

2020 Product Catalog





Align Production Systems is a designer and manufacturer of material handling equipment. Align offers standard and custom solutions for heavy industry applications, as well as systems integration and robotics.

Airfloat is the inventor of Air Caster technology, and is a brand of Align Production Systems. Airfloat specializes in Air Caster solutions for heavy industry. Airfloat has been in creating air caster solutions since 1967.

Air Casters

	Pages
Steel Air Skid -----	9 - 11
Air Skid Rigging Kit -----	12 - 13
Air Skid Lift Glide -----	14 - 15
Aluminum Air Plank -----	16, 18 - 19
Steel Air Plank -----	17, 20 - 21
Utility Platform -----	22 - 23
Air Caster Platform -----	24 - 25
Air Caster Transporter -----	26 - 27
Roll Transporter -----	28 - 33

Turntable

Air Caster Turntable -----	34 - 37
Flush Floor Air Caster Turntable -----	38 - 39
Air Caster High Speed Turntable -----	40 - 43
Precision Mechanical Turntable -----	44 - 47
Mechanical Turntable -----	48 - 51
High Capacity Mechanical Turntable -----	52 - 53

Welding Positioners

Pages

Heavy Duty Head and Tailstock	54 - 57
Head and Tailstock	58 - 59
Two-Axis Positioner	60 - 61

Tuggers and Pallet Jacks

Battery Powered Tugger	62 - 63
Pneumatic Power Tugger	64 - 65
Pneumatic Pallet Jack	66 - 67

Ergonomic

Pneumatic Lift	68 - 69
Self-Leveling Pneumatic Tilt	70 - 71
Pneumatic Tilt	72 - 73
Mechanical Rotate	74 - 75
Hydraulic Lift	76, 77
Hydraulic 90° Degree Upender	78 - 79

Full Service Solution

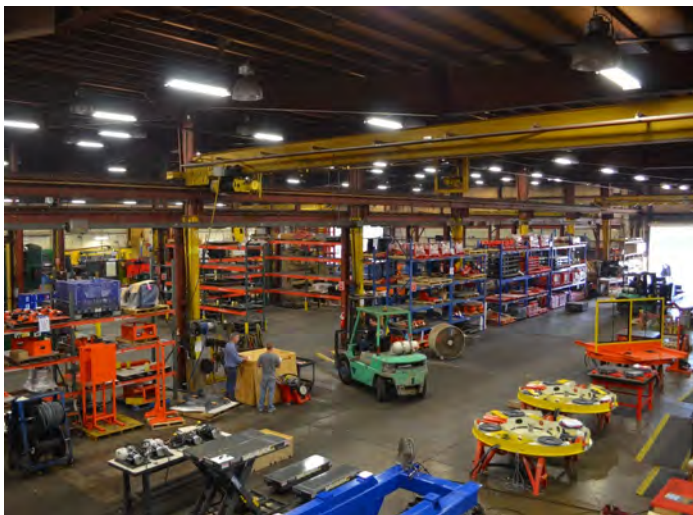


65,000 sq. ft. Manufacturing facility in Decatur, Illinois

State of the Art Facility

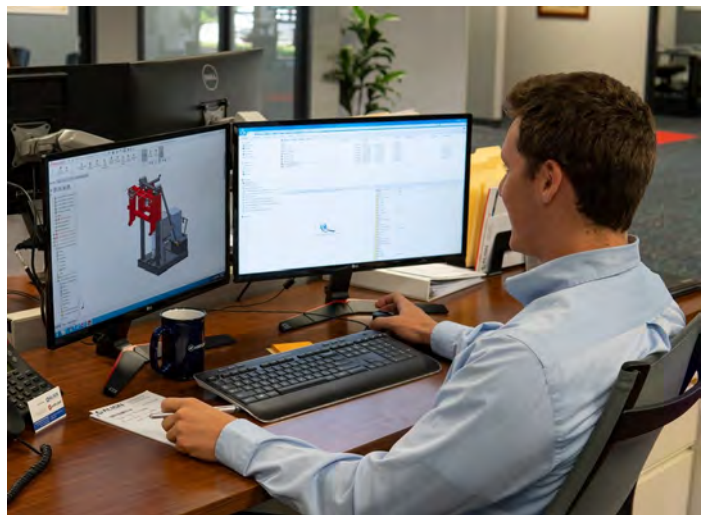
Our equipment is built in our state of the art facility in Decatur, IL. With 65,000 sq. ft. of manufacturing space., we have heavily invested into having excellent equipment and processes to meet our lead times for our customers.

- **SolidWorks Design Software and Product Data Management System**
- **FEA Validation**
- **92.3% 5 Year Average On-Time-Delivery**
- **In-House Design Reduction, Fabrication, Assembly, Machining and Painting**



65,000 Sq. Ft Facility

Our large manufacturing facility gives us the flexibility to work on many projects at the same time.



Solidworks & PDM

The manufacturing process of aircraft has changed enormously in recent years. Aircrafts today are built on moving assembly lines.



Bystronic BySprint Fiber Laser



Fiber Laser

State of the art fiber laser system allows us to precisely cut parts in our facility.



Panel Building

In-house controls engineering allows us to reduce lead times wit in house programming.



Fabrication

All of our steel frame fabrication is done in house with notched & tabbed construction.



Machining

In house machining reduces lead times as we don't need to outsource specialty parts.

Custom Engineering



Automated Guided Vehicle with Retractable Air Casters for Aerospace Manufacturer.

Align Production Systems offers a whole suite of custom engineering & robotics integrations solutions. Our engineering & manufacturing teams will work from start to finish to create the perfect solution to your manufacturing or material handling need.

- **End-to-End Solution Provider**
- **In-House Engineering Team**
- **State of the Art Facility**



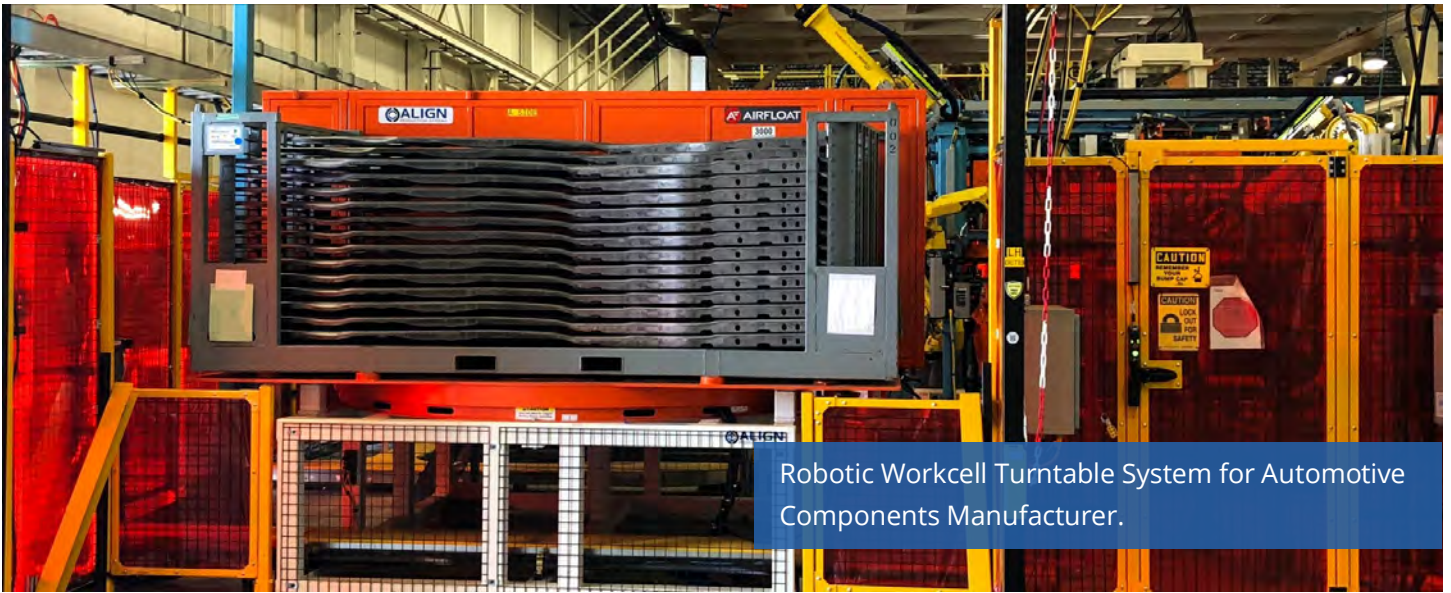
Rail Car Air Caster Shuttle

Air Caster Manufacturing Bay Shuttle System with deck rails for Locomotive Manufacturer.



CMM Air Caster Transporter

Guided Air Caster Transporter with CMM Pallet System designed for Mining Truck Manufacturer.



Robotic Workcell Turntable System for Automotive Components Manufacturer.



Two-Axis Positioning Cart

Battery Powered Vehicle with Two-Axis Positioning System for ConAg Equipment Manufacturer.



Mold Changer

Air Platform fitted with Custom Designed Mold Changer for Footwear manufacturer.



Custom Air Caster Platform

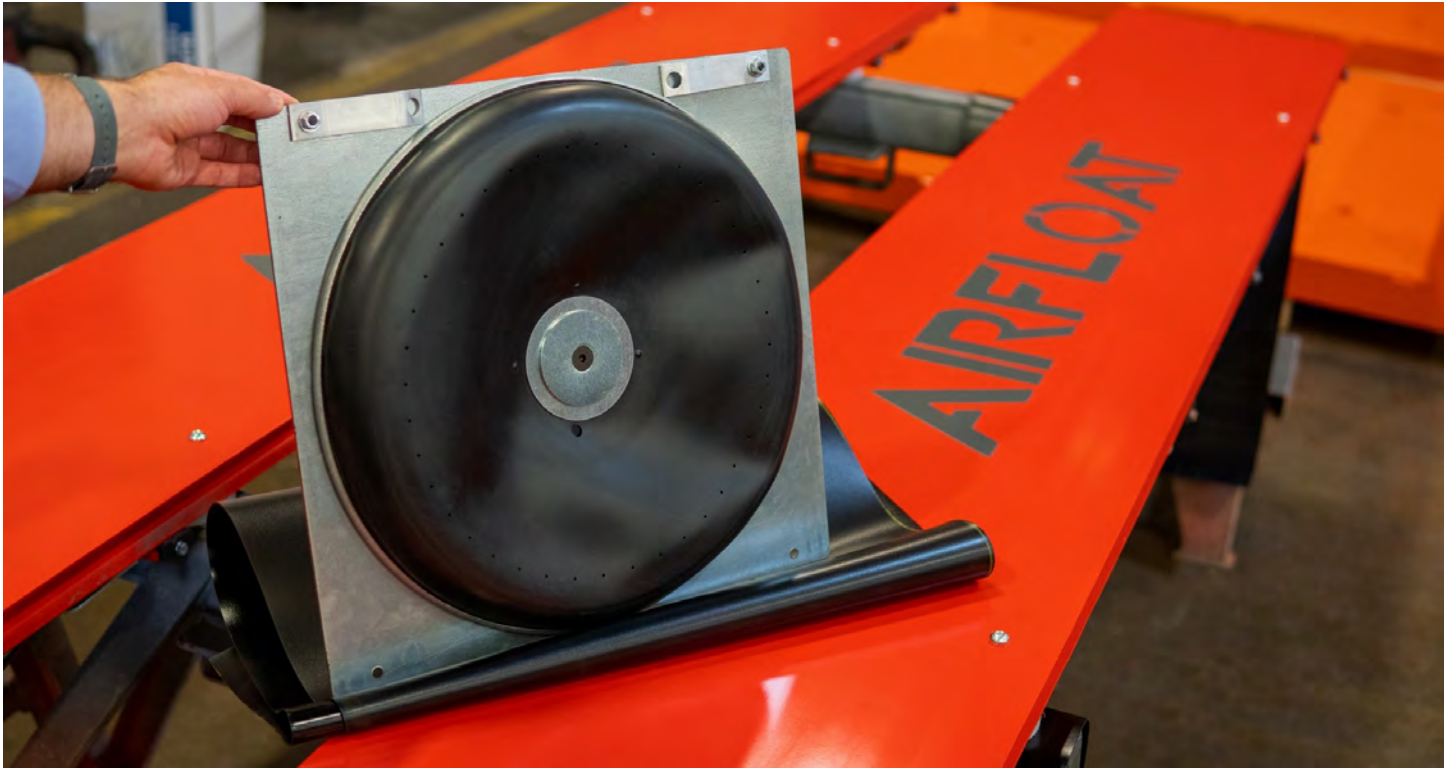
Custom Air Caster Platform with Lifting System designed for Nuclear Plant Material Handling



Hydraulic Upender with Tooling

Hydraulic Upender with Custom Tooling for ConAg Equipment manufacturer.

Airfloat Air Casters



Airfloat Air Caster is a pneumatic device that forms a lubricating film of air between the load and floor surface, similar to that of a hovercraft or an air hockey table. The solution for moving and positioning heavy and difficult loads with low friction, omnidirectional movement. Designed with slide-out trays, allowing for casters to be serviced without having to remove the load.

- **Quality wear-resistant urethane diaphragm**
- **360° Omnidirectional movement**
- **Serviced without removing the load**
- **Reduced point loading, with a greater surface area and protecting floors**

Common Air Caster Myths

"It's really loud..."

Air Casters operating at capacity produce under 70 decibels of noise, which is barely noticeable in most operating environments.

"It creates a lot of dust..."

The pressure of the our Air Casters during operation is so low you can hold a match next to the caster and it won't blow out.

"It requires tremendous air pressure..."

Air Casters can move 300,000 lbs. with less than XX CFM at 35 PSI.

"It won't work on our floor..."

Our Air Casters are designed and rated to work on machine trowel finished concrete floors.

"It's difficult to control..."

Air Casters empower easy omnidirectional movement, add our optional guide wheel or deadman pendant to stop unwanted drift.

Over 50 years of Air Caster technology

The most flexible, cost-effective, and safe form of heavy load movement technology empowering operators around the world.



Airfloat Air Skid systems allow for the safe, nearly frictionless movement of large loads or machinery. Air Skids come in a variety of sizes, and are durable and lightweight - built for years of trouble-free operation. Easily move heavy loads by utilizing air caster technology to move 1,000 lbs. with approx. 1 lbs. of force.

- **Capacities up to 315,000 lbs.**
- **360° Omnidirectional movement**
- **Superior efficiency compared to wheels**
- **Designed to work on machine trowel finish concrete floors**

Features & Benefits



Quality Materials & Superior Design

Our Air Casters only utilize a 100% urethane diaphragm design with superior wear resistance and rolled edges to prevent tearing or rollunder.

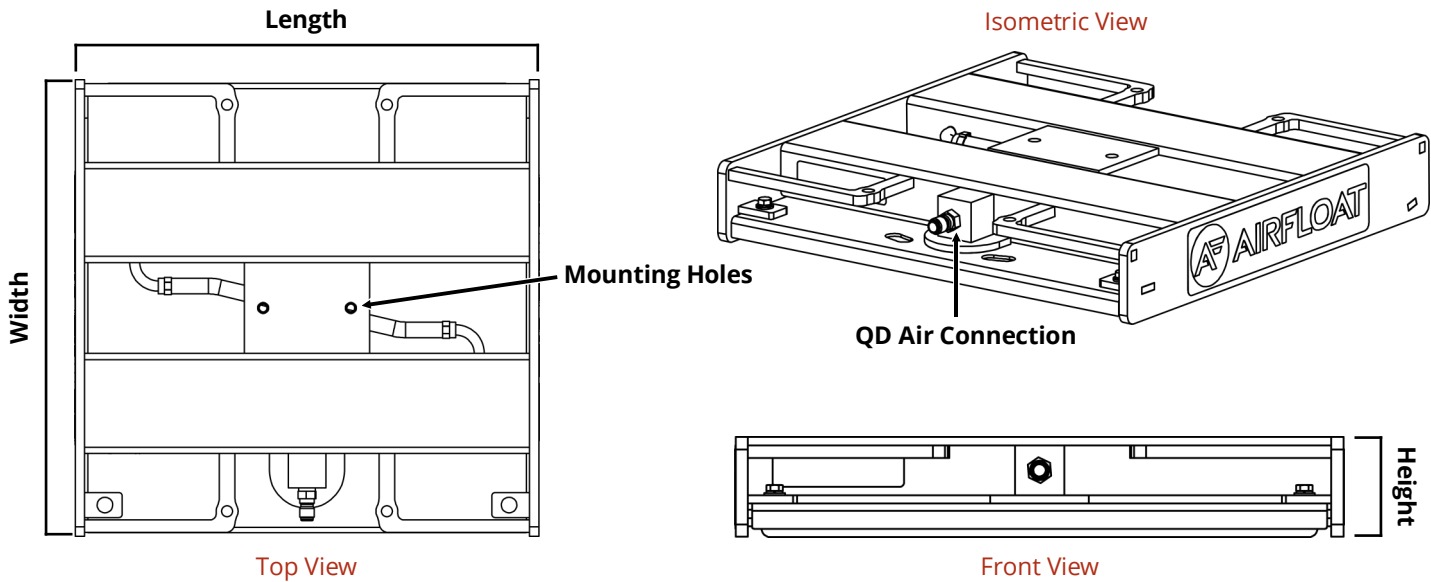
Slide-Out Air Casters

Air Skid feature a slide-out air caster tray design that allow skids to be serviced without removing the load. This in return makes the maintenance and replacing of air casters simple with minimal downtime.

Versatile

The hand controller can be easily carried during operation and gives flexibility with six independent flow controls.

Set of 4 Air Skids



Set of 4 Air Skid Specifications

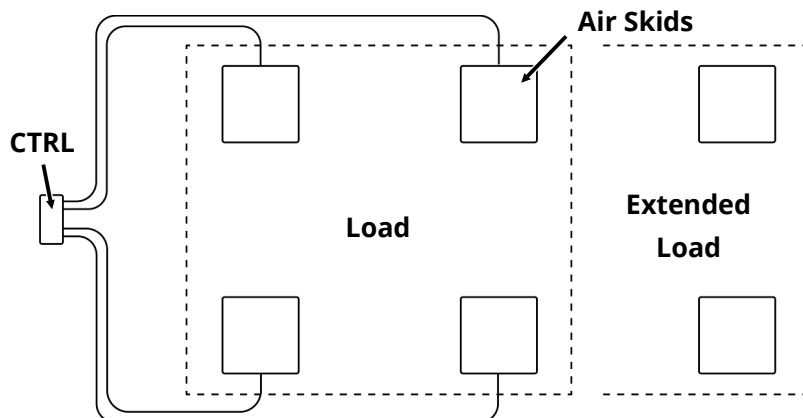
Model No.	Capacity	Caster	Air Flow	Skid Size	Height	Weight
AF010	Total (4x Skid)	Diameter	Avg (4x Skid)	L x W	Deflated ¹	1x Skid
AF01012-4	12,000lb 5,443kg	12" 305mm	44 SCFM 1,246L/m	13.25" x 13.25" 337mm x 337mm	3" 76mm	26lb 12kg
AF01017-4	25,000lb 11,339kg	17" 432mm	64 SCFM 1,812L/m	18.5" x 18.25" 470mm x 464mm	3" 76mm	44lb 20kg
AF01020-4	33,000lb 15,969kg	20" 508mm	72 SCFM 2,039L/m	21.5" x 21.25" 546mm x 540mm	3" 76mm	58lb 26kg
AF01024-4	50,000lb 22,680kg	24" 610mm	88 SCFM 2,492L/m	25.75" x 25.25" 654mm x 641mm	3.5" 89mm	98lb 45kg
AF01030-4	85,000lb 38,555kg	30" 762mm	112 SCFM 3,172L/m	31.75" x 31.5" 806mm x 800mm	3.5" 89mm	138lb 63kg
AF01036-4	125,000lb 56,699kg	36" 914mm	140 SCFM 3,965L/m	37.75" x 37.5" 959mm x 952mm	4" 102mm	235lb 107kg
AF01048-4	210,000lb 95,254kg	48" 1,219mm	188 SCFM 5,324L/m	50" x 49.5" 1,270mm x 1,257mm	5" 127mm	430lb 195kg

1. Inflated height adds approximately .25"(6mm) - 1"(25mm).

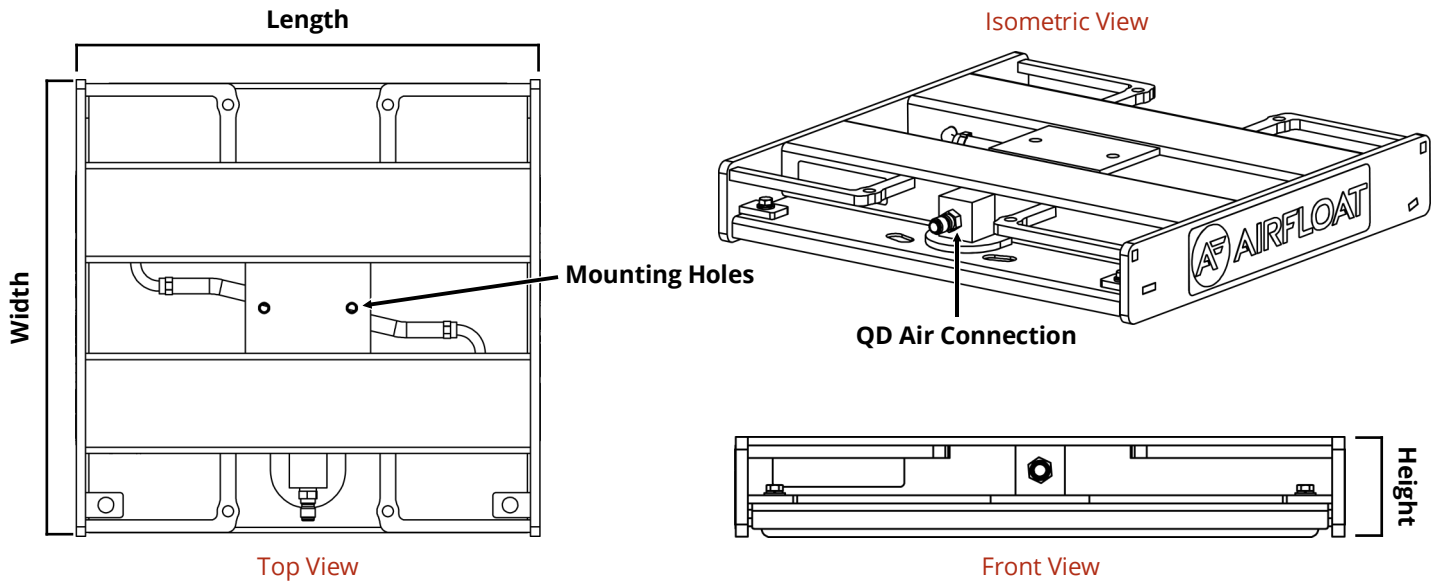
Set of 4 Air Skids Includes

Included	Quantity	Part No.
Air Skid	4x	AF010XXX-1
4 Port Air Skid Controller	1x	AF5016
Deadman Pendant	1x	AF5018
32ft Single Hose (12" - 30" Skid)	4x	AF5105
32ft Single Hose (36" - 48" Skid)	4x	AF5106
Controller Bracket	Optional	AF5019

Typical Skid Arrangement Beneath Load



AF010 Specifications Set of 6 Air Skids



Set of 6 Air Skid Specifications

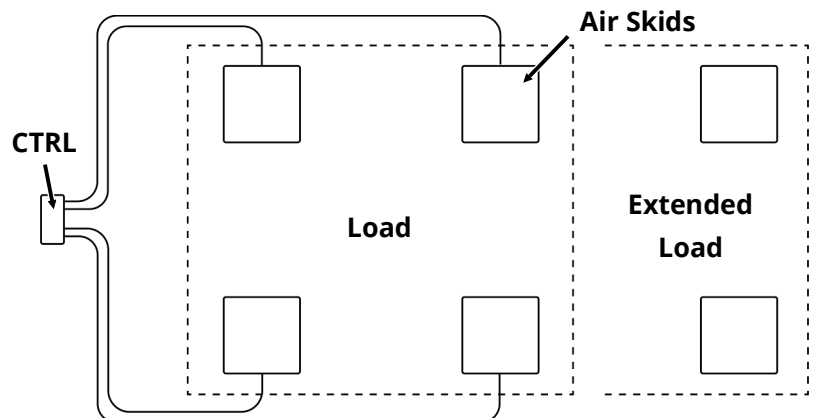
Model No.	Capacity	Caster	Air Flow	Skid Size	Height	Weight
AF010	Total (6x Skid)	Diameter	Avg (6x Skid)	L x W	Deflated ¹	1x Skid
AF01012-6	18,000lb 8,164kg	12" 305mm	66 SCFM 1,869L/m	13.25" x 13.25" 337mm x 337mm	3" 76mm	26lb 12kg
AF01017-6	37,500lb 17,010kg	17" 432mm	96 SCFM 2,719L/m	18.5" x 18.25" 470mm x 464mm	3" 76mm	44lb 20kg
AF01020-6	49,500lb 22,453kg	20" 508mm	108 SCFM 3,059L/m	21.5" x 21.25" 546mm x 540mm	3" 76mm	58lb 26kg
AF01024-6	75,000lb 34,019kg	24" 610mm	132 SCFM 3,738L/m	25.75" x 25.25" 654mm x 641mm	3.5" 89mm	98lb 45kg
AF01030-6	127,500lb 57,833kg	30" 762mm	168 SCFM 4,758L/m	31.75" x 31.5" 806mm x 800mm	3.5" 89mm	138lb 63kg
AF01036-6	187,500lb 85,049kg	36" 914mm	210 SCFM 5,947L/m	37.75" x 37.5" 959mm x 952mm	4" 102mm	235lb 107kg
AF01048-6	315,000lb 142,882kg	48" 1,219mm	282 SCFM 7,986L/m	50" x 49.5" 1,270mm x 1,257mm	5" 127mm	430lb 195kg

1. Inflated height adds approximately .25"(6mm) - 1"(25mm).

Set of 6 Air Skids Includes

Included	Quantity	Part No.
Air Skid	6x	AF010XXX-1
6 Port Air Skid Controller	1x	AF5017
Deadman Pendant	1x	AF5018
32ft Single Hose (12" - 30" Skid)	6x	AF5105
32ft Single Hose (36" - 48" Skid)	6x	AF5106
Controller Bracket	Optional	AF5019

Typical Skid Arrangement Beneath Load



Air Skid Rigging Kit



The Air Skid Rigging Kit is designed for riggers looking for safe, omnidirectional movement for heavy loads that can be moved to and from job sites. Available in three different capacities, the kit contains everything needed to operate an air skid set including spare parts in a steel Knaack Box for years of trouble-free operation.

- **Capacities up to 49,500 lbs.**
- **Protects Air Skids while in storage**
- **Protects floors unlike steel rollers**
- **Includes spare parts, hoses, a hand controller and more**

Features & Benefits



Image Above: Contents of the Air Skid Rigging Kit

Complete Package

Contains (6) Air Skids, (2) Replacement Air Casters, (1) Hand Controller, (6) 32' Outlet Hoses, (1) 85' Integrated Supply Hose, and (1) Deadman Pendant.

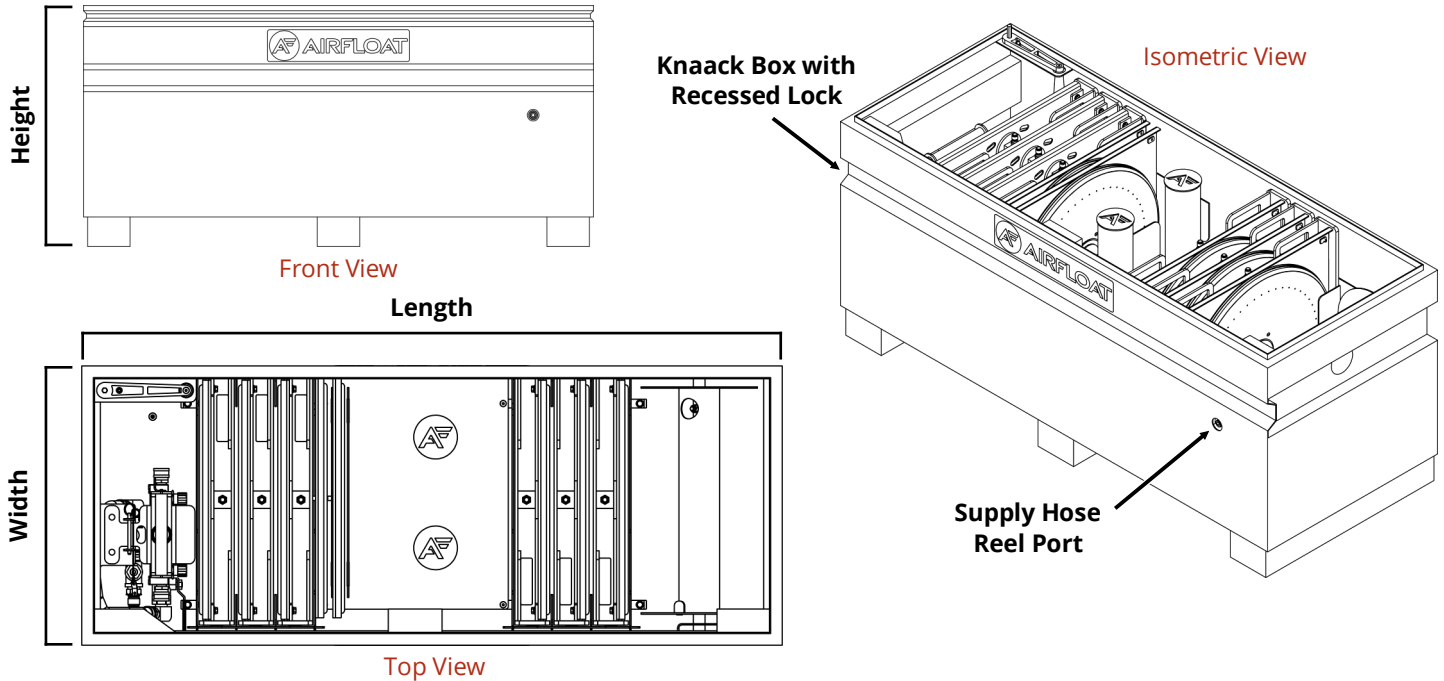
Secure Housing

Portable Knaack Box and 3-point latch with recessed lock, reinforced housing, stronger hinges for protection against pry-ins, and weather resistance.

Competitive

The Rigging Kit is designed to compete with rigging systems and solutions that are far less flexible, including cranes and rollers.

Air Skid Rigging Kit

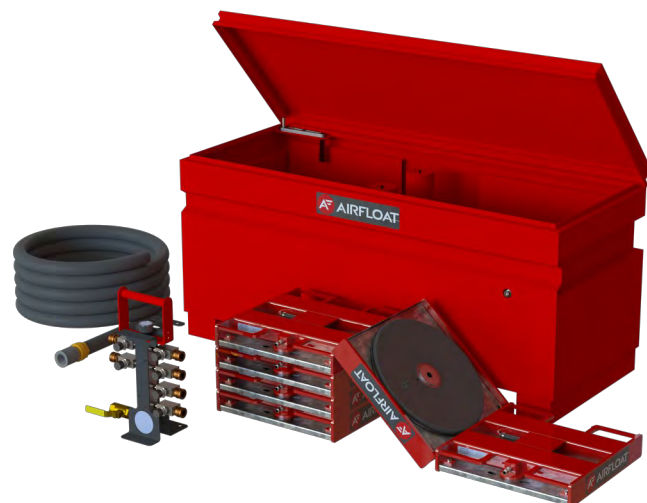


Air Skid Rigging Kit Specifications

Model No.	# of Skids	Capacity	Caster	Air	Skid Size	Weight	Box Size
				Flow			
		Total	Diameter	Avg	L x W	1x Skid	L x W x H
AF011							
AF01112-4	4	12,000lb 5,443kg	12" 305mm	44 SCFM 1,246L/m	13.25" x 13.25" 337mm x 337mm	26lb 12kg	60" x 24" x 28.25" 1,524mm x 610mm x 716mm
AF01117-4	4	25,000lb 11,339kg	17" 432mm	64 SCFM 1,812L/m	18.5" x 18.25" 470mm x 464mm	44lb 20kg	60" x 24" x 28.25" 1,524mm x 610mm x 716mm
AF01120-4	4	33,000lb 15,969kg	20" 508mm	72 SCFM 2,039L/m	21.5" x 21.25" 546mm x 540mm	58lb 26kg	60" x 24" x 28.25" 1,524mm x 610mm x 716mm
AF01112-6	6	18,000lb 8,164kg	12" 305mm	66 SCFM 1,869L/m	13.25" x 13.25" 337mm x 337mm	26lb 12kg	60" x 24" x 28.25" 1,524mm x 610mm x 716mm
AF01117-6	6	37,500lb 17,010kg	17" 432mm	96 SCFM 2,719L/m	18.5" x 18.25" 470mm x 464mm	44lb 20kg	60" x 24" x 28.25" 1,524mm x 610mm x 716mm
AF01120-6	6	49,500lb 22,453kg	20" 508mm	108 SCFM 3,059L/m	21.5" x 21.25" 546mm x 540mm	58lb 26kg	60" x 24" x 28.25" 1,524mm x 610mm x 716mm

Included with Rigging Kit

Included	Quantity	Part No.
Air Skid	6x	AF010XXX-1
Spare Air Bearing	2x	H-00XX
6 Port Air Skid Controller	1x	AF5017
Deadman Pendant	1x	AF024
32ft Single Hose	6x	AF5105
85ft Supply Hose	1x	AHA0083



Lift Glides



Airfloat Lift Glide Air Skids are designed to be retrofitted to existing wheeled units, allowing you to utilize the existing equipment and switch to air caster technology when the load becomes too heavy to push. Compression springs keep the Lift Glide Air Skids retracted off the floor and when engaged, the air skid extends down to lift the wheels off the floor.

- **Capable of loads up to 48,000 lbs.**
- **360° Omnidirectional movement**
- **Easy to attach to existing tooling**
- **Switch to Lift Glides when the load becomes too heavy to push**

Applications



Aerospace Assembly

The manufacturing process of aircraft has changed enormously in recent years. Aircrafts today are built on moving assembly lines, and the most efficient way to meet their goals is to use air caster technology.

Easily Attachable

The Lift Glide Air Skids can easily be attached to existing wheeled units or designed into new equipment.

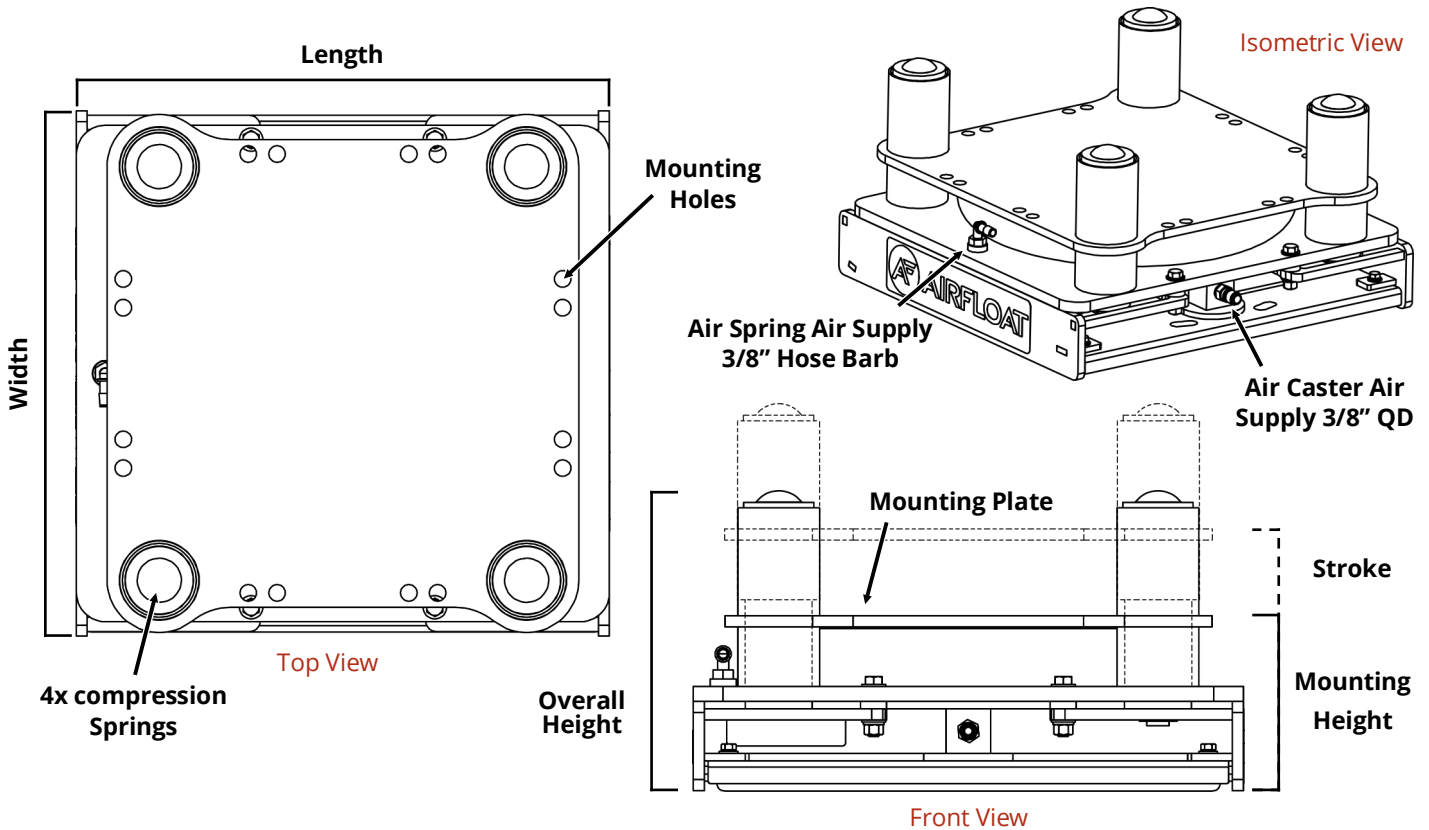
Omnidirectional Movement

Our air casters allow for 360° movement of heavy loads, making our systems the most versatile and flexible alternatives to traditional wheeled solutions.

Flexible

Keep the full advantages of wheeled movement for going long distances or for moving unloaded.

Set of 4 Lift Glide Skids



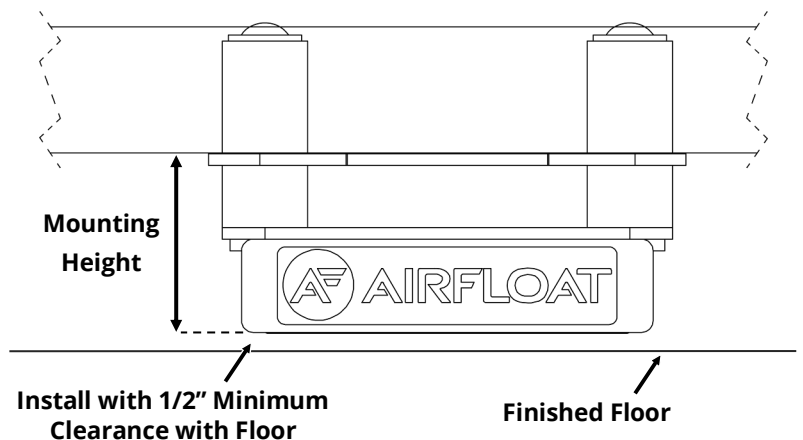
Set of 4 Lift Glide Specifications

Model No.	Capacity	Caster	Air Flow	Stroke	Mounting Height	Skid Size
AF060	Total (4x Skid)	Diameter	Avg (4x Skid)		Deflated ¹	L x W x Overall Height
AF06012-4	10,000lb 4,536kg	12" 305mm	44 SCFM 1,246L/m	2.88" 73mm	5.75" 146mm	15.38" x 14.3" x 9.94" 391mm x 363mm x 252mm
AF06017-4	18,000lb 8,165kg	17" 432mm	64 SCFM 1,812L/m	2.88" 73mm	5.88" 149mm	18.5" x 18.3" x 10.06" 470mm x 465mm x 256mm
AF06020-4	32,000lb 14,515kg	20" 508mm	72 SCFM 2,039L/m	2.88" 73mm	6" 152mm	21.5" x 21.3" x 12.06" 546mm x 541mm x 306mm
AF06024-4	48,000lb 21,772kg	24" 610mm	88 SCFM 2,492L/m	2.88" 73mm	7.13" 181mm	25.75" x 25.3" x 15.06" 654mm x 643mm x 383mm

1. The height to the mounting plate. Inflated height adds approximately .25"(6mm) - 1"(25mm).

Set of 4 Lift Glides Includes

Included	Quantity	Part No.
Lift Glide Skid	4x	AF060XX-1
4 Port Lift Glide Control Box	1x	AF5014
100ft 3/8" Single Hose and Clamps	1x	AHBK0006
Deadman Pendant	Optional	AF5015



Aluminum Air Planks



Airfloat Air Plank systems allow for the safe, nearly frictionless movement of large loads or machinery. Our Aluminum Air Planks are available in capacities up to 75,000 lbs. per set of two planks, and are available in lengths up to 144 inches. Manufactured from extruded aluminum, these planks are durable, lightweight and built for years of trouble-free operation.

- **Capacities up to 75,000 lbs. per set of two**
- **Slide-out trays for easy maintenance**
- **Made from lightweight aluminum**
- **Portable and easy to lift by hand**
- **Easily add more planks for higher weight**

Features & Benefits



Slide-Out Air Trays

Aluminum Planks feature a slide-out air caster tray design that allow planks to be serviced without removing the load. This in return makes the maintenance and replacing of air casters simple with minimal downtime.



High Capacity

Aluminum Plank has a max capacity of up to 75,000 lbs. per set of two, making high capacity moves easy to accomplish as approx. 1 lbs. of force pushes 1000 lbs. of weight.



Lightweight Aluminum

Made from extruded aluminum, these planks can be easily lifted by two people. Our Aluminum Air Planks are a more portable, lightweight solution to heavy duty casters and rollers.

Steel Air Planks



Airfloat Air Plank systems allow for the safe, nearly frictionless movement of large loads or machinery. Our Steel Air Planks are available in capacities up to 204,000 lbs. per set of two planks, and are available in lengths up to 180 inches. Manufactured from structural steel, these planks are durable, heavy-duty and built for years of trouble-free operation.

- Capacities up to 204,000 lbs. per set of two
- Slide-out trays for easy maintenance
- Made from heavy-duty steel
- Transportable with forklift pockets
- Easily add more planks for higher weight

Features & Benefits



Slide-Out Trays

Steel Planks feature a slide-out air caster tray design that allow planks to be serviced without removing the load. This in return makes the maintenance and replacing of air casters simple with minimal downtime.



High Capacity

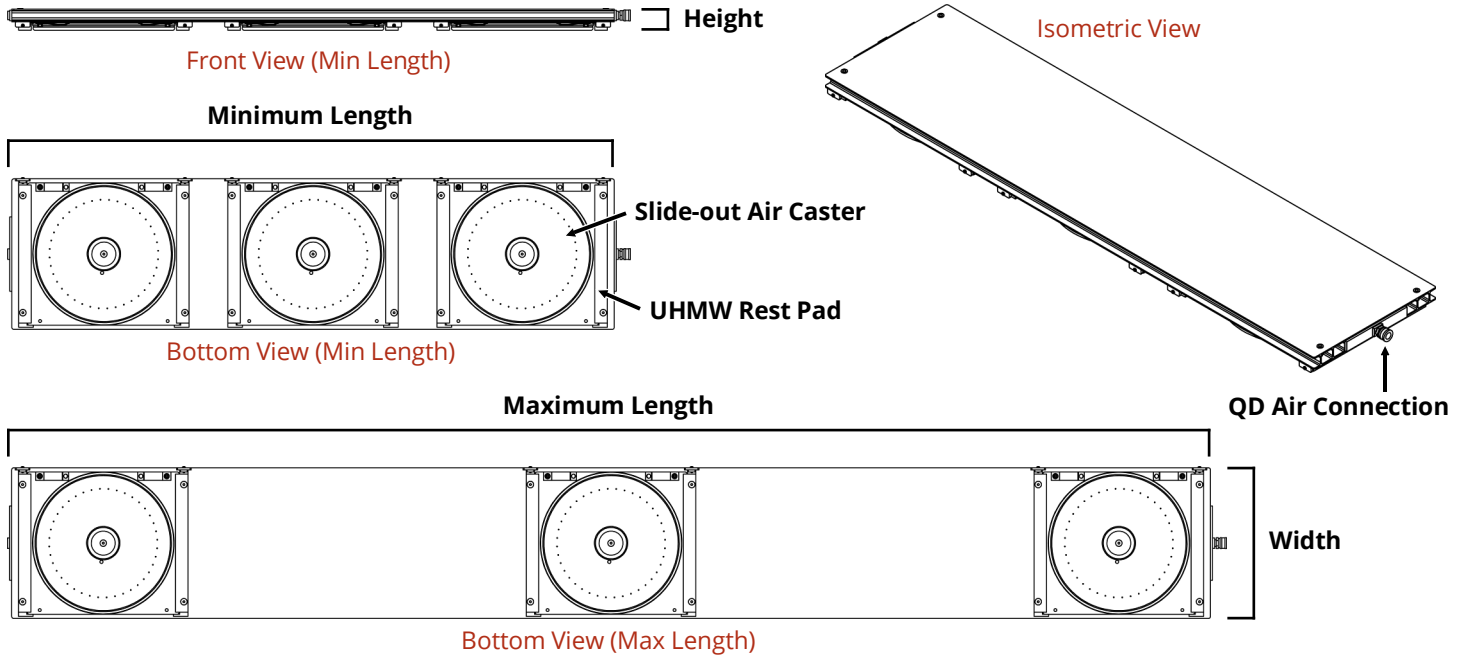
Aluminum Plank has a max capacity of up to 204,000 lbs. per set of two, making high capacity moves easy to accomplish as approx. 1 lbs. of force pushes 1000 lbs. of weight.



Guide Wheel

Our Steel Air Planks feature a retractable guide wheel, which reduces drifting of the load on sloping floor surface and makes maneuvering large loads easier.

Set of 2 Aluminum Air Planks



Set of 2 Aluminum Air Planks Specifications

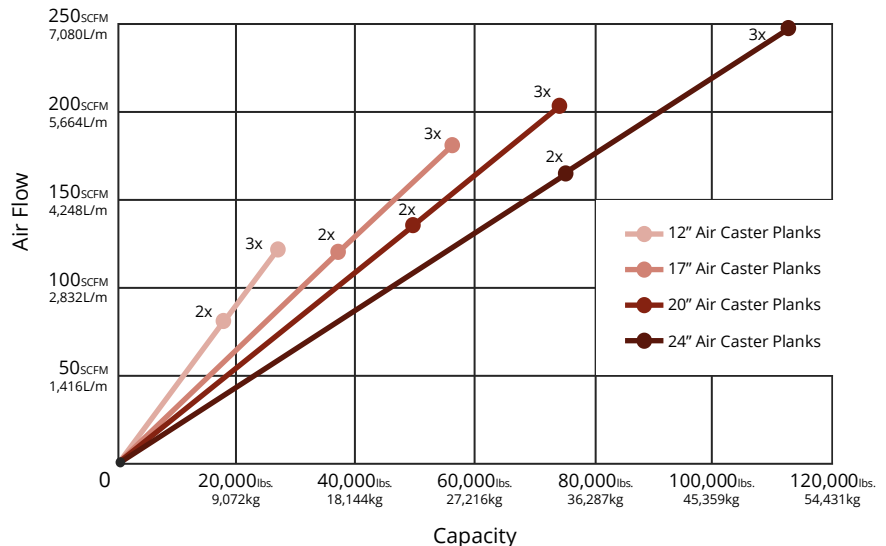
Model No.	Capacity	Caster	Air Flow	Length	Width	Height	Weight
AF040	Total (2x Plank)	Diameter	Avg (2x Plank)	Min - Max ¹		Deflated ²	Min - Max (1x Plank)
AF04012-2XXX	18,000lb 8,165kg	12" 305mm	66 SCFM 1,869L/m	60" - 144" 1,524mm - 3,658mm	13" 330mm	2.5" 64mm	60lb - 100lb 27kg - 45kg
AF04017-2XXX	37,500lb 17,010kg	17" 432mm	96 SCFM 2,719L/m	72" - 144" 1,829mm - 3,658mm	18" 457mm	2.5" 64mm	80lb - 120lb 36kg - 55kg
AF04020-2XXX	49,500lb 22,453kg	20" 508mm	108 SCFM 3,059L/m	72" - 144" 1,829mm - 3,658mm	21" 533mm	2.5" 64mm	90lb - 150lb 41kg - 68kg
AF04024-2XXX	75,000lb 34,019kg	24" 610mm	164 SCFM 4,644L/m	60" - 144" 1,524mm - 3,658mm	24.75" 629mm	2.5" 64mm	130lb - 200lb 59kg - 91kg

1. Standard lengths available in 6" increments. 2. Inflated height adds approximately .25"(6mm) - 1"(25mm).

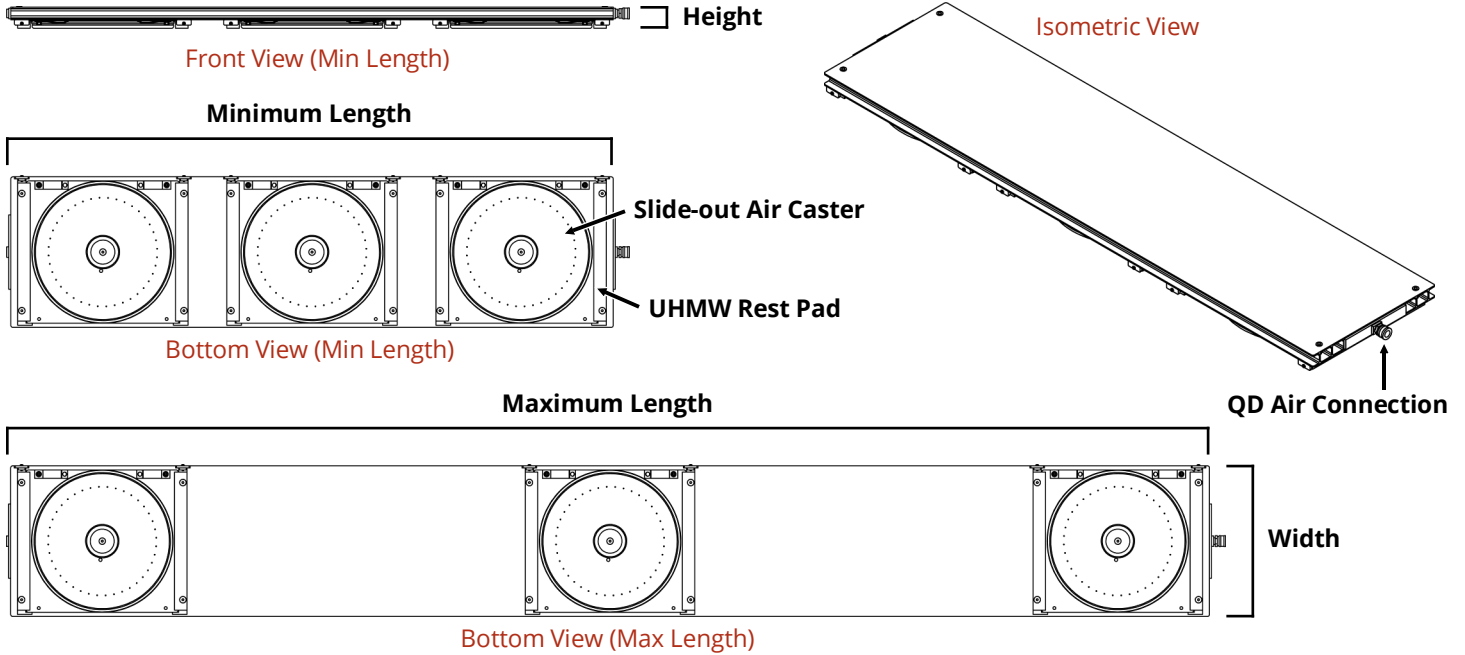
Set of 2 Aluminum Air Planks Includes

Included	Quantity	Part No.
Air Planks	2x	AF040XX-1XXX
4 Port Air Skid Controller	1x	AF5016
Deadman Pendant	1x	AF5018
32ft Single Hose	2x	AF5105
Storage Pallet	Optional	AF5020
Strap Handles	Optional	AF5021
Loading Ramps	Optional	AF5022-XX

Flow vs Capacity



Set of 3 Aluminum Air Planks



Set of 3 Aluminum Air Planks Specifications

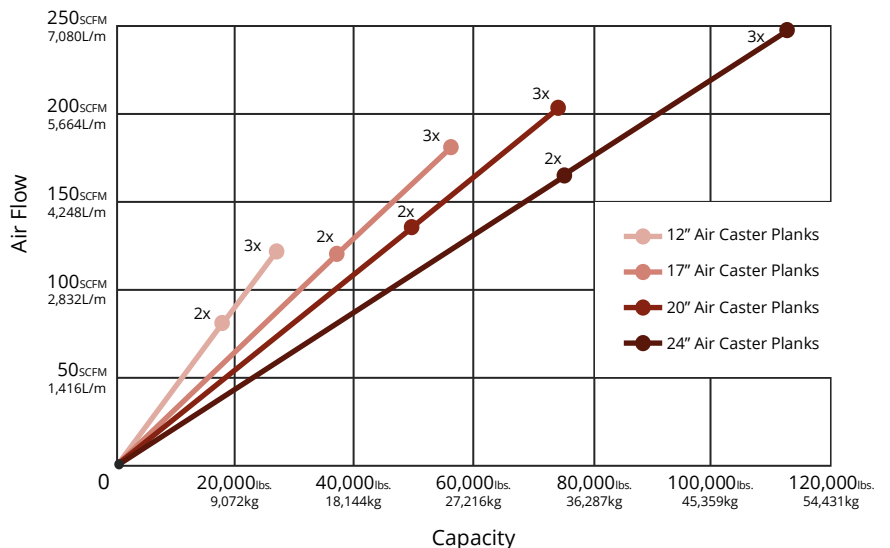
Model No.	Capacity	Caster	Air Flow	Length	Width	Height	Weight
AF040	Total (3x Plank)	Diameter	Avg (3x Plank)	Min - Max ¹		Deflated ²	Min - Max (1x Plank)
AF04012-3XXX	27,000lb 12,247kg	12" 305mm	99 SCFM 2,804L/m	60" - 144" 1,524mm - 3,658mm	13" 330mm	2.5" 64mm	60lb - 100lb 27kg - 45kg
AF04017-3XXX	56,000lb 25,401kg	17" 432mm	144 SCFM 4,078L/m	72" - 144" 1,829mm - 3,658mm	18" 457mm	2.5" 64mm	80lb - 120lb 36kg - 55kg
AF04020-3XXX	74,000lb 33,566kg	20" 508mm	162 SCFM 4,588L/m	72" - 144" 1,829mm - 3,658mm	21" 533mm	2.5" 64mm	90lb - 150lb 41kg - 68kg
AF04024-3XXX	112,500lb 51,029kg	24" 610mm	246 SCFM 6,967L/m	60" - 144" 1,524mm - 3,658mm	24.75" 629mm	2.5" 64mm	130lb - 200lb 59kg - 91kg

1. Standard lengths available in 6" increments. 2. Inflated height adds approximately .25"(6mm) - 1"(25mm).

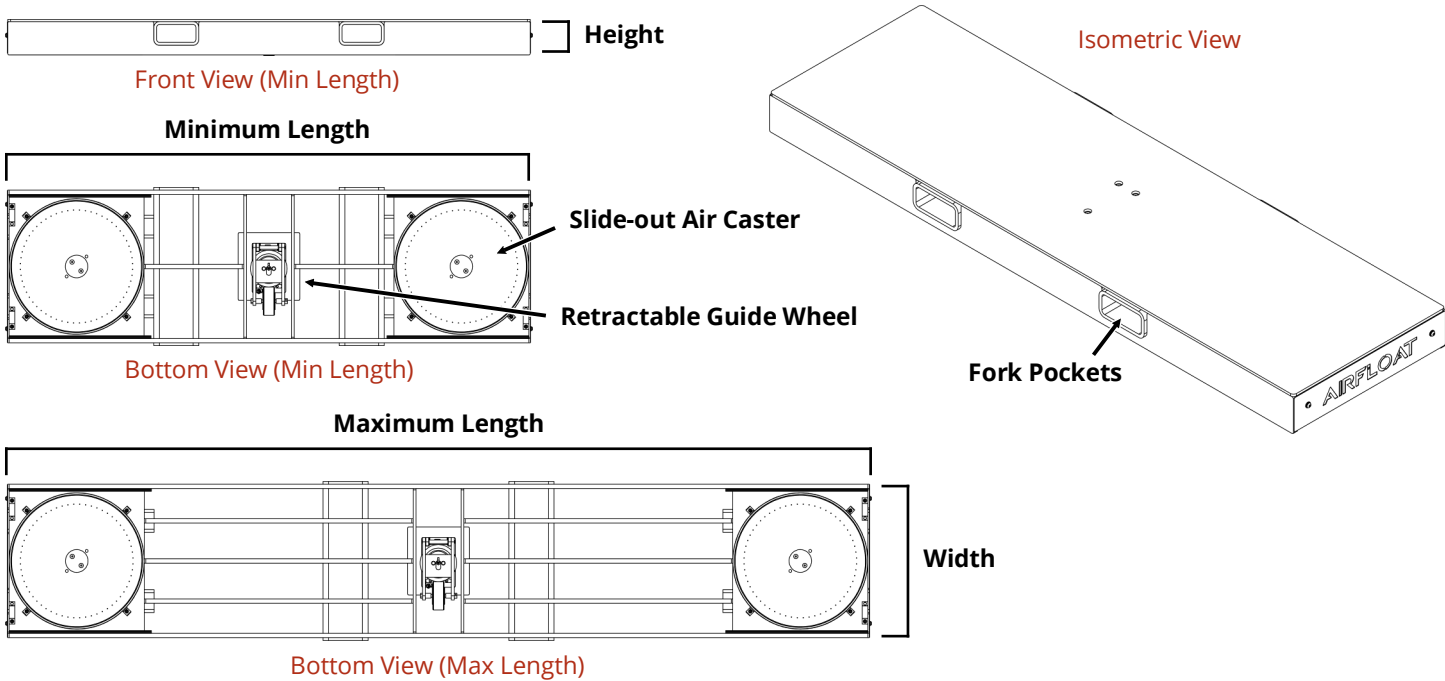
Set of 3 Aluminum Air Planks Includes

Included	Quantity	Part No.
Air Planks	3x	AF040XX-1XXX
4 Port Air Skid Controller	1x	AF5016
Deadman Pendant	1x	AF5018
32ft Single Hose	3x	AF5105
Storage Pallet	Optional	AF5020
Strap Handles	Optional	AF5021
Loading Ramps	Optional	AF5022-XX

Flow vs Capacity



Set of 2 Steel Air Planks



Set of 2 Steel Air Planks Specifications

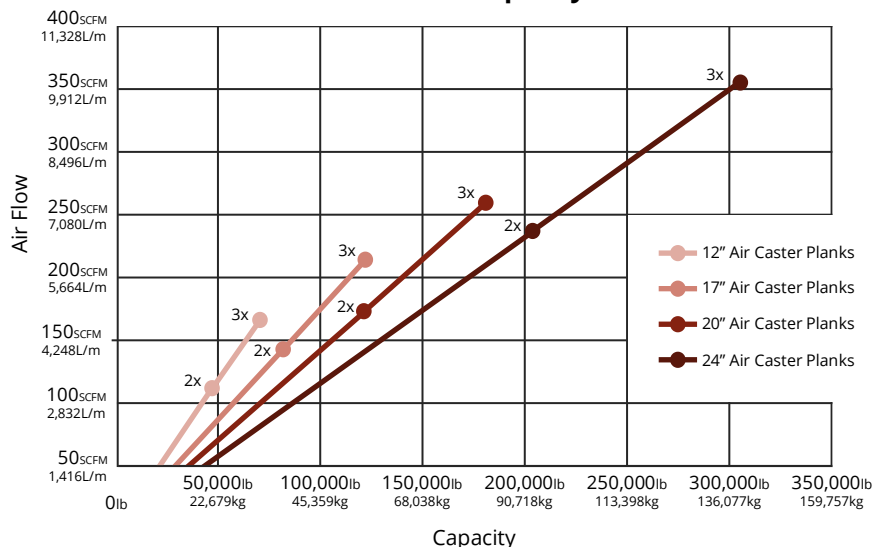
Model No.	Capacity	Caster	Air Flow	Length	Width	Height	Weight
AF041	Total (2x Plank)	Diameter	Avg (2x Plank)	Min - Max ¹		Deflated ²	Min - Max (1x Plank)
AF04124-2XXX	47,000lb 21,364kg	24" 610mm	110 SCFM 3,115L/m	96" - 156" 2,438mm - 3,962mm	27" 686mm	6" 152mm	1,500lb - 2,500lb 680kg - 1,134kg
AF04130-2XXX	81,500lb 36,968kg	30" 762mm	142 SCFM 4,021L/m	108" - 156" 2,743mm - 3,962mm	33" 838mm	6" 152mm	1,750lb - 3,000lb 794kg - 1,361kg
AF04136-2XXX	121,000lb 54,885kg	36" 914mm	172 SCFM 4,871L/m	120" - 168" 3,048mm - 4,267mm	39" 991mm	6" 152mm	2,000lb - 3,500lb 907kg - 1,588kg
AF04148-2XXX	204,000lb 92,533kg	48" 1,219mm	236 SCFM 6,683L/m	144" - 180" 3,658mm - 4,572mm	51" 1,295mm	6.5" 159mm	3,000lb - 5,000lb 1,361kg - 2,268kg

1. Standard lengths available in 6" increments. 2. Inflated height adds approximately .25"(6mm) - 1"(25mm).

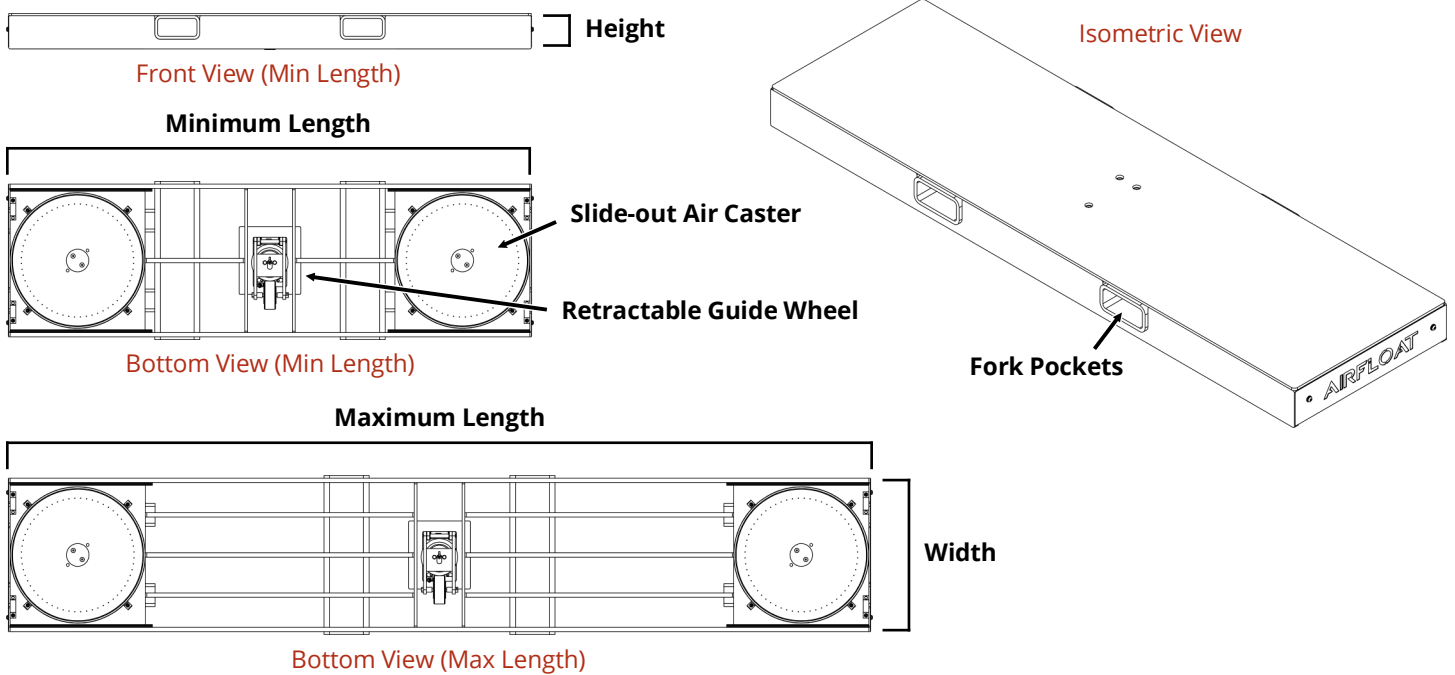
Set of 2 Steel Air Planks Includes

Included	Quantity	Part No.
Air Planks	2x	AF041XX-1XXX
Steel Air Plank Controller - 2	1x	AF5025
Deadman Pendant	1x	AF5026
32ft Single Hose 1/4"	2x	AF5109
32ft Single Hose 3/4"	2x	AF5106
Loading Ramps	Optional	AF5023-XX

Flow vs Capacity



Set of 3 Steel Air Planks



Set of 3 Steel Air Planks Specifications

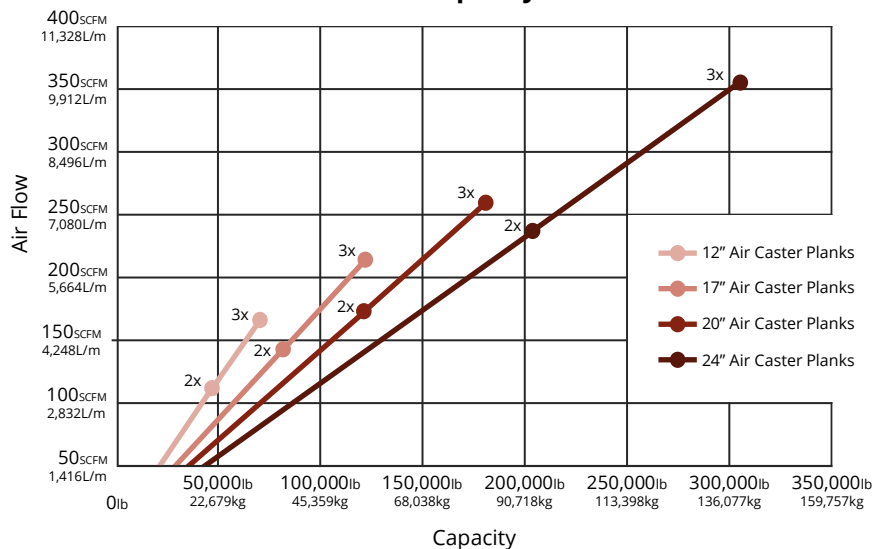
Model No.	Capacity	Caster	Air Flow	Length	Width	Height	Weight
AF041	Total (3x Plank)	Diameter	Avg (3x Plank)	Min - Max ¹		Deflated ²	Min - Max (1x Plank)
AF04124-3XXX	70,500lb 32,045kg	24" 610mm	165 SCFM 4,673L/m	96" - 156" 2,438mm - 3,962mm	27" 686mm	6" 152mm	1,500lb - 2,500lb 680kg - 1,134kg
AF04130-3XXX	122,250lb 55,568kg	30" 762mm	213 SCFM 6,032L/m	108" - 156" 2,743mm - 3,962mm	33" 838mm	6" 152mm	1,750lb - 3,000lb 794kg - 1,361kg
AF04136-3XXX	181,500lb 82,500kg	36" 914mm	258 SCFM 7,307L/m	120" - 168" 3,048mm - 4,267mm	39" 991mm	6" 152mm	2,000lb - 3,500lb 907kg - 1,588kg
AF04148-3XXX	306,000lb 139,091kg	48" 1,219mm	354 SCFM 10,025L/m	144" - 180" 3,658mm - 4,572mm	51" 1,295mm	6.5" 159mm	3,000lb - 5,000lb 1,361kg - 2,268kg

1. Standard lengths available in 6" increments. 2. Inflated height adds approximately .25"(6mm) - 1"(25mm).

Set of 3 Steel Air Planks Includes

Included	Quantity	Part No.
Air Planks	3x	AF041XX-1XXX
Steel Air Plank Controller - 3	1x	AF5027
Deadman Pendant	1x	AF5028
32ft Single Hose 1/4"	3x	AF5109
32ft Single Hose 3/4"	3x	AF5106
Loading Ramps	Optional	AF5023-XX

Flow vs Capacity



Utility Platform



Airfloat Utility Platforms allow an operator to efficiently move pallets or any large heavy load up to 12,000 lbs with ease. Our platforms also feature a retractable guide wheel, which makes maneuvering large loads easier. As with all of our product lines, our Utility Platforms are designed and made in America with full steel construction.

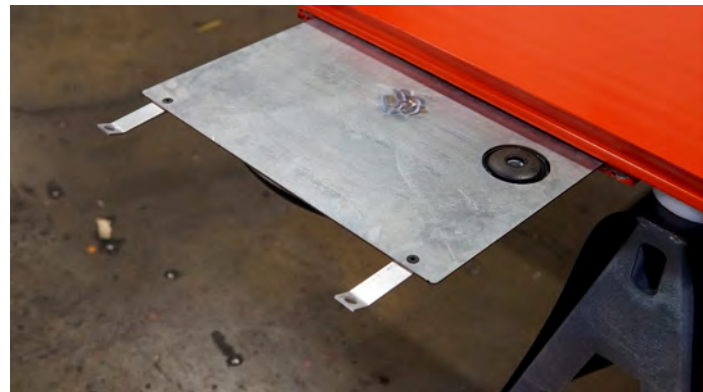
- **Capacities up to 12,000 lbs.**
- **Down heights as low as 3"**
- **Lengths from 36" to 120"**
- **Slide-out trays for easy maintenance**
- **Optional retractable guide wheel**

Features & Benefits



Guide Wheel

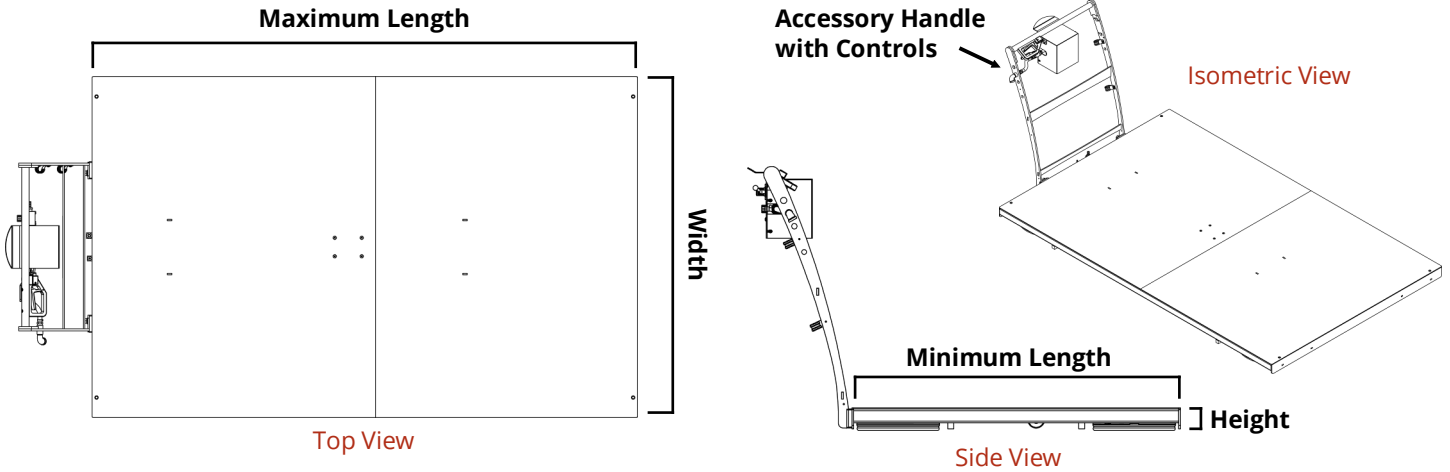
Our Utility Platforms feature a retractable guide wheel, which reduces drifting of the load on sloping floor surface and makes maneuvering large loads easier.



Slide-Out Trays

Utility Platforms feature a slide-out air caster tray design that allow the platform to be serviced without removing the load. This in return makes the maintenance and replacing of air casters simple with minimal downtime.

Utility Platform

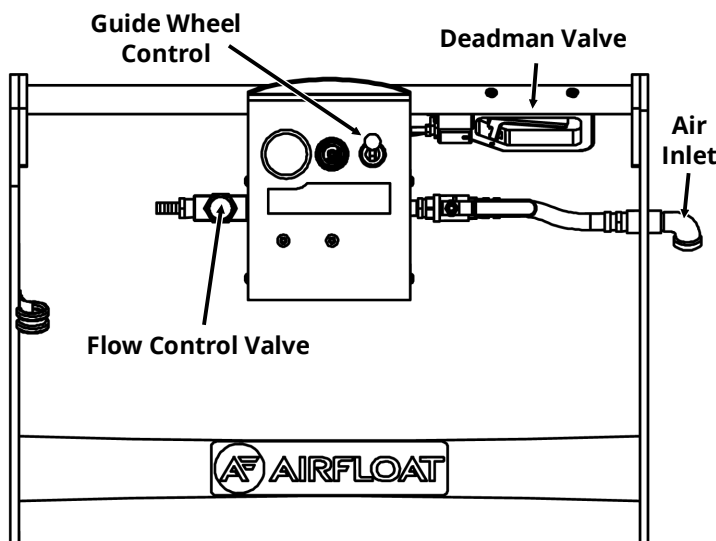


Utility Platform Specifications

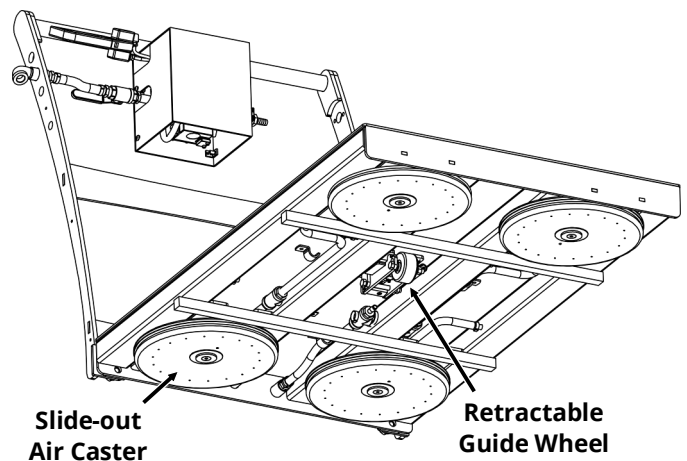
Model No.	Capacity	Length	Width	Height	Caster	Air Flow
AF020	Total	Min - Max ¹		Deflated ²	Diameter	Average
AF020-30XXX	8,000lb 3,629kg	36" - 60" 914mm - 1,524mm	30" 762mm	3" 76mm	12" 305mm	44 SCFM 1,246L/m
AF020-36XXX	8,000lb 3,629kg	36" - 72" 914mm - 1,829mm	36" 914mm	3" 76mm	12" 305mm	44 SCFM 1,246L/m
AF020-42XXX	12,000lb 5,443kg	42" - 84" 1067mm - 2,134mm	42" 1,068mm	3" 76mm	17" 432mm	64 SCFM 1,812L/m
AF020-48XXX	12,000lb 5,443kg	48" - 96" 1,219mm - 2,438mm	48" 1,219mm	3" 76mm	17" 432mm	64 SCFM 1,812L/m
AF020-60XXX	12,000lb 5,443kg	60" - 120" 1,524mm - 3,048mm	60" 1,524mm	3" 76mm	17" 432mm	64 SCFM 1,812L/m

1. Standard lengths available in 6" increments. 2. Inflated height adds approximately .25"(6mm) - 1"(25mm).

Utility Platform Accessory Handle



Utility Platform Bottom View



Air Caster Platform



The Airfloat Air Caster Platforms allows an operator to efficiently move pallets or any heavy or difficult to handle load up to 120,000 lbs. with ease. Using our Air Caster technology, Air Platforms provide near friction-free movement in any direction, giving them an advantage to wheeled carts and forklifts for moving pallets and heavy loads.

- **Capacities up to 120,000 lbs.**
- **Down heights as low as 5"**
- **Sizes from 48" to 210"**
- **Slide-out trays for easy maintenance**
- **Optional retractable guide wheel**

Features & Benefits



Quality Materials & Superior Design

Our Air Casters only utilize a 100% urethane diaphragm design with superior wear resistance for moving loads effortlessly.

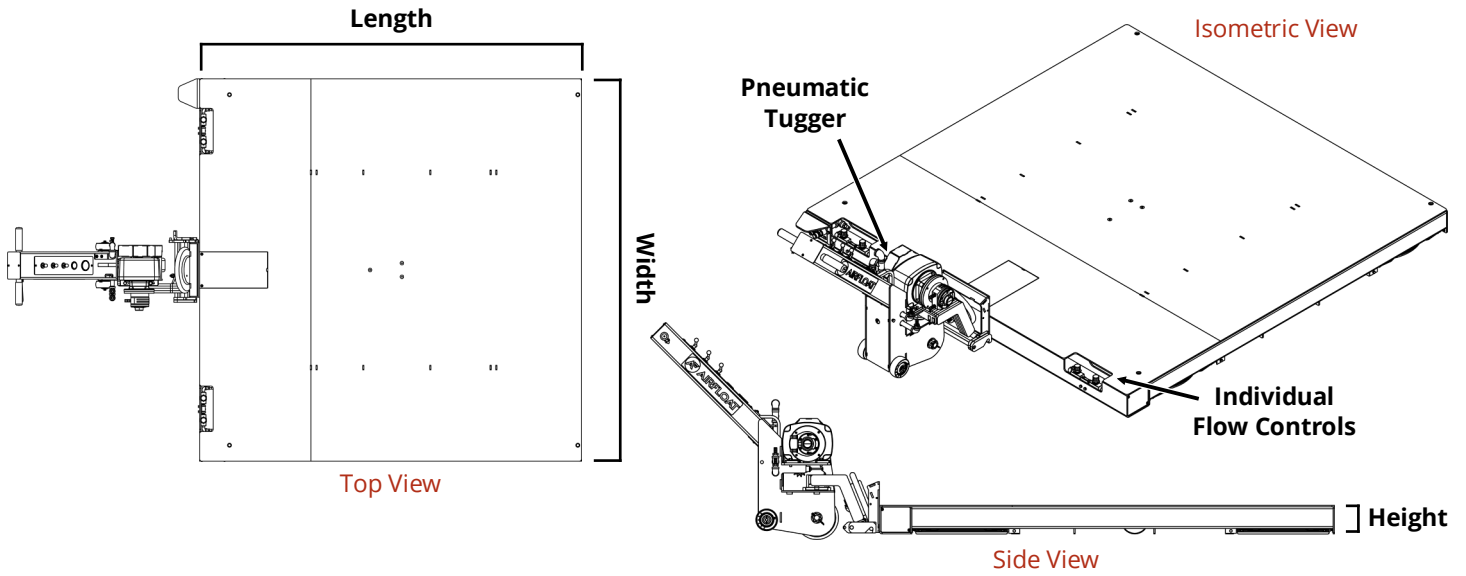
Slide-Out Air Casters

Platforms feature a slide-out air caster tray design that allow the platform to be serviced without removing the load. This in return makes the maintenance and replacing of air casters simple with minimal downtime.

Optional Guide Wheel

Our Air Caster Platforms feature a retractable guide wheel, which reduces drifting of the load on sloping floor surface and makes maneuvering large loads easier.

Air Caster Platform

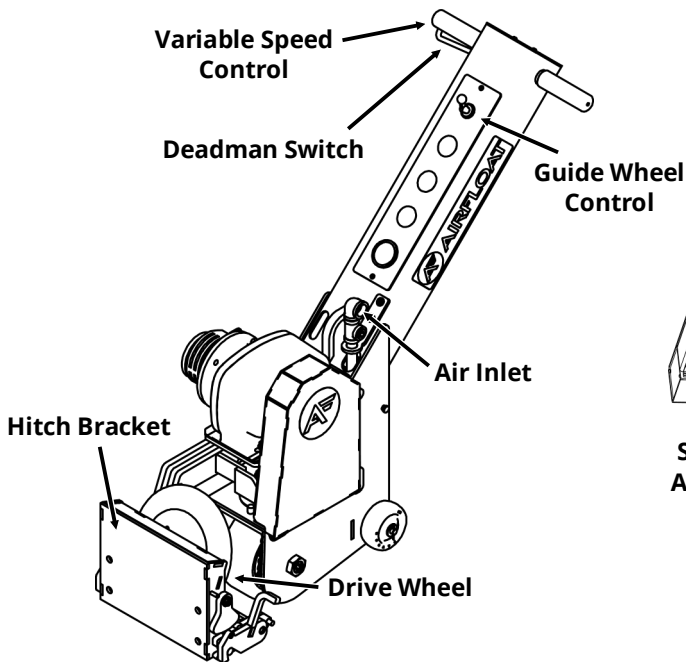


Air Caster Platform Specifications

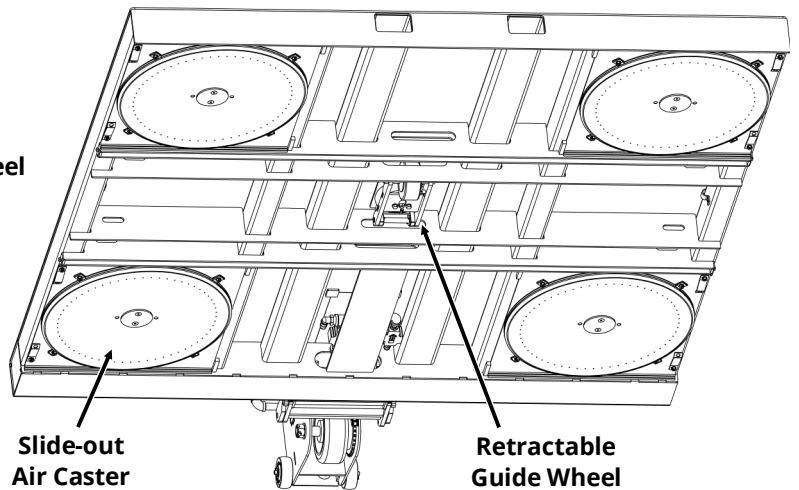
Model No.	Capacity	Width	Length	Height	Caster	Air Flow
AF03X	Total	Min - Max ¹	Min - Max ¹	Deflated ²	Diameter	Average
AF030-XXXXXX	22,000lb 9,979kg	48" - 84" 1,219mm - 2,134mm	48" - 144" 1,219mm - 3,658mm	5" 127mm	17" 432mm	48 SCFM 1,359L/m
AF031-XXXXXX	45,000lb 20,412kg	60" - 96" 1,524mm - 2,438mm	60" - 144" 1,524mm - 3,658mm	5" 127mm	24" 610mm	66 SCFM 1,869L/m
AF032-XXXXXX	80,000lb 36,287kg	76" - 108" 1,930mm - 2,743mm	76" - 156" 1,930mm - 3,962mm	7" 178mm	30" 762mm	85 SCFM 2,407L/m
AF033-XXXXXX	120,000lb 54,431kg	86" - 132" 2,184mm - 3,353mm	86" - 210" 2,184mm - 5,334mm	7" 178mm	36" 914mm	100 SCFM 2,832L/m

1. Standard lengths available in 6" increments. 2. Inflated height adds approximately .25"(6mm) - 1"(25mm).

Optional Pneumatic Tugger (see page 65 for details)



Air Caster Platform Bottom View



Air Caster Transporter



Our Air Caster Transporters were designed to deliver a flexible solution for moving heavy loads. We understand the importance of streamlined machinery transport that is safe and affordable. Our transporters offer omnidirectional movement of the load, making our solution easily maneuverable around your facility.

- **Capacities up to 200,000 lbs.**
- **Down heights as low as 10"**
- **Sizes from 96" to 196"**
- **Slide-out trays for easy maintenance**
- **Internal drive system with AGV options**

Custom Solutions

What We Offer

Align Production Systems works with customers to create custom designed products that are built specifically for their needed purpose.

400,000 lb. Capacity

Featured in the image to the right, we custom built a 400,000 lb. capacity Air Caster Transporter to help move their super-conducting magnet.

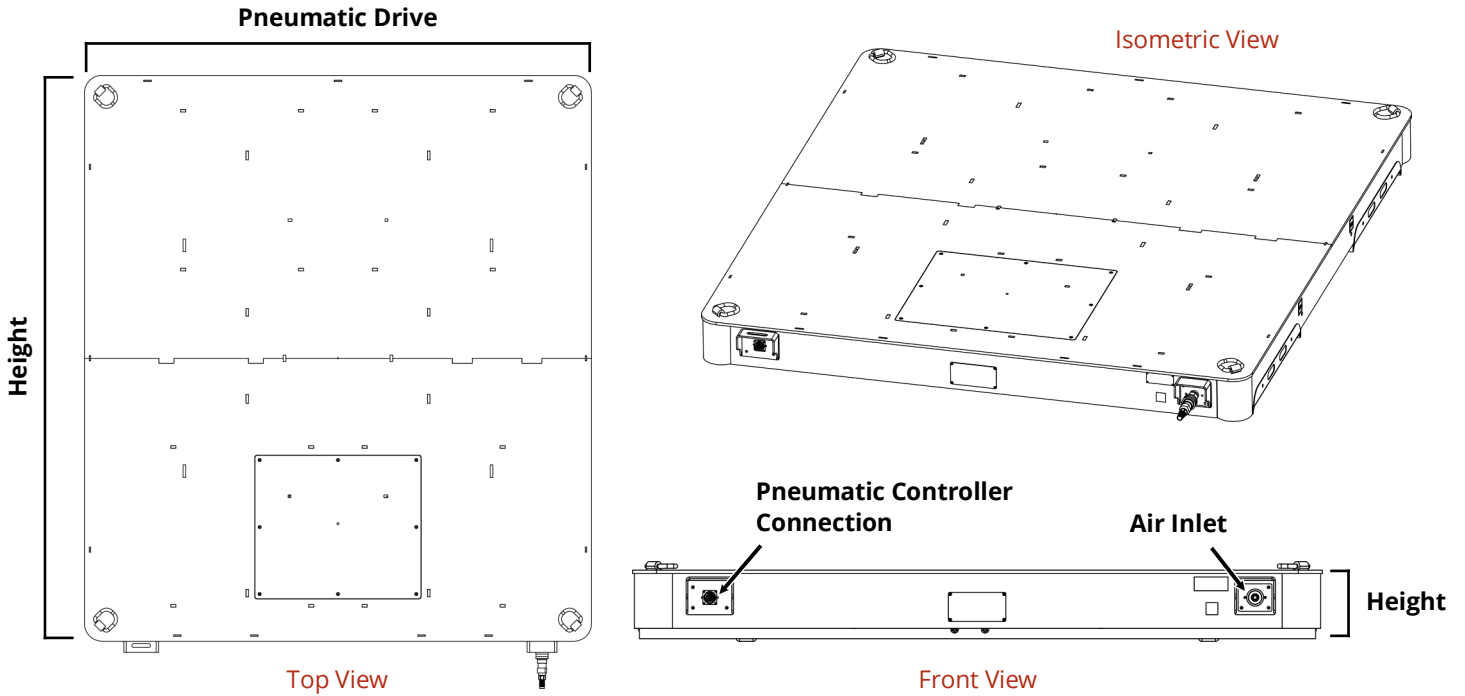
CMM Shuttle System

We worked in cooperation with a CMM manufacturer to design an air caster transporter that fit their needs and reduced their CMM cycle times by 50—70%.



Image: 400,000 lb. Capacity Air Caster Transporter

Air Caster Transporter

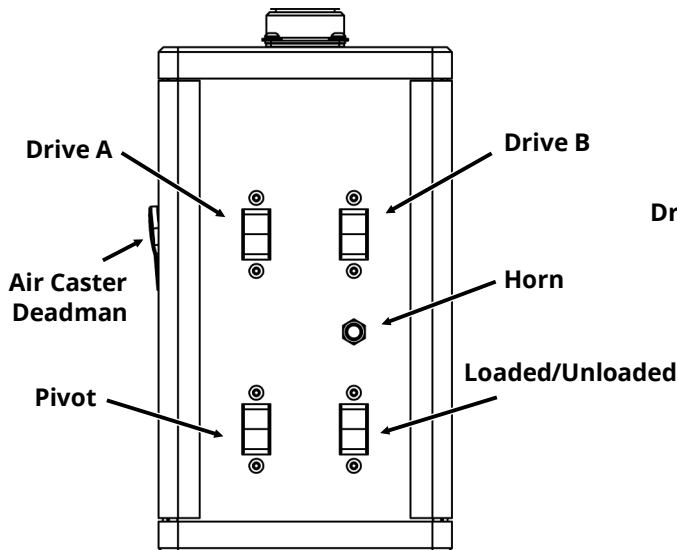


Air Caster Transporter Specifications

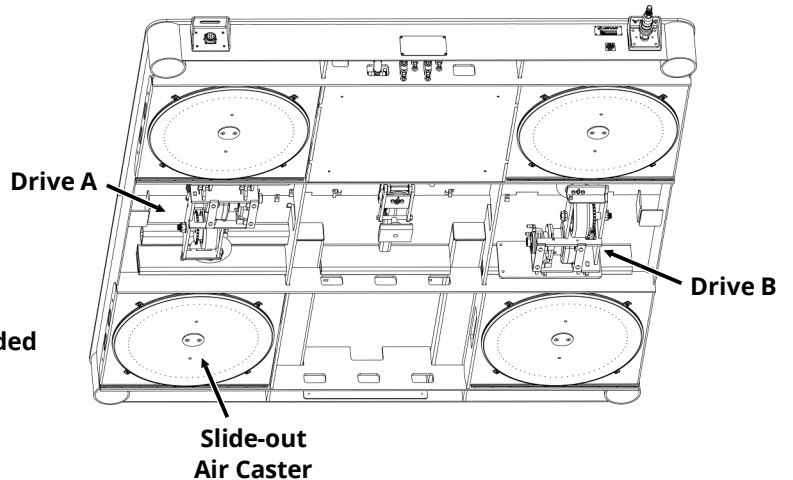
Model No.	Capacity	Transporter Size		Height	Caster	Air Flow
		Width (Min - Max ¹)	Length (Min - Max ¹)			
AF07X	Total			Deflated ²	Diameter	Average
AF070-XXXXXX	45,000lb 20,412kg	96" - 144" 2,438mm - 3,658mm	96" - 196" 2,438mm - 4,978mm	10" 254mm	24" 610mm	66 SCFM 1,869L/m
AF071-XXXXXX	80,000lb 36,287kg	96" - 144" 2,438mm - 3,658mm	96" - 196" 2,438mm - 4,978mm	10" 254mm	30" 762mm	85 SCFM 2,407L/m
AF072-XXXXXX	120,000lb 54,431kg	120" - 192" 3,048mm - 4,877mm	144" - 192" 3,658mm - 4,877mm	10" 254mm	36" 914mm	100 SCFM 1,2832L/m
AF073-XXXXXX	200,000lb 90,718kg	144" - 192" 3,658mm - 4,877mm	144" - 192" 3,658mm - 4,877mm	10" 254mm	48" 1,219mm	140 SCFM 3,965L/m

1. Standard lengths available in 6" increments. 2. Inflated height adds approximately .25"(6mm) - 1"(25mm).

Pneumatic Pendant Controller



Air Caster Transporter Bottom View



Air Platform Roll Transporter with Cradle



Our Air Platform with Roll Cradle and or Roll Lift allows you to move difficult paper and material rolls effortlessly. Airfloat air casters provide omnidirectional and nearly friction-free movement for maximum flexibility even in tight spaces. Easy maintenance with slide-out air caster trays that can be serviced without removing the load.

- **Adjustable chocks for different size rolls**
- **Roll Diameters up to 110"**
- **Slide-out trays for easy maintenance**
- **Optional retractable guide wheel**

Available Models



Air Platform with Roll Cradle

Air Platform with Roll Cradle features a capacity up to 12,000 lbs. (5,443kg), low down height of 3" (76mm) and adjustable chocks that can handle up to 80" (2,032mm) or 110" (2,794mm) diameter rolls with extended handle.



Air Platform with Cradle & Lift

Air Platform with Roll Lift features a capacity up to 6,000 lbs. (2,722kg), 36" (914mm) of stroke and a adjustable chock that can handle up to 80" (2,032mm) diameter rolls.

Cradle Roll Transporter



Our fixed and adjustable fork style roll transporters allows for rolls to be lifted right off the floor without needing forklifts or overhead cranes. Featuring up to 2" of stroke, omnidirectional and nearly friction-free movement with air casters. Easy maintenance with Slide-out air caster trays that can be serviced without removing the load.

- **Range of units for different size rolls**
- **Roll Diameters up to 96"**
- **Easily lift rolls right from the floor**
- **Slide-out trays for easy maintenance**
- **Optional retractable guide wheel**

Available Models



Fixed Roll Transporter

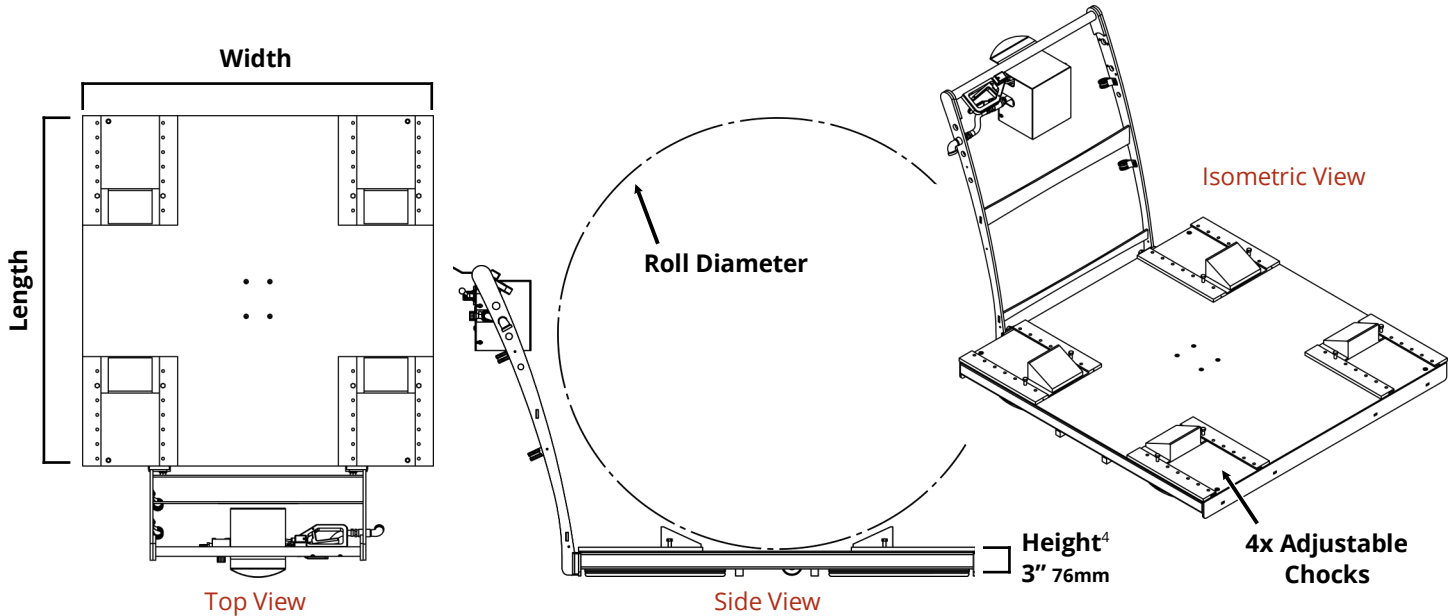
Fixed fork style roll transporter allows for roll sizes up to 96" (2,438mm). Featuring the ability to lift a roll right from the floor with no forklifts or overhead cranes and omnidirectional movements.



Adjustable Roll Transporter

Adjustable fork style roll transporter allows for a range of roll sizes up to 96" (2,438mm). Featuring an adjustable width up to 20" (508mm), able to lift the roll right from the floor and omnidirectional movement.

Air Platform with Roll Cradle



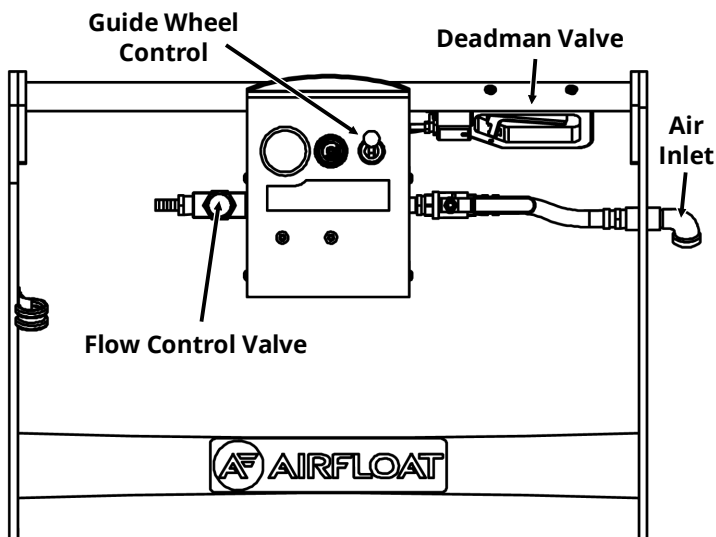
Air Platform with Roll Cradle Specifications

Model No.	Capacity	Roll Size			Platform Size		Caster	Air Flow
		Max Dia.	Ext. Dia. ¹	Length ²	Width	Length (Min - Max ³)		
AF081	Total						Diameter	Average
AF081-30XXX	8,000lb 3,628kg	58" 1,473mm	82" 2,083mm	42" 1,067mm	30" 762mm	36" - 60" 914mm - 1,524mm	12" 305mm	44 SCFM 1,246L/m
AF081-36XXX	8,000lb 3,628kg	70" 1,778mm	94" 2,388mm	48" 1,219mm	36" 914mm	36" - 72" 914mm - 1,829mm	12" 305mm	44 SCFM 1,246L/m
AF081-42XXX	12,000lb 5,443kg	84" 2,134mm	108" 2,743mm	54" 1,372mm	42" 1,068mm	42" - 84" 1,067mm - 2,134mm	17" 432mm	64 SCFM 1,812L/m
AF081-48XXX	12,000lb 5,443kg	100" 2,540mm	124" 3,150mm	60" 1,524mm	48" 1,219mm	48" - 96" 1,219mm - 2,438mm	17" 432mm	64 SCFM 1,812L/m
AF081-60XXX	12,000lb 5,443kg	162" 4,115mm	186" 4,724mm	72" 1,829mm	60" 1,524mm	60" - 120" 1,524mm - 3,048mm	17" 432mm	64 SCFM 1,812L/m

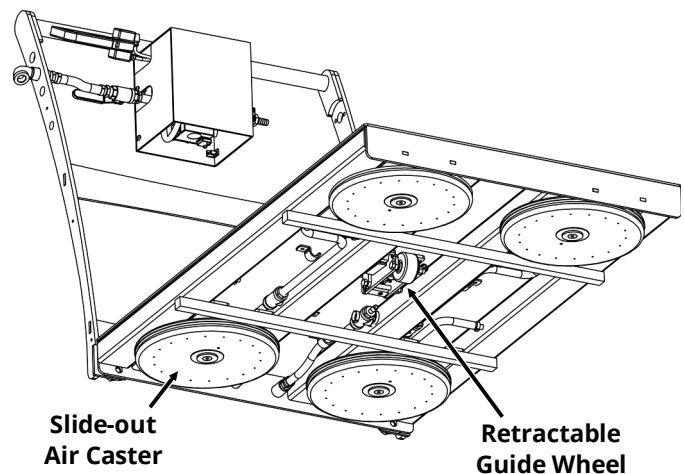
1. Extended handle allows for larger roll diameters. 2. Load may overhang, assuming roll does not deflect. 3. Standard lengths available in 6" increments.

4. Inflated height adds approximately .25"(6mm) - 1"(25mm).

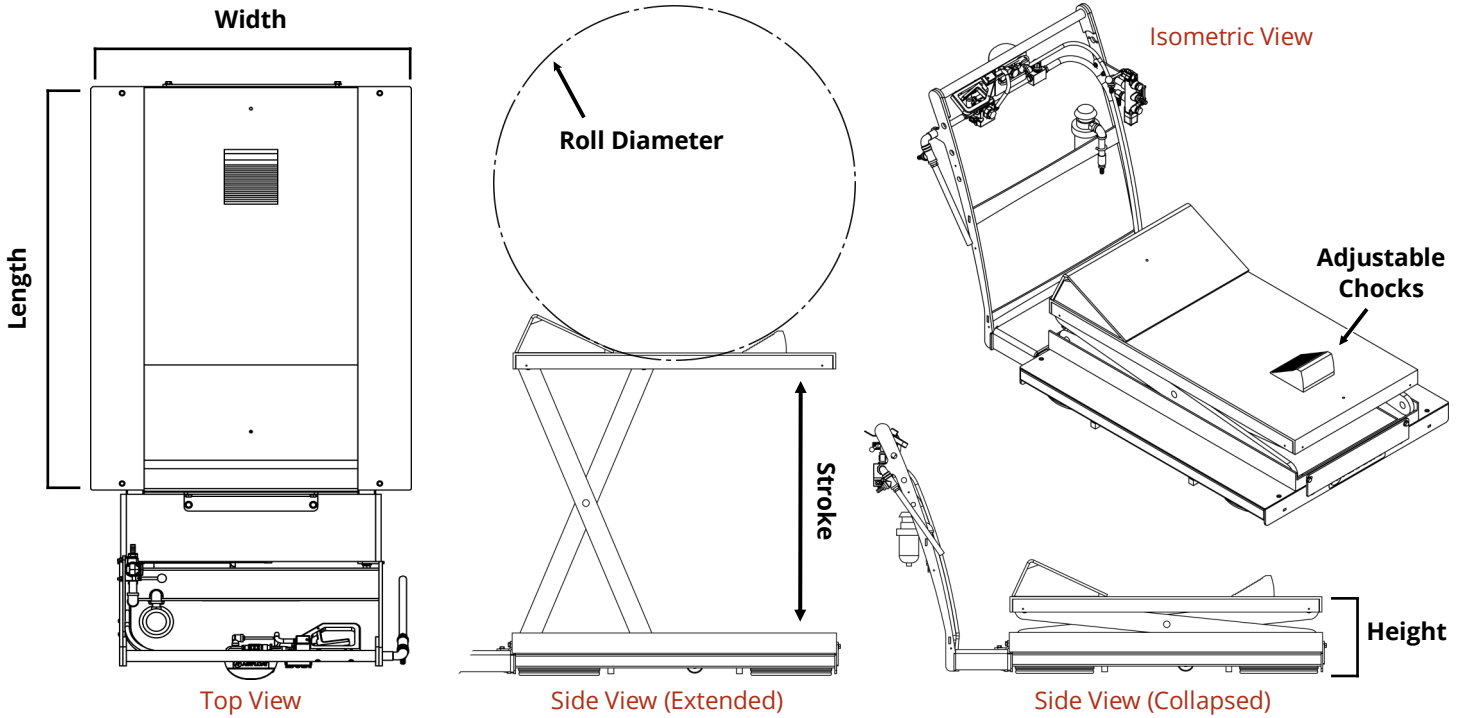
Plank Roll Transporter Accessory Handle



Plank Roll Transporter Bottom View



Air Platform with Cradle & Lift

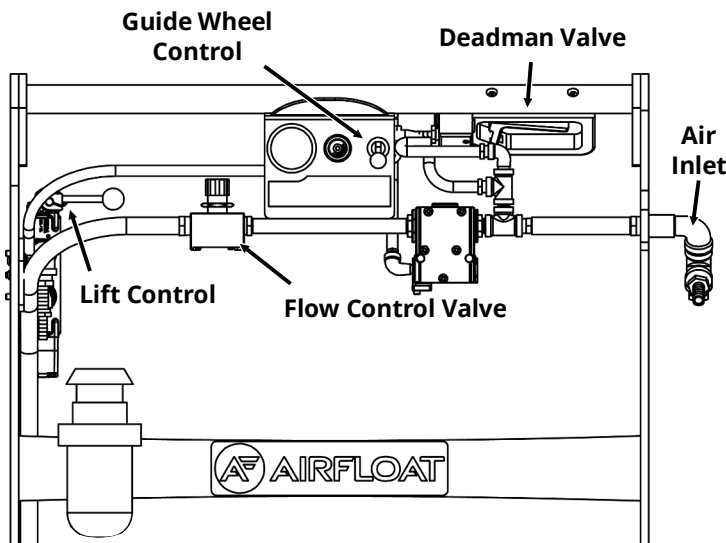


Air Platform with Cradle & Lift Specifications

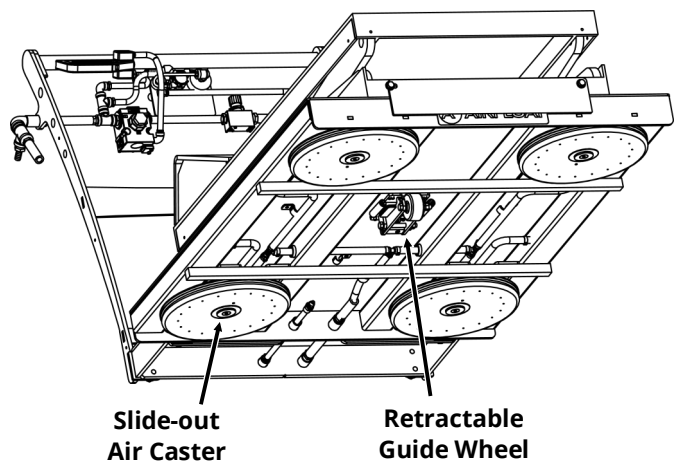
Model No.	Capacity	Roll Size	Stroke	Platform Size ²	Caster	Air Flow	
	Total	Max Dia.	Length ¹	L x W x H	Diameter	Average	
AF08X							
AF084-3648	2,000lb 907kg	80" 2,032mm	48" 1,219mm	36" 914mm	48" x 36" x 11.56" 1,219mm x 914mm x 294mm	12" 305mm	60 SCFM 1,699L/m
AF085-4848	6,000lb 2,721kg	80" 2,032mm	60" 2,524mm	36" 914mm	48" x 48" x 11.56" 1,219mm x 1,219mm x 294mm	17" 432mm	80 SCFM 2,266L/m

1. Load may overhang, assuming roll does not deflect. 2. Inflated height adds approximately .25"(6mm) - 1"(25mm).

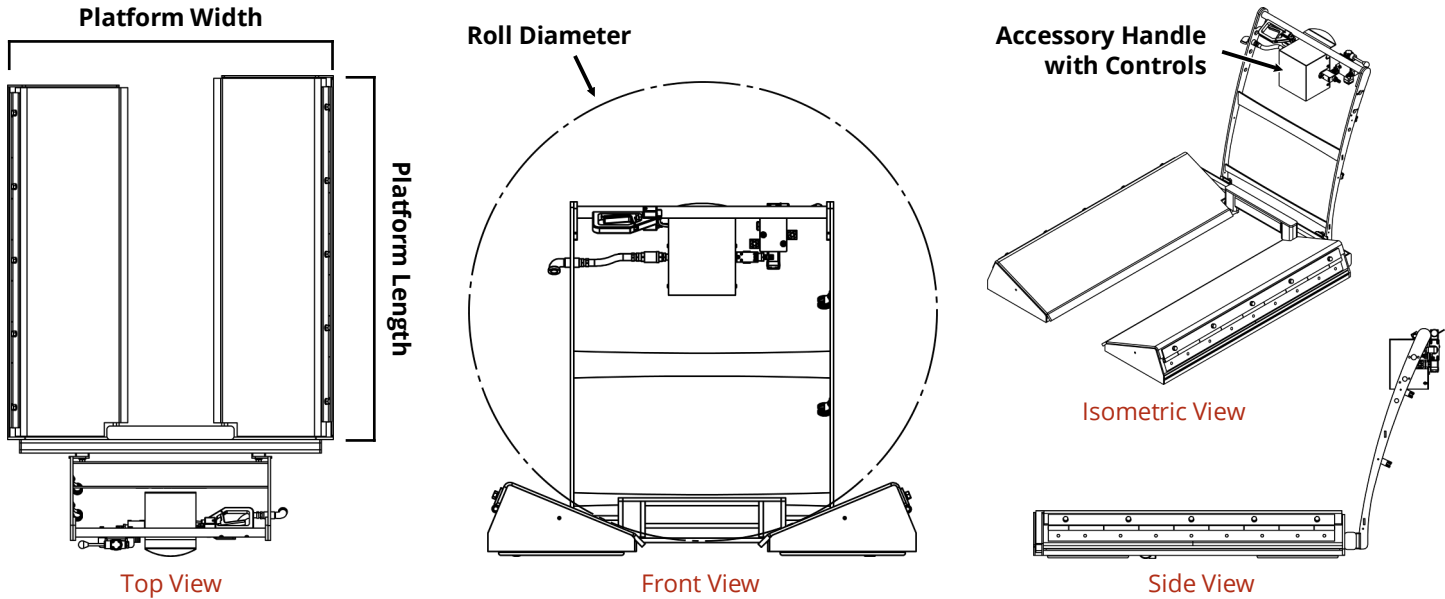
Coil Roll Transporter Accessory Handle



Coil Roll Transporter Bottom View



Fixed Cradle Roll Transporter

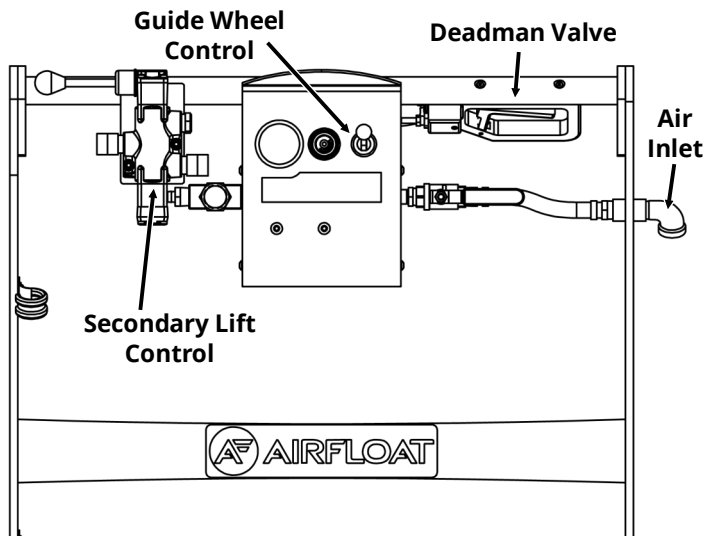


Fixed Cradle Roll Transporter Specifications

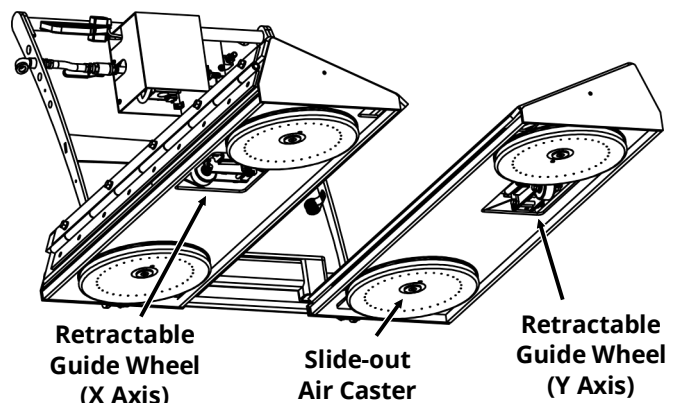
Model No.	Capacity	Roll Size		Platform Size		Stroke	Caster	Air Flow
		Diameter	Length ¹	Length	Width			
AF082	Total							
AF082-3642	5,000lb 2,268kg	36" 914mm	42" 1,066mm	36" 914mm	40" 1,016mm	1" 25mm	10" 254mm	48 SCFM 1,359L/m
AF082-4854	5,000lb 2,268kg	48" 1,219mm	54" 1,372mm	48" 1,219mm	46" 1,168mm	1" 25mm	12" 304mm	54 SCFM 1,529L/m
AF082-6054	5,000lb 2,268kg	60" 1,524mm	54" 1,372mm	48" 1,219mm	48" 1,219mm	1.5" 38mm	12" 304mm	54 SCFM 1,529L/m
AF082-7272	5,000lb 2,268kg	72" 1,829mm	72" 1,829mm	60" 1,524mm	54" 1,372mm	1.5" 38mm	14" 356mm	62 SCFM 1,756L/m
AF082-8472	5,000lb 2,268kg	84" 2,134mm	72" 1,829mm	60" 1,524mm	58" 1,473mm	2" 51mm	14" 356mm	62 SCFM 1,756L/m
AF082-9696	5,000lb 2,268kg	96" 2,438mm	96" 2,438mm	72" 1,829mm	60" 1,524mm	2" 51mm	14" 356mm	62 SCFM 1,756L/m

1. Load may overhang, assuming roll does not deflect. 2. Inflated height adds approximately .25"(6mm) - 1"(25mm).

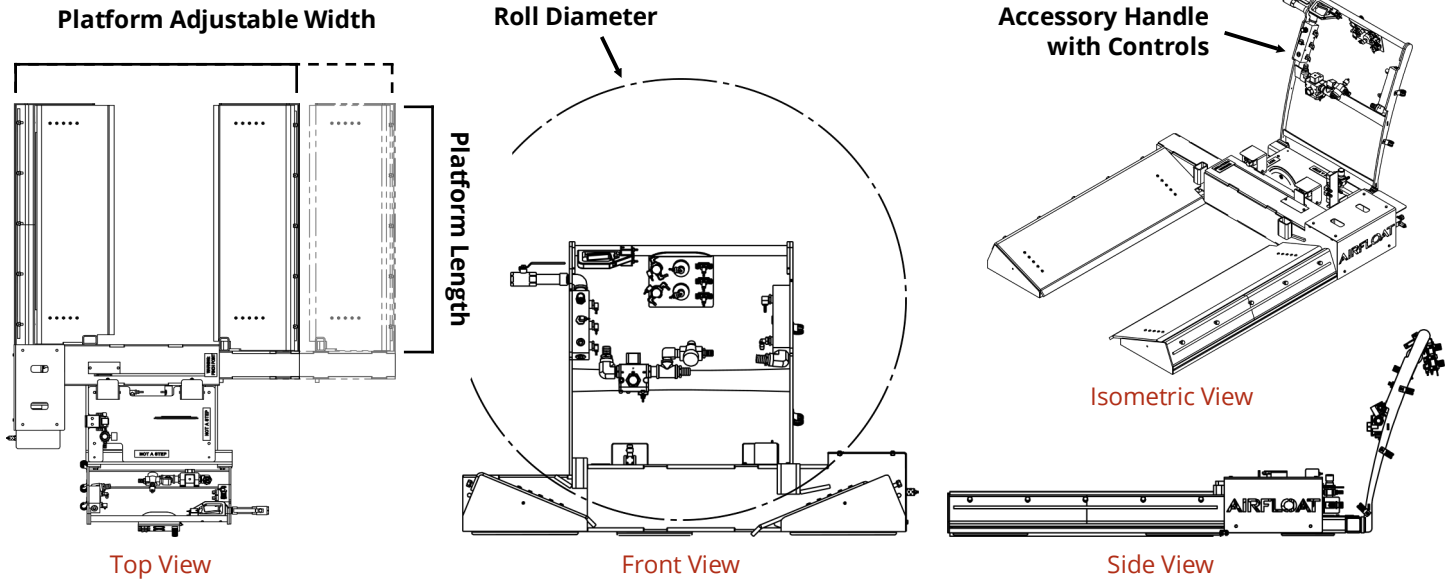
Fixed Roll Transporter Accessory Handle



Fixed Roll Transporter Accessory Handle



Adjustable Cradle Roll Transporter

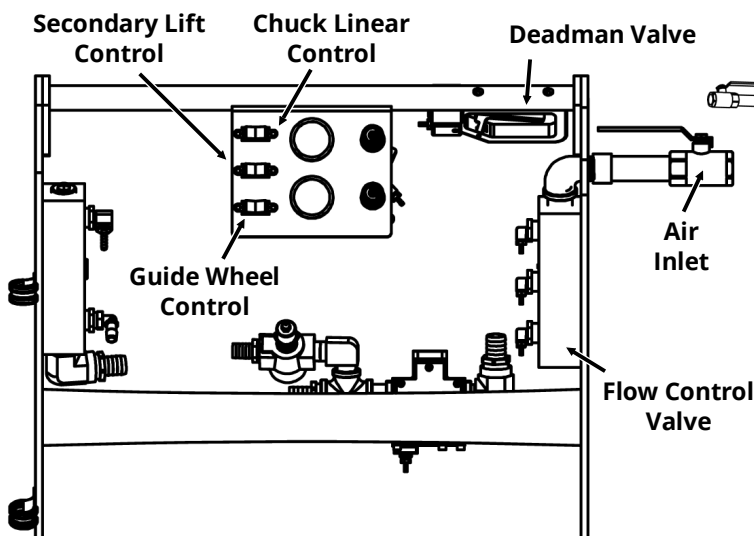


Adjustable Cradle Roll Transporter Specifications

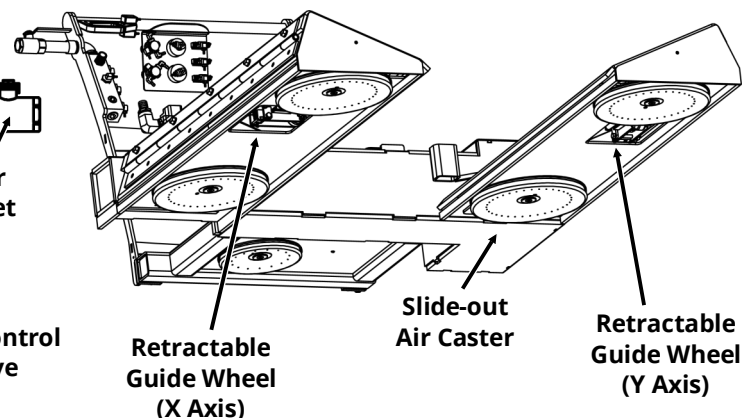
Model No.	Capacity	Roll Size		Platform Size		Stroke	Caster	Air Flow
		Diameter	Length ¹	Length	Width			
AF083	Total							
AF083-3642	5,000lb 2,268kg	24" - 36" 610mm - 914mm	42" 1,066mm	36" 914mm	40" 1,016mm	1" 25mm	10" 254mm	80 SCFM 2,266L/m
AF083-4854	5,000lb 2,268kg	36" - 48" 914mm - 1,219mm	54" 1,372mm	48" 1,219mm	46" 1,168mm	1" 25mm	12" 304mm	100 SCFM 2,832L/m
AF083-6054	5,000lb 2,268kg	48" - 60" 1,219mm - 1,524mm	54" 1,372mm	48" 1,219mm	48" 1,219mm	1.5" 38mm	12" 304mm	100 SCFM 2,832L/m
AF083-7272	5,000lb 2,268kg	60" - 72" 1,524mm - 1,829mm	72" 1,829mm	60" 1,524mm	54" 1,372mm	1.5" 38mm	14" 356mm	120 SCFM 3,398L/m
AF083-8472	5,000lb 2,268kg	72" - 84" 1,829mm - 2,134mm	72" 1,829mm	60" 1,524mm	58" 1,473mm	2" 51mm	14" 356mm	120 SCFM 3,398L/m
AF083-9696	5,000lb 2,268kg	84" - 96" 2,134mm - 2,438mm	96" 2,438mm	72" 1,829mm	60" 1,524mm	2" 51mm	14" 356mm	120 SCFM 3,398L/m

1. Load may overhang, assuming roll does not deflect. 2. Inflated height adds approximately .25"(6mm) - 1"(25mm).

Adjustable Roll Transporter Accessory Handle



Adjustable Roll Transporter Bottom View



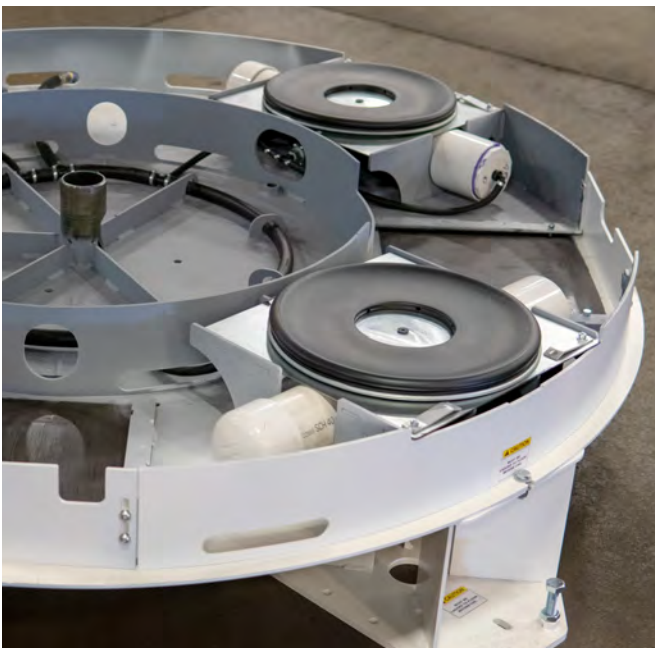
Air Caster Turntable



Our pneumatic turntables are fitted with Airfloat air caster technology, the low profile design works by creating a thin layer of air between the base and the top of the table, making the table nearly friction-free while moving loads effortlessly. Quality materials matter, as reflected by our 100% urethane diaphragm design in our air casters for superior wear resistance.

- **Low down height of 7"**
- **Lower cost option compared to mechanical systems**
- **Simple human rotation to automotive robotic with precision location**
- **Custom tables for capacities up to 800,000 lbs. available**

Case Study



Mining Truck Assembly

Caterpillar worked with Align Production Systems to remove bottlenecks from their Mining Truck assembly line using 200,000 lbs. pit-mounted air caster turntables.

Seamless Integration

The pit-mounted air caster turntables that interfaces with existing rail systems. Moving Caterpillar from a single rail to a multi-rail system.

Productivity Increase

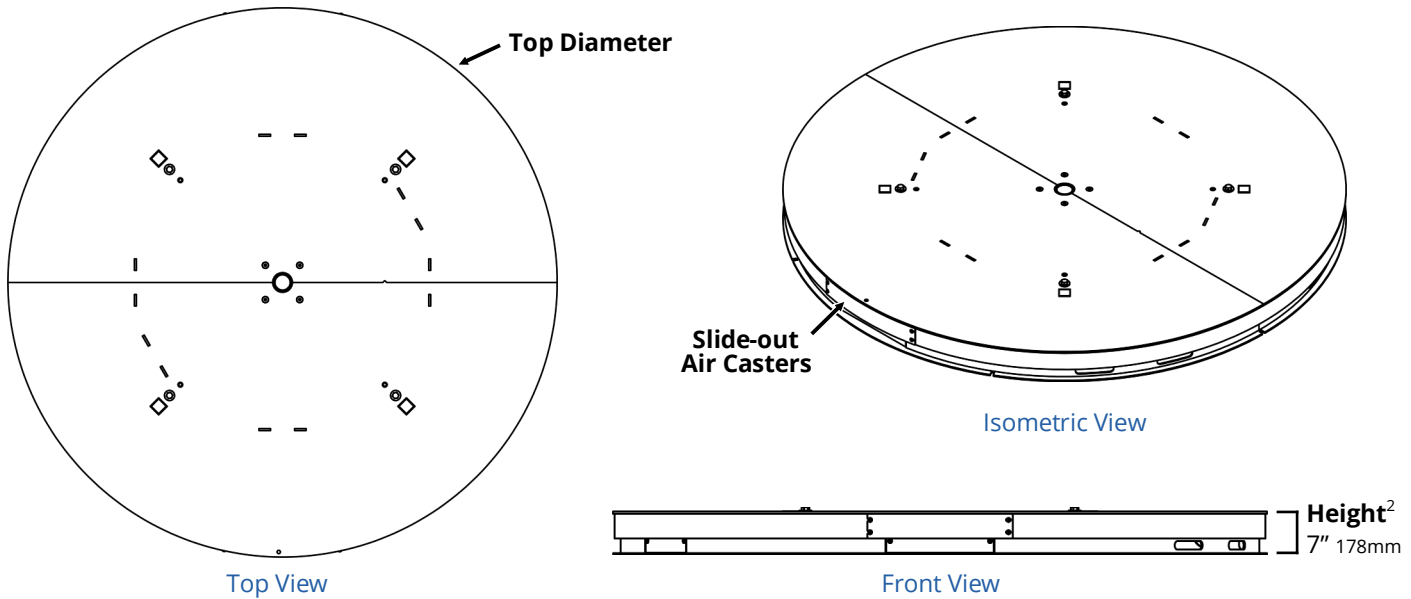
After implementing Air Caster Turntables, Caterpillar's assembly line had a substantial productivity increase.

Air Caster Turntable

	Options	Part No.	Description
Options	Electric Drive	AX5020-0020	AX series internal electric drive assembly.
	Pneumatic Drive	AX5020-0030	AX series pneumatic drive assembly / lubed motor.
	High Speed Electric Drive	AX5020-0040	AX series high speed internal electric drive assembly.
	High Speed Pneumatic Drive	AX5020-0050	AX series high speed pneumatic drive assembly / lubed motor.
	Internal 180° Bumper Stop	AX5030-0010	AX series turntable bumper stop assembly kit.
	Internal 180° Shock Stop	AX5030-0020	AX series turntable shock stop assembly kit.
	Internal 180° Shock Stop with Precision Locator	AX5030-0021	AX series turntable shock stop with prox. sensor assembly kit.
	Internal Shot Pin	AX5030-0030	AX series slide out shot pin assembly kit.
	Pneumatic Auto Shut-Off / Two Position	AX5010-0050	Auto shutoff assembly 2 position kit.
	Pneumatic Auto Shut-Off / Four Position	AX5010-0060	Auto shutoff assembly 4 position kit.
	Electric Auto Shut-Off / Two Position	AX5010-0070	Electric auto shutoff assembly 2 position kit.
	Electric Auto Shut-Off / Four Position	AX5010-0080	Electric auto shutoff assembly 4 position kit.
Config. Options	Hand Control Stand	APS5030-XXXX	Hand/manual operated control stand.
	Foot Control Stand	APS5020-XXXX	Foot/manual operated control stand.
	Robotic Interface Control Stand	APS5080-XXXX	PLC operated control stand. I/O block provided to communicate with components.
	Dirt Leg	APS5000-XXXX	Dirt leg assembly for air filtration. (factory recommended)
	Center Divider	AX5050-XXXX	Center divider tube / 8" tall.
	Center Fence - Screen	AX5051-XXXX	An expanded metal screen divider used to partition the table into two separate loading/working stations.
	Center Fence - Solid	AX5052-XXXX	A solid sheet metal divider used to partition the table into two separate loading/working stations.
	Center Fence - Polycarbonate	AX5053-XXXX	A solid transparent polycarbonate divider used to partition the table into two separate loading/working stations.
Riser Base	AX5060-XXXX	Raise the turntable to a more ergonomic height for the operator(s).	
Custom Options	Audible/Visual Alarm	Custom	Audible and/or visual alarm to indicate movement .
	Safety Guarding	Custom	Physical and/or electrical guarding to prevent personnel from entering equipment area during operation.
	Lead-Ins	Custom	Welded plate side guides used to ease loading/unloading of racks on table by forklift.
	Scraper Bar	Custom	Welded bar stopper for fork truck rack placement/protection.
	Corner Angles	Custom	Welded plate angles for rack placement mounted and the rack corners.
	Conical Locators	Custom	Bolt-on conical pads for open tube rack placement.
	Error Proofing Pin	Custom	Bolt-on pin used to prevent misalignment or incorrect orientation of racks.
	Rack Present Sensors	Custom	Sensors to detect the presence of racks on either side of the table.
	Custom Controls Package	Custom	PLC controlled stand programmed by Align.

Some options may preclude other options.

Round Air Caster Turntable

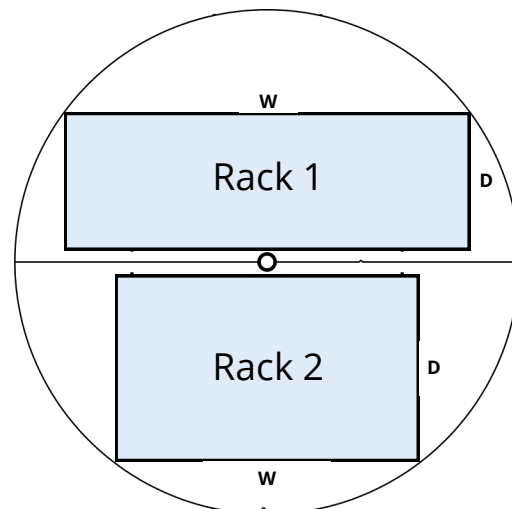


Round Air Caster Turntable Specifications

Model No.	Capacity	Cycle Time	Base Size	Height	Caster	Air Flow
AX040	Total	180° Fully Loaded ¹	Diameter	Deflated ²	Diameter	Average
AX040-0084	12,000lb 5,443kg	12 - 16 Sec.	84" 2,134mm	7" 178mm	17" 432mm	32 SCFM 906L/m
AX040-0096	16,000lb 7,257kg	12 - 18 Sec.	96" 2,438mm	7" 178mm	17" 432mm	40 SCFM 1,133L/m
AX040-0108	16,000lb 7,257kg	14 - 20 Sec.	108" 2,743mm	7" 178mm	17" 432mm	48 SCFM 1,359L/m
AX040-0120	16,000lb 7,257kg	14 - 20 Sec.	120" 3,048mm	7" 178mm	17" 432mm	48 SCFM 1,359L/m
AX040-0132	16,000lb 7,257kg	16 - 22 Sec.	132" 3,353mm	7" 178mm	17" 432mm	48 SCFM 1,359L/m
AX040-0144	16,000lb 7,257kg	16 - 24 Sec.	144" 3,658mm	7" 178mm	17" 432mm	48 SCFM 1,359L/m

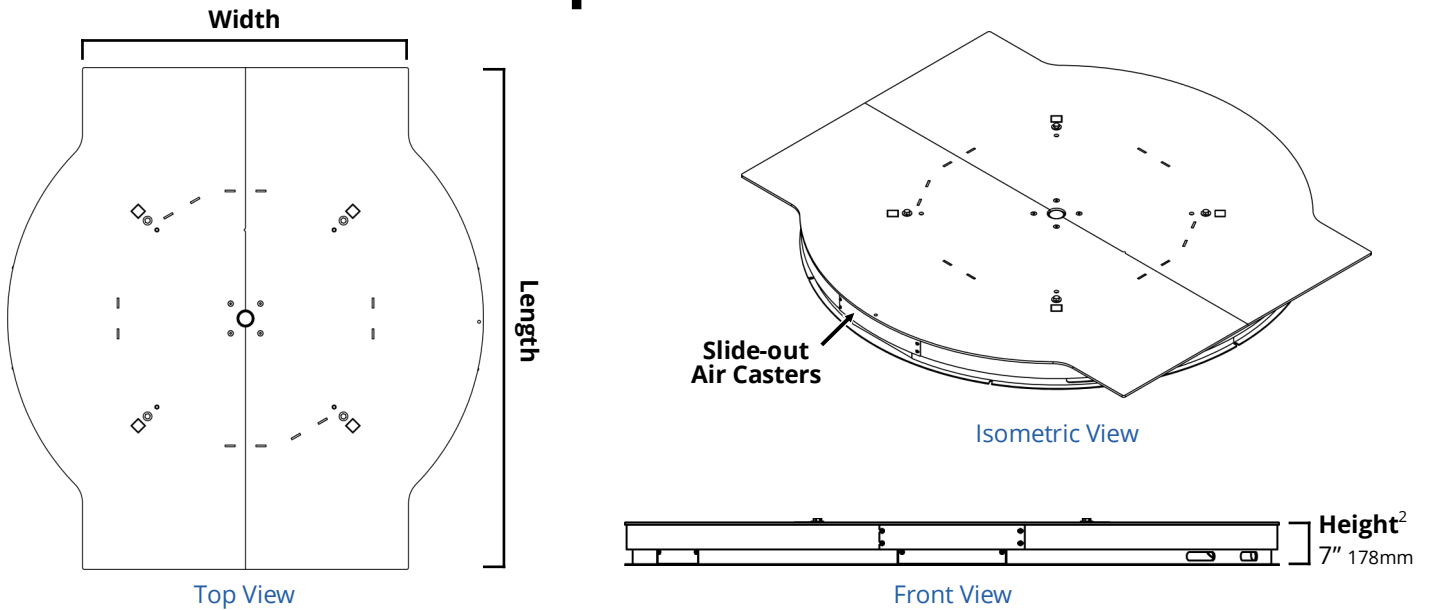
1. Cycle time for 180° rotation. Times will vary depending on drive type and loading conditions. May decrease with lighter load. 2. Inflated height adds approximately .25"(6mm) - 1"(25mm).

Model No.	Rack Size Example 1	Rack Size Example 2
AX040	W x D @ Max Cap.	W x D @ Max Cap.
AX040-0084	74" x 18" 1,880mm x 457mm	38" x 36" 965mm x 914mm
AX040-0096	84" x 22" 2,134mm x 559mm	50" x 40" 1,270mm x 1,016mm
AX040-0108	94" x 26" 2,388mm x 660mm	60" x 44" 1,524mm x 1,118mm
AX040-0120	102" x 30" 2,591mm x 762mm	68" x 48" 1,727mm x 1,219mm
AX040-0132	112" x 34" 2,845mm x 863mm	78" x 52" 1,981mm x 1,321mm
AX040-0144	122" x 38" 3,099mm x 965mm	88" x 56" 2,235mm x 1,422mm



Example rack sizes are not a minimum or maximum rack size. Consult with application engineer for assistance with sizing.

Square Air Caster Turntable

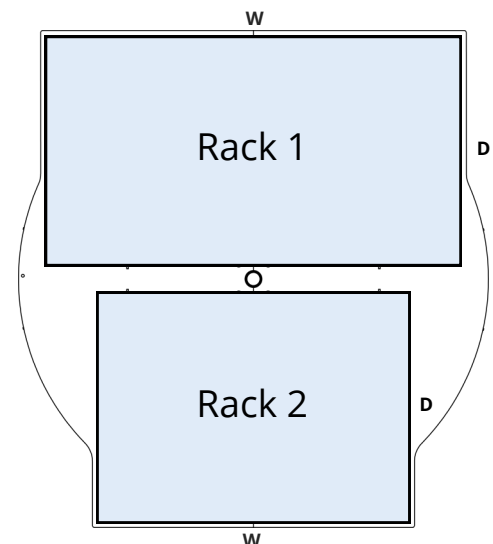


Square Air Caster Turntable Specifications

Model No.	Capacity	Cycle Time	Base Size	Top Size		Air Flow
AX041	Total	180° Fully Loaded ¹	Diameter	Max Width ³	Max Length ³	Average
AX041-XXXXXX	12,000lb 5,443kg	12 - 16 Sec.	84" 2,134mm	80" 2,032mm	90" 2,286mm	32 SCFM 906L/m
AX041-XXXXXX	16,000lb 7,257kg	12 - 18 Sec.	96" 2,438mm	92" 2,337mm	102" 2,591mm	40 SCFM 1,133L/m
AX041-XXXXXX	16,000lb 7,257kg	14 - 20 Sec.	108" 2,743mm	104" 2,642mm	114" 2,896mm	48 SCFM 1,359L/m
AX041-XXXXXX	16,000lb 7,257kg	14 - 20 Sec.	120" 3,048mm	116" 2,946mm	126" 3,200mm	48 SCFM 1,359L/m
AX041-XXXXXX	16,000lb 7,257kg	16 - 22 Sec.	132" 3,353mm	128" 3,251mm	138" 3,505mm	48 SCFM 1,359L/m
AX041-XXXXXX	16,000lb 7,257kg	16 - 24 Sec.	144" 3,658mm	140" 3,556mm	150" 3,810mm	48 SCFM 1,359L/m

1. Cycle time for 180° rotation. Times will vary depending on drive type and loading conditions. May decrease with lighter load. 2. Inflated height adds approximately .25"(6mm) - 1"(25mm). 3. Standard lengths available in 6" increments.

Model No.	Swing Radius	Rack Size Example 1	Rack Size Example 2
AX041	at max table size	W x D	W x D
AX041-XXXX	58" 1,473mm	84" x 42" 2,134m x 1,067mm	52" x 42" 1,321mm x 1,067mm
AX041-XXXX	74" 1,880mm	96" x 48" 2,438mm x 1,219mm	68" x 48" 1,727mm x 1,219mm
AX041-XXXX	90" 2,286mm	108" x 54" 2,743mm x 1,372mm	84" x 54" 2,134mm x 1,372mm
AX041-XXXX	103" 2,616mm	120" x 60" 3,048mm x 2,524mm	96" x 60" 2,438mm x 2,524mm
AX041-XXXX	118" 2,997mm	132" x 66" 3,353mm x 2,676mm	110" x 66" 2,794mm x 2,676mm
AX041-XXXX	133" 3,378mm	144" x 72" 3,658m x 2,829mm	124" x 72" 3,150mm x 2,829mm



Example rack sizes are not a minimum or maximum rack size. Consult with application engineer for assistance with sizing.

Flush Floor Air Caster Turntable



Our Flush Floor Air Caster Turntables package our popular Air Caster Turntable into a solution designed for operations needing turntables to interact with fork lifts or rail systems. Our flush floor systems are more practical than mechanical ones, with a capacity of 100,000 lbs, max top size of 324", and optional rail spurs and curb ring.

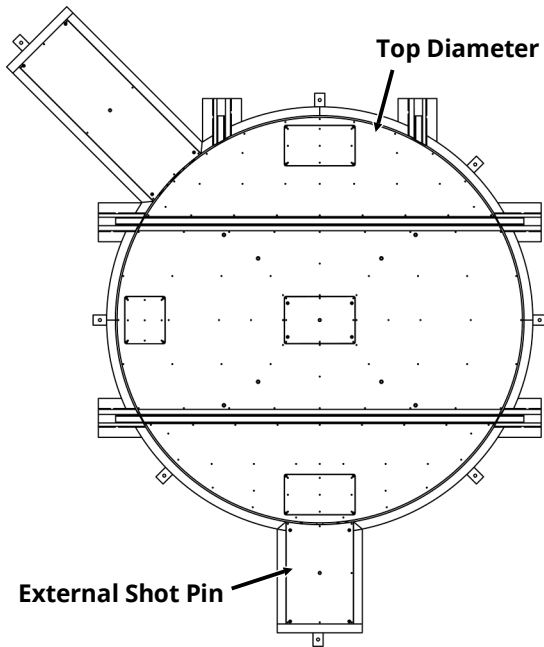
- **Capacities up to 100,000 lbs.**
- **Top sizes from 96" to 324"**
- **Optional Rail Spurs and Curb Ring**
- **Lower cost option compared to mechanical systems**

Flush Floor Turntable Options

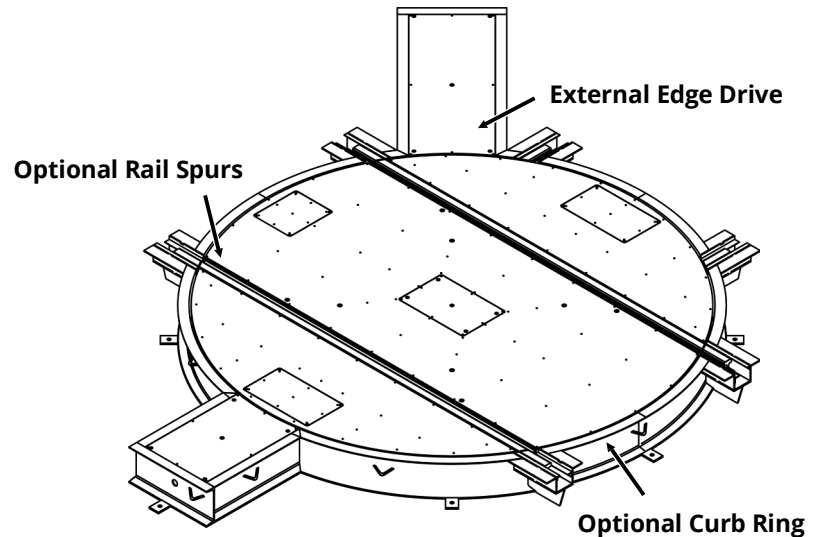
	Options	Part No.	Description
Options	Electric Edge Drive	AX5020-0060	AX050 series external electric drive assembly.
	Pneumatic Edge Drive	AX5020-0070	AX050 series external pneumatic drive assembly / lubed motor.
	Internal 180° Shock Stop with Precision Locator	AX5030-0022	AX050 series turntable shock stop with prox. sensor assembly kit.
	External Shot Pin	AX5030-0031	AX050 series shot pin assembly kit.
	Pneumatic Auto Shut-Off / Two Position	AX5012-0050	Auto shutoff assembly 2 position kit.
	Pneumatic Auto Shut-Off / Four Position	AX5012-0060	Auto shutoff assembly 4 position kit.
	Electric Auto Shut-Off / Two Position	AX5012-0070	Electric auto shutoff assembly 2 position kit.
	Electric Auto Shut-Off / Four Position	AX5012-0080	Electric auto shutoff assembly 4 position kit.
	Rail Spurs	Custom	Two or Four way in-ground rail spurs.
	Curb Ring	Custom	External curb ring outlining pit dimensions and protecting turntable.
Custom Table Top Material	Custom	Treaded, diamond, slip knot or aluminum top plating available.	

Available in conjunction with standard air caster turntable configurable and custom options. See page 35.

Flush Floor Air Caster Turntable



Top View



Isometric View

Flush Floor Air Caster Turntable Specifications

Model No.	Capacity	Top Size		Base Size	Height	Caster	Air Flow
		Min Top Dia.	Max Top Dia.				
AX05X	Total			Diameter	Deflated ¹	Diameter	Average
AX050-0096	20,000lb 9,072kg	96" 2,438mm	120" 3,048mm	96" 2,438mm	10.5" 267mm	20" 508mm	48 SCFM 1,359L/m
AX050-0120	20,000lb 9,072kg	120" 3,048mm	144" 3,658mm	120" 3,048mm	10.5" 267mm	20" 508mm	48 SCFM 1,359L/m
AX050-0144	20,000lb 9,072kg	144" 3,658mm	168" 4,267mm	144" 3,658mm	10.5" 267mm	20" 508mm	48 SCFM 1,359L/m
AX050-0168	20,000lb 9,072kg	168" 4,267mm	192" 4,877mm	168" 4,267mm	10.5" 267mm	24" 610mm	66 SCFM 1,869L/m
AX050-0192	20,000lb 9,072kg	192" 4,877mm	216" 5,486mm	192" 4,877mm	10.5" 267mm	24" 610mm	66 SCFM 1,869L/m
AX051-0144	100,000lb 45,359kg	144" 3,658mm	180" 4,572mm	144" 3,658mm	13" 330mm	30" 762mm	114 SCFM 3,228L/m
AX051-0180	100,000lb 45,359kg	180" 4,572mm	216" 5,486mm	180" 4,572mm	13" 330mm	30" 762mm	114 SCFM 3,228L/m
AX051-0216	100,000lb 45,359kg	216" 5,486mm	252" 6,401mm	216" 5,486mm	13" 330mm	30" 762mm	114 SCFM 3,228L/m
AX051-0252	100,000lb 45,359kg	252" 6,401mm	288" 7,315mm	252" 6,401mm	13" 330mm	36" 914mm	138 SCFM 3,908L/m
AX051-0288	100,000lb 45,359kg	288" 7,315mm	324" 8,230mm	288" 7,315mm	13" 330mm	36" 914mm	138 SCFM 3,908L/m

1. Inflated height adds approximately .25"(6mm) - 1"(25mm).

High Speed Air Caster Turntable



Robotic manufacturing demands precision and speed. Hit your work cell's target cycle times with a High-Speed Air Caster Turntable. Powered by air caster technology, our product development team designed this turntable family from the ground up with high-speed oscillation and precision positioning for work cell applications.

- **Capacities up to 10,000 lbs. (5,000 lbs. per side)**
- **Low down height of 8.375"**
- **Top sizes from 108" to 156"**
- **180° cycle times in as low as 6 seconds**
- **Integrate easily with robotic work cells**

Features and Benefits



Easy to Maintain

Our turntables allow for components to be replaced without removing the table top, ultimately reducing downtime. Few moving parts lead to a lower chance of needed maintenance.



Electric Drives

The two electric drives in the middle of the table provide the force required to rotate the table 180° in 6 seconds, with a shot pin precisely stopping the table to +/- 1/16 of an inch.



Low Load Height

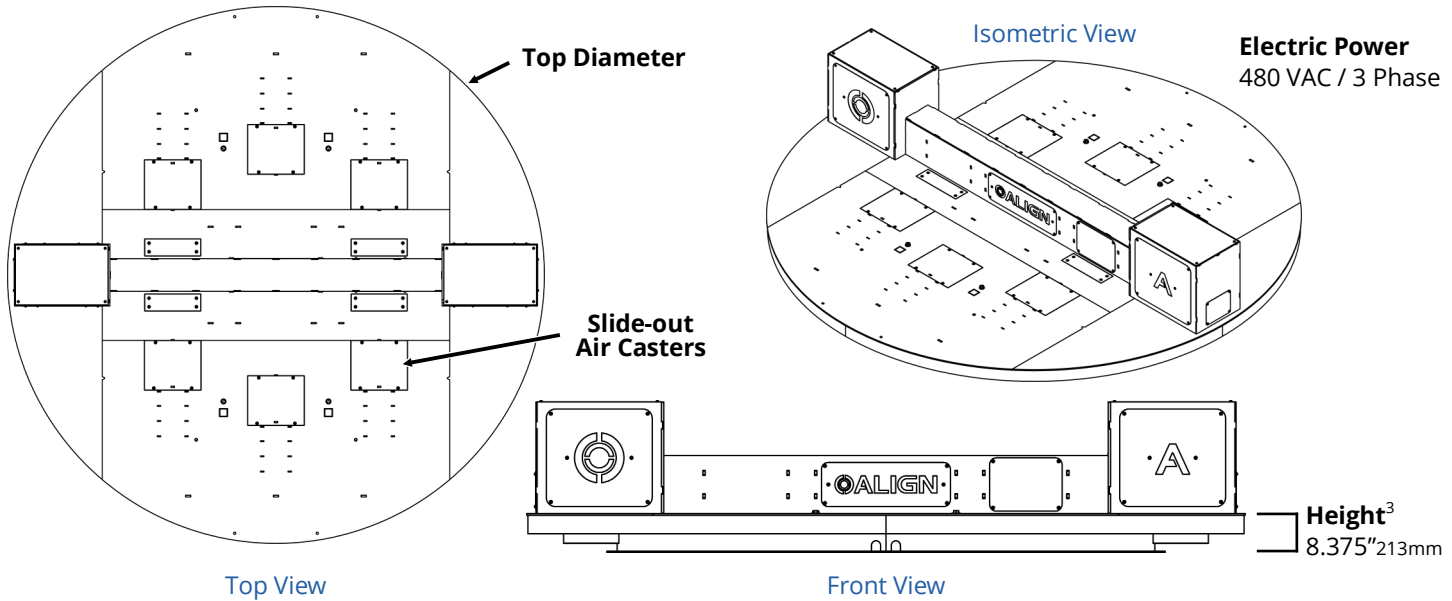
The tables have a low load height of 8" making it easy to load and unload the tables. Operators can access the components by easily stepping onto the turntable.

High Speed Turntable

	Options	Part No.	Description
Config. Options	Basic Control Stand	AX5011-XXXX	Standard pneumatic control valves with electrical enclosure and PLC program.
	Auxillary Control Stand	AX5040-XXXX	Remote mounted control stand.
	Robotic Interface Control Stand	AX5081-XXXX	Customer PLC operated control stand. I/O block provided to communicate with components.
	Dirt Leg	APS5000-XXXX	Dirt leg assembly for air filtration. (factory recommended)
	Center Fence - Screen	AX5054-XXXX	An expanded metal screen divider used to partition the table into two separate loading/working stations.
	Center Fence - Solid	AX5055-XXXX	A solid sheet metal divider used to partition the table into two separate loading/working stations.
	Center Fence - Polycarbonate	AX5056-XXXX	A solid sheet metal divider used to partition the table into two separate loading/working stations.
	Riser Base	AX5060-XXXX	Raise the turntable to a more ergonomic height for the operator(s).
	Slip Ring	AX5090-XXXX	Provide electrical supply to the tabletop.
	Rotary Union	AX5091-XXXX	Provide air supply to the tabletop.
	Slip Ring Union	AX5092-XXXX	Provide electrical and air supply to the tabletop.
	Central Grounding	AX5093-XXXX	Centrally located grounding point.
Custom Options	Audible/Visual Alarm	Custom	Audible and/or visual alarm to indicate movement.
	Safety Guarding	Custom	Physical and/or electrical guarding to prevent personnel from entering equipment area during operation.
	Lead-Ins	Custom	Welded plate side guides used for ease of loading/unloading racks on table by forklift.
	Scraper Bar	Custom	Welded bar stopper for fork truck rack placement/protection.
	Corner Angles	Custom	Welded plate angles for rack placement mounted and the rack corners.
	Conical Locators	Custom	Bolt-on conical pads for open tube rack placement.
	Error Proofing Pin	Custom	Bolt-on pin used to prevent misalignment or incorrect orientation of racks.
	Rack Present Sensors	Custom	Sensors to detect the presence of racks on either side of the table.
Custom Controls Package	Custom	PLC controlled stand programmed by Align.	

Some options may preclude other options.

Round High Speed Turntable



Round High Speed Turntable Specifications

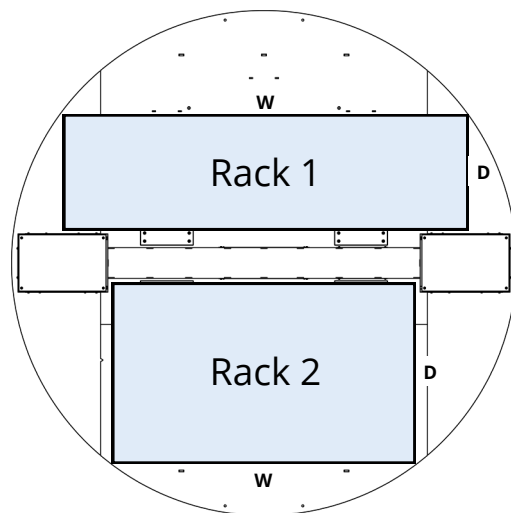
Model No.	Capacity	Cycle Time	Top Size	Base Size	Height	Caster	Air Flow
AX020	Total ¹	180° Fully Loaded ²	Diameter	Diameter	Deflated ³	Diameter	Average
AX020-0108	10,000lb 4,536kg	6 Seconds	108" 2,743mm	72" 1,829mm	8.375" 213mm	12" 305mm	60 SCFM 1,699L/m
AX020-0120	10,000lb 4,536kg	6.5 Seconds	120" 3,048mm	84" 2,134mm	8.375" 213mm	12" 305mm	60 SCFM 1,699L/m
AX020-0132	10,000lb 4,536kg	6.5 Seconds	132" 3,353mm	96" 2,438mm	8.375" 213mm	14" 356mm	75 SCFM 2,124L/m
AX020-0144	10,000lb 4,536kg	7 Seconds	144" 3,658mm	108" 2,743mm	8.375" 213mm	14" 356mm	75 SCFM 2,124L/m
AX020-0156	10,000lb 4,536kg	7 Seconds	156" 3,962mm	120" 3,048mm	8.375" 213mm	14" 356mm	75 SCFM 2,124L/m

1. 10,000 lbs. or 5,000 lbs. per side. 2. Cycle time for 180° rotation. Times will vary depending on loading conditions. May decrease with lighter load.

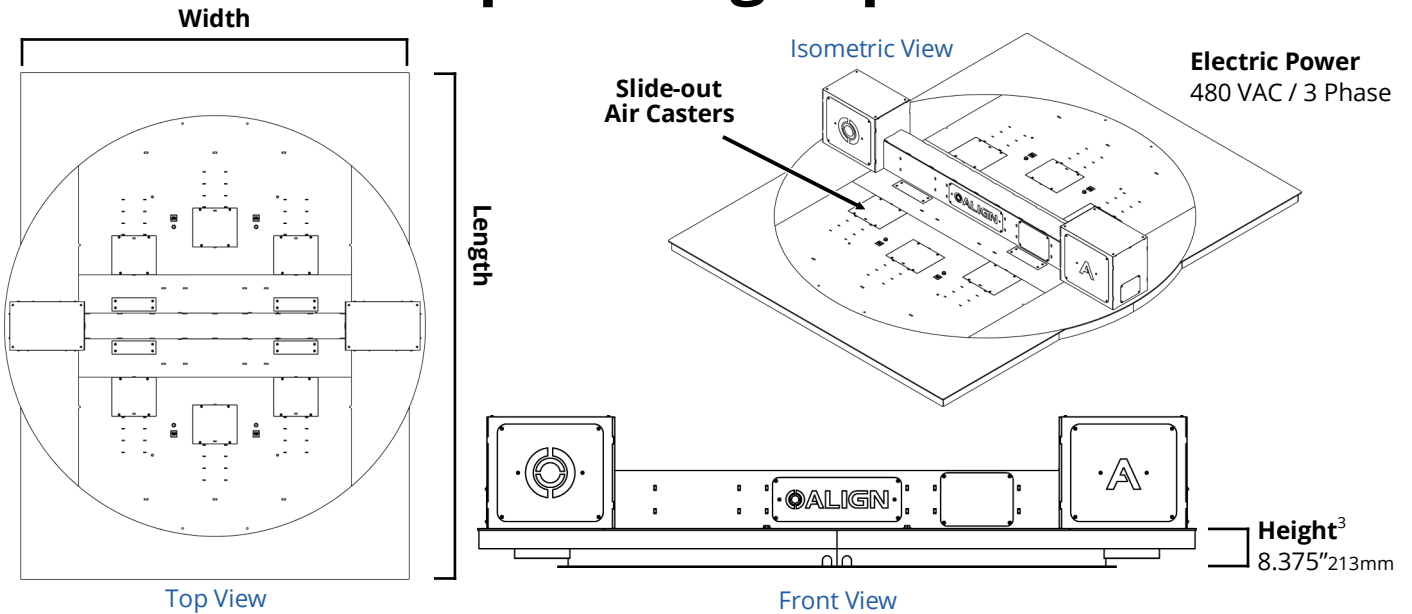
3. Inflated height adds approximately .25"(6mm) - 1"(25mm).

Model No.	Rack Size Example 1	Rack Size Example 2
AX020	W x D	W x D
AX020-0108	72" x 28" 1,829mm x 711mm	44" x 42" 1,118mm x 1,067mm
AX020-0120	84" x 30" 2,134mm x 762mm	56" x 46" 1,422mm x 1,168mm
AX020-0132	96" x 32" 2,438mm x 813mm	68" x 48" 1,727mm x 1,219mm
AX020-0144	108" x 34" 2,743mm x 864mm	80" x 52" 2,032mm x 1,321mm
AX020-0156	120" x 36" 3,048mm x 914mm	92" x 56" 2,337mm x 1,422mm

Example rack sizes are not a minimum or maximum rack size. Consult with application engineer for assistance with sizing.



Square High Speed Turntable



Square High Speed Turntable Specifications

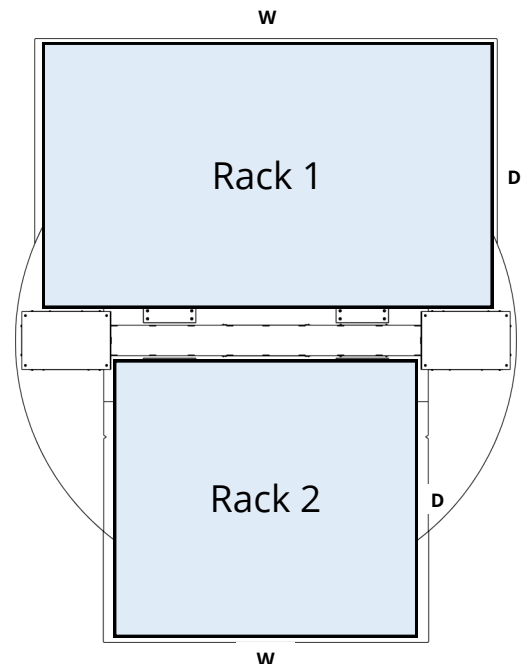
Model No.	Capacity	Cycle Time	Base Size	Top Size		Air Flow
				Max Width ⁴	Max Length ⁴	
AX021	Total ¹	180° Fully Loaded ²	Diameter			Average
AX021-0108	10,000lb 4,536kg	6 Seconds	72" 1,829mm	104" 2,642mm	114" 2,896mm	60 SCFM 1,699L/m
AX021-0120	10,000lb 4,536kg	6.5 Seconds	84" 2,134mm	116" 2,946mm	126" 3,200mm	60 SCFM 1,699L/m
AX021-0132	10,000lb 4,536kg	6.5 Seconds	96" 2,438mm	128" 3,251mm	138" 3,505mm	75 SCFM 2,124L/m
AX021-0144	10,000lb 4,536kg	7 Seconds	108" 2,743mm	140" 3,556mm	150" 3,810mm	75 SCFM 2,124L/m
AX021-0156	10,000lb 4,536kg	7 Seconds	120" 3,048mm	152" 3,861mm	162" 4,115mm	75 SCFM 2,124L/m

1. 10,000 lbs. or 5,000 lbs. per side. 2. Cycle time for 180° rotation. Times will vary depending on loading conditions. May decrease with lighter load.

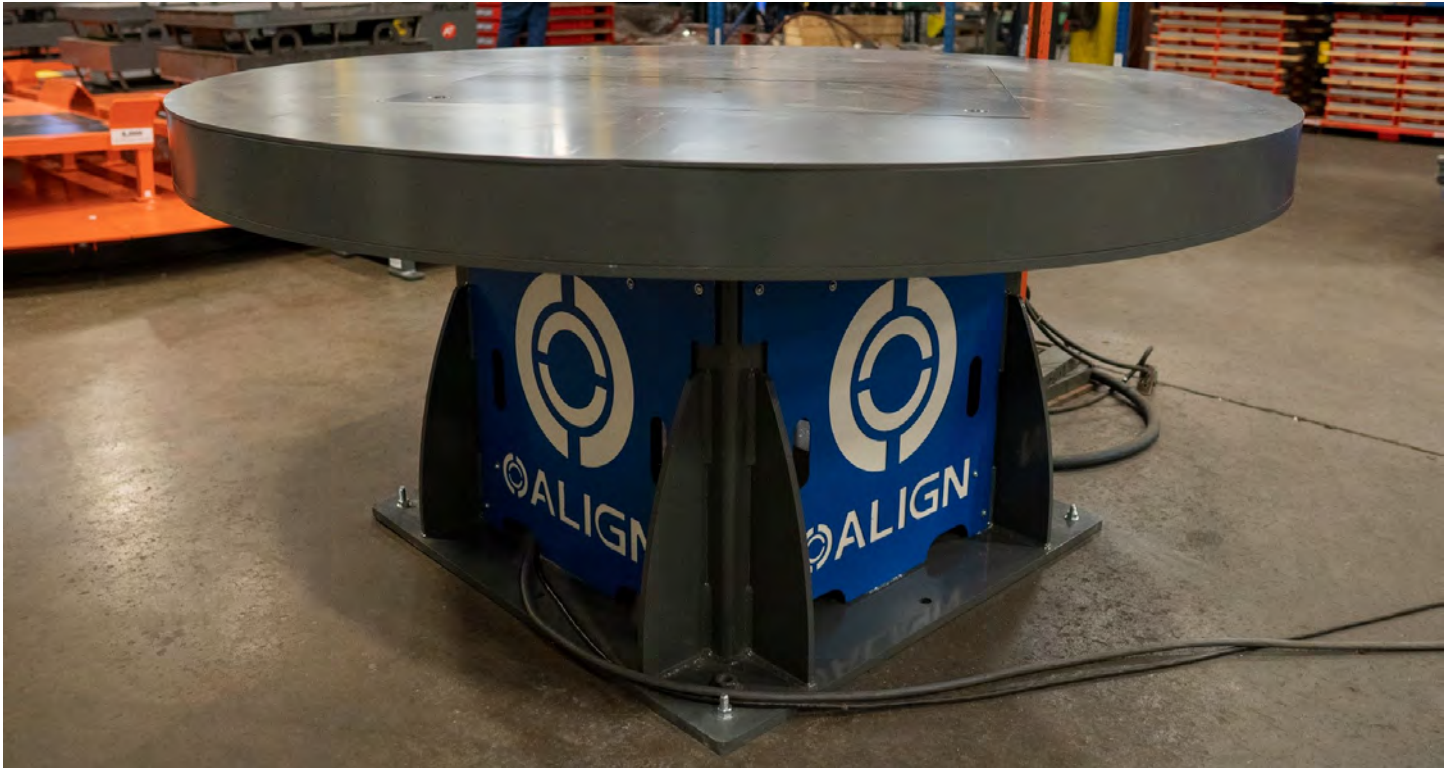
3. Inflated height adds approximately .25"(6mm) - 1"(25mm). 4. Standard lengths available in 6" increments.

Model No.	Swing Radius	Rack Size Example #1	Rack Size Example #2
AX021	at max table size	W x D	W x D
AX021-0108	62" 3,511mm	96" x 28" 2,438mm x 711mm	44" x 36" 1,118mm x 914mm
AX021-0120	75" 4,219mm	108" x 40" 2,743mm x 1,016mm	56" x 48" 1,422mm x 1,219mm
AX021-0132	87" 4,927mm	120" x 52" 3,048mm x 1,321mm	68" x 60" 1,727mm x 1,524mm
AX021-0144	100" 5,663mm	132" x 64" 3,353mm x 1,626mm	80" x 72" 2,032mm x 1,829mm
AX021-0156	113" 6,400mm	144" x 76" 3,658mm x 1,930mm	92" x 84" 2,337mm x 2,134mm

Example rack sizes are not a minimum or maximum rack size. Consult with application engineer for assistance with sizing.



Precision Mechanical Turntable



Maximize efficiency in your robotic cell with the Precision Mechanical Turntable. The table is accurate up to 0.01" and boasts a weight capacity up to 5,000 lbs. It can be easily integrated into existing or future work cells thanks to its compatibility with all major robotic controllers. Customizable round and rectangular tops are available from 60" up to 120".

- **Capacities up to 5,000 lbs.**
- **Table edge accuracy ≤ 0.01 "**
- **Integrate easily with robotic work cells**
- **Resolver for accurate infinite positioning**
- **Fully programable system, turn-key operation available**

Features and Benefits



High speed Accuracy

High speed mechanical turntable with accuracy of ≤ 0.01 " (0.254mm) at table edge, meeting the demands that are required for robotic applications.

Integration

Easily integrated into existing or future working cells and compatible with all major robotic controllers.

Easy to Maintain

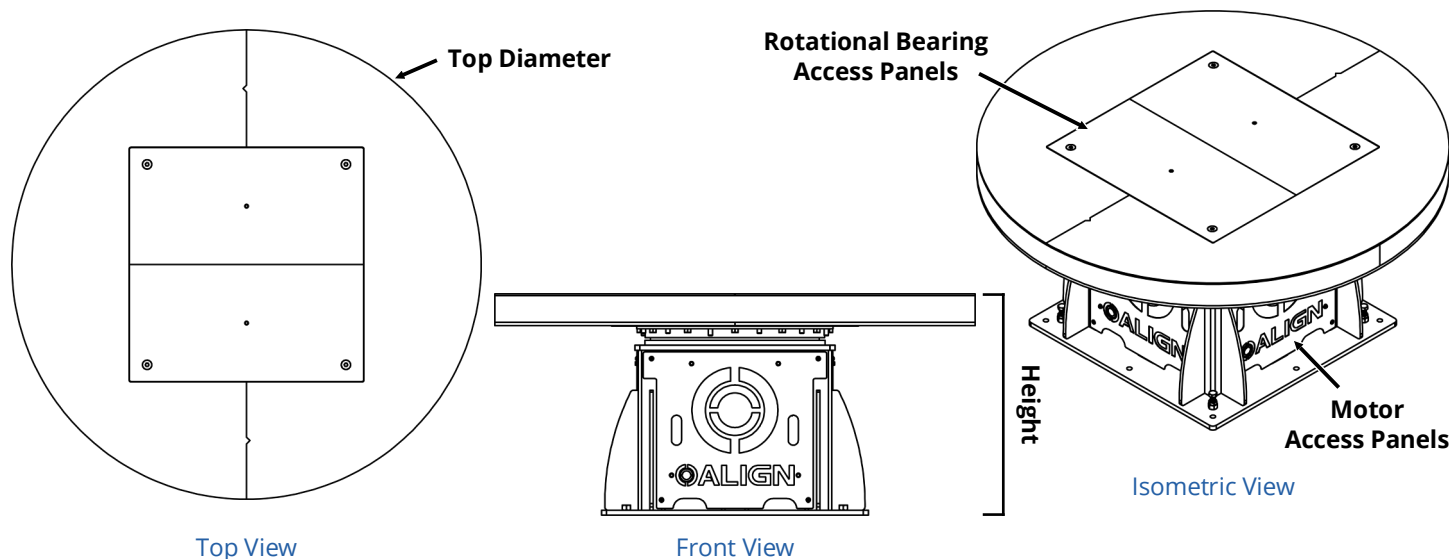
All major components can be easily maintained and replaced from central maintenance hatch and side mounted auxiliary cover plates.

Precision Mechanical Turntable

	Options	Part No.	Description
	Central Grounding Block	APS5041-0130	Table mounted spring loaded 500A rotary block with shavings capture bracket.
Config. Options	Basic Control Stand	APS5011-XXXX	Standard electrical enclosure and PLC program.
	Auxiliary Control Stand	APS5031-XXXX	Remote mounted control stand.
	Robotic Interface Control Stand	APS5081-XXXX	Customer PLC operated control stand. I/O block provided to communicate with components.
	Center Divider	APS5053-XXXX	Center divider tube / 8" tall.
	Center Fence - Screen	APS5054-XXXX	An expanded metal screen divider used to partition the table into two separate loading/working stations.
	Center Fence - Solid	APS5055-XXXX	A solid sheet metal divider used to partition the table into two separate loading/working stations.
	Center Fence - Polycarbonate	APS5056-XXXX	A solid transparent polycarbonate divider used to partition the table into two separate loading/working stations.
	Riser Base	APS5060-XXXX	Raise the turntable to a more ergonomic height for the operator(s).
	Slip Ring	APS5090-XXXX	Provide electrical supply to the tabletop.
Custom Options	Audible/Visual Alarm	Custom	Audible and/or visual alarm to indicate movement.
	Safety Guarding	Custom	Physical and/or electrical guarding to prevent personnel from entering equipment area during operation.
	Lead-Ins	Custom	Welded plate side guides used for ease of loading/unloading racks on table by forktruck.
	Scraper Bar	Custom	Welded bar stopper for fork truck rack placement/protection.
	Corner Angles	Custom	Welded plate angles for rack placement mounted and the rack corners.
	Conical Locators	Custom	Bolt-on conical pads for open tube rack placement.
	Error Proofing Pin	Custom	Bolt-on pin used to prevent misalignment or incorrect orientation of racks.
	Rack Present Sensors	Custom	Sensors to detect the presence of racks on either side of the table.
	Custom Controls Package	Custom	PLC controlled stand programmed by Align.
Positive Stop Brake	Custom	Mechanical locking mechanism to guarantee repeatability.	

Some options may preclude other options.

Round Precision Mech. Turntable



Round Precision Mechanical Turntable Specifications

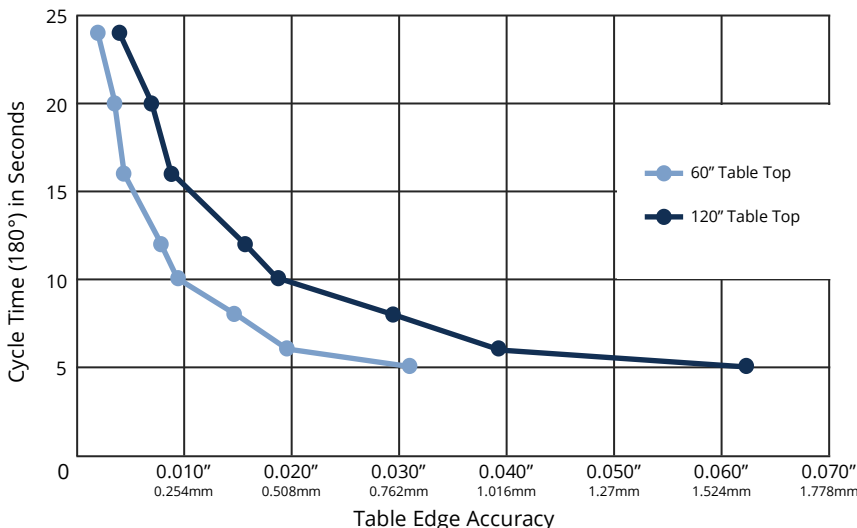
Model No.	Capacity	Cycle Time	Accuracy	Top Size	Height	Base Size
APS070	Total ¹	Fastest/Standard ²	Fastest/Standard	Diameter ³		L x W
APS070-0060	5,000lb 2,268kg	4.5 Seconds 10 Seconds	0.066° 0.018°	60" 1,524mm	38" 965mm	40" x 40" 1,016mm - 1,016mm
APS070-0072	5,000lb 2,268kg	5 Seconds 10 Seconds	0.059° 0.018°	72" 1,829mm	38" 965mm	40" x 40" 1,016mm - 1,016mm
APS070-0084	5,000lb 2,268kg	5.5 Seconds 10 Seconds	0.054° 0.018°	84" 2,134mm	38" 965mm	40" x 40" 1,016mm - 1,016mm
APS070-0096	5,000lb 2,268kg	6 Seconds 10 Seconds	0.050° 0.018°	96" 2,438mm	38" 965mm	40" x 40" 1,016mm - 1,016mm
APS070-0108	5,000lb 2,268kg	6.5 Seconds 10 Seconds	0.046° 0.018°	108" 2,743mm	38" 965mm	40" x 40" 1,016mm - 1,016mm
APS070-0120	5,000lb 2,268kg	7 Seconds 10 Seconds	0.042° 0.018°	120" 3,048mm	38" 965mm	40" x 40" 1,016mm - 1,016mm

1. Capacity based on two racks at 2,500lb per side. 2. Cycle considered to be 180° rotation. 3. Consult with application engineer for assistance with sizing.

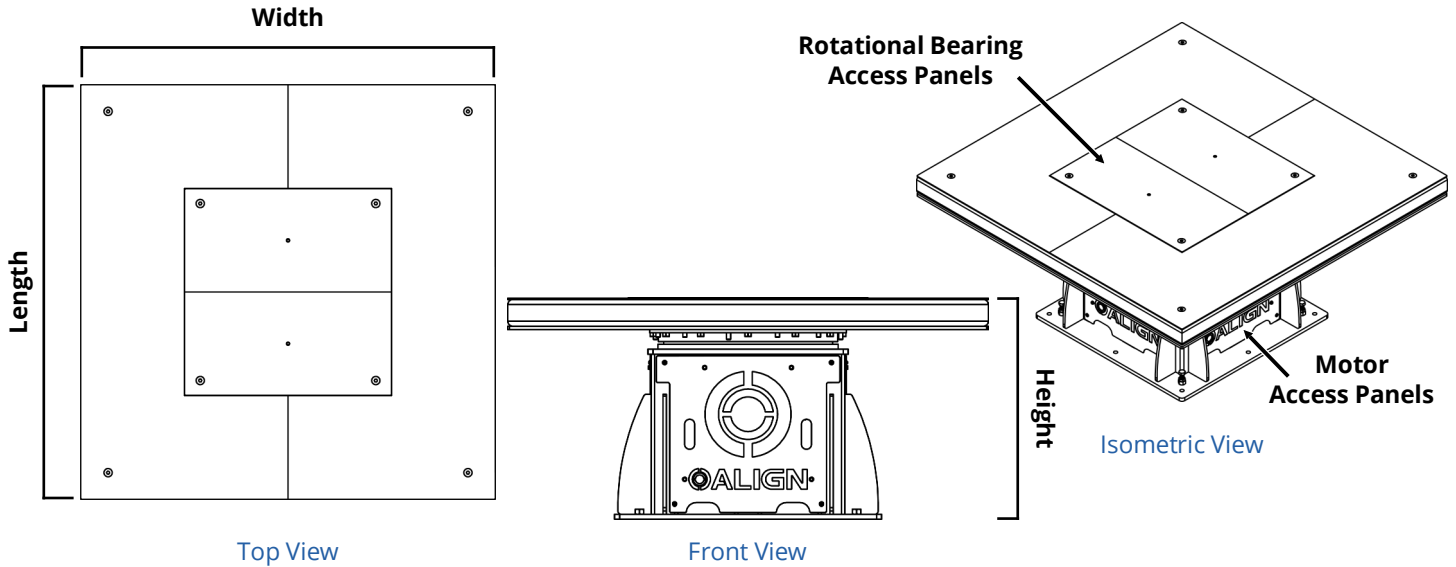
Cycle Time vs Table Edge Accuracy

Cycle Time	Speed	Accuracy	
		60" Top	120" Top
Seconds	RPM		
5 Seconds	5	0.037" 0.940mm	0.062" 1.575mm
6 Seconds	5	0.024" 0.610mm	0.039" 0.991mm
8 Seconds	3.75	0.018" 0.457mm	0.030" 0.762mm
10 Seconds	3	0.01" 0.254mm	0.019" 0.483mm
12 Seconds	2.5	0.01" 0.254mm	0.016" 0.406mm
16 Seconds	1.875	0.01" 0.254mm	0.01" 0.254mm

Cycle Time vs Table Edge Accuracy



Square Precision Mech. Turntable



Square Precision Mechanical Turntable Specifications

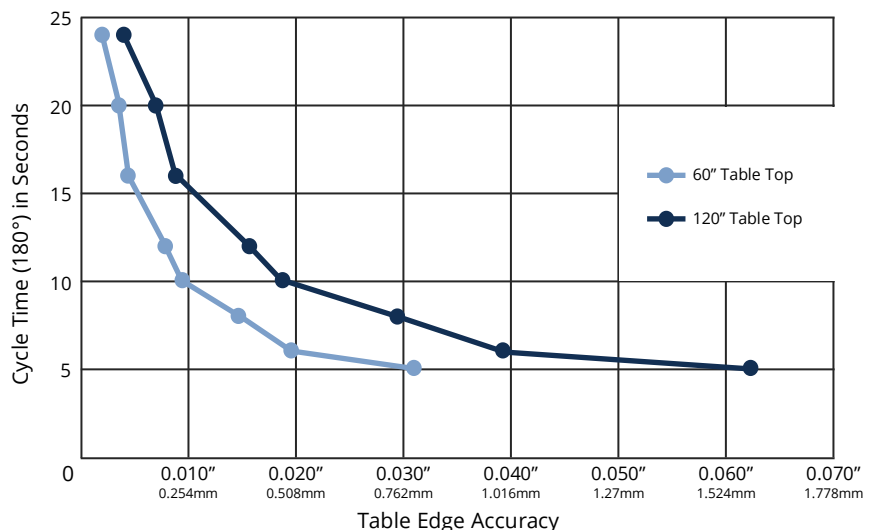
Model No.	Capacity	Cycle Time	Accuracy	Top Size	Height	Base Size
APS071	Total ¹	Fastest/Standard ²	Fastest/Standard	L / W (Min-Max) ³		L x W
APS071-0060	5,000lb 2,268kg	4.5 Seconds 10 Seconds	0.066° 0.018°	40" - 60" 1,016mm - 1,524mm	38" 965mm	40" x 40" 1,016mm - 1,016mm
APS071-0072	5,000lb 2,268kg	5 Seconds 10 Seconds	0.059° 0.018°	60" - 72" 1,524mm - 1,829mm	38" 965mm	40" x 40" 1,016mm - 1,016mm
APS071-0084	5,000lb 2,268kg	5.5 Seconds 10 Seconds	0.054° 0.018°	72" - 84" 1,829mm - 2,134mm	38" 965mm	40" x 40" 1,016mm - 1,016mm
APS071-0096	5,000lb 2,268kg	6 Seconds 10 Seconds	0.050° 0.018°	84" - 96" 2,134mm - 2,438mm	38" 965mm	40" x 40" 1,016mm - 1,016mm
APS071-0108	5,000lb 2,268kg	6.5 Seconds 10 Seconds	0.046° 0.018°	96" - 108" 2,438mm - 2,743mm	38" 965mm	40" x 40" 1,016mm - 1,016mm
APS071-0120	5,000lb 2,268kg	7 Seconds 10 Seconds	0.042° 0.018°	108" - 120" 2,743mm - 3,048mm	38" 965mm	40" x 40" 1,016mm - 1,016mm

1. Capacity based on two racks at 2,500lb per side. 2. Cycle considered to be 180° rotation. 3. Consult with application engineer for assistance with sizing.

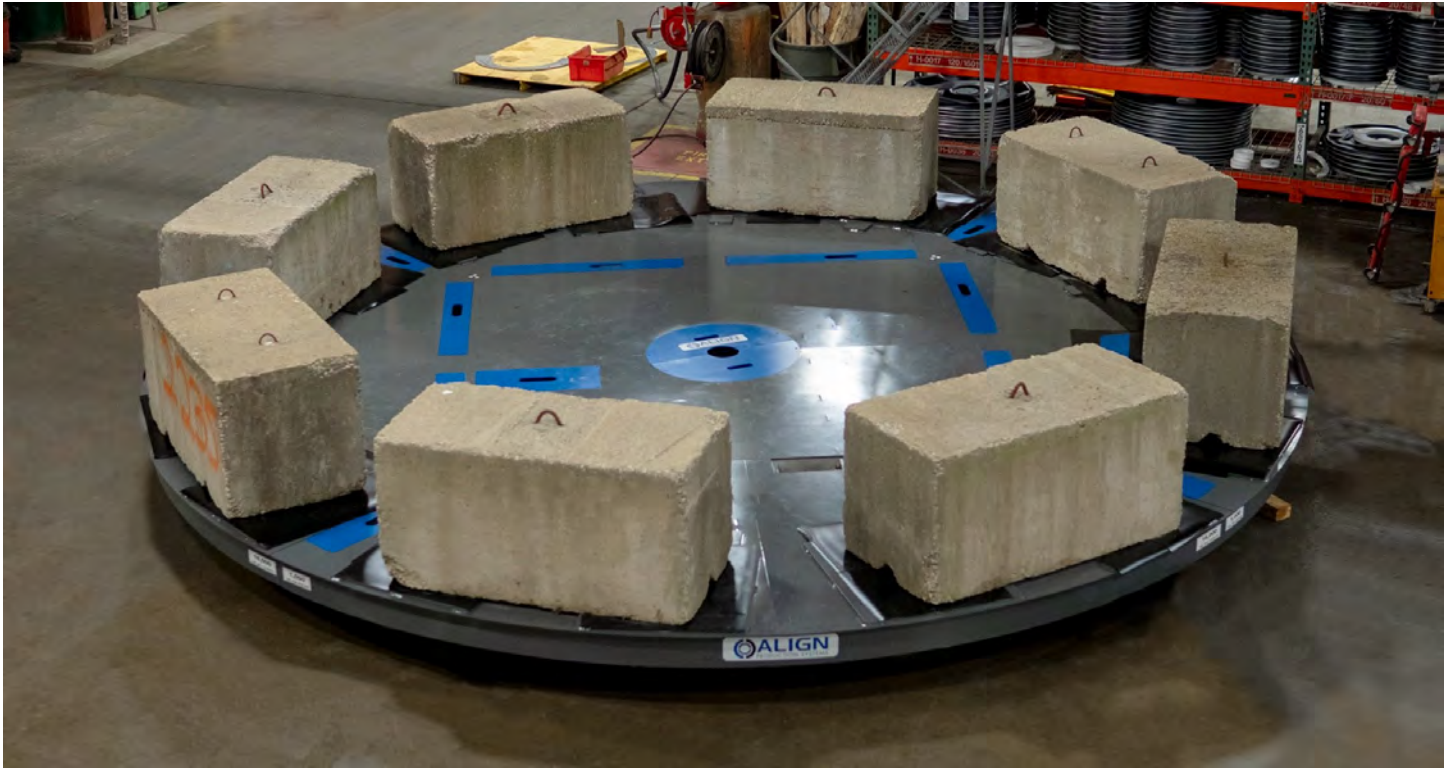
Cycle Time vs Table Edge Accuracy

Cycle Time	Speed	Accuracy	
		60" Top	120" Top
Seconds	RPM		
5 Seconds	5	0.031" 0.790mm	0.062" 1.575mm
6 Seconds	5	0.020" 0.510mm	0.039" 0.991mm
8 Seconds	3.75	0.015" 0.381mm	0.030" 0.762mm
10 Seconds	3	0.01" 0.254mm	0.019" 0.483mm
12 Seconds	2.5	0.01" 0.254mm	0.016" 0.406mm
16 Seconds	1.875	0.01" 0.254mm	0.01" 0.254mm

Cycle Time vs Table Edge Accuracy



Mechanical Turntable



Take your robotic manufacturing to the next level of performance with APS060 robotic indexing turntables. Designed for integration into robotic work cells, our turntables feature slewing drive that can handle continuous and cycle-on-demand applications. As with all of our products, the APS060 is designed and built in the USA.

- **Capacities up to 35,000 lbs.**
- **Low down height of 16"**
- **Easy access to internal components**
- **Customizable amount of stations based on station capacity and distance from center.**

Features and Benefits



Slewing Drive

Featuring a high-performance slewing drive that can handle continuous and cycle-on-demand applications with 0.3 degrees of accuracy with optional shot pin.



Low Maintenance

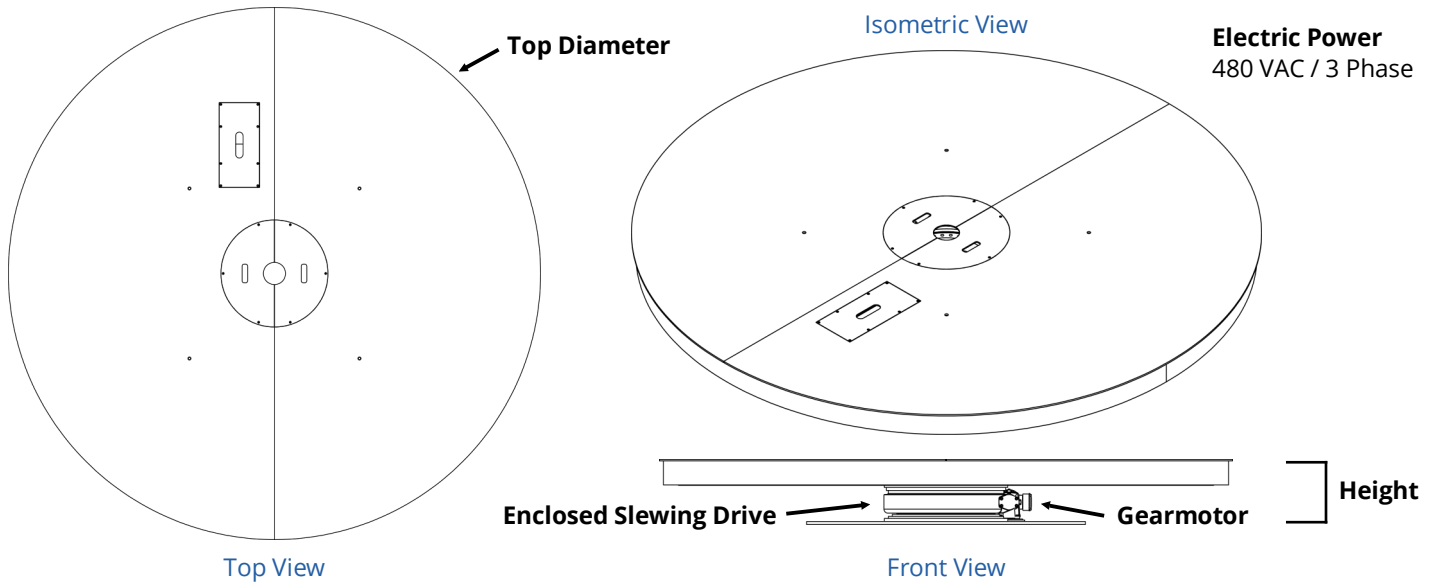
All electric unit built to minimize wear and potential downtime with few moving parts and easy access to internal components if an issue arises.

Mechanical Turntable

	Options	Part No.	Description
Opt.	External Shot Pin	APS5021-0030	External electrical shot pin for positioning of mechanical turntable up to ±1/16"
	Electric Auto Shut-Off / Two Position	APS5050-0070	Electric limit switch to disengage table at designated positions.
	Electric Auto Shut-Off / Four Position	APS5050-0080	Electric limit switch to disengage table at designated positions.
Config. Options	Basic Control Stand	APS5011-XXXX	Standard electrical enclosure and PLC program.
	Auxiliary Control Stand	APS5031-XXXX	Remote mounted control stand.
	Robotic Interface Control Stand	APS5081-XXXX	Customer PLC operated control stand. I/O block provided to communicate with components.
	Center Divider	APS5061-XXXX	Center divider tube / 8" tall.
	Center Fence - Screen	APS5062-XXXX	An expanded metal screen divider used to partition the table into two separate loading/working stations.
	Center Fence - Solid	APS5063-XXXX	A solid sheet metal divider used to partition the table into two separate loading/working stations.
	Center Fence - Polycarbonate	APS5064-XXXX	A solid transparent polycarbonate divider used to partition the table into two separate loading/working stations.
	Riser Base	APS5060-XXXX	Raise the turntable to a more ergonomic height for the operator(s).
	Slip Ring	APS5090-XXXX	Provide electrical supply to the tabletop.
	Rotary Union	APS5091-XXXX	Provide air supply to the tabletop.
	Slip Ring Union	APS5092-XXXX	Provide electrical and air supply to the tabletop.
	Central Grounding	APS5093-XXXX	Centrally located grounding point.
Custom Options	Audible/Visual Alarm	Custom	Audible and/or visual alarm to indicate movement.
	Safety Guarding	Custom	Physical and/or electrical guarding to prevent personnel from entering equipment area during operation.
	Lead-Ins	Custom	Welded plate side guides used for ease of loading/unloading racks on table by forklift.
	Scraper Bar	Custom	Welded bar stopper for fork truck rack placement/protection.
	Corner Angles	Custom	Welded plate angles for rack placement mounted and the rack corners.
	Conical Locators	Custom	Bolt-on conical pads for open tube rack placement.
	Error Proofing Pin	Custom	Bolt-on pin used to prevent misalignment or incorrect orientation of racks.
	Rack Present Sensors	Custom	Sensors to detect the presence of racks on either side of the table.
Custom Controls Package	Custom	PLC controlled stand programmed by Align.	

Some options may preclude other options.

Mechanical Turntable

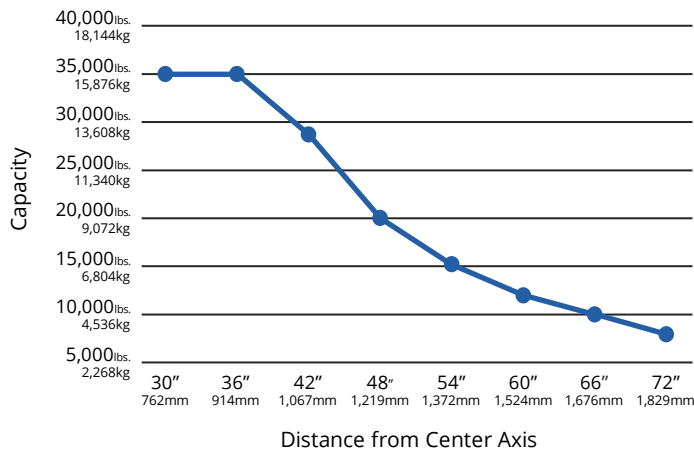


Mechanical Turntable Specifications

Model No.	Capacity	Top Size	Height	Base Size	RPM	Accuracy
	Total ¹	Diameter		L x W	Min - Max ²	Degrees ³
APS060-0072	35,000lb 15,876kg	72" 1,829mm	16" 406mm	70" x 70" 1,778mm x 1,778mm	0.5 - 2.2 RPM	0.3°
APS060-0084	35,000lb 15,876kg	84" 2,134mm	16" 406mm	70" x 70" 1,778mm x 1,778mm	0.5 - 2.2 RPM	0.3°
APS060-0096	35,000lb 15,876kg	96" 2,438mm	16" 406mm	70" x 70" 1,778mm x 1,778mm	0.5 - 2.2 RPM	0.3°
APS060-0108	35,000lb 15,876kg	108" 2,743mm	16" 406mm	70" x 70" 1,778mm x 1,778mm	0.5 - 2.2 RPM	0.3°
APS060-0120	35,000lb 15,876kg	120" 3,048mm	16" 406mm	70" x 70" 1,778mm x 1,778mm	0.5 - 2.2 RPM	0.3°
APS060-0132	35,000lb 15,876kg	132" 3,353mm	16" 406mm	70" x 70" 1,778mm x 1,778mm	0.5 - 2.2 RPM	0.3°
APS060-0144	35,000lb 15,876kg	144" 3,658mm	16" 406mm	70" x 70" 1,778mm x 1,778mm	0.5 - 2.2 RPM	0.3°

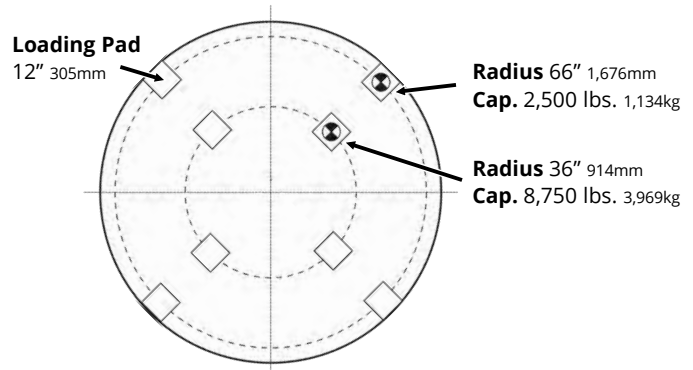
1. Based on centrally located load (see chart below) 2. 2RPM fixed, Unless controlled by optional VFD. 3. Based on slewing drive rated backlash

Weight Capacity



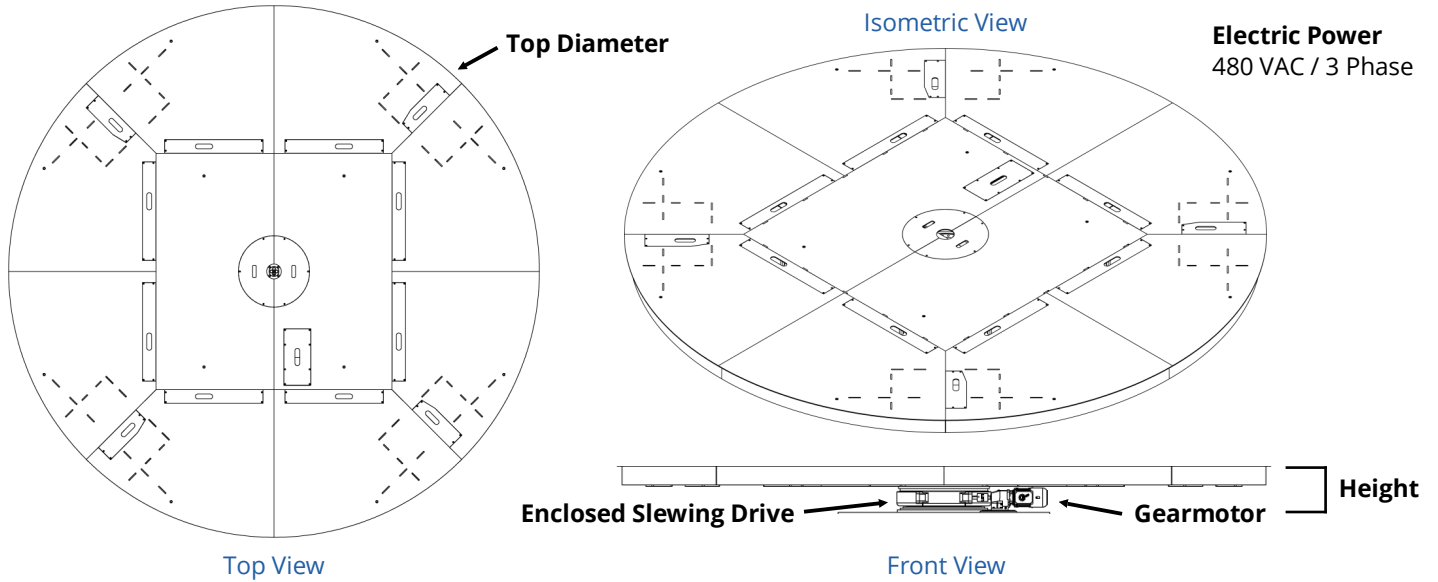
Example CG Table Diagram

144" 3,658mm Diameter



Consult with application engineer for assistance with sizing.

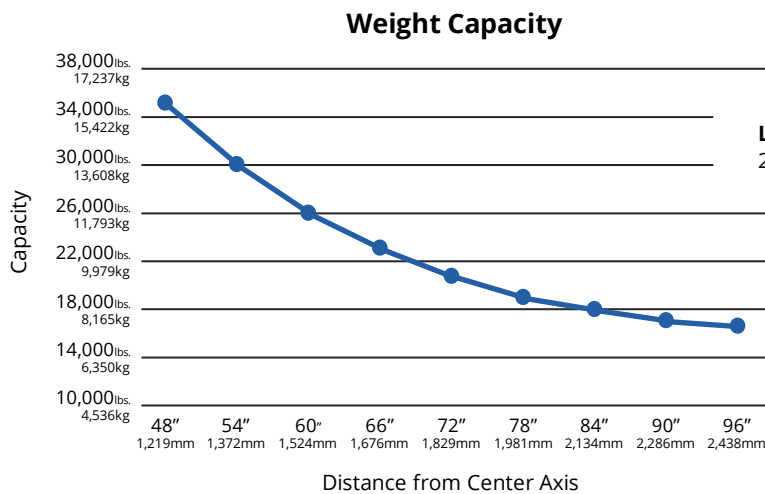
Mechanical Turntable



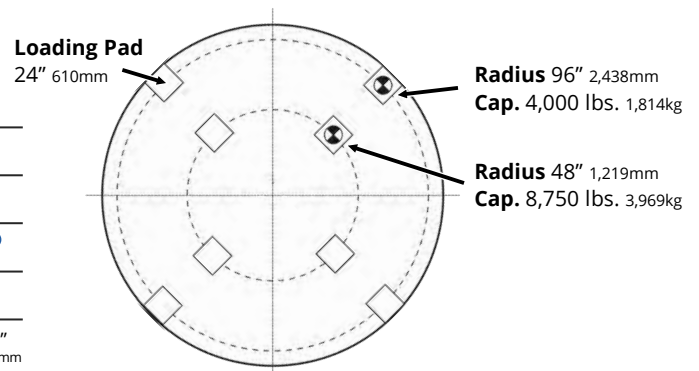
Mechanical Turntable Specifications

Model No.	Capacity	Top Size	Height	Base Size	RPM	Accuracy
APS061	Total ¹	Diameter		L x W	Min - Max ²	Degrees ³
APS061-0144	35,000lb 15,876kg	144" 3,658mm	16" 406mm	70" x 70" 1,778mm x 1,778mm	0.5 - 2.2 RPM	0.3°
APS061-0156	35,000lb 15,876kg	156" 3,962mm	16" 406mm	70" x 70" 1,778mm x 1,778mm	0.5 - 2.2 RPM	0.3°
APS061-0168	35,000lb 15,876kg	168" 4,267mm	16" 406mm	70" x 70" 1,778mm x 1,778mm	0.5 - 2.2 RPM	0.3°
APS061-0180	35,000lb 15,876kg	180" 4,572mm	16" 406mm	70" x 70" 1,778mm x 1,778mm	0.5 - 2.2 RPM	0.3°
APS061-0192	35,000lb 15,876kg	192" 4,877mm	16" 406mm	70" x 70" 1,778mm x 1,778mm	0.5 - 2.2 RPM	0.3°
APS061-0204	35,000lb 15,876kg	204" 5,182mm	16" 406mm	70" x 70" 1,778mm x 1,778mm	0.5 - 2.2 RPM	0.3°
APS061-0216	35,000lb 15,876kg	216" 5,486mm	16" 406mm	70" x 70" 1,778mm x 1,778mm	0.5 - 2.2 RPM	0.3°

1. Based on centrally located load (see chart below) 2. 2RPM fixed, Unless controlled by optional VFD. 3. Based on slewing drive rated backlash



Example CG Table Diagram
216" 5,486mm Diameter



Consult with application engineer for assistance with sizing.

Heavy Duty Mechanical Turntable



High capacity turntable features a slewing bearing allowing for high weight capacities up to 150,000 lbs, standard sizes from 48" to 120" and the ability to run extended amounts of time. Custom top sizes are available and if needed, due to the large size, wheels will be added in order to give the table stability. These turntables are also excellent for outdoor areas or areas that an air supply cannot be easily connected.

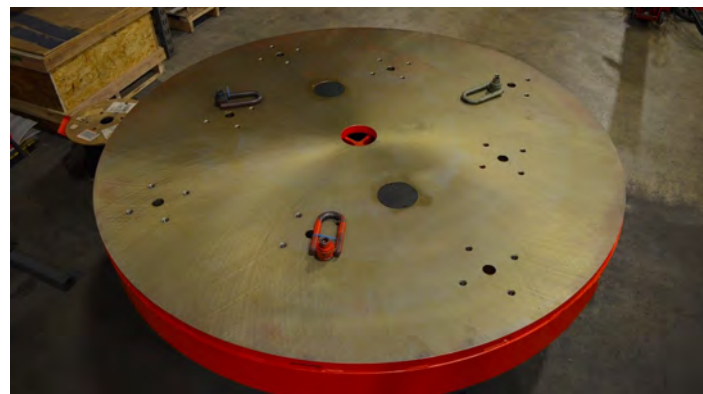
- **Capacities up to 150,000 lbs.**
- **Top sizes from 48" to 120"**
- **Integrate easily with robotic work cells**
- **If needed, larger table sizes can have wheels added for table stability.**

Features and Benefits



Slewing Drive

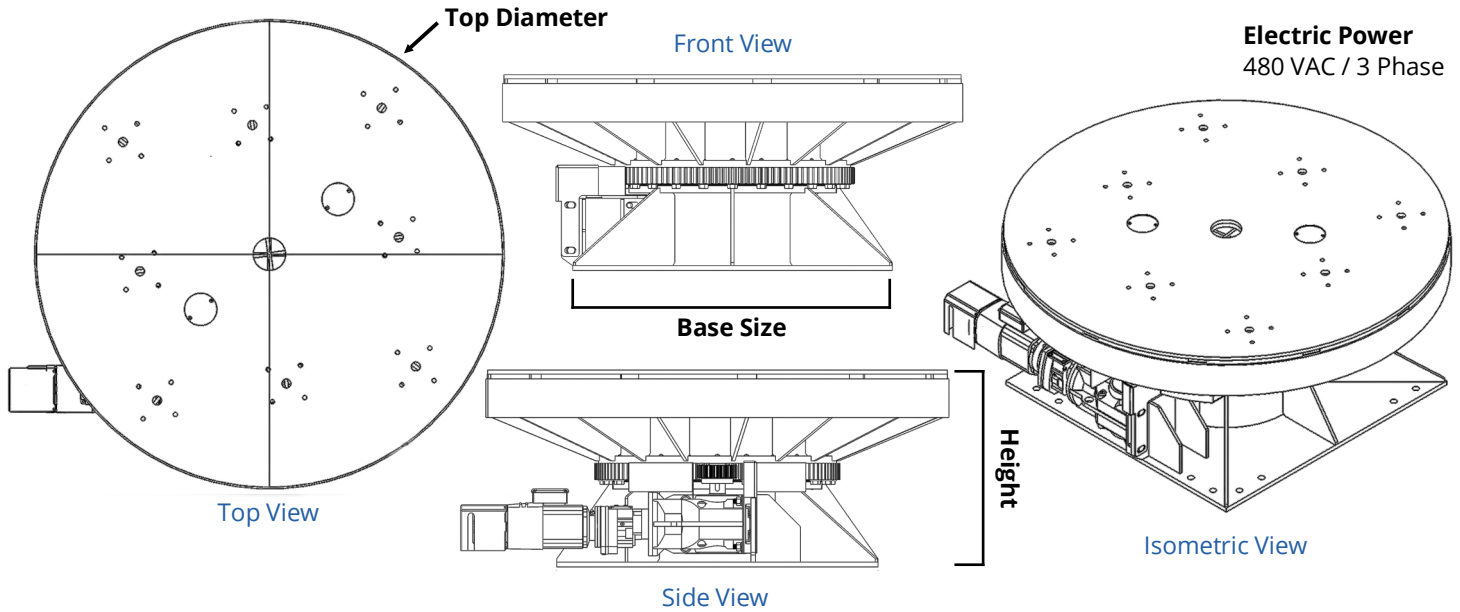
Featuring a high-performance drive that can handle continuous and cycle-on-demand applications with 0.3 degrees of accuracy with optional shot pin.



Low Maintenance

All electric unit built to minimize wear and potential downtime with few moving parts and easy access to internal components if an issue arises.

High Capacity Turntable

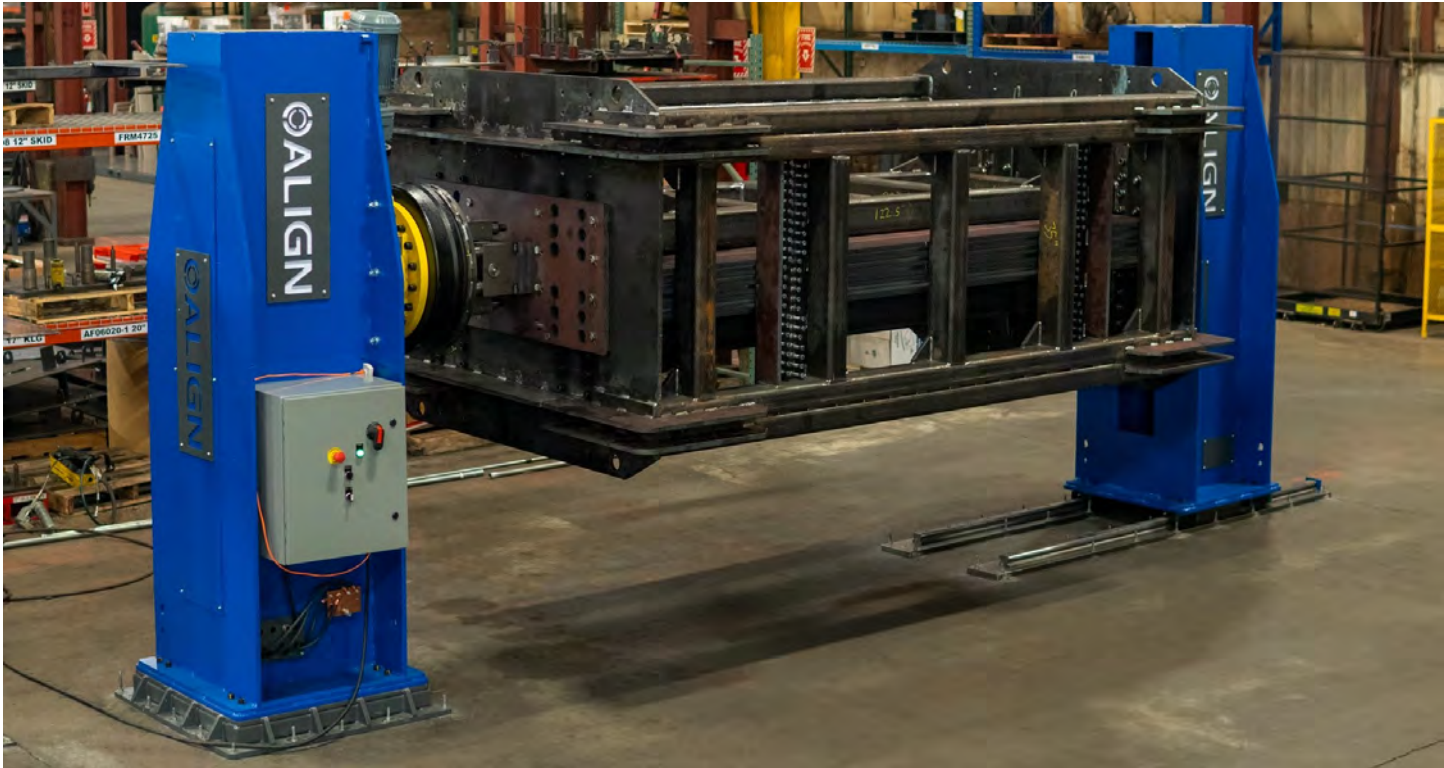


High Capacity Turntable Specifications

Model No.	Capacity	Top Size	Height	RPM	Accuracy	Base Size
AX010	Total ¹	Diameter		Min - Max ²	Degrees	L x W
AX010-048	150,000lb 68,039kg	48" 1,219mm	31" 787mm	0 - 1 RPM	0.3°	50" x 50" 1,270mm x 1,270mm
AX010-060	150,000lb 68,039kg	60" 1,524mm	31" 787mm	0 - 1 RPM	0.3°	50" x 50" 1,270mm x 1,270mm
AX010-072	150,000lb 68,039kg	72" 1,829mm	31" 787mm	0 - 1 RPM	0.3°	50" x 50" 1,270mm x 1,270mm
AX010-084	150,000lb 68,039kg	84" 2,134mm	31" 787mm	0 - 1 RPM	0.3°	50" x 50" 1,270mm x 1,270mm
AX010-096	125,000lb 56,699kg	96" 2,438mm	31" 787mm	0 - 1 RPM	0.3°	50" x 50" 1,270mm x 1,270mm
AX010-108	100,000lb 45,359kg	108" 2,743mm	31" 787mm	0 - 1 RPM	0.3°	50" x 50" 1,270mm x 1,270mm
AX010-120	100,000lb 45,359kg	120" 3,048mm	31" 787mm	0 - 1 RPM	0.3°	50" x 50" 1,270mm x 1,270mm

1. Based on centrally located load (see chart below) 2. 1RPM fixed, Unless controlled by optional VFD.

Heavy Duty Head & Tailstock



Align Production Systems Heavy Duty Head & Tailstock Positioners deliver variable-speed rotation in either direction to optimize your fabrication or assembly operation. Our positioners are designed to improve worker ergonomics in your fabrication, assembly, and repair operations by positioning the workpiece into the ideal work position.

- **Capacities up to 35,000 lbs.**
- **Rotational torque up to 190,000in/lb**
- **All electric unit with no hydraulic mess**
- **Optional centrally located grounding point for the whole machine**

Optimize Welding Positions

Available Models

Align Production Systems offers a fixed and adjustable model of our Head & Tailstock to optimize worker ergonomics when welding.

Fixed Head & Tailstock

Improve worker safety and weld quality by easily positioning weldments.

Adjustable Head & Tailstock

Adds height adjustment to further fine tune weldments into the optimal welding position.



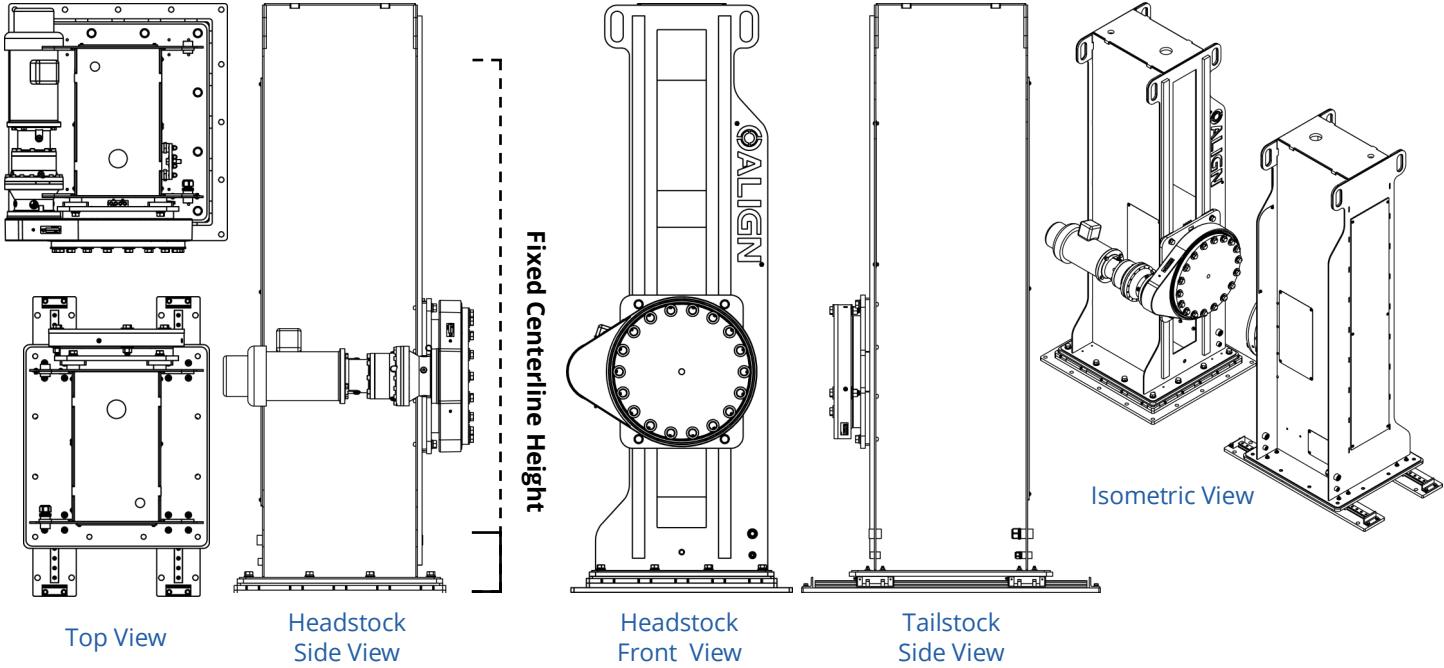
Image: Control Panel for Head & Tailstock Welding Positioners

Heavy Duty Head & Tailstock

	Options	Part No.	Description
Options	Auxiliary Control Option / Pendant / HD Head & Tailstock	APS5040-0100	Handheld wired pendant controller.
	Auxiliary Control Option / Foot / HD Head & Tailstock	APS5040-0110	Foot operated controller.
	Auxiliary Control Option / Remote Stand / HD Head & Tailstock	APS5040-0120	Remote mounted control stand.
	Auxiliary Control Option / Wireless Pendant / HD Head & Tailstock	APS5040-0130	Handheld wireless pendant controller.
	Central Grounding / 800A / HD Head & Tailstock	APS5041-0100	800A central grounding system. (Not compatible with 35,000 lbs capacity unit)
	Central Grounding / 1500A / HD Head & Tailstock	APS5041-0110	1500A central grounding system.
Config. Options	Basic Control Stand	APS5043-XXXX	Standard electrical enclosure and PLC program.
	Horizontal Adjustment Rails	APS5045-XXXX	Linear rail mounted tailstock for horizontal direction adjustment.
	Vertical Rail Bellows	APS5046-XXXX	Mounted bellows for protection of the vertical travel ball screw.
	Horizontal Rail Bellows	APS5047-XXXX	Mounted bellows for protection of the horizontal travel linear rails.
	Riser Base	APS5049-XXXX	Adjust the machine for a more ergonomic height for the operator(s).
Custom Options	Audible/Visual Alarm	Custom	Audible and/or visual alarm to indicate movement.
	Safety Guarding	Custom	Physical and/or electrical guarding to prevent personnel from entering equipment area during operation.
	Conical Locators	Custom	Bolt-on conical pads for open tube rack placement.
	Error Proofing Pin	Custom	Bolt-on pin used to prevent misalignment or incorrect orientation of racks.
	Rack Present Sensors	Custom	Sensors to detect the presence of racks on either side of the table.
	Custom Controls Package	Custom	PLC controlled stand programmed by Align.
Custom Tooling Interface	Custom	Custom designed tooling for fixturing customer components.	

Some options may preclude other options.

Fixed Head and Tailstock

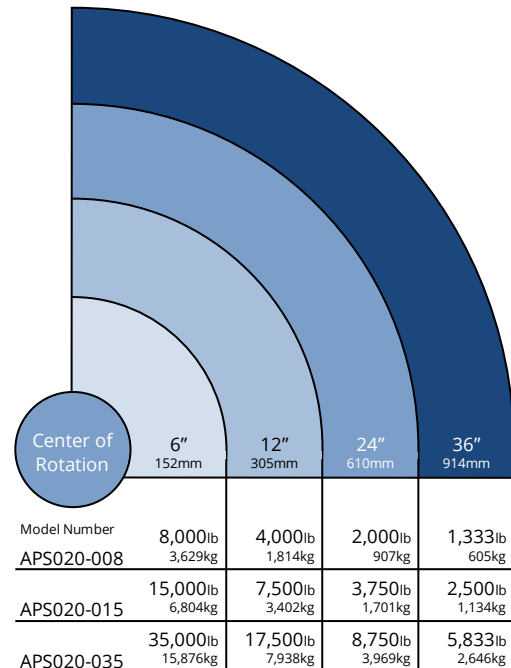
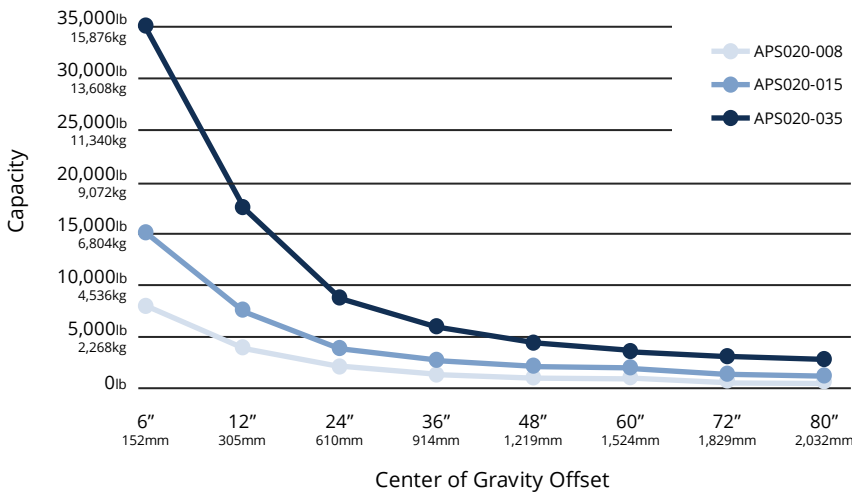


Fixed Head and Tailstock Specifications

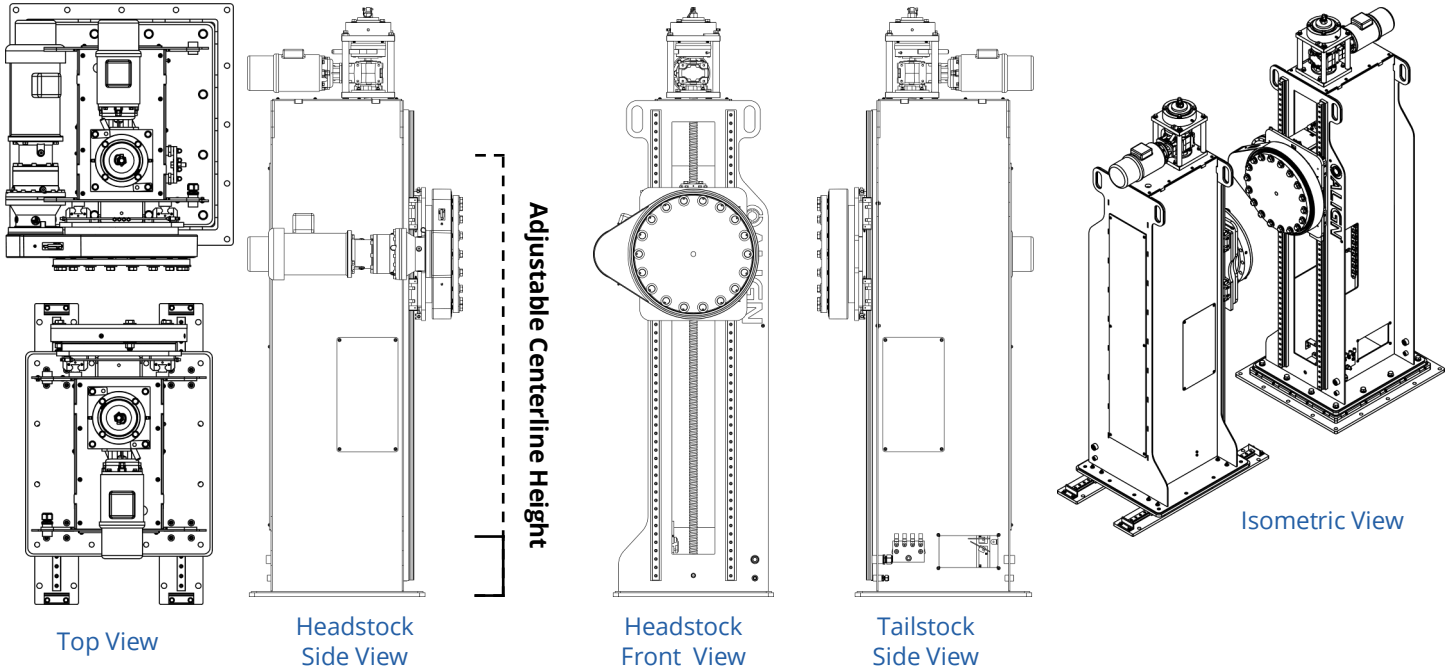
Model No.	Capacity	Rotational		Centerline Height	Optional Grounding
		Torque ²	RPM		
APS020	Total ¹			Min - Max	Max Current
APS020-008	8,000lb 3,629kg	48,000in/lb 5,423Nm	0.1 to 3.0 Variable	18" - 80" 457mm - 2,032mm	800amps
APS020-015	15,000lb 6,804kg	75,000in/lb 8,474Nm	0.1 to 2.0 Variable	18" - 80" 457mm - 2,032mm	800amps
APS020-035	35,000lb 15,876kg	190,000in/lb 21,467Nm	0.04 to 0.9 Variable	18" - 80" 457mm - 2,032mm	1,500amps

1. Based on Head and Tailstock each holding half the listed weight. 2. Max rotational load, including fixturing. Consult with application engineer for assistance with sizing.

Capacity vs Center of Gravity Offset



Adjustable Head and Tailstock

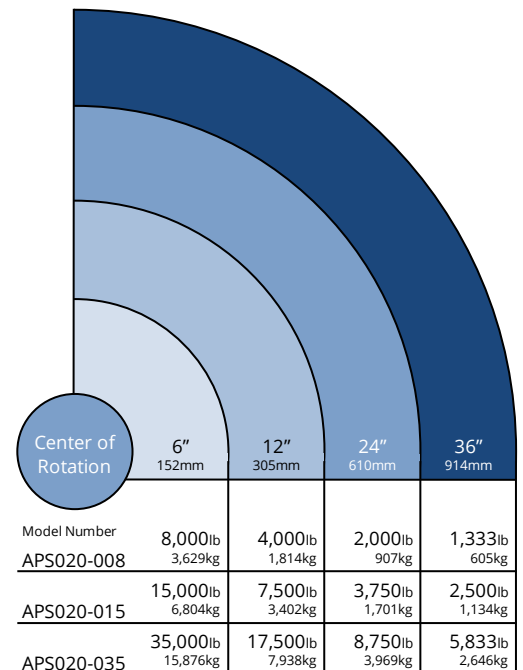
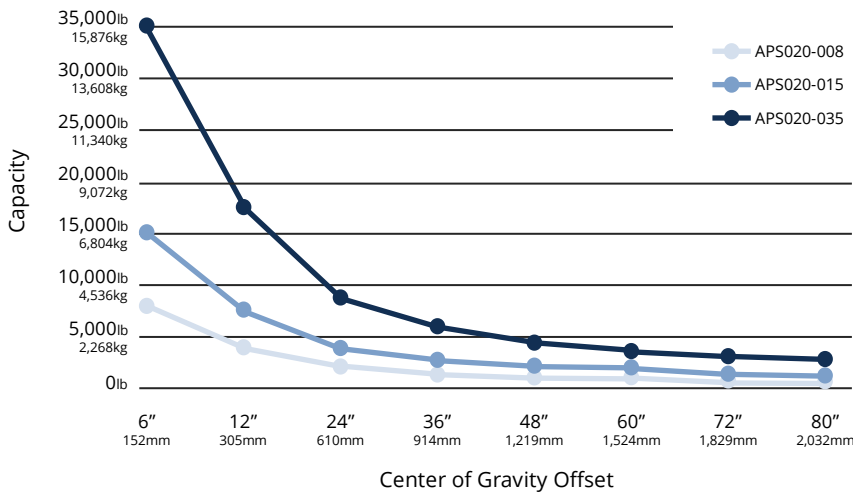


Adjustable Head and Tailstock Specifications

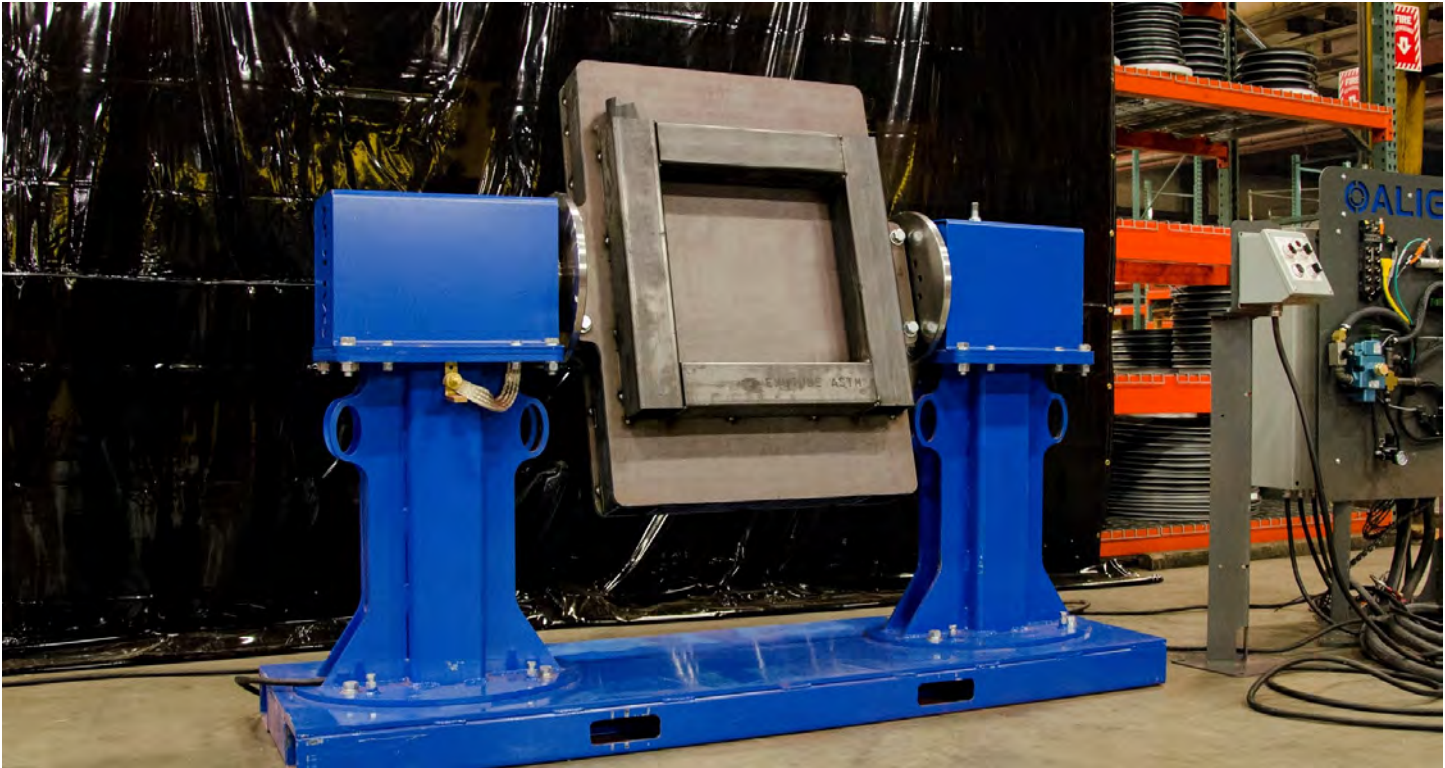
Model No.	Capacity	Rotational	Vertical	Centerline Height	Optional Grounding	
APS021	Total ¹	Torque ²	Travel	Min - Max	Max Current	
		RPM	Travel Speed			
APS021-008	8,000lb 3,629kg	48,000in/lb 5,423Nm	60" 1,524mm	1.7 - 34.0 Variable	16" - 76" 406mm - 1,930mm	800amps
APS021-015	15,000lb 6,804kg	75,000in/lb 8,474Nm	60" 1,524mm	1.7 - 34.0 Variable	16" - 76" 406mm - 1,930mm	800amps
APS021-035	35,000lb 15,876kg	190,000in/lb 21,467Nm	60" 1,524mm	1.7 - 34.0 Variable	20" - 80" 508mm - 2,032mm	1,500amps

1. Based on Head and Tailstock each holding half the listed weight. 2. Max rotational load, including fixturing. Consult with application engineer for assistance with sizing.
3. Ball Screw has built in "Load Lock". This prevents the load from free falling in the event the motor would ever fail.

Capacity vs Center of Gravity Offset



Head & Tailstock



Align Production System's Head and Tailstock Positioners deliver powered variable-speed rotation in either direction to optimize your fabrication or assembly operation. The product line, is designed to optimize your welding, torching, cutting, or cladding operations.

- **Capacities of 5,000 lbs.**
- **Rotational torque of 12,000in/lb**
- **All electric unit with no hydraulic mess**
- **Centrally located grounding point for the whole machine**

Benefits



Image: Mounting plate on the Electric Head and Tailstock

Improve Worker Safety

Eliminate overhead welding and manual positioner, and instead utilize the ease of use of Align Production System's welding positioners.

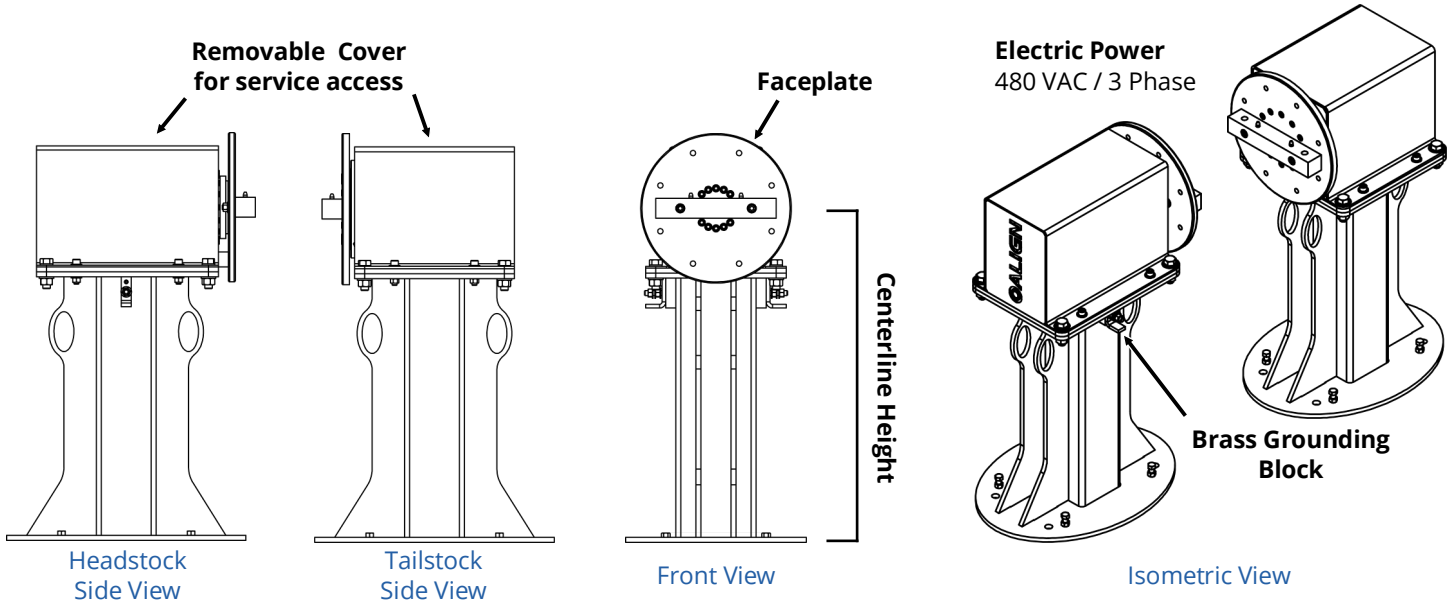
Ergonomic Benefits

Increase workpiece access by rotating the weldment to the optimal angle for welding.

Reduce Downtime & Fatigue

Since the need for manual positioning is eliminated, downtime due to worker fatigue will be drastically reduced.

Head and Tailstock

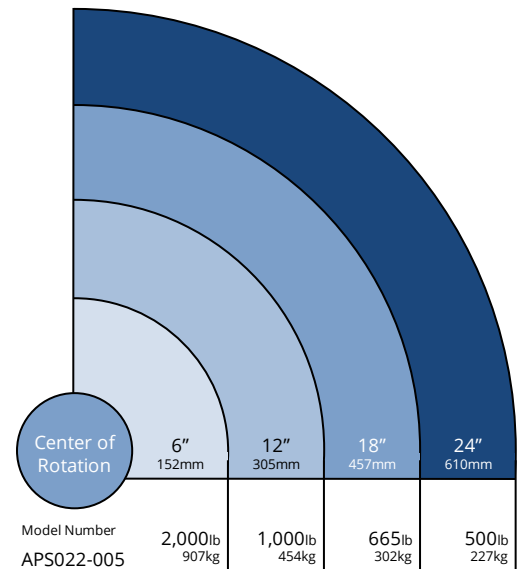
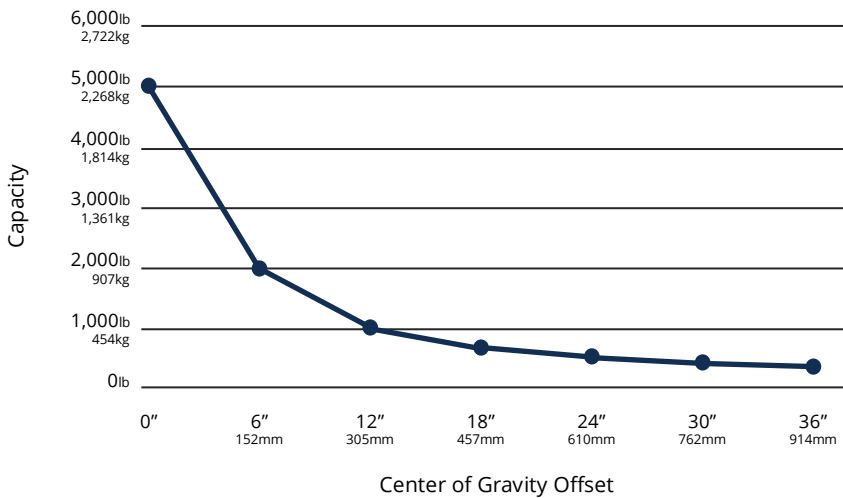


Fixed Head and Tailstock Specifications

Model No.	Capacity	Rotational	Centerline Height	Faceplate
APS022	Total ¹	Torque ²		Diameter
APS022-005	5,000lbs 2,268kg	12,000in/lbs 1,356Nm	33.5" 851mm	15" 381mm

1. Based on Head and Tailstock each holding half the listed weight. 2. Max rotational load, including fixturing. Consult application engineer for assistance with sizing.

Capacity vs Center of Gravity Offset



Two Axis Welding Positioner



Simplify circular welds and improve worker ergonomics with our Two Axis Welding Positioners - designed for maximizing stability, reducing vibrations, and preventing elastic deformations that may compromise weld quality. Our positioners feature a 115° incline, weight capacities up to 25,000 lbs., and have face diameters up to 76 inches.

- **Capacities up to 25,000 lbs.**
- **Reduce vibrations and elastic deformations**
- **Manual, motor-driven and hydraulic tilt models available**
- **Reduce cycle times by 45 - 50% over static positioning**

Features & Benefits



Steady Rotation

The positioner features steady rotation and 115° of tilt to allow the operator to access the weld from the optimal angle and maintain a consistent weld.

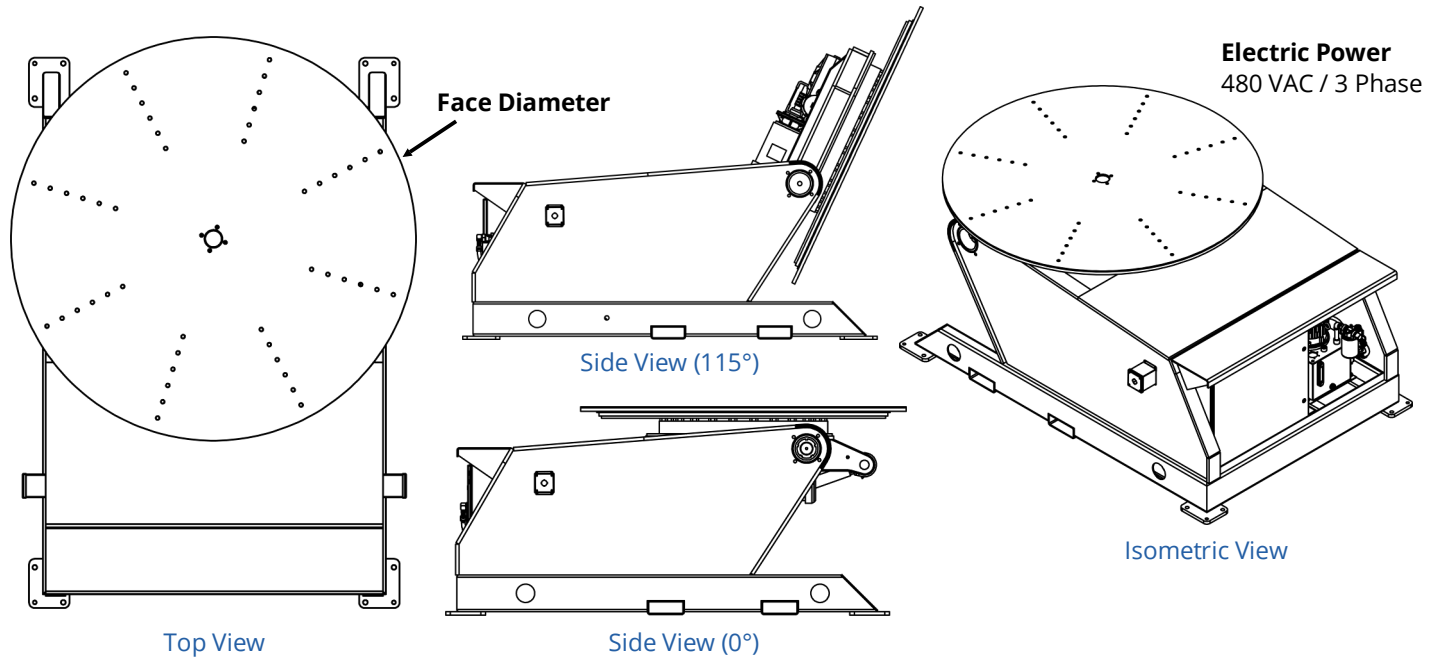
Structural Confidence

Our positioners feature four radial housings to solidly fix the piece to the positioner during fabrication.

Reduce Fatigue

Our positioners are designed to improve worker ergonomics, helping to reduce fatigue and downtime.

Two-Axis Welding Positioner



Two-Axis Welding Positioner Specifications

Model No.	Capacity	Rotational		Face Diameter	Max Tilting
		Torque	RPM	Travel	Angle
APS023	Total				
APS023-003	3,000lb 1,361kg	750in/lb 85Nm	0.1 to .35 Variable	56" 1,422mm	115°
APS023-005	5,000lb 2,268kg	1,200in/lb 136Nm	0.1 to .35 Variable	61" 1,549mm	115°
APS023-010	10,000lb 4,536kg	3,700in/lb 418Nm	0.1 to .35 Variable	66" 1,676mm	115°
APS023-015	15,000lb 6,804kg	6,250in/lb 706Nm	0.1 to .35 Variable	71" 1,803mm	115°
APS023-025	25,000lb 11,340kg	11,800in/lb 1,333Nm	0.1 to .35 Variable	76" 1,930mm	115°

Battery Powered Tugger



Move up to 120,000 lbs. using a single operator with The Ox Power Tugger. The Power Tugger enables a single operator to move and position heavy weight pallets and loads on wheels, and can comfortably move up to 100 feet-per-minute. Designed to lift the front end of non-motorized trailers or pallets, distributing the load to the wheels on the trailer.

- Capacities up to 120,000 lbs.
- Low hitch point of 6"
- Continuous operation up to 105 minutes
- Charge with 120v wall outlet
- Optional 125,000 lbs. Tugger Cart

Available Models

Ox Power Tuggers

Align Production Systems offers two different models of the Ox Power Tugger, including 30,000 lb. and 120,000 lb. capacity models.

30,000 lb. Capacity

Featuring a hitch point capacity of 6,750 lbs, 45 minute battery life, 5,500 ft-lbs. of tractive force, and movement speeds of 100 fpm.

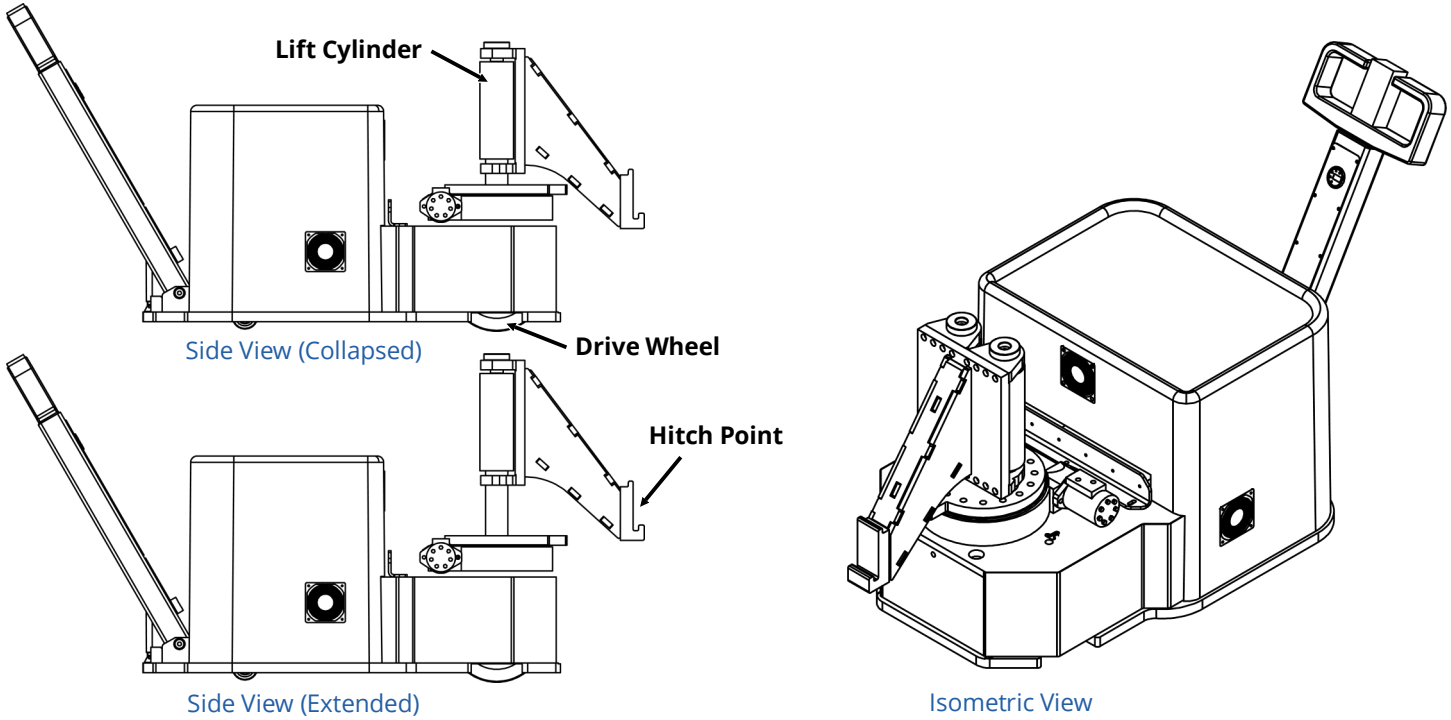
120,000 lb. Capacity

Featuring a hitch point capacity of 12,000 lbs, with 45 minute battery life, 23,500 ft-lbs. of tractive force, and movement speeds of 60 fpm.



Image: 30,000 lb. capacity Power Tugger

Battery Powered Tugger



Battery Powered Tugger

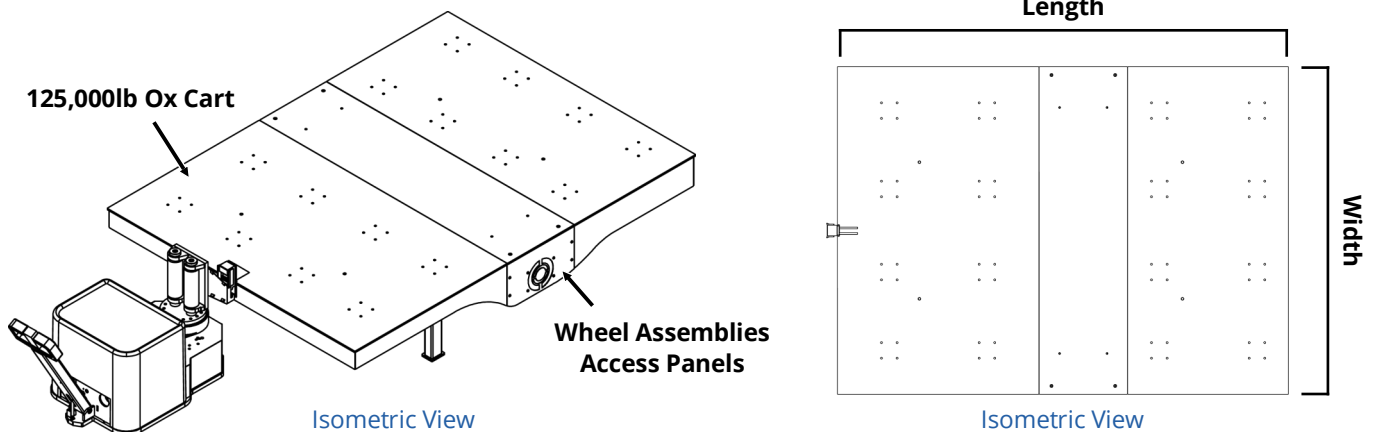
Model No.	Capacity	Drawbar Force	Hitch Point		Speed	Battery Life
			Stroke	Capacity		
APS030	Total ¹	Total			Time	
APS030-030	30,000lb 13,608kg	1,686lb 7500N	6" 152mm	6,750lb 3,068kg	100fpm	45minutes
APS030-120	120,000lb 54,431kg	7,193lb 32,000N	6" 152mm	12,000lb 5,455kg	60fpm	105minutes

1. Based on proper load positioning, quality floor surface, and 92A durometer wheels.

Optional Tugger Ox Cart

Model No.	Capacity	Minimum Cart Size at Max Capacity ¹		Bed Height	Wheel Size	Wheel Tread
		Width	Length			
APS031	Total				Diameter	
APS031	125,000lb 56,699kg	96" 2,438mm	126" 3,200mm	18.44" 468mm	12" 305mm	Polyurethane 90A Durometer

1. Custom sizes based on load available. Sizes smaller than minimum are available with lower capacities.



Pneumatic Power Tugger



Working in conjunction with Air Caster Platforms, Power Tuggers enable one person to easily and precisely move unrestrained loads up to 150,000 lbs. Utilizing the same cushion of plant-supplied air as your Air Caster Platform, the Pneumatic Power Tugger delivers 180° of steering motion.

- **Capacities up to 150,000 lbs.**
- **Built-in transport wheels for moving the tugger with the air supply turned off**
- **Twist grip controls and a “deadman” on/off control for maximum safety**
- **Optional Grooved drive wheel for increase traction**

Use with Air Caster Platforms



The Pneumatic Power Tugger is designed to be used in tandem with other air caster solutions from Airfloat.

Mounting Bracket

The Pneumatic Power Tugger features a mounting bracket that allows for quick attachment to Air Caster Platforms.

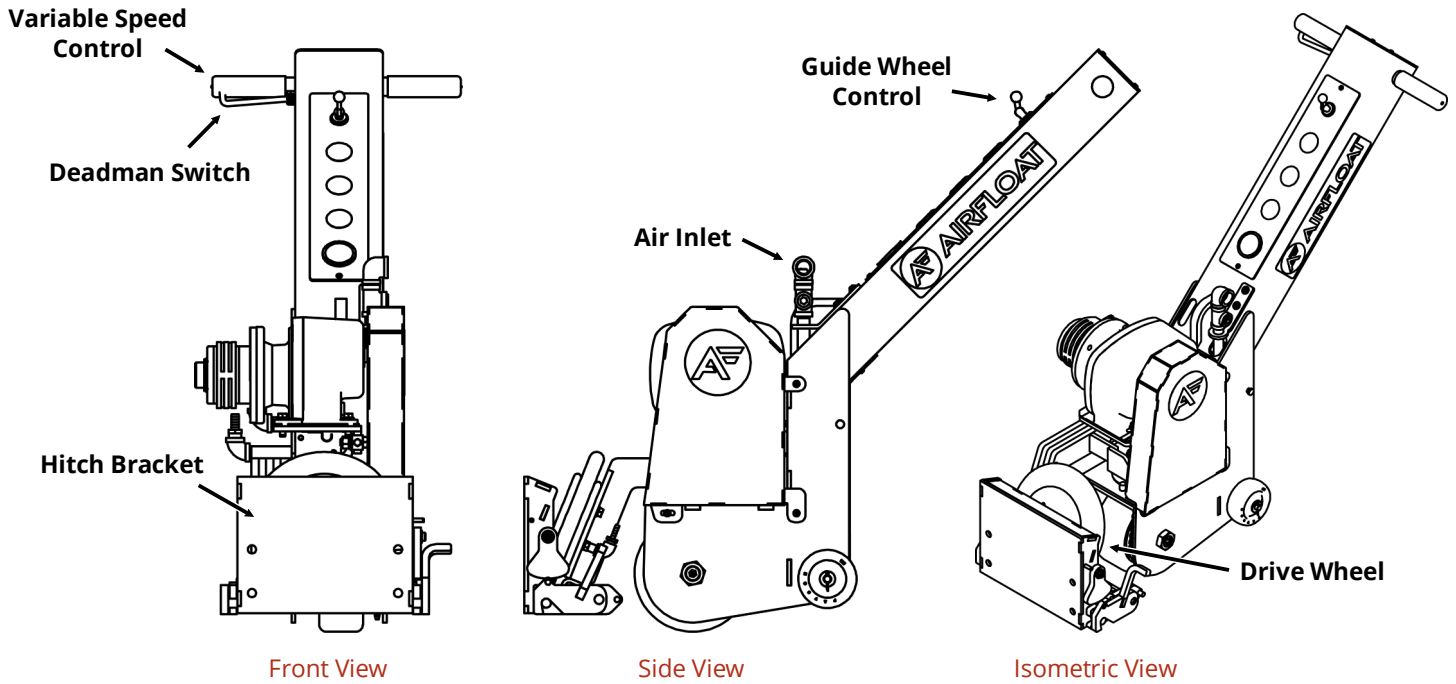
High Capacities

Since the Pneumatic Power Tuggers have a capacity of up to 150,000, our platforms can be moved with ease by a single operator.

Guide Wheel Control

The Tuggers control interface is designed to work with the optional guide wheel built in to platforms. The guide wheel adds traction and control on sloped surfaces.

Pneumatic Powered Tugger



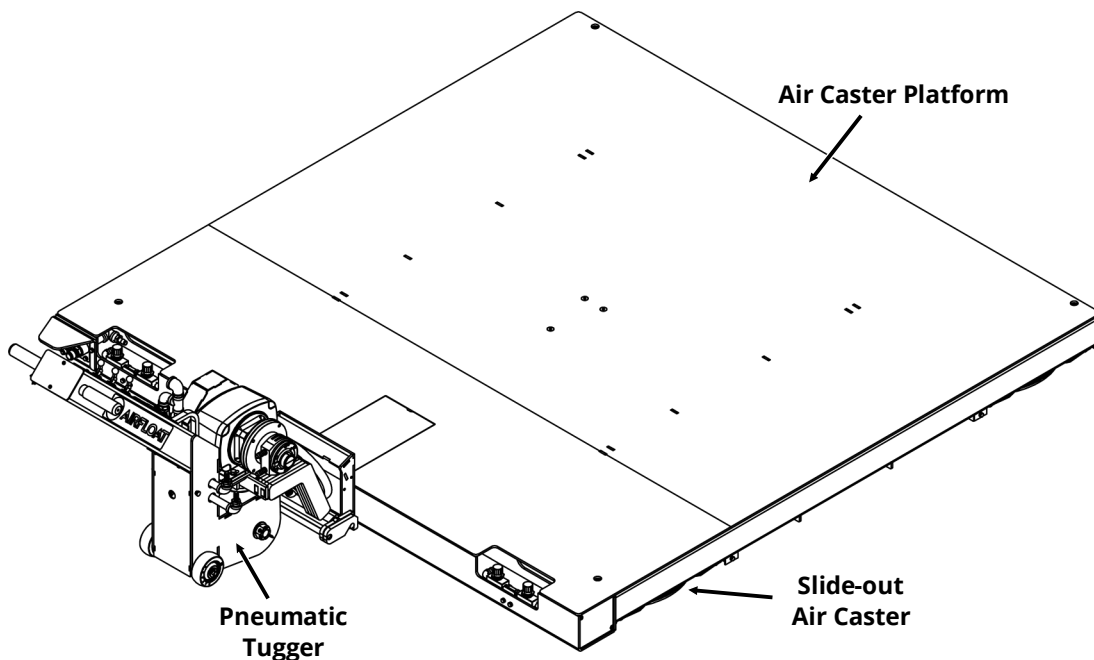
Pneumatic Powered Ox Tugger Specifications

Model No.	Capacity	Drawbar Force	Speed	Steering	Air Flow	Weight
AF050	Total ¹	Total ²	Min - Max		Avg	
AF050-0650	50,000lb 22,680kg	650lb 2,891N	0 - 58fpm 0 - 18mph	180°	67 SCFM 2,266L/m	170lbs 77kg
AF050-1700	150,000lb 68,039kg	1,700lb 7,562N	0 - 45fpm 0 - 14mph	180°	120 SCFM 2,832L/m	378lbs 171kg

1. With air caster supported loads. 2. Performance based on operation on dry, level floor. For oily or sloping floor, more tractive effort may be required.

Pneumatic Tugger with Air Caster Platform

(see page 25 for details)



Pneumatic Pallet Jack



Effortlessly move and position pallets weighing up to 15,000 lbs. with the Heavy-Duty Pneumatic Pallet Jack. The Pallet Jacks are built to last, featuring full steel construction, and all-pneumatic operation to minimize downtime and part replacement. Because our units are all pneumatic, they offer spark free operation - making them ideal for environments with flammable or explosive elements.

- Capacities up to 15,000 lbs.
- Fork height as low as 3"
- Intuitive hand controls for easy operation
- Spark-free operation is ideal for explosion prone environments

Features & Benefits



High Capacity

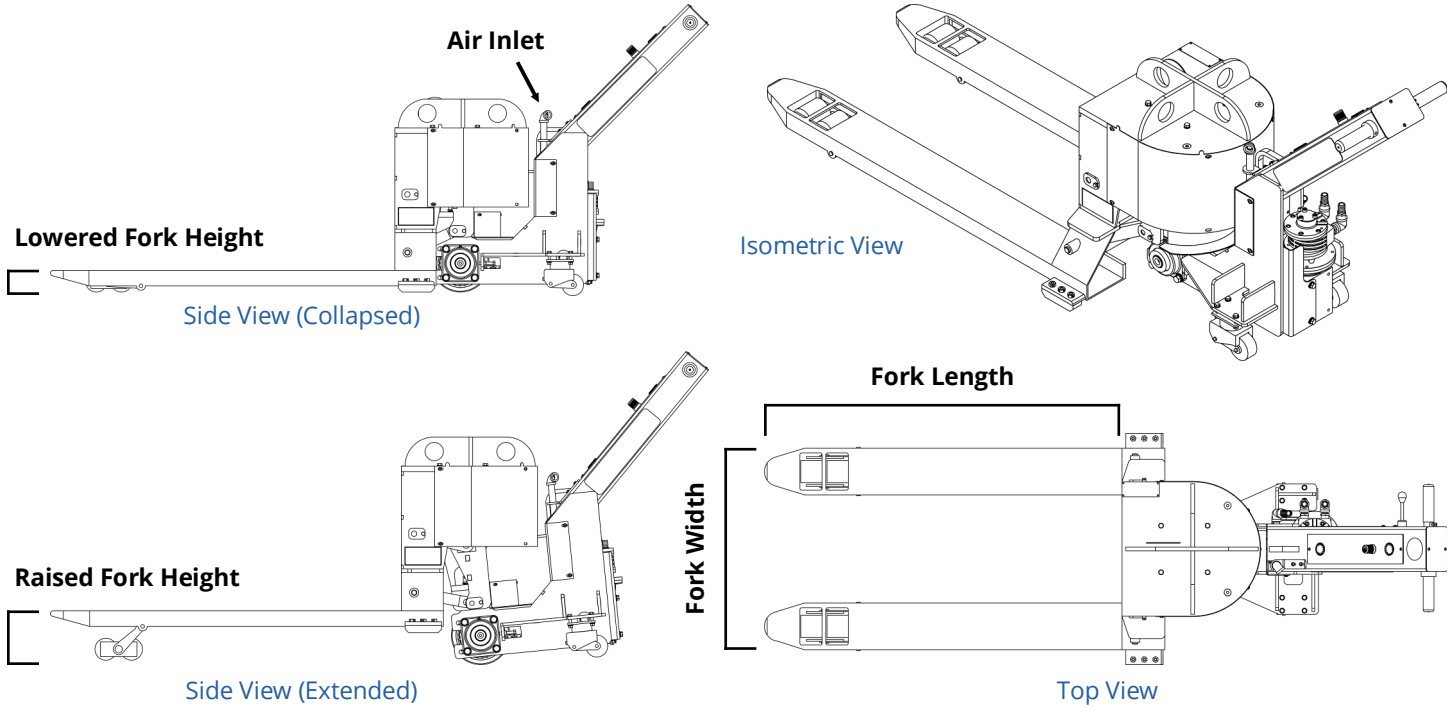
Our Pneumatic Pallet Jacks reach high capacities of up to 15,000 lbs. Instead of hydraulically lifting heavy loads and pumping the handle, simply use the hand controls to automatically lift the load.



Hand Controls

Focus on moving your load instead of the hand controls. Simple controls make it easy to pick up and guide your load without having to overthink the hand controls.

Pneumatic Pallet Jack

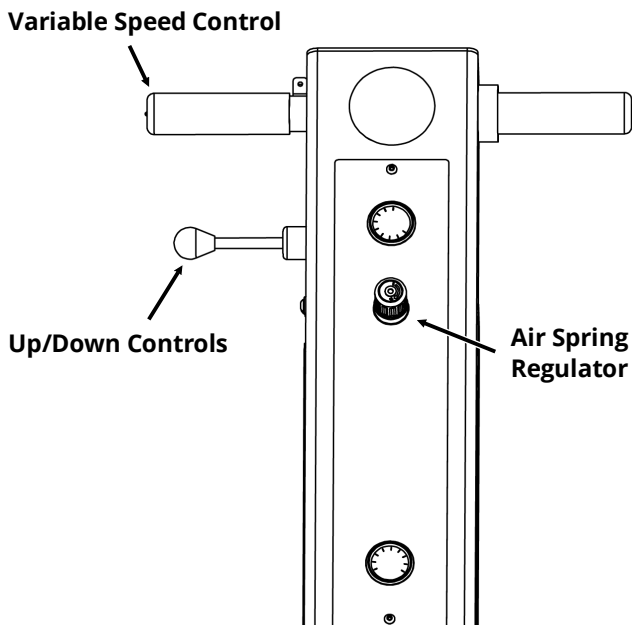


Pneumatic Pallet Jack Specifications

Model No.	Capacity	Drawbar Force	Fork Size	Fork Height		Speed	Air Flow
				Lowered	Raised		
ST040	Total ¹	Total ²	W x L			Max	Avg
ST040-7500	7,500lb 3,402kg	640lb 2,847N	27" x 48" 686mm x 1,219mm	3" 76mm	6.75" 171mm	50fpm 0 - 15mph	80 SCFM 2,266L/m
ST040-15000	15,000lb 6,804kg	2,625lb 11,677N	32.25" x 73.5" 819mm x 1,867mm	5.25" 133mm	7.25" 184mm	40fpm 0 - 12mph	150 SCFM 4,240L/m

1. With air caster supported loads. 2. Performance based on operation on dry, level floor. For oily or sloping floor, more tractive effort may be required.

Pallet Jack Controls



Pneumatic Scissor Lift



Our Pneumatic Lift tables are 100% pneumatic, built to withstand the demands of manufacturing, and are easy and safe to implement. All of our tables feature solid steel cross arms, and are engineered for optimum performance, strength, and durability unsurpassed in the industry. In addition to standalone operation, our lift tables can be integrated into a solution with other equipment.

- Capacities up to 8,000 lbs.
- Collapsed height of 8.25"
- Vertical stroke of 24"
- Self lubricating Rulon Bushings
- Designed for off-center loading

Common Configuration



Lift with Extended Bolt-on Tops

Oversized table top that bolts on to the lift table. Our Extended Tops are built to your measurements.



Lift with Pneumatic Tilt

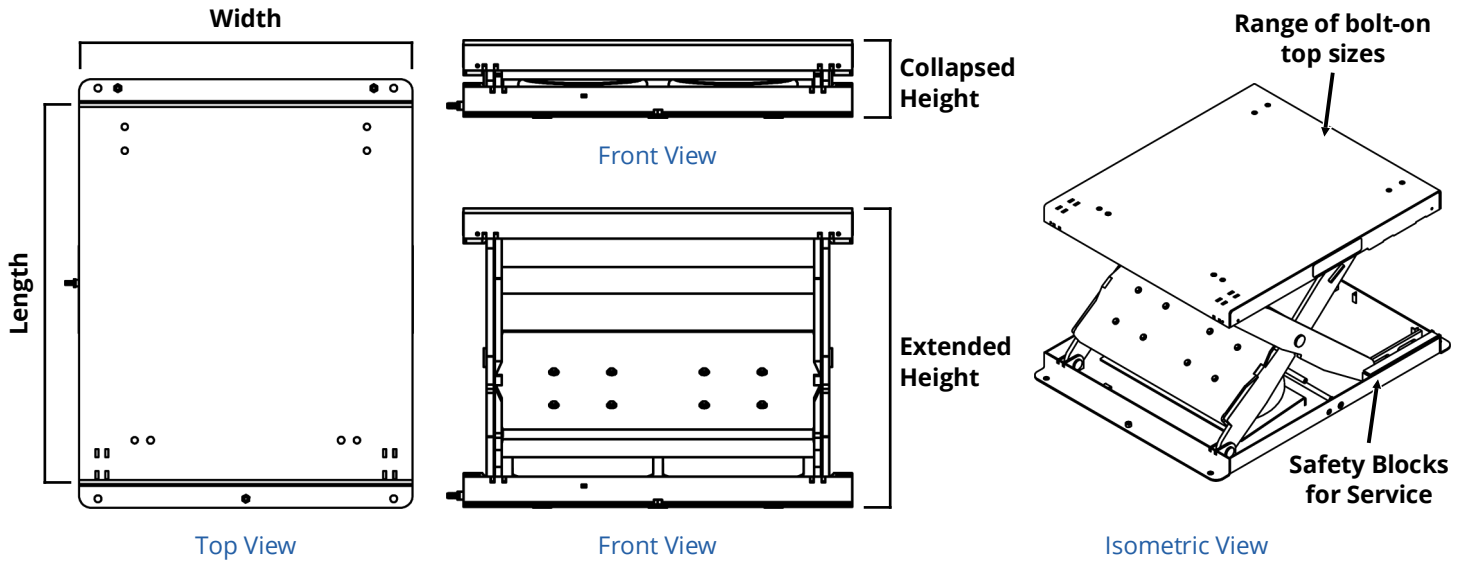
Combines our Pneumatic Lift Table with our Tilt Table. Often used for part packaging or presentation.



Lift with Mechanical Rotate

Combines our Pneumatic Lift Table with our Mechanical Rotate for easy rotation of the table top.

Pneumatic Scissor Lift



Pneumatic Lift Specifications

Model No.	Capacity	Arm Type	Stroke	Height	Base Size		Top Size	
					Width	Length	Width	Length
ST01X	Total	Type		Min - Max				
ST014-2448	2,000lb 907kg	Lever	24" 610mm	8.25" - 32.25" 210mm - 819mm	24" 610mm	48" 1,219mm	24" 610mm	48" 1,219mm
ST010-3648	2,000lb 907kg	Lever	24" 610mm	8.25" - 32.25" 210mm - 819mm	36" 914mm	48" 1,219mm	36" 914mm	48" 1,219mm
ST011-4248	4,000lb 1,814kg	Lever	24" 610mm	8.25" - 32.25" 210mm - 819mm	42" 1,067mm	48" 1,219mm	42" 1,067mm	48" 1,219mm
ST012-4848	6,000lb 2,722kg	Direct	24" 610mm	12" - 36" 305mm - 914mm	48" 1,219mm	48" 1,219mm	48" 1,219mm	48" 1,219mm
ST013-4848	8,000lb 3,629kg	Direct	24" 610mm	12" - 36" 305mm - 914mm	48" 1,219mm	48" 1,219mm	48" 1,219mm	48" 1,219mm

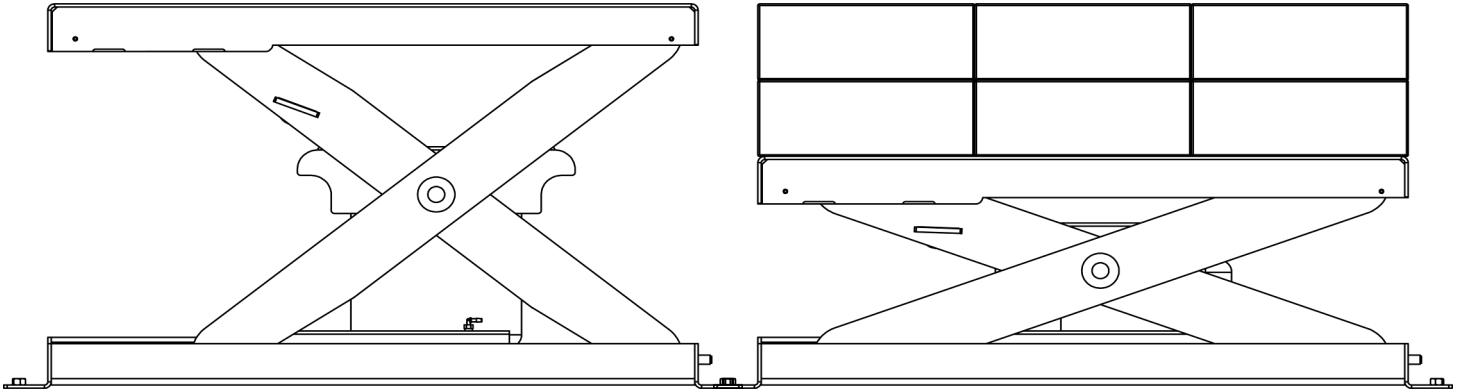
Options for the Pneumatic Lifts

Options	Part No.
Hand Control Stand	APS5010-0100
Foot Control Stand	APS5020-0100
Lift Skirt	ST5010
Bolt-on Top	ST5020
Corner Angle Locators	ST5070
Lift Adjustable Riser	ST5030

Extended bolt-on top sizes

Model No.	Width	Length
	Min - Max	Min - Max
ST01X		
ST014-2448	24" - 46" 610mm x 1,168mm	48" - 70" 1,219mm x 1,778mm
ST010-3648	36" - 58" 914mm x 1,473mm	48" - 70" 1,219mm x 1,778mm
ST011-4248	42" - 64" 1,067mm x 1,626mm	48" - 70" 1,219mm x 1,778mm
ST012-4848	48" - 70" 1,219mm x 1,778mm	48" - 70" 1,219mm x 1,778mm
ST013-4848	48" - 70" 1,219mm x 1,778mm	48" - 70" 1,219mm x 1,778mm

Self-Leveling Pneumatic Lift



Our Self-Leveling Pneumatic Lift tables offer our lift table with a leveling mechanism to ensure the lift is always at the ergonomically correct height. All of our tables feature solid steel cross arms, and are engineered for optimum performance, strength, and durability unsurpassed in the industry.

- **Capacities up to 4,000 lbs. (1,814kg)**
- **Collapsed height of 10" (254mm)**
- **Vertical stroke of 20" (508mm)**
- **Self lubricating Rulon Bushings**

Features & Benefits



Ergonomic Loading & Unloading

Our Self-Leveling Lift Table automatically adjusts to the set ergonomic height as products are added or removed from the table top, reducing operator strain.

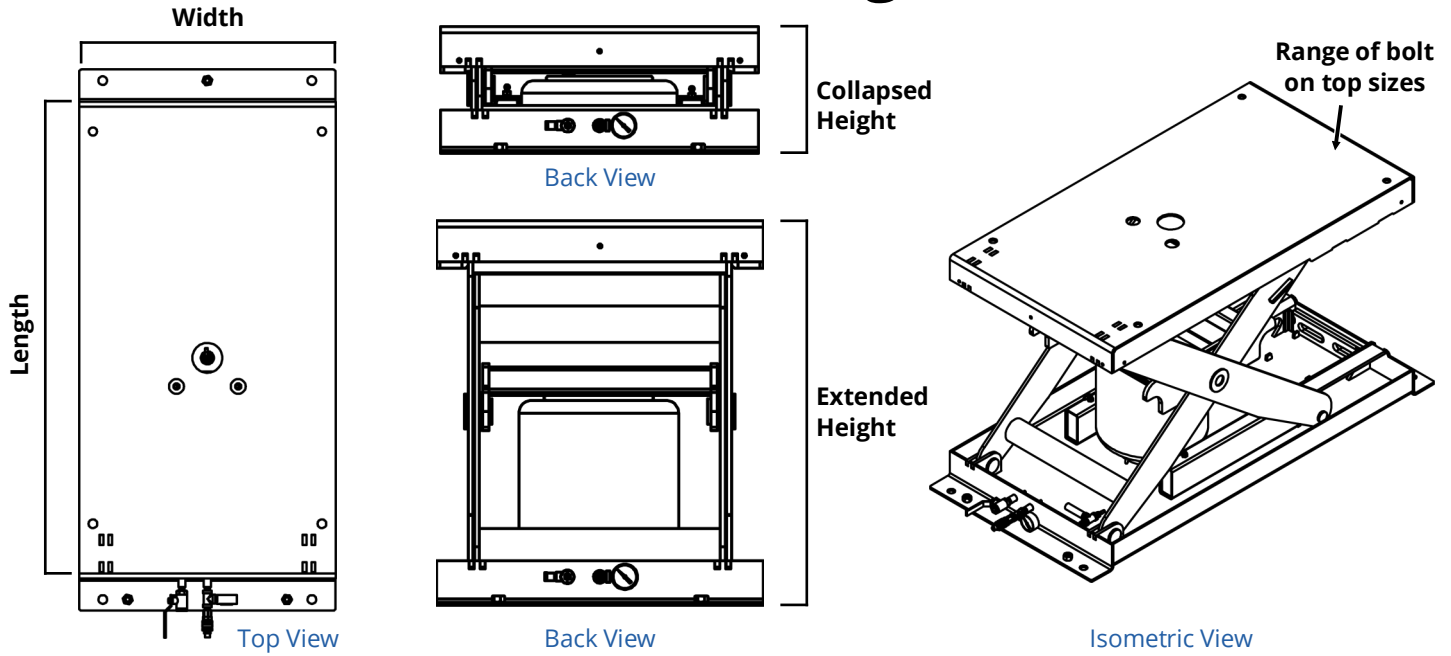
Easily Integrated

Our Self-Leveling Lift Tables can be easily integrated with our Tilt Tables and Mechanical Rotates to create Lift & Tilt, Lift & Rotate, and Lift, Tilt, & Rotate Tables.

Steel Construction

Our Lift Tables are built in Decatur, IL from USA steel with notch & tab construction.

Self-Leveling Pneumatic Lift



Self-Leveling Pneumatic Lift Specifications

Model No.	Capacity	Arm Type	Stroke	Height	Base Size		Top Size	
					Width	Length	Width	Length
ST080	Total	Type		Min - Max	Width	Length	Width	Length
ST080-2648	4,000lb 1,814kg	Direct	20" 508mm	10" - 30" 254mm - 762mm	25.75" 654mm	48" 1,219mm	25.75" 654mm	48" 1,219mm

Options for the Self-Leveling Lifts

Options	Part No.
Hand Control Stand	APS5010-0100
Foot Control Stand	APS5020-0100
Lift Skirt	ST5010
Bolt-on Top	ST5020
Corner Angle Locators	ST5070
Lift Adjustable Riser	ST5030

Extended bolt-on top sizes

Model No.	Width	Length
ST08X	Min - Max	Min - Max
ST080-2648	26" - 48" 660mm x 1,219mm	48" - 70" 1,219mm x 1,778mm

Pneumatic Tilt



Our pneumatic tilt tables are designed to be stand-alone or bolt-on configurations with other equipment like our pneumatic lift and mechanical rotates. Safety features include two up-stop chains per actuator, a safety prop for maintenance, corner retainer, safety skirt, and enclosed base pan to protect internal components.

- Capacities up to 6,000 lbs.
- Low down height of 6"
- Available in 30° or 45° angles
- Self lubricating Rulon Bushings

Pneumatic Non-Invasive Tilt

Pneumatic Non-Invasive Tilt

Our pneumatic Non-Invasive Tilt Tables are designed to maximize space by keeping the load centered over the tilt. The Non-Invasive Tilt Tables can be stand-alone or a bolt-on configuration with other equipment.

Easily Integrated

Align Production Systems offers a multitude of ergonomic equipment, and our Pneumatic Tilt Tables can be integrated with our other equipment.

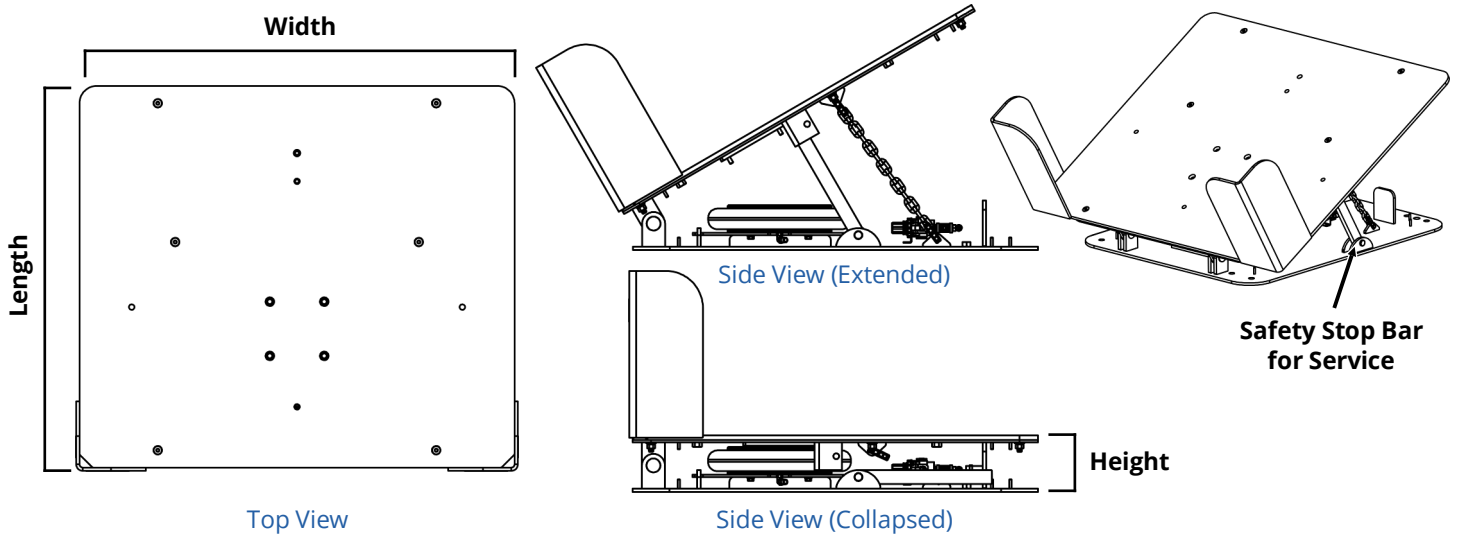
Rulon Bushings

To provide longer wear and extended operating life, we use Rulon Bushings with a self-lubricating design and no messy greasing system.



Image: Non-invasive tilt bolted on to a pneumatic lift

Pneumatic Tilt



Pneumatic Tilt Specifications

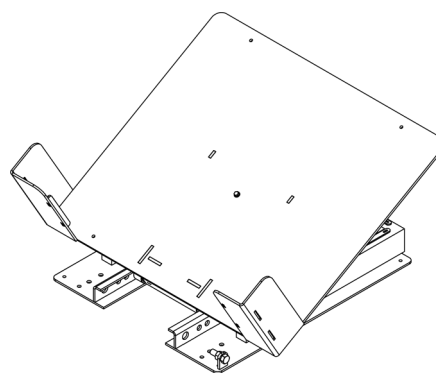
Model No.	Capacity	Tilt Angle	Height	Base Size	Top Size	
					Width	Length
ST02X/ST07X ⁽¹⁾	Total	Degrees	Down	W x L	Width	Length
ST020-XXXX	2,000lb 907kg	30°	6" 152mm	36" x 44" 914mm - 1,118mm	38" - 62" 965mm - 1,575mm	44" - 56" 1,118mm - 1,422mm
ST022-XXXX	4,000lb 1,814kg	30°	6" 152mm	36" x 44" 914mm - 1,118mm	44" - 62" 1,118mm - 1,575mm	44" - 56" 1,118mm - 1,422mm
ST024-XXXX	6,000lb 2,721kg	30°	6" 152mm	48" x 48" 1,219mm - 1,219mm	50" - 62" 1,270mm - 1,575mm	50" - 62" 1,270mm - 1,575mm
ST021-XXXX	2,000lb 907kg	45°	7" 178mm	36" x 44" 914mm - 1,118mm	44" - 62" 1,118mm - 1,575mm	44" - 56" 1,118mm - 1,422mm
ST023-XXXX	4,000lb 1,814kg	45°	7" 178mm	42" x 48" 1,067mm - 1,219mm	44" - 62" 1,118mm - 1,575mm	44" - 56" 1,118mm - 1,422mm
ST025-XXXX	6,000lb 2,721kg	45°	7" 178mm	48" x 48" 1,219mm - 1,219mm	50" - 62" 1,270mm - 1,575mm	50" - 62" 1,270mm - 1,575mm
ST070-XXXX	2,000lb 907kg	30°	7" 178mm	36" x 48" 914mm - 1,219mm	44" - 62" 1,117mm - 1,575mm	50" - 56" 1,270mm - 1,422mm
ST072-XXXX	4,000lb 1,814kg	30°	7" 178mm	42" x 50" 1,067mm - 1,270mm	44" - 62" 1,117mm - 1,575mm	50" - 56" 1,270mm - 1,422mm

1. Model Number ST07X are Non-Invasive Pneumatic Tilts.

Options for the Pneumatic Tilt

Options	Part No.
Hand Control Stand	APS5010-0100
Foot Control Stand	APS5020-0100
Dirt Leg Stand	APS5010-1100
Tilt Skirt	ST5040-XXXX
Riser Base	ST5080-XXXX

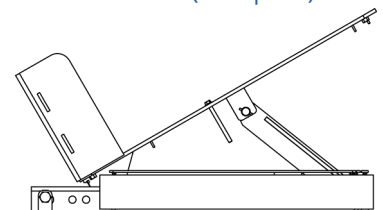
Non-Invasive Tilt Drawing



Isometric View



Side View (Collapsed)



Side View (Extended)

Mechanical Rotate



Align Mechanical Rotates allow for you to easily rotate parts containers or other heavy loads. Offering bolt-on or stand-alone operation, our rotates use sealed, lubricated-for-life slewing bearings that are superior to cheaper wheels or cam rollers. Options include pneumatic friction brakes, 90 and 180-degree spring lock pin, riser base with fork pockets and corner locators to hold the container in place.

- **Capacities up to 4,000 lbs.**
- **Low down height of 4"**
- **Bi-directional 360° rotation**
- **Simple design and easy installation**

Features & Benefits



Customization

Align Production Systems will work with you to develop and create Mechanical Rotates that meet your facility's needs and wants.

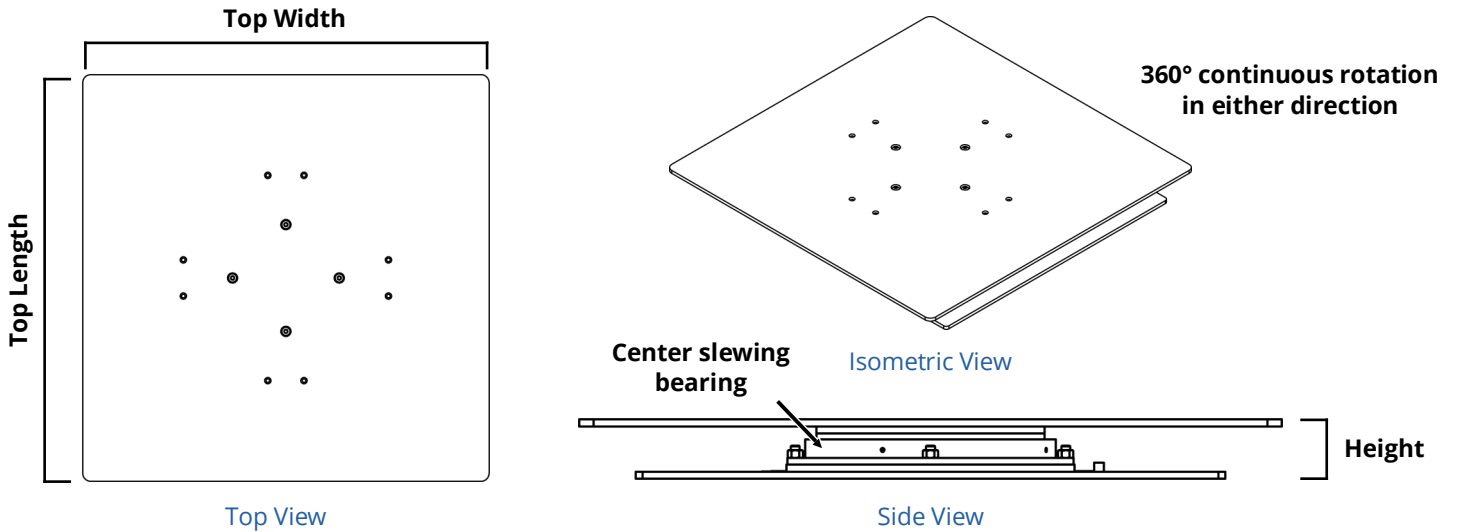
Benefits

Various benefits of using Mechanical Rotates include increased productivity, low initial cost and low maintenance, work positioning and ergonomic handling, as well as simple design and easy installation.

Integration with Lifts

Our Mechanical Rotates are designed to be easily integrated with our Lift tables, combining the two together to create one system to transform your facility's efficiency and productivity.

Mechanical Rotates



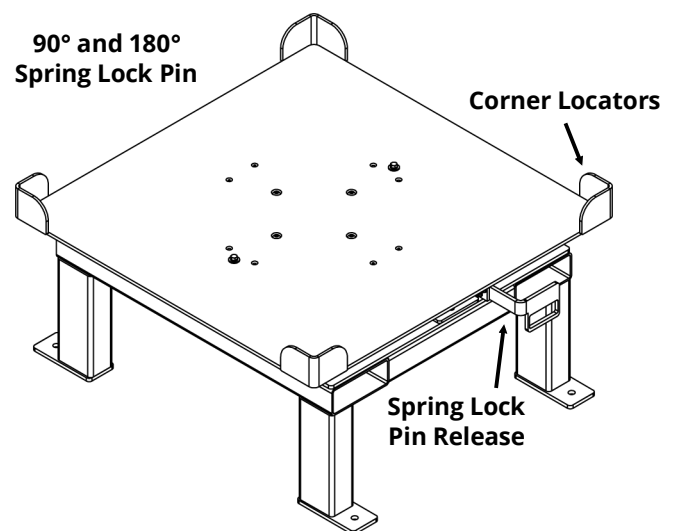
Mechanical Rotates Specifications

Model No.	Capacity	Height	Base Size	Top Size	
				Width	Length
ST030	Total		W x L		
ST030-38XX	4,000lb 1,814kg	4" 102mm	42" - 48" 1,067mm - 1,219mm	38" 965mm	38" - 62" 965mm - 1,575mm
ST030-42XX	4,000lb 1,814kg	4" 102mm	42" - 48" 1,067mm - 1,219mm	42" 1,067mm	42" - 62" 1,067mm - 1,575mm
ST030-46XX	4,000lb 1,814kg	4" 102mm	42" - 48" 1,067mm - 1,219mm	46" 1,168mm	46" - 62" 1,168mm - 1,575mm
ST030-50XX	4,000lb 1,814kg	4" 102mm	42" - 48" 1,067mm - 1,219mm	50" 1,270mm	50" - 62" 1,270mm - 1,575mm
ST030-54XX	4,000lb 1,814kg	4" 102mm	42" - 48" 1,067mm - 1,219mm	54" 1,372mm	54" - 62" 1,372mm - 1,575mm
ST030-58XX	4,000lb 1,814kg	4" 102mm	42" - 48" 1,067mm - 1,219mm	58" 1,473mm	58" - 62" 1,473mm - 1,575mm
ST030-6262	4,000lb 1,814kg	4" 102mm	42" - 48" 1,067mm - 1,219mm	62" 1,575mm	62" 1,575mm

Options for Mechanical Rotates

Options	Part No.
Pneumatic Friction Brake Hand	ST5060-0010
Pneumatic Friction Brake Foot	ST5060-0020
90° Spring Lock Pin	ST5060-0030
180° Spring Lock Pin	ST5060-0040
Corner Angle	ST5070-0010
10" Riser Base / Fork Pockets	ST5080-0010

Mechanical Rotates with Options



Hydraulic Scissor Lift



Our Hydraulic Lifts are built to withstand the demands of manufacturing, and are easy and safe to implement. All of our tables feature solid steel cross arms, and are engineered for optimum performance, strength, and durability unsurpassed in the industry. In addition to stand-alone operation, our lift tables can be integrated into a solution with other equipment.

- **Capacities up to 8,000 lbs.**
- **Collapsed height of 8"**
- **Vertical stroke of 35"**
- **Self lubricating Rulon Bearings**
- **Designed for off-center loading**

Features & Benefits



Easily Integrated

Our Hydraulic Lifts can be easily integrated with our Tilt Tables and Mechanical Rotates to create Lift & Tilt, Lift & Rotate, and Lift, Tilt, & Rotate Tables.

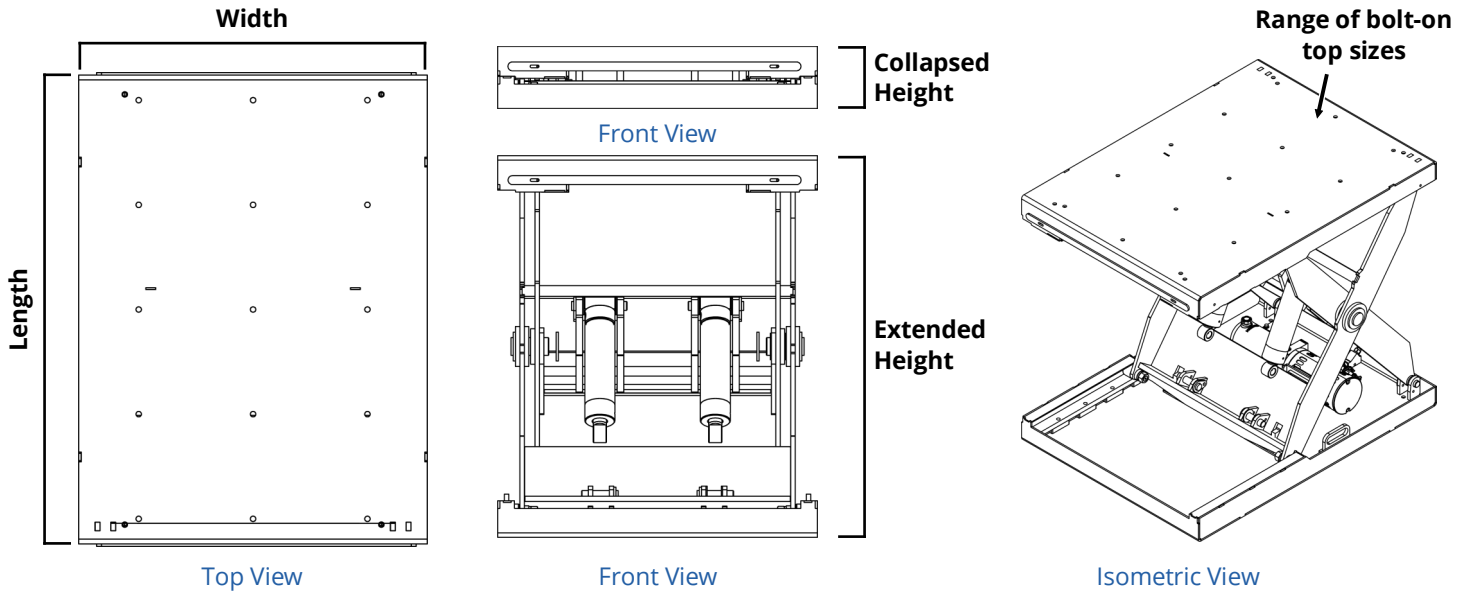
Custom Designs

Not seeing a size or weight capacity that meets your needs? Contact our application engineering team for a solution that meets your specification.

Steel Construction

Our Lift Tables are built in Decatur, IL from USA steel with notch & tab construction.

Hydraulic Scissor Lift



Hydraulic Lift Specifications

Model No.	Capacity	Arm	Stroke	Height	Base Size		Top Size	
					Width	Length	Width	Length
ST05X	Total	Type		Min - Max				
ST050-3648	2,000lb 907kg	Lever	35" 889mm	8" - 43" 203mm - 1,092mm	36" 914mm	48" 1,219mm	36" 914mm	48" 1,219mm
ST051-3648	4,000lb 1,814kg	Lever	35" 889mm	8" - 43" 203mm - 1,092mm	36" 914mm	48" 1,219mm	36" 914mm	48" 1,219mm
ST052-3648	6,000lb 2,722kg	Lever	35" 889mm	11" - 46" 279mm - 1,168mm	40" 1,016mm	50" 1,270mm	40" 1,016mm	48" 1,219mm
ST053-3648	8,000lb 3,629kg	Lever	35" 889mm	11" - 46" 279mm - 1,168mm	48" 1,219mm	50" 1,270mm	48" 1,219mm	48" 1,219mm

Options for Hydraulic Lift

Options	Part No.
Hydraulic Lift Skirt	ST5010
Hydraulic Lift Hand Control	ST5090-0010
Hydraulic Lift Foot Control	ST5090-0020
Power Supply 24V DC	ST5090-0030
Power Supply 110 VAC	ST5090-0040
Power Supply 480 VAC	ST5090-0050

Extended bolt-on top sizes

Model No.	Width	Length
	Min - Max	Min - Max
ST05X		
ST050-3648	36" - 58" 914mm x 1,473mm	48" - 70" 1,219mm x 1,778mm
ST051-3648	36" - 58" 914mm x 1,473mm	48" - 70" 1,219mm x 1,778mm
ST052-3648	40" - 62" 1,016mm x 1,473mm	48" - 70" 1,219mm x 1,778mm
ST053-3648	48" - 70" 1,219mm x 1,778mm	48" - 70" 1,219mm x 1,778mm

Hydraulic 90° Degree Upender



Prioritize worker safety by eliminating dangerous overhead crane maneuvers by using 90° Upenders in your assembly or fabrication operation. The Upenders are designed to flip heavy or large objects 90° to optimize your product's fabrication or assembly with the push of a button. Upenders not only offer a safe way to flip products, but they also save substantial time over other methods of flipping products.

- **Capacities up to 12,000 lbs.**
- **Low down height of 12"**
- **90° Rotation times as low as 30 seconds**
- **Featuring velocity fuses for safety and load holding valves to suspend loads**

Features & Benefits



Counter-Balance Valve

Also known as a load holding valve, the valve safely holds suspended loads in position and prevents run-away or overrunning loads.



Adjustable Leveling Pads

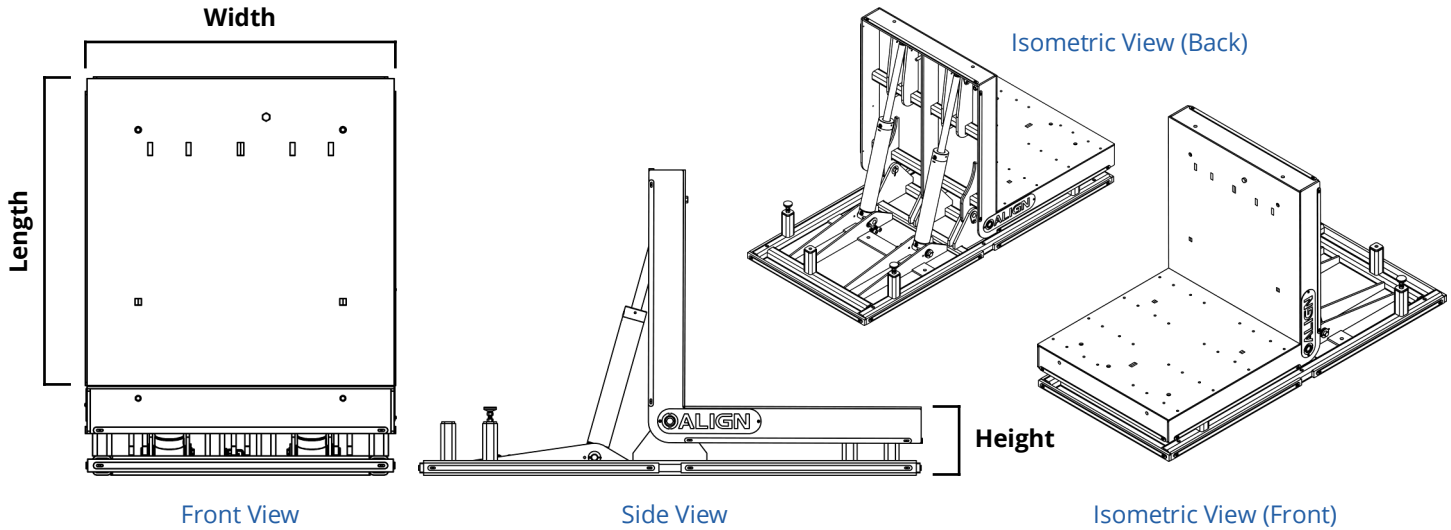
The Upenders feature adjustable leveling pads for leveling the upender's deck in the 0° and 90° positions.



Safety and Time Savings

Upenders not only offer a safe way to flip products, but they also save substantial time over other methods of flipping products.

Hydraulic 90° Degree Upender

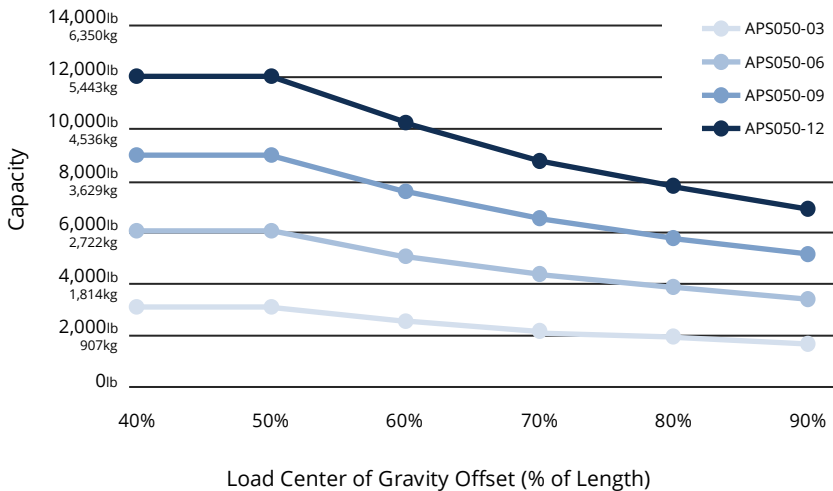


Hydraulic 90 Degree Upender Specifications

Model No.	Capacity	Platform Size		Down Height	90° Rotation Time
		Width	Length		
APS05X	Total ¹				
APS050-XXXXXX	3,000lb 1,361kg	36" - 96" 914mm - 2,438mm	36" - 96" 914mm - 2,438mm	12" 305mm	30 Seconds
APS051-XXXXXX	6,000lb 2,722kg	48" - 120" 1,219mm - 3,048mm	36" - 120" 914mm - 3,048mm	14" 356mm	45 Seconds
APS052-XXXXXX	9,000lb 4,082kg	60" - 120" 1,524mm - 3,048mm	36" - 120" 914mm - 3,048mm	16" 406mm	60 Seconds
APS053-XXXXXX	12,000lb 5,443kg	60" - 120" 1,524mm - 3,048mm	48" - 120" 1,219mm - 3,048mm	18" 457mm	75 Seconds

1. Based on centrally located load

Upender Capacity vs C.G. Distance



Capacity at % of Length

	0 - 50%	60%	70%	80%
Model Number				
APS050	3,000lb 1,361kg	2,550lb 1,157kg	2,190lb 993kg	1,950lb 885kg
APS051	6,000lb 2,722kg	5,100lb 2,313kg	4,380lb 1,987kg	3,420lb 1,551kg
APS052	9,000lb 4,082kg	7,650lb 3,470kg	6,570lb 2,980kg	5,130lb 2,327kg
APS053	12,000lb 5,443kg	10,200lb 4,627kg	8,760lb 3,973kg	6,840lb 3,103kg