



# Jetway® Glass Truss Passenger Boarding Bridges



# Glass Truss Bridge Technical Specifications

## General Arrangements

The JBT AeroTech, Jetway® Glass Apron Drive Bridge is designed to extend from an elevated terminal departure lounge doorway (or, with modification, from ground level) to the aircraft boarding door enabling passengers to walk between the two, completely protected from atmospheric conditions, aircraft engine blast, and blown dust.

The Glass 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

JBT AeroTech, Jetway Systems® offers a number of Glass Apron Drive Bridge models. Models can be grouped into two categories:

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

Glass Apron Drive models can serve any commercial jet aircraft in operation today. The elevation of the rotunda (to match the height of the terminal departure lounge doorway) could affect the ability of bridge to serve all aircraft. For this reason, we suggest you discuss this matter with your JBT AeroTech Representative.

Glass Apron Drive 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 JTA2 44/63 model, for example is a two tunnel Apron Drive measuring 44 feet at full retraction and 63 feet at full extension.

### Two-Tunnel Models:

Model	Fully Extended	Fully Retracted	Travel	Max OP Limit	Min OP Limit
JTA 2 44/63	63.05' (19.21m)	43.86' (13.37m)	19.18' (5.84m)	48.68' (14.83m)	36.06' (10.99m)
JTA 2 47/69	69.62' (21.22m)	47.15' (14.37m)	22.46' (6.84m)	55.25' (16.84m)	39.35' (11.99m)
JTA 2 51/76	76.18' (23.22m)	50.43' (15.37m)	25.74' (7.84m)	61.81' (18.84m)	42.63' (12.99m)
JTA 2 54/82	82.74' (25.21m)	53.71' (16.37m)	29.02' (8.84m)	68.37' (20.84m)	45.91' (13.99m)
JTA 2 57/89	89.30' (27.21m)	59.99' (17.32m)	32.30' (9.84m)	74.93' (22.84m)	49.19' (14.99m)
JTA 2 61/96	95.86' (29.21m)	60.27' (18.37m)	35.58' (10.84m)	81.49' (24.84m)	52.47' (15.99m)
JTA 2 64/102	102.42' (31.21m)	63.55' (19.37m)	38.86' (11.84m)	88.05' (26.83m)	55.75' (16.99m)
JTA 2 67/109	108.98' (33.21m)	66.83' (20.37m)	42.14' (12.84m)	94.61' (28.83m)	59.03' (17.99m)
JTA 2 70/115	115.50' (35.22m)	70.11' (21.37m)	45.43' (13.84m)	101.18' (30.84m)	62.31' (18.99m)
JTA 2 74/120	120.47' (36.79m)	73.39' (22.37m)	47.07' (14.34m)	106.10' (32.34m)	65.59' (19.99m)
JTA 2 77/125	125.39' (38.21m)	76.67' (23.37m)	48.71' (14.84m)	111.02' (33.84m)	68.88' (20.99m)
JTA 2 80/132	131.95' (40.28m)	79.95' (24.37m)	51.99' (15.84m)	117.58' (35.84m)	72.15' (21.99m)
JTA 2 83/138	138.51' (42.21m)	83.23' (25.37m)	55.27' (16.84m)	124.14' (37.84m)	75.43' (22.99m)
JTA 2 87/145	145.07' (44.21m)	86.51' (26.37m)	58.55' (17.84m)	130.70' (39.83m)	78.71' (23.99m)

### Three-Tunnel Models:

Model	Fully Extended	Fully Retracted	Travel	Max OP Limit	Min OP Limit
JTA3 39/65	65.32' (19.91m)	38.91' (11.86m)	26.40' (8.04m)	50.95' (15.53m)	31.11' (9.48m)
JTA3 44/79	79.08' (24.10m)	43.50' (13.25m)	35.58' (10.84m)	64.72' (35.69m)	35.69' (10.88m)
JTA3 48/93	92.85' (28.30m)	48.09' (14.65m)	44.76' (13.64m)	78.49' (23.92m)	40.28' (12.28m)
JTA3 50/95	94.85' (28.91m)	50.09' (15.26m)	44.76' (13.64m)	80.49' (24.53m)	42.28' (12.88m)
JTA3 55/108	108.62' (33.10m)	54.67' (16.66m)	53.94' (16.44m)	94.25' (28.73m)	46.87' (14.28m)
JTA3 61/122	122.01' (37.19m)	60.47' (18.43m)	61.53' (18.75m)	107.65' (32.81m)	52.67' (16.05m)
JTA3 65/134	135.44' (41.28m)	64.95' (19.79m)	70.48' (21.48m)	121.07' (36.90m)	57.15' (17.49m)
JTA3 72/151	150.86' (45.98m)	71.42' (21.77m)	79.44' (24.21m)	136.50' (41.60m)	63.26' (19.39m)



## 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		4'11"	(1.50m)
B. Interior Height		7'0"	(2.13m)
C. Interior Tunnel Ramp Width		4'9"	(1.45m)
D. Interior Cab Width		10'2"	(3.10m)
Cab Weather Door	Width	3'9"	(1.14m)
	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	6'8"	(2.03m)
Landing Illumination			100 Watt Fixture

## Operational Characteristics

Rotunda swing	175° (87.5° cw/87.5° ccw of centerline)
Cab rotation	125° (92.5° ccw/32.5° cw) (optional 185° available)
Cab rotation spe	145° /min.
Vertical rate of travel/lift	3.6' /min. (1.10m /min.)
Horizontal rate of travel	0 to 90' /min.

## Environmental Characteristics

Bridge operations at temperatures from -58°F (-50°C) to 125°F (52°C)

## Interior Finish Characteristics

Wall: Laminated phenolic plastic panels — 4" (1.22m) wide  
 Ceiling: Aluminum Planks — .032" (0.81mm) thick  
 Tunnel Floors: Carpeted and rubber flooring  
 Cab Floor: Ribbed Rubber — 25" (6.35mm) thick  
 Sub Floor: Sturd-I-Floor — .75" (19.05mm) thick  
 Insulation: 1" (25.4mm) fiberglass above the ceiling (additional insulation available)  
 Exterior Finish Characteristics

## 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 480 VAC, 3 phase, 60 Hz, 5 wire or 380 VAC, 3 phase, 50 Hz. 480 VAC is transformed to 120 VAC for lighting and control circuits. Export models can adapted to local power requirements.  
 Interior Lighting: 2'0" x 4'0" fluorescent tube fixtures on 12'0" centers.  
 Exterior Lighting: Three exterior floodlights illuminate the apron area and wheel bogey.  
 Sealed fluorescent fixture illuminates the cab/aircraft interface area.

**Communications:** Equipped with CAT-6 and other cable for communications.

## Codes and Standards

The Apron Drive Bridge is designed to meet or exceed codes and regulations as adopted by the passenger boarding bridge industry. Jetway® Passenger Boarding Bridges are ETL listed and CSA approved.

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

Material:			
Structural Plate	ASTM-A36-81a	T-1 Steel	ASTM-A514-82a
Structural Steel & Shapes	ASTM-A36-81a	Hinge Pins	AISC-C1018
Steel Tube	ASTM-A500-82a	Bolts-Standard	ASTM-A307-76b
Steel Pipe	ASTM-A53-83	Bolts-Hi Strength	ASTM-A325-76c
Steel Sheet	ASTM-A570-79	Bolts-High Strength	ASTM-A490-80

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



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