

**Food
Grade
Strut**[®]

Design Catalog

Sanitary mounting systems for the food processing and pharmaceutical industries

Patented: 7,651,056 | 7,926,766 | 7,931,242



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Food Grade Strut[®]

Design Catalog

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7,926,766
7,931,242

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Trapeze Mount Strut[®]

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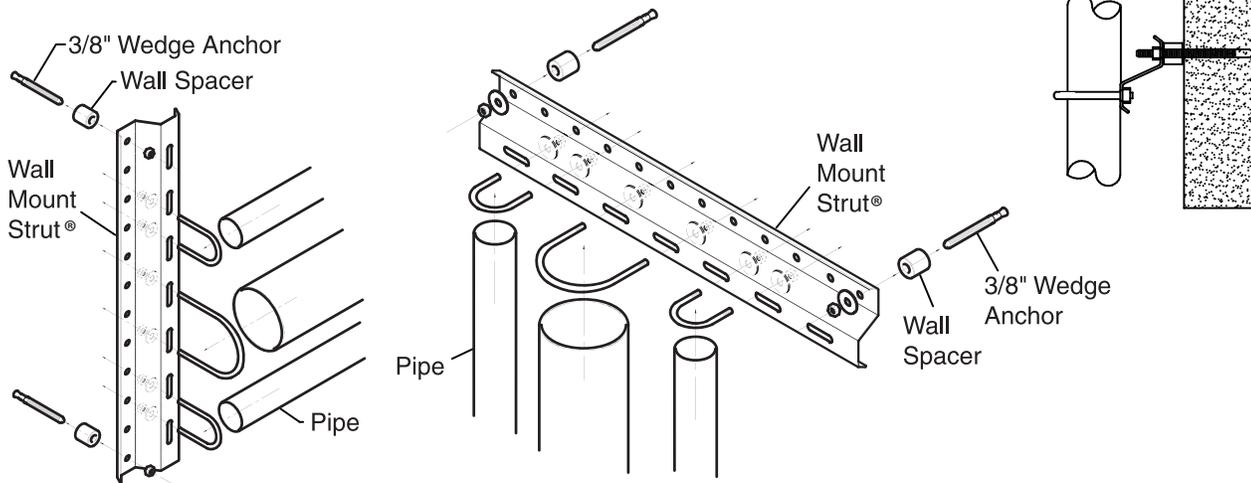
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Wall Mount Strut®

Food Grade Strut®

Side View



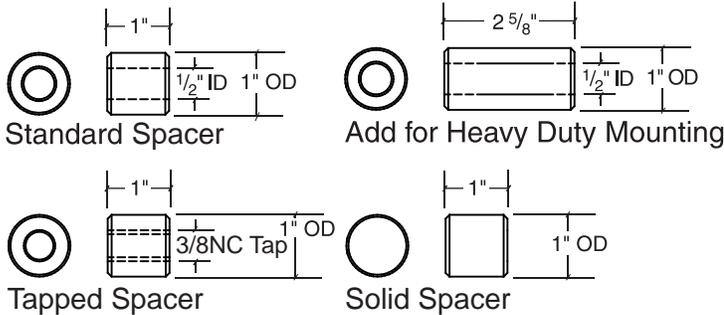
Wall Mount Strut® installed vertically

Wall Mount Strut® installed horizontally

Wall Mount Strut® may be used in either direction to mount pipes or conduit to walls.

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Wall Spacers:



Wall spacers are made of solid 304/316 stainless steel and must be used between each piece of Wall Mount Strut® and walls. Use TWO for 1' to 5' long strut pieces, use THREE for strut pieces longer than 5'.

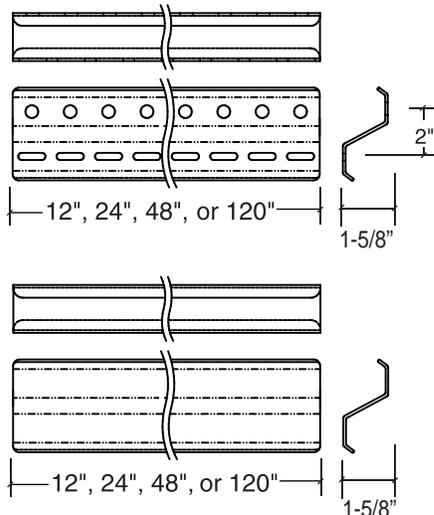
U-Bolts:



Food Grade Strut® U-bolts are fabricated to accommodate trade sizes of conduit and tubing. Each U-bolt has minimum thread to ease assembly and minimize exposed threads.

See inside back cover for U-Bolt Selection Chart.

Wall Mount Strut®



Wall Mount Strut® is made of heavy-duty 12 ga. 304/316 stainless steel and is available in pre-cut lengths of: 12", 24", 48", and 120"

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Part Numbers

Wall Mount Strut®	Qty-1	Box of 5
12" Length w/ holes	WMS 12	WMS 12 /5
24" Length w/ holes	WMS 24	WMS 24 /5
48" Length w/ holes	WMS 48	WMS 48 /5
120" Length w/ holes	WMS 120	WMS 120 /5
12" Length - Blind	WMSB 12	WMSB 12 /5
24" Length - Blind	WMSB 24	WMSB 24 /5
48" Length - Blind	WMSB 48	WMSB 48 /5
120" Length - Blind	WMSB 120	WMSB 120 /5

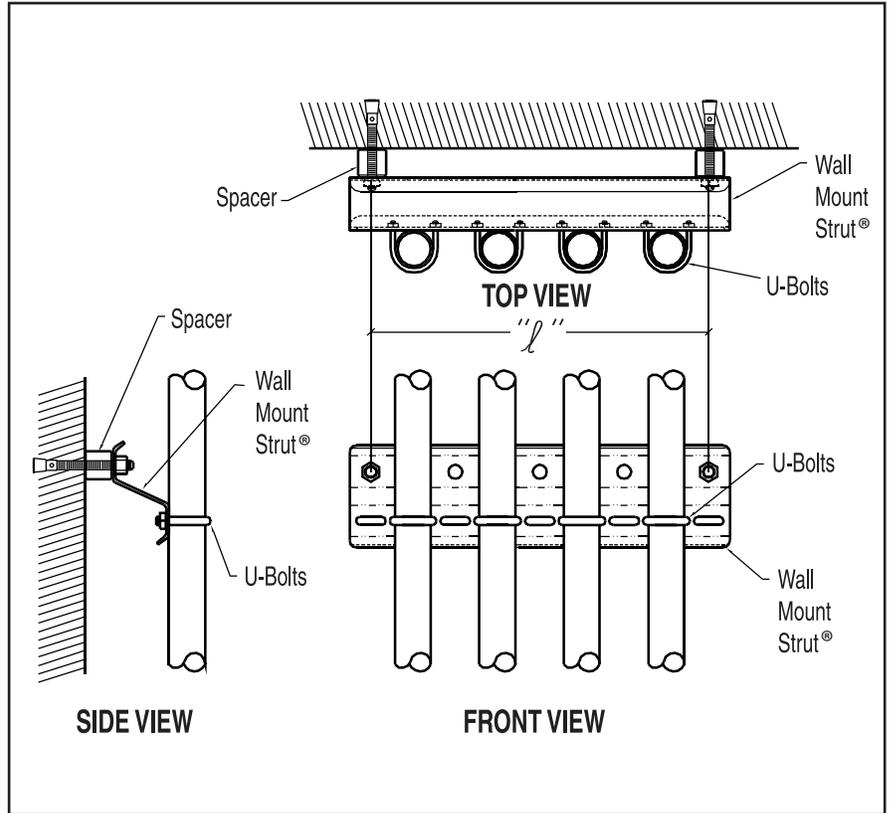
Wall Spacer P/Ns	Qty-1	Box of 72
Standard spacer	WS	WS /72
Heavy Duty spacer	WSL	WSL /72
Tapped spacer	WST	WST /72
Solid spacer	WSS	WSS /72

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Wall Mount Strut®

Application #1
Standard Mounting

Pipes: Vertical
Strut: Horizontal



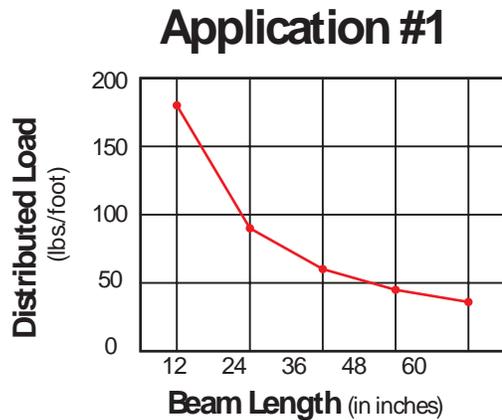
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Beam Load*



"l" =	12"	24"	36"	48"	60"
Allowable Distributed Load =	180#/ft	90#/ft	60#/ft	45#/ft	36#/ft

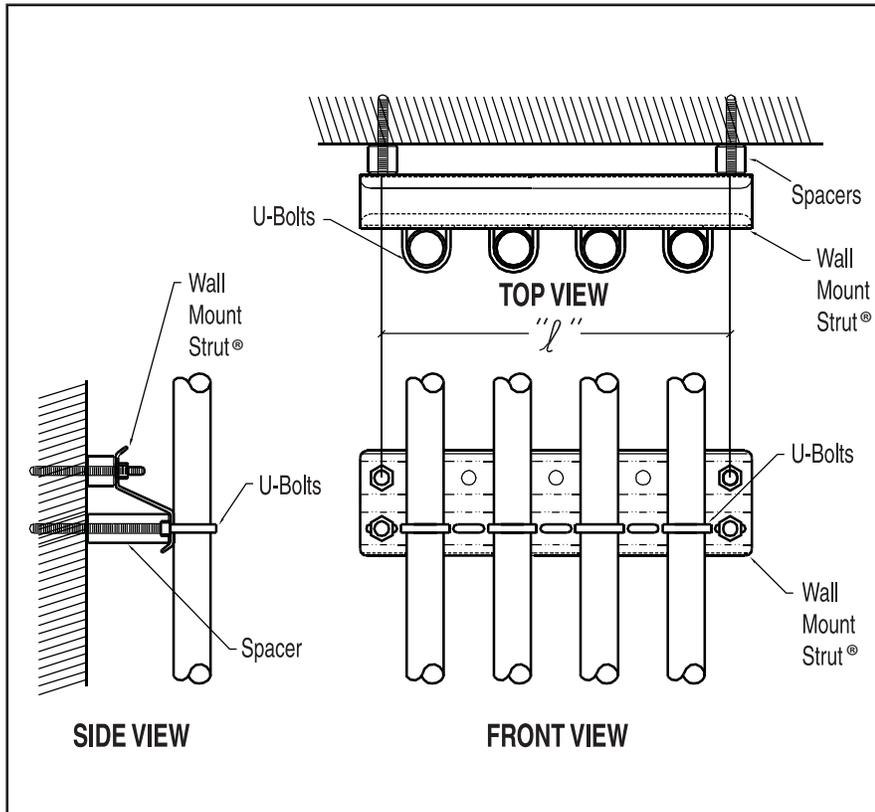
*Maximum allowable distributed load. Calculations based on simply supported beam. Standard mounting requires the use of ITW Ramset/Red Head® Trubolt Wedge Type 304 Stainless Steel Anchor #WW-3836 (or equivalent) with minimum embedment of 2" and tightened to 25 ft. lbs. (33.9 Nm) dry -or- 13 ft. lbs. (17.6 Nm) with threads pre-lubricated with food grade anti-seize. Allowable loads based on anchoring in concrete rated at $f_c \geq 2500$ psi.

Wall Mount Strut®

Food Grade Strut®

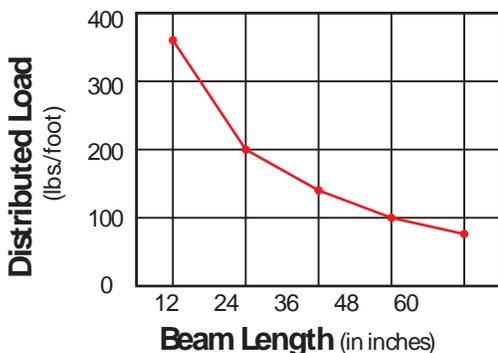
Application #2
Heavy Duty Mounting

Pipes: Vertical
Strut: Horizontal



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Application #2



Beam Load*

"l" =	12"	24"	36"	48"	60"
Allowable Distributed Load =	360#/ft	200#/ft	140#/ft	100#/ft	76#/ft

*Maximum allowable distributed load. Calculations based on simply supported beam. Standard mounting requires the use of ITW Ramset/Red Head® Trubolt Wedge Type 304 Stainless Steel Anchor #WW-3836 (or equivalent) with minimum embedment of 2" through short Wall Spacers. In addition, heavy duty mounting also requires the use of WW-3850 (or equivalent) with minimum embedment of 1 3/4" through long Wall Spacers. All anchors are to be tightened to 25 ft. lbs. (33.9 Nm) dry -or- 13 ft. lbs. (17.6 Nm) with threads pre-lubricated with food grade anti-seize. Allowable loads based on anchoring in concrete rated at f'c ≥ 2500 psi. Utilizing the long Wall Spacers with the 5/16" slots requires the enlargement of the selected slot through the use of a file, grinder, or punch.

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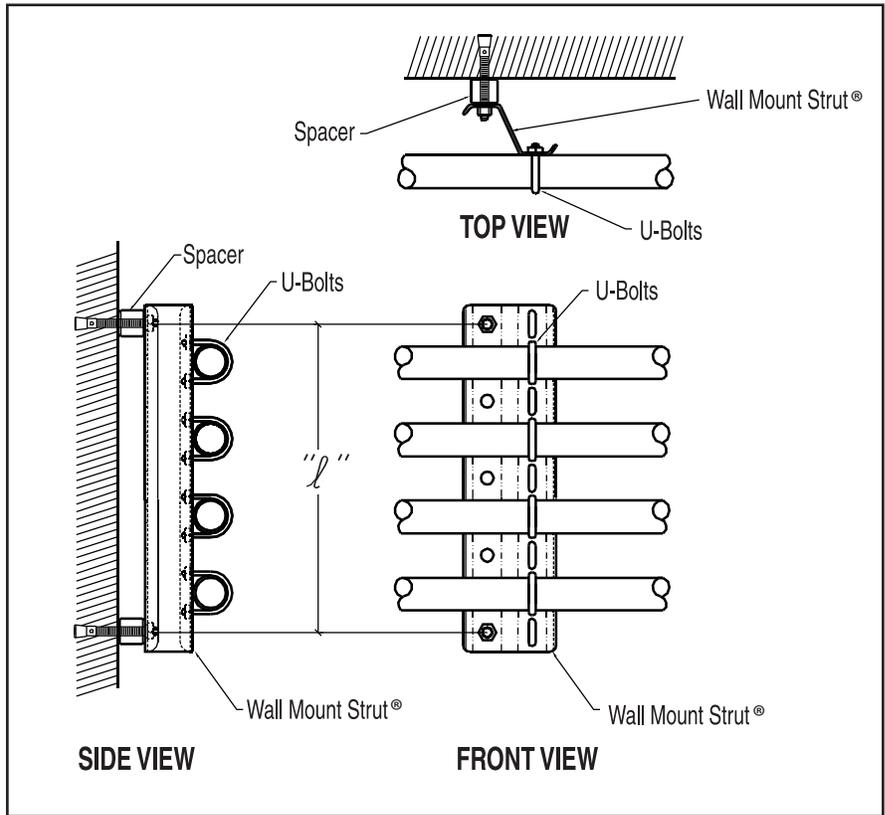
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Wall Mount Strut®

Application #3
Standard Mounting

Pipes: Horizontal
Strut: Vertical



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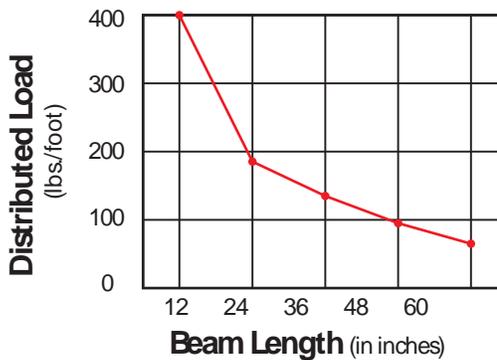
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Column Load*

Application #3



"l" =	12"	24"	36"	48"	60"
Allowable Distributed Load =	400#/ft	185#/ft	135#/ft	95#/ft	65#/ft

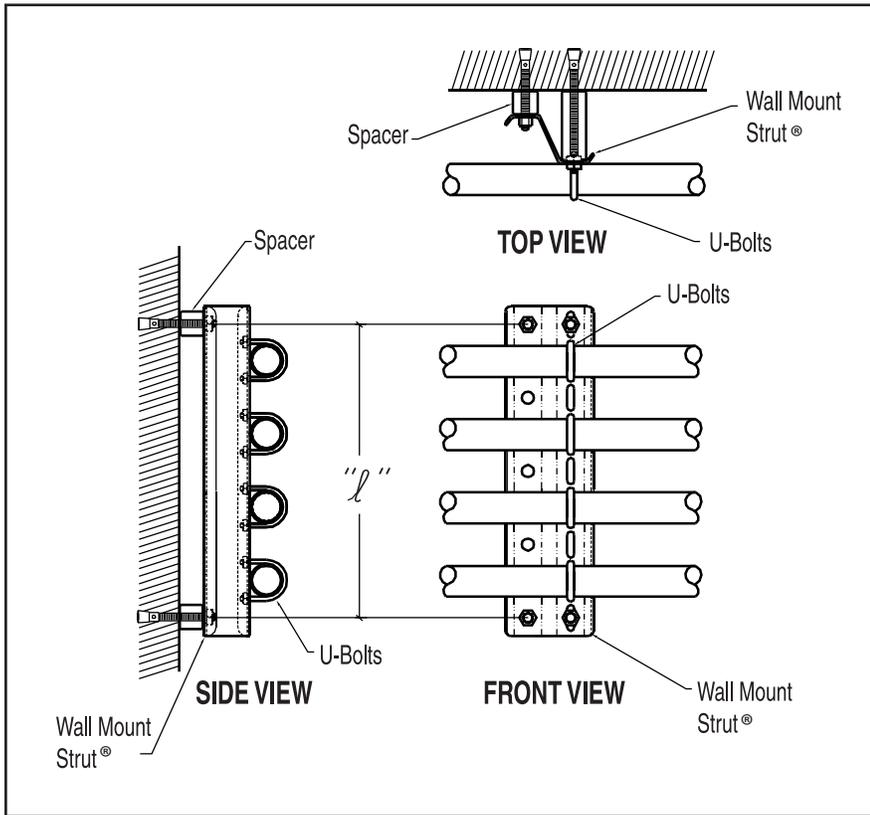
*Maximum allowable distributed load. Calculations based on simply supported beam. Standard mounting requires the use of ITW Ramset/Red Head® Trubolt Wedge Type 304 Stainless Steel Anchor #WW-3836 (or equivalent) with minimum embedment of 2" and tightened to 25 ft. lbs. (33.9 Nm) dry -or- 13 ft. lbs. (17.6 Nm) with threads pre-lubricated with food grade anti-seize. Allowable loads based on anchoring in concrete rated at $f_c \geq 2500$ psi.

Wall Mount Strut®

Food Grade Strut®

Application #4
Heavy Duty Mounting

Pipes: Horizontal
Strut: Vertical



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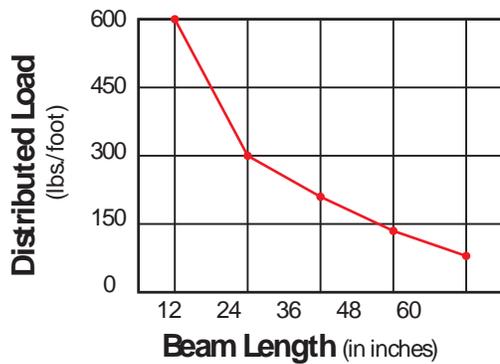
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Application #4



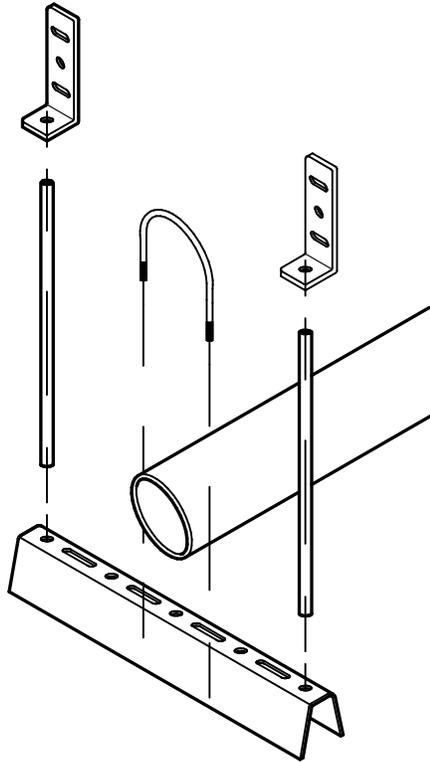
Column Load*

"l" =	12"	24"	36"	48"	60"
Allowable Distributed Load =	600#/ft	300#/ft	210#/ft	135#/ft	80#/ft

*Maximum allowable distributed load. Calculations based on simply supported beam. Standard mounting requires the use of ITW Ramset/Red Head® Trubolt Wedge Type 304 Stainless Steel Anchor #WW-3836 (or equivalent) with minimum embedment of 2" through short Wall Spacers. In addition, heavy duty mounting also requires the use of WW-3850 (or equivalent) with minimum embedment if 1 3/4" through long Wall Spacers. All anchors are to be tightened to 25 ft. lbs. (33.9 Nm) dry -or- 13 ft. lbs. (17.6 Nm) with threads pre-lubricated with food grade anti-seize. Allowable loads based on anchoring in concrete rated at f'c ≥ 2500 psi. Utilizing the long Wall Spacers with the 5/16" slots requires the enlargement of the selected slot through the use of a file, grinder, or punch.

Trapeze Mount Strut®

For suspended applications



Trapeze Mount Strut® is installed horizontally to hang pipes or conduit from the ceiling or from overhead structures.

L-Brackets:

L-Brackets are used for mounting Hanger Rods to the ceiling or other overhead structures. Made of 304/316 stainless steel.

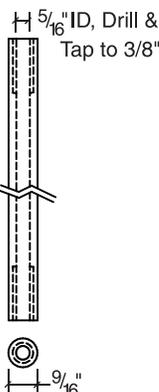
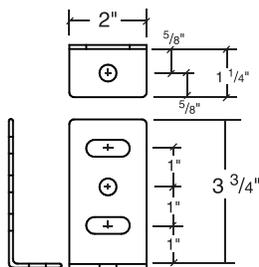
Design load = 500 # force downward
Attach to supporting member using fasteners that provide a collective working shear strength of 1,500 lbs. or more.

Hanger Rods:

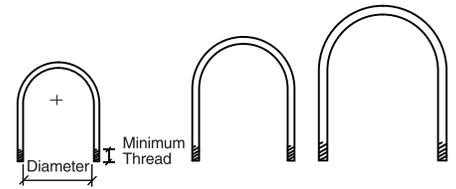
304/316 Stainless steel Hanger Rods are available in 1 meter (est. 39-3/8") long or 2 meters (est. 78-3/4") long. Each rod is internally threaded for sanitary design and ease of installation.

Working tension for Hanger Rods is 1,150#.

Attach Hanger Rod to L-Bracket and Strut with 3/8" NC x 1" 304 stainless steel bolts possessing a proof strength of 15,000 psi or more.



U-Bolts:



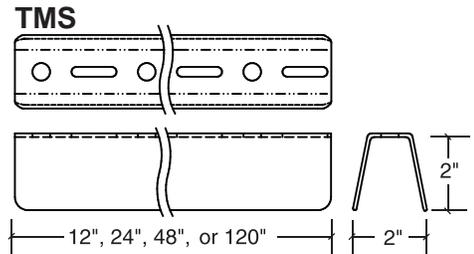
Food Grade Strut® U-bolts are fabricated to accommodate trade sizes of conduit and tubing. Each U-bolt has minimum thread to ease assembly and minimize exposed threads.

Please refer to the U-bolt Selection Chart on page 11 for Part Numbers.

All U-bolts are pre-lubricated with food grade anti-seize, and include necessary mounting hardware.

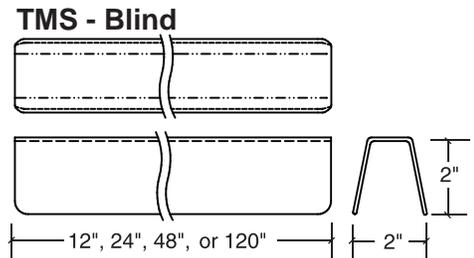
Trapeze Mount Strut®

Trapeze Mount Strut® is made of heavy-duty 12 ga. 304/316 stainless steel and is available in lengths of 12", 24", 48", and 120" with or without holes.



Refer to page 9 for Beam Loading Calculations.

Use with hardware proof tested to 15,000 psi.



Part Numbers

Trapeze Mount Strut®	Qty-1	Box of 5
12" Length w/ holes	TMS 12	TMS 12 /5
24" Length w/ holes	TMS 24	TMS 24 /5
48" Length w/ holes	TMS 48	TMS 48 /5
120" Length w/ holes	TMS 120	TMS 120 /5
12" Length - Blind	TMSB 12	TMSB 12 /5
24" Length - Blind	TMSB 24	TMSB 24 /5
48" Length - Blind	TMSB 48	TMSB 48 /5
120" Length - Blind	TMSB 120	TMSB 120 /5

L-Bracket P/N	Qty-1	Box of 10
L-Bracket	TML	TML /10

Hanger Rod P/N	Qty-1	Box of 10
1 meter Hanger Rod	TMHR1	TMHR1 /10
2 meter Hanger Rod	TMHR2	TMHR2 /10

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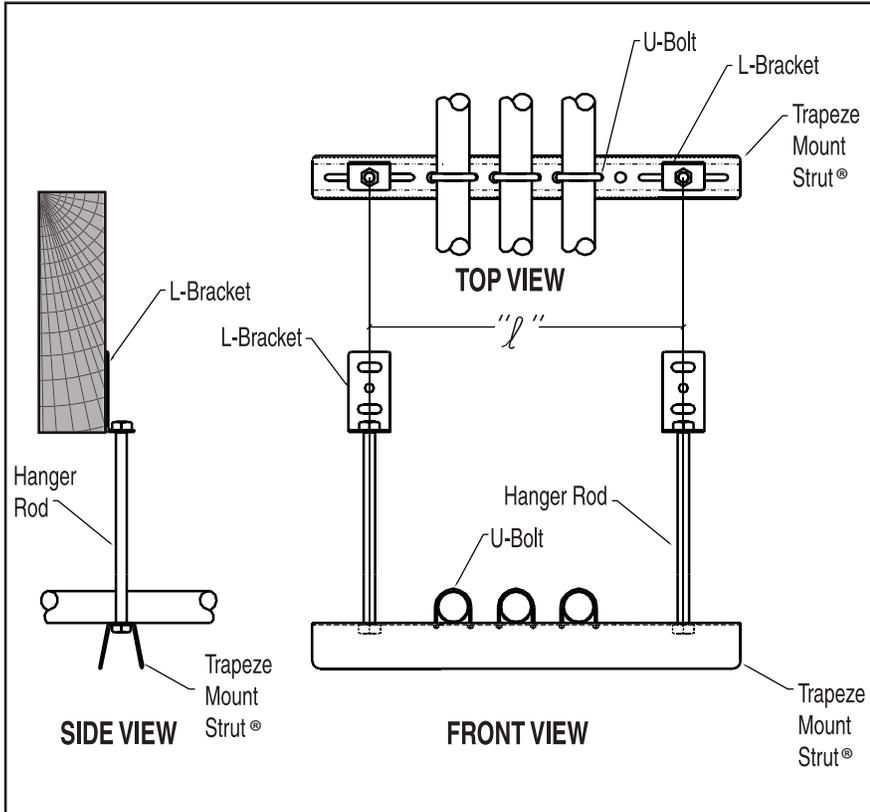
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Trapeze Mount Strut®

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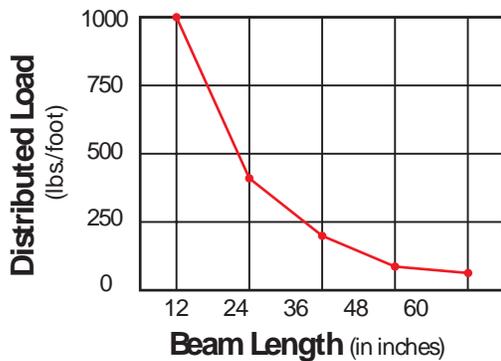
Application #5
Suspended Mounting

Pipes: Horizontal
Strut: Horizontal
(perpendicular to pipes)



Design Catalog

Application #5



Beam Load*

"l" =	12"	24"	36"	48"	60"
Allowable Distributed Load =	1,000#/ft	410#/ft	200#/ft	87#/ft	63#/ft

*Maximum allowable distributed load. Calculations based on simply supported beam. Attach to supporting member using fasteners that provide a collective working shear strength of 1,500# or more. Attach Hanger Rod to L-bracket and strut with 3/8" NC x 1" 304 stainless steel bolts possessing a proof strength of 15,000 psi or more.

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Pedestals:

A Pedestal is used to mount Wall Mount Strut® or Trapeze Mount Strut® to floor, wall or overhead. Pedestals are 304/316 heavy-duty stainless steel.

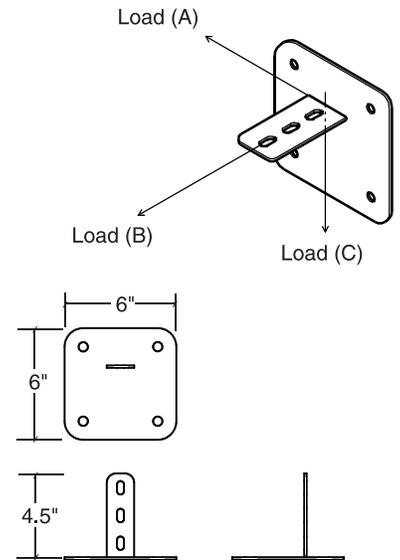
Capable of 500#* load vertically, laterally or axially.

*Intended for shear or tension loads only, not intended for moment or cantilever loads.

Use hardware proof tested to 15,000 psi.

Part Number

Qty-1
PB-1



Slider Brackets:

Slider Brackets are used to match existing pipes and components with the pre-punched holes in Food Grade Strut™.

Available in four sizes. Please refer to the U-Bolt selection guide on the following page to determine bracket size.

*Use of Slider Brackets de-rates load carrying ability of strut by 50%.

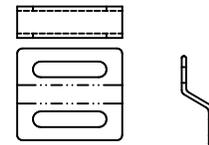
Use hardware proof tested to 15,000 psi.

Part Numbers

Qty-1	Box of 10
SBA	SBA/10
SBB	SBB/10
SBC	SBC/10
SBD	SBD/10

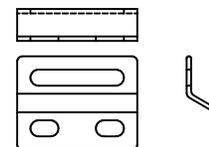
Slider Bracket 'A':

For use with U-bolts UB-10 to UB-50.



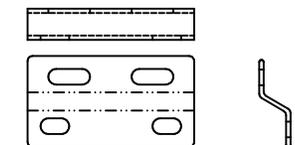
Slider Bracket 'B':

For use with U-bolts UB-60 to UB-90.



Slider Bracket 'C':

For use with U-bolts UB-100 to UB-140.



Slider Bracket 'D':

For use with U-bolts UB-150 to UB-170.



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U-Bolt Selection Chart

		OD Tube	Schedule Pipe	Rigid Conduit	EMT	Copper* Tube	Ocal®
Trade Size	1/2"	UB-10	UB-30	UB-30	UB-20	UB-10*	UB-40
	3/4"	UB-20	UB-40	UB-40	UB-40	UB-30*	UB-50
	1"	UB-40	UB-60	UB-60	UB-50	UB-50*	UB-70
	1-1/4"	UB-60	UB-80	UB-80	UB-70	UB-60*	UB-90
	1-1/2"	UB-70	UB-90	UB-90	UB-90	UB-80*	UB-100
	2"	UB-100	UB-110	UB-110	UB-110	UB-110*	UB-120
	2-1/2"	UB-120	UB-130	UB-130	UB-130	Custom*	UB-140
	3"	UB-140	UB-150	UB-150	UB-150	Custom*	UB-150
	3-1/2"	UB-150	UB-160	UB-160	UB-160	Custom*	UB-160
	4"	UB-160	UB-170	UB-170	UB-170	Custom*	UB-170
	Larger	Custom	Custom	Custom	Custom	Custom*	Custom

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* Fastening copper tube with Food Grade Strut U-Bolts requires the use of sufficient 10 Mil pipe wrap tape to prevent metal-to-metal contact from pressure and/or vibration.

U-Bolt Quantities per box:

U-bolts UB-10 to UB-100 are sold in a quantity of 25 per box.
U-bolts UB-110 to UB-170 are sold in a quantity of 10 per box.

How to use this chart:

1. Locate the type of pipe, tubing, or conduit that will be used in the installation, listed across the top row of the chart.
2. Find the trade size of the pipe, tubing, or conduit that will be used in the installation, listed along the left side of the chart.
3. Follow the column downward and the row across to where they intersect. That number (UB-#) is the U-Bolt size that will be needed for the installation.

For Example... If the installer wants to attach a length of 1-1/4" Rigid Conduit to a piece of Food Grade Strut®, proceed as follows: First, locate the column labeled "Rigid Conduit." Second, locate the trade size row labeled "1-1/4." The Rigid Conduit column and the 1-1/4" row cross at "UB-80." Therefore, use a #UB-80 U-bolt for this job.

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