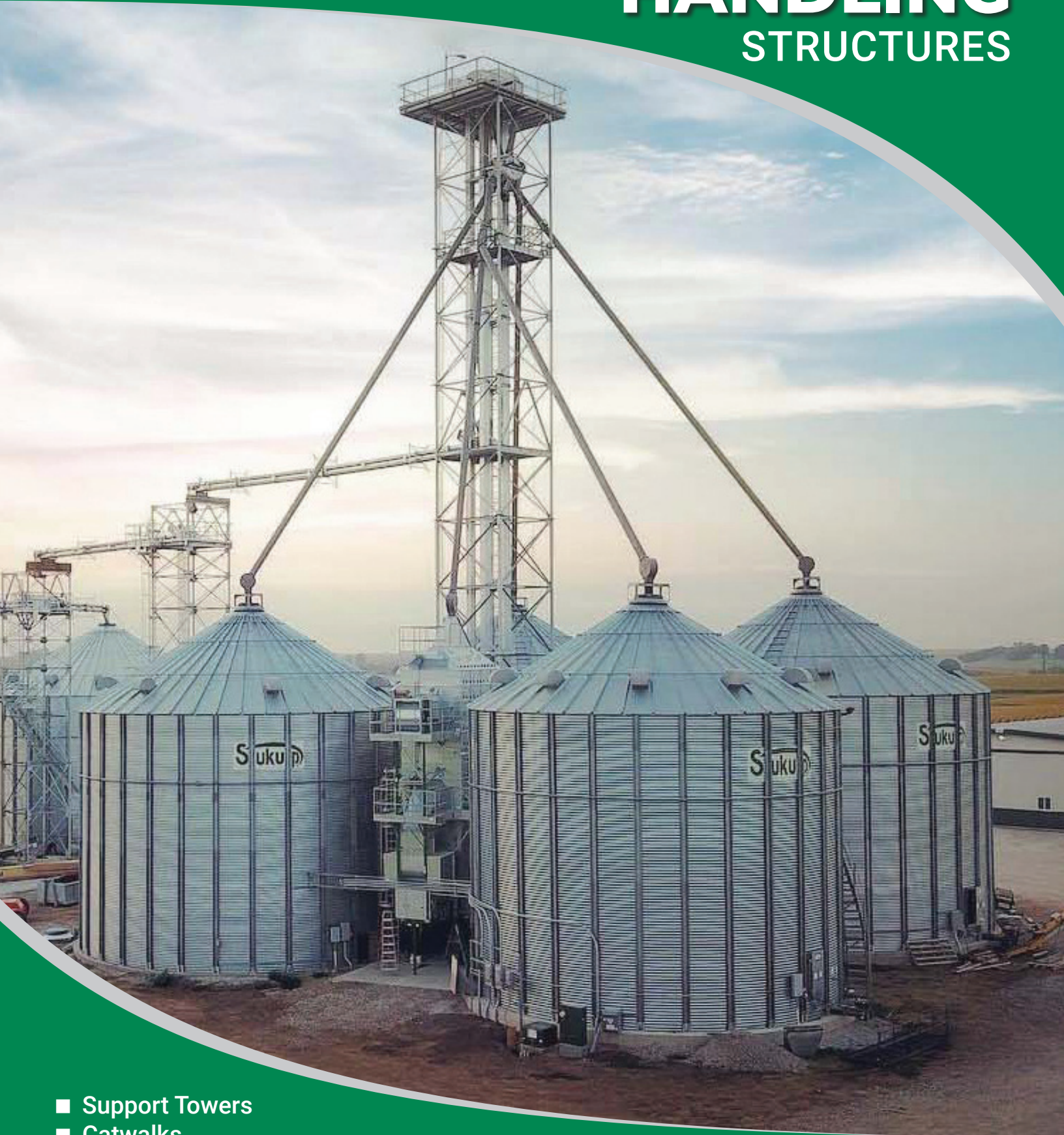




# MATERIAL HANDLING STRUCTURES



- Support Towers
- Catwalks
- Sub-structures



# SUPPORT TOWERS

Sukup® Leg Support Towers are an excellent choice for supporting bucket elevators. Towers eliminate the need for guying cables that clutter your facility and eat up valuable real estate.

In addition to providing the lateral support for the elevator legs, the towers can be designed to support bulk weighers, cleaners, and distributors – either inside or outside the tower.

## STANDARD FEATURES

- Hot-dipped galvanized finish
- Heavy duty ASTM A325 hardware
- Knock-down design for economical shipping
- Modules available in 20', 10', and 5' sections; Producing tower heights in increments of 5'
- Site specific and computer engineered, strength-staged for wind, seismic, cleaner, catwalk and other loads. Robust design based on ASCE 7-10
- A-Bracing on 14' x 14' and larger, X-Bracing on 12' x 12' and smaller

## OPTIONAL FEATURES

- Access bracing to accommodate spouting, catwalks, conveyors, etc.
- Easy fit stair design – wrap around or switch back
- Internal or external platforms
- Anchor rods or Cast-in-place anchors
- Tie back brackets for convenient bracing of leg to tower





# CATWALKS

## HANDRAIL TRUSS CATWALKS

- Welded tubular side construction; bolt in bottom
- Knock-down design for economical shipping
- Hot-dipped galvanized finish
- Standard 2' walkway; Full width expanded metal grating optional
- Four different series of catwalks available: SD, HD, XHD, XTD
- 4', 5', 6', 7', 8', and 9' wide for SD and HD series catwalks available
- Up to 12' wide for XHD and XTD series catwalks available
- 5', 8', 9', 10', and 20' sections available. Bolt together different combinations of sections to provide overall catwalk lengths in increments of 1', starting at 13'
- The patented pocketed floorbeam connection on the SD and HD series provides a strong solid connection and results in quick and easy assembly

Catwalk Floorbeam Connection System  
Patent No. 10,95,584



## CATWALK SUPPORT TOWERS

### STANDARD FEATURES

- Two-leg and four-leg support towers available
- Hot-dipped galvanized finish
- Heavy duty ASTM A325 hardware
- Knock-down design for economical shipping
- Modules available in 5', 6', 7', 10', and 20' sections producing tower heights in increments of 1'

### OPTIONAL FEATURES

- Tie back bracing to bin stiffeners for two-leg towers
- Internal bracing for four-leg towers





# SUB-STRUCTURES

## FOR HOPPER BIN LOADOUTS

Sub-structures are a great tool to support hopper bins to quickly load out trucks and keep your operation running efficiently. Sub-structures provide 15' of vertical clearance allowing for easy, worry free accessibility.

### Available for:

- 15' and 18' diameter **medium duty** hopper bins with 45° and 60° hoppers up to 7 rings tall
- 15', 18', and 21' diameter **heavy duty** hopper bins with 45° and 60° hoppers up to 12 rings tall
- 24' diameter **heavy duty** hopper bins with 45° hoppers up to 12 rings tall

# STANDARD FEATURES

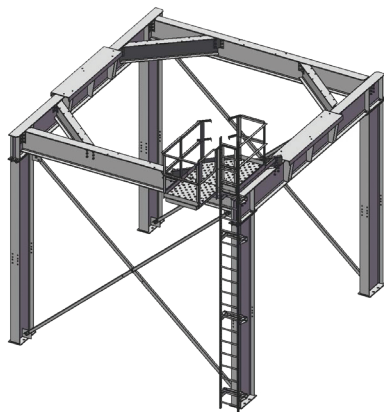
- Designed in accordance with AISC360-10 and ASCE7-10
- Hot-dipped galvanized steel construction; ASTM A325 structural hardware
- Standard 15' vertical clearance

# OPTIONAL FEATURES

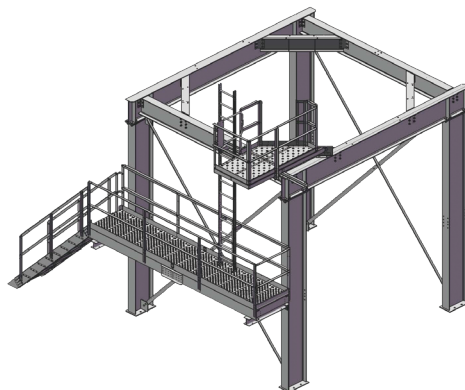
- Corner platform with ladder from ground (not available with viewing platform)
- Corner platform with ladder from viewing platform
- Custom structures by request



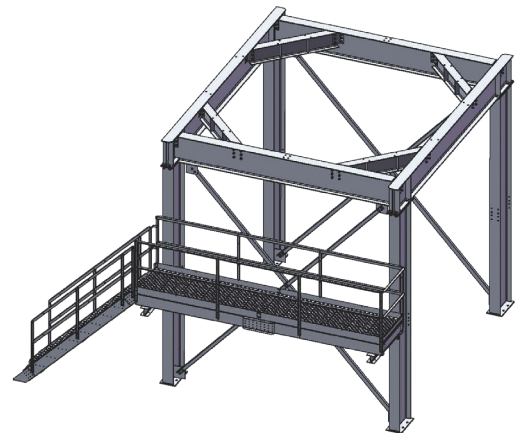
MOST ECONOMICAL OFFERINGS					
MODEL NUMBER	MD	HD	SINGLE UNITS	DOUBLE UNITS	VERTICAL CLEARANCE
1505	✓	✓	✓		15'
1507	✓	✓	✓		15'
1510		✓	✓		15'
1512		✓	✓		15'
1805	✓	✓	✓	✓ (HD ONLY)	15'
1807	✓	✓	✓		15'
1810		✓	✓		15'
2105		✓	✓	✓	15'
2107		✓	✓		15'



Ladder from ground



Ladder from viewing platform



Viewing platform only

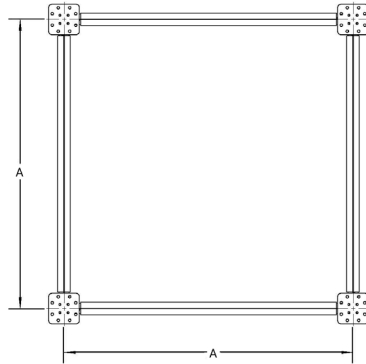


# SUPPORT TOWER SPECIFICATIONS

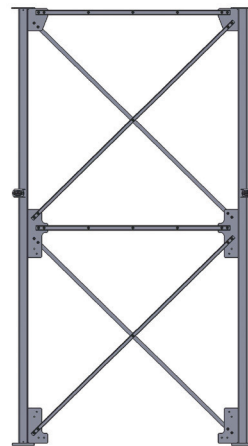
## FOOTPRINT

Standard square footprints:  
8' square to 20' square in 2' increments

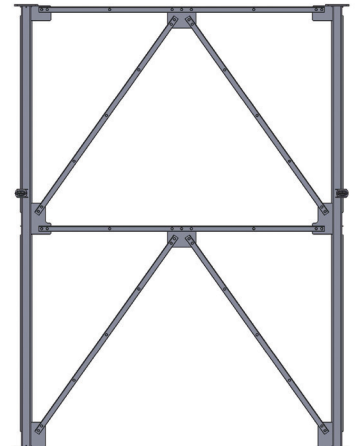
TOWER SIZE	DIMENSION A
8x8	8'
10x10	10'
12x12	12'
14x14	14'
16x16	16'
18x18	18'
20x20	20'



## BRACING



**X-Brace**  
on 8'-12' face widths



**A-Brace**  
on 14'-20' face widths

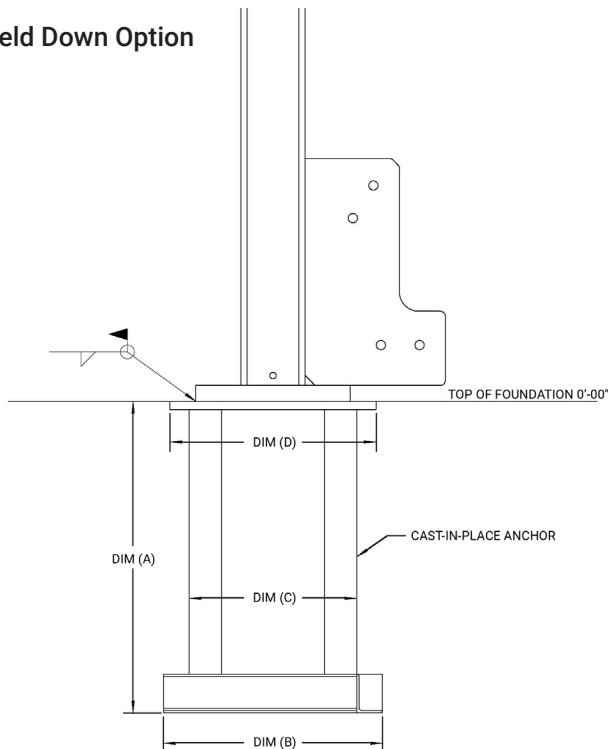
## ANCHORING TOWER

TOWER SIZE	WELD DOWN	ANCHOR RODS
8x8	A	A
10x10	A	A
12x12	C	A
14x14	C	A
16x16	N/A	A
18x18	N/A	A
20x20	N/A	A

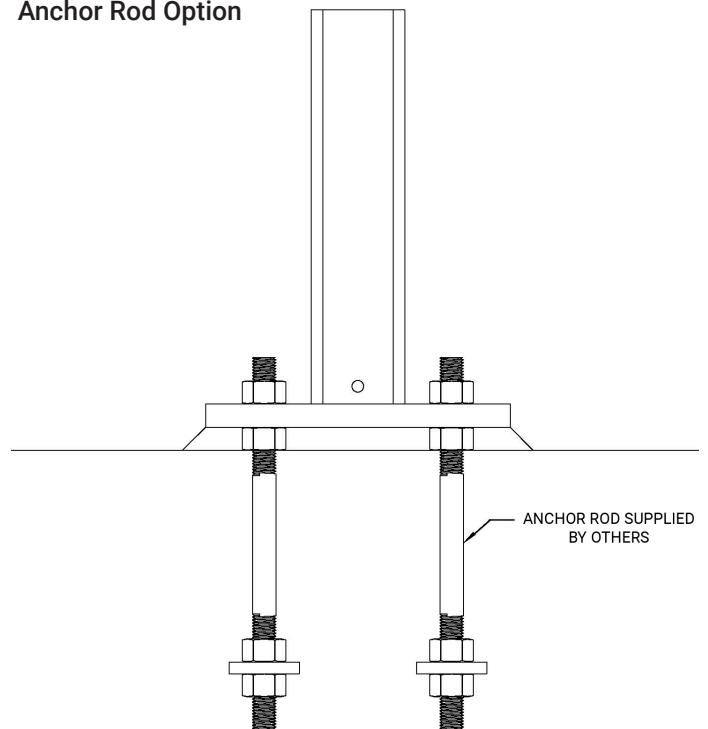
A= available  
C= call for availability  
N/A= not available

ANCHOR	DIM. A	DIM. B	DIM. C	DIM. D
BT10301	24 <sup>3</sup> / <sub>16</sub> "	17"	13"	16"
BT10300	36 <sup>3</sup> / <sub>8</sub> "	18"	12"	16"
BT12301	47 <sup>3</sup> / <sub>4</sub> "	16 <sup>1</sup> / <sub>2</sub> "	16 <sup>1</sup> / <sub>2</sub> "	17 <sup>1</sup> / <sub>4</sub> "
BT12300	48"	16 <sup>1</sup> / <sub>2</sub> "	16 <sup>1</sup> / <sub>2</sub> "	17 <sup>1</sup> / <sub>4</sub> "

### Weld Down Option



### Anchor Rod Option

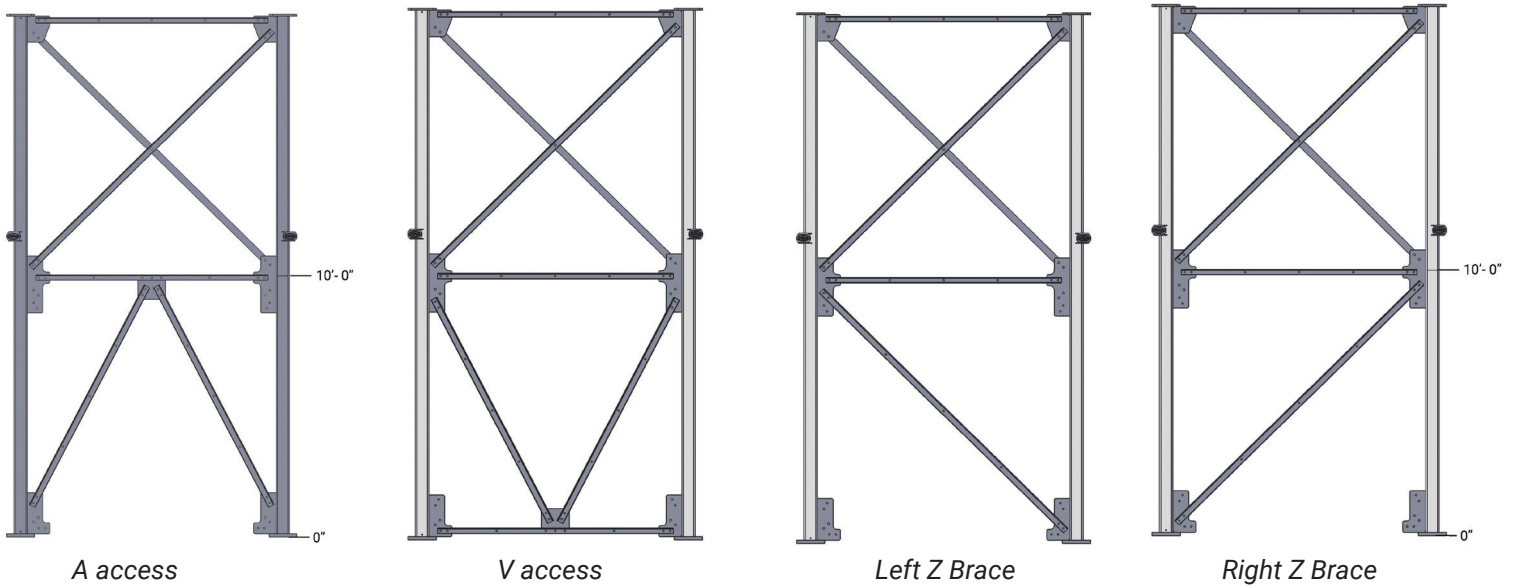




# SUPPORT TOWER SPECIFICATIONS

## BOTTOM SECTION ACCESS BRACING

Access braces allow access through the side of the tower from 0 to 10' for equipment such as Hy-Flights, conveyors, augers, etc.



TOWER SIZE	ACCESS BRACE		
	A-BRACE	V-BRACE	Z-BRACE
8x8	A	A	A
10X10	A	A	A
12X12	A	A	A
14X14	A	*	*
16X16	A	*	*
18X18	A	*	*
20X20	A	*	*

A= available

\*= Towers 14' and wider come standard with A bracing. It will accommodate most equipment. However, if alternate bracing is required, contact Sukup Manufacturing Co.

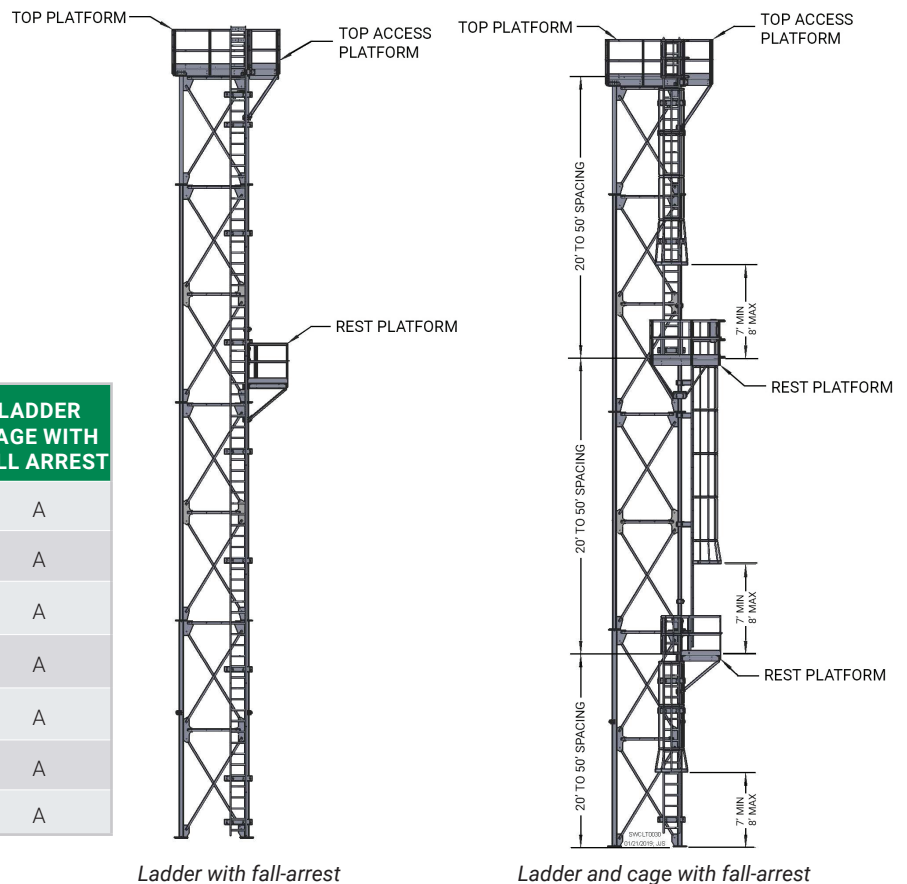
Contact Sukup Manufacturing Co. if custom access not shown above is required.

## CLIMBING PACKAGES

TOWER SIZE	SWITCHBACK STAIRS	WRAPAROUND STAIRS	LADDER WITH FALL ARREST	LADDER CAGE WITH FALL ARREST
8x8	N/A	A	A	A
10X10	A	A	A	A
12X12	A	A	A	A
14X14	A	A	A	A
16X16	A	A	A	A
18X18	A	A	A	A
20X20	A	A	A	A

A= available

N/A= not available

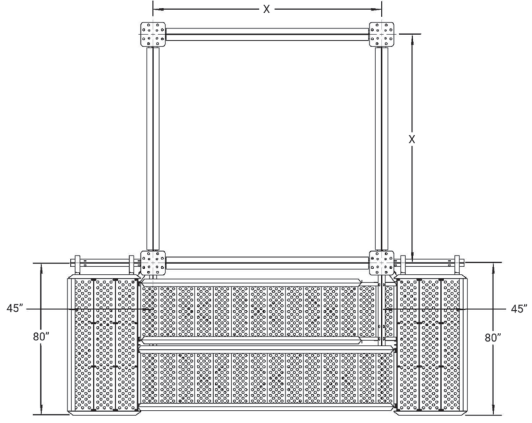
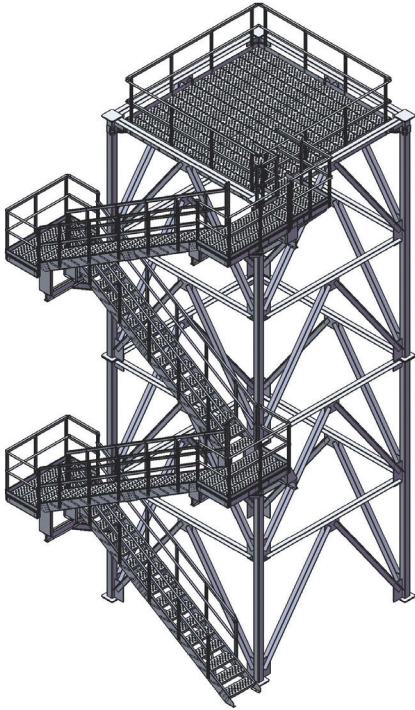


Ladder with fall-arrest

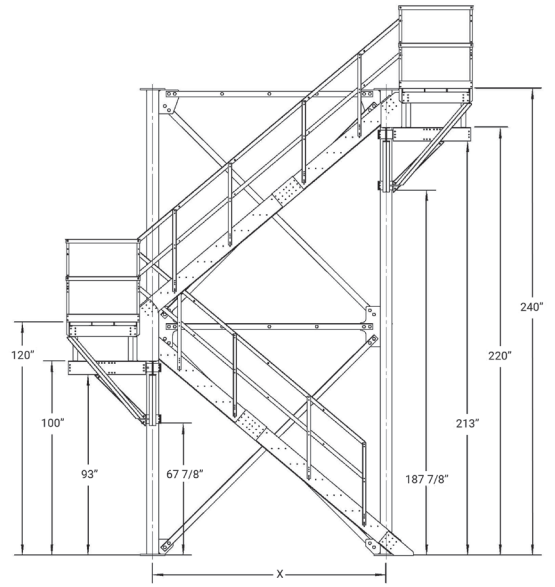
Ladder and cage with fall-arrest



# SWITCHBACK STAIRS

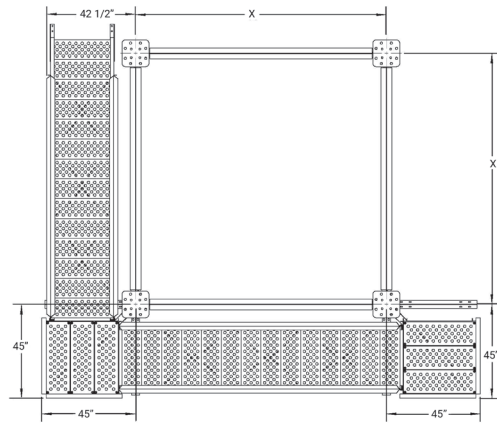
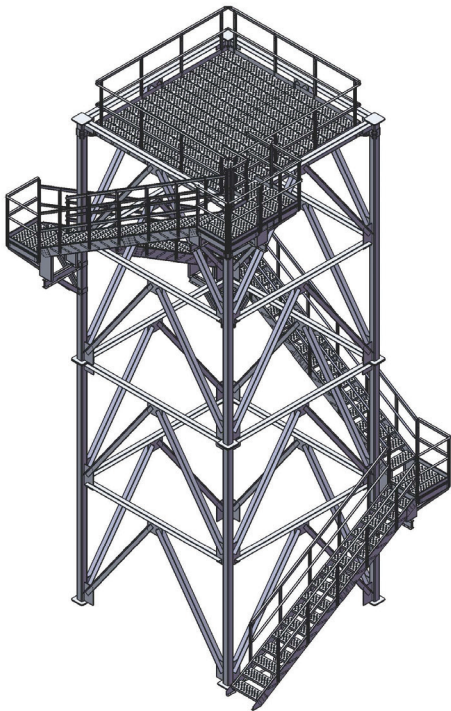


Top Dimensions

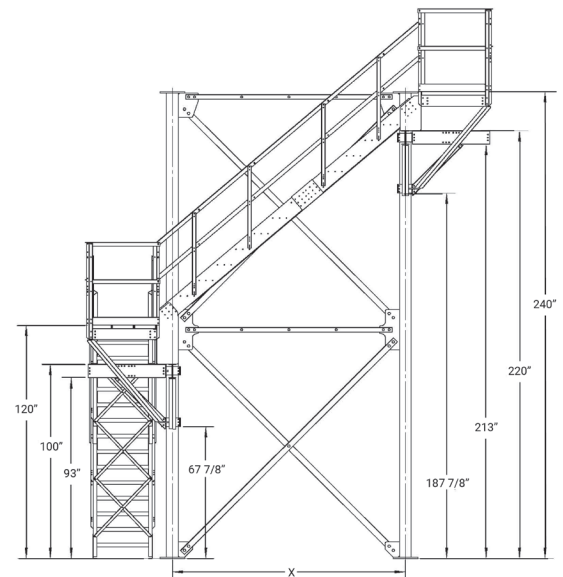


Side Dimensions

# WRAPAROUND STAIRS



Top Dimensions



Side Dimensions



# SUPPORT TOWER SPECIFICATIONS

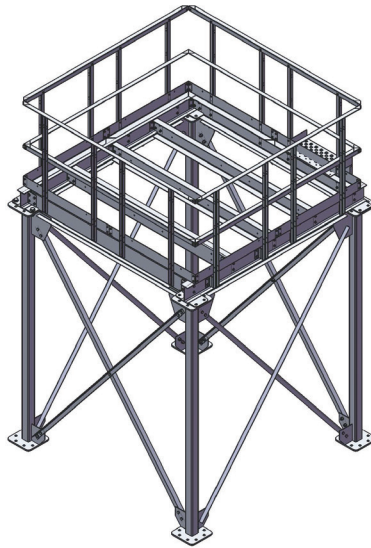
## TOP PLATFORMS

- Top platforms provide a work platform to service the bucket elevator head
- Top platforms are designed for personnel loading only; No equipment loads allowed
- Note: Discharge height of bucket elevator must be 1' taller than height of tower when using top platforms

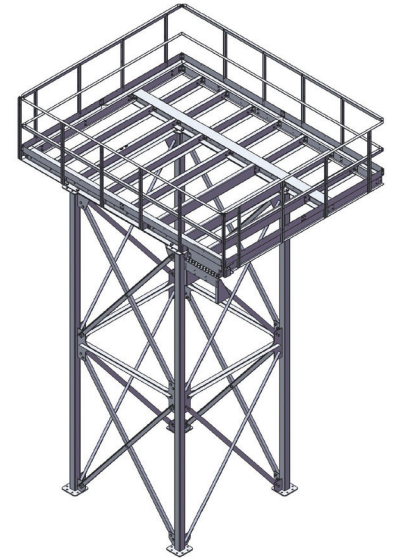
TOWER SIZE	STANDARD	OVERSIZED
8x8	A	A
10X10	A	A
12X12	A	A
14X14	A	A
16X16	A	*
18X18	A	*
20X20	A	*

A= available

\*= A standard platform is sufficient in most instances. If larger platform is required, contact Sukup Manufacturing Co.

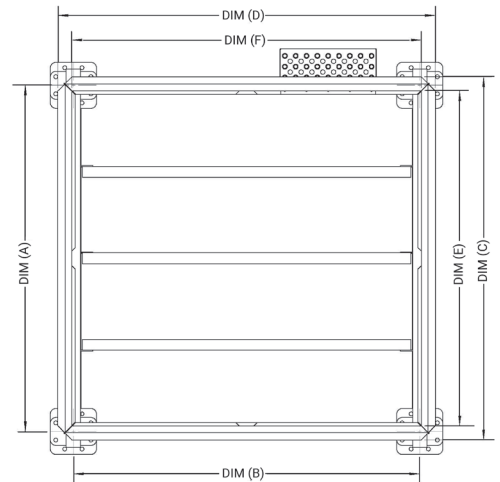


Standard Top Platform



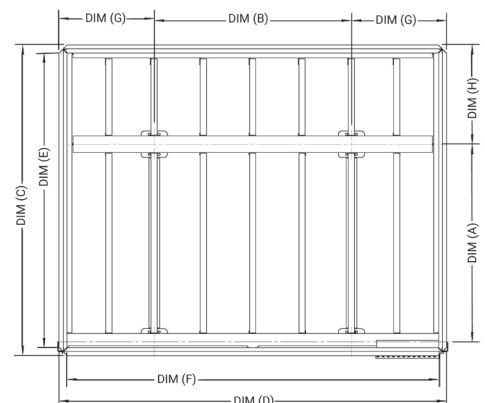
Oversized Top Platform

TOWER SIZE		OUTSIDE TO OUTSIDE		INSIDE TO INSIDE	
DIM (A)	DIM (B)	DIM (C)	DIM (D)	DIM (E)	DIM (F)
8'	8'	100 9/16"	104 1/2"	93 1/8"	97 1/16"
10'	10'	124 9/16"	128 1/2"	117 1/8"	121 1/16"
12'	12'	148 9/16"	152 1/2"	141 1/8"	145 1/16"
14'	14'	172 9/16"	176 1/2"	165 1/8"	169 1/16"
16'	16'	196 9/16"	200 1/2"	189 1/8"	193 1/16"
18'	18'	220 9/16"	224 1/2"	213 1/8"	217 1/16"
20'	20'	244 9/16"	248 1/2"	237 1/8"	241 1/16"



Standard Top Platform

TOWER SIZE		OUTSIDE TO OUTSIDE		INSIDE TO INSIDE		OVERHANG	
DIM (A)	DIM (B)	DIM (C)	DIM (D)	DIM (E)	DIM (F)	DIM (G)	DIM (H)
8'	8'	151 1/16"	188 5/8"	143 5/16"	180 15/16"	46 5/16"	48 5/16"
10'	10'	175 1/16"	212 5/8"	167 5/16"	204 15/16"	46 5/16"	48 5/16"
12'	12'	199 1/16"	236 5/8"	191 5/16"	228 15/16"	46 5/16"	48 5/16"
14'	14'	223 1/16"	260 5/8"	215 5/16"	252 15/16"	46 5/16"	48 5/16"



Oversized Top Platform

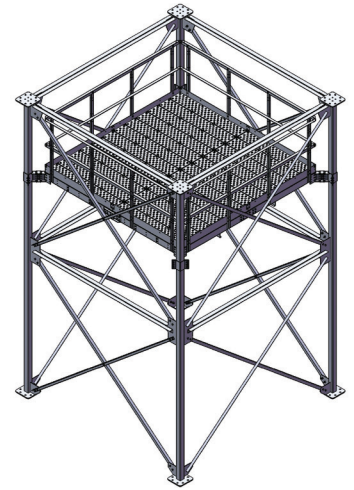


## INTERNAL ADJUSTABLE SERVICE PLATFORMS

- Provides a work platform to service bucket elevator head, distributor, valves, etc.
- Internal adjustable platforms are designed for personnel loading only; No equipment loads allowed
- Clamps to HSS tower columns
- Adjustable elevation

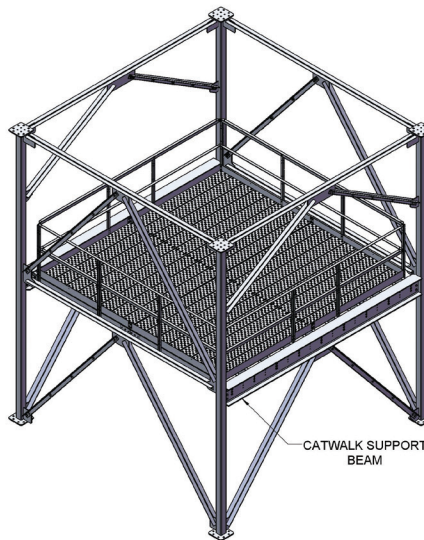
TOWER SIZE	AVAILABILITY	INSIDE DIMS.*
8x8	✓	79 5/8" X 79 5/8"
10X10	✓	103 5/8" X 103 5/8"
12X12	✓	127 5/8" X 127 5/8"
14X14	✓	151 5/8" X 151 5/8"
16X16		
18X18		
20X20		

\*= Dimension between guardrails



## STATIONARY PLATFORMS

- Used to support equipment loads such as catwalks and double runs
- Fixed elevations in 5' increments, e.g. 100', 105', 110'
- Available for all tower sizes



Stationary Platform



Cantilever Platform

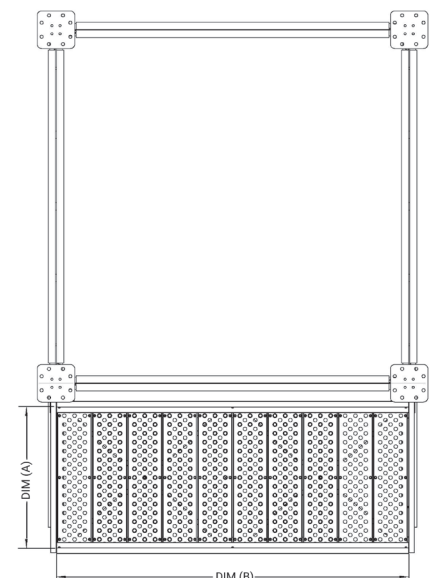
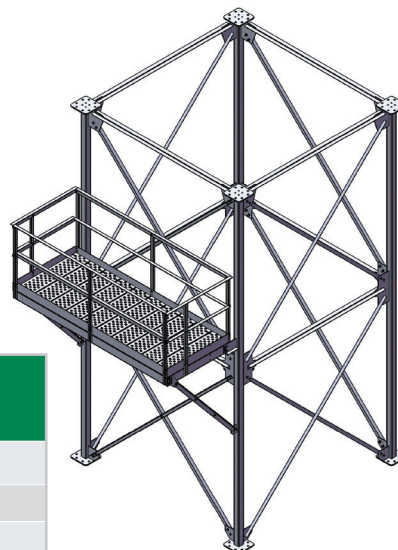
## CANTILEVER PLATFORMS

- Used to land catwalks and double runs outside the tower
- Fixed elevations in 5' increments, e.g. 100', 105', 110'
- Available for all tower sizes

## EXTERNAL SERVICE PLATFORMS

- Mounts below distributor to provide an external work platform to service distributor and valves
- Designed for personnel loading only, no equipment loads allowed
- Field weld mounting plates at desired elevation
- Available in 4', 5', & 6' depths up to 14'x14' towers

PLATFORM DEPTH	DIM A	DIM B*
4'	4'	Tower face width
5'	5'	Tower face width
6'	6'	Tower face width



\* Up to 14x14 towers. Contact Sukup for larger tower size.

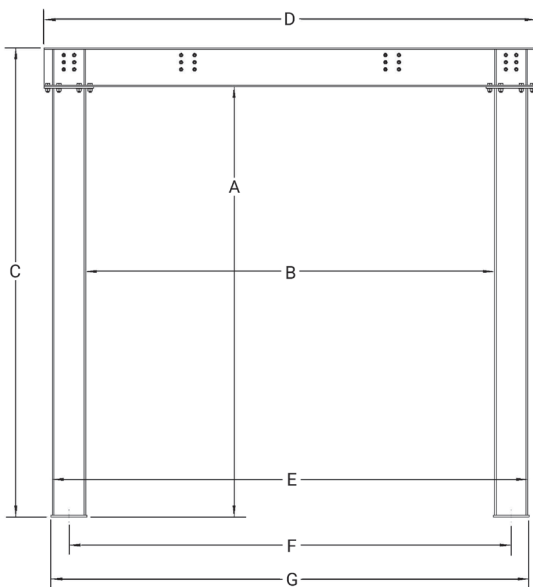


# MEDIUM DUTY (MD) HOPPER BIN SUB-STRUCTURE SPECIFICATIONS

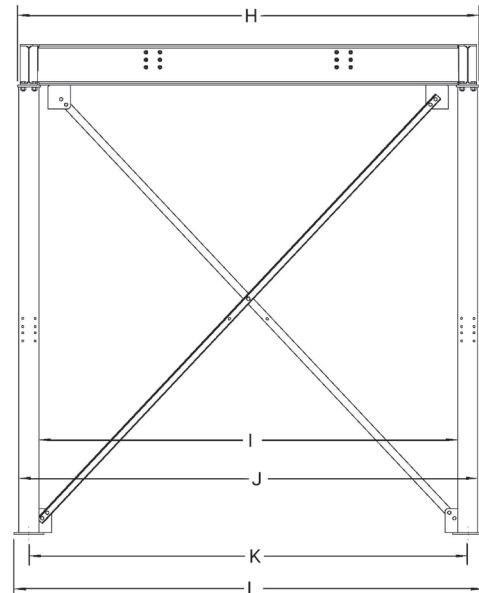
- Available for 15' and 18' diameter hopper bins with 45° and 60° hoppers up to 7 rings tall
- 15' vertical clearance

MODEL NUMBER	BIN DIA.	MAX NO. OF RINGS	HOPPER ANGLE	SEISMIC RATING	A	B	C	D	E	F
SSM1505A01	15'	5	45°, 60°	A	15'	13' 3 1/2"	16' 8 13/16"	17' 3 3/4"	16' 8 3/4"	15' 1/8"
SSM1505B01	15'	5	45°, 60°	B	15'	13' 3 1/2"	16' 8 13/16"	17' 3 3/4"	16' 8 3/4"	15' 1/8"
SSM1507A01	15'	7	45°, 60°	A	15'	13' 3 3/8"	16' 8 15/16"	17' 3 5/8"	16' 8 7/8"	15' 1/8"
SSM1507B01	15'	7	45°, 60°	B	15'	13' 3 1/8"	16' 9 3/16"	17' 3 3/4"	16' 9 1/8"	15' 1/8"
SSM1805A01	18'	5	45°, 60°	A	15'	16' 1 7/8"	17' 3/16"	20' 8 1/2"	20' 1 3/8"	18' 1 5/8"
SSM1805B01	18'	5	45°, 60°	B	15'	16' 1 7/8"	17' 3/16"	20' 8 1/2"	20' 1 3/8"	18' 1 5/8"
SSM1807A01	18'	7	45°, 60°	A	15'	16' 1 3/4"	17' 9/16"	20' 8 5/8"	20' 1 1/2"	18' 1 5/8"
SSM1807B01	18'	7	45°, 60°	B	15'	15" 10 7/8"	17' 3 3/16"	20' 11 7/8"	24' 4 3/8"	18' 1 5/8"

MODEL NUMBER	BIN DIA.	MAX NO. OF RINGS	HOPPER ANGLE	SEISMIC RATING	G	H	I	J	K	L
SSM1505A01	15'	5	45°, 60°	A	16' 11 1/8"	16' 7 7/16"	14' 7 1/16"	15' 11 5/16"	15' 3 3/16"	16' 3 3/16"
SSM1505B01	15'	5	45°, 60°	B	16' 11 1/8"	16' 7 7/16"	14' 7 1/16"	15' 11 5/16"	15' 3 3/16"	16' 3 3/16"
SSM1507A01	15'	7	45°, 60°	A	16' 11 1/8"	16' 3/16"	14' 6 15/16"	15' 11 7/16"	15' 3 3/16"	16' 3 3/16"
SSM1507B01	15'	7	45°, 60°	B	16' 11 1/8"	16' 3/16"	14' 6 15/16"	15' 11 7/16"	15' 3 3/16"	16' 3 3/16"
SSM1805A01	18'	5	45°, 60°	A	20' 3 5/8"	18' 9 9/16"	17' 2 9/16"	18' 8 9/16"	17' 11 9/16"	18' 11 9/16"
SSM1805B01	18'	5	45°, 60°	B	20' 3 5/8"	18' 9 9/16"	17' 2 9/16"	18' 8 9/16"	17' 11 9/16"	18' 11 9/16"
SSM1807A01	18'	7	45°, 60°	A	20' 3 5/8"	18' 9 9/16"	17' 2 9/16"	18' 8 9/16"	17' 11 9/16"	18' 11 9/16"
SSM1807B01	18'	7	45°, 60°	B	20' 6 1/8"	18' 10 9/16"	17' 1 9/16"	18' 8 9/16"	17' 11 9/16"	18' 11 9/16"



Front



Side

# HEAVY DUTY (HD) HOPPER BIN SUB-STRUCTURE SPECIFICATIONS

- Available for 15', 18', and 21' diameter hopper bins with 45° and 60° hoppers up to 12 rings tall
- Available for 24' diameter hopper bins with 45° hoppers up to 12 rings tall
- 15' vertical clearance

MODEL NUMBER	BIN DIA.	MAX NO. OF RINGS	HOPPER ANGLE	SEISMIC RATING	A	B	C	D	E	F
SSH1505A01	15'	5	45°, 60°	A	15'	13' 8 1/16"	16' 8 5/8"	17' 8 1/4"	17' 1 5/16"	15' 4 11/16"
SSH1505B01	15'	5	45°, 60°	B	15'	13' 8 1/16"	16' 8 5/8"	17' 8 1/4"	17' 1 5/16"	15' 4 11/16"
SSH1507A01	15'	7	45°, 60°	A	15'	13' 7 15/16"	16' 8 5/8"	17' 8 1/4"	17' 1 7/16"	15' 4 11/16"
SSH1507B01	15'	7	45°, 60°	B	15'	13' 7 15/16"	16' 9"	17' 8 1/4"	17' 1 7/16"	15' 4 11/16"
SSH1510A01	15'	10	45°, 60°	A	15'	13' 4 15/16"	16' 11 3/4"	17' 11 9/16"	17' 4 7/16"	15' 4 11/16"
SSH1512A01	15'	12	45°, 60°	A	15'	13' 4 15/16"	16' 11 7/8"	17' 11 11/16"	17' 4 7/16"	15' 4 11/16"
SSH1805A01	18'	5	45°, 60°	A	15'	16' 0"	16' 9 1/8"	20' 1 1/2"	19' 6"	17' 9"
SSH1805B01	18'	5	45°, 60°	B	15'	15' 9 1/4"	16' 11 3/4"	20' 4 1/8"	19' 8 3/4"	17' 9"
SSH1807A01	18'	7	45°, 60°	A	15'	15' 9 1/4"	16' 11 7/8"	20' 4"	19' 8 3/4"	17' 9"
SSH1807B01	18'	7	45°, 60°	B	15'	15' 6 1/4"	17' 2 3/4"	20' 7 1/4"	19' 11 3/4"	17' 9"
SSH1810A01	18'	7	45°, 60°	A	15'	15' 6 1/4"	17' 2 7/8"	20' 7 1/4"	19' 11 3/4"	17' 9"
SSH2105A01	21'	5	45°	A	15'	19' 1 9/16"	17' 2 3/4"	24' 2 1/2"	23' 7 1/16"	21' 5/16"
SSH2107A01	21'	7	45°	A	15'	18' 10 13/16"	17' 5 1/2"	24' 5 5/16"	23' 9 13/16"	21' 4 5/16"

MODEL NUMBER	BIN DIA.	MAX NO. OF RINGS	HOPPER ANGLE	SEISMIC RATING	G	H	I	J	K	L
SSH1505A01	15'	5	45°, 60°	A	17' 3 11/16"	15' 4 7/8"	13' 11 1/2"	15' 3 3/4"	14' 7 5/8"	15' 7 5/8"
SSH1505B01	15'	5	45°, 60°	B	17' 3 11/16"	15' 4 7/8"	13' 11 1/2"	15' 3 3/4"	14' 7 5/8"	15' 7 5/8"
SSH1507A01	15'	7	45°, 60°	A	17' 3 11/16"	15' 4 7/8"	13' 11 3/8"	15' 3 7/8"	14' 7 5/8"	15' 7 5/8"
SSH1507B01	15'	7	45°, 60°	B	17' 3 11/16"	15' 4 7/8"	13' 11 3/8"	15' 3 7/8"	14' 7 5/8"	15' 7 5/8"
SSH1510A01	15'	10	45°, 60°	A	17' 6 7/16"	15' 5 5/8"	13' 10 5/8"	15' 4 5/8"	14' 7 5/8"	15' 7 5/8"
SSH1512A01	15'	12	45°, 60°	A	17' 6 7/16"	15' 5 5/8"	13' 10 5/8"	15' 4 5/8"	14' 7 5/8"	15' 7 5/8"
SSH1805A01	18'	5	45°, 60°	A	19' 8"	18' 6 1/4"	17' 3/4"	18' 5 1/4"	17' 9"	18' 9"
SSH1805B01	18'	5	45°, 60°	B	19' 11"	18' 7"	17' 0"	18' 6"	17' 9"	18' 9"
SSH1807A01	18'	7	45°, 60°	A	19' 11"	18' 7"	17' 0"	18' 6"	17' 9"	18' 9"
SSH1807B01	18'	7	45°, 60°	B	20' 1 1/2"	18' 8"	16' 11"	18' 7"	17' 9"	18' 9"
SSH1810A01	18'	7	45°, 60°	A	20' 1 1/2"	18' 8"	16' 11"	18' 7"	17' 9"	18' 9"
SSH2105A01	21'	5	45°	A	23' 8 13/16"	21' 8 7/8"	19' 11 7/8"	21' 7 7/8"	20' 9 7/8"	21' 10 3/8"
SSH2107A01	21'	7	45°	A	21' 4 5/16"	21' 9 1/4"	19' 11 1/2"	21' 8 1/4"	20' 9 7/8"	21' 10 3/8"

Not all available sub-structures are listed. If substructure is not listed, dimensions have yet to be determined and will be determined at time of order.

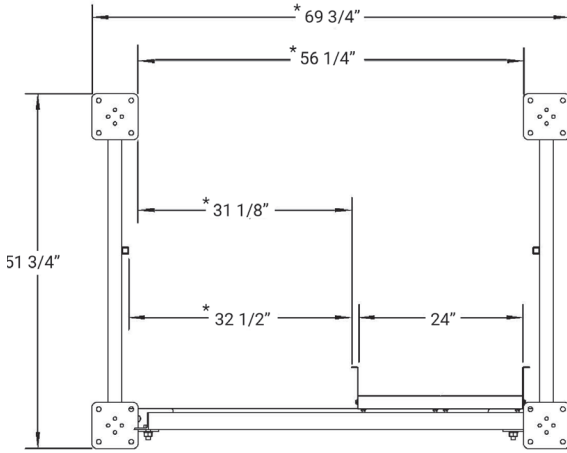
**Note:** Sukup Manufacturing Co. reserves the right to change dimensions at anytime without notice.



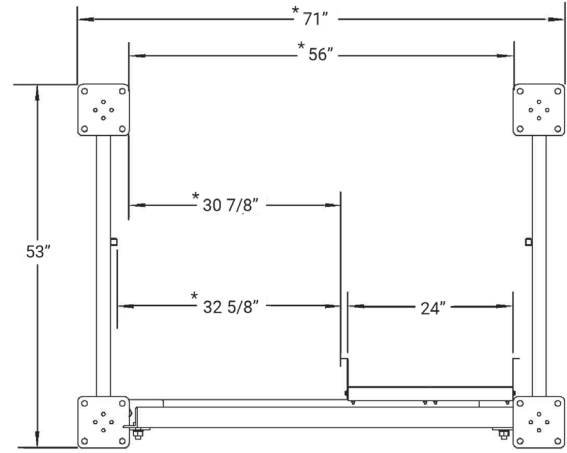
# CATWALK SPECIFICATIONS

- Specifications below are based on a 5' wide catwalk
- All dimensions with an \* will need to have 12" added for every 1' wider

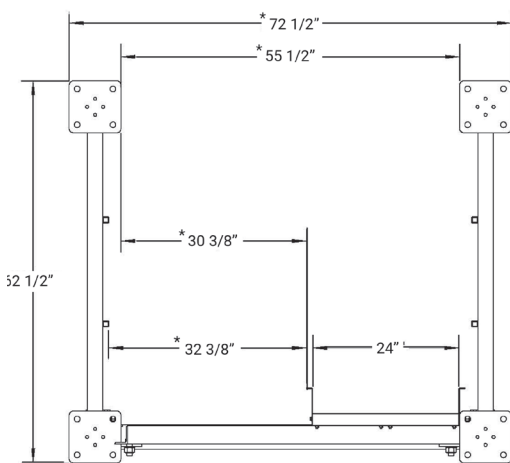
SERIES	4'	5'	6'	7'	8'	9'	10'	11'	12'
SD	✓	✓	✓	✓	✓	✓			
HD	✓	✓	✓	✓	✓	✓			
XHD	✓	✓	✓	✓	✓	✓	✓	✓	✓
XTD	✓	✓	✓	✓	✓	✓	✓	✓	✓



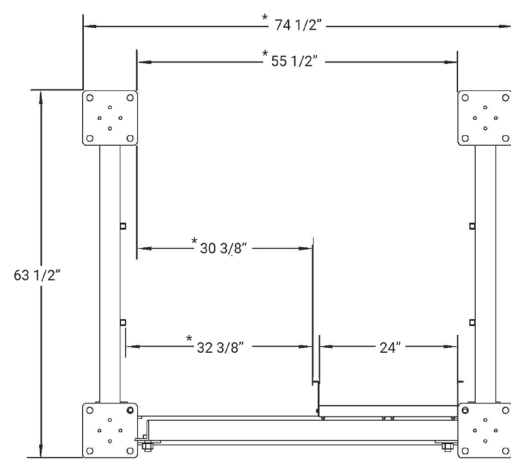
5' Wide SD



5' Wide HD



5' Wide XHD



5' Wide XTD



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