



*Magerack designs and manufactures solar mounting systems for roof-top photovoltaic installations. Magerack provides reliable, easy-to-install and cost-effective turn-key solar mounting solutions for contractors and installers.*

## ADVANTAGES

### Reliable and Durable

- UL 2703 compliance, PE certified and Class 'A' Fire Rating.
- Made with extruded structural aluminum alloy 6061-T6 and stainless steel.
- Strong design that meets CBC 2013 and international building codes for up to eight-foot rail span under common weather and geographic conditions.
- Covered with 25-year limited warranty.

### Easy to Install

- Mid clamp, end clamp, rail splice and microinverter mounting kit have integrated bonding.
- Ground lug is integrated with rail and no drilling is required.
- Unique and patented L-foot with flashing.
- One size of bolts require only one size of socket.
- All attachments are designed to have slot holes for alignment to help installer mount attachment on the roof with flexibility.
- Minimal part and step-by-step installation guide to help installer install fast and easily.
- No on-site drilling is needed. Three types of attachments for all types of residential roofs.

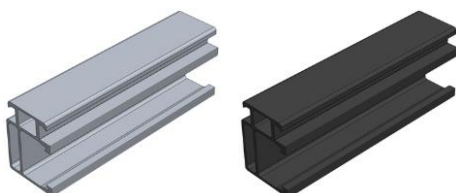
### Cost Effective

- Most competitive pricing for installers and integrators.
- Strong design enables longer rail span and reduces attachments installation, save time and reduce overall installation cost. Most cost-effective mounting solution.
- Complete line of rails and components for residential solar module mounting with all required bolts and nuts. No need to acquire additional parts.
- Various lengths of rails minimizing wasteful cutoffs.

# Magerack Rail-based Solar Mounting Products

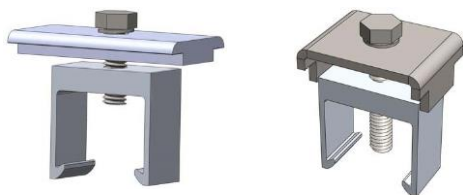
**Material:** Aluminum alloy 6061-T6, aluminum 3003-H14, and 304 stainless steel  
**Finish:** Clear and black anodized or mill finish  
**Warranty:** 25-year limited warranty

## Rails



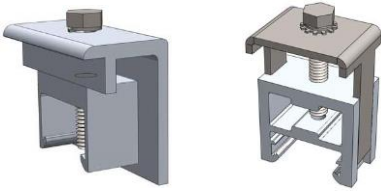
Part #	Description	Finish	Compatible PV Modules	Unit Weight (LB)	Package Quantity	Package Weight (LB)
101-001-110	Rail – 126" (10'6")	Clear	Any PV modules for pitched roof installation	7.89	6	48
101-001-112	Rail – 144" (12')			9.07	6	55
101-001-114	Rail – 168" (14')			10.58	6	64
101-001-117	Rail – 204" (17')			12.85	4	52
101-001-120	Rail – 240" (20')			15.08	4	61
101-001-210	Rail – 126" (10'6")	Black		7.89	6	48
101-001-212	Rail – 144" (12')			9.07	6	55
101-001-214	Rail – 168" (14')			10.58	6	64
101-001-217	Rail – 204" (17')			12.85	4	52
101-001-220	Rail – 240" (20')			15.08	4	61

## Mid Clamps



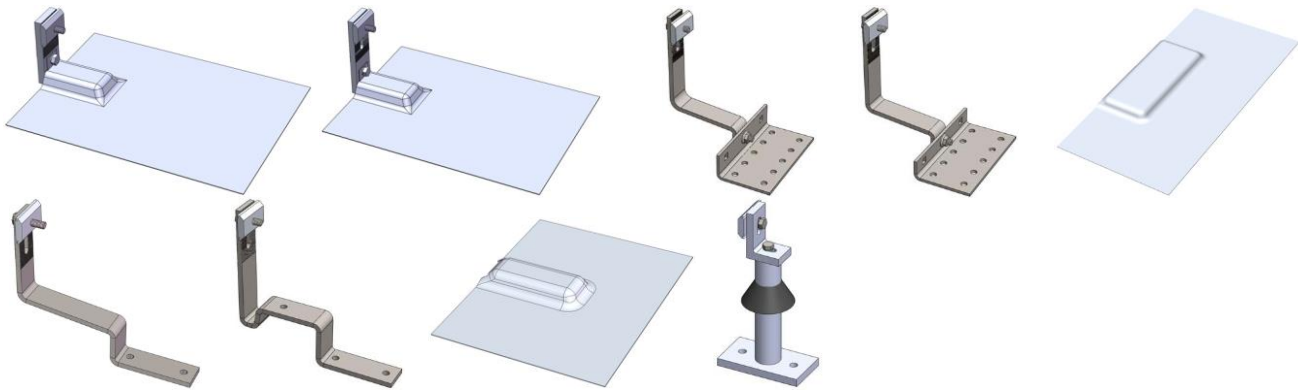
Part #	Description	Finish	PV Module Frame Depth	Unit Weight (LB)	Package Quantity	Package Weight (LB)
101-002-201	Mid clamp (mid clamp top and bottom, 1-1/2" bolt/washer)	Black	>=1.34" (34 mm)	0.16	80	13
101-002-202	Mid clamp (mid clamp top and bottom, 1-1/4" bolt/washer)	Black	>=1.22" (31 mm)	0.16	100	16
101-002-301	Mid clamp with integrated bonding (mid clamp top and bottom, 1-5/8" bolt/washer)	Clear	>=1.22" (31 mm)	0.20	100	20
101-002-401		Black				

## End Clamps



Part #	Description	Finish	PV Module Frame Depth	Unit Weight (LB)	Package Quantity	Package Weight (LB)
101-003-233	End clamp (end clamp top and bottom, 1-1/4" bolt/washer)	Black	1.22"-1.34" (31-34 mm)	0.19	100	19.5
101-003-134	End clamp (end clamp top and bottom, 1-1/4" bolt/washer)	Clear	1.26"-1.38" (32-35 mm)	0.20	100	20.5
101-003-235	End clamp (end clamp top and bottom, 1-1/4" bolt/washer)	Black	1.30"-1.42" (33-36 mm)	0.20	100	20.5
101-003-138	End clamp (end clamp top and bottom, 1-1/2" bolt/washer)	Clear	1.38"-1.54" (36-39 mm)	0.21	100	21.5
101-003-240	End clamp (end clamp top and bottom, 1-1/2" bolt/washer)	Black	1.50"-1.61" (38-41 mm)	0.21	100	21.5
101-003-142	End clamp (end clamp top and bottom, 1-3/4" bolt/washer)	Clear	1.57"-1.69" (40-43 mm)	0.22	100	22.5
101-003-242		Black				
101-003-146	End clamp (end clamp top and bottom, 1-3/4" bolt/washer)	Clear	1.73"-1.85" (44-47 mm)	0.23	100	23.5
101-003-246		Black				
101-003-150	End clamp (end clamp top and bottom, 2" bolt/washer)	Clear	1.89"-2.01" (48-51 mm)	0.24	80	19.7
101-003-250		Black				
101-003-301	Low universal end clamp with integrated bonding (end clamp top and bottom, 1-5/8" bolt/washer)	Clear	1.22"-1.65" (31-42 mm)	0.29	120	34.8
101-003-401	Low universal end clamp (end clamp top and bottom, 1-5/8" bolt/washer)	Black				
101-003-302	Tall universal end clamp with integrated bonding (end clamp top and bottom, 2" bolt/washer)	Clear	1.57"-2.00" (40-51 mm)	0.30	120	36.0
101-003-402	Tall universal end clamp (end clamp top and bottom, 2" bolt/washer)	Black				

## Roof Attachments with Rail Nut



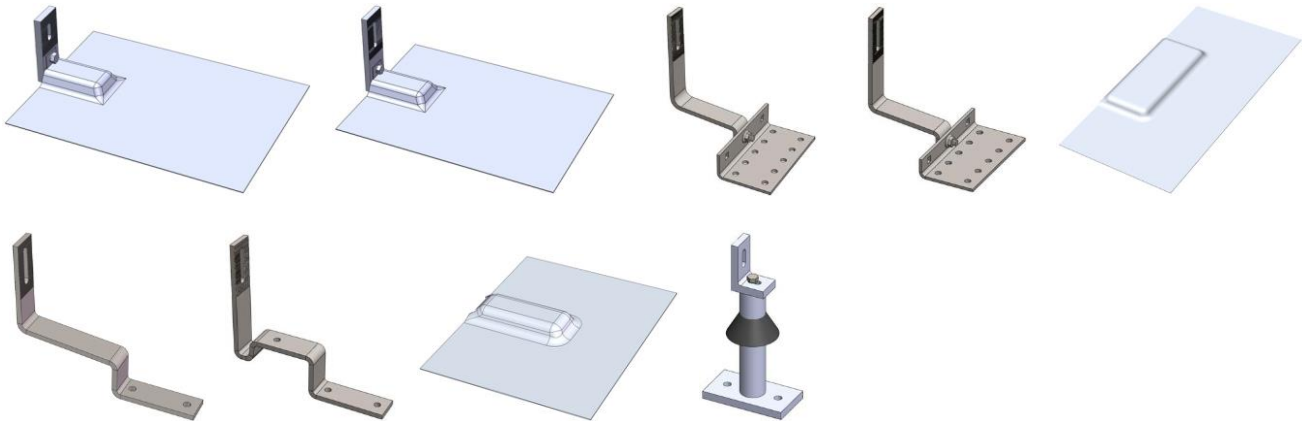
Part #	Description	Height*	Unit Weight (LB)	Package Quantity	Package Weight (LB)
101-006-101	L-foot with flashing and rail nut (L-foot, rail nut, 1-1/4" bolt/washer, flashing, 3/4" bolt/washer)	3.5" - 4.2" (89 - 107 mm)	0.77	40	30.8
101-006-102	Tall L-foot with flashing and rail nut (Tall L-foot, rail nut, 1-1/4" bolt/washer, flashing, 3/4" bolt/washer)	4.5" - 5.2" (114 - 132 mm)	0.81	40	32.4
101-008-102	Tile hook with rail nut (tile hook top and base, 3/4" carriage bolt and flange nut, rail nut, 1-1/4" bolt/washer) **	6.6" - 8.6" (168 - 218 mm)	1.82	20	36.4
101-008-103	Low tile hook with rail nut (low tile hook top and base, 3/4" carriage bolt and flange nut, rail nut, 1-1/4" bolt/washer) ***	6.3" - 8.0" (159 - 204 mm)	1.75	20	35.0
101-008-100	Flashing for tile hook and low tile hook (13"x7", fit 101-008-102 and 101-008-103)		0.29	100	29
101-008-104	Flat tile hook with rail nut (flat tile hook, rail nut, 1-1/4" bolt/washer)	8.0" (204 mm)	1.10	20	22
101-008-106	Stone-coated steel roof tile hook with rail nut (tile hook, rail nut, 1-1/4" bolt/washer)	6.3" - 8.3" (161 - 211 mm)	1.35	20	27
101-008-300	Flashing for flat tile hook and stone-coated steel roof tile hook (9"x7", fit 101-008-104 and 101-008-106)		0.20	100	20
101-007-103	Standoff with rail nut - 3" (standoff, small L-foot, rail nut, two 1" bolts/washers, rubber collar)	5.5" - 6.2" (140 - 157 mm)	1.02	20	20.4
101-007-104	Standoff with rail nut - 4" (standoff, small L-foot, rail nut, two 1" bolts/washers, rubber collar)	6.5" - 7.2" (165 - 183 mm)	1.13	20	22.6
101-007-106	Standoff with rail nut - 6" (standoff, small L-foot, rail nut, two 1" bolts/washers, rubber collar)	8.5" - 9.2" (216 - 234 mm)	1.37	20	27.4
101-007-107	Standoff with rail nut - 7" (standoff, small L-foot, rail nut, two 1" bolts/washers, rubber collar)	9.5" - 10.2" (241 - 259 mm)	1.49	20	29.8

\* Height is the spacing between rail top and attachment bottom (the space clearance between bottom of PV module frame and attachment bottom).

\*\* The clearance under the horizontal portion of the tile hook is 1.5" – 2.25" (38 – 57 mm).

\*\*\* Low tile hook is designed for flat tile installed without batten. The clearance under the horizontal portion of the low tile hook is 1.1" – 1.5" (29 – 38 mm).

## Roof Attachments without Rail Nut (Compatible with Other Manufacturers' Rails)



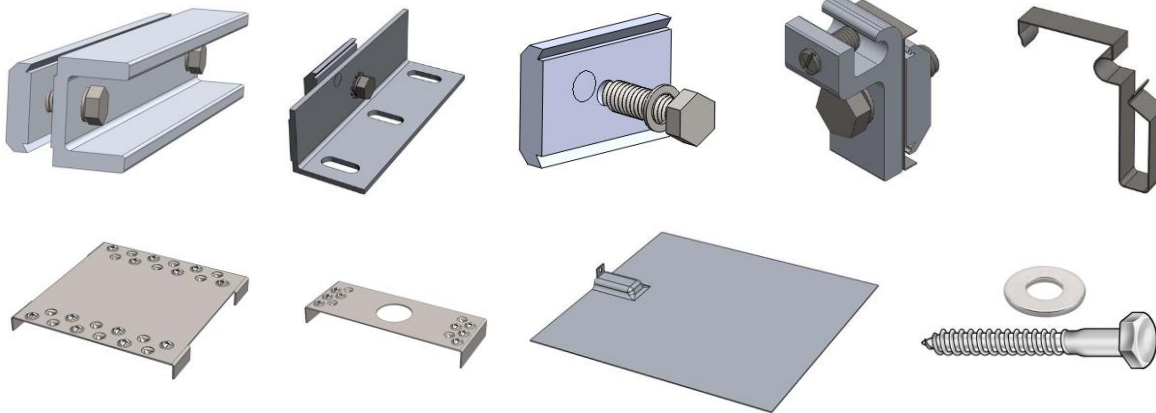
Part #	Description	Height*	Unit Weight (LB)	Package Quantity	Package Weight (LB)
101-019-101	L-foot with flashing (L-foot, flashing, 3/4" flange bolt)	2.24" – 2.87" (56.9 – 72.9 mm)	0.68	50	34.0
101-019-102	Tall L-foot with flashing (Tall L-foot, flashing, 3/4" flange bolt)	3.24" – 3.87" (82.3 – 98.3 mm)	0.71	50	35.5
101-019-110	Tile hook (tile hook top and base, 3/4" carriage bolt and flange nut) **	5.3" – 7.3" (135 – 185.5 mm)	1.74	20	34.8
101-019-111	Low tile hook (tile hook top and base, 3/4" carriage bolt and flange nut) ***	5.0" – 6.7" (126 – 171 mm)	1.67	20	33.4
101-008-100	Flashing for tile hook and low tile hook (13"x7", fit 101-019-110 and 101-019-111)		0.29	100	29
101-019-112	Flat tile hook	6.7" (171 mm)	0.98	40	39.2
101-019-114	Stone-coated steel roof tile hook	5.1" – 7.0" (128 – 178 mm)	1.27	20	25.4
101-008-300	Flashing for flat tile hook and stone-coated steel roof tile hook (9"x7", fit 101-019-112 and 101-019-114)		0.20	100	20
101-019-104	Standoff - 4" (standoff, small L-foot, 1" bolt/washer, rubber collar)	4" (101.6 mm)	1.04	20	20.8
101-019-106	Standoff - 6" (standoff, small L-foot, 1" bolt/washer, rubber collar)	6" (152.4 mm)	1.28	20	25.6
101-019-201	Black L-foot with flashing (L-foot, flashing, 3/4" flange bolt)	2.24" – 2.87" (56.9 – 72.9 mm)	0.68	50	34.0
101-019-202	Black Tall L-foot with flashing (L-foot, flashing, 3/4" flange bolt)	3.24" – 3.87" (82.3 – 98.3 mm)	0.71	50	35.5

\* For standoff, the height is the spacing between standoff shaft top and standoff base bottom; for L-foot and tile hook, the height is the spacing between bolt slot and attachment bottom.

\*\* The clearance under the horizontal portion of the tile hook is 1.25" – 2.13" (32 – 54 mm).

\*\*\* Low tile hook is designed for flat tile installed without batten. The clearance under the horizontal portion of the low tile hook is 1.1" – 1.5" (29 – 38 mm).

## Accessories and Parts



Part #	Description	Unit Weight (LB)	Package Quantity	Package Weight (LB)
101-001-301	Rail splice with integrated bonding (splice, plate, two 1-1/4" bolts/washers)	0.83	50	41.5
101-010-101	Microinverter mounting kit with integrated bonding (mounting plate, rail nut, 1-1/4" bolt/washer)	0.28	40	11.2
101-001-201	Rail nut (rail nut, 1" bolt/washer)	0.085	100	8.5
101-001-405	Ground lug	0.11	20	2.2
101-010-105	Wire clip	0.01	200	2.0
101-001-401	Bonding clip for rail and PV module	0.0065	100	0.65
101-001-402	Bonding clip for rail splice or microinverter mounting kit	0.004	100	0.4
101-006-300	Flashing for L-foot shake roof (18" x 18")	1.54	20	30.8
101-020-130	5/16 3" stainless steel lag screw with washer	0.056	120	6.8
101-020-135	5/16 3-1/2" stainless steel lag screw with washer	0.069	120	8.3
101-020-140	5/16 4" stainless steel lag screw with washer	0.075	100	7.6
101-020-145	5/16 4-1/2" stainless steel lag screw with washer	0.081	100	8.1
101-020-150	5/16 5" stainless steel lag screw with washer	0.087	100	8.7

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