

Oshkosh AeroTech Jetway® Glass & Steel Truss Passenger Boarding Bridges



OSHKOSH™
AEROTECH

JETWAY SYSTEMS®
For the Perfect Turn

Glass & Steel Truss Bridge Technical Specifications

General Arrangements

The Oshkosh AeroTech Glass and Steel Truss Apron Drive Bridges are designed to extend from an elevated terminal departure lounge doorway to the aircraft boarding door enabling passengers to walk between the two protected from atmospheric conditions, aircraft engine blast, and blown dust.

The Apron Drive Bridge consists of the following (in order progressing from the terminal towards the aircraft):

- A. Rotunda and Corridor
- B. Tunnel Sections
- C. Drive Column
- D. Service Door, Landing
- E. Cab Bubble, Cab, and Aircraft Closure

Models

AeroTech offers a number of Glass and Steel Truss Apron Drive Bridge models. Models can be grouped into two categories:

- A. Two-Tunnel
- B. Three-Tunnel

Bridge models can dock to any commercial jet aircraft in operation today. The elevation of the rotunda (to match the height of the terminal departure doorway) and other factors affect the ability of any one bridge model to most appropriately serve a desired aircraft mix. For this reason, we suggest you discuss this matter with your Oshkosh AeroTech Representative.

Bridge models are determined by the measured length of the bridge from the center of the rotunda to the end of the cab spacer at full retraction and full extension. The AT2 46/65 model, for example, is a two tunnel Apron Drive measuring 46 feet at full retraction and 65 feet at full extension.

Two-Tunnel Models:

Model	Fully Extended	Fully Retracted	Travel	Operational Extension*	Operational Retraction*
AT2 41/55	55.000' (16.764m)	40.104' (12.224m)	14.496' (4.418m)	40.236' (12.264m)	32.302' (9.846m)
AT2 46/65	65.000' (19.812m)	45.104' (13.748m)	19.496' (5.942m)	50.236' (15.312m)	37.302' (11.370m)
AT2 51/75	75.000' (22.860m)	50.104' (15.272m)	24.496' (7.467m)	60.236' (18.360m)	42.302' (12.894m)
AT2 56/85	85.000' (25.908m)	55.104' (16.796m)	29.496' (8.990m)	70.236' (21.408m)	47.302' (14.418m)
AT2 61/95	95.000' (28.956m)	60.104' (18.320m)	34.496' (10.514m)	80.236' (24.456m)	52.302' (15.942m)
AT2 66/105	105.000' (32.004m)	65.104' (19.844m)	39.496' (12.038m)	90.236' (27.504m)	57.302' (17.466m)
AT2 72/116	116.000' (35.357m)	71.104' (21.673m)	44.496' (13.562m)	101.236' (30.857m)	63.302' (19.294m)
AT2 77/126	126.000' (38.405m)	76.104' (23.197m)	49.496' (15.086m)	111.236' (33.905m)	68.302' (20.818m)
AT2 82/136	136.000' (41.453m)	81.104' (24.721m)	54.496' (16.610m)	121.236' (36.953m)	73.302' (22.342m)
AT2 88/147	147.000' (44.806m)	87.104' (26.549m)	59.496' (18.134m)	132.236' (40.306m)	79.302' (24.171m)

Three-Tunnel Models:

Model	Fully Extended	Fully Retracted	Travel	Operational Extension*	Operational Retraction*
AT3 42/70	70.629' (21.528m)	41.015' (12.501m)	28.614' (8.722m)	55.766' (16.997m)	33.713' (10.276m)
AT3 47/85	85.629' (26.100m)	46.015' (14.025m)	38.614' (11.770m)	70.766' (21.569m)	38.713' (11.800m)
AT3 52/100	100.629' (30.672m)	51.015' (15.549m)	48.614' (14.818m)	85.766' (26.141m)	43.713' (13.324m)
AT3 58/116	116.629' (35.549m)	57.015' (17.378m)	58.614' (17.866m)	101.766' (31.018m)	49.713' (15.152m)
AT3 61/127	127.129' (38.749m)	60.515' (18.445m)	65.614' (19.999m)	112.266' (34.219m)	53.213' (16.219m)
AT3 65/133	133.629' (40.730m)	64.015' (19.512m)	68.614' (20.914m)	118.766' (36.200m)	56.713' (17.286m)
AT3 68/144	144.129' (43.931m)	67.515' (20.579m)	75.614' (23.047m)	129.266' (39.400m)	60.213' (18.353m)
AT3 72/150	150.629' (45.912m)	71.015' (21.645m)	78.614' (23.962m)	135.766' (41.381m)	63.713' (19.420m)

*Dimensions are measured from the center of the rotunda to the center of the cab pivot.

Design Parameters

Dimensional Characteristics: Minimum dimensions for all two-tunnel and three-tunnel Apron Drive Bridges:

Rotunda Interface	Width	4'4"	(1.32m)
	Height	7'7"	(2.31m)
Tunnels (Minimum "A" tunnel only)			
A. Floor Width		4'10"	(1.47m)
B. Interior Height		7'0"	(2.13m)
C. Interior Tunnel Ramp	Width	4'5"	(1.35m)
D. Interior Cab	Width	10'2"	(3.10m)
Cab Weather Door			
	Width	3'7"	(1.09m)
	Height	7'8"	(2.34m)

Service Door, Landing, and Stairs

A service door, landing, and stairs are situated at the end of the bridge to provide apron access. The right hand side of the cab bubble is standard. Other locations are available.

- A. Right-hand side of cab bubble (standard)
- B. Left-hand side of cab bubble
- C. Right-hand side of outboard telescoping tunnel aft of cab bubble
- D. Left-hand side of outboard telescoping tunnel aft of cab bubble

Self-Adjusting Stair Risers:

Minimum Tread	Width	2'4"	(0.71m)
Minimum Tread	Depth	9.5"	(0.24m)
Clear Width Between Handrails:		2'8"	(0.81m)
Door Opening	Width	2'6"	(0.76m)
	Height	6'7"	(2.01m)

Landing Illumination Outdoor Rated

Operational Characteristics

Rotunda swing	175° (87.5° cw/87.5° ccw of centerline)
Cab rotation	125° (92.5° cw/32.5° ccw) (optional 185° available)
Cab rotation speed	145° /min.
Vertical rate of travel/lift	3.5' /min. (1.09m /min.)
Horizontal rate of travel	0 to 90' /min. (0-27m/min.)

Environmental Characteristics

Bridge operations at temperatures from -40°F (-40°C) to 125°F (52°C) (May require selection of certain optional equipment.)



Interior Finish Characteristics (Standard)

Wall: Laminated phenolic plastic panels — 5'0" (1.52m) wide

Ceiling: Aluminum Planks — 0.032" (0.8mm) thick

Tunnel Floors: Carpeted and rubber flooring

Cab Floor: Ribbed Rubber — 0.188" (4.8mm) thick

Sub Floor: Marine Grade Plywood—0.75" (19mm) thick

Insulation: 1" (25mm) fiberglass above the ceiling (additional insulation available)

Interior Finish Options

- Steel Subfloors
- Aluminum Cab Floor
- Full Insulation R-14
- Floor Coverings

Exterior Finish Options

- Steel Panels
- Aluminum Panels
- Glass
- Galvannealed Panels
- 3 coat zinc prime system



Communications

Quantity of 3, CAT-6, 4-pair, 24 AWG communication cables with one routed to the Phone J-Box located on the left side of the control console and a 12-pair, 22 AWG, twisted, shielded cable, all standard on a AeroTech Passenger Boarding Bridge. Other communication cables installed as required.

Telephone, Ethernet, and Digital Output capable.

Additional Features

- Touch screen or push button control
- Point N' Go™ Steering
- PLC Control Based
- Fully welded roof seams
- Open Truss design (No wall board)
- Auto Positioning

Codes and Standards

The Glass and Steel Truss Apron Drive Bridge is designed to meet or exceed codes and regulations as adopted by the passenger boarding bridge industry. The AeroTech Passenger Boarding Bridges have been ETL & cETL listed by a third party testing facility to meet NFPA 415, ANSI/UL-325, CAN/CSA C22.2 No. 247 and CE.

Structural:

American Institute of Steel Construction (AISC) and American Welding Society (AWS).

Structural Steel Plate and Shapes
T-1 Steel
Hinge Pins
Steel Tube
Bolts-Standard
Steel Pipe
Bolts-Hi Strength
Steel Sheet

Material:

ASTM-A36
ASTM-A514
AISI-C1018
ASTM-A500
SAE J429, Grade 5
ASTM-A53-GR.B
SAE J429, Grade 8
ASTM-A1011

Code Compliance: SAE, ASME, NFPA, AIA, NEMA, and NEC.



Painting

Base: One coat, Sherwin Williams High Build Epoxy Primer 6 to 10 mils dry film thickness (DFT)

Finish: One coat, Sherwin Williams High Polane Polyurethane topcoat 2 to 3 mils DFT

Minimum total DFT: 8 mils



Electrical Characteristics/Power Requirements

Operates on 480VAC, 3-phase, 60Hz, 4 wire, 380VAC, 3-phase, 50Hz, 5 wire, and 600VAC, 3-phase, 60Hz, 4 wire. 480VAC and 600VAC are transformed down to 240V/120VAC for lighting and control circuits. 380VAC systems use 240VAC for lighting and control circuits.

Interior Lighting: 6" x 4' Low Profile LED Light.

Exterior Lighting: Three floodlights illuminate the apron and wheel bogie areas. A sealed dual fluorescent tube 4'0" fixture illuminates the cab/aircraft interface area.



Oshkosh AeroTech is the leading provider of solutions to comfortably and safely transfer passengers between terminal building and aircraft.

Each Jetway® Glass, Corrugated, or Smooth-sided Apron Drive Bridge is customized and manufactured per our customer's specifications.



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