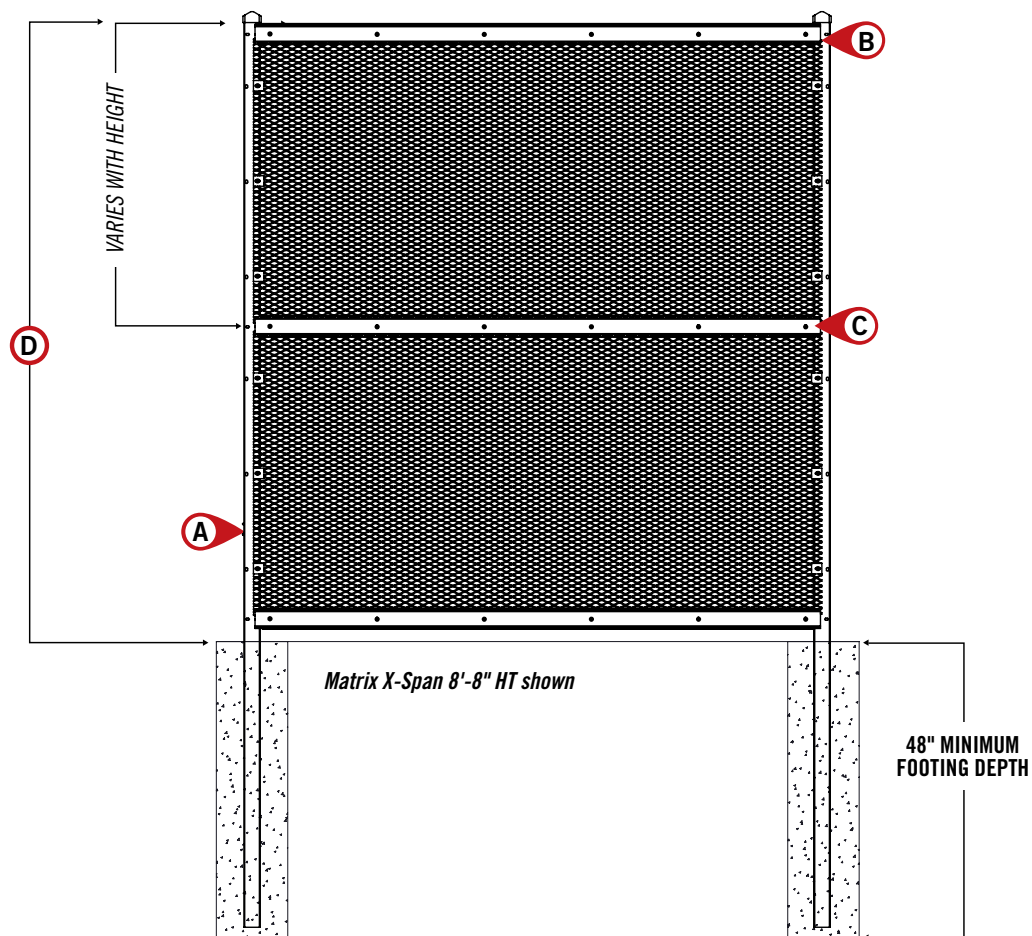


MATRIX® | MULTIPLE SECURITY MESH OPTIONS

STANDARD 2" FROM GRADE



- Ⓐ 4" x 2.75" x 11ga I-BEAM POSTS - post offering varies with height
- Ⓑ GRID CHANNEL & RETAINER
- Ⓒ 2" C-SHAPE x 11ga RAILS
- Ⓓ 8'-8", 10'-8", 12'-9", 15'-9" & 20'-10" HEIGHTS

NOTE: HARDENED MATRIX NOT DEPICTED ABOVE

PANELS REQUIRE ASSEMBLY

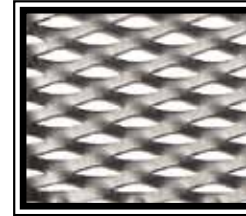
Refer to construction specification & tables within this section for post setting requirements

Effective: 11/08/18

MATRIX® | **X-SPAN MODIFIED MESH** - ASSEMBLY REQUIRED

.5" X #13R (.188 STRAND) MESH | 8'8" & 10'8" HT - 3 RAILS/2 FILLERS | 12'9" & 15'9" HT - 4 RAILS/3 FILLERS | 20'10" HT - 5 RAILS/4 FILLERS

PANEL	ITEM NUMBER	WEIGHT	STOCKING
8'-8" ht.	M13Rⓧ3096N	247 lbs	⓪
10'-8" ht.	M13Rⓧ3120N	288 lbs	⓪
12'-9" ht.	M13Rⓧ4144N	356 lbs	⓪
15'-9" ht.	M13Rⓧ4192N	371 lbs	⓪
20'-10" ht.	M13Rⓧ5240N	569 lbs	⓪



X-SPAN MODIFIED™

PANEL KITS CONTAIN INFILL PANELS, RAILS, TRACKS, CAPS & FASTENERS

8'8" HT. & 12'9" HT. USE 4' X 8' INFILL PANELS

10'8" HT., 15'9" & 20'10" USE 5' X 8' INFILL PANELS

ⓧ = COLOR OPTIONS AVAILABLE | B = Black

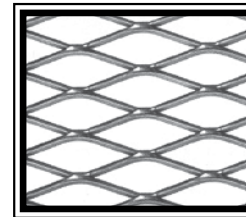
⓪ = NON-STOCKED PRODUCT

For details, see Ameristar's Sales Policy in the catalog guide.

MATRIX® | **X-SPAN MESH** - ASSEMBLY REQUIRED

.75" X #9F MESH | 8'8" & 10'8" HT - 3 RAILS/2 FILLERS | 12'9" & 15'9" HT - 4 RAILS/3 FILLERS | 20'10" HT - 5 RAILS/4 FILLERS

PANEL	ITEM NUMBER	WEIGHT	STOCKING
8'-8" ht.	MEM9ⓧ3096N	183 lbs	⓪
10'-8" ht.	MEM9ⓧ3120N	208 lbs	⓪
12'-9" ht.	MEM9ⓧ4144N	260 lbs	⓪
15'-9" ht.	MEM9ⓧ4192N	296 lbs	⓪
20'-10" ht.	MEM9ⓧ5240N	389 lbs	⓪



X-SPAN™

PANEL KITS CONTAIN INFILL PANELS, RAILS, TRACKS, CAPS & FASTENERS

8'8" HT. & 12'9" HT. USE 4' X 8' INFILL PANELS

10'8" HT., 15'9" & 20'10" USE 5' X 8' INFILL PANELS

ⓧ = COLOR OPTIONS AVAILABLE | B = Black

⓪ = NON-STOCKED PRODUCT

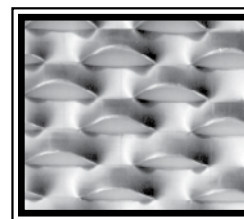
For details, see Ameristar's Sales Policy in the catalog guide.

Effective: 11/08/18

MATRIX® | X-SCREEN MESH - ASSEMBLY REQUIRED

1.5" X #14 LOUVERED MESH | 8'8" & 10'8" HT - 3 RAILS/2 FILLERS | 12'9" & 15'9" HT - 4 RAILS/3 FILLERS | 20'10" HT - 5 RAILS/4 FILLERS

PANEL	ITEM NUMBER	WEIGHT	STOCKING
8'-8" ht.	M94Rⓧ3096N	231 lbs	⓪
10'-8" ht.	M94Rⓧ3120N	267 lbs	⓪
12'-9" ht.	M94Rⓧ4144N	332 lbs	⓪
15'-9" ht.	M94Rⓧ4192N	390 lbs	⓪
20'-10" ht.	M94Rⓧ5240N	502 lbs	⓪



X-SCREEN™

PANEL KITS CONTAIN INFILL PANELS, RAILS, TRACKS, CAPS & FASTENERS

8'8" HT. & 12'9" HT. USE 4' X 8' INFILL PANELS

10'8" HT., 15'9" & 20'10" USE 5' X 8' INFILL PANELS

ⓧ = COLOR OPTIONS AVAILABLE | B = Black

⓪ = NON-STOCKED PRODUCT

For details, see Ameristar's Sales Policy in the catalog guide.

MATRIX® | WIREWORKS MESH - ASSEMBLY REQUIRED

.5" X 3" X 6GA & 8GA MESH | 8'8" & 10'8" HT - 3 RAILS/2 FILLERS | 12'9" & 15'9" HT - 4 RAILS/3 FILLERS | 20'10" HT - 5 RAILS/4 FILLERS

PANEL	ITEM NUMBER	WEIGHT	STOCKING
8'-8" ht.	MACⓧⓧ3096N	269 / 218* lbs	⓪
10'-8" ht.	MACⓧⓧ3120N	314 / 250* lbs	⓪
12'-9" ht.	MACⓧⓧ4144N	389 / 312* lbs	⓪
15'-9" ht.	MACⓧⓧ4192N	454 / 361* lbs	⓪
20'-10" ht.	MACⓧⓧ5240N	592 / 465* lbs	⓪



WIREWORKS™

PANEL KITS CONTAIN INFILL PANELS, RAILS, TRACKS, CAPS & FASTENERS

8'8" HT. & 12'9" HT. USE 4' X 8' INFILL PANELS

10'8" HT., 15'9" & 20'10" USE 5' X 8' INFILL PANELS

ⓧ = WIRE GAUGE AVAILABLE | 6 = 6 GAUGE 8 = 8 GAUGE*

ⓧ = COLOR OPTIONS AVAILABLE | B = Black

⓪ = NON-STOCKED PRODUCT

For details, see Ameristar's Sales Policy in the catalog guide.

Effective: 11/08/18

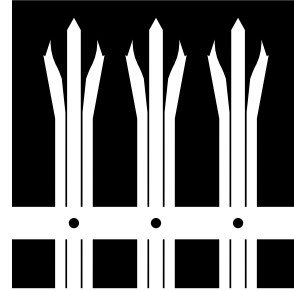
TO PLACE YOUR ORDER CALL 888-333-3422 | VISIT AMERISTARFENCE.COM

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HARDENED MATRIX® | TRIDENT - ASSEMBLY REQUIRED

.75" X #9F MESH | 9'9" & 11'9" HT - 3 RAILS/2 FILLERS | 13'10" HT - 4 RAILS/3 FILLERS

PANEL	ITEM NUMBER	WEIGHT	STOCKING
STANDARD PALE SPACING 16 PALES			
9'-9" ht.	HMEMTⓉ3096	332 lbs	⊗
11'-9" ht.	HMEMTⓉ3120	394 lbs	⊗
13'-10" ht.	HMEMTⓉ4144	475 lbs	⊗
ANTI-CLIMB PALE SPACING 23 PALES			
9'-9" ht.	HMEMTⓉ3096AC	406 lbs	⊗
11'-9" ht.	HMEMTⓉ3120AC	483 lbs	⊗
13'-10" ht.	HMEMTⓉ4144AC	581 lbs	⊗



HARDENED MATRIX TRIDENT

PANEL KITS CONTAIN X-SPAN INFILL PANELS, RAILS, BACKING STRIPS, PALES & FASTENERS

9'9" HT. & 13'10" HT. USE 4' X 8' X-SPAN INFILL PANELS

11'9" HT. USE 5' X 8' X-SPAN INFILL PANELS

Ⓣ = COLOR OPTIONS AVAILABLE | B = Black

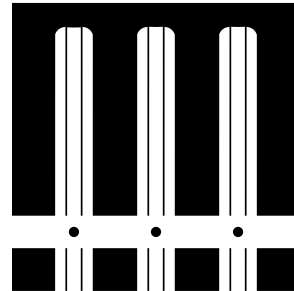
⊗ = NON-STOCKED PRODUCT

For details, see Ameristar's Sales Policy in the catalog guide.

HARDENED MATRIX® | STRONGHOLD - ASSEMBLY REQUIRED

.75" X #9F MESH | 9'9" & 11'9" HT - 3 RAILS/2 FILLERS | 13'10" HT - 4 RAILS/3 FILLERS

PANEL	ITEM NUMBER	WEIGHT	STOCKING
STANDARD PALE SPACING 16 PALES			
9'-9" ht.	HMEMSⓉ3096	344 lbs	⊗
11'-9" ht.	HMEMSⓉ3120	408 lbs	⊗
13'-10" ht.	HMEMSⓉ4144	491 lbs	⊗
ANTI-CLIMB PALE SPACING 23 PALES			
9'-9" ht.	HMEMSⓉ3096AC	423 lbs	⊗
11'-9" ht.	HMEMSⓉ3120AC	503 lbs	⊗
13'-10" ht.	HMEMSⓉ4144AC	604 lbs	⊗



HARDENED MATRIX STRONGHOLD

PANEL KITS CONTAIN X-SPAN INFILL PANELS, RAILS, BACKING STRIPS, PALES & FASTENERS

9'9" HT. & 13'10" HT. USE 4' X 8' X-SPAN INFILL PANELS

11'9" HT. USE 5' X 8' X-SPAN INFILL PANELS

Ⓣ = COLOR OPTIONS AVAILABLE | B = Black

⊗ = NON-STOCKED PRODUCT

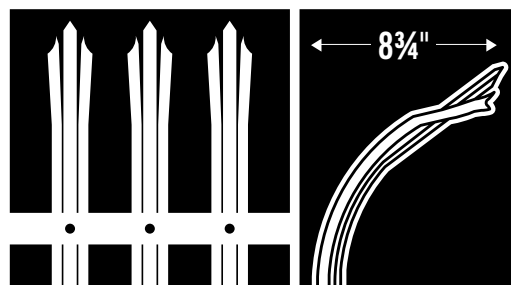
For details, see Ameristar's Sales Policy in the catalog guide.

Effective: 11/08/18

HARDENED MATRIX® | GAUNTLET - ASSEMBLY REQUIRED

.75" X #9F MESH | 9'9" & 11'9" HT - 3 RAILS/2 FILLERS | 13'10" HT - 4 RAILS/3 FILLERS

PANEL	ITEM NUMBER	WEIGHT	STOCKING
STANDARD PALE SPACING 16 PALES			
9'-9" ht.	HMEMGⓧ3096	337 lbs	⊗
11'-9" ht.	HMEMGⓧ3120	399 lbs	⊗
13'-10" ht.	HMEMGⓧ4144	481 lbs	⊗
ANTI-CLIMB PALE SPACING 23 PALES			
9'-9" ht.	HMEMGⓧ3096AC	414 lbs	⊗
11'-9" ht.	HMEMGⓧ3120AC	491 lbs	⊗
13'-10" ht.	HMEMGⓧ4144AC	590 lbs	⊗



HARDENED MATRIX GAUNTLET

PANEL KITS CONTAIN X-SPAN INFILL PANELS, RAILS, BACKING STRIPS, PALES & FASTENERS

9'9" HT. & 13'10" HT. USE 4' X 8' X-SPAN INFILL PANELS

11'9" HT. USE 5' X 8' X-SPAN INFILL PANELS

ⓧ = COLOR OPTIONS AVAILABLE | B = Black

⊗ = NON-STOCKED PRODUCT

For details, see Ameristar's Sales Policy in the catalog guide.

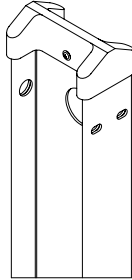
Effective: 11/08/18

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MATRIX® | POSTS

I-BEAM POST ASSEMBLIES



ITEM LVL	ITEM NUMBER	APPLICATION	WEIGHT	STOCKING
8'-8" HEIGHT MATRIX / 9'-9" HARDENED MATRIX				
LEVEL 1	MPⓉ3096-4N☒	Buried	69 / 92 lbs	☐
LEVEL 2	MPⓉ3096-4F☒	Buried	76 / 99 lbs	☐
LEVEL 2	MPⓉ3096-4F☒ P	Plated	61 / 84 lbs	☐
LEVEL 2	MPⓉ3096-4F☒ S	Stepped Buried	103 / 118 lbs	☐
LEVEL 2	MPⓉ3096-4F☒ PS	Stepped Plated	83 / 99 lbs	☐
LEVEL 3	MPⓉ3096-4R☒	Buried	120 / 143 lbs	☐
LEVEL 3	MPⓉ3096-4R☒ P	Plated	125 / 148 lbs	☐
LEVEL 3	MPⓉ3096-4R☒ S	Stepped Buried	175 / 190 lbs	☐
LEVEL 3	MPⓉ3096-4R☒ PS	Stepped Plated	163 / 178 lbs	☐
10'-8" HEIGHT MATRIX / 11'-9" HARDENED MATRIX				
LEVEL 1	MPⓉ3120-4N☒	Buried	80 / 108 lbs	☐
LEVEL 2	MPⓉ3120-4F☒	Buried	86 / 115 lbs	☐
LEVEL 2	MPⓉ3120-4F☒ P	Plated	72 / 101 lbs	☐
LEVEL 2	MPⓉ3120-4F☒ S	Stepped Buried	115 / 134 lbs	☐
LEVEL 2	MPⓉ3120-4F☒ PS	Stepped Plated	97 / 116 lbs	☐
LEVEL 3	MPⓉ3120-4R☒	Buried	158 / 187 lbs	☐
LEVEL 3	MPⓉ3120-4R☒ P	Plated	150 / 179 lbs	☐
LEVEL 3	MPⓉ3120-4R☒ S	Stepped Buried	222 / 236 lbs	☐
LEVEL 3	MPⓉ3120-4R☒ PS	Stepped Plated	188 / 206 lbs	☐
12'-9" HEIGHT MATRIX / 13'-10" HARDENED MATRIX				
LEVEL 1	MPⓉ4144-4N☒	Buried	90 / 125 lbs	☐
LEVEL 2	MPⓉ4144-4F☒	Buried	102 / 137 lbs	☐
LEVEL 2	MPⓉ4144-4F☒ P	Plated	86 / 121 lbs	☐
LEVEL 2	MPⓉ4144-4F☒ S	Stepped Buried	159 / 182 lbs	☐
LEVEL 2	MPⓉ4144-4F☒ PS	Stepped Plated	113 / 136 lbs	☐
LEVEL 3	MPⓉ4144-4R☒	Buried	189 / 223 lbs	☐
LEVEL 3	MPⓉ4144-4R☒ P	Plated	175 / 209 lbs	☐
LEVEL 3	MPⓉ4144-4R☒ S	Stepped Buried	243 / 266 lbs	☐
LEVEL 3	MPⓉ4144-4R☒ PS	Stepped Plated	215 / 238 lbs	☐

Line posts contain: I-beam Post, Cap, Fasteners & Grounding Lugs | Corner / Stepped Post contain: I-beam Post, Cap, Grounding Lugs, Brackets & Fasteners

POSTS ARE PRE-ASSEMBLED | CAP & LUGS TO BE FIELD INSTALLED

☒ = POST TYPE AVAILABLE | L = LINE POST | C = CORNER POST | Weight indicated as: line / corner

Ⓣ = COLOR OPTIONS AVAILABLE | B = Black | ☐ = NON-STOCKED PRODUCT

REFER TO POST SELECTION TABLE / WINDLOAD TABLE FOR POST REQUIREMENTS

Effective: 11/08/18

MATRIX® | POSTS & TECH POSTS

I-BEAM POST ASSEMBLIES

ITEM LVL	ITEM NUMBER	APPLICATION	WEIGHT	STOCKING
15'-9" HEIGHT MATRIX				
LEVEL 3	MPⓄ4192-4R☒	Buried	204 / 247 lbs	⊖
LEVEL 3	MPⓄ4192-4R☒ P	Plated	191 / 234 lbs	⊖
LEVEL 3	MPⓄ4192-4R☒ S	Stepped Buried	250 / 276 lbs	⊖
LEVEL 3	MPⓄ4192-4R☒ PS	Stepped Plated	228 / 255 lbs	⊖

Line posts contain: I-beam Post, Cap, Fasteners & Grounding Lugs | Corner / Stepped Post contain: I-beam Post, Cap, Grounding Lugs, Brackets & Fasteners

SQUARE POST ASSEMBLIES

ITEM LVL	ITEM NUMBER	APPLICATION	WEIGHT	STOCKING
20'-10" HEIGHT MATRIX				
LEVEL 3	MPⓄ5240-8R☒	Buried	938 / 938 lbs	⊖
LEVEL 3	MPⓄ5240-8R☒ P	Plated	695 / 695 lbs	⊖
LEVEL 3	MPⓄ5240-8R☒ S	Stepped Buried	1030 / 1030 lbs	⊖
LEVEL 3	MPⓄ5240-8R☒ PS	Stepped Plated	787 / 787 lbs	⊖

Post assemblies contain: 8" SQ Post, Cap, Grounding Lugs, Brackets & Fasteners

Posts to be field assembled

ALL POSTS ARE PRE-ASSEMBLED UNLESS OTHERWISE NOTED | CAP & LUGS TO BE FIELD INSTALLED

☒ = POST TYPE AVAILABLE | L = LINE POST | C = CORNER POST | Weight indicated as: line / corner

Ⓞ = COLOR OPTIONS AVAILABLE | B = Black | ⊖ = NON-STOCKED PRODUCT

REFER TO POST SELECTION TABLE / WINDLOAD TABLE FOR POST REQUIREMENTS

TECH POSTS

FENCE HT.	ITEM NUMBER	APPLICATION	WEIGHT	OVERALL HT
Technology Posts				
8'-8" / 9'-9"	MTPⓄ3096	Buried	861 lbs	24'-2"
8'-8" / 9'-9"	MTPⓄ3096P	Plated	528 lbs	21'-2"
10'-8" / 11'-9"	MTPⓄ3120	Buried	870 lbs	24'-2"
10'-8" / 11'-9"	MTPⓄ3120P	Plated	537 lbs	21'-2"
12'-9" / 13'-10"	MTPⓄ4144	Buried	877 lbs	24'-2"
12'-9" / 13'-10"	MTPⓄ4144P	Plated	544 lbs	21'-2"
15'-9"	MTPⓄ4192	Buried	903 lbs	25'-2"
15'-9"	MTPⓄ4192P	Plated	656 lbs	25'-2"
20'-10"	MTPⓄ5240	Buried	1113 lbs	30'-1"
20'-10"	MTPⓄ5240P	Plated	869 lbs	30'-1"

TECH POST CONTAIN BRACKETS, ACCESS PLATES, HARDWARE, CAPS & FASTENERS

TECH POSTS TO BE FIELD ASSEMBLED

MATRIX / HARDENED MATRIX

Ⓞ = COLOR OPTIONS AVAILABLE | B = Black

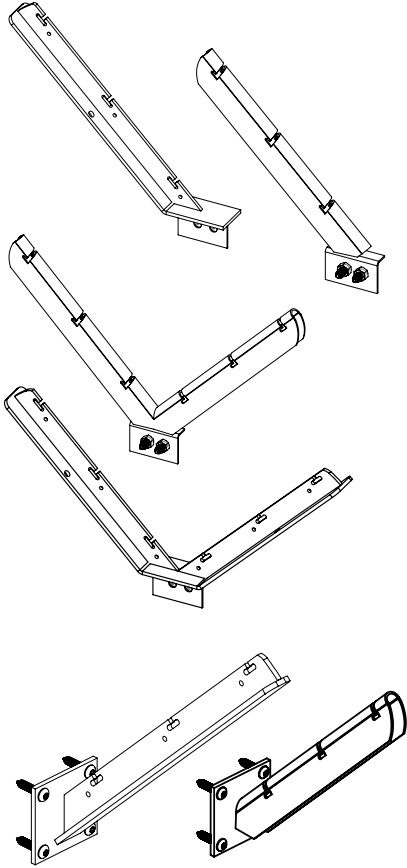
CONTACT AMERISTAR FOR WINDLOAD DATA

Effective: 11/08/18

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MATRIX® | BARB ARMS



PRODUCT	ITEM NUMBER	WEIGHT	ARM LENGTH	STOCKING
SINGLE LINE	MBA <u>U</u> SLK	4 lbs	16 inches	⊗
SINGLE END	MBA <u>U</u> SEK	10.5 lbs	16 inches	⊗
SINGLE CORNER	MBA <u>U</u> SCK	12 lbs	18 inches	⊗
DOUBLE LINE	MBA <u>U</u> DLK	6 lbs	16 inches	⊗
DOUBLE END	MBA <u>U</u> DEK	14.5 lbs	16 inches	⊗
DOUBLE CORNER	MBA <u>U</u> DCK	17 lbs	18 inches	⊗
FLAT MOUNT SINGLE LINE	MBA <u>U</u> FLK	12.7 lbs	16 inches	⊗
FLAT MOUNT SINGLE END	MBA <u>U</u> FEK	20.4 lbs	16 inches	⊗
FLAT MOUNT SINGLE CORNER	MBA <u>U</u> FCK	19.1 lbs	18 inches	⊗

BARB ARM KITS SUPPLIED WITH FASTENERS | END & CORNER ARMS SUPPLIED WITH BRACING ARM

FLAT MOUNT BARB ARMS DO NOT REQUIRE BRACING

END & CORNER ARMS DIFFER IN LENGTH

SINGLE LINE - QTY 10/BOX | SINGLE END - QTY 5/BOX | SINGLE CORNER - QTY 5/BOX

DOUBLE LINE, END & CORNER - QTY 1/BOX

FLAT MOUNT SINGLE LINE, END & CORNER - QTY 4/BOX

COLOR OPTION | U = Uncoated (galvanized finish)

⊗ = NON-STOCKED PRODUCT

MATRIX® | INFILL SHEETS

PRODUCT	PANEL SIZE	ITEM NUMBER	WEIGHT	STOCKING
X-SPAN MODIFIED	4' X 8'	MLM⊗95.548ST	78 lbs	⊗
X-SPAN MODIFIED	5' X 8'	MLM⊗95.560ST	99 lbs	⊗
X-SPAN	4' X 8'	EM⊗95.548ST	46 lbs	⊗
X-SPAN	5' X 8'	EM⊗95.560ST	59 lbs	⊗
X-SCREEN	4' X 8'	LM⊗95.548ST	70 lbs	⊗
X-SCREEN	5' X 8'	LM⊗95.560ST	88 lbs	⊗
WIREWOKS 6GA.	4' X 8'	AC⊗95.548-6ST	89 lbs	⊗
WIREWOKS 6GA.	5' X 8'	AC⊗95.560-6ST	112 lbs	⊗
WIREWOKS 8GA.	4' X 8'	AC⊗95.548-8ST	64 lbs	⊗
WIREWOKS 8GA.	5' X 8'	AC⊗95.560-8ST	80 lbs	⊗

THE ABOVE INFILL PANELS DO NOT INCLUDED FASTENERS | FASTENERS SOLD SEPARATELY

MATRIX - USE 4X8 PANELS FOR 8'-8" HT. & 12'-9" HT. | USE 5X8 PANELS FOR 10'-8" HT., 15'-9" HT. & 20'-10"

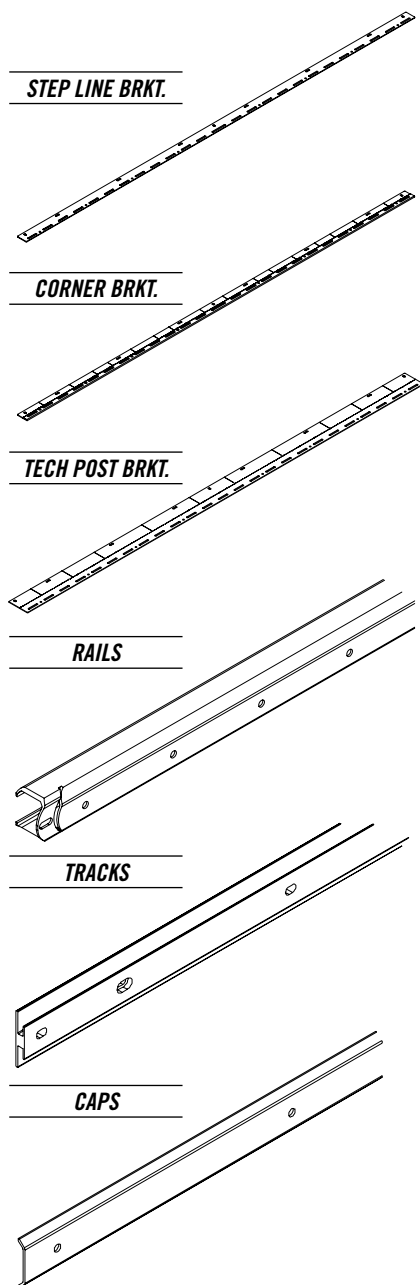
HARDENED MATRIX - USE 4X8 PANELS FOR 9'-9" HT. & 13'-10" HT. | USE 5X8 PANELS FOR 11'-9" HT.

⊗ = COLOR OPTIONS AVAILABLE | B = Black

⊗ = NON-STOCKED PRODUCT

Effective: 11/08/18

MATRIX® | COMPONENTS, KITS & ACCESSORIES



DESCRIPTION	FENCE HEIGHT	ITEM NUMBER	BAG QTY	BOX QTY	WEIGHT
STEP LINE OR CORNER BRACKET KIT	8'-8"	M <input checked="" type="checkbox"/> S <input checked="" type="checkbox"/> -8	n/a	1	8 / 23 lbs
STEP LINE OR CORNER BRACKET KIT	10'-8"	M <input checked="" type="checkbox"/> S <input checked="" type="checkbox"/> -10	n/a	1	10 / 29 lbs
STEP LINE OR CORNER BRACKET KIT	12'-9"	M <input checked="" type="checkbox"/> S <input checked="" type="checkbox"/> -12	n/a	1	12 / 35 lbs
STEP LINE OR CORNER BRACKET KIT	15'-9"	M <input checked="" type="checkbox"/> S <input checked="" type="checkbox"/> -16	n/a	1	16 / 43 lbs
STEP LINE OR CORNER BRACKET KIT	20'-10"	M <input checked="" type="checkbox"/> S <input checked="" type="checkbox"/> -20	n/a	1	83 / 82 lbs
TECH POST BRACKET KIT	8'-8"	MTS <input checked="" type="checkbox"/> -8	n/a	1	34.5 lbs
TECH POST BRACKET KIT	10'-8"	MTS <input checked="" type="checkbox"/> -10	n/a	1	43 lbs
TECH POST BRACKET KIT	12'-9"	MTS <input checked="" type="checkbox"/> -12	n/a	1	50 lbs
TECH POST BRACKET KIT	15'-9"	MTS <input checked="" type="checkbox"/> -16	n/a	1	59 lbs
TECH POST BRACKET KIT	20'-10"	MTS <input checked="" type="checkbox"/> -20	n/a	1	83 lbs
RAIL KIT	8'-8"	M000 <input checked="" type="checkbox"/> 3096N	n/a	n/a	91 lbs
RAIL KIT	10'-8"	M000 <input checked="" type="checkbox"/> 3120N	n/a	n/a	91 lbs
RAIL KIT	12'-9"	M000 <input checked="" type="checkbox"/> 4144N	n/a	n/a	121 lbs
RAIL KIT	15'-9"	M000 <input checked="" type="checkbox"/> 4192N	n/a	n/a	121 lbs
RAIL KIT	20'-10"	M000 <input checked="" type="checkbox"/> 5240N	n/a	n/a	150 lbs
RAIL / ANTI-SCALE RAIL	-	RIM <input checked="" type="checkbox"/> -8 / RIM <input checked="" type="checkbox"/> -8-AC	n/a	n/a	17 lbs
TRACK	-	MTB <input checked="" type="checkbox"/> -8	n/a	n/a	8 lbs
CAP	-	MTC <input checked="" type="checkbox"/> -8	n/a	n/a	5 lbs

HARDENED MATRIX

RAIL KIT	9'-9"	HM000 <input checked="" type="checkbox"/> 3096	n/a	n/a	72 lbs
RAIL KIT	11'-9"	HM000 <input checked="" type="checkbox"/> 3120	n/a	n/a	73 lbs
RAIL KIT	13'-10"	HM000 <input checked="" type="checkbox"/> 4144	n/a	n/a	96 lbs
ANTI-SCALE RAIL KIT	9'-9"	HM000 <input checked="" type="checkbox"/> 3096AC	n/a	n/a	72 lbs
ANTI-SCALE RAIL KIT	11'-9"	HM000 <input checked="" type="checkbox"/> 3120AC	n/a	n/a	73 lbs
ANTI-SCALE RAIL KIT	13'-10"	HM000 <input checked="" type="checkbox"/> 4144AC	n/a	n/a	96 lbs
BACKING STRIP	-	HMBS <input checked="" type="checkbox"/> -8	n/a	n/a	7 lbs
ANTI-SCALE BACKING STRIP	-	HMBS <input checked="" type="checkbox"/> -8-AC	n/a	n/a	7 lbs
PALE 9'-9" ht.	9'-9"	HM <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> 3096	n/a	n/a	12 lbs
PALE 11'-9" ht.	11'-9"	HM <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> 3120	n/a	n/a	14 lbs
PALE 13'-10" ht.	13'-10"	HM <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> 4144	n/a	n/a	16 lbs

= POST TYPE AVAILABLE | = LINE POST | = CORNER POST

= COLOR OPTIONS AVAILABLE | = Black

= H.M. PALE TYPE | = STRONGHOLD | = TRIDENT | = GAUNTLET

Weight indicated as: line / corner | Kits contain fasteners

Rail Kits Contain: qty of rails, tracks, caps & fasteners required for fence ht.

Bracket for Step Line, Step Corner & Tech Posts contain: multi-directional bracket & fasteners

Effective: 11/08/18

MATRIX® | FASTENERS, ACCESSORIES & TOUCH-UP PAINT



DESCRIPTION	SIZE	ITEM NUMBER	BAG QTY	ITEM WEIGHT
Spur Bolts	.3125" x 1.125"	2-0065-⊗P-20	20	.8 lbs
<i>1.125" length bolt used for rail to post attachment</i>				



Flange & Hex Nuts	.3125"	3-0029-⊗P-20	20	.08 lbs
	.375"	H⊗537	20	.08 lbs
<i>Flange Nuts to be used with spur bolts</i>				



Tek Screws	#10 x .75"	1-0052-⊗P-20	20	.12 lbs
<i>Tek Screws to be used with cap attachment</i>				

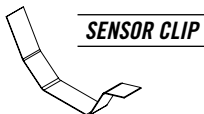


Track, Cap & Mesh Screws	.375" x .87"	1-0051-⊗P-20	20	.7 lbs
	.375" x 1.69"	1-0049-⊗P-20	20	.8 lbs
<i>.87" screw used for attaching: track to cap, pale to rail, tech post bracket to post, 20' brackets to posts.</i>				
<i>1.69" screws used attaching: mesh to posts & track to rail</i>				



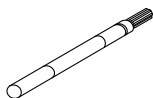
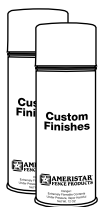
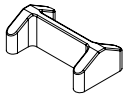
Grounding Lugs	.5" x 1.5"	1-0050-⊗P-20	20	3.7 lbs
	.5" x 1.5"	4-0031-⊗P-20	20	.05 lbs
<i>Lug & washer are required for grounding - items included in post Others responsible for grounding fence to grid</i>				

⊗ = COLOR OPTIONS AVAILABLE | 1 = Black U = Uncoated (zinc plated)



SENSOR CLIP

I-BEAM POST CAPS



DESCRIPTION	ITEM NUMBER	BAG QTY	BOX QTY	WEIGHT
Flat Strap Bracket	B⊗ 022R	2	80	.5 lbs
Sensor Wire Clip	SWC100	n/a	100	2 lbs
Rail Cover (94")	IRC81	n/a	n/a	1 lbs
4" I-Beam Post Caps*	IC4	n/a	30	.5 lbs
Tech Pole Plug	TPPLUG	n/a	10	2 lbs
Tech Pole Grounding Strap	TGSTRAP	n/a	5	5 lbs
ZINC-RICH PAINT PEN	PZ100			.5 lbs
PAINT PEN	P⊗100			.5 lbs
ZINC-RICH SPRAY PAINT	FZ100			1.1 lbs
SPRAY PAINT	F⊗ 100			1.1 lbs

⊗ = COLOR OPTIONS AVAILABLE | B = Black

Post caps are packaged with I-beam post kit. To meet the grounding requirements caps are uncoated and require tek-screw fastener attachment to post.

Post caps are packaged with I-beam post kit. In order to meet the grounding requirements caps are uncoated and require a tek-screw fastener attachment to post.

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MATRIX® | POST SELECTION TABLE

MATRIX WIND LOADING CHART								
FENCE HEIGHT	POST SIZE		Footing Dia. x Depth	WIND SPEED (MPH) SOIL CONDITIONS 150 PSF/F				
	LEVEL	GRADE		X-SPAN	X-SPAN MODIFIED	X-SCREEN	ANTI-CLIMB 8GA	ANTI-CLIMB 6GA
8'	LEVEL 1	LEVEL	24" x 48"	127.5	92.5	86.5	127.5	118
		STEPPED	24" x 64"	182.5	133	124	182.5	169.5
	LEVEL 2	LEVEL	24" x 74"	161.7	117.6	110.6	161.7	149.9
		STEPPED	24" x 90"	275.8	200.7	188.8	275.8	255.8
	LEVEL 3	LEVEL	24" x 96"	259.7	188.9	177.6	259.7	240.8
		STEPPED	24" x 48"	108	78.5	73.5	108	100.5
10'	LEVEL 1	LEVEL	24" x 62"	148.5	108	100.5	148.5	137.5
		STEPPED	24" x 72"	134.29	97.7	91.9	134.29	124.6
	LEVEL 2	LEVEL	24" x 102"	235	171	159	235	218
		STEPPED	24" x 106"	221.9	161.4	151.8	221.9	205.8
	LEVEL 3	LEVEL	24" x 48"	93.5	68	63.5	93.5	87
		STEPPED	24" x 61"	127	92	84	127	117.5
12'	LEVEL 2	LEVEL	24" x 69"	115.3	90*	XXX	115.3	106.9
		STEPPED	24" x 100"	196.5	143	133.5	196.5	182.5
	LEVEL 3	LEVEL	24" x 106"	186.7	136	127.8	186.7	173.3
		STEPPED	24" x 98"	159.2	115	107.5	159.2	147.7
16'	LEVEL 3	LEVEL	24" x 98"	144.7**	107**	100.2**	144.7**	134.2**
		STEPPED	24" x 121"	208	150	132	208	190
20'	LEVEL 3	LEVEL	24" x 121"	205**	147**	129**	205**	187**
		STEPPED	24" x 121"	205**	147**	129**	205**	187**

Note: Footer May Decrease in Size with Post Modifications

Design Criteria:

1. ASCE 7-10, Exposure C, Case A
2. IBC 2015
3. 150 Linear Feet Average Fence Span
4. 8' Post Centers
5. ACI 301-3000 PSI Concrete, 28 day cure
6. Designed using IBC-1806.3.4 Which Allows for a Doubling of Soil Bearing Pressure
7. 32" Max Step for Stepped Variations (Unless Otherwise Stated)
8. Based on 150 PSF/F Soil Conditions

*9. MAXIMUM 7" STEP AVAILABLE

**10. MAXIMUM 24" STEP AVAILABLE

Additional wind load capabilities available with modified post design. Contact Ameristar representative for information.

Effective: 11/08/18

MATRIX® | CONSTRUCTION SPECIFICATION 32 31 19**HIGH SECURITY STEEL FENCE SYSTEM | PERIMETER ENCLOSURE GRID****PART 1 - GENERAL****1.01 WORK INCLUDED**

The contractor shall provide all labor, materials and appurtenances necessary for installation of the industrial steel perimeter enclosure grid fence system defined herein at (specify project site).

1.02 RELATED WORK

Section ____ - Earthwork

Section ____ - Concrete

1.03 SYSTEM DESCRIPTION

The manufacturer shall supply a steel perimeter enclosure grid framing system of the Matrix® design, (specify mesh filler, Table 3) style. The system shall include all components (i.e., mesh filler, mesh retainer channels, rails, posts, gates and hardware) required.

1.04 QUALITY ASSURANCE

The contractor shall provide laborers and supervisors who are thoroughly familiar with the type of construction involved and materials and techniques specified.

1.05 REFERENCES

- **ASTM A653/A653M** – Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot-Dip Process
- **ASTM B117** – Practice for Operating Salt-Spray (Fog) Apparatus
- **ASTM B221** – Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles and Tubes
- **ASTM D714** – Test Method for Evaluating Degree of Blistering in Paint
- **ASTM D1654** – Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments
- **ASTM D2794** – Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact)
- **ASTM D3359** – Test Method for Measuring Adhesion by Tape Test
- **ASTM F2408** – Ornamental Fences Employing Galvanized Steel Tubular Pickets
- **ASTM F2548** – Expanded Metal Fence Systems for Security Purposes
- **ASTM F2453** – Welded Wire Mesh Fence Fabric
- **ASTM F2781** – Testing Forced Entry, Ballistic and Low Impact Resistance of Security Fence Systems
- **IEEE P80/D10** Draft Guide for Safety in AC Substation Grounding
- **IEEE 142-1991** IEEE Recommended Practice for Grounding of Industrial and Commercial Power Systems
- **IEEE 81-2012** IEEE Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials for a Ground System

1.06 SUBMITTAL

The manufacturer's submittal package shall be provided prior to installation.

1.07 PRODUCT HANDLING AND STORAGE

Upon receipt at the job site, all materials shall be checked to ensure that no damage occurred during shipping or handling. Materials shall be stored in such a manner to ensure proper ventilation and drainage, and to protect against damage, weather, vandalism and theft.

1.08 PRODUCT WARRANTY

A. All structural fence components (i.e. rails and I-beam posts) shall be warranted within specified limitations, by the manufacturer for a period of 10 years from date of original purchase. Warranty shall cover any defects in material finish, including cracking, peeling, chipping, blistering or corroding.

1.09 PRODUCT TESTING & COMPLIANCE

A. Fence system shall be tested by third party professional engineer to IEEE P80/D10, IEEE 142-1991 and IEEE 81-2012. Test report shall be supplied showing fence system meeting acceptable range for resistance and impedance required within the IEEE standards listed here within.

B. Fence system shall be tested to ASTM standard F2781 for forced entry by third party certified testing organization. Test report shall be supplied showing fence system meeting a minimum forced entry threat level rating as follows: single layer mesh installation: L15 to L19.9, M15 to M19.9, dual layer mesh installations: L31 to L60, M20 to M30, A5 to A9.9

PART 2 - MATERIALS**2.01 MANUFACTURER**

The fence system shall conform to perimeter enclosure grid framing system of the Ameristar Matrix design, (specify mesh filler, Table 3) style, manufactured by Ameristar Perimeter Security USA Inc. in Tulsa, Oklahoma.

2.02 MATERIAL

- A. Steel material for perimeter enclosure grid framework (i.e. rails and I-beam posts), shall have a minimum yield strength of 45,000 psi (310 MPa). The steel shall be hot-dip galvanized to meet the requirements of ASTM A653/A653M with a minimum zinc coating weight of 0.90 oz/ft² (276 g/m²), Coating Designation G-90.
- B. The cross-sectional shape of the rails shall conform to the manufacturer's Matrix "C" shaped rail design a nominal 2" x 2" x 11 Ga. Matrix rail shall be pre-drilled to accept fasteners for attachment of mesh retainer channel. Fence posts shall meet the minimum system requirements.

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MATRIX® | CONSTRUCTION SPECIFICATION 32 31 19

HIGH SECURITY STEEL FENCE SYSTEM | PERIMETER ENCLOSURE GRID

- C. The cross-sectional shape of the mesh retainer channels shall conform to the manufacturer's channel design with outside cross-section nominal dimensions of 3.5" x .75". Aluminum material for channel & cap shall conform to the requirements of ASTM B221, alloy designation 6063-T5.
- D. Matrix mesh filler material shall comply with one of the options listed in Table 3.

2.03 FABRICATION

- A. Rails and I-beam posts shall be pre-cut to specified lengths. Matrix rails shall be pre-punched to accept fasteners. Post flange shall be pre-punched to accept rail to I-beam post attachment. Post web shall be punched providing a clear opening for interior of rails to align throughout the entire system for affixing conduit, video cabling, IDS (Intrusion Detection System) wiring, and other components for a complete systems integration. Matrix rails shall be attached to post flange providing a bracket-less design at each intermediate post.
- B. Mesh retainer channels shall be pre-cut to specified lengths. Mesh retainer channels shall be affixed horizontally to rails to accommodate the insertion of specified filler material. Locking cover shall be introduced onto the channel to conceal and secure mesh retainer channel fasteners.
- C. Filler panels shall be inserted into the mesh retainer channels to conceal and secure filler material to the framework. Filler material shall be affixed to I-beams using appropriate filler attachment brackets and fasteners.
- D. Swing gates shall match style, height, and color of fence system. All rail and upright intersections shall be joined by welding. Mesh filler shall be securely affixed to gate frame by welding.
- F. Sliding cantilever gates shall match style, height, and color of fence system. Dual enclosed track slide gate shall be an aluminum component design using tracks, uprights, mesh filler, hardware, fittings, and fasteners. Gate installation shall comply with latest ASTM F2200 standards for automated gates, regardless if the gate is of manual operation.

PART 3 - EXECUTION

3.01 PREPARATION

All new installation shall be laid out by the contractor in accordance with the construction plans.

3.02 FENCE INSTALLATION

Fence post shall be spaced according to Table 1. Fence framework and mesh filler shall be attached to system posts with fasteners supplied by the manufacturer. Posts shall be installed as noted in Post Selection Table (Note: In some cases, local restrictions of freezing weather conditions may require a greater depth). The "Earthwork" and "Concrete" sections of this specification shall govern material requirements for the concrete footer. Posts

setting by other methods such as grouted core-drilled footers are permissible only if shown by engineering analysis to be sufficient in strength for the intended application.

3.03 FENCE INSTALLATION MAINTENANCE

When cutting/drilling steel and aluminum system components adhere to the following steps to seal the exposed surfaces; 1) Remove all metal shavings from cut area. 2) Apply zinc-rich primer to thoroughly cover cut edge and/or drilled hole; let dry. 3) Apply 2 coats of custom finish paint matching fence color. Failure to seal exposed surfaces per steps 1-3 above will negate warranty. Ameristar spray cans or paint pens shall be used to prime and finish exposed surfaces; it is recommended that paint pens be used to prevent overspray. Use of non-Ameristar parts or components will negate the manufactures' warranty.

3.04 GATE INSTALLATION

Gate posts shall be spaced according to the manufacturers' gate drawings, dependent on standard out-to-out gate leaf dimensions and gate hardware selected. Type and quantity of gate hinges shall be based on the application; weight, height, and number of gate cycles. The manufacturers' gate drawings shall identify the necessary gate hardware required for the application. Gate hardware shall be provided by the manufacture of the gate and shall be installed per manufacturer's recommendations.

3.05 CLEANING

The contractor shall clean the jobsite of excess materials; post-hole excavations shall be scattered uniformly away from posts.

SEE REFERENCED TABLES ON THE FOLLOWING PAGE

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MATRIX® | CONSTRUCTION SPECIFICATION 32 31 19

HIGH SECURITY STEEL FENCE SYSTEM | PERIMETER ENCLOSURE GRID

TABLE 1

MATRIX POST SETTING ON LEVEL GRADE				
LEVEL GRADE				
POST TYPE	LEVEL LINE	LEVEL CORNER	TECH POST LINE	TECH POST CORNER
LEVEL LINE	95.75"	96"	97.25"	97.125"
LEVEL CORNER	96"	96.25"	97.5"	97.375"
TECH POST LINE	97.25"	97.5"	98.75"	98.625"
TECH POST CORNER	97.125"	97.375"	98.625"	98.5"

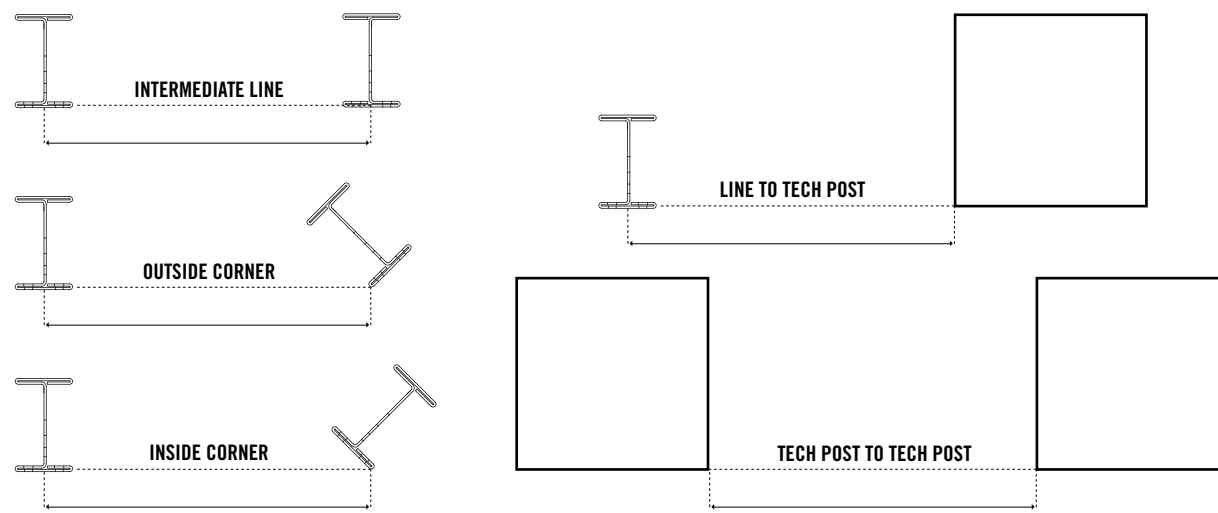
MATRIX POST SETTING ON UN-LEVEL GRADE							
UPHILL POST							
POST TYPE		BURIED LINE	BURIED CORNER	PLATED LINE	PLATED CORNER	TECH POST LINE	TECH POST CORNER
DOWNHILL POST	BURIED LINE	97.25"	96"	95.75"	96"	97.25"	97.125"
	BURIED CORNER	97.5"	96.25"	96"	96.25"	97.5"	97.375"
	PLATED LINE	98.5"	97.5"	97.25"	97.5"	98.75"	98.625"
	PLATED CORNER	97.5"	96.625"	96"	96.25"	97.5"	97.375"
	TECH POST LINE	98.75"	97.5"	97.25"	97.5"	98.75"	98.625"
	TECH POST CORNER	98.625"	97.375"	97.125"	97.375"	98.625"	98.5"

TABLE 2

COATING PERFORMANCE REQUIREMENTS		
QUALITY CHARACTERISTICS	ASTM TEST METHOD	PERFORMANCE REQUIREMENTS
ADHESION	D3359 – METHOD B	Adhesion (retention of coating) over 90% of test area (tape and knife kit test).
CORROSION RESISTANCE	B117, D714, D1654	Corrosion resistance over 3,500 hours (scribed per D1654; failure mode is accumulation of 1/8" coating loss from scribe or medium #8 blisters)
IMPACT RESISTANCE	D2794	Impact resistance over 60" lb. (forward impact using 0.625" ball).

TABLE 3

MATRIX FILLER OPTIONS		
TRADENAME	PRODUCT	DESCRIPTION
X-SPAN	EXPANDED METAL MESH	.5" X #13R (.188 STRAND WIDTH) MODIFIED - 73% SCREENING
		.75" X #9F - 37% SCREENING
X-SCREEN	LOUVERED MESH (STEEL)	1.5" X #14 - 94% SCREENING
WIREWORKS	WELDED WIRE MESH	.5" X 3" X 8GA - 36% SCREENING
		.5" X 3" X 6GA - 43% SCREENING



Effective: 11/08/18

MATRIX® | LIMITED WARRANTY

HIGH SECURITY STEEL FENCE SYSTEM | PERIMETER ENCLOSURE GRID

Matrix® Perimeter Enclosure Grid Fence System by Ameristar® is manufactured from the highest quality materials by skilled craftsmen to meet the highest standards of workmanship in the industry.

Matrix framework and mesh shall be subjected to a multi-stage pretreatment/wash, followed by a duplex cathodic electro-coat system consisting of an epoxy primer, which significantly increases corrosion protection, and an acrylic liquid topcoat, which provides the protection necessary to withstand adverse weathering effects.

Matrix posts shall be subject to a six stage pretreatment/wash followed by an electrostatic spray application of PermaCoat® Color System, a two coat powder system. The base coat is a thermosetting epoxy powder coating. The top coat is a “no-mar” TGIC polyester powder coat finish, which provides the protection necessary to withstand adverse environmental conditions.

The coated surface on all components (*i.e., track, cap, rails, posts & mesh filler*) by Ameristar is guaranteed under normal and proper usage, against cracking, peeling, chipping, blistering or corroding for a period of ten (10) years from the original purchase date. Normal and proper usage does not include physical damage, abrasion or exposure to salty environments to the protective coating.

Matrix Perimeter Enclosure Grid Fence System framework is also guaranteed for the same period of time against defects in workmanship or materials.

Should any fence framework manufactured by Ameristar fail in accordance with any of the above conditions, Ameristar warrants to the original purchaser their redemption through replacement, renewal or issuance of a pro-rated credit. The decision as to which method of redemption is allowed is solely at the discretion of Ameristar.

If pro-rated allowance is the chosen alternative, the amount will be based on the total number of years under warranty from date of purchase to date of claim, based on the original cost of framing materials found to be defective. Notice of failure under the conditions of this warranty shall be sent to Ameristar or its authorized representative, in writing, together with proof of purchase and shall specify the nature of the defect and when it was first observed. When cutting Matrix components immediately seal the exposed surfaces by 1) Removing all metal shavings from cut area, 2) Apply zinc-rich primer to thoroughly cover cut edge and drilled hole; let dry, 3) Apply two (2) coats of custom finish paint matching fence color

Failure to seal exposed surfaces per steps 1-3 will negate warranty. If the contractor uses non Ameristar parts/components this will negate the warranty. Should the fence be improperly installed, Ameristar shall not be responsible for guaranteed performance or appearance of the material. Neither does this guarantee apply when failure or damage is due to improper use or application, abuse or misuse, salty environments, vandalism or acts of God. Ameristar reserves the right to inspect the material to determine validity of the claim.

Upon validation of the claim by Ameristar or its authorized representative, redemption by replacement, renewal or issuance of a pro-rated credit shall be made by Ameristar. Reimbursement for the costs of removal and installation of materials are not included in the guarantee, nor will Ameristar provide those services.

The above constitutes the complete warranty by the manufacturer. No other agreement, written or implied, is valid. Ameristar does not authorize any other person or agent to make any other express warranties. Ameristar neither assumes nor authorizes any other person or agent to assume any other liability in connection with Matrix Perimeter Enclosure Grid Fence System. Some jurisdictions do not allow limitations on how long an implied warranty lasts, nor do they allow an exclusion or limitation of incidental or consequential damages; therefore, the limitations and exclusions noted herein may not apply.

Effective: 11/08/18