Fixed Knot High Fence Bracing Specifications

Brace design guidance for Solidlock® fixed knot fencing

Pipe Brace | Wood Brace



Contents

02 Solidlock® Fixed Knot Brace Systems

03 6' Pipe Brace Assembly

04 7' Pipe Brace Assembly

05 8' Pipe Brace Assembly

06 6' Wood Brace Assembly

07 7' Wood Brace Assembly

08 8' Wood Brace Assembly

09 Fence Construction

10 Measurement Guide

Wood Brace Video Guide

Pipe Brace Video Guide



Solidlock® Fixed Knot Brace Systems

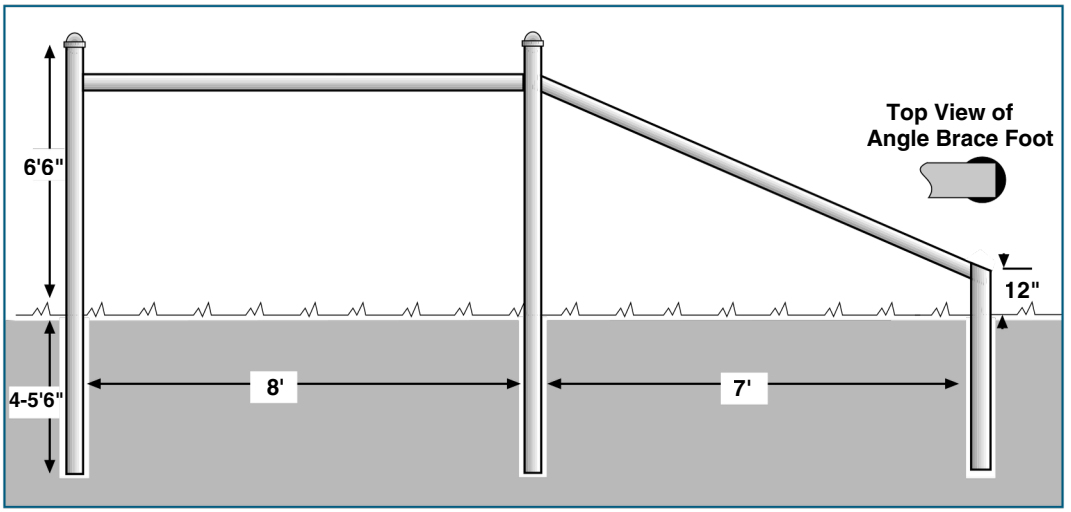
A properly designed brace is the foundation of a high tensile fence. It anchors the fence at ends, corners, gates, and changes in direction so the wire can be tensioned correctly and remain stable under load. Brace strength, dimensions, and placement directly affect the performance and service life of the entire fence system.

This guide provides pipe and wood brace specifications for 6', 7', and 8' Solidlock® Pro fixed knot fence. Each assembly section identifies the required components and material quantities, recommended dimensions, installation sequence, and line-post guidance to help crews plan and build a complete system.

Select the brace type and size for the fence height, soil and terrain conditions, length of pull, gate locations, and expected pressure on the fence. Pipe systems require proper post depth, anchoring, welding, capping, and corrosion protection. Wood systems require treated posts, correctly sized cross members, galvanized pins, brace wire, and secure tensioning hardware.

Before installation, establish the fence line and brace locations, confirm field measurements, and review the assembly details for the selected height. Braces must be installed in the fence line and built wide enough to resist the pull of the tensioned mesh. Do not tension the fence until posts, connections, and protective finishes are ready. Use the following specifications with project requirements and site conditions to build a strong, durable Solidlock® fence.

Pipe Brace Assembly - 6’ Fixed Knot Fence



Fence Components and Materials

Fence Component	Materials needed per component	Total amount of material needed to build brace
Brace Posts (2 per Brace)	12' x 2 7/8" Piece of Structural Tubing	2 pieces of 12' x 2 7/8" Structural Tubing
Angle Brace Foot (1 per Brace)	6' x 2 7/8" Piece of Structural Tubing	1 piece of 6' x 2 7/8" Structural Tubing
Cross Member (2 per Brace)	8' x 2 3/8" Piece of Structural Tubing	2 pieces of 8' x 2 3/8" Structural Tubing
Angle Brace (1 per Brace)	10' x 2 3/8" Piece of Structural Tubing	1 piece of 10' x 2 3/8" Structural Tubing
Additional Materials Needed		
OSPHO (rust-inhibiting coating)	Oil Based Enamel Paint	Structural Tubing Random Lengths 32' or less
Metal Primer Paint	Standard Galvanized Pipe Lengths: 21', 24'	

Note:
(a) Galvanized Schedule 40 pipe is highly recommended instead of structural tubing
(b) 3 1/2" Schedule 40 pipe should be used where gates are being hung

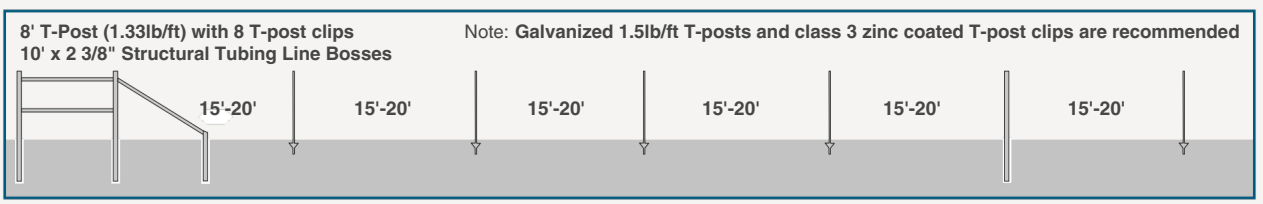
Installation

Note: Plan ahead to avoid costly waste ("drop") of pipe. Pipe Braces set in mixed soils are set 5'6" deep in concrete, with the minimum diameter of the hole being 8”.
Caution: Allow 2 days for concrete to cure before pulling on brace.

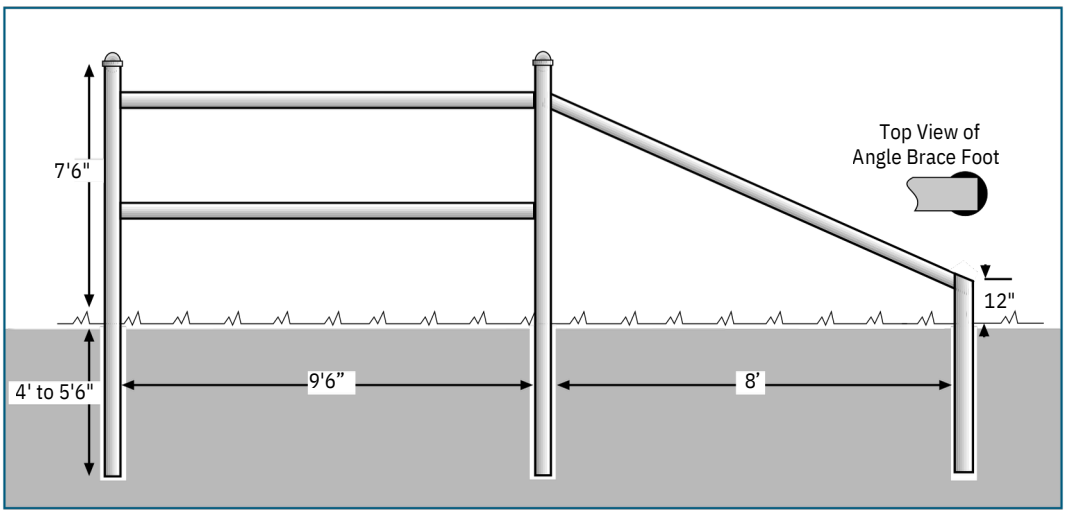
Do not cheat on the depth of your brace posts for this determines the life of your fence. Do not fill holes completely with concrete. Fill the hole at most 1/3, leaving the rest to be filled with tamped dirt or crushed stone. Also, flare the bottom of hole if possible, this will provide an anchor for the post. Pipe set in solid rock or stone are set 4' deep with a hole bored to match the diameter of the pipe. Pipe may also be driven in mixed soils to a minimum depth of 5'6”.

1. Treat pipe with OSPHO before setting. This product retards rust in chemical change on drying to a surface ready for priming
2. Set End Post and pull Guide Wire
3. Set Brace Post at 12' and Angle Foot at 10' centers.
4. Measure inside the Brace width then cut and saddle the Cross Member. Position the top Cross Member between the 2nd and 3rd line wires of the fence fabric and the middle Cross Member half of the distance between the ground and the top Cross Member. Try to set the middle Cross Member so it will fall between 2 horizontal wires. Weld Solid.
5. Notch the Angle Brace Foot so the 2 3/8" Angle Brace can lay inside the foot. Cut and saddle the Angle Brace to meet the top Cross Member of the brace. Weld solid.
6. Cap all pipe with concrete plugs or pressed steel caps. If pipe is left open, water will rust the pipe off at ground level.
7. Brush all welds. For optimum protection, treat with OSPHO and then apply the metal primer followed by one or two coats of oil based paint.

Line Posts: Set line posts using 15'-20' spacing. Post spacing should be determined by the terrain, turns in the fence line, changes in weather conditions and animal pressure. If a combination of T-posts and line bosses (2 3/8" structural pipe) is used, the ratio of T-posts should not exceed a 4 to 1 ratio. 2 3/8" structural tubing should be used for all line posts with post spacing greater than 20'. Use 20' post spacing with any rough terrain. On level ground, 30' spacing is acceptable with use of pipe posts only. A rigid post should be placed on top of all hips and in the bottom of all dips. Severe dips will require an inline brace assembly and fabrication of a water gap to accommodate for flood waters. T-post weight should not be less than 1.33lb/ft.



Pipe Brace Assembly - 7’ Fixed Knot Fence



Fence Components and Materials

Fence Component	Materials needed per component	Total amount of material needed to build brace
Brace Posts (2 per Brace)	13' x 2 7/8" Piece of Structural Tubing	2 pieces of 13' x 2 7/8" Structural Tubing
Angle Brace Foot (1 per Brace)	6' x 2 7/8" Piece of Structural Tubing	1 piece of 6' x 2 7/8" Structural Tubing
Cross Member (2 per Brace)	9'6" x 2 3/8” Piece of Structural Tubing	2 pieces of 9'6" x 2 3/8" Structural Tubing
Angle Brace (1 per Brace)	11' x 2 3/8" Piece of Structural Tubing	1 piece of 11' x 2 3/8" Structural Tubing
Additional Materials Needed		
OSPHO (rust-inhibiting coating)	Oil Based Enamel Paint	Structural Tubing Random Lengths 32' or less
Metal Primer Paint	Standard Galvanized Pipe Lengths: 21', 24'	

Note:
(a) Galvanized Schedule 40 pipe is highly recommended instead of structural tubing
(b) 3 1/2" Schedule 40 pipe should be used where gates are being hung

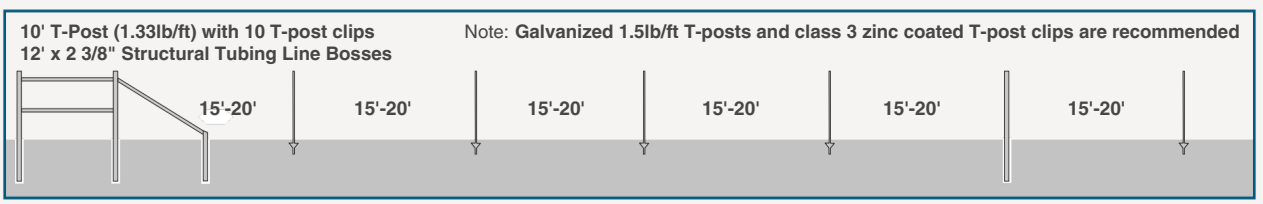
Installation

Note: Plan ahead to avoid costly waste ("drop") of pipe. Pipe Braces set in mixed soils are set 5'6" deep in concrete, with the minimum diameter of the hole being 8”.
Caution: Allow 2 days for concrete to cure before pulling on brace.

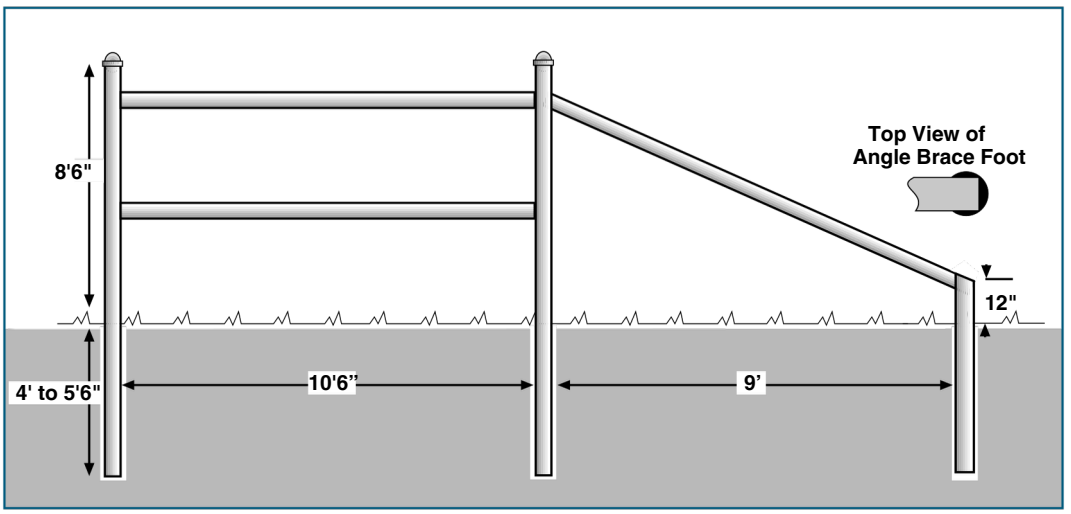
Do not cheat on the depth of your brace posts for this determines the life of your fence. Do not fill holes completely with concrete. Fill the hole at most 1/3, leaving the rest to be filled with tamped dirt or crushed stone. Also, flare the bottom of hole if possible, this will provide an anchor for the post. Pipe set in solid rock or stone are set 4' deep with a hole bored to match the diameter of the pipe. Pipe may also be driven in mixed soils to a minimum depth of 5'6”.

1. Treat pipe with OSPHO before setting. This product retards rust in chemical change on drying to a surface ready for priming
2. Set End Post and pull Guide Wire
3. Set Brace Post at 10'6" and Angle Foot at 9' centers.
4. Measure inside the Brace width then cut and saddle the Cross Member. Position the top Cross Member between the 2nd and 3rd line wires of the fence fabric and the middle Cross Member half of the distance between the ground and the top Cross Member. Try to set the middle Cross Member so it will fall between 2 horizontal wires. Weld Solid.
5. Notch the Angle Brace Foot so the 2 3/8" Angle Brace can lay inside the foot. Cut and saddle the Angle Brace to meet the top Cross Member of the brace. Weld solid.
6. Cap all pipe with concrete plugs or pressed steel caps. If pipe is left open, water will rust the pipe off at ground level.
7. Brush all welds. For optimum protection, treat with OSPHO and then apply the metal primer followed by one or two coats of oil based paint.

Line Posts: Set line posts using 15' - 20' spacing. Post spacing should be determined by the terrain, turns in the fence line, changes in weather conditions and animal pressure. If a combination of T-posts and line bosses (2 3/8" structural pipe) is used, the ratio of T-posts should not exceed a 4 to 1 ratio. 2 3/8" structural tubing should be used for all line posts with post spacing greater than 20'. Use 20' post spacing with any rough terrain. On level ground, 30' spacing is acceptable with use of pipe posts only. A rigid post should be placed on top of all hips and in the bottom of all dips. Severe dips will require an inline brace assembly and fabrication of a water gap to accommodate for flood waters. T-post weight should not be less than 1.33lb/ft.



Pipe Brace Assembly - 8’ Fixed Knot Fence



Fence Components and Materials

Fence Component	Materials needed per component	Total amount of material needed to build brace
Brace Posts (2 per Brace)	14' x 2 7/8" Piece of Structural Tubing	2 pieces of 14' x 2 7/8" Structural Tubing
Angle Brace Foot (1 per Brace)	6' x 2 7/8" Piece of Structural Tubing	1 piece of 6' x 2 7/8" Structural Tubing
Cross Member (2 per Brace)	10'6" x 2 3/8" Piece of Structural Tubing	2 pieces of 10'6" x 2 3/8" Structural Tubing
Angle Brace (1 per Brace)	12' x 2 3/8" Piece of Structural Tubing	1 piece of 12' x 2 3/8" Structural Tubing
Additional Materials Needed		
OSPHO (rust-inhibiting coating)	Oil Based Enamel Paint	Structural Tubing Random Lengths 32' or less
Metal Primer Paint	Standard Galvanized Pipe Lengths: 21', 24'	

Note:
(a) Galvanized Schedule 40 pipe is highly recommended instead of structural tubing
(b) 3 1/2" Schedule 40 pipe should be used where gates are being hung

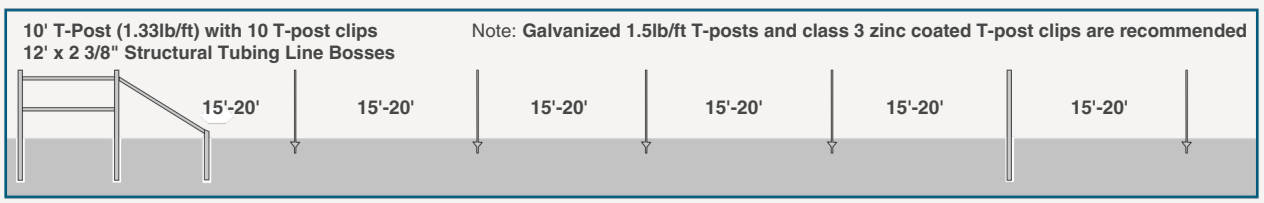
Installation

Note: Plan ahead to avoid costly waste ("drop") of pipe. Pipe Braces set in mixed soils are set 5'6" deep in concrete, with the minimum diameter of the hole being 8”.
Caution: Allow 2 days for concrete to cure before pulling on brace.

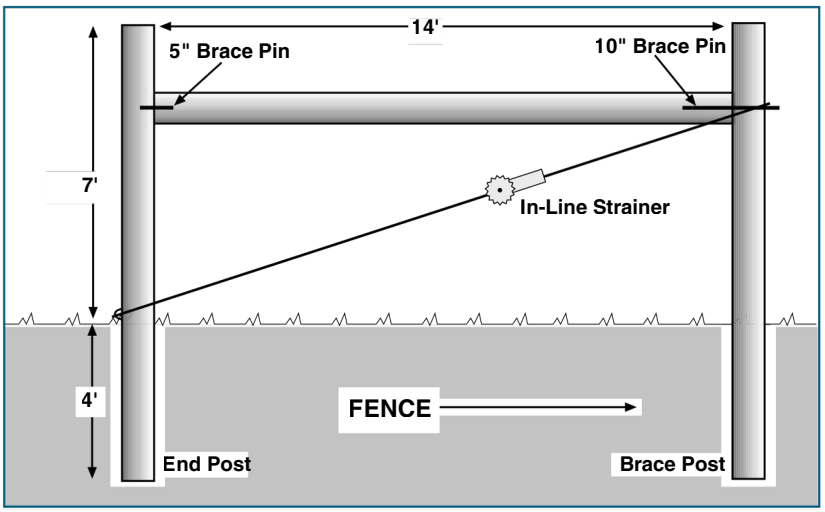
Do not cheat on the depth of your brace posts for this determines the life of your fence. Do not fill holes completely with concrete. Fill the hole at most 1/3, leaving the rest to be filled with tamped dirt or crushed stone. Also, flare the bottom of hole if possible, this will provide an anchor for the post. Pipe set in solid rock or stone are set 4' deep with a hole bored to match the diameter of the pipe. Pipe may also be driven in mixed soils to a minimum depth of 5'6”.

1. Treat pipe with OSPHO before setting. This product retards rust in chemical change on drying to a surface ready for priming
2. Set End Post and pull Guide Wire
3. Set Brace Post at 10'6" and Angle Foot at 9' centers.
4. Measure inside the Brace width then cut and saddle the Cross Member. Position the top Cross Member between the 2nd and 3rd line wires of the fence fabric and the middle Cross Member half of the distance between the ground and the top Cross Member. Try to set the middle Cross Member so it will fall between 2 horizontal wires. Weld Solid.
5. Notch the Angle Brace Foot so the 2 3/8" Angle Brace can lay inside the foot. Cut and saddle the Angle Brace to meet the top Cross Member of the brace. Weld solid.
6. Cap all pipe with concrete plugs or pressed steel caps. If pipe is left open, water will rust the pipe off at ground level.
7. Brush all welds. For optimum protection, treat with OSPHO and then apply the metal primer followed by one or two coats of oil based paint.

Line Posts: Set line posts using 15' - 20' spacing. Post spacing should be determined by the terrain, turns in the fence line, changes in weather conditions and animal pressure. If a combination of T-posts and line bosses (2 3/8" structural pipe) is used, the ratio of T-posts should not exceed a 4 to 1 ratio. 2 3/8" structural tubing should be used for all line posts with post spacing greater than 20'. Use 20' post spacing with any rough terrain. On level ground, 30' spacing is acceptable with use of pipe posts only. A rigid post should be placed on top of all hips and in the bottom of all dips. Severe dips will require an inline brace assembly and fabrication of a water gap to accommodate for flood waters. T-post weight should not be less than 1.33lb/ft.



Wood Brace Assembly - 6’ Fixed Knot Fence



Fence Components and Materials

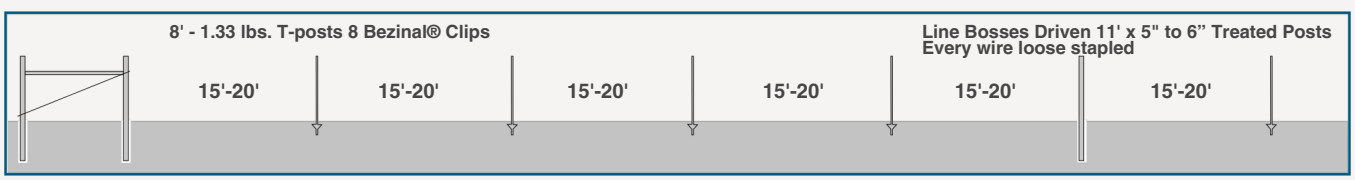
Fence Component	Materials needed per component	Total amount of material needed to build brace
Brace Posts (2 per Brace)	11’ x 6” .40 CCA Treated Pine	2 pieces of 11’ x 6” .40 CCA Treated Pine
Cross Member (1 per Brace)	14’ x 5” CCA Treated Pine or 14’ x 2 ½” Schedule 40 Pipe	1 piece of 14’ x 5” CCA Treated Pine or 14’ x 2 ½” Schedule 40 Pipe
Small Brace Pin (1 per Brace)	3/8” x 5” Galvanized Pin	3/8” x 5” Galvanized Pin
Large Brace Pin (1 per Brace)	3/8” x 10” Galvanized Pin	3/8” x 10” Galvanized Pin
Brace Wire	Double Wrap 9ga. Class 3 Low Tensile Wire or Double Wrap 12.5ga Bezinal® High Tensile Wire or Single Wrap 5/16” Cable	1 roll/coil of Double Wrap 9ga. Class 3 Low Tensile Wire or Double Wrap 12.5ga Bezinal® High Tensile Wire or Single Wrap 5/16” Cable
Barbed Staples	1 ¾” Bezinal® Barbed Staples	1 - 8lb or 1-50lb Bucket of 1 ¾” Bezinal® Barbed Staples (depending on length of fence)
Ratchet Type In-Line Wire Strainer	Ratchet Type In-Line Wire Strainer	1 - Ratchet Type In-Line Wire Strainer per Brace

Installation

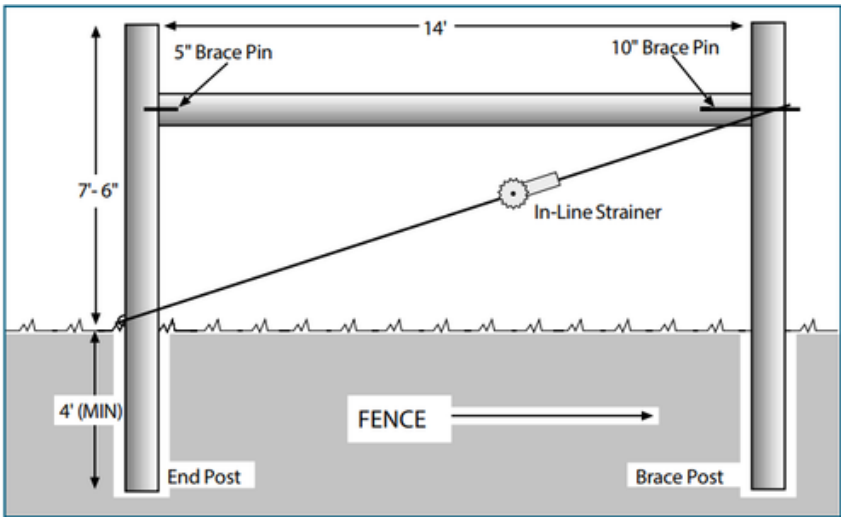
1. Drive or auger and tamp the End Post.
2. Pull the Guide Wire.
3. Set the Brace Posts using the Cross Member for measurement and aligning to the Guide Wire.
4. To establish the location of the cross member, measure the distance from the bottom of the fabric to a point midway between the 2nd and 3rd wire from the top. Using this measurement mark the inside of the Brace Posts.
5. Drill a ½” by 2” hole in the End Post and drill a ½” hole through the Brace Post. Set the 4" Brace Pin in the End Post and start the 10" pin in the Brace Post.
6. Pilot drill the ends of the Cross Member. Set one end of the Cross Member on the 4" pin, and then lift the other end to align with the 10" pin. Drive the 10" pin into the Brace Post, leaving 1" exposed for the installation of the Brace Wire.
7. Drive a barbed staple partially in (approximately 3 to 4 inches above ground level) on the side of the End Post opposite the Cross Member.
8. Guide the Brace Wire through the staple in the end post, up over the 10' pin in the Brace Post, back down and through the staple and over the 10” pin again. This will provide a double wrap for the Brace Wire.
9. Install a ratchet type wire strainer on the Brace Wire. Install the ratchet on the opposite side of the Brace that the wire fabric will be on. Tighten the Brace Wire until the Brace Post moves approximately ¼” away from the soil.

NOTE: Braces must be installed in the fence line, regardless of the length of the pull. Braces should be placed no more than 1320 ft. apart. Brace width must be a minimum of 2 times the height of the fence (2.5 times is preferred). Never cut into treated posts, cutting into the wood will expose untreated wood to the elements.

Line Posts: Set line posts using 15' - 20' spacing. Post spacing should be determined by terrain, turns in fence line, changes in weather conditions and animal pressure. If a combination of T-posts and wood line bosses is used, the ratio of T-posts to line bosses should not exceed 4 to 1. The line bosses should be 5" to 6" in diameter. If the fence is going to be all wood line posts, 4" to 5" treated posts can be used. T-post weight should not be less than 1.33 lb/ft..



Wood Brace Assembly - 7’ Fixed Knot Fence



Fence Components and Materials

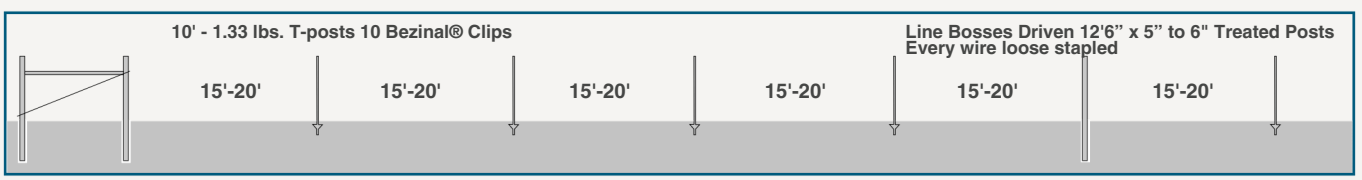
Fence Component	Materials needed per component	Total amount of material needed to build brace
Brace Posts (2 per Brace)	12” x 6” .40 CCA Treated Pine	2 pieces of 12" x 6” .40 CCA Treated Pine
Cross Member (1 per Brace)	14’ x 5” CCA Treated Pine or 16’ x 3” Schedule 40 Pipe	1 piece of 16’ x 5” CCA Treated Pine or 16’ x 3” Schedule 40 Pipe
Small Brace Pin (1 per Brace)	3/8” x 5” Galvanized Pin	3/8” x 5” Galvanized Pin
Large Brace Pin (1 per Brace)	3/8” x 10” Galvanized Pin	3/8" x 10” Galvanized Pin
Brace Wire	Double Wrap 9ga. Class 3 Low Tensile Wire or Double Wrap 12.5ga Bezinal® High Tensile Wire or Single Wrap 5/16" Cable	1 roll/coil of Double Wrap 9ga. Class 3 Low Tensile Wire or Double Wrap 12.5ga Bezinal® High Tensile Wire or Single Wrap 5/16" Cable
Barbed Staples	1 ¾” Bezinal® Barbed Staples	1 - 8lb or 1-50lb Bucket of 1 ¾” Bezinal® Barbed Staples (depending on length of fence)
Ratchet Type In-Line Wire Strainer	Ratchet Type In-Line Wire Strainer	1 - Ratchet Type In-Line Wire Strainer per Brace

Installation

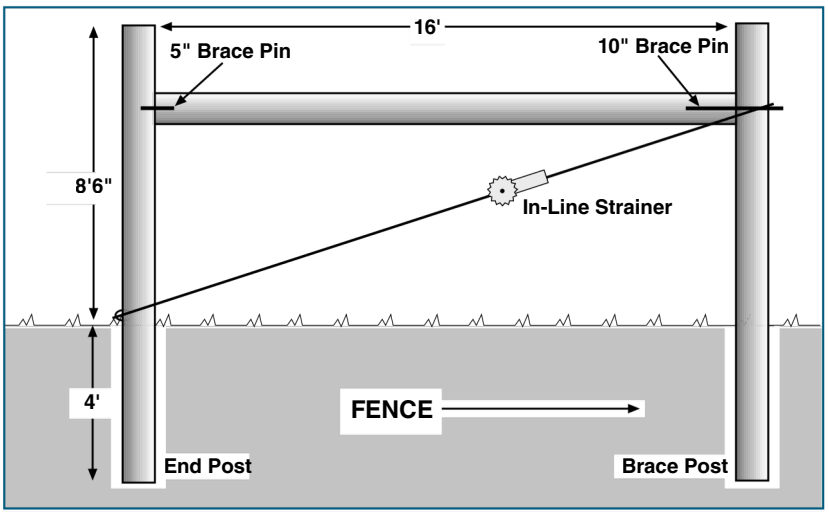
1. Drive or auger and tamp the End Post.
2. Pull the Guide Wire.
3. Set the Brace Posts using the Cross Member for measurement and aligning to the Guide Wire.
4. To establish the location of the cross member, measure the distance from the bottom of the fabric to a point midway between the 2nd and 3rd wire from the top. Using this measurement mark the inside of the Brace Posts.
5. Drill a ½” by 2” hole in the End Post and drill a ½” hole through the Brace Post. Set the 4" Brace Pin in the End Post and start the 10" pin in the Brace Post.
6. Pilot drill the ends of the Cross Member. Set one end of the Cross Member on the 4" pin, and then lift the other end to align with the 10" pin. Drive the 10" pin into the Brace Post, leaving 1" exposed for the installation of the Brace Wire.
7. Drive a barbed staple partially in (approximately 3 to 4 inches above ground level) on the side of the End Post opposite the Cross Member.
8. Guide the Brace Wire through the staple in the end post, up over the 10' pin in the Brace Post, back down and through the staple and over the 10” pin again. This will provide a double wrap for the Brace Wire.
9. Install a ratchet type wire strainer on the Brace Wire. Install the ratchet on the opposite side of the Brace that the wire fabric will be on. Tighten the Brace Wire until the Brace Post moves approximately ¼” away from the soil.

NOTE: Braces must be installed in the fence line, regardless of the length of the pull. Braces should be placed no more than 1320 ft. apart. Brace width must be a minimum of 2 times the height of the fence (2.5 times is preferred). Never cut into treated posts, cutting into the wood will expose untreated wood to the elements.

Line Posts: Set line posts using 15'- 20' spacing. Post spacing should be determined by terrain, turns in fence line, changes in weather conditions and animal pressure. If a combination of T-posts and wood line bosses is used, the ratio of T-posts to line bosses should not exceed 4 to 1. The line bosses should be 5" to 6" in diameter. If the fence is going to be all wood line posts, 4" to 5" treated posts can be used. T-post weight should not be less than 1.33 lb/ft..



Wood Brace Assembly - 8’ Fixed Knot Fence



Fence Components and Materials

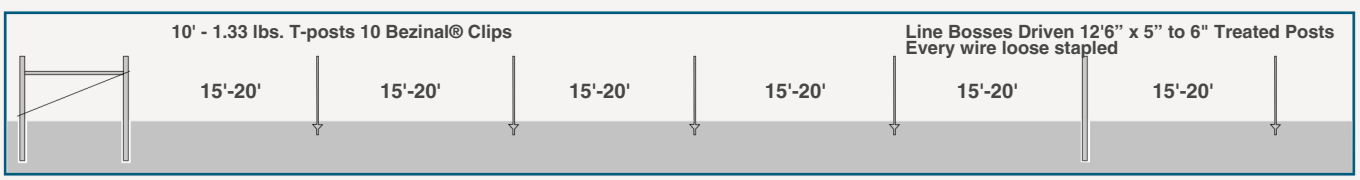
Fence Component	Materials needed per component	Total amount of material needed to build brace
Brace Posts (2 per Brace)	12’6” x 6” .40 CCA Treated Pine	2 pieces of 12’6" x 6” .40 CCA Treated Pine
Cross Member (1 per Brace)	16’ x 5” CCA Treated Pine or 16’ x 3” Schedule 40 Pipe	1 piece of 16’ x 5” CCA Treated Pine or 16’ x 3” Schedule 40 Pipe
Small Brace Pin (1 per Brace)	3/8” x 5” Galvanized Pin	3/8” x 5” Galvanized Pin
Large Brace Pin (1 per Brace)	3/8” x 10” Galvanized Pin	3/8” x 10” Galvanized Pin
Brace Wire	Double Wrap 9ga. Class 3 Low Tensile Wire or Double Wrap 12.5ga Bezinal® High Tensile Wire or Single Wrap 5/16” Cable	1 roll/coil of Double Wrap 9ga. Class 3 Low Tensile Wire or Double Wrap 12.5ga Bezinal® High Tensile Wire or Single Wrap 5/16” Cable
Barbed Staples	1 ¾” Bezinal® Barbed Staples	1 - 8lb or 1-50lb Bucket of 1 ¾” Bezinal® Barbed Staples (depending on length of fence)
Ratchet Type In-Line Wire Strainer	Ratchet Type In-Line Wire Strainer	1 - Ratchet Type In-Line Wire Strainer per Brace

Installation

1. Drive or auger and tamp the End Post.
2. Pull the Guide Wire.
3. Set the Brace Posts using the Cross Member for measurement and aligning to the Guide Wire.
4. To establish the location of the cross member, measure the distance from the bottom of the fabric to a point midway between the 2nd and 3rd wire from the top. Using this measurement mark the inside of the Brace Posts.
5. Drill a ½” by 2” hole in the End Post and drill a ½” hole through the Brace Post. Set the 4" Brace Pin in the End Post and start the 10" pin in the Brace Post.
6. Pilot drill the ends of the Cross Member. Set one end of the Cross Member on the 4" pin, and then lift the other end to align with the 10" pin. Drive the 10" pin into the Brace Post, leaving 1" exposed for the installation of the Brace Wire.
7. Drive a barbed staple partially in (approximately 3 to 4 inches above ground level) on the side of the End Post opposite the Cross Member.
8. Guide the Brace Wire through the staple in the end post, up over the 10' pin in the Brace Post, back down and through the staple and over the 10” pin again. This will provide a double wrap for the Brace Wire.
9. Install a ratchet type wire strainer on the Brace Wire. Install the ratchet on the opposite side of the Brace that the wire fabric will be on. Tighten the Brace Wire until the Brace Post moves approximately ¼” away from the soil.

NOTE: Braces must be installed in the fence line, regardless of the length of the pull. Braces should be placed no more than 1320 ft. apart. Brace width must be a minimum of 2 times the height of the fence (2.5 times is preferred). Never cut into treated posts, cutting into the wood will expose untreated wood to the elements.

Line Posts: Set line posts using 15'- 20' spacing. Post spacing should be determined by terrain, turns in fence line, changes in weather conditions and animal pressure. If a combination of T-posts and wood line bosses is used, the ratio of T-posts to line bosses should not exceed 4 to 1. The line bosses should be 5" to 6" in diameter. If the fence is going to be all wood line posts, 4" to 5" treated posts can be used. T-post weight should not be less than 1.33 lb/ft..



Additional Fence Construction Tips

End Posts and Guide Wire

To begin construction, locate and set the end and corner posts. Use treated posts of no less than 6" in diameter or 2 7/8" pipe, set 4' to 6'deep. The depth of setting depends on soil types; rocky soils set 4' and sandy soils 6'. After setting posts, use a guide wire of 12 ½ ga. High Tensile wire pulled tight between posts. This wire becomes the fence line.



Dips and Humps

Generally, the use of 20' post centers is more than adequate for High Tensile fencing, however this is only a guideline. A rigid post should be placed at the lowest point of a dip and at the crown of a hump. These posts should be larger than the line posts and set a little deeper. They will hold the fence up or down as required. Standing on the guide wire in dips will show you where to put the rigid post.



Tying Off

Generally, High Tensile wire is tied off at both ends of the fence and is tensioned to the middle of the pull. This allows the fence to be tied off without being under tension. Use a High Tensile Slip Knot or Gripple T-Clip to tie off the wire. Keep the vertical wire straight so the wire will tension the same throughout the fence.



Splicing

Splicing can be done two ways; one by placing vertical stays over each other and wrapping the loose end of the wire around the corresponding horizontal wire 6 times. Secondly a splicing sleeve can be installed between the vertical stays and crimped with a crimping tool. Use sleeves designed for 12 ½ ga. High Tensile wire only. Only Nicropress or EZ Pull tools should be used to achieve adequate holding strength. Thirdly, a GP Medium Gripple Joiner can be used to make said splice.



Tensioning

Using stretcher bars, up to four rolls (or ¼ mile of wire) may be tightened in one single pull. The tension crimp should be ½ of the size of an un-tensioned crimp. Splice the w ire and remove the stretcher bars.



Trimming Out

Position the wire 1" off of the ground and staple to the post. Use barbed staples and leave room for the wire to move freely under the staple. Staple all high points first, and then pull the wire down and staple it last. If there are a lot of dips, a little less tension would be applied as pulling the wire down will tighten the wire more.



Need Help with Bracing?

Have questions about bracing or need help with your project? Connect with our team for expert guidance.

Measurement Guide

NOTE: The formulas, diagrams and tables on this worksheet should be used to estimate only. Before beginning your project it is always recommended that actual measurements are taken to confirm the amount of fence needed for your project.

Common Fence Measurements

Measurement	Equivalent
1 foot	12 inches
1 yard	3 feet
1 rod	16.5 feet
1 mile	5,280 feet = 1,760 yards = 320 rods
1 acre	43,560 sq. feet = 160 yards = .4047 hectares
1 sq. mile	640 acres = 1 section
1 sq. foot	144 sq. inches
1 sq. yard	9 sq. feet
1 sq. rod	272.25 sq. feet

Formulas to Determine Perimeter & Area

Square	
Perimeter	4x1 side
Area	1 sided square
Rectangle	
Perimeter	(2 x Length) + (2 x Width)
Area	Length x Width
Triangle	
Perimeter	Total of three sides
Area	½ Base x Height

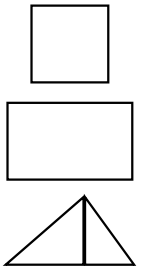
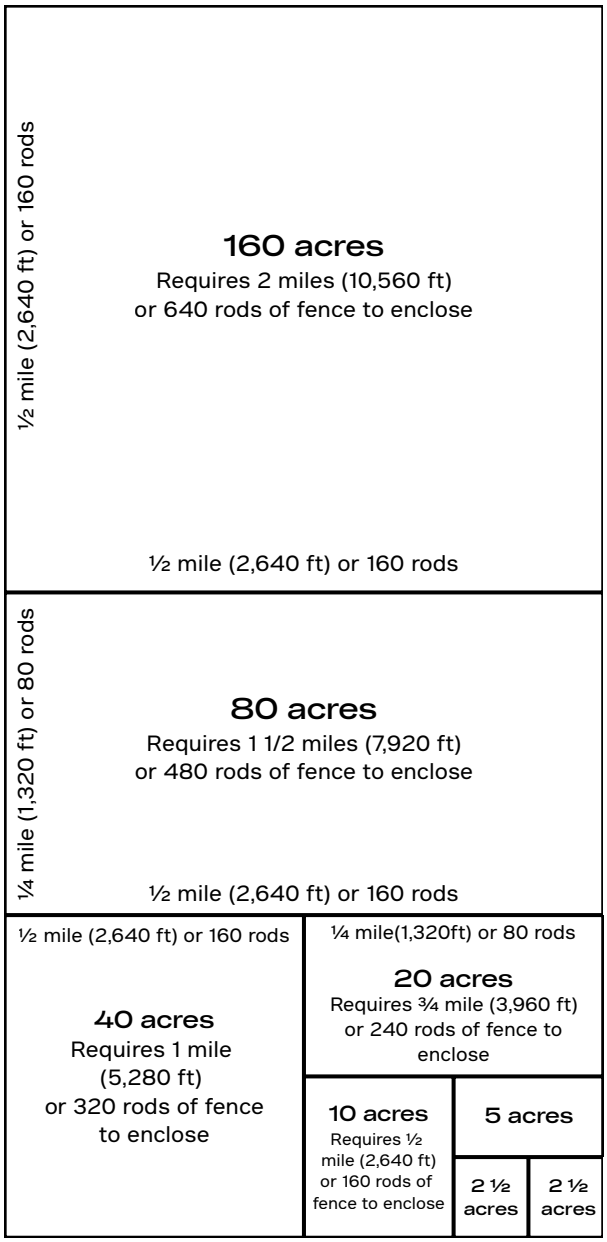


Diagram & Tables for Estimating Amount of Fence

Square Acres	Length of One Side of Field (ft)	Length of One Side of Field (ft)
1	208 3/4	835
2	295 1/6	1,180 2/3
2 1/2	330	1,320
3	361 1/2	1,446
4	417 5/12	1,669 2/3
5	466 2/3	1,866 2/3
6	511 1/4	2,045
7	552 1/6	2,208 2/3
8	590 1/3	2,361 1/3
9	626 1/6	2,504 2/3
10	660	2,640
20	933 5/12	3,733 2/3
25	1,043 7/12	4,174 1/3
30	1,143 1/6	4,572 2/3
40	1,320	5,280
50	1,475 5/6	5,903 1/3
60	1,616 2/3	6,466 2/3
70	1,746 1/6	6,984 2/3
75	1,807 1/2	7,230
80	1,866 3/4	7,467
100	2,087 1/12	8,348 1/3
120	2,286 1/3	9,145 1/3
140	2,469 1/2	9,878
160	2,640	10,560
320	3,733 7/12	14,934
640	5,280	1/3 21,120

Square Acres	Length of Field (ft)	Width of Field (ft)	Length of Fence Required (ft)
1	208 3/4	165	858
1	295 1/6	132	924
1 1/4	330	165	990
2 1/2	361 1/2	165	1,650
4	417 5/12	330	1,716
5	466 2/3	330	1,980
6	511 1/4	264	2,508
7	552 1/6	231	3,102
8	590 1/3	264	3,168
9	626 1/6	297	3,234
10	660	528	2,706
15	933 5/12	495	3,630
20	1,043 7/12	528	4,356
25	1,143 1/6	825	4,290
30	1,320	990	4,620
40	1,475 5/6	1,056	5,412
50	1,616 2/3	1,320	5,940
60	1,746 1/6	1,320	6,600
70	1,807 1/2	1,155	7,590
80	1,866 3/4	1,650	7,524
100	2,087 1/12	1,650	8,580
120	2,286 1/3	1,650	9,636
140	2,469 1/2	1,320	11,880
160	2,640	1,320	13,200
320	3,733 7/12	2,112	17,424
640	5,280	4,224	21,648







More information?

fencing.bekaert.com

facebook/com/bekaertfencing

http://bekaert.com/youtube

instagram.com/bekaert.fencing

1-800-241-4126

Bekaert Corporation
4300 Wildwood Parkway
Suite 100
Atlanta, GA 30339

Bekaert Van Buren
1881 Bekaert Drive
Van Buren, AR 72956

Modifications reserved
All details describe our products in general form only. For ordering and design only use official specifications and documents. Unless otherwise indicated, all trademarks mentioned in this brochure are registered trademarks of NV Bekaert SA or its subsidiaries.
©Bekaert 2026