

End Cap Model Selection

The End Cap model selection capability was designed to offer an alternative to utilizing the AC25C Selection Chart (Pipe Capacity Chart, shown above) to determine which model AC25C End Cap pair to utilize for a lift. Most customers will find this a simpler alternative for making the model selection.

As when determining which model AC25C End Cap pair to purchase using the Pipe Capacity Chart the End Cap App requires you to use three data components, Beam Spread (in ft. or inches), Lift Capacity (in tons or lbs.) and top rigging Sling Angle (°) to make your selection. The End Cap App returns the smallest model that can safely be used to perform the lift. In most cases you will be able to use a slightly larger model to perform the same lift but when doing so it may require larger rigging hardware to match that required of the larger size/capacity AC25C End Cap pair.

- The End Cap App Model Selection page provides the following information;
- AC25C Model to purchase. (e.g. AC25C-013060EH)
- The pipe size & Tandemloc model number for that pipe size. (e.g. AC22P-06X)
- The Tandemloc model number for the sleeve to be used if two lengths of pipe are to be used to create a single spreader. (e.g. AG08A00-06X) (Note: When using a sleeve to accomplish a lift the combined pipe lengths of the two sections will be slightly shorter than the length of a single pipe solution.)
- Physical characteristics of the components to be used.
- Length of the pipe to be used to create the required spread with the recommended AC25C End Cap pair.

TANDEMLOC AC25C End Cap Model Selection
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Other Evaluations or Actions -
Evaluate a Fixed End Cap Set
Evaluate a Telescopic End Cap Set
Show Chart
Printable Report

Define your lift parameters.
Once defined the minimum acceptable size AC25C End Cap model will be displayed

1. Enter Beam Spread (in feet or in inches) as shown.
Beam Spread feet inches After changing any value press ENTER or TAB

2. Enter Capacity (in tons or in lbs.) as shown. 3. Choose Sling Angle
Capacity tons lbs. Sling Angle 45° 60°

AC25C End Cap selected for defined lift.

Pipe Size	3 NPS	3.5	in. dia.				
Selected End Cap	AC25C-007030EH	End Cap Weight	18.20	lbs.	End Cap Lost Length	6.75	inches
Selected Pipe	AC22P-03X	Pipe Weight	45	lbs.	Pipe Cut Length	52.50	inches
Selected Sleeve	AG08A00-03X	Sleeve Weight	13.0	lbs.	Minimum Spread	19.50	inches

Technical Data

Est. Spreader Beam Wgt.	81	lbs.
Axial Load w/Spreader Wgt	14,041	lbs.
Axial Load [Load Only]	14,000	lbs.

ASME B30.20-2018 Specifies that if a proof test is done it shall be at no greater than 125% of WLL

RAPID READY CUSTOM LIFT BEAMS - FAST!
Prices Quoted Instantly - No Waiting!
Orders Shipped in 5-7 Days!
Capacities to 40,000 Lbs - Proof tested to 125% Spread lengths 12"-20'

WLL 10,000 LB

- Minimum possible spread when using this AC25C End Cap pair.
- The estimated weight for the spreader beam made from these components for this capacity & spread.

End Cap Fixed Spreader Beam Design and Evaluation

You must press RETURN or ENTER after any data entry to re-run the calculation engine.

The purpose of this feature of the End Cap App is to evaluate the use of a specific End Cap Fixed Spreader Beam, possibly a pair that the user currently owns, for a specific lift.

Again, certain data inputs are required to fully evaluate the lift.

- Identify your End Cap model from the Pull Down List
- Enter Beam Spread (ft.)
- Enter Capacity (tons)
- Choose Sling Angle (°)
 - There are standard inputs for the model to be evaluated plus a choice for defining a custom

AC25C End Cap Model Evaluation
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AC25C Fixed Spreader Beam Evaluation App
Determine if a specific AC25C End Cap is acceptable for a lift.

1. Identify your End Cap Set: AC25C-025080EH (8 inch NPS Pipe)
2. Enter Beam Spread (in feet): 22 feet
3. Enter Capacity (in tons): 32 tons
4. Choose Sling Angle: 45°

After changing any value press ENTER or TAB

Other Evaluations or Actions -
End Cap Set for your lift
Telescopic End Cap Set
Printable Report
Show Chart

Pass - Fail
PASS All Factors Green

Selected End Cap	AC25C-025080EH	Est. Spreader Beam Weight	1,311	lbs.	End Cap Max. Capacity	●●●●●●		
End Cap Lost Length	15.43	inches	End Cap Weight	168.9	lbs. per unit	●●●●●●		
Minimum Spread	46.86	inches	Pipe Unit Weight	43.39	lbs./ft.	●●●●●●		
Matching Pipe	AC22P-08X	Sleeve Weight	77.0	lbs.	Buckling Potential	●●●●●●		
Matching Sleeve	AG08A00-08X	Shackle Cap.	35.00	metric tons	77,161	lbs.	Exceeds Shackle Capacity	●●●●●●
Pipe Cut Length	269.14	inches	Est. Sling Tension (each leg)	46,182	lbs.	Exceeds Max. Charted Length	●●●●●●	
						Below Minimum Spread	●●●●●●	

Show Detail Data ASME B30.20-2018 Specifies that if a proof test is done it shall be at no greater than 125% of WLL.

Maximum Spread	48	feet	Maximum Capacity	50	tons	100,000	lbs.
Capacity @ Maximum Spread	19	tons	Spread @ Maximum Capacity	30	feet		
Primary Sling Angle for Maximum Spread	45	degrees					
Maximum Spread	48	feet	Maximum Capacity	50	tons	100,000	lbs.
Capacity @ Maximum Spread	35	tons	Spread @ Maximum Capacity	40	feet		
Alternate Sling Angle for Maximum Spread	60	degrees					

angle between 45° and 70°. If a custom angle is chosen that angle MUST be the MINIMUM angle used for the lift.

Once the inputs are complete and the ENTER or RETURN key has been pressed the calculation engine will execute and PASS/FAIL chart will reflect whether any of the 6 critical factors are outside of safe bounds. **DO NOT use the AC25C End Cap set if any of the PASS/FAIL red lights are on.**

- End Cap Max. Capacity – Exceeds design capacity of the AC25C End Cap set selected.
 - **Corrective Action – reduce capacity requested.**
- L/R Ratio – Spread length exceeds the maximum length allowed for this size pipe.
 - **Corrective Action – reduce spread requested.**
- Buckling Potential – The capacity and spread entered create a buckling risk for the AC25C End Cap set selected.
 - **Corrective Action – reduce some combination of spread and/or capacity requested.**
- Exceeds Shackle Capacity – Each AC25C End Cap set is designed for a specific capacity shackle. In some situations the shackle capacity can become a capacity limiting factor (most likely when a larger sling angle is used).
 - **Corrective Action – increase sling angle or reduce capacity requested.**
- Exceeds Max. Charted Length – Exceeds maximum length shown in the Pipe Capacity Char
 - **Corrective Action – reduce spread length requested.**
- Below Minimum Spread – The spread is too short. There is physical interference preventing this spread from being accommodated with this AC25C End Cap set.
 - **Corrective Action – increase spread length beyond minimum shown for this AC25C End Cap set.**

The AC25C product is designed to allow repeated use at varying spreads and capacities simply by the substitution of a different length of NPS schedule 80 (Extra Heavy) pipe of a specific size, (sized for the end cap pair). The End Cap App Model Evaluation Page allows the customer to quickly determine whether an AC25C End Cap set can be used for a specific lift and what variations to the lift criteria, principally the sling angle, might allow the use of their current model AC25C in this lift instance.

The output data also provides the cut length of the NPS pipe in order to achieve the required spread using their model AC25C End Cap set.

The AC25C product is designed to allow repeated use at varying spreads and capacities simply by the substitution of a different length of NPS schedule 80 (Extra Heavy) pipe of a specific size, (sized for the end cap pair).

The End Cap Fixed Spreader Beam Design and Evaluation webpage allows the customer to quickly determine whether a specific AC25C End Cap model pair can be used for a specific lift and what variations to the lift criteria, principally the sling angle, might allow the qualified use of the defined AC25C model pair in this lift instance.

The output data provides the cut length of the NPS pipe in order to achieve the required spread using the AC25C End Cap model pair. Other detailed information that might be of use is also provided.

Output Data

- The pipe size & Tandemloc model number for that pipe size. (e.g. AC22P-06X)

- The Tandemloc model number for the sleeve to be used if two lengths of pipe are to be used to create a single spreader. (e.g. AG08A00-06X). (Note: When using a sleeve to accomplish a lift the combined pipe lengths of the two sections will be shorter than the length of a single pipe solution.)
- Physical characteristics of the components to be used.Length of the pipe to be used to create the required spread with the recommended AC25C End Cap pair, as noted above. (For single length solution only).
- Minimum possible spread when using this AC25C End Cap pair.
- The estimated weight for the spreader beam made from these components for this capacity & spread. (For single length solution only).
- Shackle required for use with this AC25C End Cap pair.
- Estimated tension in each sling leg at the entered lift specifications.

In the extended section, Show Detailed Data, we also show some maximized lift specifications for the selected AC25C End Cap pair.

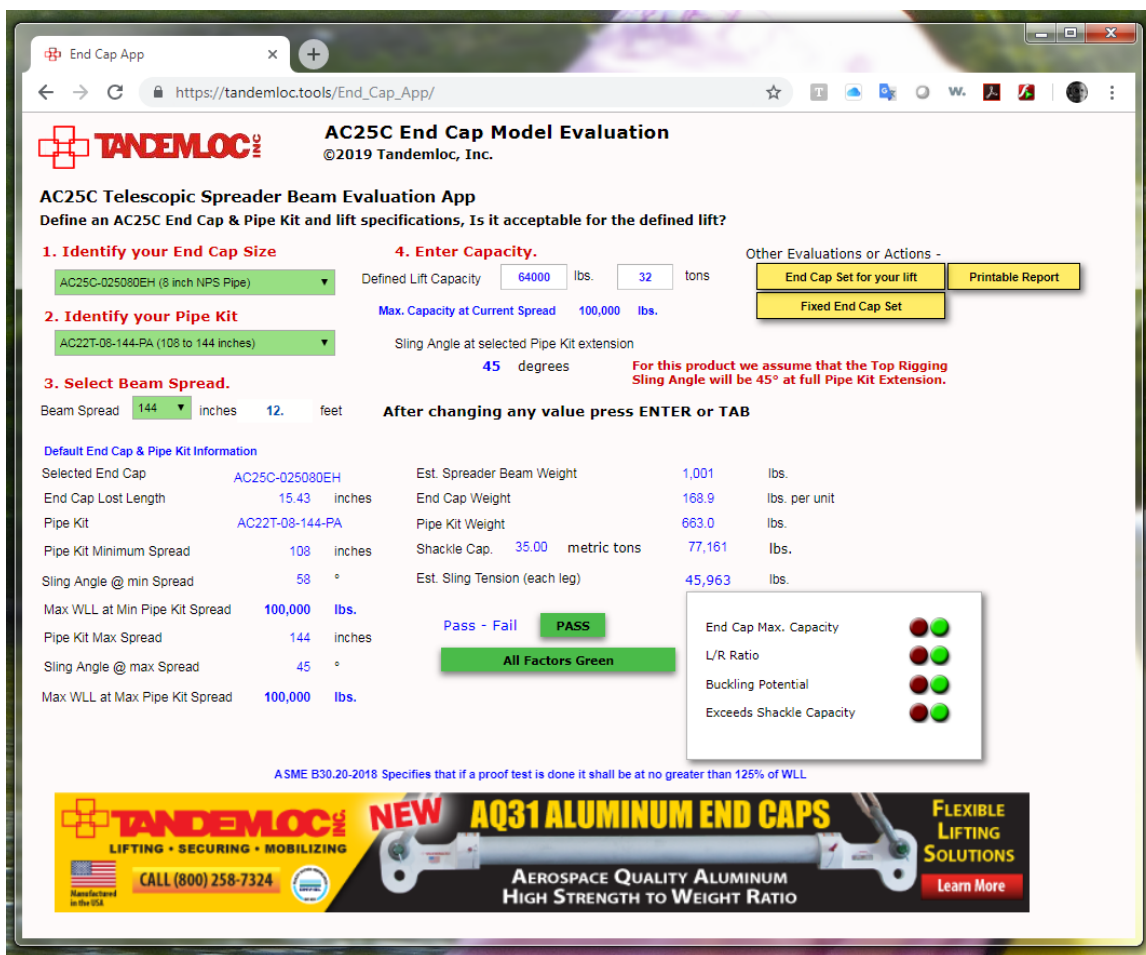
- Maximum Spread & associated capacity @ 45° sling angle or lowest charted sling angle.
- Maximum Spread & associated capacity @ 60° sling angle or highest charted sling angle.
- Maximum Capacity & associated spread @ 45° sling angle or lowest charted sling angle.
- Maximum Capacity & associated spread @ 60° sling angle or highest charted sling angle.

End Cap Telescopic Spreader Beam Evaluation

The purpose of this feature of the End Cap App is to evaluate the use of a specific End Cap Telescopic Spreader Beam, possibly a pair that the user currently owns, for a specific lift.

Again, certain data inputs are required to fully evaluate the lift.

- Identify your End Cap model from the Pull Down List
- Identify your Pipe Kit from the Pull Down List
- Select the Beam Spread from available choices in the Pull Down List



- Enter Capacity (lbs. or tons)

In this first release of the End Cap Telescopic Spreader Beam Evaluation webpage we are making the assumption that for any individual Pipe Kit selection the user will use the minimum possible sling angle to keep the headroom requirement at a minimum when at the longest available spread. For all currently available Pipe Kits the minimum possible sling angle is 45°.

Once the inputs are complete and the ENTER or RETURN key has been pressed the PASS/FAIL chart will reflect whether any of the 4 critical factors are outside of safe bounds. **DO NOT use the AC25C End Cap set if any of the PASS/FAIL red lights are on.**

- End Cap Max. Capacity – Exceeds design capacity of the AC25C End Cap set selected.
 - **Corrective Action – reduce capacity requested.**
- L/R Ratio – Spread length exceeds the maximum length allowed for this size pipe.
 - **Corrective Action – reduce spread requested.**
- Buckling Potential – The capacity and spread entered create a buckling risk for the AC25C End Cap set selected.
 - **Corrective Action – reduce some combination of spread and/or capacity requested.**
- Exceeds Shackle Capacity – Each AC25C End Cap set is designed for a specific capacity shackle. In some situations the shackle capacity can become a capacity limiting factor (most likely when a larger sling angle is used).
 - **Corrective Action – For the End Cap Telescopic Spreader Beams there is no user corrective action that can be analyzed at this time. The actual change that can be made to eliminate this failure situation is to increase the base Pipe Kit sling angle to a value greater than 45°. This will be a user action that can be entered in future revisions.**

Output Data

- Physical Characteristics of the components to be used.
- Pipe Kit minimum and maximum spreads and relative sling angles for each.
- Pipe Kit maximum WLL for each of the extreme Pipe Kit spreads, minimum and maximum.
- The estimated weight for the spreader beam made from the selected components.
- Shackle required for use with this AC25C End Cap pair.
- Estimated tension in each sling leg at the entered lift specifications.

FAQ

This section has yet to be written

Error Report

Desktop/Laptop Version

1. Missing Go/No-Go 'Stoplights' on result image
 1. Refresh webpage

Tablet/Smartphone Version -

1. Continual screen refresh at startup
 1. Work-around - rotate device to change orientation several times. This should resolve the screen refresh issue. This is due to a message being sent regarding the orientation of the screen. Currently in review.
2. UI element artifacts remaining at startup
 1. Work-around -Change webpage selection to alternate webpage (Select -> Telescopic, etc.). This does not always resolve the artifact residue but will in many instances.
3. Missing Go/No-Go 'Stoplights' on result image
 1. Refresh webpage