT	DESCRIPTION	QTY.
BAG I	 x2  x6	DAMPER PIN 5/16” DIAMETER COTTER PIN 0.062” DIA. X 1 5/16” LENGTH	1

I. Identify **Damper Pins (5/16” diameter pins)** and hardware In **Bag I**.

II. Insert the **5/16” Damper Pins** into the holes located at the **A-Frame Upper Back Section** and the **Rail Support Assembly**, and center them into the structural members. ***Use the bottom hole when inserting the Damper Pins into the Rail Support Assembly***. Secure each **Damper Pin** by installing a **5/16” Cotter Pin** on both sides of the structural members to lock it in place. Refer to **Image 19**.



Image 19: *Typical Damper Pin Location*



Image 20: *Typical Damper Installation.*

III. Place the Damper onto the pins. Once placed, install an additional **5/16” Cotter Pin** to lock the assembly.

- ***Note:*** *Install the damper so that the* ***piston rod points downward*** *and attaches to the* ***A-Frame****, while the* ***cylinder attaches*** *to the* ***Rail Support Assembly.***

IV. Verify that the Damper is positioned between the A-Frame and the Rail Support.

V. Repeat with all **subsequent Dampers**, **Step 7.I to 7.IV**

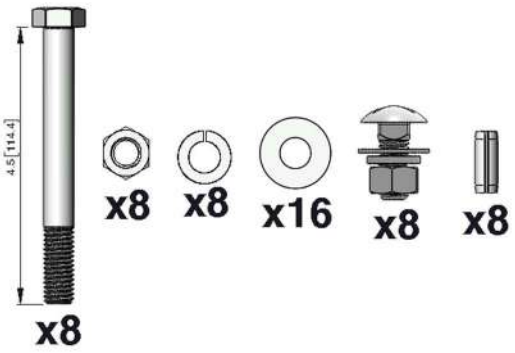
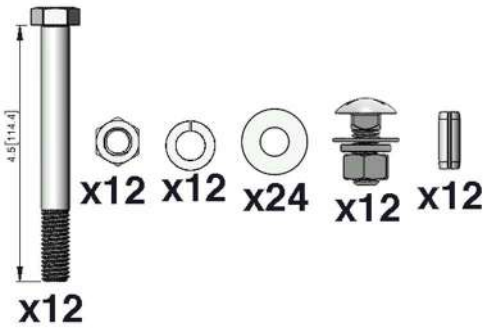
- ***Note:*** *For configurations using three or more* ***A- Frames,*** *the intermediate* ***A-Frame(s)*** *will require two* ***Dampers****—one on each side of the* ***A-Frame.***

STEP 8: KLEIN RAIL ASSEMBLY – COMPONENTS CHART

Each Klein Rail consists of the following items:

Table 7: Klein Rail Components

ITEM	COMPONENT	DESCRIPTION	QTY.
1		KLEIN END SECTION APPROX. 57“LONG	2
2		KLEIN CENTER SECTION APPROX. 57” LONG	1
3		KLEIN EXTENSION SECTION APPROX. 38” LONG ***(APPLIES TO 8 & 8C RAILS)***	***REFER TO IMAGE 21 & 22***
4		KLEIN U-BRACKET	***REFER TO IMAGE 21 & 22***
5		10.85” DECKEL RAIL SECTION	***REFER TO IMAGE 28, 29, 30***
6		25.3” DECKEL RAIL SECTION	***REFER TO IMAGE 28, 29, 30***

BAG **J-6**		ZINC PLATED HEX HEAD BOLT 1/2”-13 X 4.5” ZINC PLATED HEX NUT. ZINC PLATED LOCK WASHER. ZINC PLATED FLAT WASHER. PREASSEMBLED ZINC PLATED CARRIAGE BOLT 1/2”-13 X 1.25” SET COILED SPRING PIN 3/8” X 1”	***REFER TO IMAGE 21 & 22***
BAG **J-8**		ZINC PLATED HEX HEAD BOLT 1/2”-13 X 4.5” ZINC PLATED HEX NUT. ZINC PLATED LOCK WASHER. ZINC PLATED FLAT WASHER. PREASSEMBLED ZINC PLATED CARRIAGE BOLT 1/2”-13 X 1.25” SET COILED SPRING PIN 3/8” X 1”	***REFER TO IMAGE 21 & 22***
BAG **K-6**		ZINC PLATED SELF DRILLING SCREW 5/16” X ¾”	***REFER TO IMAGE 28, 29, 30***
BAG **K-8**		ZINC PLATED SELF DRILLING SCREW 5/16” X ¾”	***REFER TO IMAGE 28, 29, 30***

STEP 8.1: KLEIN RAIL ASSEMBLY

Depending on the **K3AGM configuration** being assembled, you might need to assemble **two different Klein Rail lengths — identified as either 6-module or 8-module lengths.** For detailed specifications and measurements, please refer to the Klein Rail engineering drawings provided in **Appendix 3 to 5**.

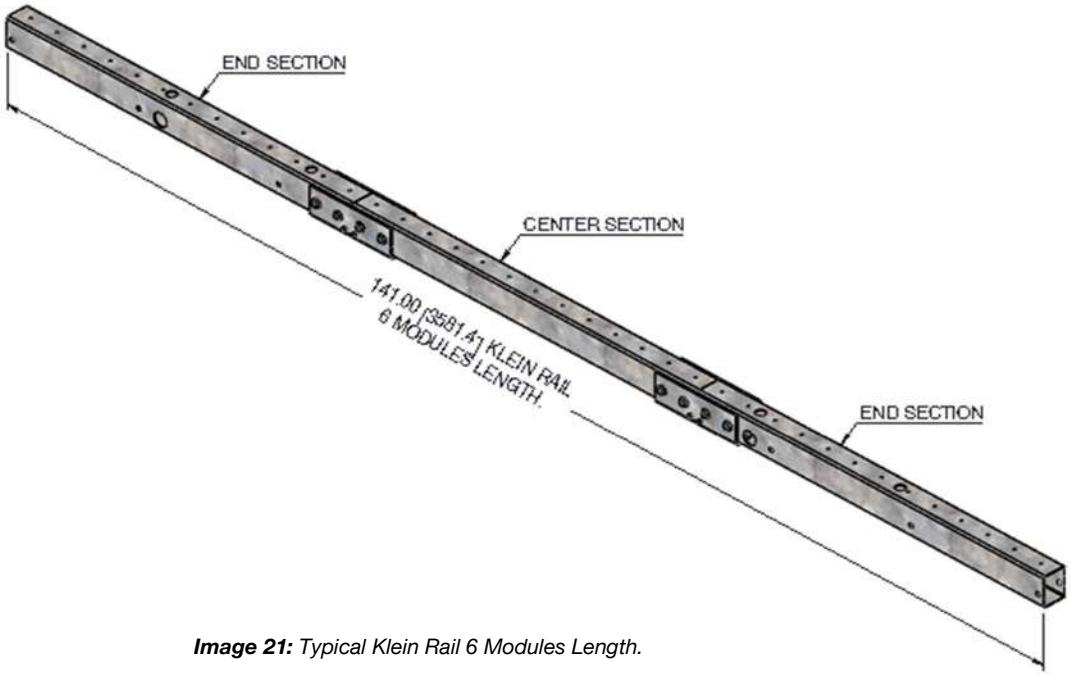


Image 21: *Typical Klein Rail 6 Modules Length.*

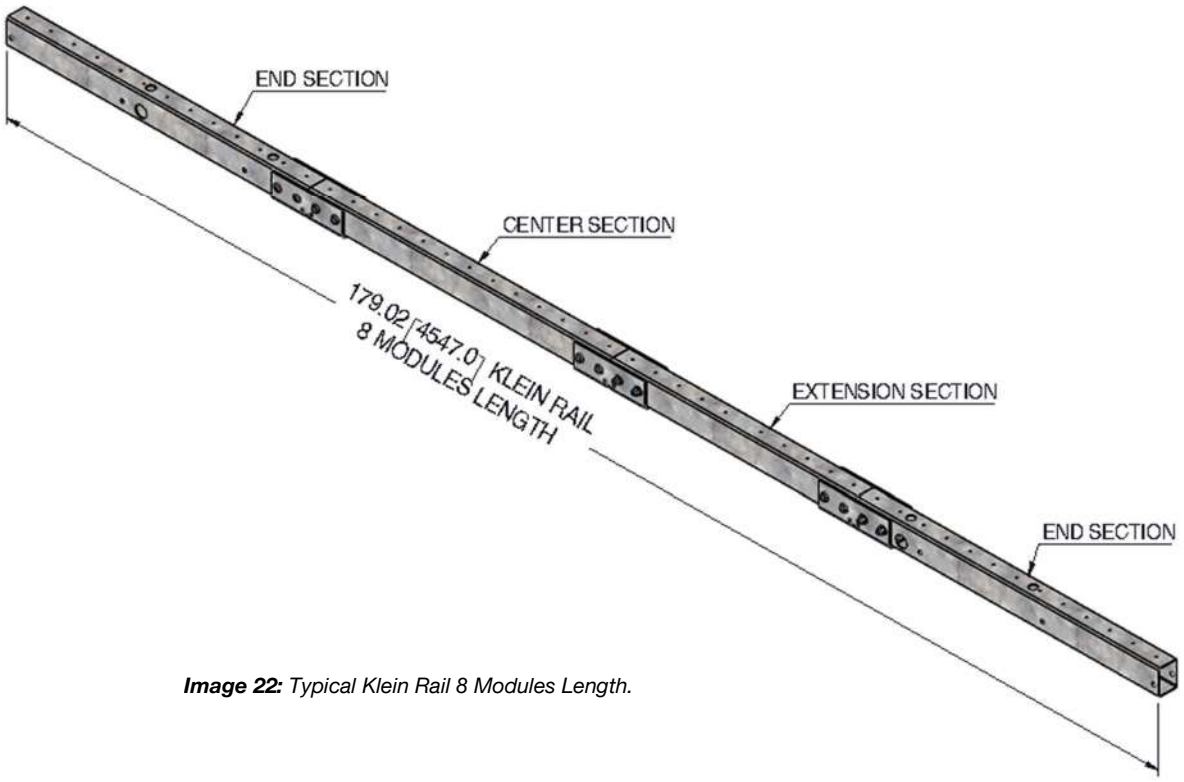


Image 22: *Typical Klein Rail 8 Modules Length.*

STEP 8.2: KLEIN RAIL U-BRACKET ASSEMBLY

I. Identify whether you are assembling the **6-module or 8-module Klein Rail** configuration.

II. Gather the structural members (Table 7: Item **1 to 4**) and the hardware included in **Bag J-6** or **Bag J-8**, depending on the selected configuration.

III. Inspect all components for zinc accumulations. If present, carefully clean to ensure proper fit.

- *Note: Only remove excess zinc; maintaining the coating is essential for corrosion resistance.*

IV. Lay all **Klein Rail End Sections** and **Center Sections** on a flat surface with the slots facing up. Align the sections end to end and join them using the **U-Bracket**. Refer to **Image 23**.

V. Insert the **Preassembled Carriage Bolts** into the center hole and slide them to the ends of the slot. Hand-tighten and repeat for all **Carriage Bolts** in the **Klein U-Bracket**. Refer to **Image 23**.

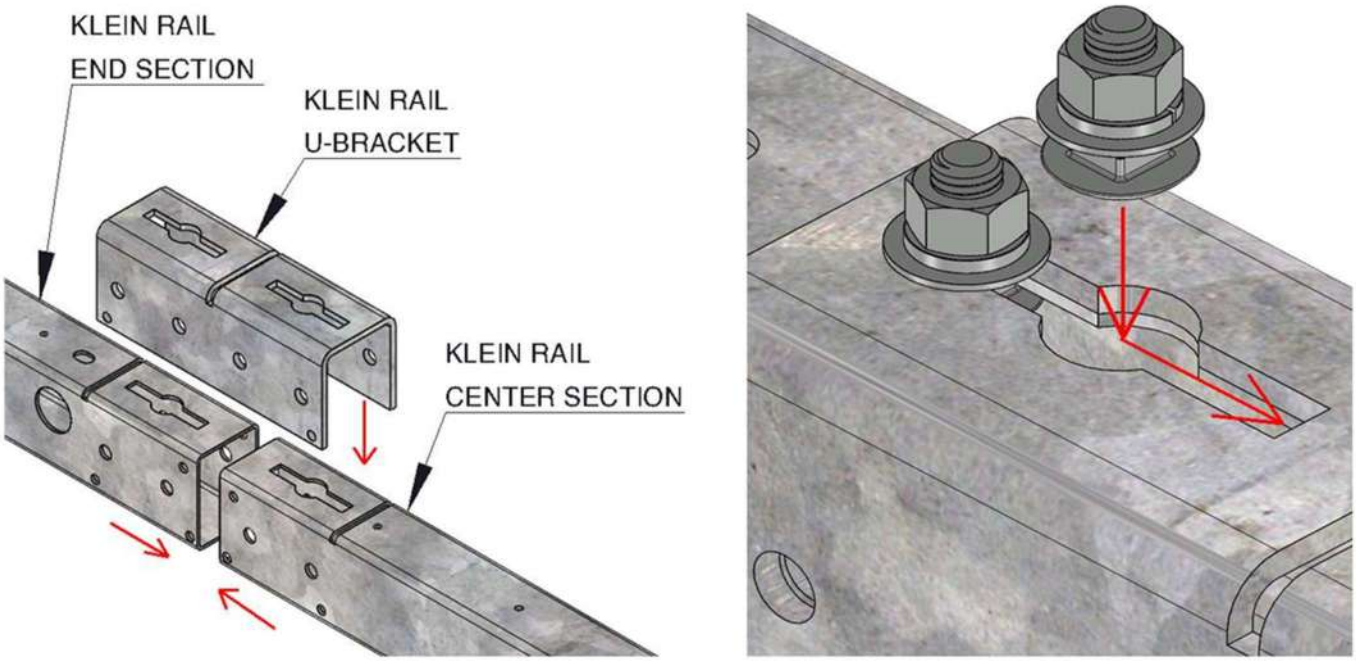


Image 23: *Typical Carriage Bolt Assembly.*

VI. Insert and hand-tighten all bolts (1/2” x 4.5” zinc-plated bolt, flat washers, lock washer, and hex nut). Refer to **Image 24**.

VII. Insert and hammer **four Locating Pins (3/8” diameter Slotted Pin)** into the **Klein U-Bracket**.

VIII. Repeat **steps 8.1. I to 8.1.VII** from all remaining **Klein U-Brackets**.

IX. Verify Flatness and proper alignment; **then starting with the carriage bolts to ensure the rail flatness,** tighten and torque all bolt connections **(40-50 ft-lb / 65-68 Nm. recommended torque)**.

X. Repeat **steps 8.1.IV to 8.1.IX** for all other **Klein Rail Assemblies**.

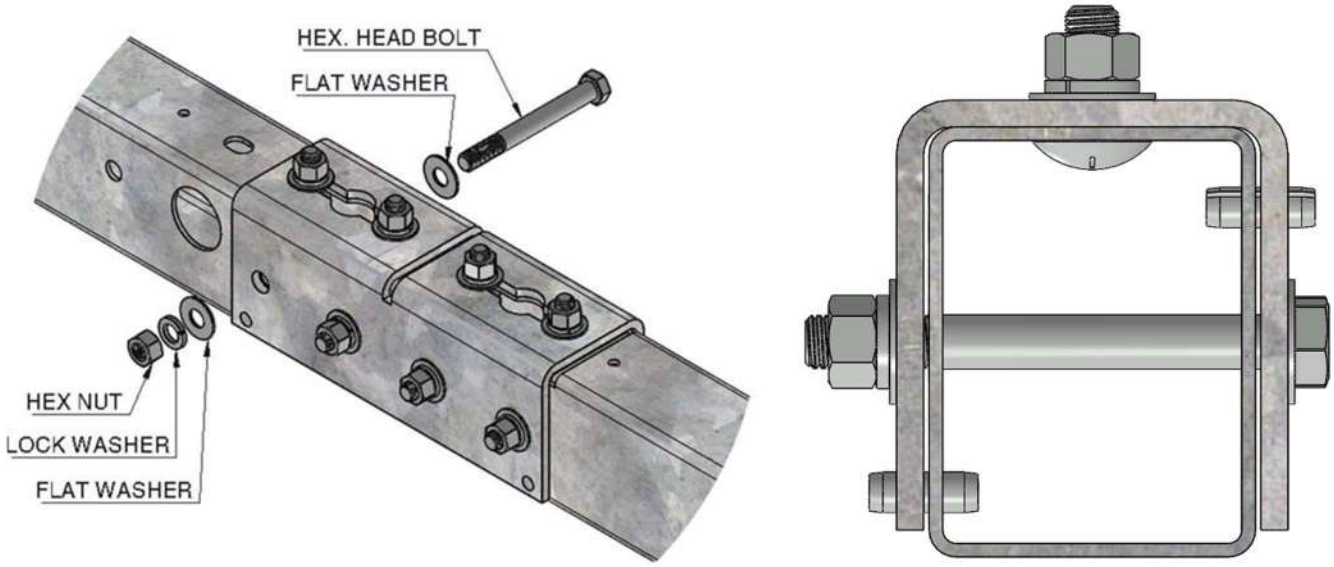


Image 24: *Typical Lateral Bolt Assembly.*

Note: *The procedure for assembling the* ***6 Module*** *and the* ***8 Module Klein Rail*** *is similar, with the exception that the* ***8 module Klein Rail*** *includes an additional component, the* ***Klein Rail Extension Section (See Table 7 and Image 22)***.

STEP 8.3: DECKEL RAIL ASSEMBLY

> ***Notes:***
> *The **Deckel Rail location** will depend on the module's width, the position of Deckel Rail in this installation guide are based on a solar module with a width of **44.64 in (1134 mm)**.*

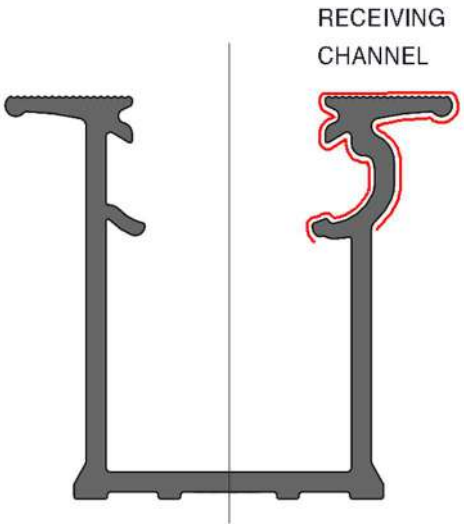


Image 25: *Deckel Rail – Side View*

I. Identify **Deckel Rail sections** (Table 7: Item **5 & 6**) and the hardware included in **Bag K-6** or **K-8**. Depending on the selected configuration.

II. Flip the **Klein Rail** leaving the carriage bolts facing downward.

III. Place the **Deckel Rail** on top of the **Klein Rail**. Starting from left to right; Take measurements according to the required configuration. Use the pilot holes to align the **Deckel Rail**.

IV. Install the **5/16" x 3/4" Self-tapping Bolts** to attach the **Deckel Rail** to the **Klein Rail**.

V. Ensure all **Deckel Rails** are positioned in the same orientation. All receiving channels must be facing the same direction. Refer to **Image 26 & 27**.

VI. Repeat for all other **Deckel Rail** as needed.



Image 26: *Deckel Rail Assembly.*

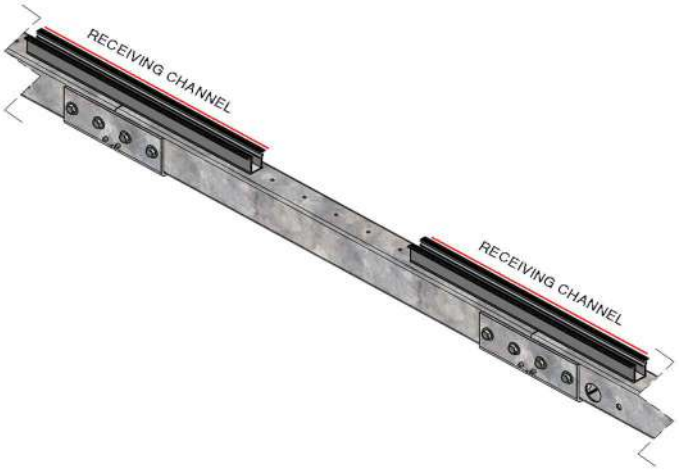


Image 27: *Deckel Rail Orientation Detail*

The following images illustrate the **Deckel Rail** positioning when using **a solar module with a width of 44.64” (1134 mm)**.

- ***Note:*** *For modules with different widths, the* ***Deckel Rail position may vary.*** *Adjust the spacing accordingly to ensure proper clamping and alignment.*

6 Module Klein Rail + Deckel Rail

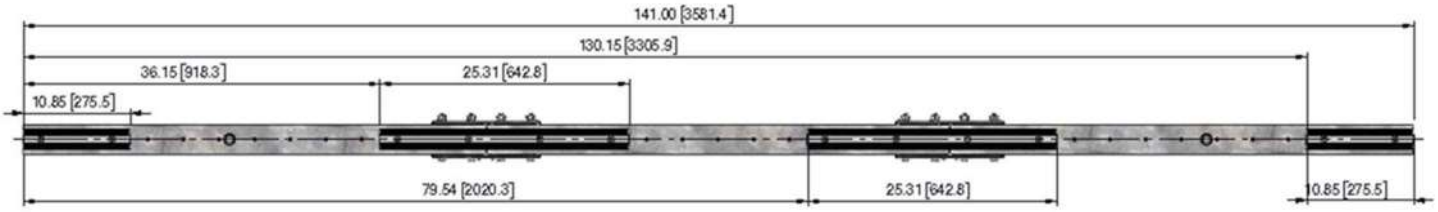


Image 28: *6 Module Klein Rail – Deckel Rail Location – Top view*

8 Module Klein Rail + Deckel Rail

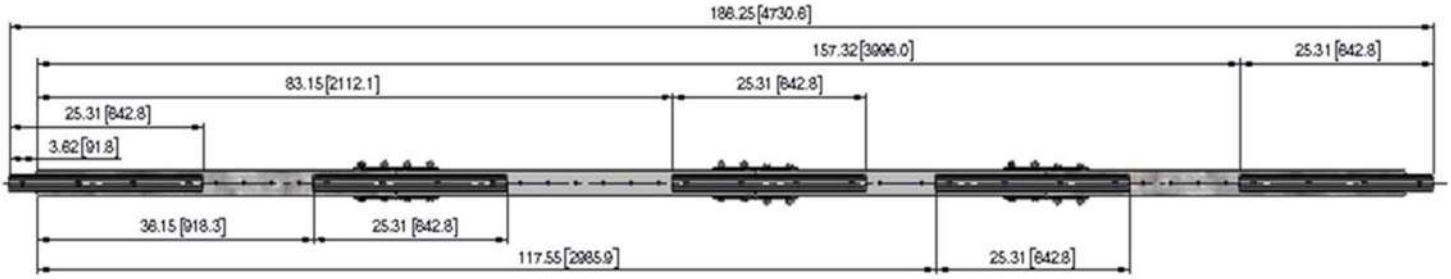


Image 29: *8 Module Klein Rail – Deckel Rail Location – Top view*

Use the following Klein Rail template when you have an eight-module configuration with the modules centered between the Rails Supports

8C Module Klein Rail + Deckel Rail

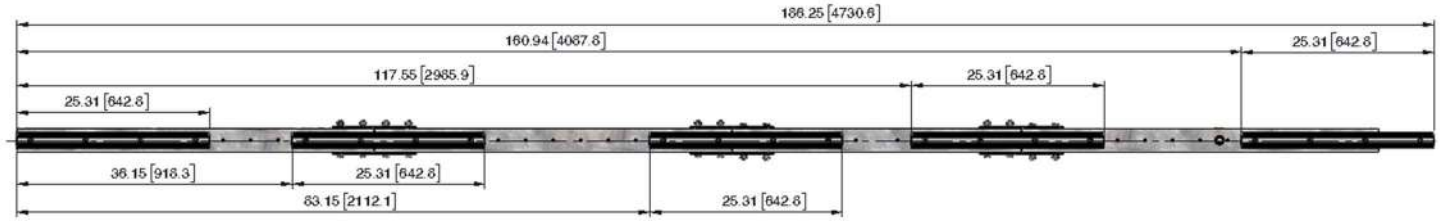


Image 30: *8C Module Klein Rail – Deckel Rail Location – Top view*

Use the following Klein Rail template for installations consisting of eight-module configuration with a cantilevered layout, where the modules are shifted to one side between the Rail Supports.

STEP 9: KLEIN RAIL INSTALLATION

Before installing the **Klein Rails**, make sure you identify the correct **module clamping zone**. This will help you select the right hole for positioning the rail. Use the dimensions shown in **Image 31** as a reference for proper placement. The two inner rails remain **fixed vertically (Y axis)** regardless of panel size while the upper and lower rails adjust **vertically (Y axis)** to fit the panel size. All rails are positioned **horizontally (X Axis**) based on array configuration.

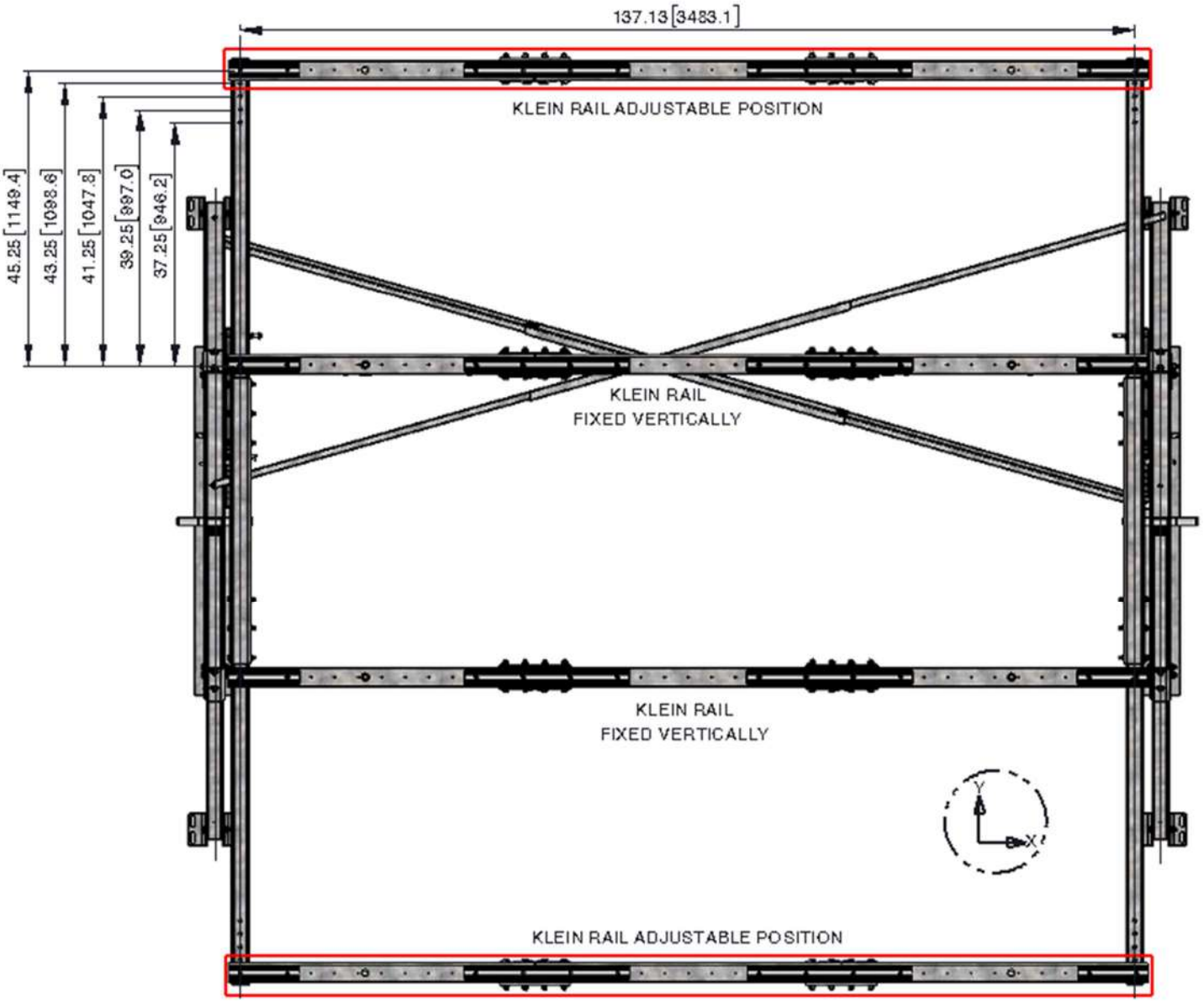


Image 31: *Klein Rail Clamping Zone Adjustment – Top View. – 6 Modules Klein Rail Shown*

To install a **Klein Rail** for a **6-Module configuration**, use the slots located closest to the end of the rail. Refer to **Image 32**.

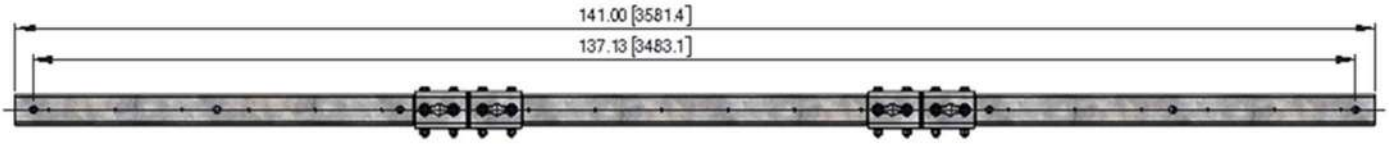


Image 32: *6 Modules Klein Rail Mounting Holes – Bottom View.*

To install a **Klein Rail (8 panel configuration)** use the slots named mounting holes **Type B**.

To install a **Klein Rail (8 panel configuration – Cantilever)** use the slots named mounting hole **Type A**.

Refer to **Image 33**.

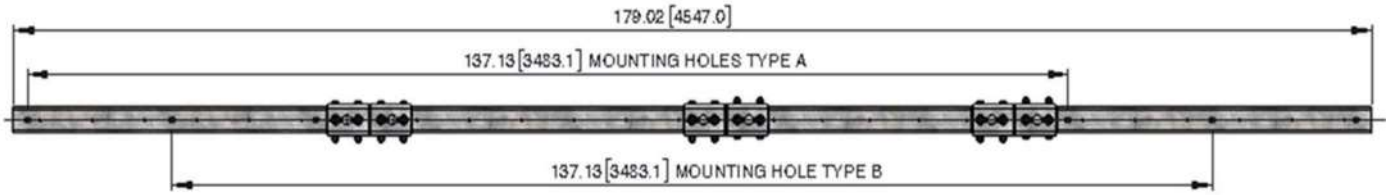
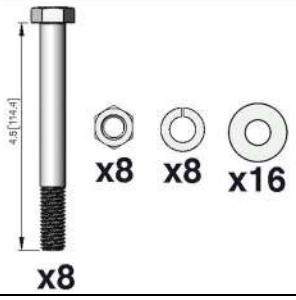


Image 33: *8 Modules Klein Rail Mounting Holes – Bottom View.*

STEP 9.1: 6 MODULE KLEIN RAIL INSTALLATION

Table 8: Klein Rail Installation Hardware.

ITEM	COMPONENT	DESCRIPTION	QTY.
BAG **L**		ZINC PLATED HEX HEAD BOLT ½”-13 X 4.5” ZINC PLATED HEX NUT. ZINC PLATED LOCK WASHER. ZINC PLATED FLAT WASHER.	1

I. Identify the hardware in **Bag L**.

II. Before Lifting the **Klein Rail,** verify the panel sizes and the green clamping zone. Based on those figures, select the appropriate hole for installation.

III. Lift the **6 Module Klein Rail** and rest it on the **Rail Support Arms**.

IV. Insert and hand-tighten bolts (1/2”x 4.5” Zinc Plated Bolt + Flat Washer + Lock Washer + Hex Nut).

V. Repeat steps **9.1. I to 9.1.IV** for all remaining **Klein Rail installations**.

VI. Once all rails are installed, verify the alignment and fully tighten all bolts using the **recommended torque of 40–50 ft-lb (54–68 Nm)**.



Image 34: *Typical 6 Modules Klein Rail Installation*

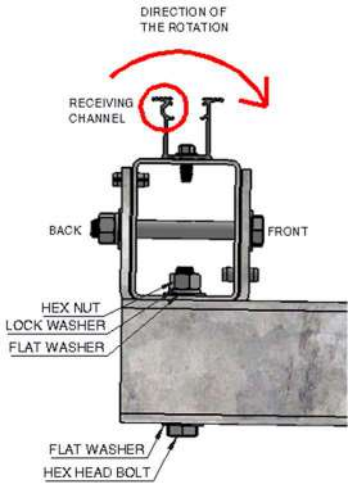


Image 35*: Typical Klein Rail Orientation*

Note: All rails must be installed following the orientation shown in the Image 34 & 35.

STEP 9.2: 8 OR 8C MODULES KLEIN RAIL INSTALLATION

I. Identify the hardware in **Bag L**.

II. Before Lifting the **Klein Rail**, verify the panel sizes and the green clamping zone. Based on those figures, select the appropriate hole for installation.

III. Lift the **8/8C Module Klein Rail** and rest it on the **Rail Support Arms**.

IV. Insert the hex bolt from the **Rail Support Bottom** and use the holes on the Rail side to insert the flat washer, lock washer and the hex nut and hand-tight bolts (1/2”x 4.5” Zinc Plated Bolt + Flat Washer + Lock Washer + Hex Nut). Refer to **Image 38**.

V. Repeat steps **9.2.I to 9.2.IV** for all remaining **Klein Rail installations**.

VI. Once all rails are installed, verify the alignment and fully tighten all bolts using the **recommended torque of 40–50 ft-lb (54–68 Nm)**.

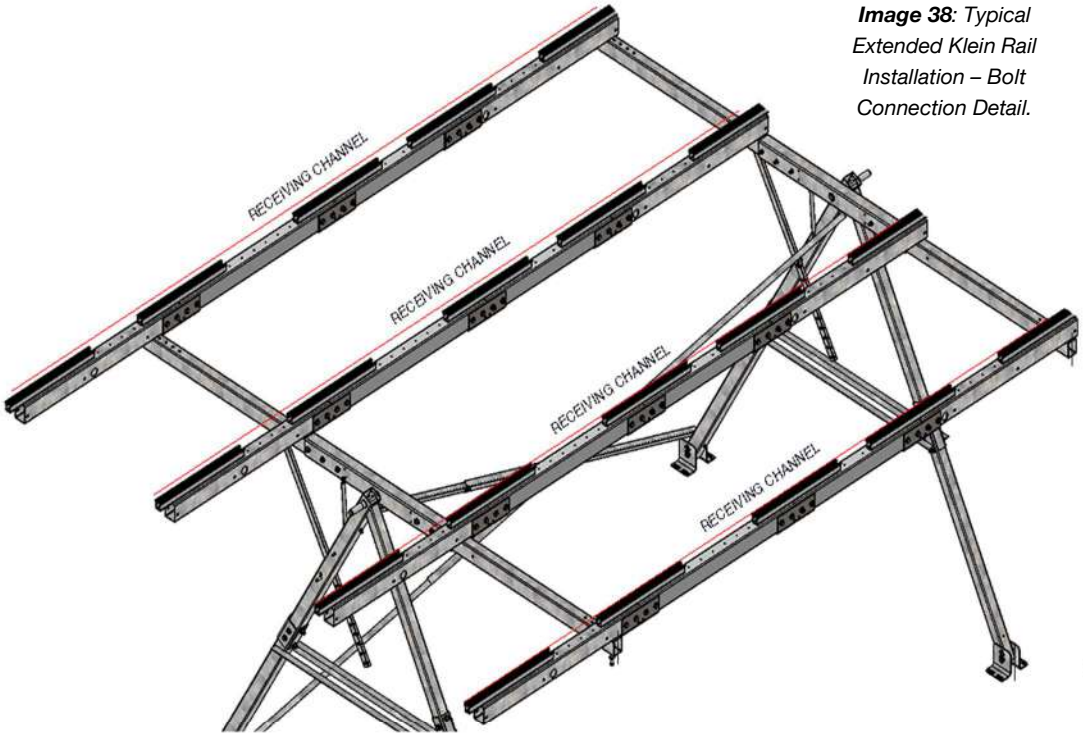
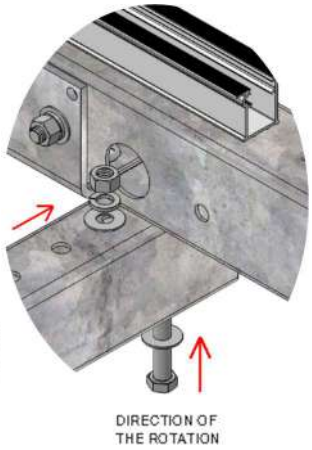


Image 36: *Typical 8 Modules Klein Rail Installation – 8C Left Configuration Shown*

Note: All rails must be installed following the orientation shown in the Image 36 & 37.

Image 38*: Typical Extended Klein Rail Installation – Bolt Connection Detail.*



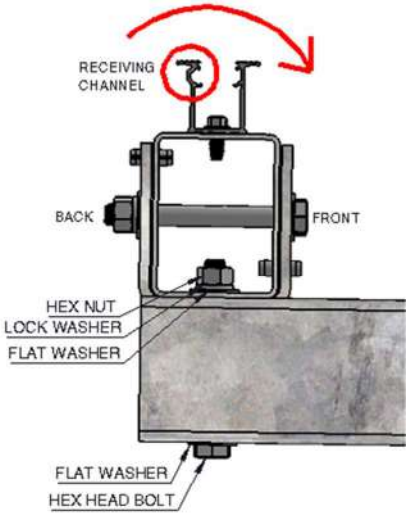


Image 37*: Typical Klein Rail Orientation*

STEP 10: ADJUSTING TILT ANGLE

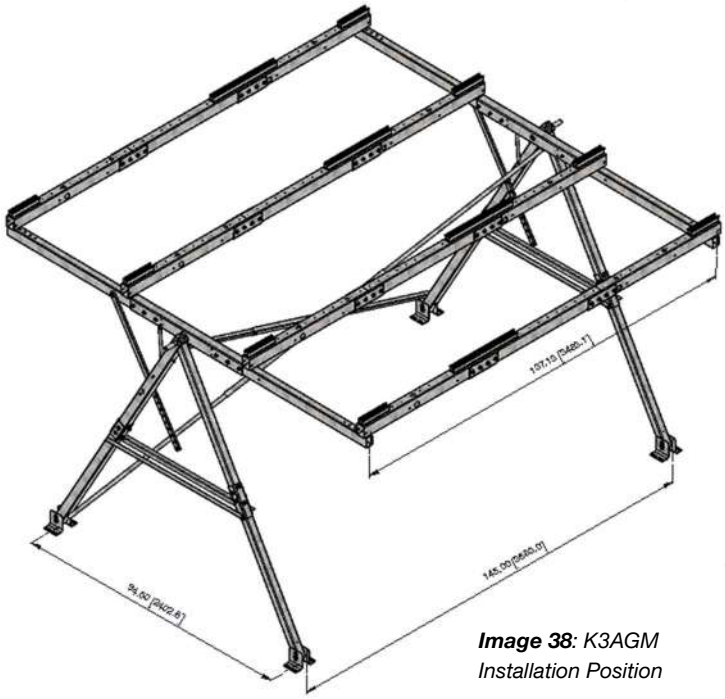


***Image 38**: K3AGM Installation Position*

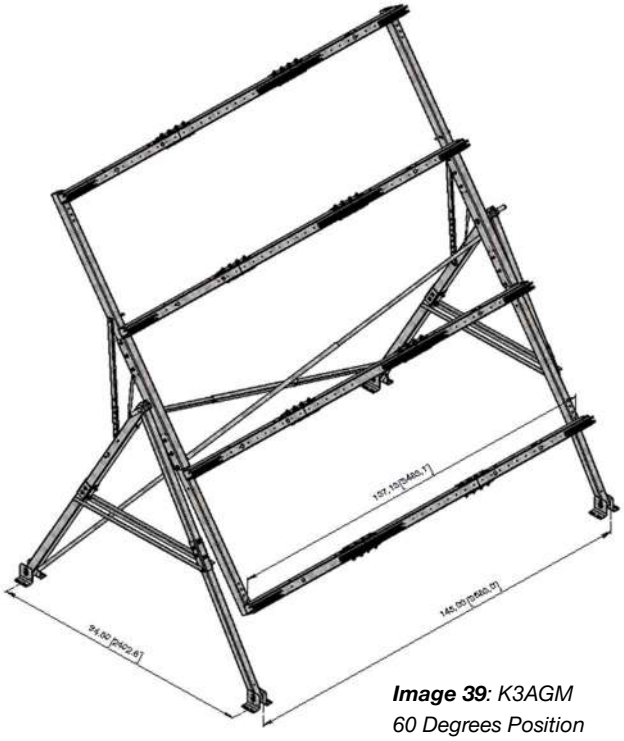


***Image 39**: K3AGM 60 Degrees Position*

I. Remove the **cotter pins** from the **Lower Positioning Pin** on both A-Frames.

II. Slide the **Adjustment Bar** off the **Positioning Pin.**

III. Tilt to desired angle (0°,10°,15°,20°,25°,30°,35°,40°,50°,60°).

IV. Place the **Adjustment Bar** back onto the **Positioning Pin** in the corresponding hole.

V. Insert the **cotter pin** back into the **Positioning Pin** to lock the assembly.

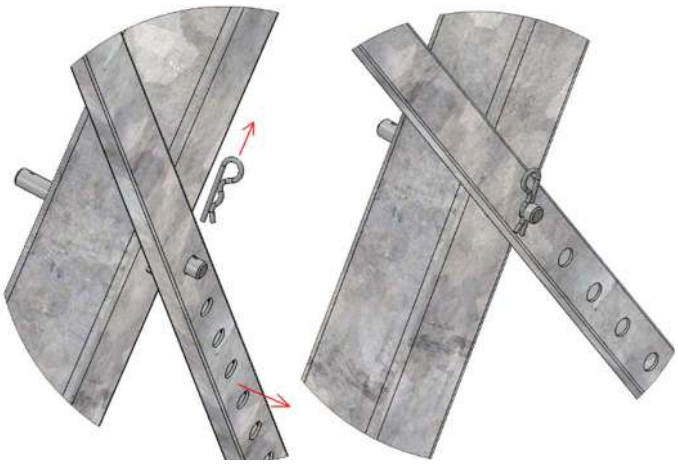


***Image 40:** Typical Tilt Angle Adjustment.*

> ***Warning.***
>
> *Make sure you have at least two adult people to tilt the assembly. Wind may exert large forces on the array. Only change the tilt of the array when there is little to no wind. Hardhats are strongly recommended.*
>
> *During winter season, the mount should ideally be adjusted to a tilt angle of 60 degrees.*

STEP 11: MID/END CLAMP INSTALLATION

I. Position and hold the first module onto the rails.

II. At a 30° angle insert the clamp assembly with the clamp held at the top of the bolt. Ensure that the K-Nut is positioned at the lowest point on the bolt so that there is clearance to pivot the clamp into an upright position.

III. Rotate into position so that the entirety of the K-Nut is inside the top rail channel.

IV. Drop it into place. The inserted component should sit in place and freely slide along the inside of the rail's top channel.

V. Check to ensure that the grooves on the K-Nut are properly seated in the rail's receiving channel during tightening.

VI. Repeat steps as required for the remaining modules.

VII. Torque all **Mid-Clamps and End-Clamps to 12 ft-lb. (16.3 Nm)**.

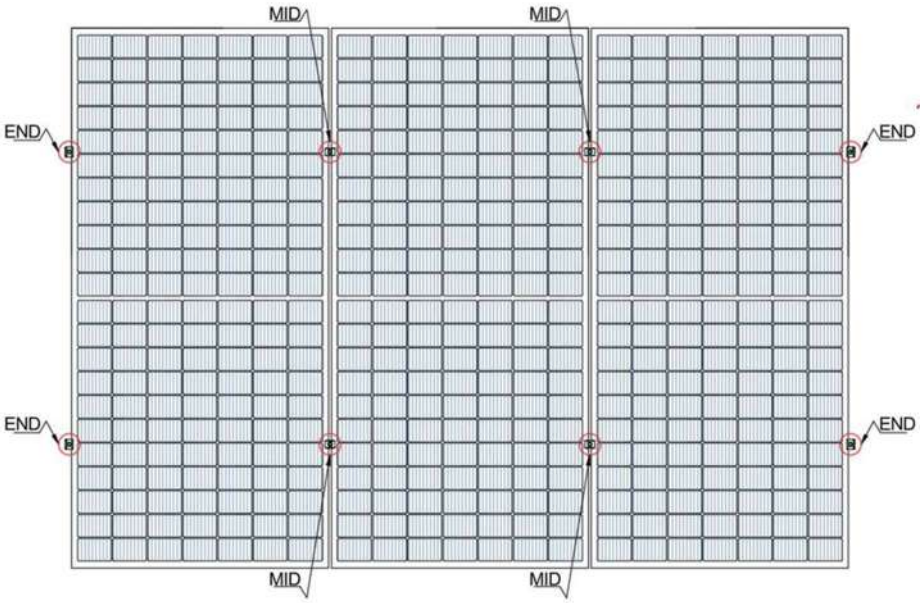


Image 41: *Typical End and Middle Clamps Location. Three Portrait Configuration Shown.*

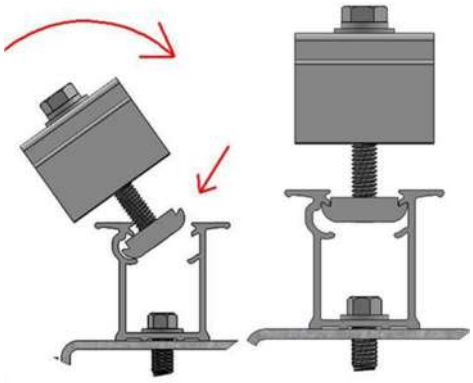
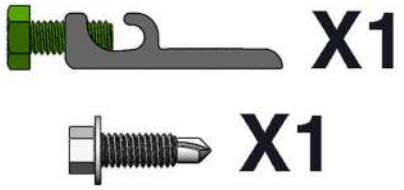


Image 42: *Typical End and Middle Clamps Installation- End Clamp Show.*

STEP 12: GROUNDING GUIDELINES.

Table 9: Grounding Lug Components.

ITEM	COMPONENT	DESCRIPTION	QTY.
BOX **M**		GROUNDING LUG SET ZINC PLATED 5/16” X 3/4” SELF DRILLING SCREW	1

Grounding can be achieved using a **Kinetic Grounding Lug** attached to **Deckel Rail**. The Kinetic **Grounding Lug** includes grounding lug and one green grounding hex. bolt - One **Grounding Lug** is required per array.

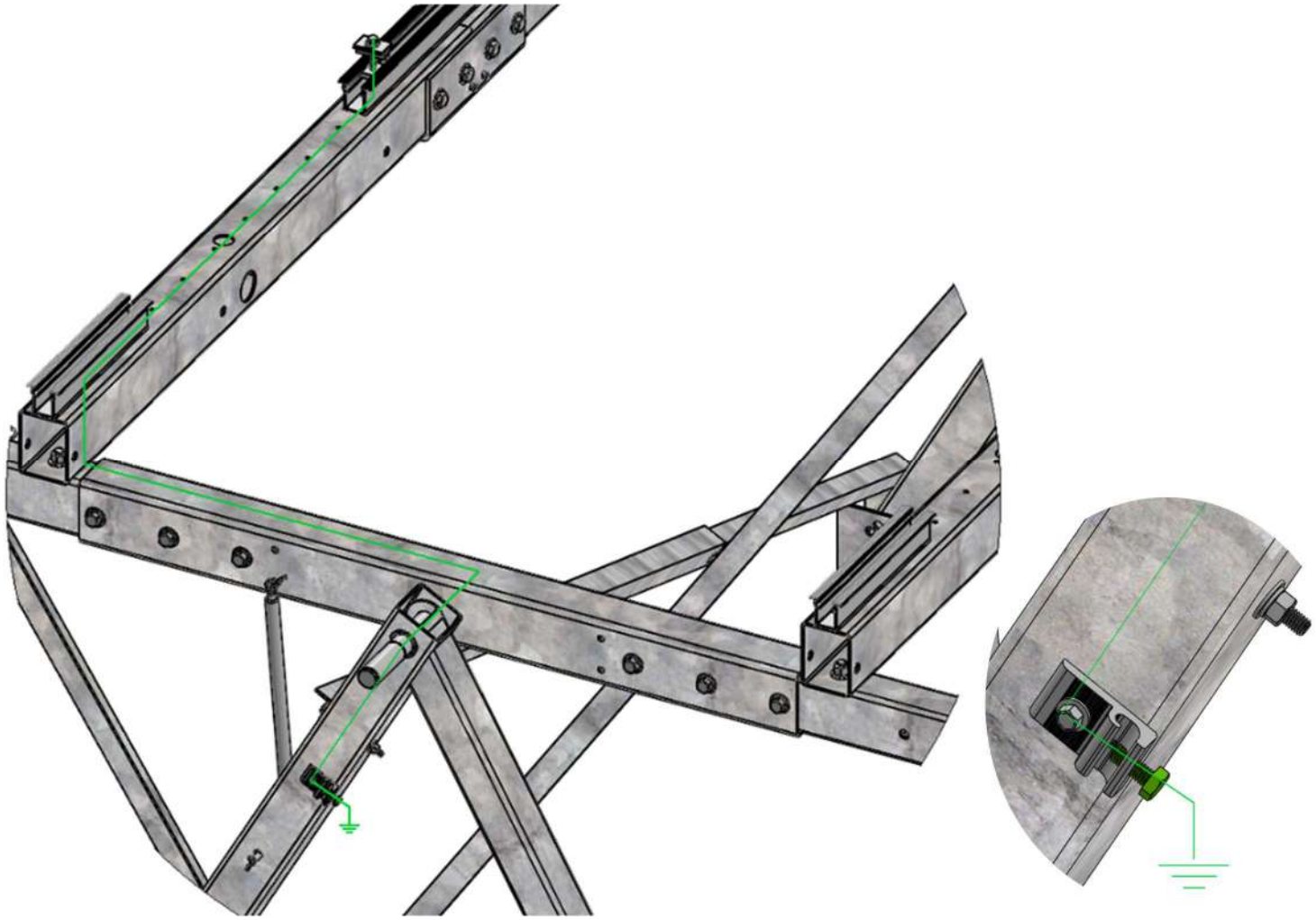


Image 43: *Typical Ground Lug Installation.*

STEP 13: MESH INSTALLATION (*OPTIONAL / SOLD SEPARATELY*)

Table 10: Mesh Components

ITEM	COMPONENT	DESCRIPTION	QTY.
BOX **N**	 **x150**	ZINC PLATED SELF TAPPING SCREW 5/16" X ¾" (BOX FOR 100 FEET LENGTH MESH)	1

The standard mesh size is 48 inches (1219.2 mm) in width and can be cut to the desired length.

I. Measure the required length from the **bottom edge of the bottom rail** to the **top edge of the top rail**. Cut **three strips** to cover the total width of the array.
Install the strips on the **underside of the rails** — one at each **end** (top and bottom) and the **third strip in the center**, ensuring approximately **1.5" per overlap** for proper coverage.

II. Identify the hardware (sold with the mesh).

III. Using the pilot holes located underneath the **Klein Rail,** install the **5/16" x 3/4" self-tapping screws** with a power tool to securely fasten the mesh to the rail.

IV. Repeat the process for all remaining sections of Mesh as required.

- ***Note:*** *The Mesh is not included and must be purchased separately.*

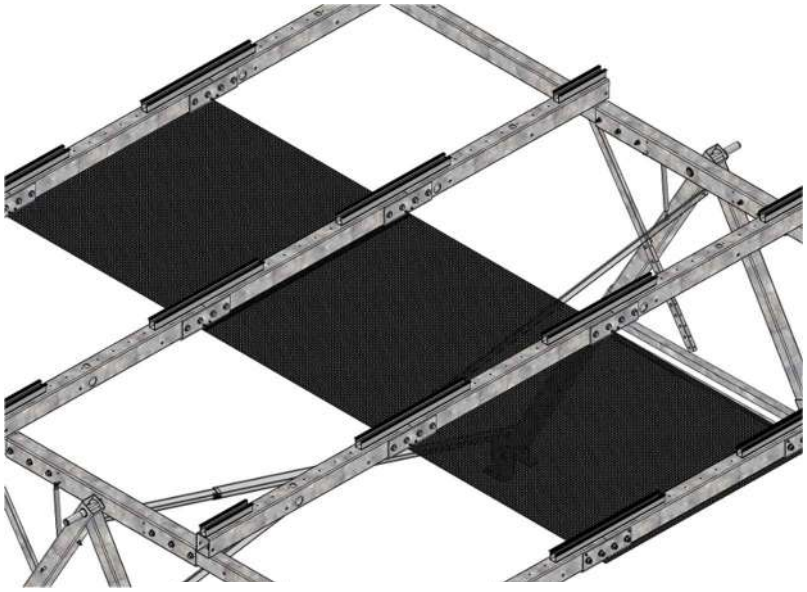


Image 44: *Typical Mesh Location*

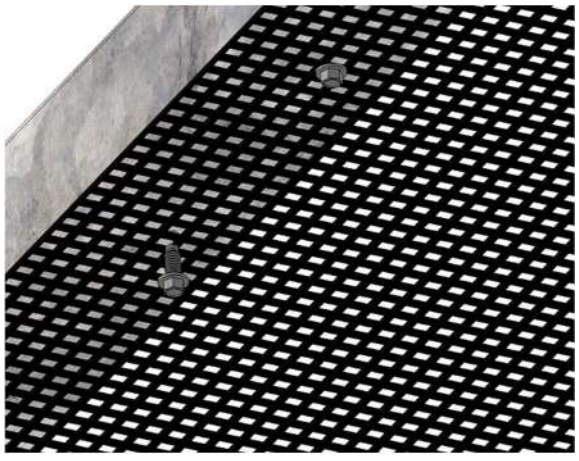


Image 45: *Typical Mesh Installation*

ABOUT US

Kinetic Solar is a North America-based manufacturer with 45+ years of experience.

Our signature K-Rack™ product line is recognized within the industry for its ease of installation, superior quality, and useful features. Kinetic Solar is the trusted choice for any solar system.

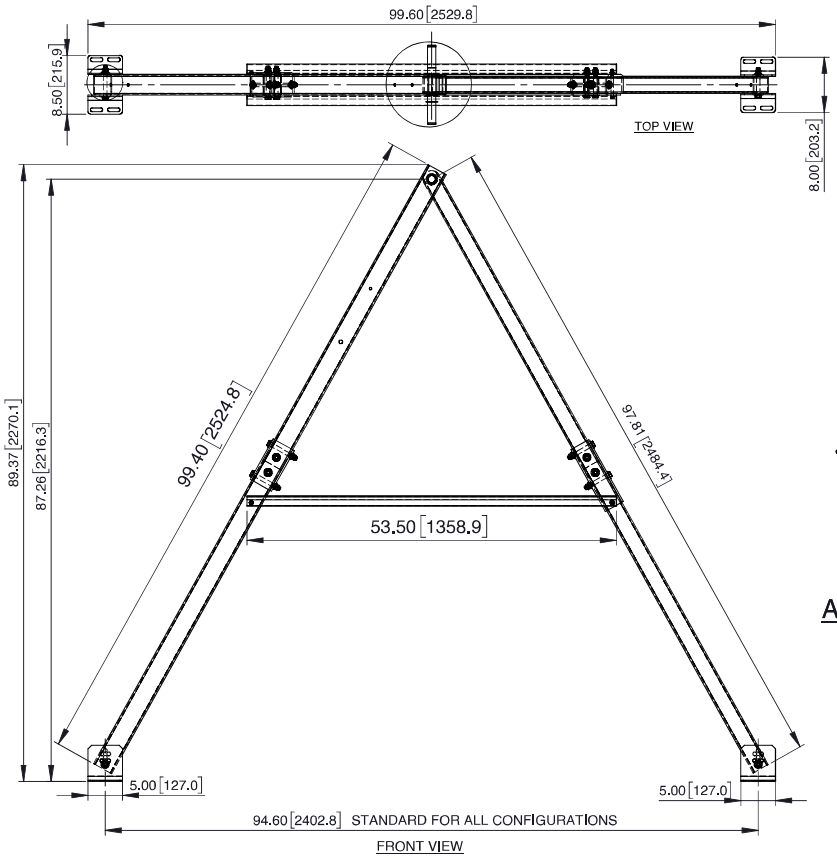
The Specifications and key features contained in this manual may deviate slightly from our actual products due to ongoing innovation and product enhancement. Kinetic Solar reserves the right to make necessary adjustments to the information described here at any time.

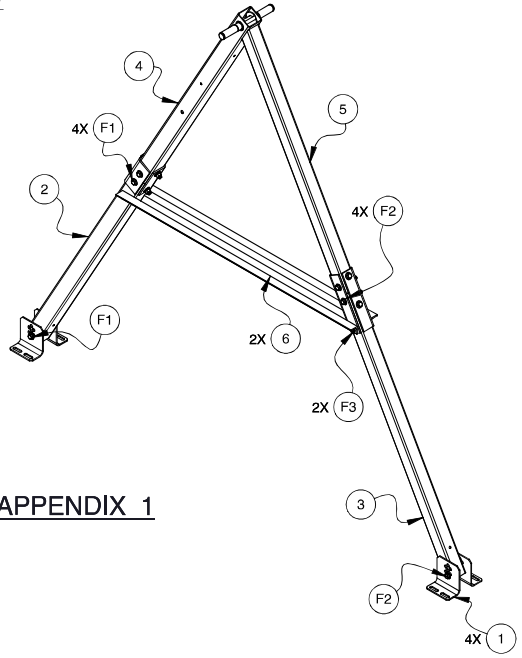
We ask that any K-Rack™ product should be handled by qualified professionals during installation and that all installation instructions are followed as per our installation guide.

Toll Free:	1-855-655-3755
Tel:	416-655-3755
E-Mail:	info@kineticsolar.com

1-65 Martin Ross Ave, North York, ON M3J 2L6, Canada

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ITEM	KS-DRAWING NUMBER	DESCRIPTION	QTY
1	KS-AGM-10	L-BASE	4
2	KS-AGM-04	A-FRAME BACK LOWER SECTION - REV 3	1
3	KS-AGM-05	A-FRAME FRONT LOWER SECTION - REV 3	1
4	KS-AGM-06	A-FRAME BACK UPPER SECTION - REV 3	1
5	KS-AGM-07	A-FRAME FRONT UPPER SECTION - REV 3	2
6	KS-AGM-52	A-FRAME HORIZONTAL SUPPORT - REV 1	2
7	KS-AGM-09	PIVOT SHAFT	1
8		CORROSION RESISTANT SIDE-MOUNT EXTERNAL RETAINING RING SHAFT 1-3/16" DIA.	3
9	KS-AGM-51	3 X 3 BACK CONNETING BRACKET - REV 1	2
10	KS-AGM-51	2,5 X 2,5 FRONT CONNECTING BRACKET - REV 1	2
		FASTENERS	
F1		HEX. HEAD BOLT 1/2"-13 X 4-1/2" LG + 1/2" HEX. NUT+ 1/2" SPLIT LOCK WASHER + 2 FLAT WASHERS 1/2"	5
F2		HEX. HEAD BOLT 1/2"-13 X 4" LG +1/2" HEX. NUT+ 1/2" SPLIT LOCK WASHER + 2 FLAT WASHERS 1/2"	5
F3		HEX. HEAD BOLT 5/16"-18 X 4" + 5/16" HEX. NUT+ 5/16" SPLIT LOCK WASHER + 2 FLAT WASHERS 5/16"	2

NOTES:

- ALL THE HARDWARE IS CORROSION RESISTANT.
- ALL HARDWARE IS AT LEAST GRADE 5
- RECOMMENDED ANCHOR BOLT DIMENSIONS: 3/8" OR 1/2" DIAMETER WITH 4" EMBEDMENT.

APPENDIX 1

P.Eng Seals, Permits to Practice and Certificates of Authorization.

REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY/ARCHIE
				HENRY/ARCHIE

Kinetic SOLAR RACKING AND MOUNTING

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UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±0.4
ANGULAR: BEND ± 1DEG
TWO PLACE DECIMAL ±0.12
THREE PLACE DECIMAL ±0.01

PROJECTION METHOD:

CREATED BY:	Julian O.
DATE:	2024-07-03
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	GALVANIZED
WEIGHT (LB):	112.36
QUANTITY:	1R+1L

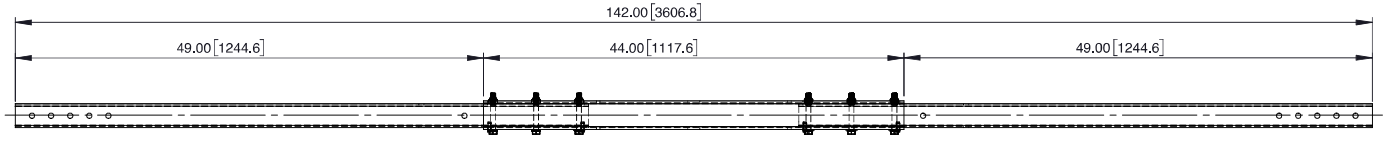
ASSEMBLE: ADJUSTABLE GROUND MOUNT V3

PART: A-FRAME ASSEMBLY

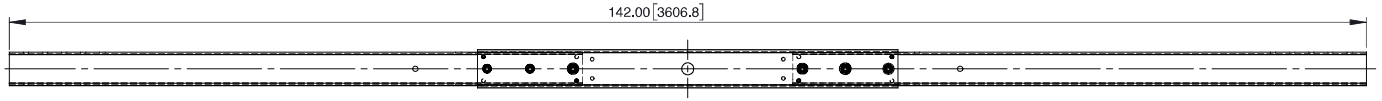
DWG NO: KS-AGM-03

REV: 2

PAPER SIZE: B | SCALE: 1:20 | SHEET 1 OF 1



TOP VIEW

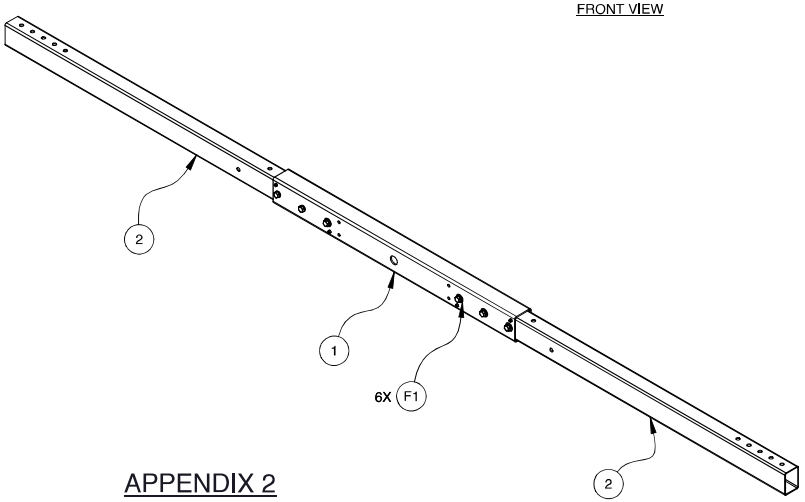


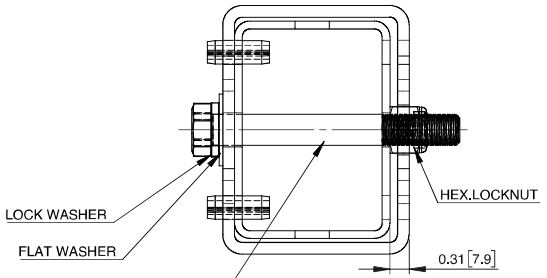
FRONT VIEW

ITEM NO.	KS DRAWING NUMBER	DESCRIPTION	QTY.
1	KS-AGM-12	RAIL SUPPORT BODY	1
2	KS-AGM-13	RAIL SUPPORT ARMS	2
FASTENER			
4		HEX. HEAD SCREW 1/2"-13 X 4" LG + 1/2" HEX. LOCK NUT + 1/2" SPLIT LOCK WASHER + 1/2" FLAT WHASER	6

NOTES:

- ALL THE HARDWARE IS CORROSION RESISTANT
- BOLTS HAVE A MINIMUM YIELD STRENGTH OF 640 MPA.ALL HARDWARE IS AT LEAST G5





F1 FASTENER ASSEMBLE DETAIL
SCALE 1 : 2

APPENDIX 2

P.Eng Seals, Permits to Practice and Certificates of Authorization.

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REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY/ARCHIE
				HENRY/ARCHIE

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±0.4
ANGULAR: BEND ± 1DEG
TWO PLACE DECIMAL ±0.12
THREE PLACE DECIMAL ±0.01

PROJECTION METHOD:

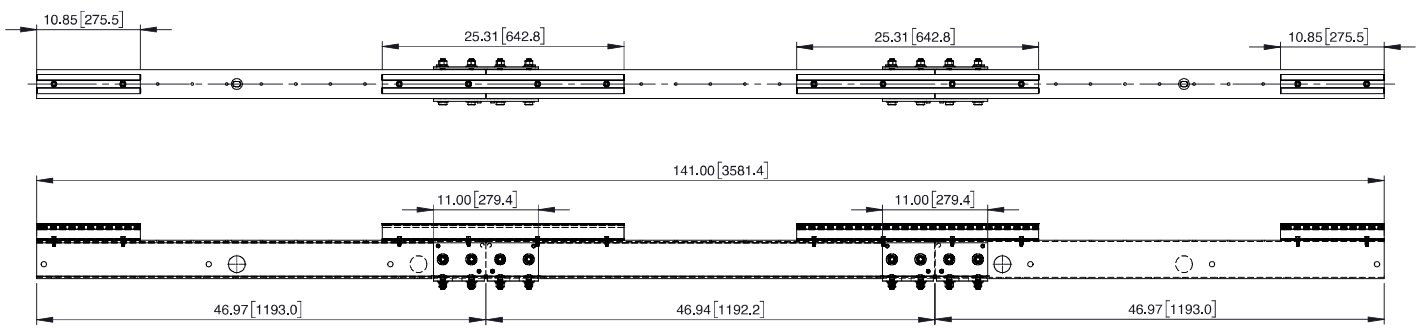
CREATED BY:	Julian O.
DATE:	2024-07-03
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	GALVANIZED
WEIGHT (LB):	78.32
QUANTITY:	2

ASSEMBLE: ADJUSTABLE GROUND MOUNT V3

PART: RAIL SUPPORT ASSEMBLY

DWG NO: KS-AGM-11 REV: 0

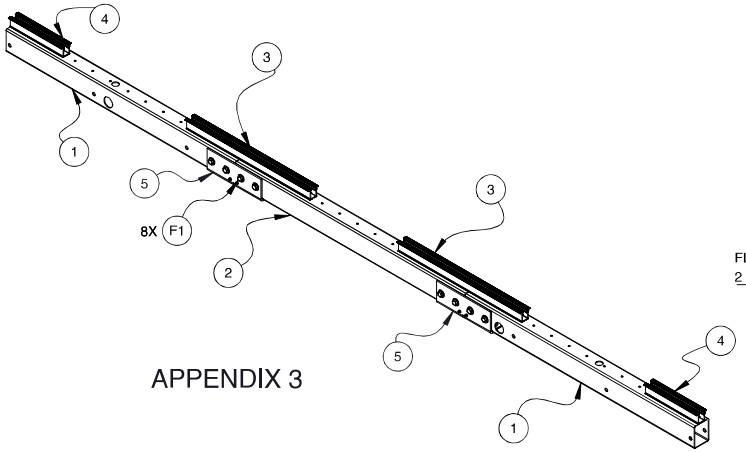
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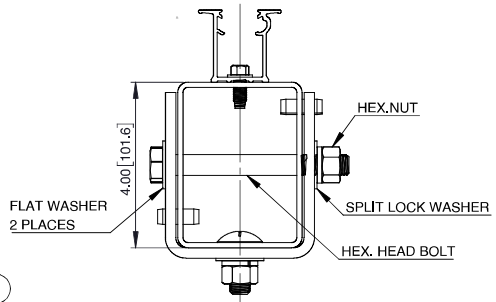
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	KS-AGM-15	KLEIN RAIL END SECTION - REV 5	2
2	KS-AGM-16	KLEIN RAIL CENTER SECTION - REV 5	1
3	KS-AGM-17	DECKEL RAIL SECTION X 25.3 IN	2
4	KS-AGM-17	DECKEL RAIL SECTION X 10.85 IN	2
5	KS-AGM-55	KLEIN U-BRACKET - REV 3	2
		FASTENERS	
F1	-	HEX. HEAD BOLT 1/2"-13 X 4.5" LG + 1/2" HEX. NUT+ 1/2" SPLIT LOCK WASHER + 2 FLAT WASHERS 1/2"	8
F2	-	HEX. HEAD SELF TAPPING SCREW FOR METAL 5/16-18 X 3/4" LG	12
F3	-	SQUARE NECK CARRIAGE BOLT 1/2"-13 X 1-1/4"LG + 1/2" HEX. NUT+ 1/2" SPLIT LOCK WASHER + FLAT WASHER	8
F4	-	SPRING STEEL SLOTTED SPRING PIN	4

NOTES:

- ALL THE HARDWARE IS CORROSION RESISTANT.
- ALL HARDWARE IS AT LEAST GRADE 5.



APPENDIX 3



F1,F2&F3 FASTENER TYPICAL
ASSEMBLE DETAIL
SCALE 1 : 2

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REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY/ARCHIE
				HENRY/ARCHIE
				HENRY/ARCHIE

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±0.4
ANGULAR: BEND ± 1DEG
TWO PLACE DECIMAL ±0.12
THREE PLACE DECIMAL ±0.01

PROJECTION METHOD:

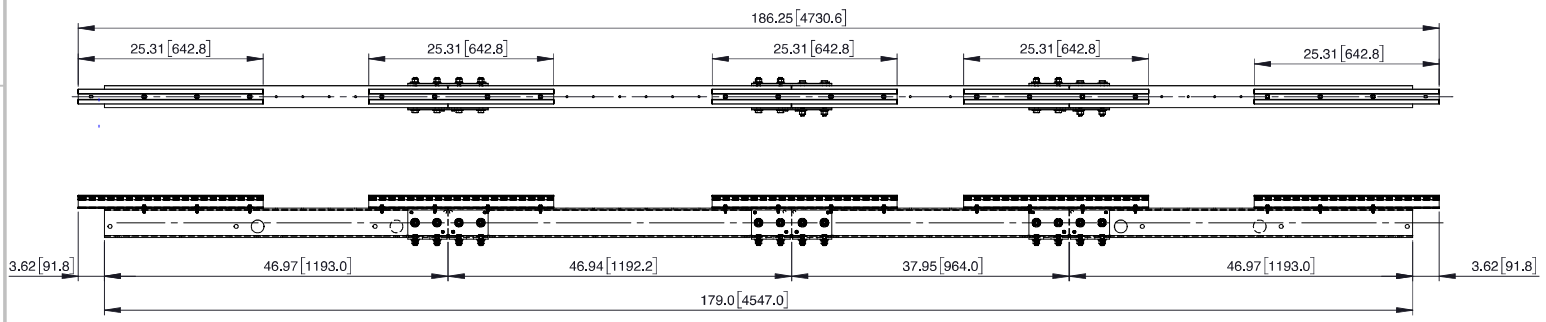
CREATED BY:	Julian O.
DATE:	2024-07-03
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	GALVANIZED
WEIGHT (LB):	85.01
QUANTITY:	4

ASSEMBLE: ADJUSTABLE GROUND MOUNT V3

PART: REC. KLEIN RAIL ASSEMBLY

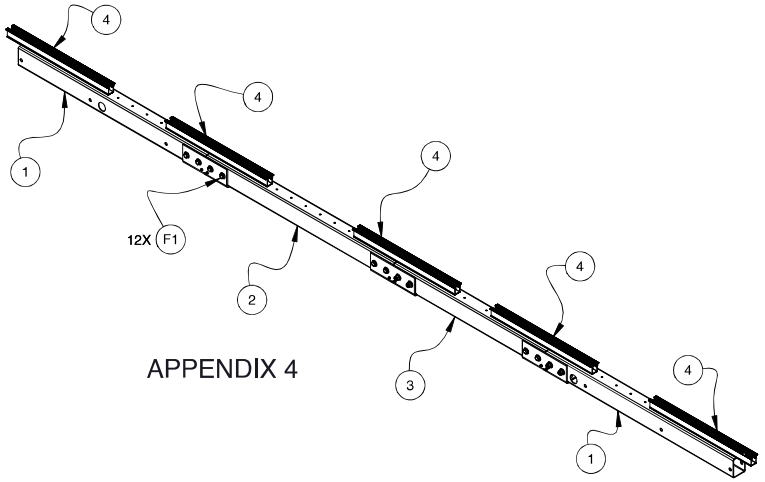
DWG NO: KS-AGM-14 REV: 3

PAPER SIZE: B | SCALE: 1:20 | SHEET 1 OF 3

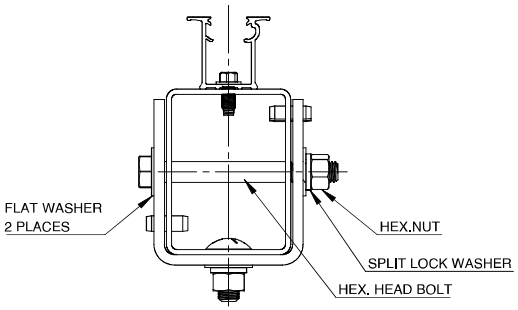


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	KS-AGM-15	KLEIN RAIL END SECTION - REV 6	2
2	KS-AGM-16	KLEIN RAIL CENTER SECTION - REV 5	1
3	KS-AGM-31	KLEIN RAIL EXTENSION SECTION - REV 5	1
4	KS-AGM-17	DECKEL RAIL SECTION X 25.3 IN	5
5	KS-AGM-55	KLEIN U-BRACKET - REV 3	3
		FASTENERS	
F1	-	HEX. HEAD BOLT 1/2"-13 X 4.5" LG + 1/2" HEX. NUT+ 1/2" SPLIT LOCK WASHER + 2 FLAT WASHERS 1/2"	12
F2	-	HEX. HEAD SELF TAPPING SCREW FOR METAL 5/16-18 X 3/4" LG	18
F3	-	SQUARE NECK CARRIAGE BOLT 1/2"-13 X 1-1/4"LG + 1/2" HEX. NUT+ 1/2" SPLIT LOCK WASHER + FLAT WASHER	12
F4	-	SPRING STEEL SLOTTED SPRING PIN	12

NOTES:
- ALL THE HARDWARE IS CORROSION RESISTANT
- ALL HARDWARE IS AT LEAST GRADE 5



APPENDIX 4



F1,F2&F3 FASTENER
TYPICAL ASSEMBLE DETAIL
SCALE 1 : 2

P.Eng Seals, Permits to Practice and Certificates of Authorization.

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REV:	DESCRIPTION:	BY:	DATE:	APPRO:
3	NEW REV. FOR REC. RAIL SECTIONS A&B ADDED+PINS ADD	J.Q	2025-09-25	HENRY/ARCHIE
2	REC. RAILSECTION A&B CHANGED+CARRIAGE BOLT CHANGED	J.Q	2025-07-16	HENRY/ARCHIE
1	NEW DESIGN TREAT AS NEW	J.Q	2024-11-25	HENRY/ARCHIE

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±0.4
ANGULAR: BEND ± 1DEG
TWO PLACE DECIMAL ±0.12
THREE PLACE DECIMAL ±0.01

PROJECTION METHOD:

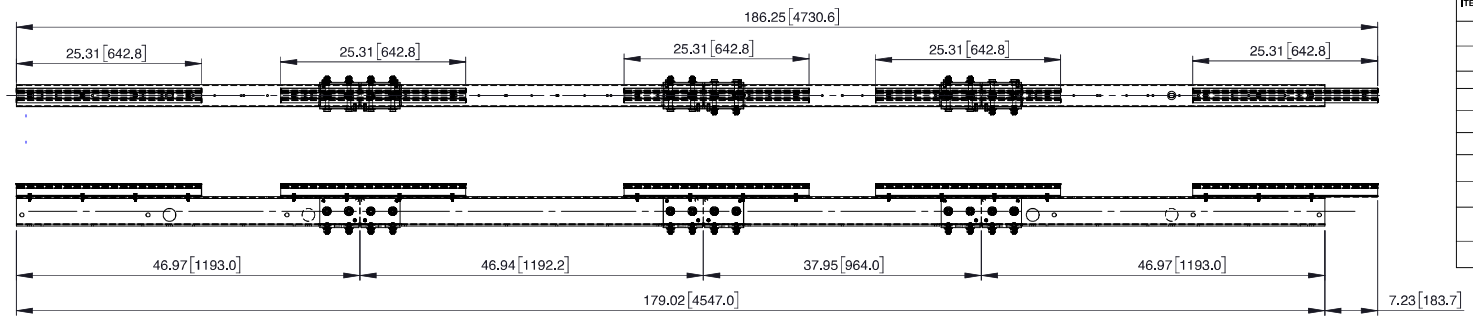
CREATED BY:	Julian Q.
DATE:	2024-07-03
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	GALVANIZED
WEIGHT (LB):	113.69
QUANTITY:	4

ASSEMBLE: ADJUSTABLE GROUND MOUNT V3

PART: EXTENDED KLEIN RAIL FOR 8 MODULES

DWG NO: KS-AGM-32 REV: 3

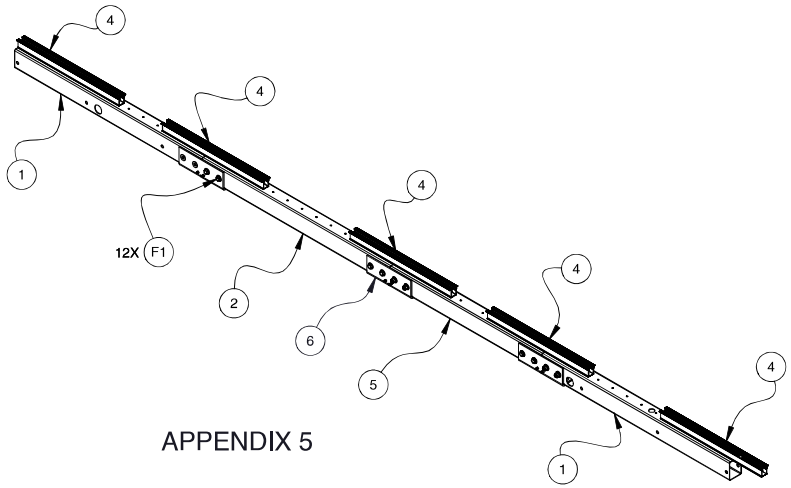
PAPER SIZE: B | SCALE: 1:20 | SHEET 2 OF 3

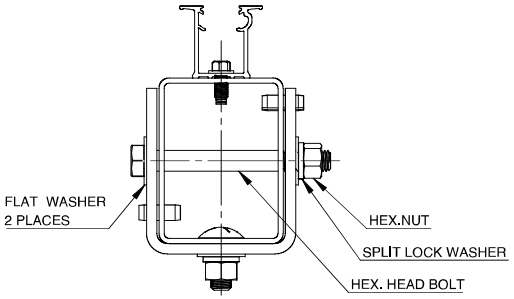


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	KS-AGM-15	KLEIN RAIL END SECTION - REV 6	2
2	KS-AGM-16	KLEIN RAIL CENTER SECTION - REV 5	1
3	KS-AGM-17	DECKEL RAIL SECTION X 25.3 IN	5
5	KS-AGM-31	KLEIN RAIL EXTENSION SECTION - REV 5	1
5	KS-AGM-55	KLEIN U-BRACKET - REV 3	3
		FASTENERS	
F1	-	HEX. HEAD BOLT 1/2"-13 X 4.5" LG + 1/2" HEX. NUT+ 1/2" SPLIT LOCK WASHER + 2 FLAT WASHERS 1/2"	12
F2	-	HEX. HEAD SELF TAPPING SCREW FOR METAL 5/16-18 X 3/4" LG	19
F3	-	SQUARE NECK CARRIAGE BOLT 1/2"-13 X 1-1/4"LG + 1/2" HEX. NUT+ 1/2" SPLIT LOCK WASHER + FLAT WASHER	12
F4	-	SPRING STEEL SLOTTED SPRING PIN	12

NOTES:

- ALL THE HARDWARE IS CORROSION RESISTAN,
- ALL THE HARDWARE IS AT LEAST GRADE 5.





F1,F2,F3&F4 FASTENER
TYPICAL ASSEMBLE DETAIL
SCALE 1 : 2

APPENDIX 5

P.Eng Seals, Permits to Practice and Certificates of Authorization.

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REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY/ARCHIE
				HENRY/ARCHIE
				HENRY/ARCHIE

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±0.4
ANGULAR: BEND ± 1DEG
TWO PLACE DECIMAL ±0.12
THREE PLACE DECIMAL ±0.01

PROJECTION METHOD:

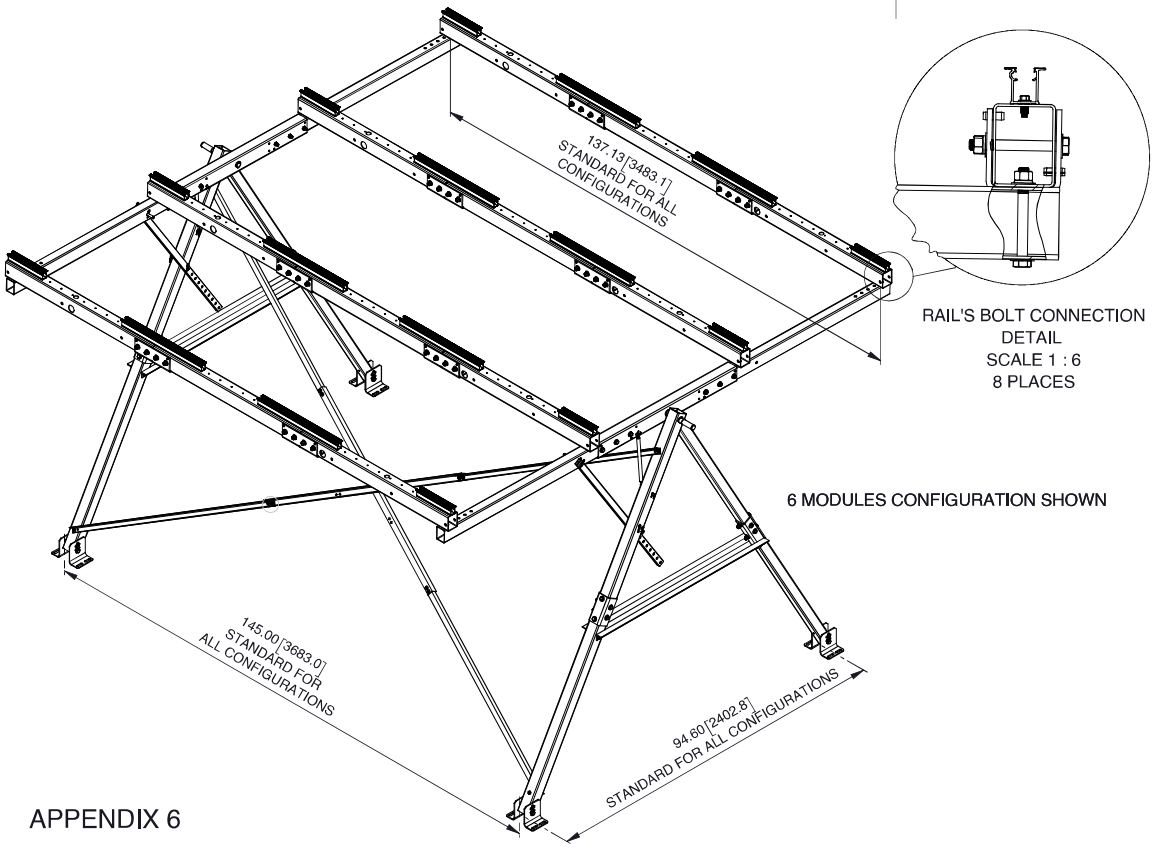
CREATED BY:	Julian O.
DATE:	2024-07-03
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	GALVANIZED
WEIGHT (LB):	113.71
QUANTITY:	4

ASSEMBLE: ADJUSTABLE GROUND MOUNT V3

PART: EXTENDED KLEIN RAIL FOR 8 MODULES - ONE SIDE CANTILEVER

DWG NO: KS-AGM-36 REV: 3

PAPER SIZE: B | SCALE: 1:20 | SHEET 3 OF 3



6 MODULES CONFIGURATION SHOWN

RAIL'S BOLT CONNECTION
DETAIL
SCALE 1 : 6
8 PLACES

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	KS-AGM-18	A-FRAME + RAIL SUPPORT ASSAMBLE - REV 1	1RH + 1LH
2	KS-AGM-22	CROSS BRACING - END SECTION - REV 1	4
3	KS-AGM-22	CROSS BRACING - MIDDLE SECTION- REV 1	2
4	KS-AGM-14	KLEIN RAIL ASSEMBLE - REV 2	4
		FASTENER	
F1	-	HEX. HEAD BOLT 5/16"-18 X 4" + 5/16" HEX. NUT+ 5/16 SPLIT LOCK WASHER + 2 FLAT WASHERS 5/16"	4
F2	-	HEX. HEAD BOLT 5/16"-18 X 1" + 5/16" HEX.NUT + 5/16" LOCK WASHER + 2 FLAT WASHER 5/16"	8
F3	-	HEX. HEAD BOLT 1/2"-13 X 4" LG + 1/2" HEX.NUT + 1/2" LOCK WASHER + 2 NEOPRENE WASHER 1/2"	8

NOTES:
- ALL THE HARDWARE IS CORROSION RESISTANT.
- ALL HARDWARE IS AT LEAST GRADE 5.

APPENDIX 6

P.Eng Seals, Permits to Practice and Certificates of Authorization.

REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY/ARCHIE
				HENRY/ARCHIE

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TOLERANCES:
FRACTIONAL ±0.4
ANGULAR: BEND ± 1DEG
TWO PLACE DECIMAL ±0.12
THREE PLACE DECIMAL ±0.01

PROJECTION METHOD:

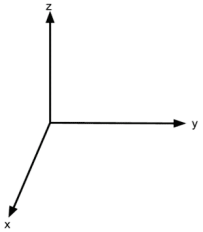
CREATED BY:	Julian O.
DATE:	2024-07-03
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	GALVANIZED
WEIGHT (LB):	763.95
QUANTITY:	1

ASSEMBLE: ADJUSTABLE GROUND MOUNT V3

PART: A-FRAME+SUPPORT RAIL ASSEMBLY 3D

DWG NO: KS-AGM-19 REV: 2

PAPER SIZE: B | SCALE: 1:50 | SHEET 1 OF 1



Kinetic
SOLAR RACKING AND MOUNTING





	Factored Reactions (kN) Base Wind Pressure (q50)								
KAGM-V3.0	**0.2 kPa**	**0.3 kPa**	**0.4 kPa**	**0.5 kPa**	**0.6 kPa**	**0.7 kPa**	**0.8 kPa**	**0.9 kPa**	**1.0 kPa**
Lateral (x, y)	± 11.30	± 11.54	± 11.81	± 12.05	± 12.31	± 12.57	± 12.83	± 13.08	± 13.50
Downforce (-z)	20.25	20.69	21.16	21.60	22.06	22.53	22.99	23.43	24.19
Uplift (+z)	5.08	3.55	1.91	3.10	4.72	6.35	7.98	9.52	11.15

1. All specifications are to be used as a guide only. It is recommended to consult a professional engineer before construction

PROFESSIONAL ENGINEER ALBERTA — DAVE BERNARDIN
Member #103464
2025-09-16

PERMIT TO PRACTICE
DAVE BERNARDIN CONSULTING INC.
RM SIGNATURE: D. Bernardin
RM APEGA ID #: 103464
DATE: 2025-09-16
PERMIT NUMBER: P014408
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

PROFESSIONAL ENGINEER — PROVINCE OF — D. BERNARDIN # 43689
2025-09-16
PERMIT #1000308

LICENSED PROFESSIONAL ENGINEER — D. B. J. BERNARDIN 100226295 — PROVINCE OF ONTARIO
Structural, for Construction
CofA #100605020
2025-09-16

PROFESSIONAL ENGINEER SASKATCHEWAN — D. BERNARDIN MEMBER 32300 — YR. MN. DAY
2025-09-16

Association of Professional Engineers & Geoscientists of Saskatchewan
CERTIFICATE OF AUTHORIZATION
Dave Bernardin Consulting Inc.
Number 44107
Permission to Consult held by:
Discipline: STRUCTURAL — Sk. Reg. No.: 32300 — Signature: D. Bernardin

REGISTERED PROFESSIONAL ENGINEER — PROVINCE OF NOVA SCOTIA — DATE — D. B. J. Bernardin — 20240126
Certificate of Authorization #51652
2025-09-16

LICENCED PROFESSIONAL ENGINEER — Province of New Brunswick — L6804 — 2025 — David Bernardin — Signature — 2025-09-16 — Date — INGÉNIEUR TITULAIRE DE PERMIS — Province du Nouveau-Brunswick
Certificate of Authorization #F2431

PROVINCE OF MANITOBA — D. B. BERNARDIN — Member — 24521 — REGISTERED PROFESSIONAL ENGINEER
2025-09-16

ENGINEERS GEOSCIENTISTS MANITOBA
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Dave Bernardin Consulting Inc.
No. 6855

PROFESSIONAL ENGINEER — YUKON TERRITORY — #3283 — DAVID BERNARDIN
2025-09-16

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SIGNATURE D. Bernardin
Date 2025-09-16
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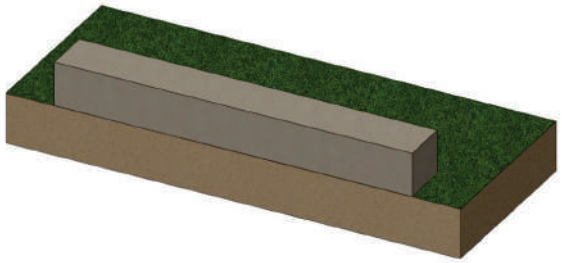
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2025-09-16

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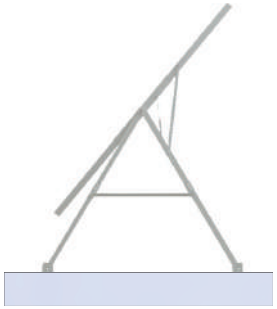
THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND — VALID FOR THE YEAR 2025 — Dave Bernardin — No. 2883 — DATE: 2025-09-16 — LICENSED PROFESSIONAL ENGINEER — PROVINCE OF PRINCE EDWARD ISLAND
Certificate of Authorization #A722

11492 — David B. Bernardin — 2025-09-16

PROVINCE OF NEWFOUNDLAND AND LABRADOR — pegnl — ENGINEERING PERMIT N1400 — 2025-09-16 — Dave Bernardin Consulting Inc. — #11492 — Signature or Member Number (Member-in-Responsible Charge)



Kinetic
SOLAR RACKING AND MOUNTING



Adjustable Ground Mount V3.0 Ballast Table

Required Ballast Weight Per Block (kg)
One Block Per A-Frame

	Base Wind Pressure (q50)								
	0.2 kPa	**0.3 kPa**	**0.4 kPa**	**0.5 kPa**	**0.6 kPa**	**0.7 kPa**	**0.8 kPa**	**0.9 kPa**	**1.0 kPa**
KAGM-V3.0	1780	1820	1860	1900	1940	1980	2020	2060	2130

Suggested Ballast Sizes to suit required weights
655 kg - 300mm x 300mm x 3048mm long, reinforced with 4-10M longitudinal rebar and 10M rebar stirrups @ 600mm c/c
1170 kg - 400mm x 400mm x 3048mm long, reinforced with 4-10M longitudinal rebar and 10M rebar stirrups @ 600mm c/c
1825 kg - 500mm x 500mm x 3048mm long, reinforced with 4-10M longitudinal rebar and 10M rebar stirrups @ 600mm c/c
2630 kg - 600mm x 600mm x 3048mm long, reinforced with 4-10M longitudinal rebar and 10M rebar stirrups @ 600mm c/c
3090 kg - 650mm x 650mm x 3048mm long, reinforced with 4-15M longitudinal rebar and 10M rebar stirrups @ 600mm c/c

Min. required Concrete Compressive Strength @ 28 days = 20 MPa
Min. required Soil Bearing Capacity = 100 kPa
Ground Preparation = 4" Compacted Gravel Subbase, compacted to 98% standard proctor density.

General Notes:
1. Concrete ballast design in accordance with CAN/CSA A23, Design of Concrete Structures.
2. Contractor is responsible for proper construction of concrete ballasts and gravel subbase.
3. All rebar to be grade 400W conforming to CSA G30.18.
4. All specifications are to be used as a guide only. It is recommended to consult a professional engineer before construction
5. The feet will be centred on the ballast.

Design Parameters:
Density of Concrete = 2,400 kg/m^3
FS (Wind) = 1.4
FS (Overturning) = 0.9
Coefficient of Friction = 0.65 (Concrete on Gravel)

PROFESSIONAL ENGINEER ALBERTA — DAVE BERNARDIN
Member #103464
2025-09-16

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RM SIGNATURE: D. Bernardin
RM APEGA ID #: 103464
DATE: 2025-09-16
PERMIT NUMBER: P014408
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PROFESSIONAL ENGINEER — PROVINCE OF — D. BERNARDIN # 43689 — YUKON TERRITORY
2025-09-16
PERMIT #1000308

LICENSED PROFESSIONAL ENGINEER — D. B. J. BERNARDIN 100226295 — PROVINCE OF ONTARIO
Structural, for Construction
CofA #100605020
2025-09-16

PROFESSIONAL ENGINEER — D. BERNARDIN MEMBER 32300 — YR. MIN. DAY — SASKATCHEWAN
2025-09-16

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Number 44107
Permission to Consult held by:
Discipline: STRUCTURAL — Sk. Reg. No.: 32300 — Signature: D. Bernardin
2025-09-16

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2025-09-16

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2025-09-16

ENGINEERS GEOSCIENTISTS MANITOBA
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No. 6855

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2025-09-16

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Date 2025-09-16
PERMIT NUMBER PP853
Association of Professional Engineers of Yukon

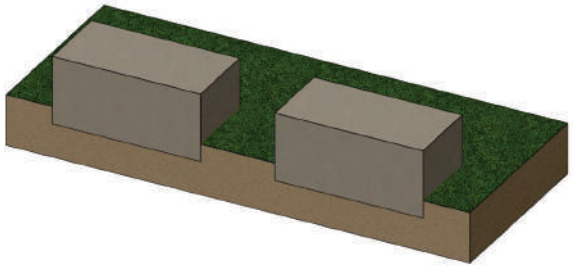
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Date 2025-09-16
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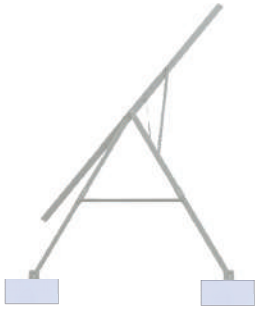
THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND — VALID FOR THE YEAR 2025 — Dave Bernardin — No. 2883 — DATE: 2025-09-16 — LICENSED PROFESSIONAL ENGINEER — PROVINCE OF PRINCE EDWARD ISLAND
Certificate of Authorization #A722

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Kinetic
SOLAR RACKING AND MOUNTING



Adjustable Ground Mount V3.0 Ballast Table

Required Ballast Weight Per Block (kg)
Two Blocks Per A-Frame with Toe Berm
Each block to match weight listed in chart

	Base Wind Pressure (q50)								
	0.2 kPa	**0.3 kPa**	**0.4 kPa**	**0.5 kPa**	**0.6 kPa**	**0.7 kPa**	**0.8 kPa**	**0.9 kPa**	**1.0 kPa**
KAGM-V3.0	1000	1000	1000	1000	1000	1000	1000	1100	1300

Single leg ballast blocks (2 per A-frame) should be standard precast concrete lock blocks, when combined with min. 6" deep/high compacted toe berm.
A compacted toe berm (either built up 6", or cut 6" into native soil) shall be installed at the outside ends of each set of blocks, to resist sliding.
Typical precast lock block dimensions are 600mm x 600mm x 1200mm long or 750mm x 750mm x 1500mm, with a minimum weight of 1000 kg.
Ground Preparation = 4" Compacted Gravel subbase, and 6" deep/high compacted toe berm each end (compacted granular, or cut into native soil).
All fill material shall be placed in horizontal layers not exceeding 6" (150mm) and shall be compacted to 98% standard Procter density.
Min. required Soil Bearing Capacity = 100 kPa

General Notes:
1. Concrete ballast design in accordance with CAN/CSA A23, Design of Concrete Structures.
2. Contractor is responsible for proper construction of concrete ballasts and gravel subbase.
3. All rebar to be grade 400W conforming to CSA G30.18.
4. All specifications are to be used as a guide only. It is recommended to consult a professional engineer before construction
5. The feet will be centred on the ballast.

Design Parameters:
Density of Concrete = 2,400 kg/m^3
FS (Wind) = 1.4
FS (Uplift) = 0.9

PROFESSIONAL ENGINEER ALBERTA — DAVE BERNARDIN
Member #103464
2025-09-16

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RM SIGNATURE: D. Bernardin
RM APEGA ID #: 103464
DATE: 2025-09-16
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2025-09-16
PERMIT #1000308

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Structural, for Construction
CofA #100605020
2025-09-16

PROFESSIONAL ENGINEER — D. BERNARDIN MEMBER 32300 — YR. MIN. DAY — SASKATCHEWAN
2025-09-16

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Discipline: STRUCTURAL — Sk. Reg. No.: 32300 — Signature: D. Bernardin

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2025-09-16

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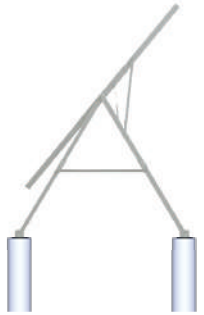
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Dave Bernardin
No. 2883
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Kinetic
SOLAR RACKING AND MOUNTING



Adjustable Ground Mount V3.0 Sonotube Table

All piles are 12" diameter x min. length noted (feet)

	Base Wind Pressure (q50)								
	0.2 kPa	**0.3 kPa**	**0.4 kPa**	**0.5 kPa**	**0.6 kPa**	**0.7 kPa**	**0.8 kPa**	**0.9 kPa**	**1.0 kPa**
KAGM-V3.0	6.25	6.25	6.50	6.75	6.75	7.00	7.00	7.25	7.25

General Notes:

1. Concrete pile design in accordance with CAN/CSA A23, Design of Concrete Structures.
2. Contractor is responsible to ensure that piles achieve required depth. If boreholes are sloughing or collapsing, concrete piles are not suitable.
3. All rebar to be grade 400W conforming to CSA G30.18.
4. Piles utilize skin friction (full length) and end bearing resistance in compression, and skin friction (below frost line only) and self weight resistance in uplift.
5. All specifications are to be used as a guide only. It is recommended to consult a professional engineer before construction

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Member #103464
2025-09-16

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Structural, for Construction
CofA #100605020
2025-09-16

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2025-09-16

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Permission to Consult held by:

Discipline	Sk. Reg. No.	Signature
STRUCTURAL	32300	D. Bernardin

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2025-09-16

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2025-09-16

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2025-09-16

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2025-09-16

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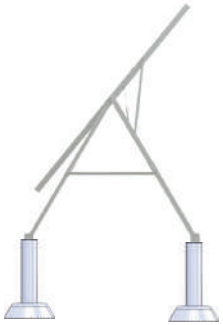
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Kinetic
SOLAR RACKING AND MOUNTING



Adjustable Ground Mount V3.0 Belled Pile Table

All piles are 10" or 12" diameter x min. 48" long x bell size noted (inches)
Verify local frost depth prior to installation

	Base Wind Pressure (q50)								
	0.2 kPa	0.3 kPa	0.4 kPa	0.5 kPa	0.6 kPa	0.7 kPa	0.8 kPa	0.9 kPa	1.0 kPa
KAGM-V3.0	24	24	24	24	24	24	24	24	24

General Notes:

1. Concrete pile design in accordance with CAN/CSA A23, Design of Concrete Structures, and technical literature from Bigfoot Systems.
2. Soil backfill around bell piles (if holes are dug and pre-formed belles are used) must be compacted to ensure full weight of soil against piles.
3. All rebar to be grade 400W conforming to CSA G30.18.
4. Piles utilize end bearing resistance in compression, and weight of soil plug above bell in uplift.
5. All specifications are to be used as a guide only. It is recommended to consult a professional engineer before construction
6. Basis of design is pre-formed bell piles by Bigfoot Systems. Uplift capacities are verified by testing by Bigfoot Systems Inc. with 1.5 safety factor applied.
7. Coordinate with Bigfoot Systems technical documents to confirm which sonotube size works with which belle size.

PROFESSIONAL ENGINEER DAVE BERNARDIN ALBERTA
Member #103464
2025-09-16

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RM APEGA ID #: 103464
DATE: 2025-09-16
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PROFESSIONAL ENGINEER PROVINCE OF YUKON D. BERNARDIN # 43689 TERRITORY ENGINEER
2025-09-16
PERMIT #1000308

LICENSED PROFESSIONAL ENGINEER D. B. J. BERNARDIN 100226295 PROVINCE OF ONTARIO
Structural, for Construction
CofA #100605020
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PROFESSIONAL ENGINEER D. BERNARDIN MEMBER 32300 YR. MN. DAY SASKATCHEWAN
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Association of Professional Engineers & Geoscientists of Saskatchewan
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Discipline: STRUCTURAL | Sk. Reg. No.: 32300 | Signature: D. Bernardi

REGISTERED PROFESSIONAL ENGINEER PROVINCE OF NOVA SCOTIA DATE D. B. J. Bernardin 20240126
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L6804 2025
David Bernardin
Signature
2025-09-16
Date
INGÉNIEUR TITULAIRE DE PERMIS Province du Nouveau-Brunswick
Certificate of Authorization #F2431

PROVINCE OF MANITOBA D. B. BERNARDIN Member 24521 REGISTERED PROFESSIONAL ENGINEER
2025-09-16

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Dave Bernardin Consulting Inc.
No. 6855

PROFESSIONAL #3283 YUKON DAVID BERNARDIN TERRITORY ENGINEER
2025-09-16

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SIGNATURE D. Bernardin
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PERMIT NUMBER PP853
Association of Professional Engineers of Yukon

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2025-09-16

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Signature D. Bernardin
Date 2025-09-16
PERMIT NUMBER: P 1674
NT/NU Association of Professional Engineers and Geoscientists

THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND VALID FOR THE YEAR 2025
Dave Bernardin
No. 2883
DATE: 2025-09-16
LICENSED PROFESSIONAL ENGINEER PROVINCE OF PRINCE EDWARD ISLAND
Certificate of Authorization #A722

LICENSED PROFESSIONAL ENGINEER 11492 David B. Bernardin SIGNATURE 2025-09-16 DATE NEWFOUNDLAND & LABRADOR

PROVINCE OF NEWFOUNDLAND AND LABRADOR
pegnl ENGINEERING PERMIT N1400
2025-09-16
Dave Bernardin Consulting Inc.
#11491
Signature or Member Number (Member-in-Responsible Charge)

KINETIC SOLAR ADJUSTABLE GROUND MOUNT V3.0

ENGINEERING GENERAL NOTES

Scope of P.Eng Seal:
P.Eng seal is to verify that the Adjustable Ground Mount V3.0 structure, including the assembled views and individual components presented within this complete drawing set (44 pages) and related foundation guide (refer to file "AGM V3 Foundation Guide R1, Eng. Rev. 0, 09-16-2025") has been engineered for the noted environmental loads, load safety factors and combinations, and material grades.

All bolts are to be tightened to the torque specs provided by Kinetic Solar Mounting and Racking, and are to utilize lock washers or thread locking material. The safe structural design and optimum operation requires all bolts to be tightened to spec. Bolt tightness should be checked at minimum annually.

General Notes and Design Loads:
-Service Dead Load = 0.24 kPa, includes solar modules, wiring, clamps, bolts, and extruded aluminum rails.
-The AGM-V3.0 is designed for the following maximum environmental load factors, to be read in conjunction with the Climactic Data in Appendix C of the National Building Code, or relevant provincial code:
-Snow Load, Ss = 2.5 kPa
-Rain Load, Sr = 0.8 kPa
-Wind Load, q50 = 1.0 kPa
-Importance Factor = Low
-Terrain Factor = Open

Provided that the base environmental loads (wind, rain and snow) for the proposed location do not exceed the maximums noted, the Adjustable Ground Mount V3.0 structure may be safely used in the proposed location.

Relevant National and Provincial Codes:
National Code, Latest Edition - The National Building Code of Canada, 2020 Edition

The following provinces have adopted the NBCC 2020 in their local building bylaws:
Manitoba
Saskatchewan
Northwest Territories
Newfoundland and Labrador

The following provinces have adopted the NBCC 2015 in their local building bylaws:
Yukon Territory
Nunavut
Prince Edward Island

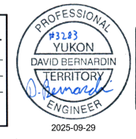
The following provinces have adopted the NBCC 2010 in their local building bylaws:
New Brunswick

The following provinces have adopted their own provincial building codes based on the NBCC and adapted to suit local requirements:
Alberta - NBCC 2019 Alberta Edition
British Columbia - British Columbia Building Code 2024
Nova Scotia Building Code Regulation 2020, R2021
Ontario - The 2024 Ontario Building Code

P.Eng Seals, Permits to Practice and Certificates of Authorization.



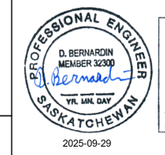
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2025-09-29



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CofA #100605020
2025-09-29



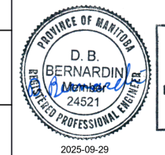
2025-09-29



2025-09-29

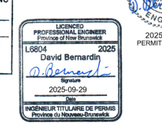


2025-09-29
PERMIT #1000308



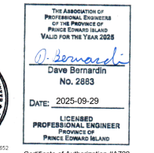
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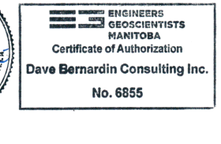


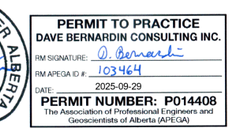
Certificate of Authorization #F2431



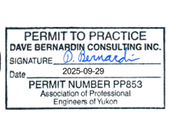


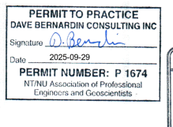
Certificate of Authorization #A722











				HENRY/ARCHIE
				HENRY/ARCHIE
REV:	DESCRIPTION:	BY:	DATE:	APPRO:

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±0.4
ANGULAR: BEND ± 1DEG
TWO PLACE DECIMAL ±0.12
THREE PLACE DECIMAL ±0.01

PROJECTION METHOD:

CREATED BY:	Julian Q.
DATE:	2025-09-11
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	
WEIGHT (LB):	
QUANTITY:	

PROPRIETARY AND CONFIDENTIAL

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ASSEMBLE:
ADJUSTABLE GROUND MOUNT V3

PART:
ADJUSTABLE GROUND MOUNT V3

DWG NO: KS-AGM-00

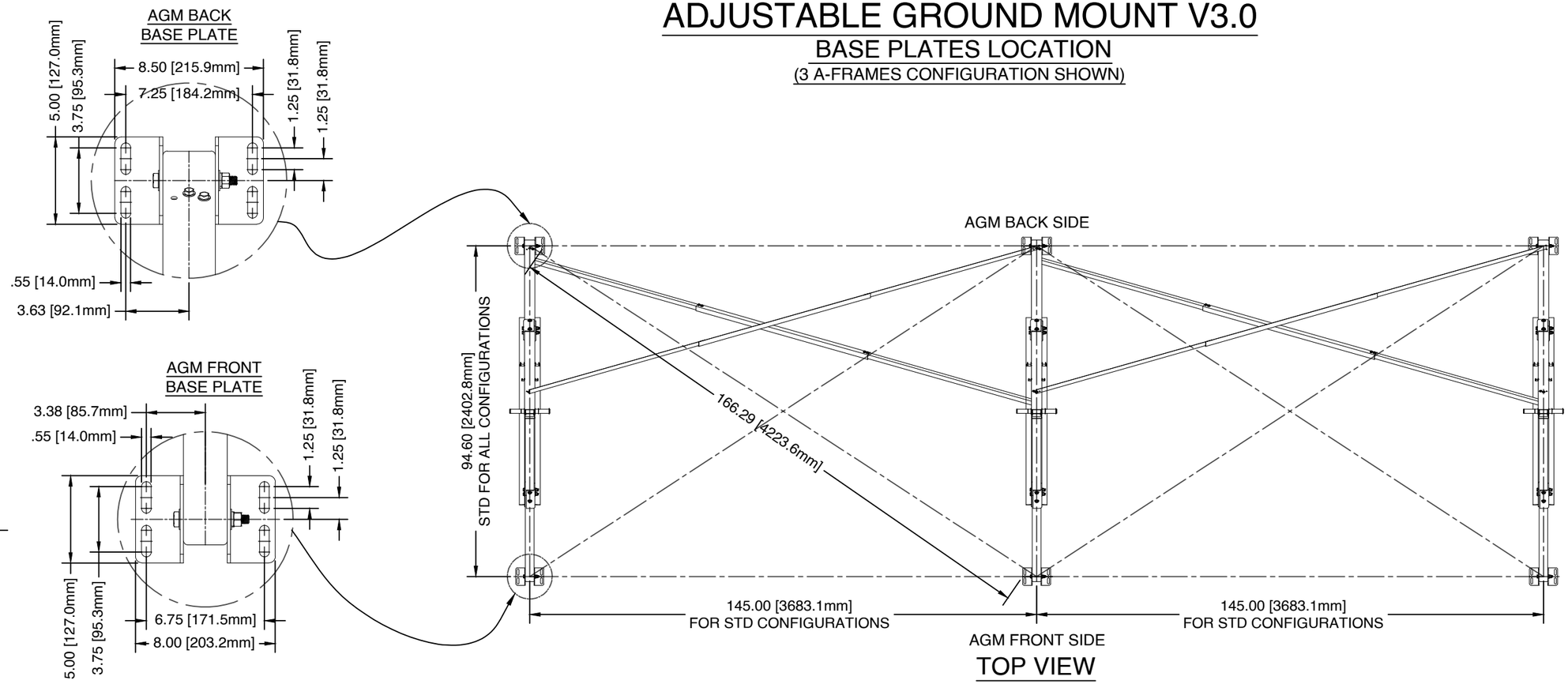
REV: 0

PAPER SIZE: B | SCALE: 1:20 | SHEET 10 OF 10

ADJUSTABLE GROUND MOUNT V3.0

BASE PLATES LOCATION

(3 A-FRAMES CONFIGURATION SHOWN)



TOP VIEW

NOTE:
BASE PLATE SPACING SHOWN IS APPLICABLE TO STANDARD CONFIGURATIONS ONLY. THIS SPACING DOES NOT APPLY TO THE K3AGM10 (10 MODULES RACK) WHICH IS A SPECIAL CONFIGURATION. REFER TO DRAWING KS-AGM-60/62 FOR K3AGM10 BASE PLATE SPACING.

P.Eng Seals, Permits to Practice and Certificates of Authorization:

PROPRIETARY AND CONFIDENTIAL

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UNLESS OTHERWISE SPECIFIED:	
DIMENSIONS ARE IN INCHES	
TOLERANCES:	
FRACTIONAL	± 0.4
ANGULAR: BEND	± 1DEG
TWO PLACE DECIMAL	± 0.12
THREE PLACE DECIMAL	± 0.01
PROJECTION METHOD:	

CREATED BY:	JULIAN Q.
DATE:	2025-06-26
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	N/A
WEIGHT (LB):	N/A
QUANTITY:	N/A

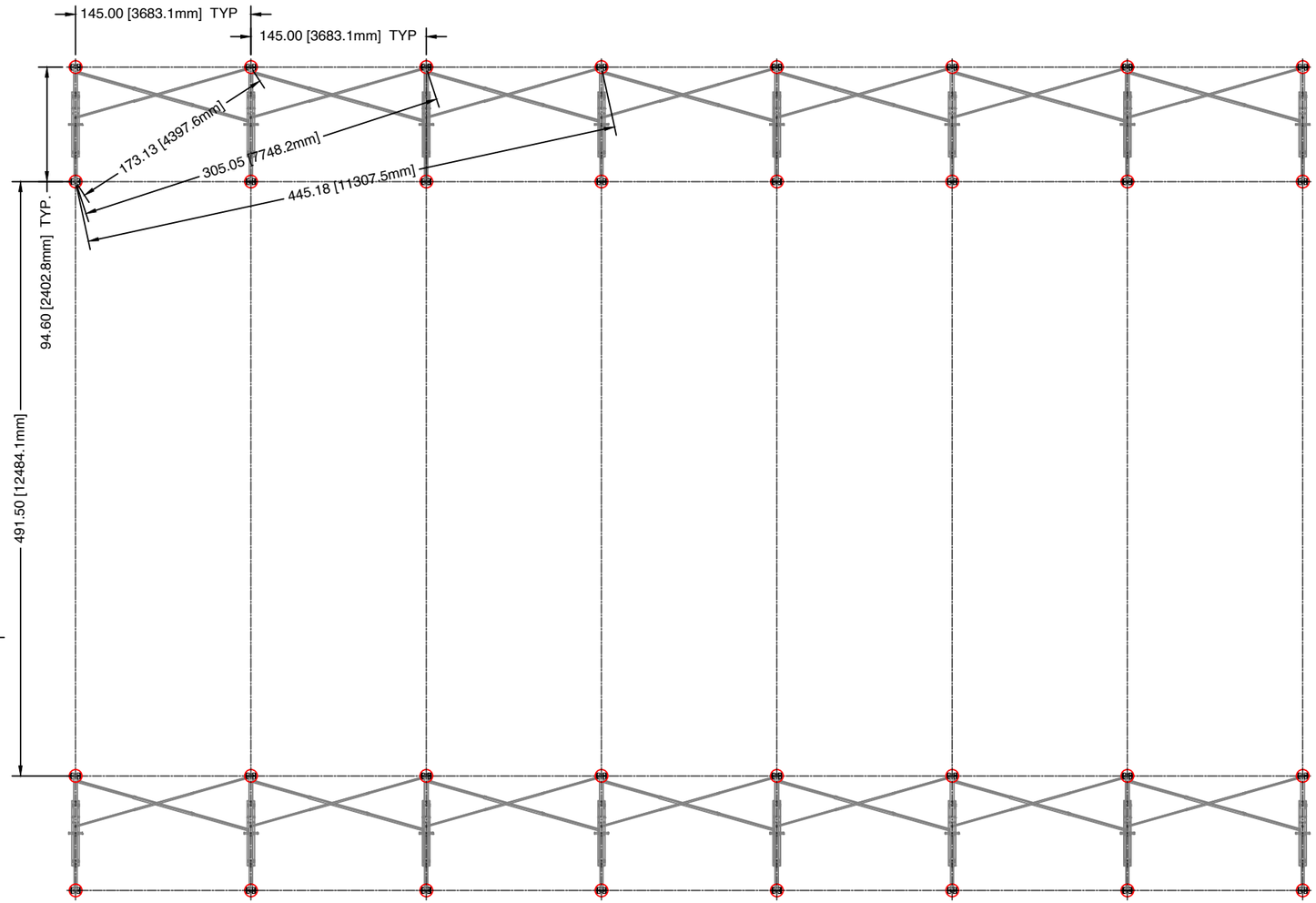
ASSEMBLY: ADJUSTABLE GROUND MOUNT V3

PART: AGM BASE PLATES LOCATION

DWG NO: KS-AGM-53 REV: 0

PAPER SIZE: B | SCALE: 1:1 | SHEET: 9 OF 9

REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY-ARCHIE

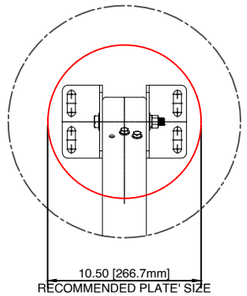


ADJUSTABLE GROUND MOUNT V3.0

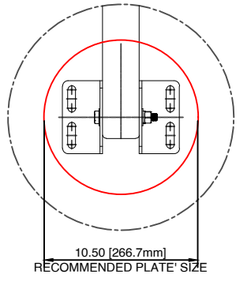
FOOT SPACING GUIDE

- RECOMMENDED SPACING, OPTIMAL SPACING WILL VARY FROM SITE TO SITE. LAYOUT BASED ON AN 18° BACK ANGLE.
- ALL DIMENSIONS ARE BETWEEN CENTER.

AGM BACK BASE PLATE



AGM FRONT BASE PLATE



P.Eng Seals, Permits to Practice and Certificates of Authorization:

NOTE:
BASE PLATE SPACING SHOWN IS APPLICABLE TO STANDARD CONFIGURATIONS ONLY. THIS SPACING DOES NOT APPLY TO THE K3AGM10 (10 MODULES RACK) WHICH IS A SPECIAL CONFIGURATION. REFER TO DRAWING KS-AGM-60 FOR K3AGM10 BASE PLATE SPACING.

Kinetic SOLAR RACKING AND MOUNTING

PROPRIETARY AND CONFIDENTIAL

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UNLESS OTHERWISE SPECIFIED:	
DIMENSIONS ARE IN INCHES	
TOLERANCES:	
FRACTIONAL	± 0.4
ANGULAR: BEND	± 1DEG
TWO PLACE DECIMAL	± 0.12
THREE PLACE DECIMAL	± 0.01
PROJECTION METHOD:	

CREATED BY:	JULIAN Q.
DATE:	2025-09-19
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	N/A
WEIGHT (LB):	N/A
QUANTITY:	N/A

ASSEMBLY: ADJUSTABLE GROUND MOUNT V3

PART: FOOT SPACING GUIDELINE

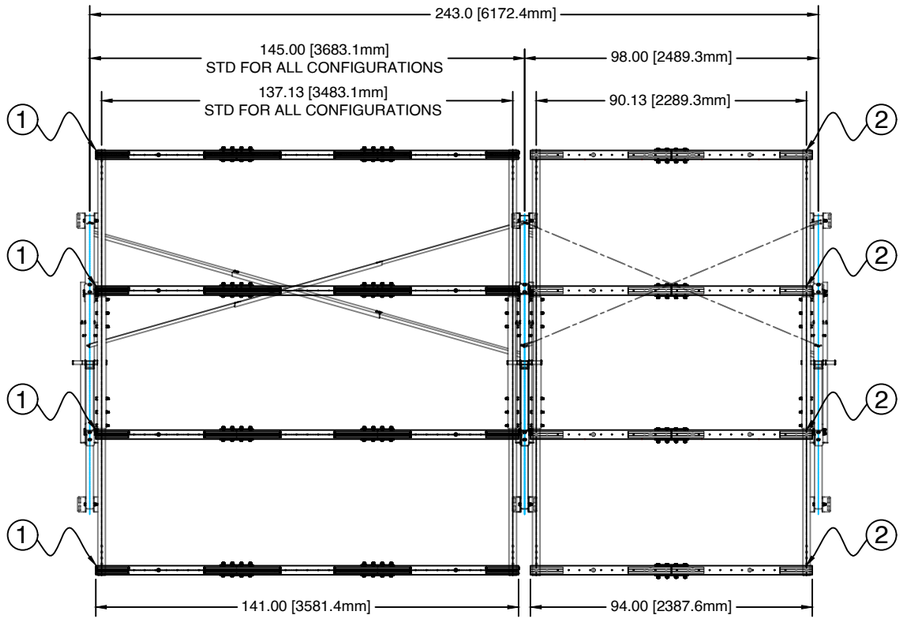
DWG NO: KS-AGM-56 REV: 0

PAPER SIZE: B | SCALE: NTS | SHEET:

REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY-ARCHIE

ADJUSTABLE GROUND MOUNT V3.0

CONFIGURATION 10 MODULES



10 MODULES RACK

ITEM NO.	PART NUMBER	DESCRIPTION
1	KS-AGM-14 R3	KLEIN RAIL ASSEMBLY (6 PANELS)
2		SPECIAL TWO SECTIONS KLEIN RAIL

- MAXIMUM MODULE SIZE FOR PORTRAIT CONFIGURATION IS 44.64" (1134 mm) X 93.78" (2384 mm) (ANY FRAMED MODULE OF LESSER OR EQUIVALENT AREA MAY BE USED).
- THE CONFIGURATIONS WILL VARY DEPENDENT ON THE MODULE SIZE.
- MAXIMUM CANTILEVER ALLOWED FROM A-FRAME TO MODULE EDGE IS 48 INCHES.
- THE ADJACENT RAIL LENGTH CALCULATIONS WERE DONE USING A 44.6" (1134 mm) X 93.8" (2384 mm) PANEL SIZE AS REFERENCE.
- THE PROPER END CLAMP REFERENCE TO USE WILL DEPEND ON THE SOLAR PANEL'S FRAME THICKNESS.
- ALL THE HARDWARE IS CORROSION RESISTANT, BOLTS HAVE A MINIMUM YIELD STRENGTH OF 586 Mpa. (85 Ksi)

- THE SPECIAL TWO SECTION KLEIN RAIL IS ONLY FOR 10 MODULES RACK.
- THE MAXIMUM MODULES' SIZE FOR SPECIAL CONFIGURATION IS 1134mm (44.64") X 2384mm (93.78").

P.Eng Seals, Permits to Practice and Certificates of Authorization:

Kinetic SOLAR RACKING AND MOUNTING

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UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ± 0.4
ANGULAR: BEND ± 1DEG
TWO PLACE DECIMAL ± 0.12
THREE PLACE DECIMAL ± 0.01

PROJECTION METHOD:

CREATED BY:	JULIAN Q.
DATE:	2025-06-26
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	N/A
WEIGHT (LB):	N/A
QUANTITY:	N/A

ASSEMBLY: ADJUSTABLE GROUND MOUNT V3

PART: PORTRAIT CONFIGURATION

DWG NO: KS-AGM-60 REV: 0

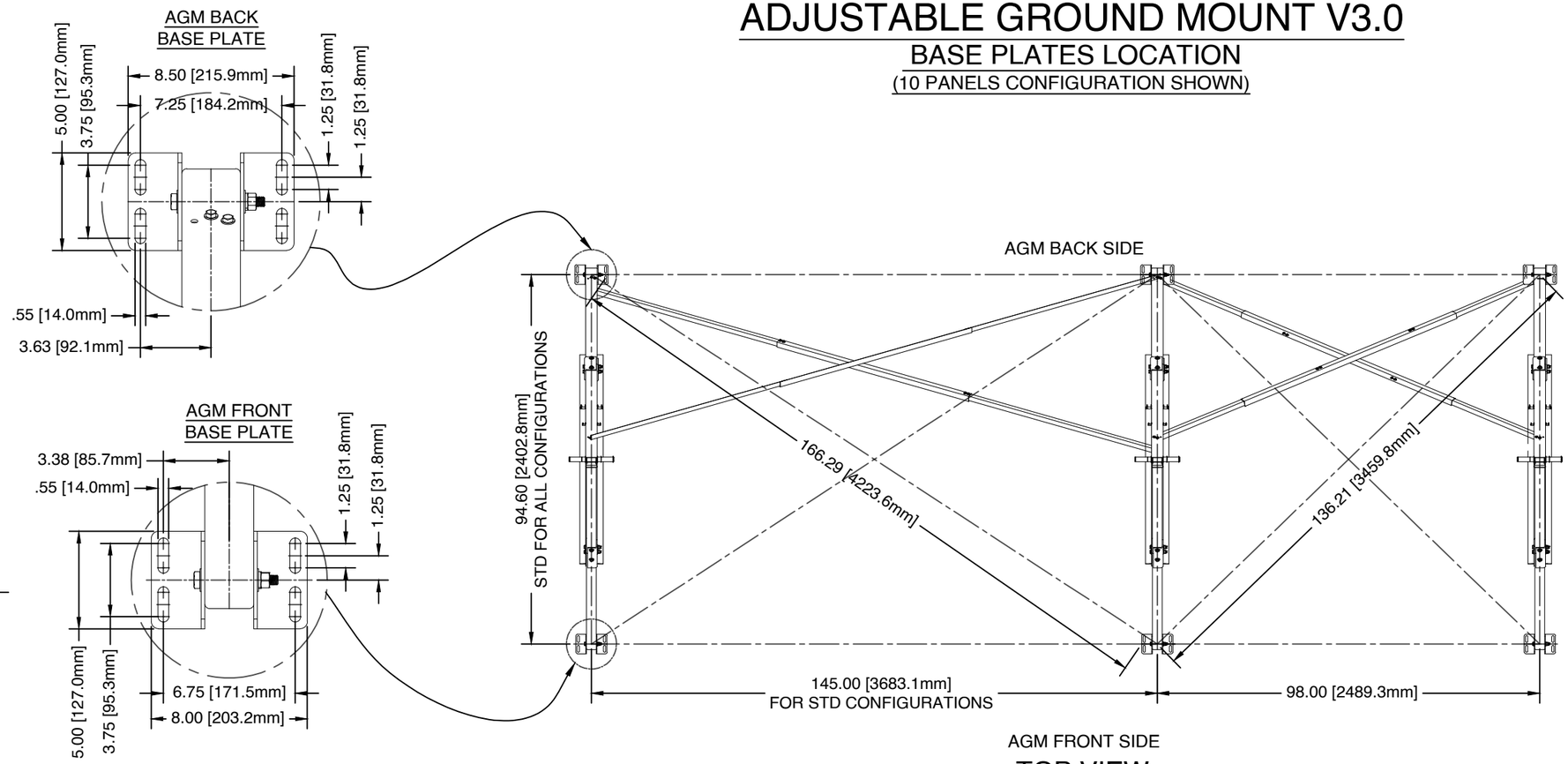
PAPER SIZE: B | SCALE: 1:1 | SHEET: 2 OF 9

REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY-ARCHIE

ADJUSTABLE GROUND MOUNT V3.0

BASE PLATES LOCATION

(10 PANELS CONFIGURATION SHOWN)



TOP VIEW

P.Eng Seals, Permits to Practice and Certificates of Authorization:

NOTE:
BASE PLATE SPACING SHOWN IS APPLICABLE TO THE K3AGM10 (10 MODULES RACK) ONLY.

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UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES	
TOLERANCES:	
FRACTIONAL	± 0.4
ANGULAR: BEND	± 1DEG
TWO PLACE DECIMAL	± 0.12
THREE PLACE DECIMAL	± 0.01
PROJECTION METHOD:	

CREATED BY:	JULIAN Q.
DATE:	2025-06-26
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	N/A
WEIGHT (LB):	N/A
QUANTITY:	N/A

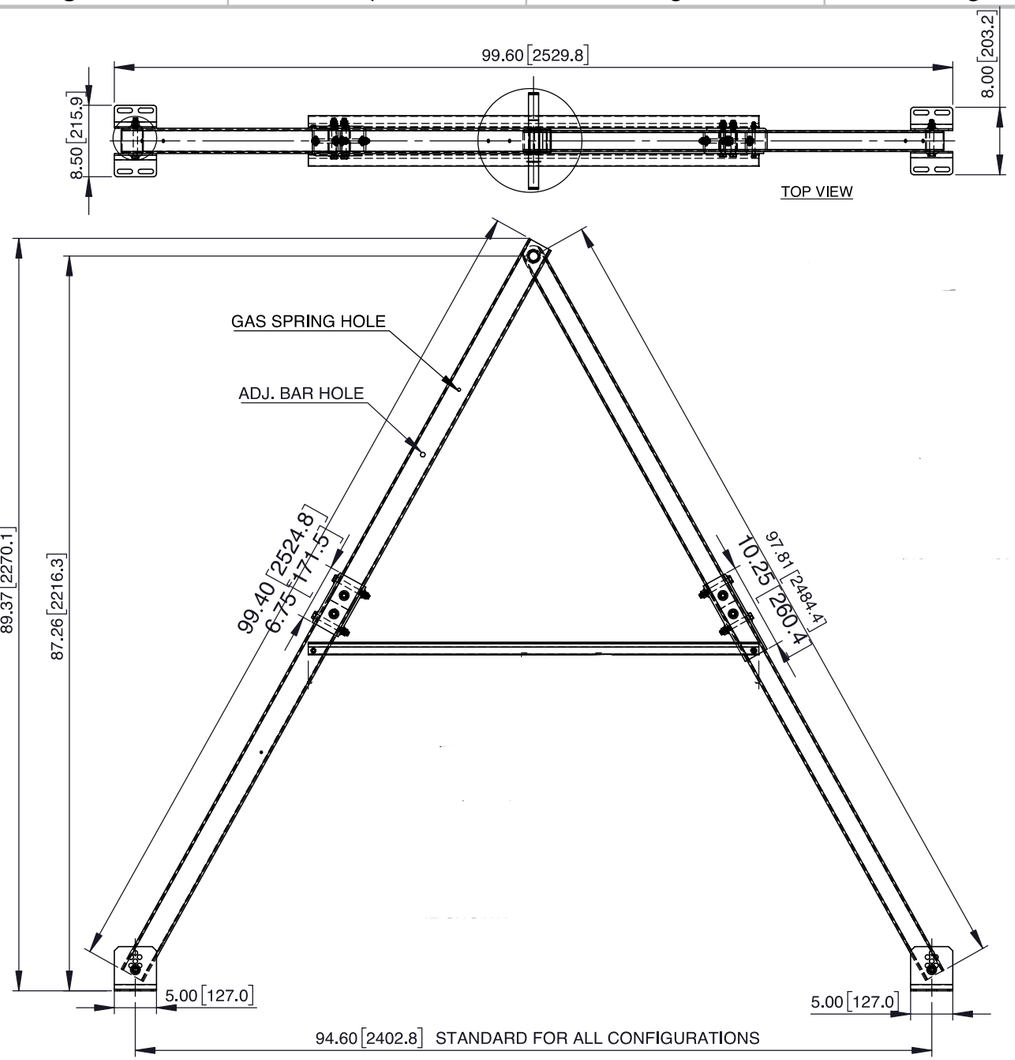
ASSEMBLY: ADJUSTABLE GROUND MOUNT V3

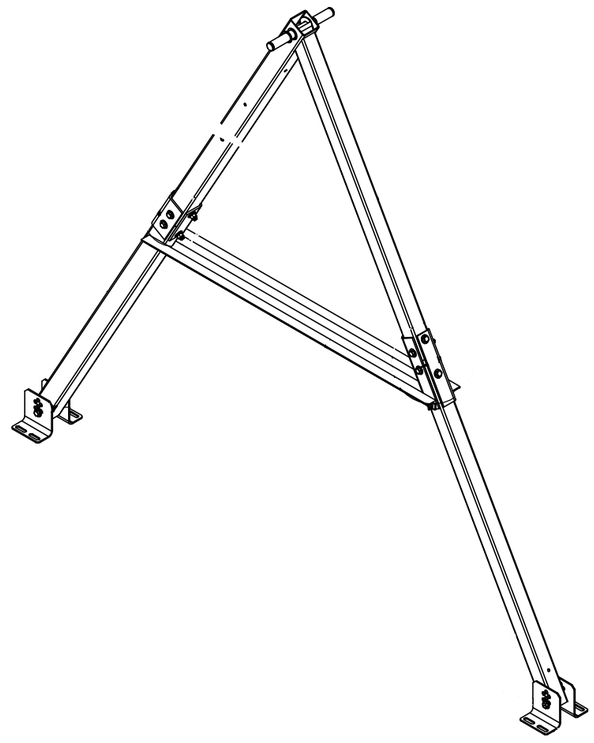
PART: AGM BASE PLATES LOCATION

DWG NO: KS-AGM-62 REV: 0

PAPER SIZE: B | SCALE: 1:1 | SHEET: 9 OF 9

REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY-ARCHIE





Kinetic
SOLAR RACKING AND MOUNTING

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TOLERANCES:
FRACTIONAL ±0.4
ANGULAR: BEND ± 1DEG
TWO PLACE DECIMAL ±0.12
THREE PLACE DECIMAL ±0.01

PROJECTION METHOD:

CREATED BY:	Julian Q.
DATE:	2024-07-03
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	GALVANIZED
WEIGHT (LB):	112.36
QUANTITY:	1R+1L

ASSEMBLE:
ADJUSTABLE GROUND MOUNT V3

PART:
A-FRAME ASSEMBLY

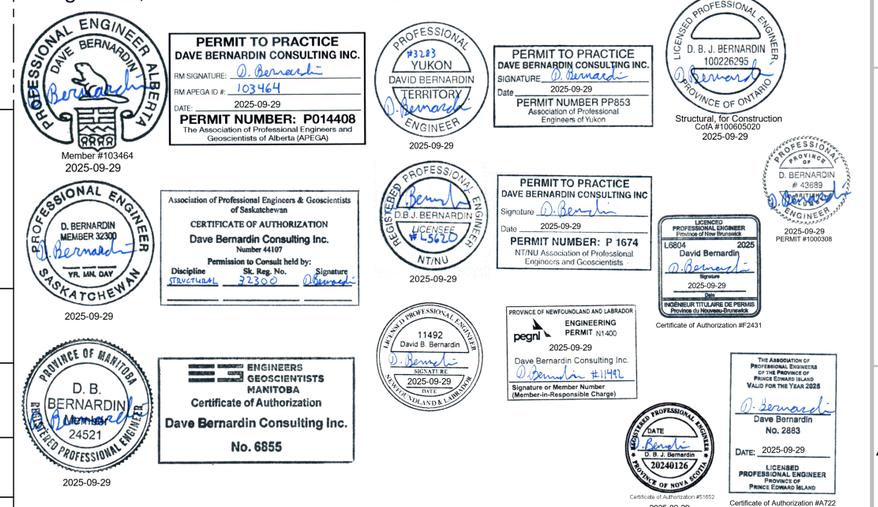
DWG NO: KS-AGM-03

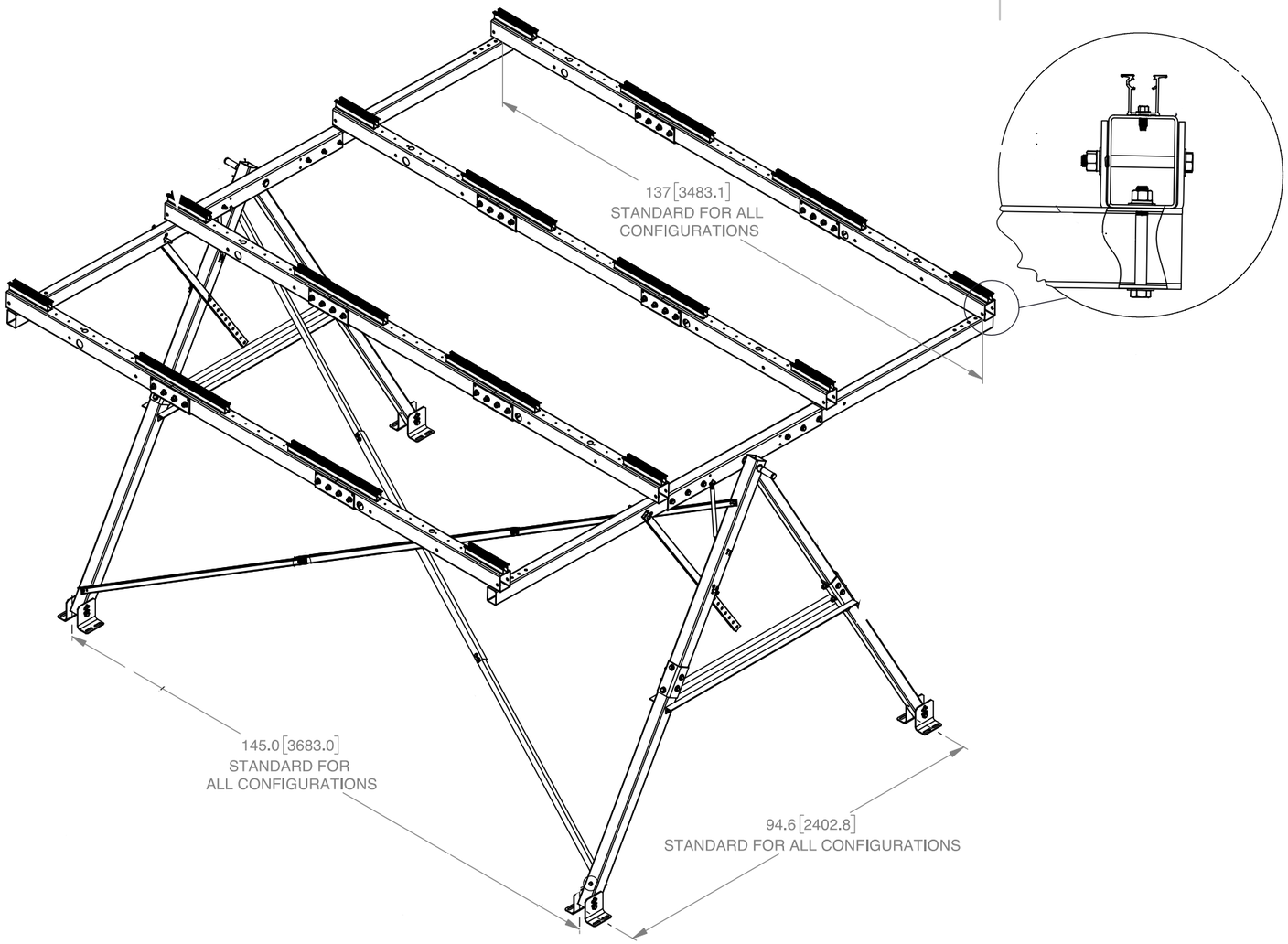
REV: 2

PAPER SIZE: B | SCALE: 1:20 | SHEET 1 OF 10

REV:	DESCRIPTION:	BY:	DATE:	APPRO:

P.Eng Seals, Permits to Practice and Certificates of Authorization.





Kinetic
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TOLERANCES:
FRACTIONAL ±0.4
ANGULAR: BEND ± 1DEG
TWO PLACE DECIMAL ±0.12
THREE PLACE DECIMAL ±0.01

PROJECTION METHOD:

CREATED BY:	Julian Q.
DATE:	2024-07-03
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	GALVANIZED
WEIGHT (LB):	764.25
QUANTITY:	1

ASSEMBLE:
ADJUSTABLE GROUND MOUNT V3

PART:
A-FRAME+SUPPORT RAIL ASSEMBLY 3D

DWG NO: KS-AGM-19

REV: 2

PAPER SIZE: B | SCALE: 1:50 | SHEET 2 OF 6

REV:	DESCRIPTION:	BY:	DATE:	APPRO:

P.Eng Seals, Permits to Practice and Certificates of Authorization.

PROFESSIONAL ENGINEER DAVE BERNARDIN ALBERTA
Member #103464
2025-09-29

PERMIT TO PRACTICE
DAVE BERNARDIN CONSULTING INC.
RM SIGNATURE: D. Bernardin
RM APEGA ID #: 103464
DATE: 2025-09-29
PERMIT NUMBER: P014408
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

PROFESSIONAL #3283 YUKON DAVID BERNARDIN TERRITORY ENGINEER
2025-09-29

PERMIT TO PRACTICE
DAVE BERNARDIN CONSULTING INC.
SIGNATURE D. Bernardin
Date 2025-09-29
PERMIT NUMBER PP853
Association of Professional Engineers of Yukon

LICENSED PROFESSIONAL ENGINEER D. B. J. BERNARDIN 100226295 PROVINCE OF ONTARIO
Structural, for Construction
CofA #100605020
2025-09-29

PROFESSIONAL ENGINEER D. BERNARDIN MEMBER 32300 SASKATCHEWAN YR. MN. DAY
2025-09-29

Association of Professional Engineers & Geoscientists of Saskatchewan
CERTIFICATE OF AUTHORIZATION
Dave Bernardin Consulting Inc.
Number 44107
Permission to Consult held by:
Discipline: STRUCTURAL Sk. Reg. No.: 32300 Signature: D. Bernardin

REGISTERED PROFESSIONAL ENGINEER D.B.J. BERNARDIN LICENSEE L 3620 NT/NU
2025-09-29

PERMIT TO PRACTICE
DAVE BERNARDIN CONSULTING INC
Signature D. Bernardin
Date 2025-09-29
PERMIT NUMBER: P 1674
NT/NU Association of Professional Engineers and Geoscientists

PROFESSIONAL ENGINEER D. BERNARDIN # 43689 ONTARIO
2025-09-29
PERMIT #1000308

LICENCED PROFESSIONAL ENGINEER Province of New Brunswick
L6804 2025
David Bernardin
Signature
2025-09-29
INGÉNIEUR TITULAIRE DE PERMIS Province du Nouveau-Brunswick
Certificate of Authorization #F2431

PROVINCE OF MANITOBA D. B. BERNARDIN Member 24521 REGISTERED PROFESSIONAL ENGINEER
2025-09-29

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
Dave Bernardin Consulting Inc.
No. 6855

LICENSED PROFESSIONAL ENGINEER 11492 David B. Bernardin SIGNATURE DATE NUNAVUT NORTHWEST TERRITORIES & YUKON
2025-09-29

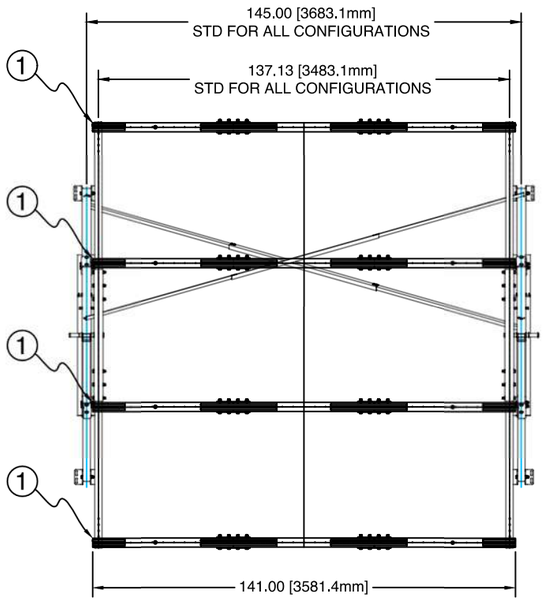
PROVINCE OF NEWFOUNDLAND AND LABRADOR pegnl ENGINEERING PERMIT N1400
2025-09-29
Dave Bernardin Consulting Inc.
Signature or Member Number (Member-in-Responsible Charge)

CERTIFIED PROFESSIONAL ENGINEER D. B. J. Bernardin 20240126 PROVINCE OF NOVA SCOTIA
Certificate of Authorization #51652
2025-09-29

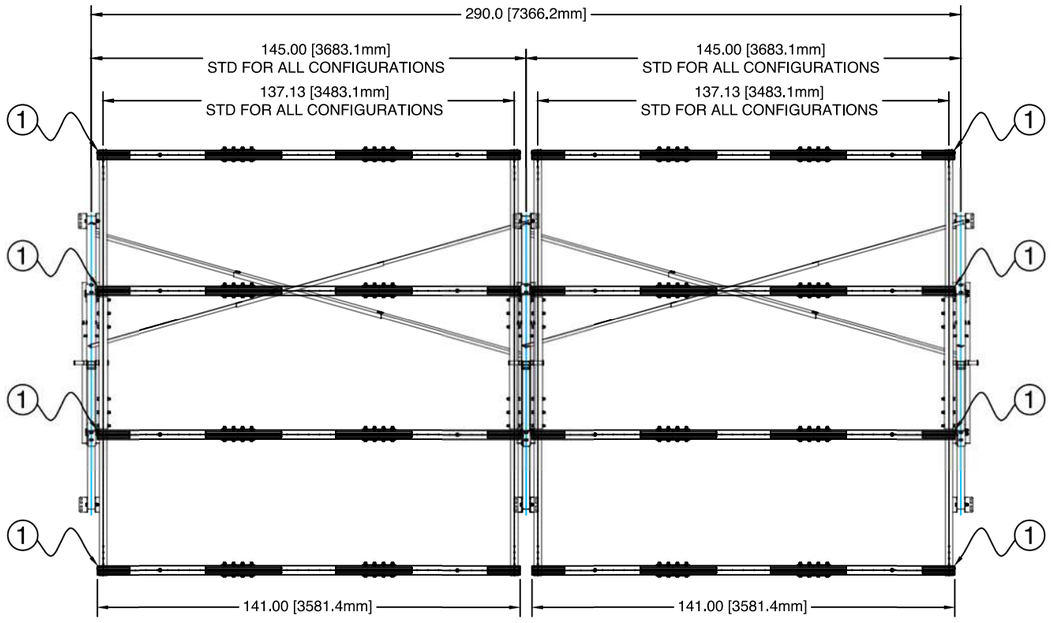
THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND
VALID FOR THE YEAR 2025
D. Bernardin
Dave Bernardin
No. 2883
DATE: 2025-09-29
LICENSED PROFESSIONAL ENGINEER
PROVINCE OF PRINCE EDWARD ISLAND
Certificate of Authorization #A722

ADJUSTABLE GROUND MOUNT V3.0

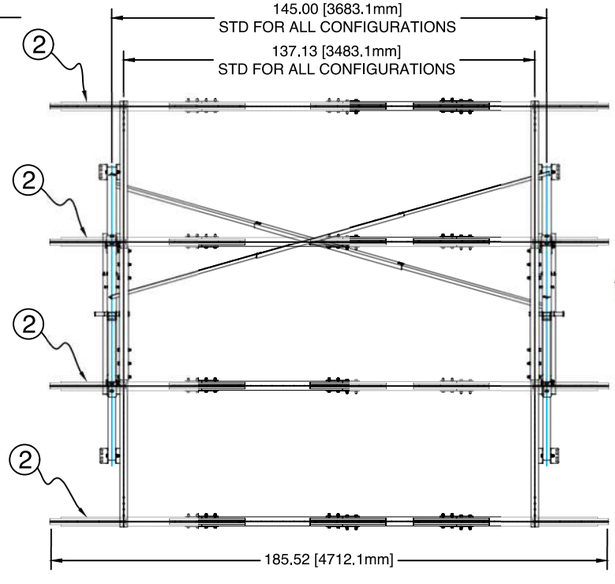
CONFIGURATIONS 6,8,10 & 12 MODULES



6 MODULES RACK



12 MODULES RACK



8 MODULES RACK

6 MODULES RACK - FOR MODULE'S SIZE
51.3" (1303.0mm) X 93.78" (2382.0mm)

ITEM NO.	PART NUMBER	DESCRIPTION
1	KS-AGM-14 R3	REC. KLEIN RAIL ASSEMBLY (6 PANELS)
2	KS-AGM-32 R3	REC. KLEIN RAIL ASSEMBLY (8 PANELS)

- MAXIMUM MODULE SIZE FOR PORTRAIT CONFIGURATION IS 44.64" (1134MM) X 93.78" (2382MM) (ANY FRAMED MODULE OF LESSER OR EQUIVALENT AREA MAY BE USED).
- THE CONFIGURATIONS WILL VARY DEPENDENT ON THE MODULE SIZE.
- MAXIMUM CANTILEVER ALLOWED FROM A-FRAME TO MODULE EDGE IS 48 INCHES.
- THE ADJACENT RAIL LENGTH CALCULATIONS WERE DONE USING A 44.6" (1134 mm) X 93.8" (2382 mm) PANEL SIZE AS REFERENCE.
- THE PROPER END CLAMP REFERENCE TO USE WILL DEPEND ON THE SOLAR PANEL'S FRAME THICKNESS.
- ALL THE HARDWARE IS CORROSION RESISTANT, BOLTS HAVE A MINIMUM YIELD STRENGTH OF 586 Mpa. (85 Ksi)

Kinetic SOLAR RACKING AND MOUNTING

PROPRIETARY AND CONFIDENTIAL

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UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ± 0.4
ANGULAR: BEND ± 1DEG
TWO PLACE DECIMAL ± 0.12
THREE PLACE DECIMAL ± 0.01

PROJECTION METHOD:

CREATED BY:	JULIAN Q.
DATE:	2025-06-26
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	N/A
WEIGHT (LB):	N/A
QUANTITY:	N/A

ASSEMBLY:
ADJUSTABLE GROUND MOUNT V3

PART:
PORTRAIT CONFIGURATION

DWG NO: KS-AGM-37

REV: 0

PAPER SIZE: B | SCALE: 1:1 | SHEET: 2 OF 9

REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY-ARCHIE

P.Eng Seals, Permits to Practice and Certificates of Authorization:

PROFESSIONAL ENGINEER DAVE BERNARDIN ALBERTA — Member #103464 — 2025-09-29

PERMIT TO PRACTICE
DAVE BERNARDIN CONSULTING INC.
RM SIGNATURE:
RM APEGA ID #: 103464
DATE: 2025-09-29
PERMIT NUMBER: P014408
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

PROFESSIONAL P3283 YUKON DAVID BERNARDIN TERRITORY ENGINEER — 2025-09-29

PERMIT TO PRACTICE
DAVE BERNARDIN CONSULTING INC.
SIGNATURE
Date 2025-09-29
PERMIT NUMBER PP853
Association of Professional Engineers of Yukon

LICENSED PROFESSIONAL ENGINEER D. B. J. BERNARDIN 100226295 PROVINCE OF ONTARIO — Structural, for Construction — CofA #100605020 — 2025-09-29

D. BERNARDIN MEMBER 32300 PROFESSIONAL ENGINEER SASKATCHEWAN — 2025-09-29

Association of Professional Engineers & Geoscientists of Saskatchewan
CERTIFICATE OF AUTHORIZATION
Dave Bernardin Consulting Inc.
Number 44107
Permission to Consult held by:
Discipline: STRUCTURAL | Sk. Reg. No.: 32300 | Signature

REGISTERED PROFESSIONAL ENGINEER D.B.J. BERNARDIN LICENSEE L5620 NT/NU — 2025-09-29

PERMIT TO PRACTICE
DAVE BERNARDIN CONSULTING INC
Signature
Date 2025-09-29
PERMIT NUMBER: P 1674
NT/NU Association of Professional Engineers and Geoscientists

PROFESSIONAL ENGINEER D. BERNARDIN # 43689 — 2025-09-29 — PERMIT #1000308

LICENCED PROFESSIONAL ENGINEER Province of New Brunswick L6804 2025 David Bernardin — Certificate of Authorization #F2431

D. B. BERNARDIN 24521 PROVINCE OF MANITOBA REGISTERED PROFESSIONAL ENGINEER — 2025-09-29

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
Dave Bernardin Consulting Inc.
No. 6855

MANITOBA PROFESSIONAL ENGINEER 11492 David B. Bernardin — SIGNATURE — DATE 2025-09-29 — AUTHORIZATION & LIMITATIONS

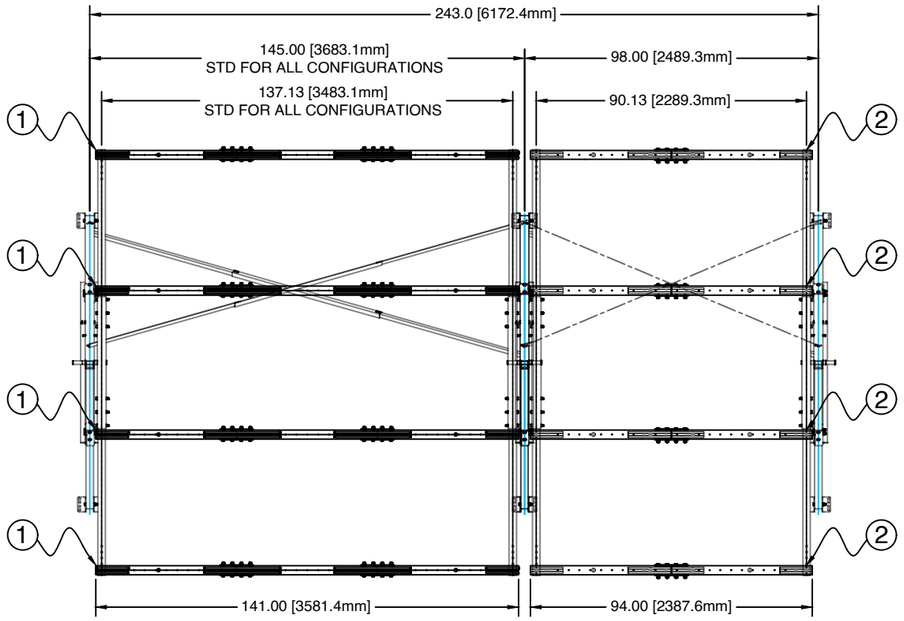
PROVINCE OF NEWFOUNDLAND AND LABRADOR
pegnl ENGINEERING PERMIT NT400
2025-09-29
Dave Bernardin Consulting Inc.
Signature or Member Number (Member-in-Responsible Charge)

REGISTERED PROFESSIONAL ENGINEER D. B. J. Bernardin DATE 20240126 PROVINCE OF NOVA SCOTIA — Certificate of Authorization #5165Z — 2025-09-29

THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND
VALID FOR THE YEAR 2025
Dave Bernardin
No. 2883
DATE: 2025-09-29
LICENSED PROFESSIONAL ENGINEER PROVINCE OF PRINCE EDWARD ISLAND — Certificate of Authorization #A722

ADJUSTABLE GROUND MOUNT V3.0

CONFIGURATION 10 MODULES



10 MODULES RACK

ITEM NO.	PART NUMBER	DESCRIPTION
1	KS-AGM-14 R3	KLEIN RAIL ASSEMBLY (6 PANELS)
2		SPECIAL TWO SECTIONS KLEIN RAIL

- MAXIMUM MODULE SIZE FOR PORTRAIT CONFIGURATION IS 44.64" (1134 mm) X 93.78" (2384 mm) (ANY FRAMED MODULE OF LESSER OR EQUIVALENT AREA MAY BE USED).
- THE CONFIGURATIONS WILL VARY DEPENDENT ON THE MODULE SIZE.
- MAXIMUM CANTILEVER ALLOWED FROM A-FRAME TO MODULE EDGE IS 48 INCHES.
- THE ADJACENT RAIL LENGTH CALCULATIONS WERE DONE USING A 44.6" (1134 mm) X 93.8" (2384 mm) PANEL SIZE AS REFERENCE.
- THE PROPER END CLAMP REFERENCE TO USE WILL DEPEND ON THE SOLAR PANEL'S FRAME THICKNESS.
- ALL THE HARDWARE IS CORROSION RESISTANT, BOLTS HAVE A MINIMUM YIELD STRENGTH OF 586 Mpa. (85 Ksi)

- THE SPECIAL TWO SECTION KLEIN RAIL IS ONLY FOR 10 MODULES RACK.
- THE MAXIMUM MODULES' SIZE FOR SPECIAL CONFIGURATION IS 1134mm (44.64") X 2384mm (93.78").

P.Eng Seals, Permits to Practice and Certificates of Authorization:

Kinetic SOLAR RACKING AND MOUNTING

PROPRIETARY AND CONFIDENTIAL

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UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ± 0.4
ANGULAR: BEND ± 1DEG
TWO PLACE DECIMAL ± 0.12
THREE PLACE DECIMAL ± 0.01

PROJECTION METHOD:

CREATED BY:	JULIAN Q.
DATE:	2025-06-26
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	N/A
WEIGHT (LB):	N/A
QUANTITY:	N/A

ASSEMBLY: ADJUSTABLE GROUND MOUNT V3

PART: PORTRAIT CONFIGURATION

DWG NO: KS-AGM-60 REV: 0

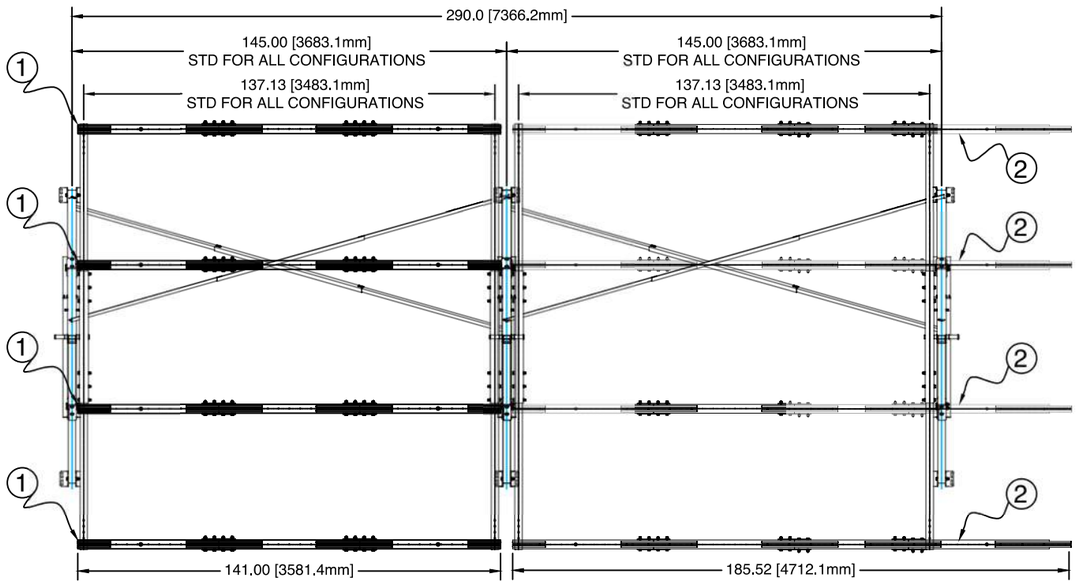
PAPER SIZE: B | SCALE: 1:1 | SHEET: 2 OF 9

REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY-ARCHIE

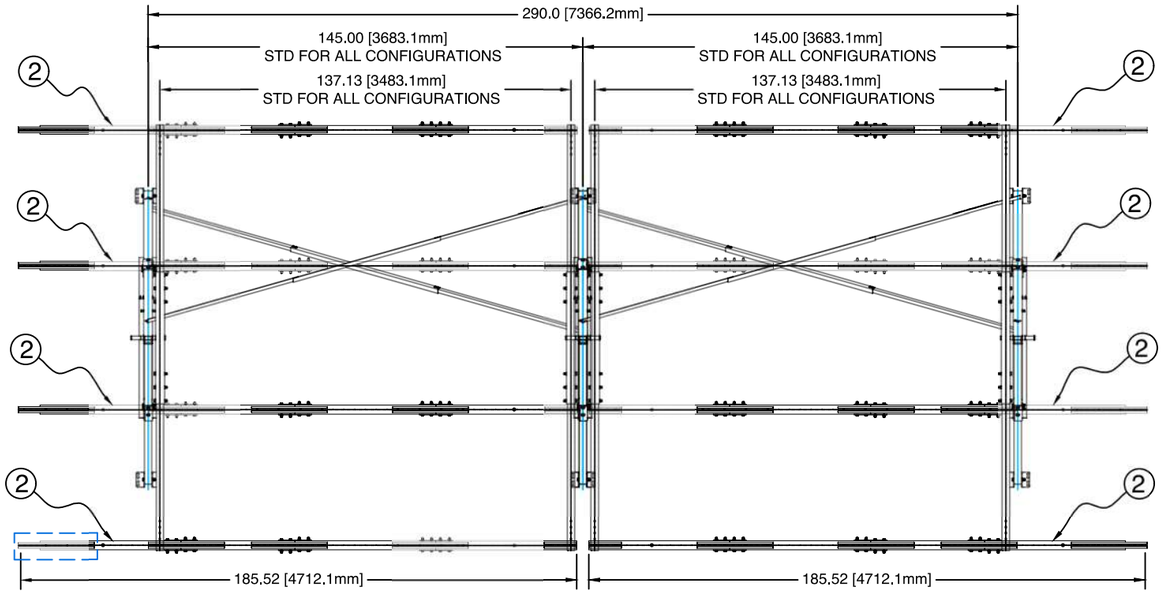
ITEM NO.	PART NUMBER	DESCRIPTION
1	KS-AGM-14 R3	REC. KLEIN RAIL ASSEMBLY (6 PANELS)
2	KS-AGM-36 R3	REC. KLEIN RAIL ASSEMBLY (8 PANELS) ONE SIDE CANTILEVER

ADJUSTABLE GROUND MOUNT V3.0

CONFIGURATIONS 14 & 16 MODULES



14 MODULES RACK



16 MODULES RACK

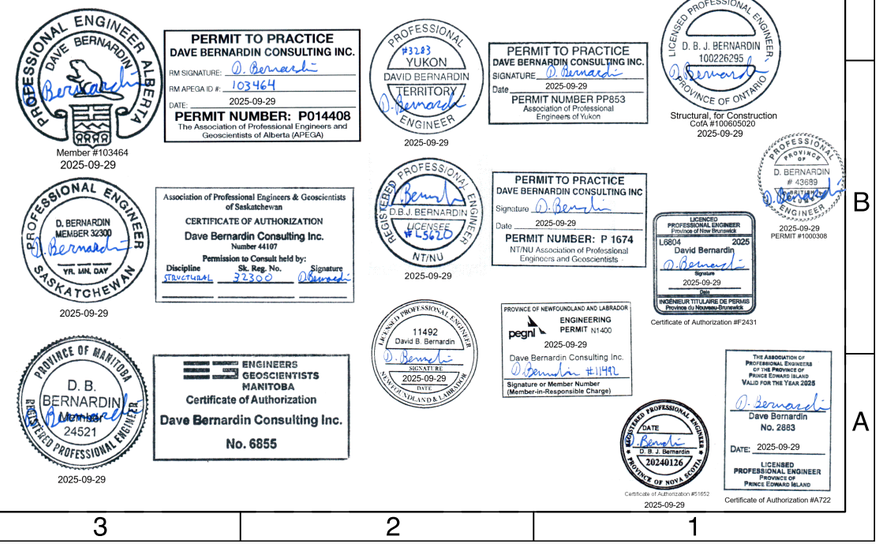


FOR 12 MODULES' SIZE 51.3" (1303.0mm) X 93.78" (2382.0mm) RACK MOVE THE LAST TOPPER SECTION TO THE RAIL'S EDGE.

12 MODULES RACK - FOR MODULE'S SIZE 51.3" (1303.0mm) X 93.78" (2382.0mm)

- MAXIMUM MODULE SIZE FOR PORTRAIT CONFIGURATION IS 44.64" (1134MM) X 93.78" (2382MM) (ANY FRAMED MODULE OF LESSER OR EQUIVALENT AREA MAY BE USED).
- THE CONFIGURATIONS WILL VARY DEPENDENT ON THE MODULE SIZE.
- MAXIMUM CANTILEVER ALLOWED FROM A-FRAME TO MODULE EDGE IS 48 INCHES.
- THE ADJACENT RAIL LENGTH CALCULATIONS WERE DONE USING A 44.6" (1134 mm) X 93.8" (2382 mm) PANEL SIZE AS REFERENCE.
- THE PROPER END CLAMP REFERENCE TO USE WILL DEPEND ON THE SOLAR PANEL'S FRAME THICKNESS.
- ALL THE HARDWARE IS CORROSION RESISTANT, BOLTS HAVE A MINIMUM YIELD STRENGTH OF 586 Mpa. (85 Ksi)

P.Eng Seals, Permits to Practice and Certificates of Authorization:



Kinetic
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ANGULAR: BEND ± 1DEG
TWO PLACE DECIMAL ± 0.12
THREE PLACE DECIMAL ± 0.01

PROJECTION METHOD:

CREATED BY:	JULIAN Q.
DATE:	2025-06-26
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	N/A
WEIGHT (LB):	N/A
QUANTITY:	N/A

ASSEMBLY: ADJUSTABLE GROUND MOUNT V3

PART: PORTRAIT CONFIGURATION

DWG NO: KS-AGM-38 REV: 0

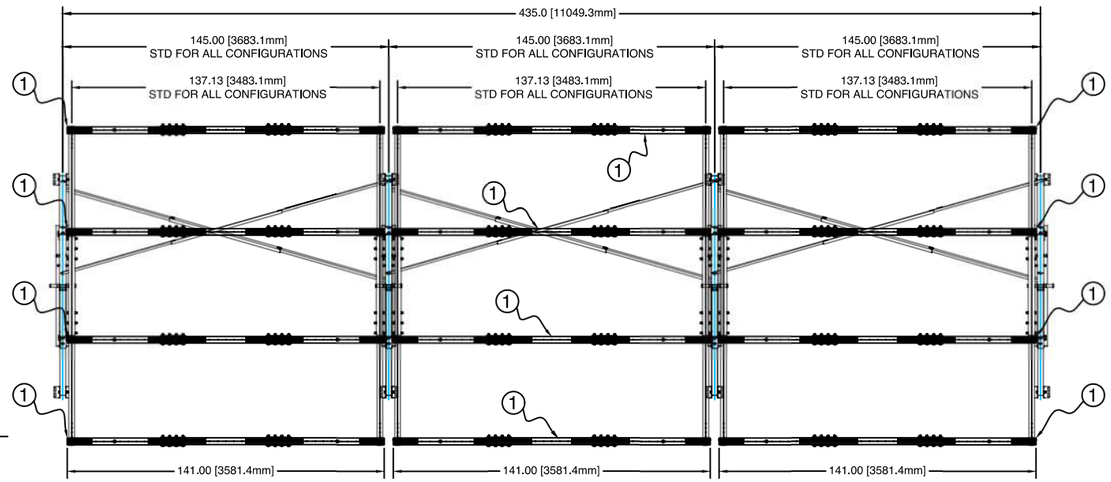
PAPER SIZE: B | SCALE: 1:1 | SHEET: 2 OF 9

REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY-ARCHIE

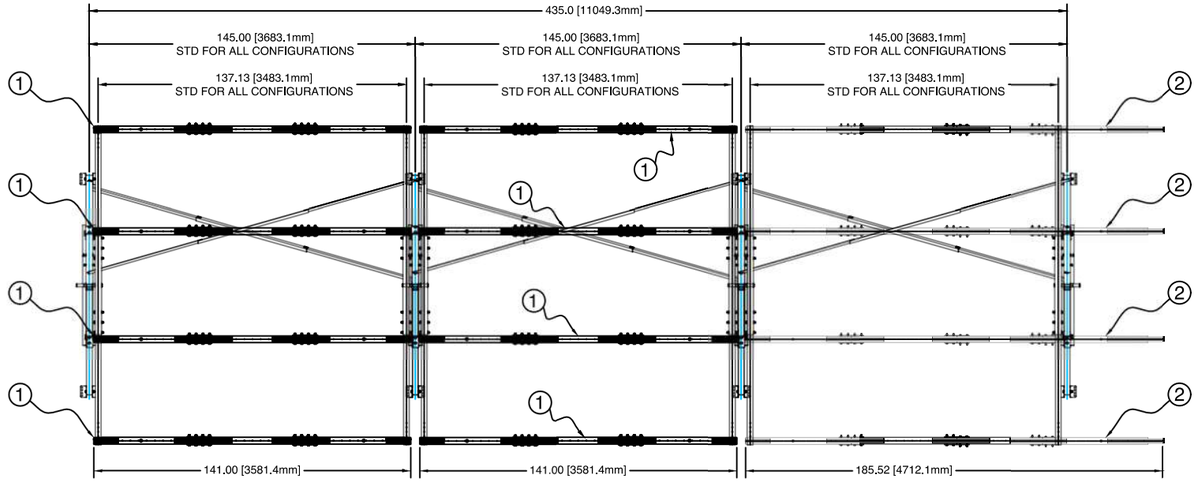
ITEM NO.	PART NUMBER	DESCRIPTION
1	KS-AGM-14 R3	REC. KLEIN RAIL ASSEMBLY (6 PANELS)
2	KS-AGM-36 R3	REC. KLEIN RAIL ASSEMBLY (8 PANELS) ONE SIDE CANTILEVER

ADJUSTABLE GROUND MOUNT V3.0

CONFIGURATIONS 18 & 20 MODULES



18 MODULES RACK



20 MODULES RACK

- MAXIMUM MODULE SIZE FOR PORTRAIT CONFIGURATION IS 44.64" (1134MM) X 93.78" (2382MM) (ANY FRAMED MODULE OF LESSER OR EQUIVALENT AREA MAY BE USED).
- THE CONFIGURATIONS WILL VARY DEPENDENT ON THE MODULE SIZE.
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- THE PROPER END CLAMP REFERENCE TO USE WILL DEPEND ON THE SOLAR PANEL'S FRAME THICKNESS.
- ALL THE HARDWARE IS CORROSION RESISTANT, BOLTS HAVE A MINIMUM YIELD STRENGTH OF 586 Mpa. (85 Ksi)

P.Eng Seals, Permits to Practice and Certificates of Authorization:

PROFESSIONAL ENGINEER DAVE BERNARDIN ALBERTA — Member #103464 — 2025-09-29

PERMIT TO PRACTICE — DAVE BERNARDIN CONSULTING INC. — RM SIGNATURE: D. Bernardin — RM APEGA ID #: 103464 — DATE: 2025-09-29 — PERMIT NUMBER: P014408 — The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

PROFESSIONAL #3283 YUKON DAVID BERNARDIN TERRITORY ENGINEER — 2025-09-29

PERMIT TO PRACTICE — DAVE BERNARDIN CONSULTING INC. — SIGNATURE: D. Bernardin — Date 2025-09-29 — PERMIT NUMBER PP853 — Association of Professional Engineers of Yukon

LICENSED PROFESSIONAL ENGINEER D. B. J. BERNARDIN 100226295 PROVINCE OF ONTARIO — Structural, for Construction CofA #100605020 — 2025-09-29

PROFESSIONAL ENGINEER PROVINCE OF NEW BRUNSWICK D. BERNARDIN # 43689 — 2025-09-29 — PERMIT #1000308

PROFESSIONAL ENGINEER D. BERNARDIN MEMBER 32300 YR. MN. DAY SASKATCHEWAN — 2025-09-29

Association of Professional Engineers & Geoscientists of Saskatchewan — CERTIFICATE OF AUTHORIZATION — Dave Bernardin Consulting Inc. — Number 44107 — Permission to Consult held by: — Discipline: STRUCTURAL — Sk. Reg. No.: 32300 — Signature: D. Bernardin

REGISTERED PROFESSIONAL ENGINEER LICENCE # L5618 D.B.J. BERNARDIN NT/NU — 2025-09-29

PERMIT TO PRACTICE — DAVE BERNARDIN CONSULTING INC — Signature D. Bernardin — Date 2025-09-29 — PERMIT NUMBER: P 1674 — NT/NU Association of Professional Engineers and Geoscientists

LICENCED PROFESSIONAL ENGINEER Province of New Brunswick — L6804 — David Bernardin — 2025 — Signature D. Bernardin — 2025-09-29 — Title INGÉNIEUR TITULAIRE DE PERMIS Province du Nouveau-Brunswick — Certificate of Authorization #F2431

PROVINCE OF MANITOBA D. B. BERNARDIN Member 24521 REGISTERED PROFESSIONAL ENGINEER — 2025-09-29

ENGINEERS GEOSCIENTISTS MANITOBA — Certificate of Authorization — Dave Bernardin Consulting Inc. — No. 6855

LICENSED PROFESSIONAL ENGINEER 11492 David B. Bernardin SIGNATURE DATE NEWFOUNDLAND & LABRADOR

PROVINCE OF NEWFOUNDLAND AND LABRADOR — pegnl ENGINEERING PERMIT N1400 — 2025-09-29 — Dave Bernardin Consulting Inc. — Signature or Member Number (Member-in-Responsible Charge) — #11491

THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND — VALID FOR THE YEAR 2026 — Dave Bernardin — No. 2883 — DATE: 2025-09-29 — LICENSED PROFESSIONAL ENGINEER PROVINCE OF PRINCE EDWARD ISLAND — Certificate of Authorization #A722

REGISTERED PROFESSIONAL ENGINEER DATE D. B. J. Bernardin 10240126 PROVINCE OF NOVA SCOTIA — Certificate of Authorization #51652 — 2025-09-29

Kinetic SOLAR RACKING AND MOUNTING

PROPRIETARY AND CONFIDENTIAL

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TOLERANCES:
FRACTIONAL ± 0.4
ANGULAR: BEND ± 1DEG
TWO PLACE DECIMAL ± 0.12
THREE PLACE DECIMAL ± 0.01

PROJECTION METHOD:

CREATED BY:	JULIAN Q.
DATE:	2025-06-26
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	N/A
WEIGHT (LB):	N/A
QUANTITY:	N/A

ASSEMBLY: ADJUSTABLE GROUND MOUNT V3

PART: PORTRAIT CONFIGURATION

DWG NO: KS-AGM-39 REV: 0

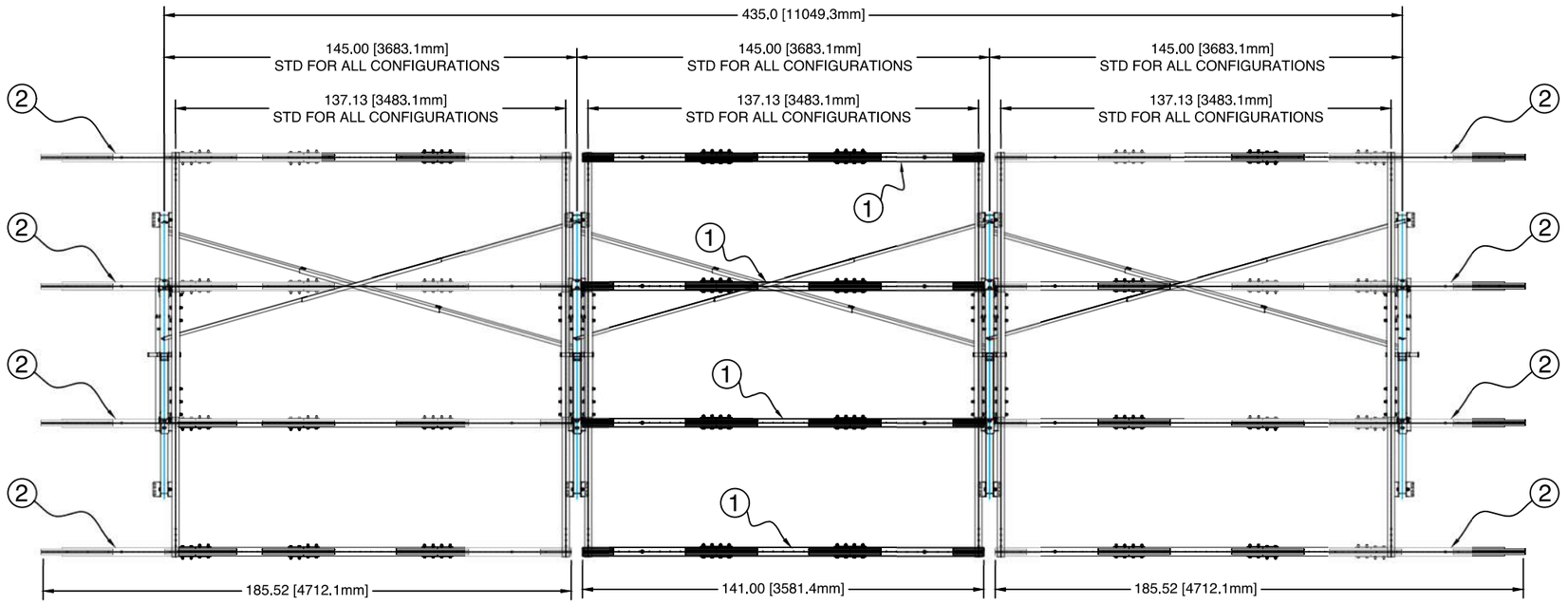
PAPER SIZE: B SCALE: 1:1 SHEET: 3 OF 9

REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY-ARCHIE

ITEM NO.	PART NUMBER	DESCRIPTION
1	KS-AGM-14 R3	REC. KLEIN RAIL ASSEMBLY (6 PANELS)
2	KS-AGM-36 R3	REC. KLEIN RAIL ASSEMBLY (8 PANELS) ONE SIDE CANTILEVER

ADJUSTABLE GROUND MOUNT V3.0

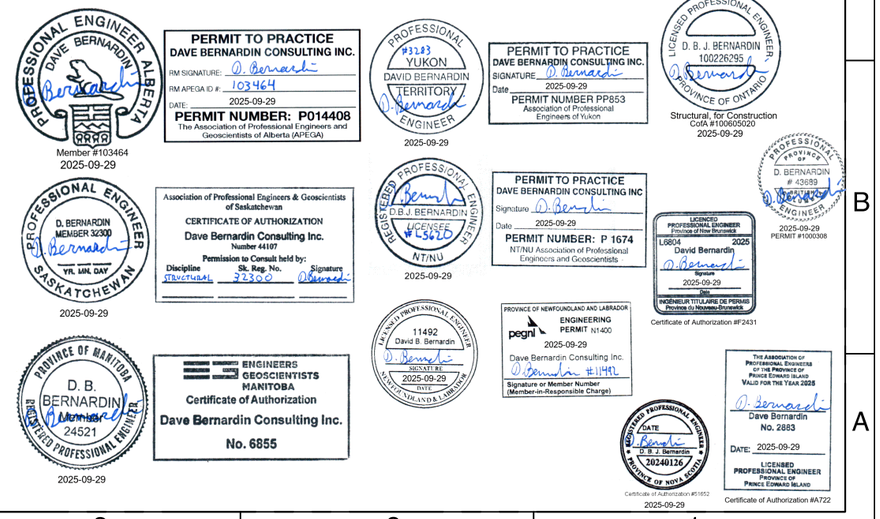
CONFIGURATIONS 22 MODULES



22 MODULES RACK

- MAXIMUM MODULE SIZE FOR PORTRAIT CONFIGURATION IS 44.64" (1134MM) X 93.78" (2382MM) (ANY FRAMED MODULE OF LESSER OR EQUIVALENT AREA MAY BE USED).
- THE CONFIGURATIONS WILL VARY DEPENDENT ON THE MODULE SIZE.
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- ALL THE HARDWARE IS CORROSION RESISTANT, BOLTS HAVE A MINIMUM YIELD STRENGTH OF 586 Mpa. (85 Ksi)

P.Eng Seals, Permits to Practice and Certificates of Authorization:



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SOLAR RACKING AND MOUNTING

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FRACTIONAL ± 0.4
ANGULAR: BEND ± 1DEG
TWO PLACE DECIMAL ± 0.12
THREE PLACE DECIMAL ± 0.01

PROJECTION METHOD:

CREATED BY:	JULIAN Q.
DATE:	2025-06-26
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	N/A
WEIGHT (LB):	N/A
QUANTITY:	N/A

ASSEMBLY: ADJUSTABLE GROUND MOUNT V3

PART: PORTRAIT CONFIGURATION

DWG NO: KS-AGM-40 REV: 0

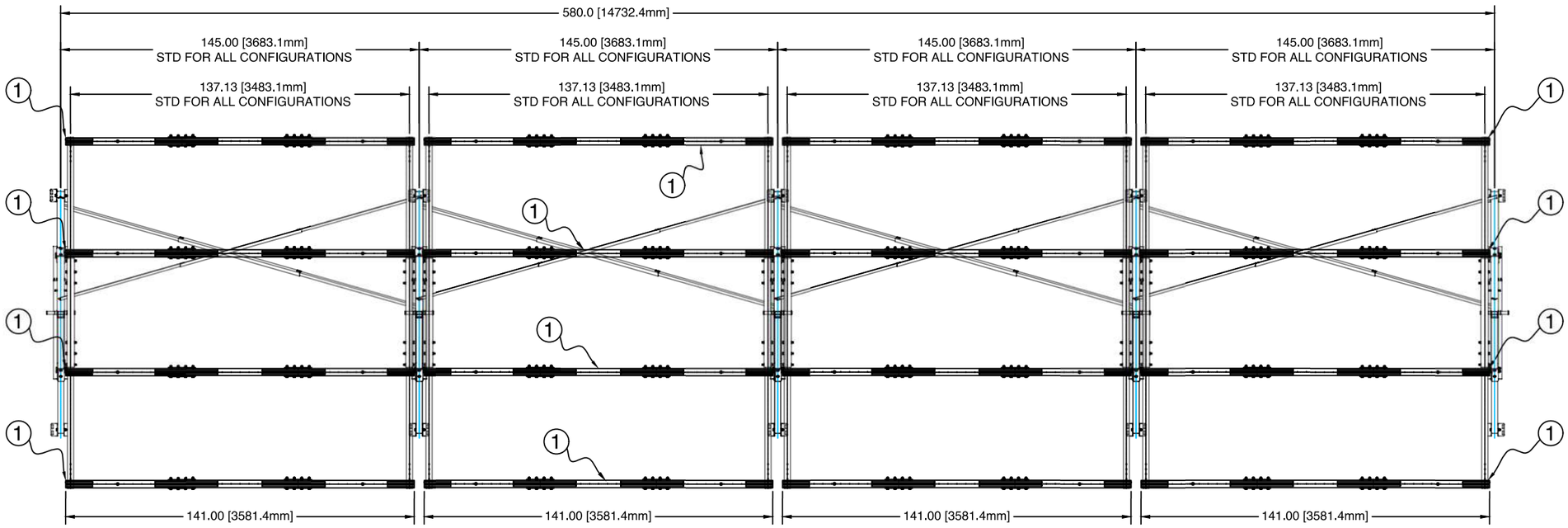
PAPER SIZE: B | SCALE: 1:1 | SHEET: 2 OF 9

REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY-ARCHIE

ITEM NO.	PART NUMBER	DESCRIPTION
1	KS-AGM-14 R3	REC. KLEIN RAIL ASSEMBLY (6 PANELS)

ADJUSTABLE GROUND MOUNT V3.0

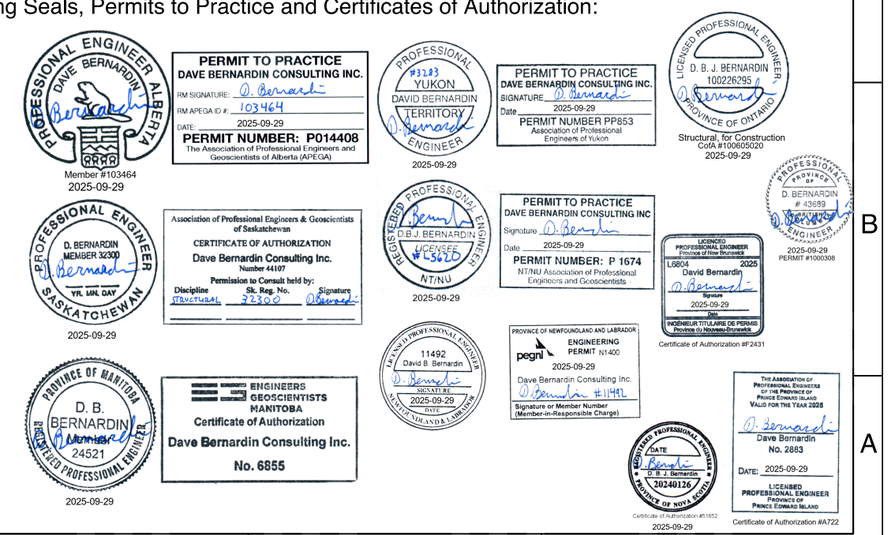
CONFIGURATIONS 24 MODULES



24 MODULES RACK

- MAXIMUM MODULE SIZE FOR PORTRAIT CONFIGURATION IS 44.64" (1134MM) X 93.78" (2382MM) (ANY FRAMED MODULE OF LESSER OR EQUIVALENT AREA MAY BE USED).
- THE CONFIGURATIONS WILL VARY DEPENDENT ON THE MODULE SIZE.
- MAXIMUM CANTILEVER ALLOWED FROM A-FRAME TO MODULE EDGE IS 48 INCHES.
- THE ADJACENT RAIL LENGTH CALCULATIONS WERE DONE USING A 44.6" (1134 mm) X 93.8" (2382 mm) PANEL SIZE AS REFERENCE.
- THE PROPER END CLAMP REFERENCE TO USE WILL DEPEND ON THE SOLAR PANEL'S FRAME THICKNESS.
- ALL THE HARDWARE IS CORROSION RESISTANT, BOLTS HAVE A MINIMUM YIELD STRENGTH OF 586 Mpa. (85 Ksi)

P.Eng Seals, Permits to Practice and Certificates of Authorization:



PROPRIETARY AND CONFIDENTIAL

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Kinetic SOLAR RACKING AND MOUNTING

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TOLERANCES:
FRACTIONAL ± 0.4
ANGULAR: BEND ± 1DEG
TWO PLACE DECIMAL ± 0.12
THREE PLACE DECIMAL ± 0.01

PROJECTION METHOD:

CREATED BY:	JULIAN Q.
DATE:	2025-06-26
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	N/A
WEIGHT (LB):	N/A
QUANTITY:	N/A

ASSEMBLY: ADJUSTABLE GROUND MOUNT V3

PART: PORTRAIT CONFIGURATION

DWG NO: KS-AGM-41 REV: 0

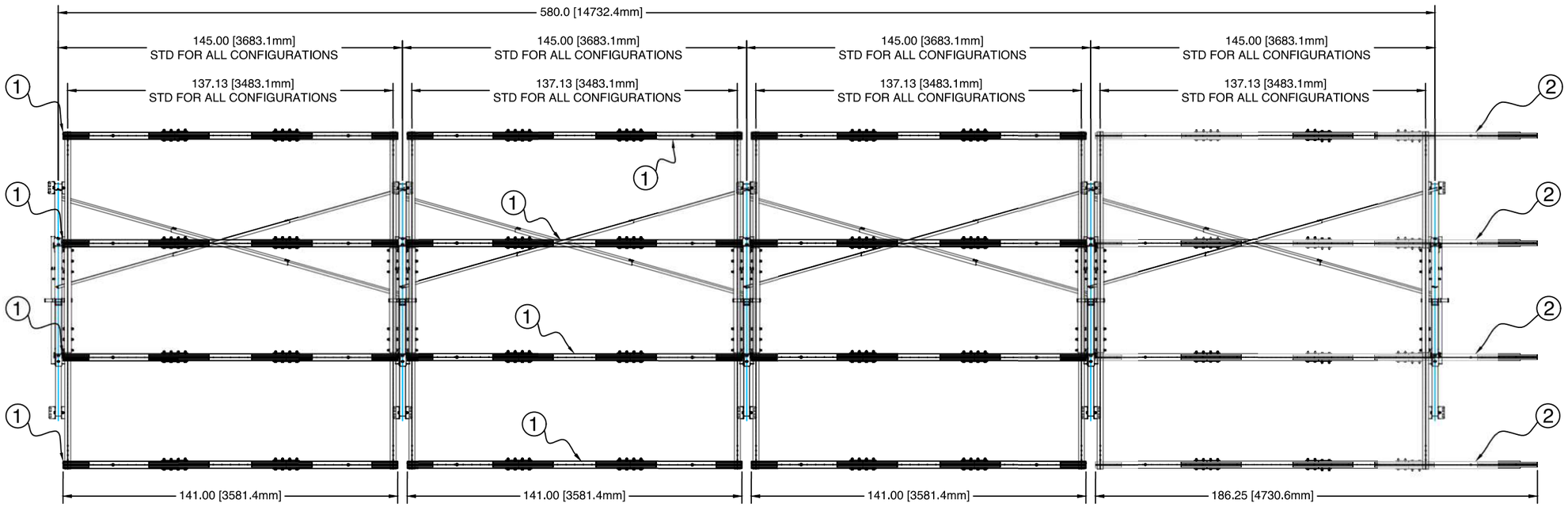
PAPER SIZE: B SCALE: 1:1 SHEET: 2 OF 9

REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY-ARCHIE

ITEM NO.	PART NUMBER	DESCRIPTION
1	KS-AGM-14 R3	REC. KLEIN RAIL ASSEMBLY (6 PANELS)
2	KS-AGM-36 R3	REC. KLEIN RAIL ASSEMBLY (8 PANELS) ONE SIDE CANTILEVER

ADJUSTABLE GROUND MOUNT V3.0

CONFIGURATIONS 26 MODULES



26 MODULES RACK

- MAXIMUM MODULE SIZE FOR PORTRAIT CONFIGURATION IS 44.64" (1134MM) X 93.78" (2382MM) (ANY FRAMED MODULE OF LESSER OR EQUIVALENT AREA MAY BE USED).
- THE CONFIGURATIONS WILL VARY DEPENDENT ON THE MODULE SIZE.
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P.Eng Seals, Permits to Practice and Certificates of Authorization:

Member #103464 2025-09-29

PERMIT TO PRACTICE DAVE BERNARDIN CONSULTING INC. RM SIGNATURE: D. Bernardin RM APEGA ID #: 103464 DATE: 2025-09-29 PERMIT NUMBER: P014408 The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

2025-09-29

PERMIT TO PRACTICE DAVE BERNARDIN CONSULTING INC. SIGNATURE D. Bernardin Date 2025-09-29 PERMIT NUMBER PP853 Association of Professional Engineers of Yukon

Structural, for Construction CofA #100605020 2025-09-29

2025-09-29

Association of Professional Engineers & Geoscientists of Saskatchewan CERTIFICATE OF AUTHORIZATION Dave Bernardin Consulting Inc. Number 44107 Permission to Consult held by: Discipline STRUCTURAL Sk. Reg. No. 22300 Signature D. Bernardin

2025-09-29

PERMIT TO PRACTICE DAVE BERNARDIN CONSULTING INC Signature D. Bernardin Date 2025-09-29 PERMIT NUMBER: P 1674 NT/NU Association of Professional Engineers and Geoscientists

2025-09-29 PERMIT #1000308

Certificate of Authorization #F2431

2025-09-29

PROVINCE OF NEWFOUNDLAND AND LABRADOR ENGINEERING PERMIT 61400 2025-09-29 Dave Bernardin Consulting Inc. Signature or Member Number (Member-in-Responsible Charge)

2025-09-29

ENGINEERS GEOSCIENTISTS MANITOBA Certificate of Authorization Dave Bernardin Consulting Inc. No. 6855

2025-09-29

Certificate of Authorization #6652

THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND VALID FOR THE YEAR 2025 Dave Bernardin No. 2883 DATE: 2025-09-29 LICENSED PROFESSIONAL ENGINEER PROVINCE OF PRINCE EDWARD ISLAND

Certificate of Authorization #A722

Kinetic SOLAR RACKING AND MOUNTING

PROPRIETARY AND CONFIDENTIAL

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FRACTIONAL ± 0.4
ANGULAR: BEND ± 1DEG
TWO PLACE DECIMAL ± 0.12
THREE PLACE DECIMAL ± 0.01

PROJECTION METHOD:

CREATED BY:	JULIAN Q.
DATE:	2025-06-26
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	N/A
WEIGHT (LB):	N/A
QUANTITY:	N/A

ASSEMBLY: ADJUSTABLE GROUND MOUNT V3

PART: PORTRAIT CONFIGURATION

DWG NO: KS-AGM-42 REV: 0

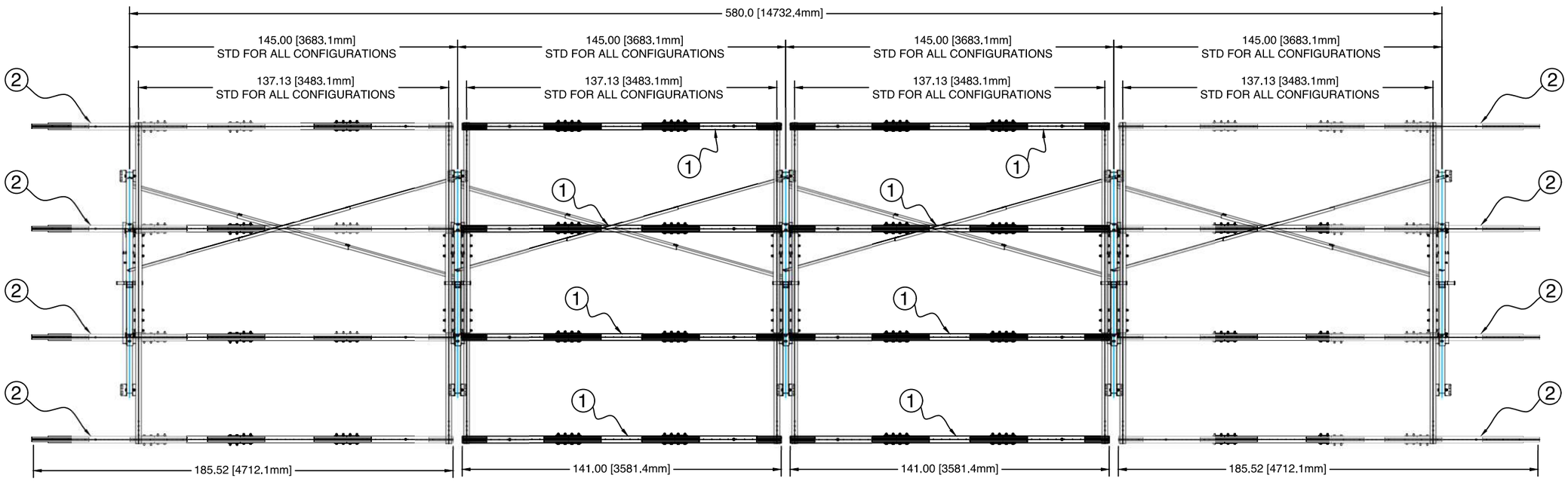
PAPER SIZE: B SCALE: 1:1 SHEET: 2 OF 9

REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY-ARCHIE

ITEM NO.	PART NUMBER	DESCRIPTION
1	KS-AGM-14 R3	REC. KLEIN RAIL ASSEMBLY (6 PANELS)
2	KS-AGM-36 R3	REC. KLEIN RAIL ASSEMBLY (8 PANELS) ONE SIDE CANTILEVER

ADJUSTABLE GROUND MOUNT V3.0

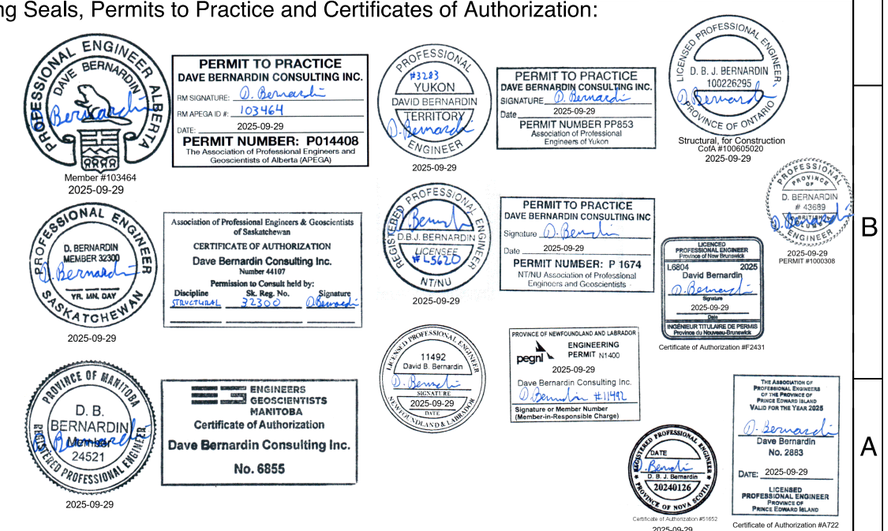
CONFIGURATIONS 28 MODULES



28 MODULES RACK

- MAXIMUM MODULE SIZE FOR PORTRAIT CONFIGURATION IS 44.64" (1134MM) X 93.78" (2382MM) (ANY FRAMED MODULE OF LESSER OR EQUIVALENT AREA MAY BE USED).
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P.Eng Seals, Permits to Practice and Certificates of Authorization:



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ANGULAR: BEND ± 1DEG
TWO PLACE DECIMAL ± 0.12
THREE PLACE DECIMAL ± 0.01
PROJECTION METHOD:

CREATED BY:	JULIAN Q.
DATE:	2025-06-26
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	N/A
WEIGHT (LB):	N/A
QUANTITY:	N/A

ASSEMBLY: ADJUSTABLE GROUND MOUNT V3

PART: PORTRAIT CONFIGURATION

DWG NO: KS-AGM-43 REV: 0

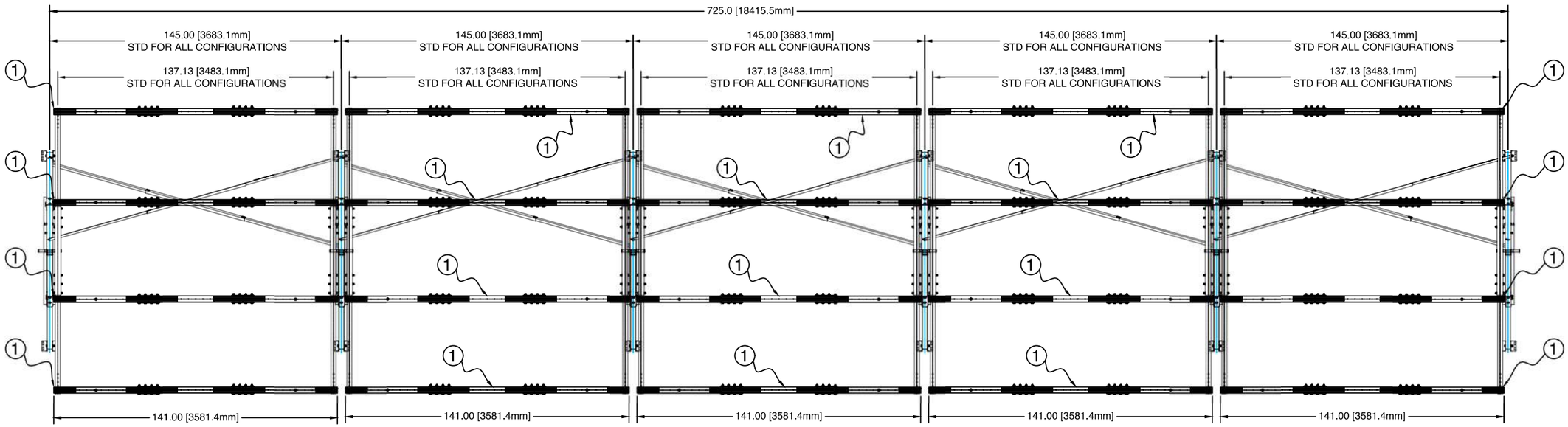
PAPER SIZE: B | SCALE: 1:1 | SHEET: 2 OF 9

REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY-ARCHIE

ITEM NO.	PART NUMBER	DESCRIPTION
1	KS-AGM-14 R3	REC. KLEIN RAIL ASSEMBLY (6 PANELS)

ADJUSTABLE GROUND MOUNT V3.0

CONFIGURATIONS 30 MODULES



30 MODULES RACK

- MAXIMUM MODULE SIZE FOR PORTRAIT CONFIGURATION IS 44.64" (1134MM) X 93.78" (2382MM) (ANY FRAMED MODULE OF LESSER OR EQUIVALENT AREA MAY BE USED).
- THE CONFIGURATIONS WILL VARY DEPENDENT ON THE MODULE SIZE.
- MAXIMUM CANTILEVER ALLOWED FROM A-FRAME TO MODULE EDGE IS 48 INCHES.
- THE ADJACENT RAIL LENGTH CALCULATIONS WERE DONE USING A 44.6" (1134 mm) X 93.8" (2382 mm) PANEL SIZE AS REFERENCE.
- THE PROPER END CLAMP REFERENCE TO USE WILL DEPEND ON THE SOLAR PANEL'S FRAME THICKNESS.
- ALL THE HARDWARE IS CORROSION RESISTANT, BOLTS HAVE A MINIMUM YIELD STRENGTH OF 586 Mpa. (85 Ksi)

P.Eng Seals, Permits to Practice and Certificates of Authorization:

Member #103464
2025-09-29

PERMIT TO PRACTICE
DAVE BERNARDIN CONSULTING INC.
RM SIGNATURE: D. Bernardin
RM APEGA ID #: 103464
DATE: 2025-09-29
PERMIT NUMBER: P014408
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

2025-09-29

PERMIT TO PRACTICE
DAVE BERNARDIN CONSULTING INC.
SIGNATURE: D. Bernardin
Date 2025-09-29
PERMIT NUMBER PP853
Association of Professional Engineers of Yukon

Structural, for Construction
CofA #100605020
2025-09-29

2025-09-29

Association of Professional Engineers & Geoscientists of Saskatchewan
CERTIFICATE OF AUTHORIZATION
Dave Bernardin Consulting Inc.
Number 44107
Permission to Consult held by:
Discipline: STRUCTURAL | Sk. Reg. No.: 32300 | Signature: D. Bernardin

2025-09-29

PERMIT TO PRACTICE
DAVE BERNARDIN CONSULTING INC
Signature D. Bernardin
Date 2025-09-29
PERMIT NUMBER: P 1674
NT/NU Association of Professional Engineers and Geoscientists

2025-09-29
PERMIT #1000308

LICENCED PROFESSIONAL ENGINEER
Province of New Brunswick
L6804 2025
Signature
David Bernardin
2025-09-29
Date
INGÉNIEUR TITULAIRE DE PERMIS
Province du Nouveau-Brunswick

Certificate of Authorization #F2431

2025-09-29

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
Dave Bernardin Consulting Inc.
No. 6855

11492
David B. Bernardin
SIGNATURE
2025-09-29
DATE

PROVINCE OF NEWFOUNDLAND AND LABRADOR
ENGINEERING PERMIT NO. 11400
pegnl
2025-09-29
Dave Bernardin Consulting Inc.
Signature or Member Number (Member-in-Responsible Charge)

THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND
VALID FOR THE YEAR 2025
Dave Bernardin
No. 2853
DATE: 2025-09-29
LICENSED PROFESSIONAL ENGINEER
PROVINCE OF PRINCE EDWARD ISLAND

Certificate of Authorization #A722

Kinetic
SOLAR RACKING AND MOUNTING

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF KINETIC SOLAR RACKING AND MOUNTING ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF KINETIC SOLAR RACKING AND MOUNTING INC. IS PROHIBITED.

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ± 0.4
ANGULAR: BEND ± 1DEG
TWO PLACE DECIMAL ± 0.12
THREE PLACE DECIMAL ± 0.01
PROJECTION METHOD:

CREATED BY:	JULIAN Q.
DATE:	2025-06-26
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	N/A
WEIGHT (LB):	N/A
QUANTITY:	N/A

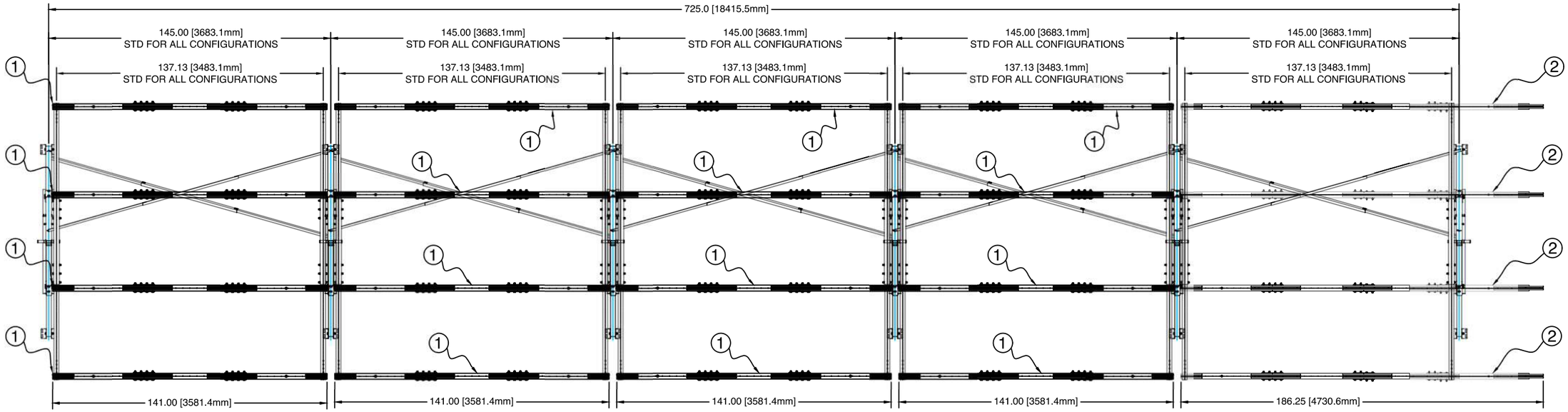
ASSEMBLY: ADJUSTABLE GROUND MOUNT V3
PART: PORTRAIT CONFIGURATION
DWG NO: KS-AGM-44
REV: 0
PAPER SIZE: B | SCALE: 1:1 | SHEET: 6 OF 9

REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY-ARCHIE

ITEM NO.	PART NUMBER	DESCRIPTION
1	KS-AGM-14 R3	REC. KLEIN RAIL ASSEMBLY (6 PANELS)
2	KS-AGM-36 R3	REC. KLEIN RAIL ASSEMBLY (8 PANELS) ONE SIDE CANTILEVER

ADJUSTABLE GROUND MOUNT V3.0

CONFIGURATIONS 32 MODULES



32 MODULES RACK

- MAXIMUM MODULE SIZE FOR PORTRAIT CONFIGURATION IS 44.64" (1134MM) X 93.78" (2382MM) (ANY FRAMED MODULE OF LESSER OR EQUIVALENT AREA MAY BE USED).
- THE CONFIGURATIONS WILL VARY DEPENDENT ON THE MODULE SIZE.
- MAXIMUM CANTILEVER ALLOWED FROM A-FRAME TO MODULE EDGE IS 48 INCHES.
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- THE PROPER END CLAMP REFERENCE TO USE WILL DEPEND ON THE SOLAR PANEL'S FRAME THICKNESS.
- ALL THE HARDWARE IS CORROSION RESISTANT, BOLTS HAVE A MINIMUM YIELD STRENGTH OF 586 Mpa. (85 Ksi)

P.Eng Seals, Permits to Practice and Certificates of Authorization:

Member #103464
2025-09-29

PERMIT TO PRACTICE
DAVE BERNARDIN CONSULTING INC.
RM SIGNATURE: D. Bernardin
RM APEGA ID #: 103464
DATE: 2025-09-29
PERMIT NUMBER: P014408
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

2025-09-29

PERMIT TO PRACTICE
DAVE BERNARDIN CONSULTING INC.
SIGNATURE: D. Bernardin
Date 2025-09-29
PERMIT NUMBER PP853
Association of Professional Engineers of Yukon

Structural, for Construction
CotA #100605020
2025-09-29

2025-09-29

Association of Professional Engineers & Geoscientists of Saskatchewan
CERTIFICATE OF AUTHORIZATION
Dave Bernardin Consulting Inc.
Number 44107
Permission to Consult held by:
Discipline: STRUCTURAL | Sk. Reg. No.: 27300 | Signature

2025-09-29

PERMIT TO PRACTICE
DAVE BERNARDIN CONSULTING INC
Signature D. Bernardin
Date 2025-09-29
PERMIT NUMBER: P 1674
NT/NU Association of Professional Engineers and Geoscientists

2025-09-29
PERMIT #1000308

LICENCED PROFESSIONAL ENGINEER
Province of New Brunswick
L6804 2025
Signature
David Bernardin
2025-09-29
Date
INGÉNIEUR TITULAIRE DE PERMIS
Province du Nouveau-Brunswick
Certificate of Authorization #F2431

2025-09-29

11492
David B. Bernardin
SIGNATURE
2025-09-29
DATE

PROVINCE OF NEWFOUNDLAND AND LABRADOR
pegnl ENGINEERING PERMIT 614.00
2025-09-29
Dave Bernardin Consulting Inc.
Dave Bernardin #11491
Signature or Member Number (Member-in-Responsible Charge)

2025-09-29

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
Dave Bernardin Consulting Inc.
No. 6855

2025-09-29

THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND
VALID FOR THE YEAR 2025
Dave Bernardin
No. 2883
DATE: 2025-09-29
LICENSED PROFESSIONAL ENGINEER
PROVINCE OF PRINCE EDWARD ISLAND
Certificate of Authorization #A722

Certificate of Authorization #51652

PROPRIETARY AND CONFIDENTIAL

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UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES	
TOLERANCES:	
FRACTIONAL	± 0.4
ANGULAR: BEND	± 1DEG
TWO PLACE DECIMAL	± 0.12
THREE PLACE DECIMAL	± 0.01
PROJECTION METHOD:	

CREATED BY:	JULIAN Q.
DATE:	2025-06-26
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	N/A
WEIGHT (LB):	N/A
QUANTITY:	N/A

ASSEMBLY: ADJUSTABLE GROUND MOUNT V3

PART: PORTRAIT CONFIGURATION

DWG NO: KS-AGM-45 REV: 0

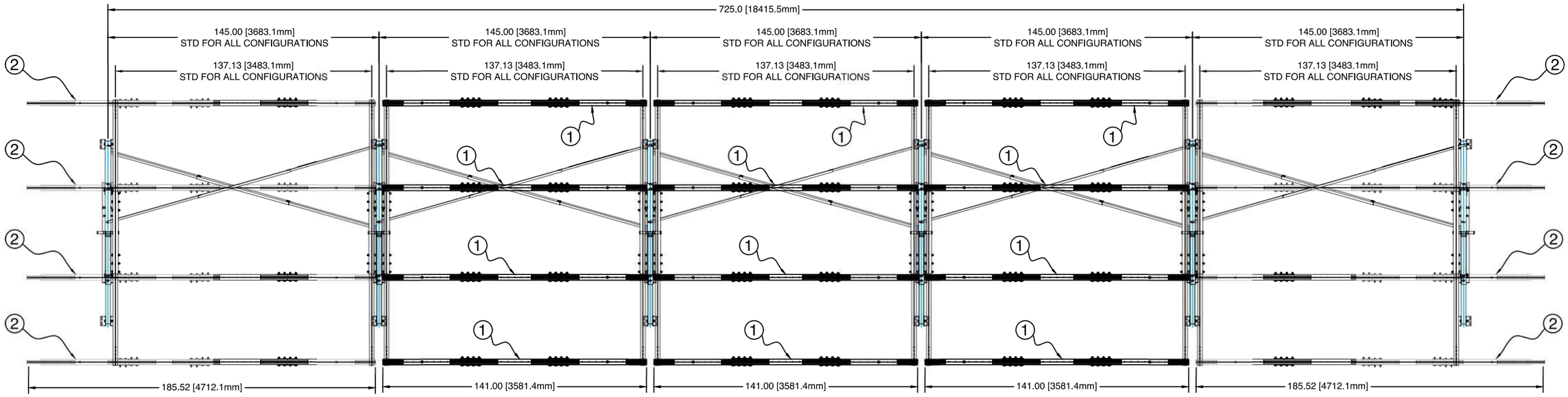
PAPER SIZE: B | SCALE: 1:1 | SHEET: 6 OF 9

REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY-ARCHIE

ITEM NO.	PART NUMBER	DESCRIPTION
1	KS-AGM-14 R3	REC. KLEIN RAIL ASSEMBLY (6 PANELS)
2	KS-AGM-36 R3	REC. KLEIN RAIL ASSEMBLY (8 PANELS) ONE SIDE CANTILEVER

ADJUSTABLE GROUND MOUNT V3.0

CONFIGURATIONS 34 MODULES



34 MODULES RACK

- MAXIMUM MODULE SIZE FOR PORTRAIT CONFIGURATION IS 44.64" (1134MM) X 93.78" (2382MM) (ANY FRAMED MODULE OF LESSER OR EQUIVALENT AREA MAY BE USED).
- THE CONFIGURATIONS WILL VARY DEPENDENT ON THE MODULE SIZE.
- MAXIMUM CANTILEVER ALLOWED FROM A-FRAME TO MODULE EDGE IS 48 INCHES.
- THE ADJACENT RAIL LENGTH CALCULATIONS WERE DONE USING A 44.6" (1134 mm) X 93.8" (2382 mm) PANEL SIZE AS REFERENCE.
- THE PROPER END CLAMP REFERENCE TO USE WILL DEPEND ON THE SOLAR PANEL'S FRAME THICKNESS.
- ALL THE HARDWARE IS CORROSION RESISTANT, BOLTS HAVE A MINIMUM YIELD STRENGTH OF 586 Mpa. (85 Ksi)

P.Eng Seals, Permits to Practice and Certificates of Authorization:

Member #103464
2025-09-29

PERMIT TO PRACTICE
DAVE BERNARDIN CONSULTING INC.
RM SIGNATURE:
RM APEGA ID #: 103464
DATE: 2025-09-29
PERMIT NUMBER: P014408
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

2025-09-29

PERMIT TO PRACTICE
DAVE BERNARDIN CONSULTING INC.
SIGNATURE
Date 2025-09-29
PERMIT NUMBER PP853
Association of Professional Engineers of Yukon

Structural, for Construction
CotA #100605020
2025-09-29

2025-09-29

Association of Professional Engineers & Geoscientists of Saskatchewan
CERTIFICATE OF AUTHORIZATION
Dave Bernardin Consulting Inc.
Number 44107
Permission to Consult held by:
Discipline: STRUCTURAL
Sk. Reg. No.: 22300
Signature

2025-09-29

PERMIT TO PRACTICE
DAVE BERNARDIN CONSULTING INC
Signature
Date 2025-09-29
PERMIT NUMBER: P 1674
NT/NU Association of Professional Engineers and Geoscientists

2025-09-29

L6804
2025
David Bernardin
Signature
2025-09-29
Date
Certificate of Authorization #F2431

2025-09-29
PERMIT #1000308

2025-09-29

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
Dave Bernardin Consulting Inc.
No. 6855

11492
David B. Bernardin
SIGNATURE
2025-09-29
DATE

PROVINCE OF NEWFOUNDLAND AND LABRADOR
pegnl
ENGINEERING PERMIT 61400
2025-09-29
Dave Bernardin Consulting Inc.
Signature or Member Number (Member-in-Responsible Charge)

THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND
VALID FOR THE YEAR 2025
Dave Bernardin
No. 2883
DATE: 2025-09-29
LICENSED PROFESSIONAL ENGINEER
PROVINCE OF PRINCE EDWARD ISLAND

DATE
D. B. J. Bernardin
20240126
Certificate of Authorization #5162
2025-09-29

Certificate of Authorization #A722

Kinetic
SOLAR RACKING AND MOUNTING

PROPRIETARY AND CONFIDENTIAL

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DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ± 0.4
ANGULAR: BEND ± 1DEG
TWO PLACE DECIMAL ± 0.12
THREE PLACE DECIMAL ± 0.01

PROJECTION METHOD:

CREATED BY:	JULIAN Q.
DATE:	2025-06-26
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	N/A
WEIGHT (LB):	N/A
QUANTITY:	N/A

ASSEMBLY: ADJUSTABLE GROUND MOUNT V3

PART: PORTRAIT CONFIGURATION

DWG NO: KS-AGM-46 REV: 0

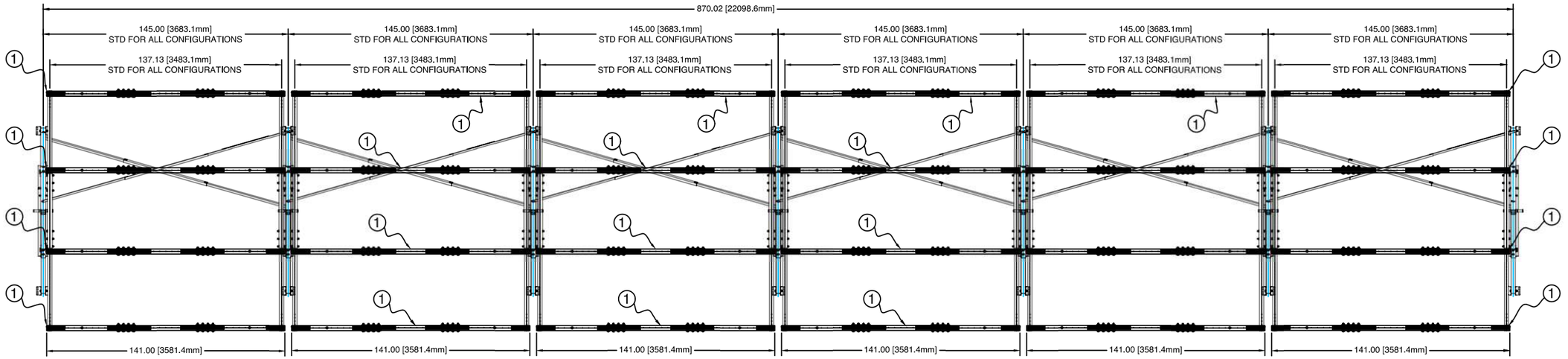
PAPER SIZE: B SCALE: 1:1 SHEET: 6 OF 9

REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY-ARCHIE

ITEM NO.	PART NUMBER	DESCRIPTION
1	KS-AGM-14 R3	REC. KLEIN RAIL ASSEMBLY (6 PANELS)

ADJUSTABLE GROUND MOUNT V3.0

CONFIGURATIONS 36 MODULES



36 MODULES RACK

- MAXIMUM MODULE SIZE FOR PORTRAIT CONFIGURATION IS 44.64" (1134MM) X 93.78" (2382MM) (ANY FRAMED MODULE OF LESSER OR EQUIVALENT AREA MAY BE USED).
- THE CONFIGURATIONS WILL VARY DEPENDENT ON THE MODULE SIZE.
- MAXIMUM CANTILEVER ALLOWED FROM A-FRAME TO MODULE EDGE IS 48 INCHES.
- THE ADJACENT RAIL LENGTH CALCULATIONS WERE DONE USING A 44.6" (1134 mm) X 93.8" (2382 mm) PANEL SIZE AS REFERENCE.
- THE PROPER END CLAMP REFERENCE TO USE WILL DEPEND ON THE SOLAR PANEL'S FRAME THICKNESS.
- ALL THE HARDWARE IS CORROSION RESISTANT, BOLTS HAVE A MINIMUM YIELD STRENGTH OF 586 Mpa. (85 Ksi)

P.Eng Seals, Permits to Practice and Certificates of Authorization:

Member #103464
2025-09-29

PERMIT TO PRACTICE
DAVE BERNARDIN CONSULTING INC.
RM SIGNATURE:
RM APEGA ID #: 103464
DATE: 2025-09-29
PERMIT NUMBER: P014408
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

2025-09-29

PERMIT TO PRACTICE
DAVE BERNARDIN CONSULTING INC.
SIGNATURE
Date 2025-09-29
PERMIT NUMBER PP853
Association of Professional Engineers of Yukon

Structural, for Construction
CofA #100605020
2025-09-29

2025-09-29

Association of Professional Engineers & Geoscientists of Saskatchewan
CERTIFICATE OF AUTHORIZATION
Dave Bernardin Consulting Inc.
Number 44107
Permission to Consult held by:
Discipline: STRUCTURAL
Sk. Reg. No.: 72300
Signature

2025-09-29

PERMIT TO PRACTICE
DAVE BERNARDIN CONSULTING INC
Signature
Date 2025-09-29
PERMIT NUMBER: P 1674
NT/NU Association of Professional Engineers and Geoscientists

2025-09-29
PERMIT #1000308

Certificate of Authorization #F2431

2025-09-29

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
Dave Bernardin Consulting Inc.
No. 6855

2025-09-29

PROVINCE OF NEWFOUNDLAND AND LABRADOR
ENGINEERING PERMIT
2025-09-29
Dave Bernardin Consulting Inc.
Signature or Member Number (Member-in-Responsible Charge)

Certificate of Authorization #5652

THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND
VALID FOR THE YEAR 2025
Dave Bernardin
No. 2883
DATE: 2025-09-29
LICENSED PROFESSIONAL ENGINEER
PROVINCE OF PRINCE EDWARD ISLAND

Certificate of Authorization #A722

Kinetic
SOLAR RACKING AND MOUNTING

PROPRIETARY AND CONFIDENTIAL

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DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ± 0.4
ANGULAR: BEND ± 1DEG
TWO PLACE DECIMAL ± 0.12
THREE PLACE DECIMAL ± 0.01

PROJECTION METHOD:

CREATED BY:	JULIAN Q.
DATE:	2025-06-26
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	N/A
WEIGHT (LB):	N/A
QUANTITY:	N/A

ASSEMBLY: ADJUSTABLE GROUND MOUNT V3

PART: PORTRAIT CONFIGURATION

DWG NO: KS-AGM-47 REV: 0

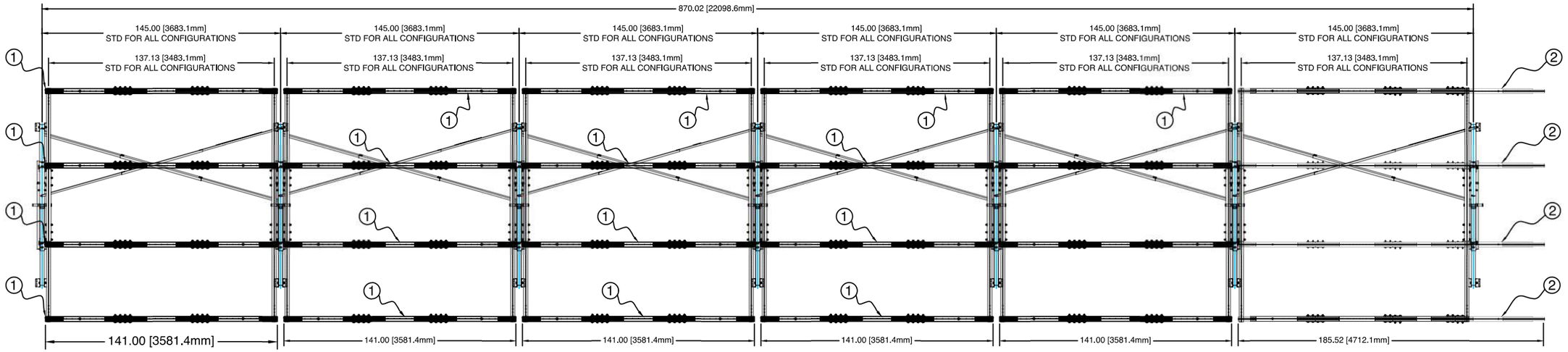
PAPER SIZE: B SCALE: 1:1 SHEET: 7 OF 9

REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY-ARCHIE

ITEM NO.	PART NUMBER	DESCRIPTION
1	KS-AGM-14 R3	REC. KLEIN RAIL ASSEMBLY (6 PANELS)
2	KS-AGM-36 R3	REC. KLEIN RAIL ASSEMBLY (8 PANELS) ONE SIDE CANTILEVER

ADJUSTABLE GROUND MOUNT V3.0

CONFIGURATIONS 38 MODULES



38 MODULES RACK

- MAXIMUM MODULE SIZE FOR PORTRAIT CONFIGURATION IS 44.64" (1134MM) X 93.78" (2382MM) (ANY FRAMED MODULE OF LESSER OR EQUIVALENT AREA MAY BE USED).
- THE CONFIGURATIONS WILL VARY DEPENDENT ON THE MODULE SIZE.
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- ALL THE HARDWARE IS CORROSION RESISTANT, BOLTS HAVE A MINIMUM YIELD STRENGTH OF 586 Mpa. (85 Ksi)

P.Eng Seals, Permits to Practice and Certificates of Authorization:

Member #103464 2025-09-29

PERMIT TO PRACTICE DAVE BERNARDIN CONSULTING INC. RM SIGNATURE: D. Bernardin RM APEGA ID #: 103464 DATE: 2025-09-29 PERMIT NUMBER: P014408 The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

2025-09-29

PERMIT TO PRACTICE DAVE BERNARDIN CONSULTING INC. SIGNATURE D. Bernardin Date 2025-09-29 PERMIT NUMBER PP853 Association of Professional Engineers of Yukon

Structural, for Construction 2025-09-29

2025-09-29

Association of Professional Engineers & Geoscientists of Saskatchewan CERTIFICATE OF AUTHORIZATION Dave Bernardin Consulting Inc. Number 44107 Permission to Consult held by: Discipline STRUCTURAL Sk. Reg. No. 22300 Signature

2025-09-29

PERMIT TO PRACTICE DAVE BERNARDIN CONSULTING INC Signature D. Bernardin Date 2025-09-29 PERMIT NUMBER: P 1674 NT/NU Association of Professional Engineers and Geoscientists

2025-09-29 PERMIT #1000308

Certificate of Authorization #F2431

2025-09-29

ENGINEERS GEOSCIENTISTS MANITOBA Certificate of Authorization Dave Bernardin Consulting Inc. No. 6855

PROVINCE OF NEWFOUNDLAND AND LABRADOR ENGINEERING PERMIT NT400 2025-09-29 Dave Bernardin Consulting Inc. Signature or Member Number (Member-in-Responsible Charge) #11492

2025-09-29

Certificate of Authorization #5652

THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND VALID FOR THE YEAR 2025 Dave Bernardin No. 2883 DATE: 2025-09-29 LICENSED PROFESSIONAL ENGINEER PROVINCE OF PRINCE EDWARD ISLAND

Certificate of Authorization #A722

PROPRIETARY AND CONFIDENTIAL

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UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES	
TOLERANCES:	
FRACTIONAL	± 0.4
ANGULAR: BEND	± 1DEG
TWO PLACE DECIMAL	± 0.12
THREE PLACE DECIMAL	± 0.01
PROJECTION METHOD:	

CREATED BY:	JULIAN Q.
DATE:	2025-06-26
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	N/A
WEIGHT (LB):	N/A
QUANTITY:	N/A

ASSEMBLY: ADJUSTABLE GROUND MOUNT V3

PART: PORTRAIT CONFIGURATION

DWG NO: KS-AGM-48 REV: 0

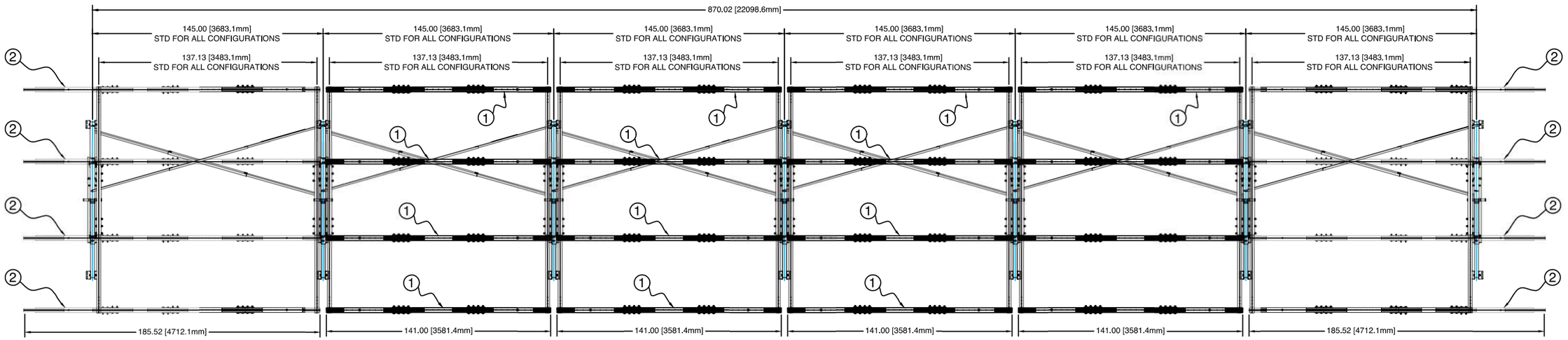
PAPER SIZE: B SCALE: 1:1 SHEET: 7 OF 9

REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY-ARCHIE

ITEM NO.	PART NUMBER	DESCRIPTION
1	KS-AGM-14 R3	REC. KLEIN RAIL ASSEMBLY (6 PANELS)
2	KS-AGM-36 R3	REC. KLEIN RAIL ASSEMBLY (8 PANELS) ONE SIDE CANTILEVER

ADJUSTABLE GROUND MOUNT V3.0

CONFIGURATIONS 40 MODULES



40 MODULES RACK

- MAXIMUM MODULE SIZE FOR PORTRAIT CONFIGURATION IS 44.64" (1134MM) X 93.78" (2382MM) (ANY FRAMED MODULE OF LESSER OR EQUIVALENT AREA MAY BE USED).
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- ALL THE HARDWARE IS CORROSION RESISTANT, BOLTS HAVE A MINIMUM YIELD STRENGTH OF 586 Mpa. (85 Ksi)

P.Eng Seals, Permits to Practice and Certificates of Authorization:

PROFESSIONAL ENGINEER — DAVE BERNARDIN — ALBERTA — Member #103464 — 2025-09-29

PERMIT TO PRACTICE — DAVE BERNARDIN CONSULTING INC. — RM SIGNATURE: D. Bernardin — RM APEGA ID #: 103464 — DATE: 2025-09-29 — PERMIT NUMBER: P014408 — The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

PROFESSIONAL ENGINEER — #3283 — YUKON — DAVID BERNARDIN — TERRITORY — ENGINEER — 2025-09-29

PERMIT TO PRACTICE — DAVE BERNARDIN CONSULTING INC. — SIGNATURE: D. Bernardin — Date: 2025-09-29 — PERMIT NUMBER PP853 — Association of Professional Engineers of Yukon

LICENCED PROFESSIONAL ENGINEER — D. B. J. BERNARDIN — 100226295 — PROVINCE OF ONTARIO — Structural, for Construction — CofA #100605020 — 2025-09-29

PROFESSIONAL ENGINEER — D. BERNARDIN — MEMBER 32300 — SASKATCHEWAN — YR. MN. DAY — 2025-09-29

Association of Professional Engineers & Geoscientists of Saskatchewan — CERTIFICATE OF AUTHORIZATION — Dave Bernardin Consulting Inc. — Number 44107 — Permission to Consult held by: — Discipline: STRUCTURAL — Sk. Reg. No.: 32300 — Signature: D. Bernardin

REGISTERED PROFESSIONAL ENGINEER — D.B.J. BERNARDIN — LICENSEE — # L5620 — NT/NU — 2025-09-29

PERMIT TO PRACTICE — DAVE BERNARDIN CONSULTING INC — Signature: D. Bernardin — Date: 2025-09-29 — PERMIT NUMBER: P 1674 — NT/NU Association of Professional Engineers and Geoscientists

PROFESSIONAL ENGINEER — D. BERNARDIN — # 43689 — ONTARIO — 2025-09-29 — PERMIT #1000308

LICENCED PROFESSIONAL ENGINEER — Province of New Brunswick — L6804 — 2025 — David Bernardin — Signature — 2025-09-29 — INGÉNIEUR TITULAIRE DE PERMIS — Province du Nouveau-Brunswick — Certificate of Authorization #F2431

PROVINCE OF MANITOBA — D. B. BERNARDIN — Member — 24521 — REGISTERED PROFESSIONAL ENGINEER — 2025-09-29

ENGINEERS GEOSCIENTISTS MANITOBA — Certificate of Authorization — Dave Bernardin Consulting Inc. — No. 6855

LICENCED PROFESSIONAL ENGINEER — 11492 — David B. Bernardin — SIGNATURE — DATE — 2025-09-29 — ENGINEERING AND GEOSCIENCE — LICENCE AND CERTIFICATE OF AUTHORIZATION

PROVINCE OF NEWFOUNDLAND AND LABRADOR — pegnl — ENGINEERING PERMIT 51-400 — 2025-09-29 — Dave Bernardin Consulting Inc. — Signature or Member Number (Member-in-Responsible Charge)

REGISTERED PROFESSIONAL ENGINEER — PROVINCE OF NOVA SCOTIA — D. B. J. Bernardin — 20240126 — Certificate of Authorization #5165Z — 2025-09-29

THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND — VALID FOR THE YEAR 2025 — Dave Bernardin — No. 2883 — DATE: 2025-09-29 — LICENSED PROFESSIONAL ENGINEER — PROVINCE OF PRINCE EDWARD ISLAND — Certificate of Authorization #A722

Kinetic — SOLAR RACKING AND MOUNTING

PROPRIETARY AND CONFIDENTIAL

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TOLERANCES:
FRACTIONAL ± 0.4
ANGULAR: BEND ± 1DEG
TWO PLACE DECIMAL ± 0.12
THREE PLACE DECIMAL ± 0.01

PROJECTION METHOD:

CREATED BY:	JULIAN Q.
DATE:	2025-06-26
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	N/A
WEIGHT (LB):	N/A
QUANTITY:	N/A

ASSEMBLY: ADJUSTABLE GROUND MOUNT V3

PART: PORTRAIT CONFIGURATION

DWG NO: KS-AGM-49 REV: 0

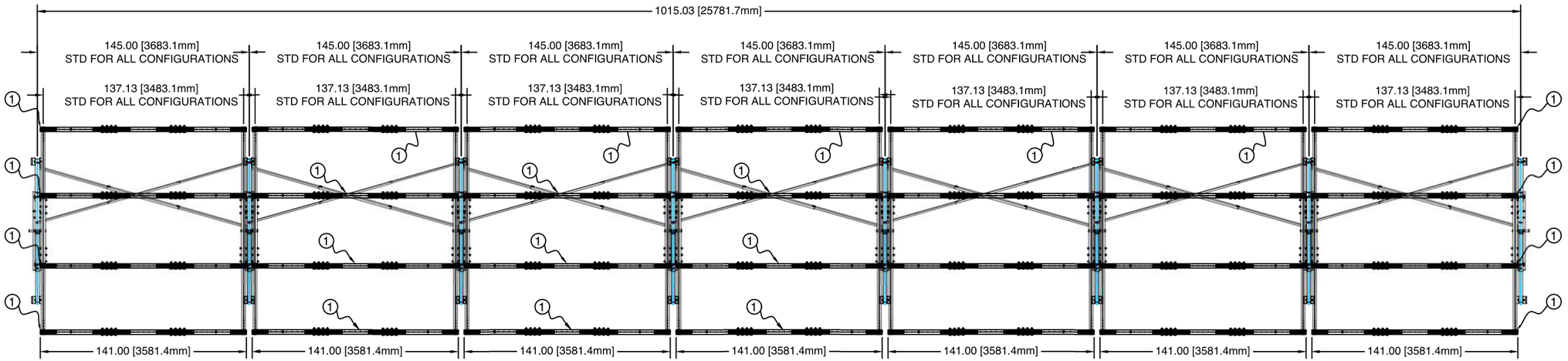
PAPER SIZE: B SCALE: 1:1 SHEET: 7 OF 9

REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY-ARCHIE

ITEM NO.	PART NUMBER	DESCRIPTION
1	KS-AGM-14 R3	REC. KLEIN RAIL ASSEMBLY (6 PANELS)

ADJUSTABLE GROUND MOUNT V3.0

CONFIGURATIONS 42 MODULES



42 MODULES RACK

- MAXIMUM MODULE SIZE FOR PORTRAIT CONFIGURATION IS 44.64" (1134MM) X 93.78" (2382MM) (ANY FRAMED MODULE OF LESSER OR EQUIVALENT AREA MAY BE USED).
- THE CONFIGURATIONS WILL VARY DEPENDENT ON THE MODULE SIZE.
- MAXIMUM CANTILEVER ALLOWED FROM A-FRAME TO MODULE EDGE IS 48 INCHES.
- THE ADJACENT RAIL LENGTH CALCULATIONS WERE DONE USING A 44.6" (1134 mm) X 93.8" (2382 mm) PANEL SIZE AS REFERENCE.
- THE PROPER END CLAMP REFERENCE TO USE WILL DEPEND ON THE SOLAR PANEL'S FRAME THICKNESS.
- ALL THE HARDWARE IS CORROSION RESISTANT, BOLTS HAVE A MINIMUM YIELD STRENGTH OF 586 Mpa. (85 Ksi)

P.Eng Seals, Permits to Practice and Certificates of Authorization:

Member #103464
2025-09-29

PERMIT TO PRACTICE
DAVE BERNARDIN CONSULTING INC.
RM SIGNATURE:
RM APEGA ID #: 103464
DATE: 2025-09-29
PERMIT NUMBER: P014408
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

2025-09-29

PERMIT TO PRACTICE
DAVE BERNARDIN CONSULTING INC.
SIGNATURE
Date 2025-09-29
PERMIT NUMBER PP853
Association of Professional Engineers of Yukon

Structural, for Construction
CofA #100605020
2025-09-29

2025-09-29

Association of Professional Engineers & Geoscientists of Saskatchewan
CERTIFICATE OF AUTHORIZATION
Dave Bernardin Consulting Inc.
Number 44107
Permission to Consult held by:
Discipline: STRUCTURAL
Sk. Reg. No.: 37390
Signature

2025-09-29

PERMIT TO PRACTICE
DAVE BERNARDIN CONSULTING INC
Signature
Date 2025-09-29
PERMIT NUMBER: P 1674
NT/NU Association of Professional Engineers and Geoscientists

2025-09-29
PERMIT #1000308

Certificate of Authorization #F2431

2025-09-29

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
Dave Bernardin Consulting Inc.
No. 6855

2025-09-29

PROVINCE OF NEWFOUNDLAND AND LABRADOR
ENGINEERING PERMIT N1400
2025-09-29
Dave Bernardin Consulting Inc.
Signature or Member Number (Member-in-Responsible Charge)

THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND
VALID FOR THE YEAR 2025
Dave Bernardin
No. 2883
DATE: 2025-09-29
LICENSED PROFESSIONAL ENGINEER
PROVINCE OF PRINCE EDWARD ISLAND

Certificate of Authorization #A722

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF KINETIC SOLAR RACKING AND MOUNTING ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF KINETIC SOLAR RACKING AND MOUNTING INC. IS PROHIBITED.

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES	
TOLERANCES:	
FRACTIONAL	± 0.4
ANGULAR: BEND	± 1DEG
TWO PLACE DECIMAL	± 0.12
THREE PLACE DECIMAL	± 0.01
PROJECTION METHOD:	

CREATED BY:	JULIAN Q.
DATE:	2025-06-26
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	N/A
WEIGHT (LB):	N/A
QUANTITY:	N/A

ASSEMBLY: ADJUSTABLE GROUND MOUNT V3

PART: PORTRAIT CONFIGURATION

DWG NO: KS-AGM-50 REV: 0

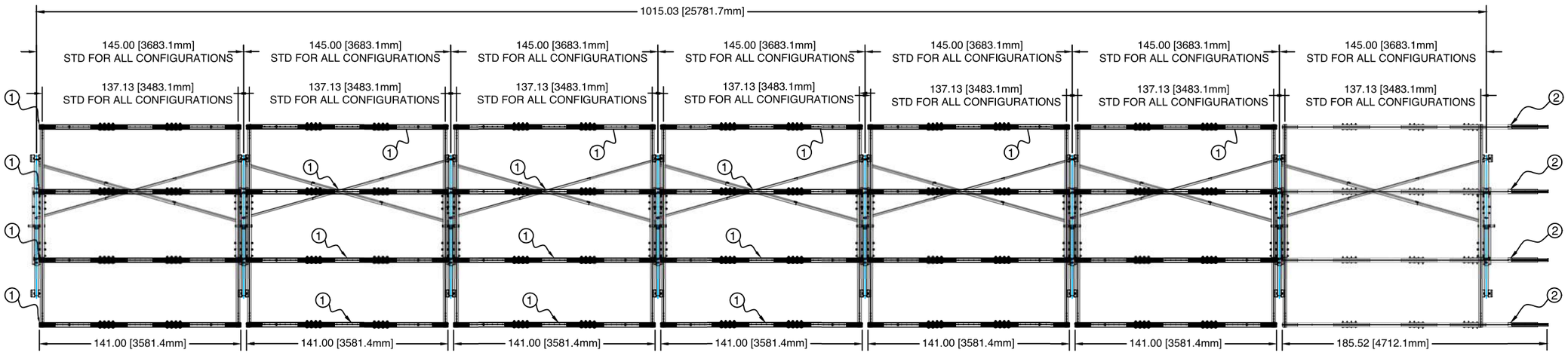
PAPER SIZE: B | SCALE: 1:1 | SHEET: 8 OF 9

REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY-ARCHIE

ITEM NO.	PART NUMBER	DESCRIPTION
1	KS-AGM-14 R3	REC. KLEIN RAIL ASSEMBLY (6 PANELS)
2	KS-AGM-36 R3	REC. KLEIN RAIL ASSEMBLY (8 PANELS) ONE SIDE CANTILEVER

ADJUSTABLE GROUND MOUNT V3.0

CONFIGURATIONS 44 MODULES



44 MODULES RACK

- MAXIMUM MODULE SIZE FOR PORTRAIT CONFIGURATION IS 44.64" (1134MM) X 93.78" (2382MM) (ANY FRAMED MODULE OF LESSER OR EQUIVALENT AREA MAY BE USED).
- THE CONFIGURATIONS WILL VARY DEPENDENT ON THE MODULE SIZE.
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- THE ADJACENT RAIL LENGTH CALCULATIONS WERE DONE USING A 44.6" (1134 mm) X 93,8" (2382 mm) PANEL SIZE AS REFERENCE.
- THE PROPER END CLAMP REFERENCE TO USE WILL DEPEND ON THE SOLAR PANEL'S FRAME THICKNESS.
- ALL THE HARDWARE IS CORROSION RESISTANT, BOLTS HAVE A MINIMUM YIELD STRENGTH OF 586 Mpa. (85 Ksi)

P.Eng Seals, Permits to Practice and Certificates of Authorization:

PROFESSIONAL ENGINEER — DAVE BERNARDIN — ALBERTA
Member #103464
2025-09-29

PERMIT TO PRACTICE
DAVE BERNARDIN CONSULTING INC.
RM SIGNATURE: D. Bernardin
RM APEGA ID #: 103464
DATE: 2025-09-29
PERMIT NUMBER: P014408
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

PROFESSIONAL ENGINEER — #3283 YUKON — DAVID BERNARDIN — TERRITORY — ENGINEER
2025-09-29

PERMIT TO PRACTICE
DAVE BERNARDIN CONSULTING INC.
SIGNATURE: D. Bernardin
Date 2025-09-29
PERMIT NUMBER PP853
Association of Professional Engineers of Yukon

LICENSED PROFESSIONAL ENGINEER — D. B. J. BERNARDIN — 100226295 — PROVINCE OF ONTARIO
Structural, for Construction
CofA #100605020
2025-09-29

PROFESSIONAL ENGINEER — D. BERNARDIN MEMBER 32300 — YR. MN. DAY — SASKATCHEWAN
2025-09-29

Association of Professional Engineers & Geoscientists of Saskatchewan
CERTIFICATE OF AUTHORIZATION
Dave Bernardin Consulting Inc.
Number 44107
Permission to Consult held by:
Discipline: STRUCTURAL — Sk. Reg. No.: 37300 — Signature: D. Bernardin

REGISTERED PROFESSIONAL ENGINEER — D.B.J. BERNARDIN — LICENSEE #L5670 — NT/NU
2025-09-29

PERMIT TO PRACTICE
DAVE BERNARDIN CONSULTING INC
Signature D. Bernardin
Date 2025-09-29
PERMIT NUMBER: P 1674
NT/NU Association of Professional Engineers and Geoscientists

PROFESSIONAL ENGINEER — D. BERNARDIN — # 43689 — ONTARIO — ENGINEER
2025-09-29
PERMIT #1000308

LICENCED PROFESSIONAL ENGINEER — Province of New Brunswick — L6804 — 2025 — David Bernardin — Signature D. Bernardin — 2025-09-29 — Date — INGENIEUR TITULAIRE DU PERMIS — Province du Nouveau-Brunswick
Certificate of Authorization #F2431

PROVINCE OF MANITOBA — D. B. BERNARDIN — 24521 — REGISTERED PROFESSIONAL ENGINEER
2025-09-29

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
Dave Bernardin Consulting Inc.
No. 6855

LICENSED PROFESSIONAL ENGINEER — 11492 — David B. Bernardin — SIGNATURE D. Bernardin — 2025-09-29 — DATE — NORTHWEST TERRITORIES AND NUNAVUT

PROVINCE OF NEWFOUNDLAND AND LABRADOR
pegnl ENGINEERING PERMIT N1400
2025-09-29
Dave Bernardin Consulting Inc.
Signature or Member Number (Member-in-Responsible Charge)

REGISTERED PROFESSIONAL ENGINEER — D. B. J. Bernardin — DATE — 20240126 — PROVINCE OF NOVA SCOTIA
Certificate of Authorization #51652
2025-09-29

THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND
VALID FOR THE YEAR 2026
D. Bernardin
Dave Bernardin
No. 2883
DATE: 2025-09-29
LICENSED PROFESSIONAL ENGINEER
PROVINCE OF PRINCE EDWARD ISLAND
Certificate of Authorization #A722

PROPRIETARY AND CONFIDENTIAL

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Kinetic — SOLAR RACKING AND MOUNTING

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ± 0.4
ANGULAR: BEND ± 1DEG
TWO PLACE DECIMAL ± 0.12
THREE PLACE DECIMAL ± 0.01
PROJECTION METHOD:

CREATED BY:	JULIAN Q.
DATE:	2025-06-26
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	N/A
WEIGHT (LB):	N/A
QUANTITY:	N/A

ASSEMBLY: ADJUSTABLE GROUND MOUNT V3

PART: PORTRAIT CONFIGURATION

DWG NO: KS-AGM-57 — REV: 0

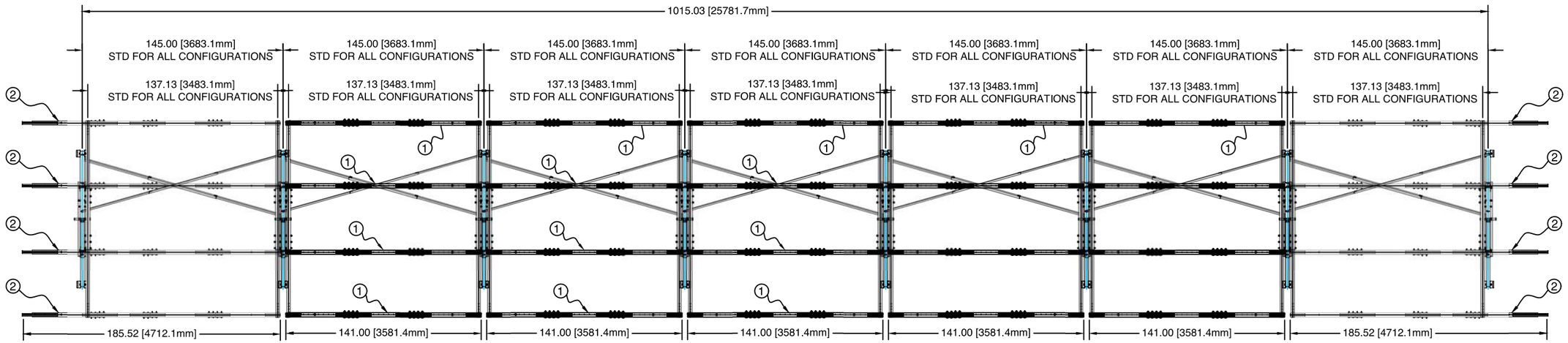
PAPER SIZE: B — SCALE: 1:1 — SHEET: 8 OF 9

REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY-ARCHIE

ITEM NO.	PART NUMBER	DESCRIPTION
1	KS-AGM-14 R3	REC. KLEIN RAIL ASSEMBLY (6 PANELS)
2	KS-AGM-36 R3	REC. KLEIN RAIL ASSEMBLY (8 PANELS) ONE SIDE CANTILEVER

ADJUSTABLE GROUND MOUNT V3.0

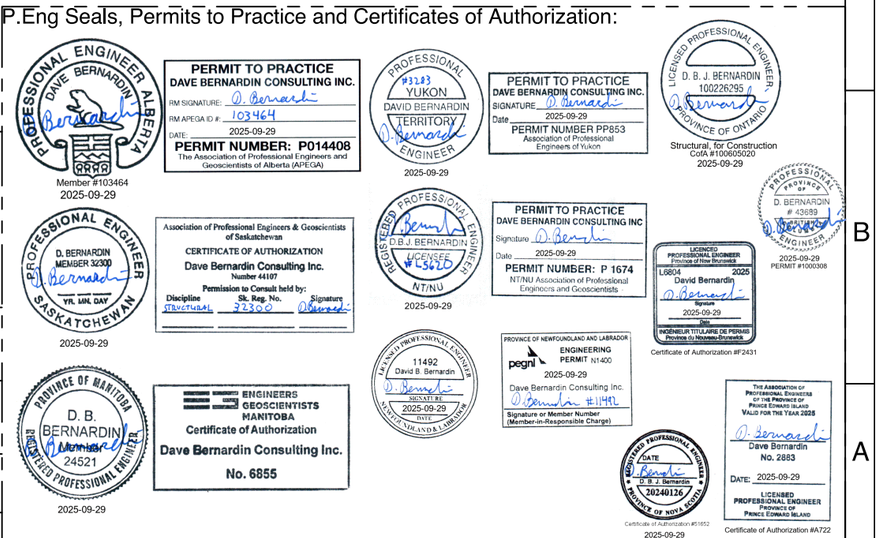
CONFIGURATIONS 46 MODULES



46 MODULES RACK

- MAXIMUM MODULE SIZE FOR PORTRAIT CONFIGURATION IS 44.64" (1134MM) X 93.78" (2382MM) (ANY FRAMED MODULE OF LESSER OR EQUIVALENT AREA MAY BE USED).
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- THE PROPER END CLAMP REFERENCE TO USE WILL DEPEND ON THE SOLAR PANEL'S FRAME THICKNESS.
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P.Eng Seals, Permits to Practice and Certificates of Authorization:



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DIMENSIONS ARE IN INCHES			
TOLERANCES:			
FRACTIONAL	± 0.4		
ANGULAR: BEND	± 1DEG		
TWO PLACE DECIMAL	± 0.12		
THREE PLACE DECIMAL	± 0.01		
PROJECTION METHOD:			

CREATED BY:	JULIAN Q.
DATE:	2025-06-26
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	N/A
WEIGHT (LB):	N/A
QUANTITY:	N/A

ASSEMBLY: ADJUSTABLE GROUND MOUNT V3

PART: PORTRAIT CONFIGURATION

DWG NO: KS-AGM-58 REV: 0

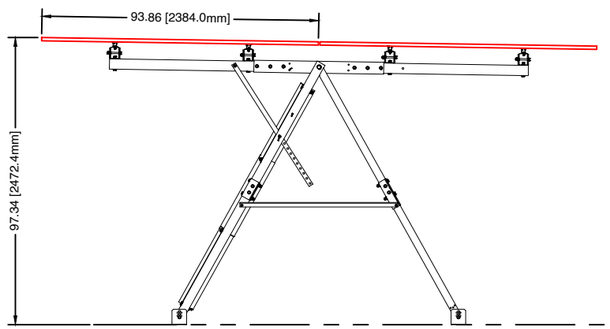
PAPER SIZE: B | SCALE: 1:1 | SHEET: 8 OF 9

REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY-ARCHIE

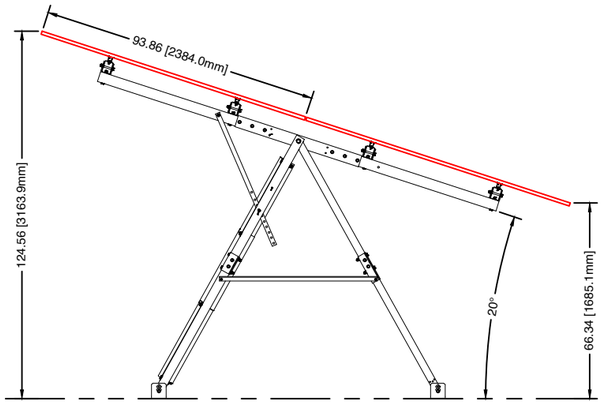
ADJUSTABLE GROUND MOUNT V3.0

ADJUSTMENT POSITIONS

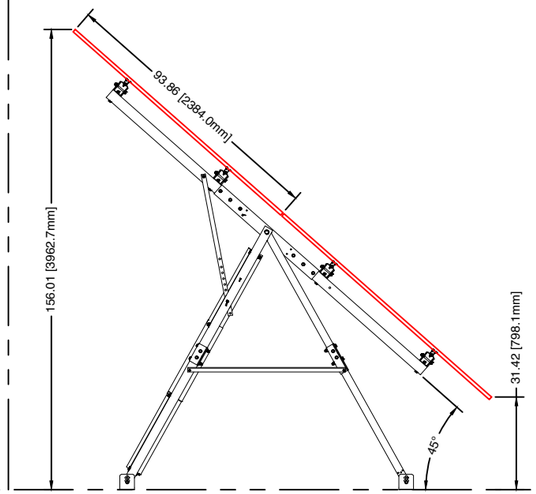
(93.85"- 2384 mm PANEL LENGTH SHOWN)



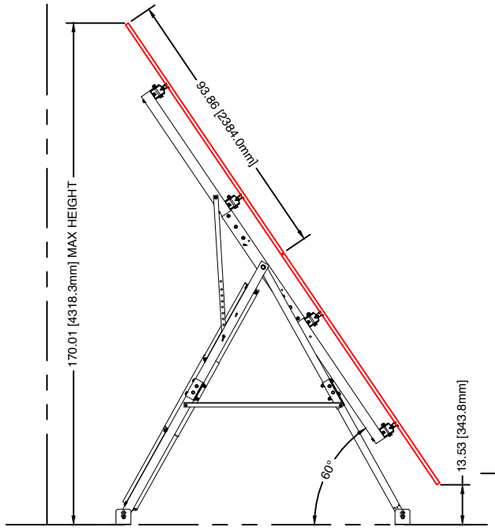
INSTALLATION POSITION



20° POSITION



45° POSITION



60° POSITION

P.Eng Seals, Permits to Practice and Certificates of Authorization:

PROPRIETARY AND CONFIDENTIAL

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UNLESS OTHERWISE SPECIFIED:	
DIMENSIONS ARE IN INCHES	
TOLERANCES:	
FRACTIONAL	± 0.4
ANGULAR: BEND	± 1DEG
TWO PLACE DECIMAL	± 0.12
THREE PLACE DECIMAL	± 0.01

PROJECTION METHOD:

CREATED BY:	JULIAN Q.
DATE:	2025-12-02
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	N/A
WEIGHT (LB):	N/A
QUANTITY:	N/A

ASSEMBLY: ADJUSTABLE GROUND MOUNT V3

PART: AGM ADJUSTMENT POSITIONS

DWG NO: KS-AGM-61 REV: 0

PAPER SIZE: B | SCALE: 1:1 | SHEET: 9 OF 9

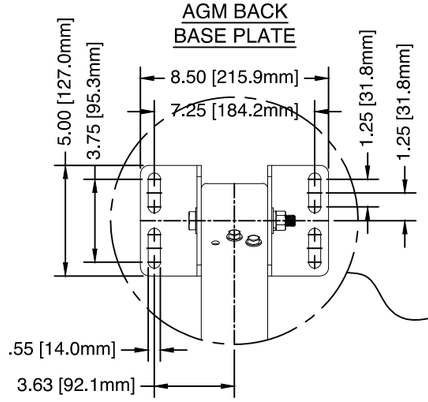
REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY-ARCHIE

ADJUSTABLE GROUND MOUNT V3.0

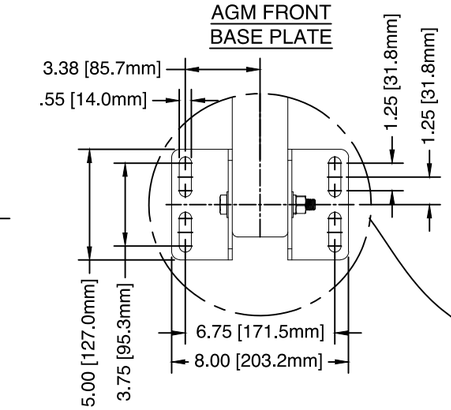
BASE PLATES LOCATION

(3 A-FRAMES CONFIGURATION SHOWN)

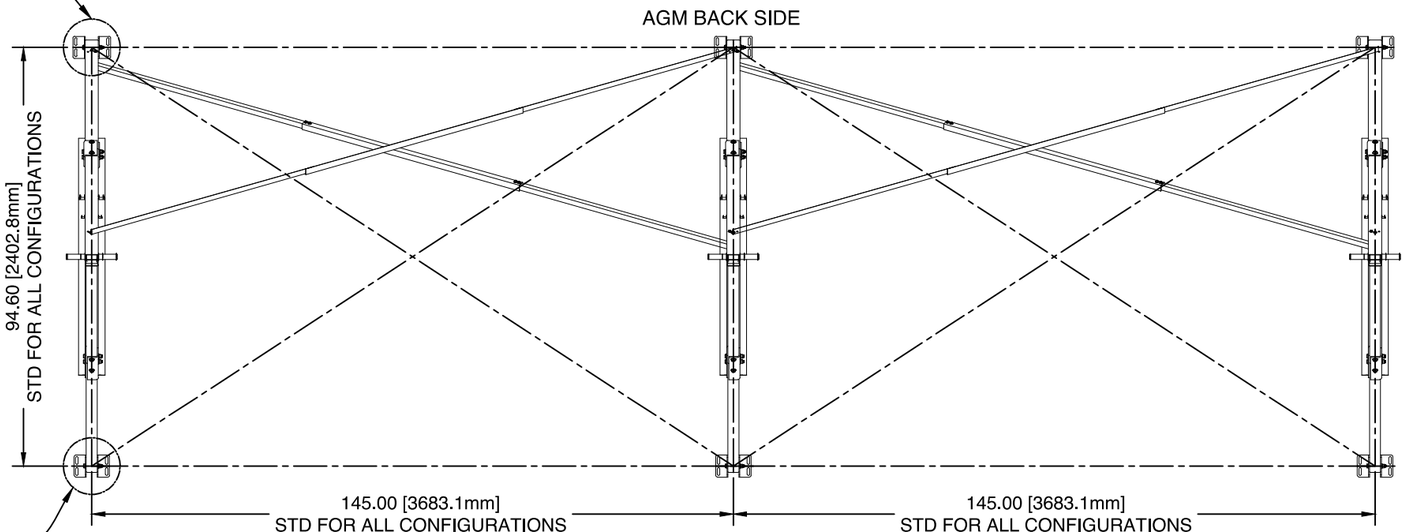
AGM BACK BASE PLATE



AGM FRONT BASE PLATE



AGM BACK SIDE



AGM FRONT SIDE

TOP VIEW

NOTE:
BASE PLATE SPACING SHOWN IS APPLICABLE TO STANDARD CONFIGURATIONS ONLY. THIS SPACING DOES NOT APPLY TO THE K3AGM10 (10 MODULES RACK) WHICH IS A SPECIAL CONFIGURATION. REFER TO DRAWING KS-AGM-60 FOR K3AGM10 BASE PLATE SPACING.

REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY-ARCHIE

Kinetic SOLAR RACKING AND MOUNTING

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF KINETIC SOLAR RACKING AND MOUNTING ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF KINETIC SOLAR RACKING AND MOUNTING INC. IS PROHIBITED.

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES	
TOLERANCES:	
FRACTIONAL	± 0.4
ANGULAR: BEND	± 1DEG
TWO PLACE DECIMAL	± 0.12
THREE PLACE DECIMAL	± 0.01
PROJECTION METHOD:	

CREATED BY:	JULIAN Q.
DATE:	2025-06-26
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	N/A
WEIGHT (LB):	N/A
QUANTITY:	N/A

ASSEMBLY: ADJUSTABLE GROUND MOUNT V3

PART: AGM BASE PLATES LOCATION

DWG NO: KS-AGM-53 REV: 0

PAPER SIZE: B | SCALE: 1:1 | SHEET: 9 OF 9

P.Eng Seals, Permits to Practice and Certificates of Authorization:

Member #103464
2025-09-29

2025-09-29

Structural, for Construction
CofA #100605020
2025-09-29

2025-09-29

2025-09-29

2025-09-29

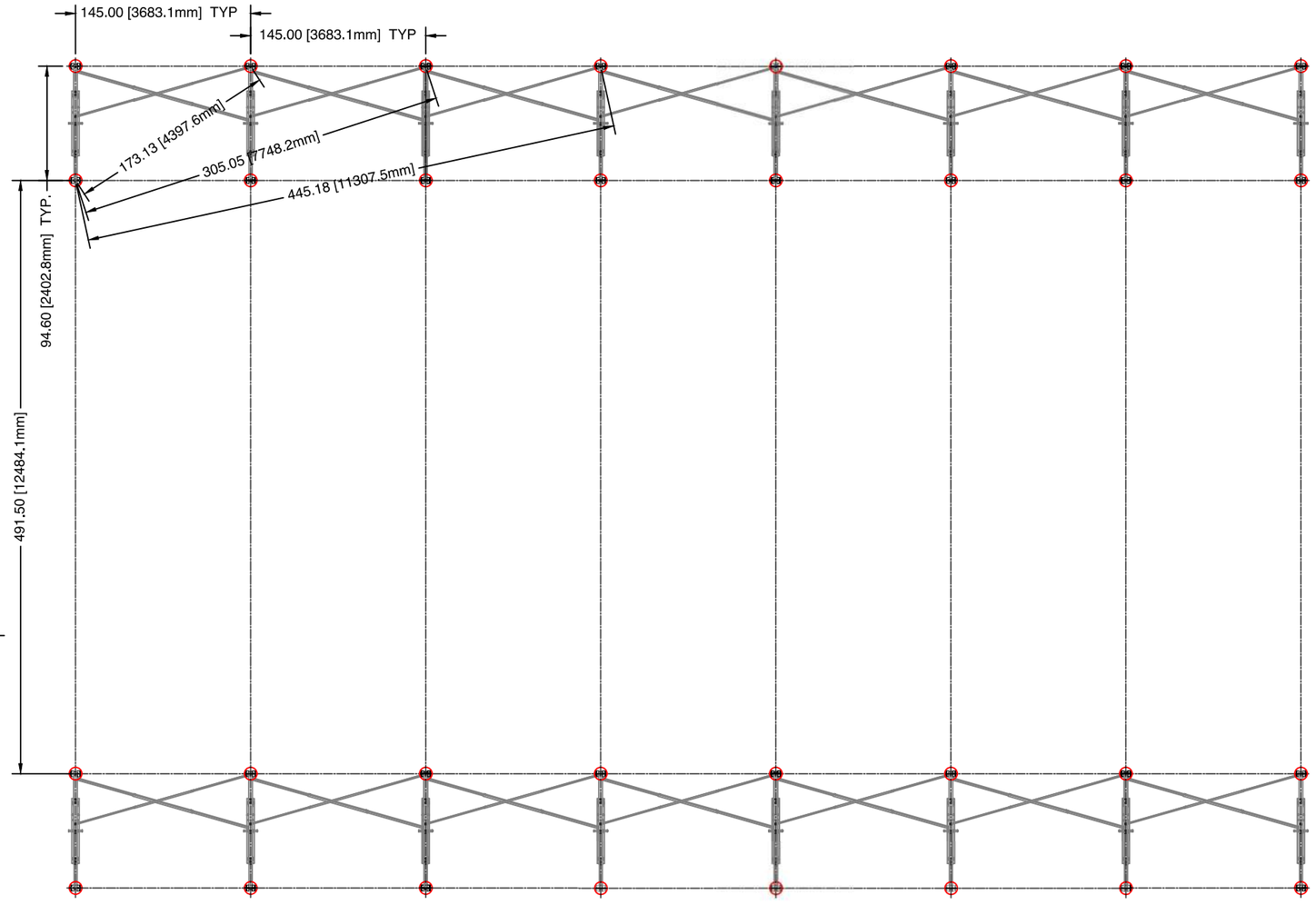
Certificate of Authorization #F2431

2025-09-29

2025-09-29

2025-09-29

Certificate of Authorization #A722

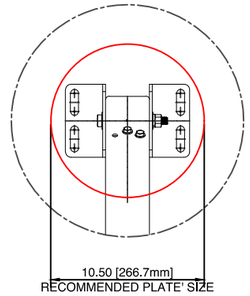


ADJUSTABLE GROUND MOUNT V3.0

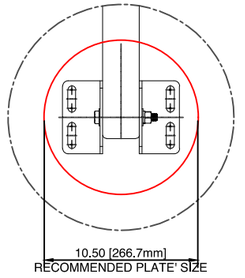
FOOT SPACING GUIDE

- RECOMMENDED SPACING, OPTIMAL SPACING WILL VARY FROM SITE TO SITE. LAYOUT BASED ON AN 18° BACK ANGLE.
- ALL DIMENSIONS ARE BETWEEN CENTER.

AGM BACK BASE PLATE

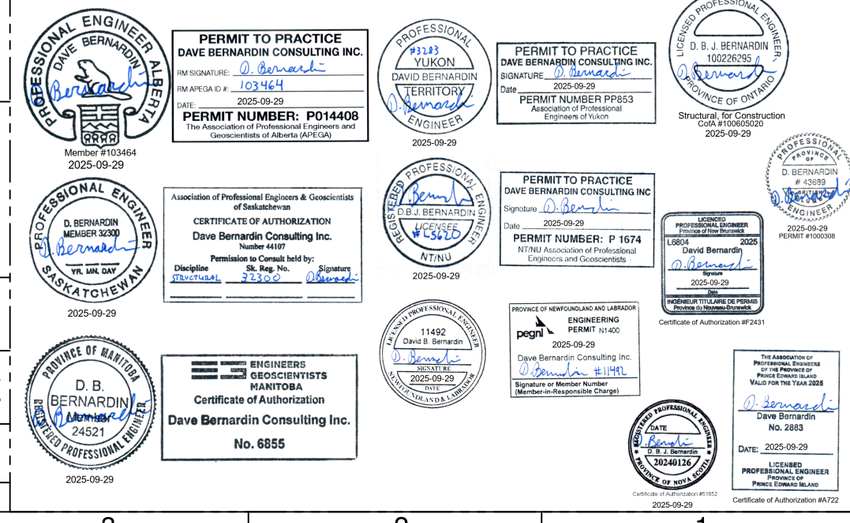


AGM FRONT BASE PLATE



NOTE:
BASE PLATE SPACING SHOWN IS APPLICABLE TO STANDARD CONFIGURATIONS ONLY. THIS SPACING DOES NOT APPLY TO THE K3AGM10 (10 MODULES RACK) WHICH IS A SPECIAL CONFIGURATION. REFER TO DRAWING KS-AGM-60 FOR K3AGM10 BASE PLATE SPACING.

P.Eng Seals, Permits to Practice and Certificates of Authorization:



PROPRIETARY AND CONFIDENTIAL

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FRACTIONAL	± 0.4
ANGULAR: BEND	± 1DEG
TWO PLACE DECIMAL	± 0.12
THREE PLACE DECIMAL	± 0.01
PROJECTION METHOD:	

CREATED BY:	JULIAN Q.
DATE:	2025-09-19
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	N/A
WEIGHT (LB):	N/A
QUANTITY:	N/A

ASSEMBLY: ADJUSTABLE GROUND MOUNT V3

PART: FOOT SPACING GUIDELINE

DWG NO: KS-AGM-56 REV: 0

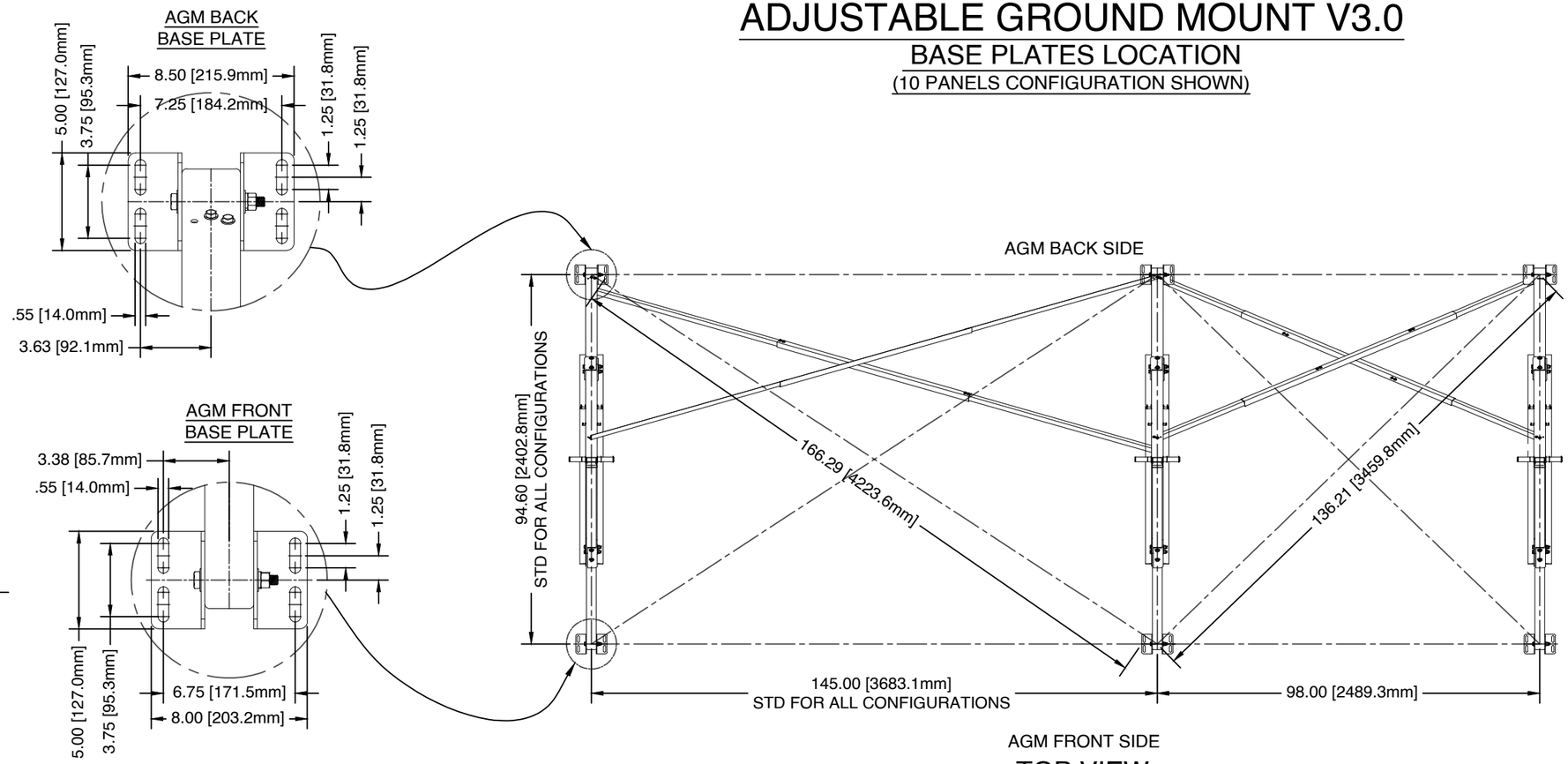
PAPER SIZE: B | SCALE: NTS | SHEET:

REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY-ARCHIE

ADJUSTABLE GROUND MOUNT V3.0

BASE PLATES LOCATION

(10 PANELS CONFIGURATION SHOWN)



TOP VIEW

P.Eng Seals, Permits to Practice and Certificates of Authorization:

NOTE:
BASE PLATE SPACING SHOWN IS APPLICABLE TO THE K3AGM10 (10 MODULES RACK) ONLY.

PROPRIETARY AND CONFIDENTIAL

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Kinetic SOLAR RACKING AND MOUNTING

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES	
TOLERANCES:	
FRACTIONAL	± 0.4
ANGULAR: BEND	± 1DEG
TWO PLACE DECIMAL	± 0.12
THREE PLACE DECIMAL	± 0.01
PROJECTION METHOD:	

CREATED BY:	JULIAN Q.
DATE:	2025-06-26
APPROVED BY:	HENRY/ARCHIE
MATERIAL:	N/A
FINISH:	N/A
WEIGHT (LB):	N/A
QUANTITY:	N/A

ASSEMBLY: ADJUSTABLE GROUND MOUNT V3

PART: AGM BASE PLATES LOCATION

DWG NO: KS-AGM-62 REV: 0

PAPER SIZE: B | SCALE: 1:1 | SHEET: 9 OF 9

REV:	DESCRIPTION:	BY:	DATE:	APPRO:
				HENRY-ARCHIE