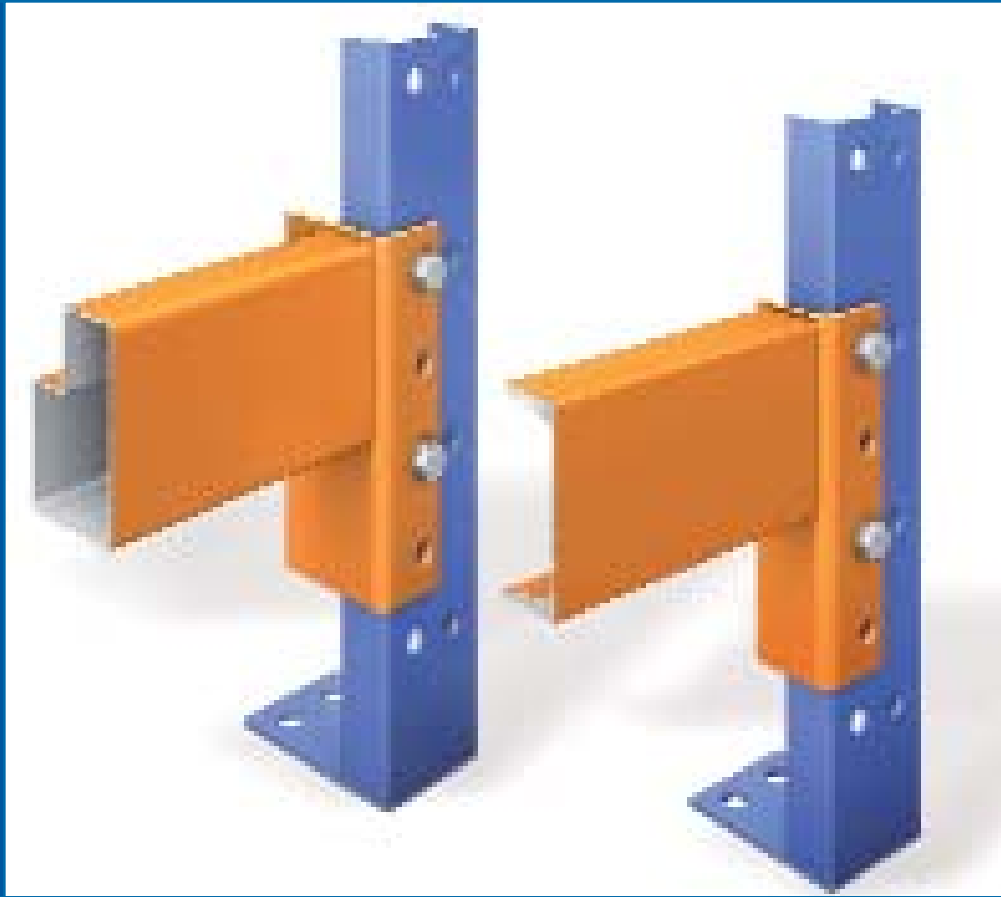


STRUCTURAL RACK



Structural Racking

Made from high resistant, hot rolled structural steel. This rack is designed for higher capacity applications.

Structural steel components can be used in multiple configurations including selective pallet, drive-in, push-back and more. They can be integrated with roll form components to provide a more economical alternative where a structural system is required.

The Mecalux Structural racking system is easy to assemble and can expand to fit your growing needs, with bolted connections that provide strength in all directions.

This system continues to provide easy access to stored pallets, easy stock control, load storage flexibility both in terms of weight and volume while providing you the same quality and strength you have expected for years.



Frames

- Structural steel with holes punched on 4" centers to attach the beams.
- Equipped with "U" brackets welded inside the channel to attach bracing.
- Footplate welded to the bottom of the post available in standard or seismic.



Load configuration

H = Height of pallet and load

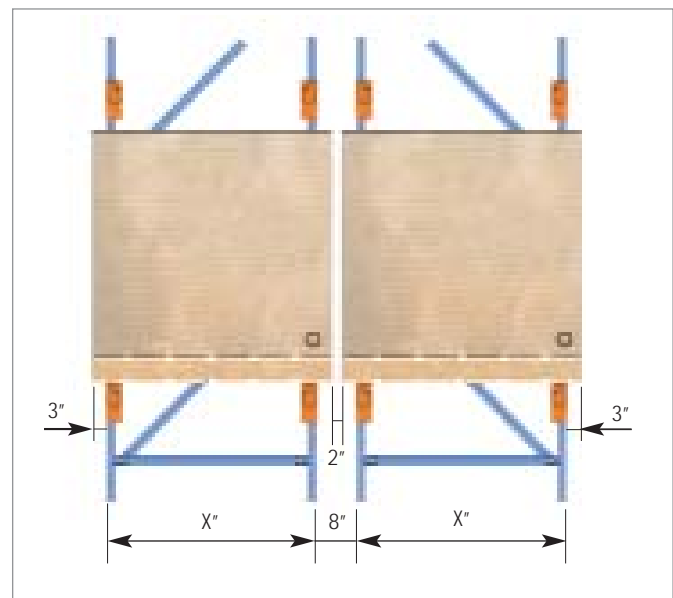
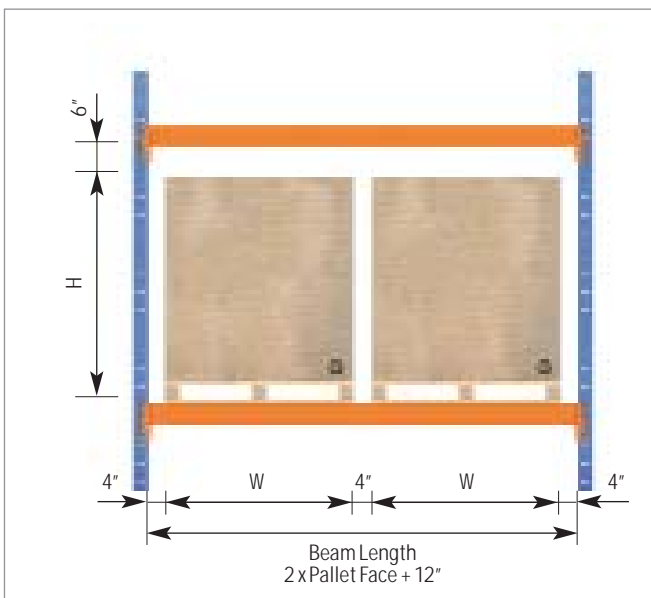
W = Width of pallet

D = Depth of pallet



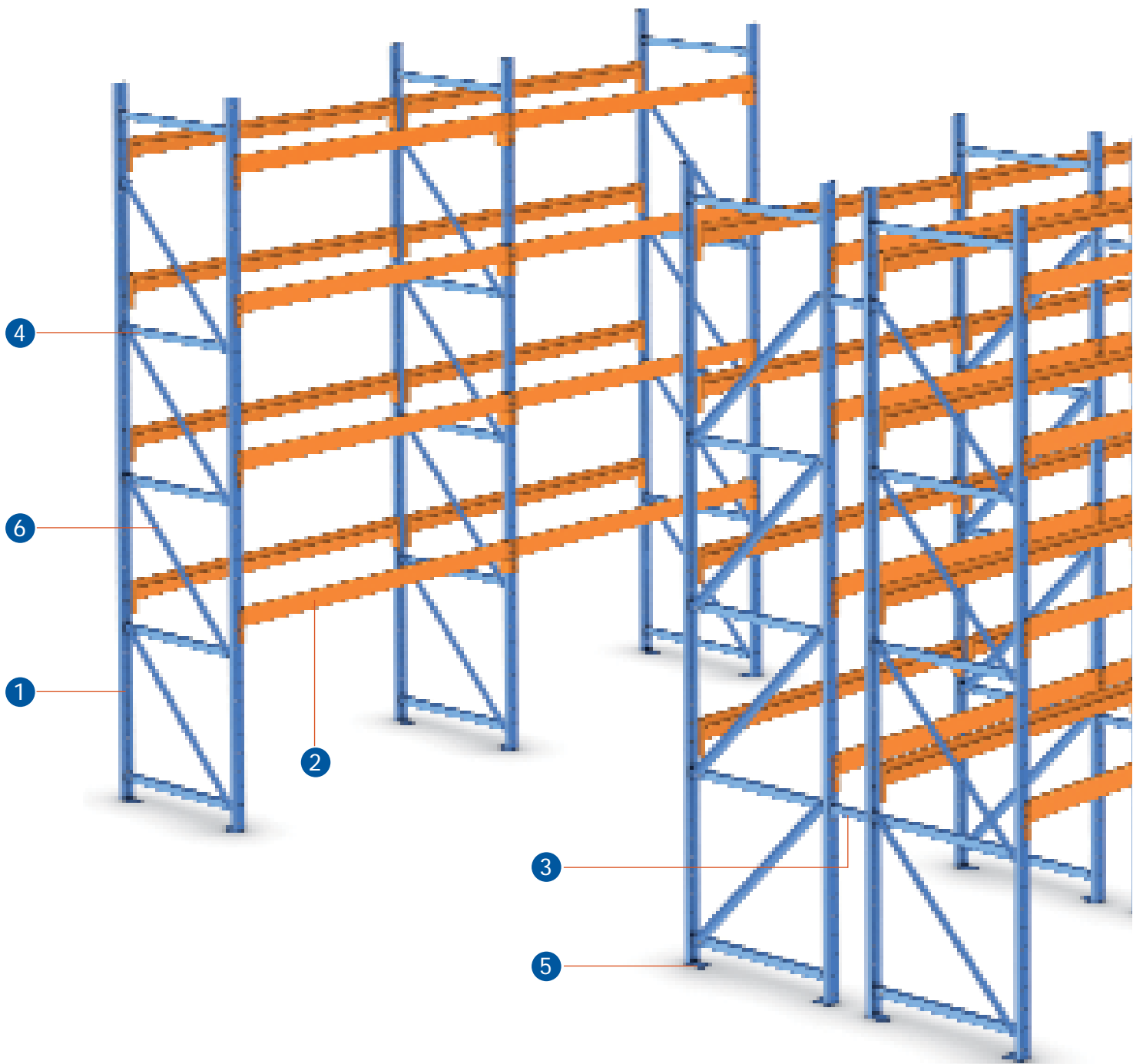
Typical bay opening. If load overhangs the pallet, bay opening must be increased accordingly. If straddle truck is used to service rack, and straddle reaches inside rack, bay opening must be increased to allow outrigger to pass between pallet and post.

Typical back-to-back rack row configuration. If load overhangs the pallet, back-to-back space must be increased accordingly.

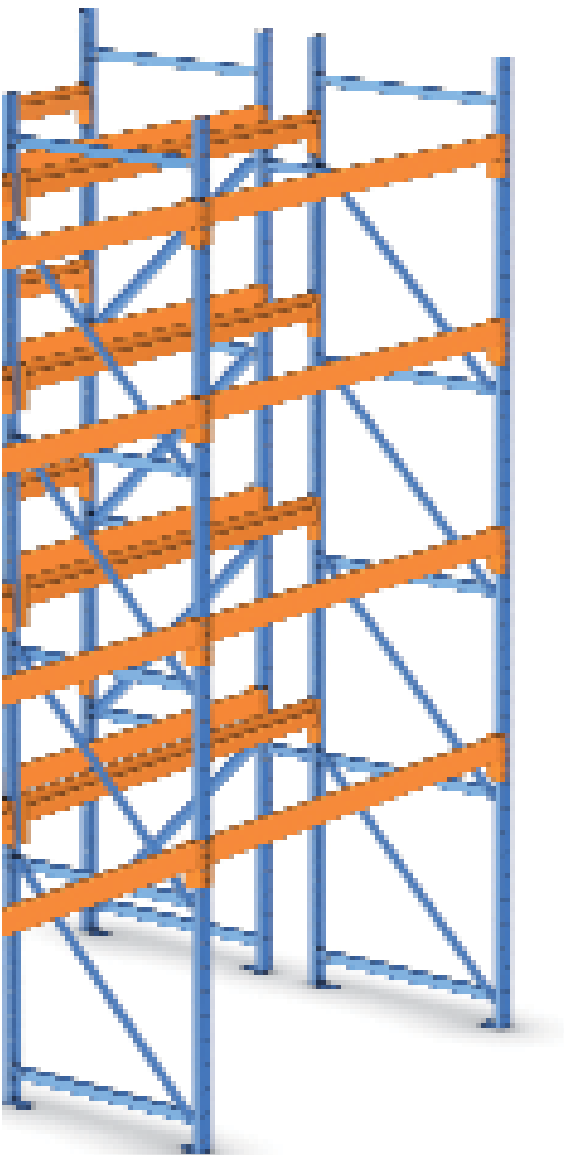


Basic Components

- 1) Frame
- 2) Beam
- 3) RowSpacer
- 4) Horizontalbracing
- 5) FootPlate
- 6) Diagonalbracing

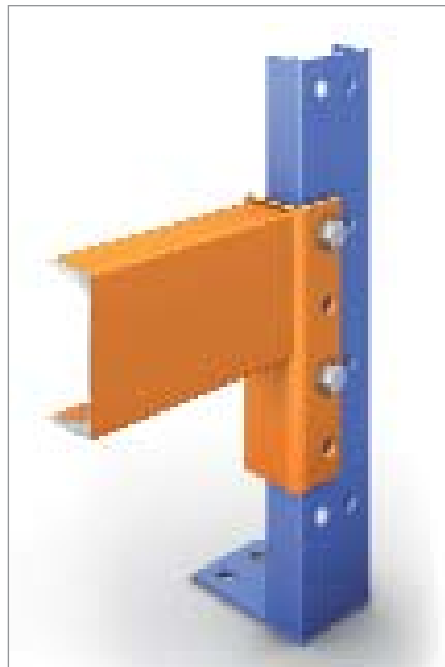


Both the structural and rolled formed beams are attached to the frames with 1/2" x 1" bolts and both options are guaranteed to provide long lasting rigid quality.



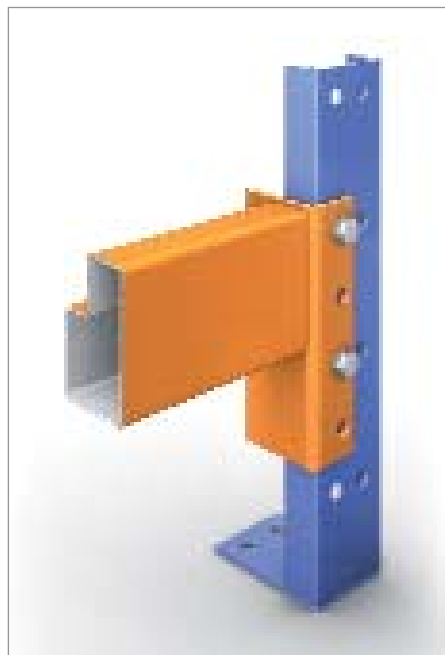
Structural Beam C

The standard structural bolted beams are vertically adjustable on 2" centers and provide a durable horizontal component for this high capacity system.



Structural Beam roll form

The rolled formed beam option can be manufactured with nut/bolt style end connectors to be easily adapted to the structural steel components. This will provide another durable alternative where a structural system is required.



Frame Capacity

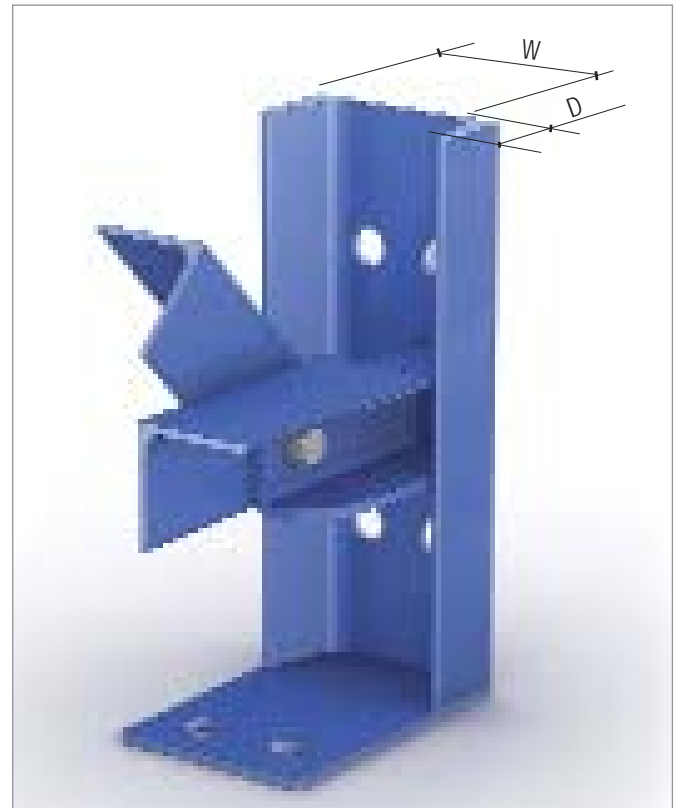
Floor to top of beam or maximum beam spacing.
 All the capacities are based on non-seismic applications.

Upright frames have to be anchored with at least one anchor bolt in each post and require a minimum concrete floor strength of 4000 psi for the maximum loads.

LOADING TABLE OF UPRIGHT (Lb) / STRUCTURAL COLUMNS C

Vertical Beam Spacing* (in)	STC 335	STC 341	STC 445	STC 454
36"	24,500	36,700	44,500	56,100
42"	24,500	36,700	44,500	56,100
48"	24,500	36,700	44,500	56,100
54"	24,500	36,700	44,500	56,100
60"	24,500	36,700	44,500	56,100
66"	24,500	36,700	44,500	56,100
72"	24,500	33,500	44,500	56,100
78"	22,900	28,700	44,500	56,100
84"	19,800	24,800	44,400	54,100
90"	17,300	21,600	40,500	49,000
96"	15,200	19,000	36,700	44,000

*Floor to the top of beam or maximum beam spacing.
 The load is given in lbs.



COLUMN DIMENSIONS

TYPE	W(in)	D(in)
STC 335	3"	1 3/8"
STC 341	3"	1 3/8"
STC 445	4"	1 5/8"
STC 454	4"	1 5/8"





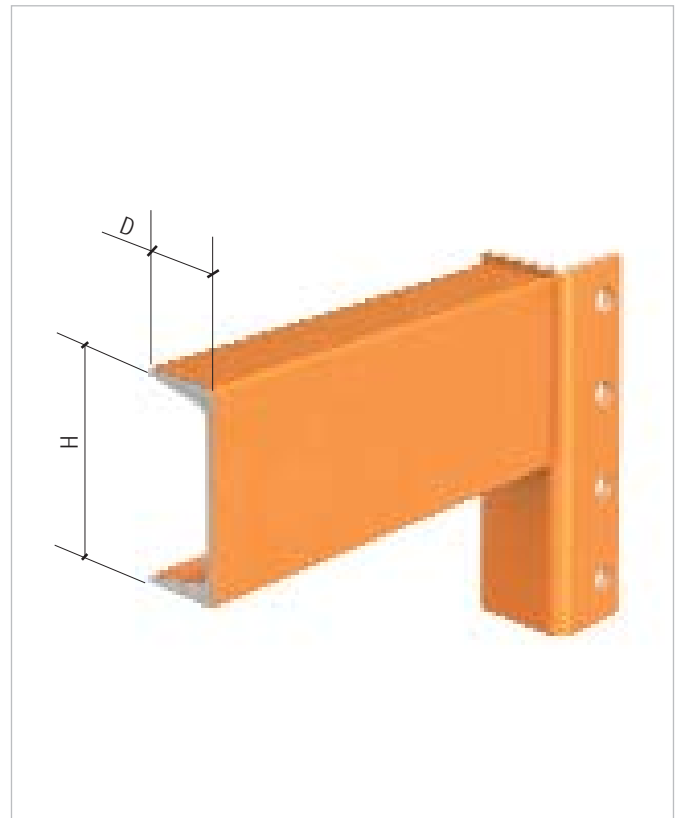
Load Tables of Beams

Structural Beams C

- Horizontal structural steel components of the storage system on which loads are stored.
- Beams are attached to the frames with (4) bolts W1/2" x1", (2) per connector.

BEAMC DIMENSIONS

TYPE	H(in)	D(in)
STC 335	3"	1 3/8"
STC341	3"	1 3/8"
STC445	4"	1 5/8"
STC454	4"	1 5/8"
STC567	5"	1 3/4"
STC682	6"	1 7/8"



LOADING TABLE PER PAIR BEAMS (Lb) / STRUCTURAL BEAMS C										
Length (in)	No Cross Tie						1 Cross Tie			
	STC 335	STC 341	STC 445	STC 454	STC 567	STC 682	STC 445	STC 454	STC567	STC682
48"	9,198	13,366	17,022	22,737	35,434	51,955	17,017	23,515	36,521	53,377
54"	8,176	11,535	15,131	19,483	30,318	44,377	14,695	20,902	32,463	47,446
60"	7,257	10,070	13,618	16,880	26,226	38,315	12,837	18,812	29,217	42,701
66"	6,457	8,872	12,380	14,750	22,877	33,354	10,129	17,102	26,561	38,820
72"	5,790	7,873	11,348	12,976	20,087	29,221	8,879	15,677	24,347	35,585
78"	4,631	7,028	10,475	10,111	15,716	22,946	7,473	14,471	22,474	32,847
84"	4,775	6,405	10,800	10,424	16,203	23,656	7,083	14,854	23,170	33,864
90"	4,208	5,545	10,080	9,423	14,389	20,586	6,119	12,940	21,626	31,607
96"	3,689	4,904	9,450	8,248	12,567	17,921	5,341	11,373	20,274	29,631
102"	3,260	4,344	8,559	7,281	11,072	15,746	4,704	10,074	19,082	27,888
108"	2,902	3,874	7,635	6,475	9,832	13,949	4,176	8,986	17,482	26,339
114"	2,601	3,477	6,852	5,797	8,790	12,446	3,732	8,065	15,690	24,953
120"	2,433	3,138	6,184	5,420	8,209	11,602	3,485	7,279	14,160	24,610
126"	2,204	2,847	5,609	4,907	7,424	10,477	3,151	6,602	12,844	22,464
132"	2,006	2,594	5,111	4,464	6,748	9,509	2,863	6,015	11,703	20,468
138"	1,834	2,373	4,676	4,079	6,160	8,671	2,613	5,504	10,707	18,727
144"	1,683	2,179	4,294	3,741	5,647	7,939	2,395	5,055	9,834	17,199

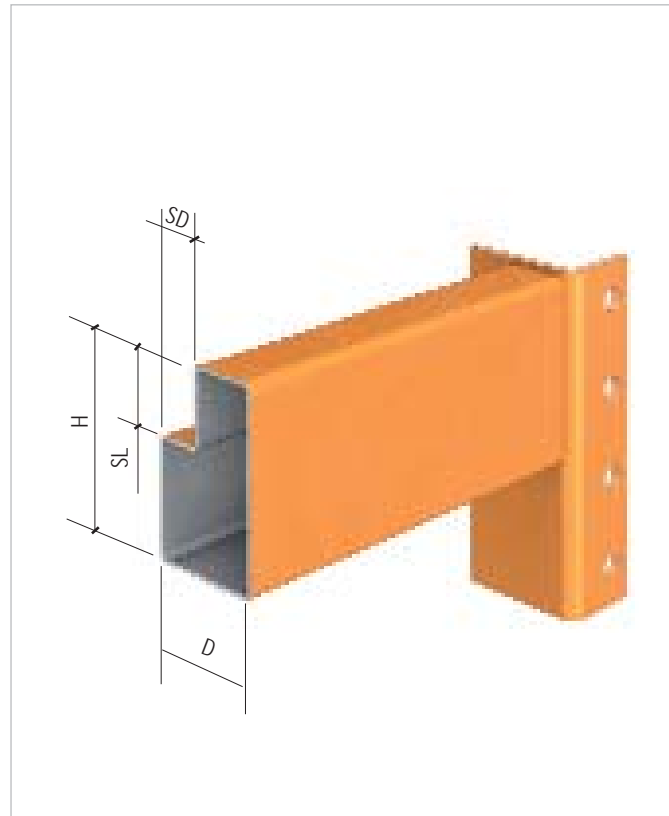
All capacities are per pair of beams based on uniformly distributed loads.
 Deflections are limited to L/180.
 The load is given in lbs.

Roll Form Beams

- Horizontal roll form steel components of the storage system on which loads are stored.
- Beams are attached to the frames with (4) bolts W1/2" x1, (2) per connector.
- Economical alternative to the traditional structural beams.

STEP BEAM DIMENSIONS

TYPE	H(in)	D(in)	SD(in)	SL(in)
STC 717	2 3/4	2 1/2	1	1 5/8
STC817	3 1/8	2 1/2	1	1 5/8
STC9517	3 3/4	2 1/2	1	1 5/8
STC1017	4	2 1/2	1	1 5/8
STC1117	4 1/2	2 1/2	1	1 5/8
STC1218	5	2 1/2	1	1 5/8



LOADING TABLE PER PAIR BEAMS (Lb) / STEP BEAM CAPACITY IN LBS

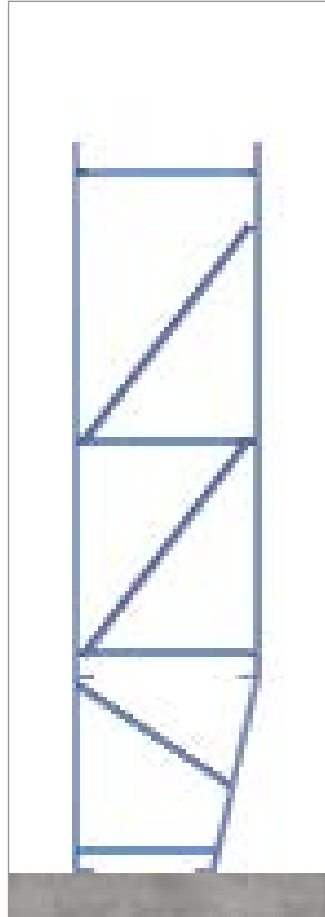
Length (in)	STC 717	STC 817	STC 9517	STC 1017	STC 1117	STC 1218	STC 1315	STC 1515	STC 1618
48"	5,200	6,350	8,140	8,990	10,550	14,320	15,410	16,000	16,000
54"	4,670	5,700	7,290	8,050	9,410	12,810	13,690	16,000	16,000
60"	4,250	5,190	6,610	7,290	8,500	11,600	12,310	15,110	16,000
66"	3,910	4,760	6,050	6,670	7,750	10,610	11,180	13,730	16,000
72"	3,620	4,410	5,590	6,160	7,130	9,790	10,240	12,570	16,000
78"	3,230	4,110	5,200	5,720	6,600	9,090	9,450	11,600	15,690
84"	2,820	3,840	5,400	5,940	6,830	9,420	9,420	11,570	15,650
90"	2,490	3,380	4,910	5,580	6,400	8,850	8,780	10,790	14,600
96"	2,210	3,010	4,350	5,050	6,020	8,340	8,230	10,110	13,680
102"	1,980	2,690	3,880	4,510	5,650	7,900	7,740	9,510	12,870
108"	1,790	2,430	3,490	4,050	5,060	7,500	7,300	8,970	12,150
114"	1,630	2,200	3,160	3,670	4,560	7,040	6,910	8,500	11,500
120"	1,480	2,010	2,870	3,330	4,130	6,400	6,420	7,890	10,680
126"	1,360	1,840	2,630	3,050	3,760	5,840	6,110	7,510	10,170
132"	1,250	1,700	2,410	2,800	3,440	5,360	5,830	7,160	9,700
138"	1,160	1,570	2,220	2,580	3,160	4,930	5,570	6,850	9,280
144"	1,080	1,460	2,060	2,380	2,910	4,560	5,330	6,560	8,890

All capacities are per pair of beams based on uniformly distributed loads.
 Deflections are limited to L/180.
 The load is given in lbs.

Complements

Cant leg upright

- A structural steel component that can be used in areas of high traffic and can be used to reduce forklift damage.
- Allows easier access to floor level pallets.
- Allows for a reduced risk of impact damage to the front post.



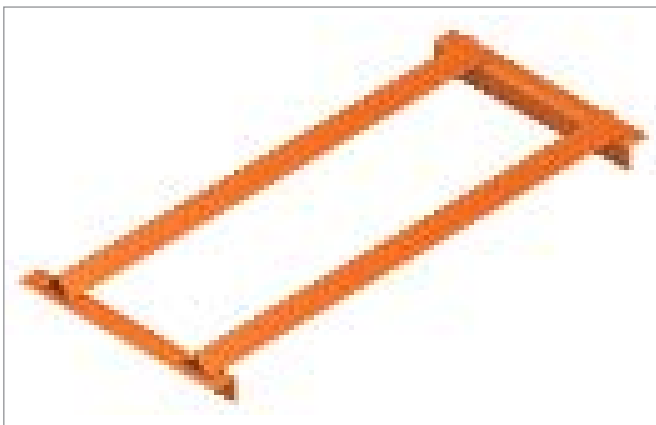
Double column impact reinforcement

- A structural steel component that can be used in areas of high truck traffic, to support tunnel bays and in areas where greater impact resistance is needed.
- Compact design, saves aisle space while providing double strength.



2L Cylinder support

This set is made up of two L-shaped profiles joined by two front profiles which form a cradle frame enabling the cylinder to be correctly placed. They are fitted laterally across the beams.



Roll form pallet supports

These are fitted perpendicularly to the beams and are used to provide support to pallets when they are placed on the rack with the lower stringers parallel to the beams. Two are needed for each pallet.

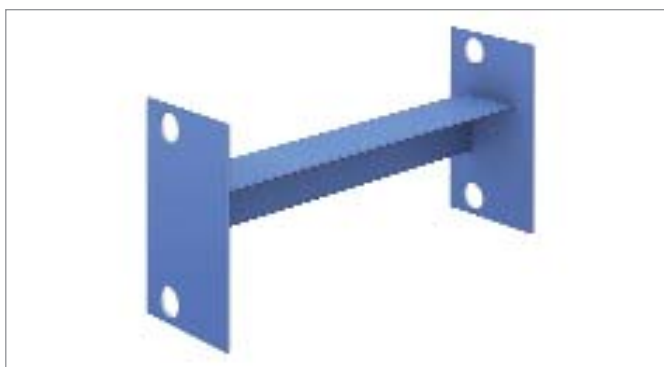


Fork entry pallet supports

These are used when goods are stored without pallet support or dunnage.



Row Spacer



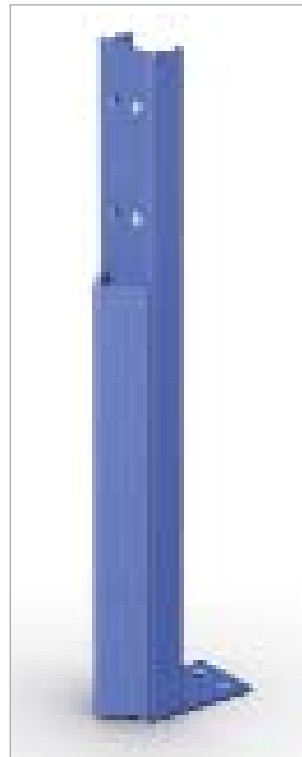
Skid channel



Flanged Support Bar



Deflector Angle



Upright-frame protector

Each type of upright has its own type of protector or guard. They are 16" high and come with 4 anchor bolts to fix them to the floor. They are used to protect uprights from impact in facilities where fork-lift trucks operate.

