

# **ALIGN** PRODUCTION SYSTEMS

 **AIRFLOAT**  **HEDIN USA**



  
SINCE 1967

**MATERIAL HANDLING SOLUTIONS CATALOG**

**Air Skids**

Steel Air Skid	10
Air Skid Rigging Kit	14
Air Skid Lift Glide	16

**Air Caster Planks**

Aluminum Air Planks	18
Steel Air Planks	19

**Air Caster Platforms**

Utility Platform	24
Air Caster Platforms	26
Pneumatic Power Tugger	28

**Air Caster Transporters**

Air Caster Transporter	30
Air Caster Roll Transporter	32


**Battery Tuggers**

Battery Powered Tugger	38
Ride-on Tugger	40
GT Tugger	42

**Coil Car Transporters**

Coil Car with Spike	44
Coil Car with Cradle	46
Coil Car with Tipper	48

**Battery Transporters**

Pallet Transporter	50
Platform Transporter	52
Mold & Die Transporter	54
Flatbed Transporter Single-Drive	56
Flatbed Transporter Multi-Drive	57



**Turntables**

Air Caster Turntable	62
Flush Floor Air Caster Turntable	66
High Speed Air Caster Turntable	68
Precision Mechanical Turntable	72
Mechanical Turntable	76
High Capacity Mechanical Turntable	80

**Welding Positioners**

Heavy Duty Head and Tailstock	82
Head and Tailstock	86
Two-Axis Positioner	88

**Pallet Jack**

Pneumatic Pallet Jack	90
-----------------------	----

**Ergonomic**

Pneumatic Lift	92
Self-Leveling Pneumatic Tilt	94
Pneumatic Tilt	96
Mechanical Rotate	98
Hydraulic Lift	100
Hydraulic 90° Upender	102



# Full Service Solution

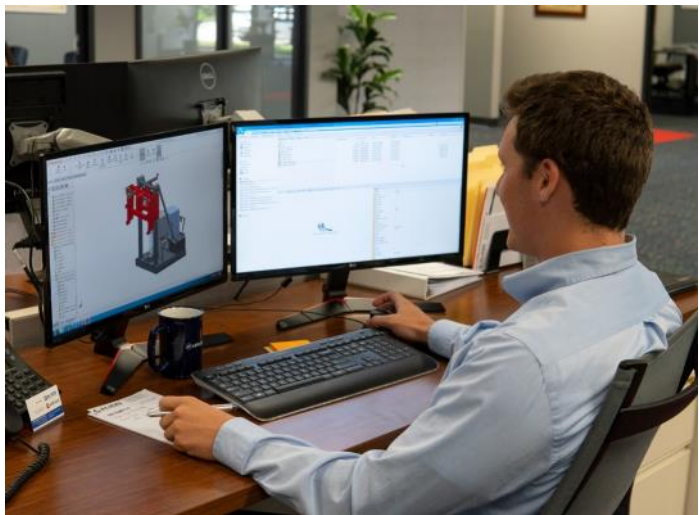
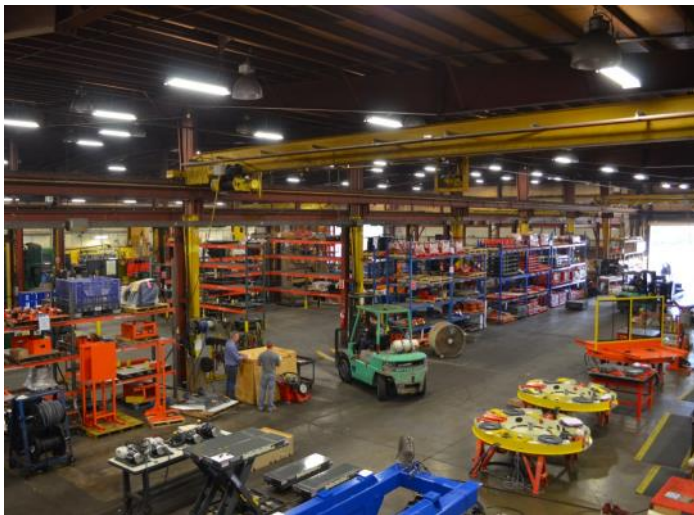


65,000 sq. ft. Manufacturing facility in Decatur, Illinois

## 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

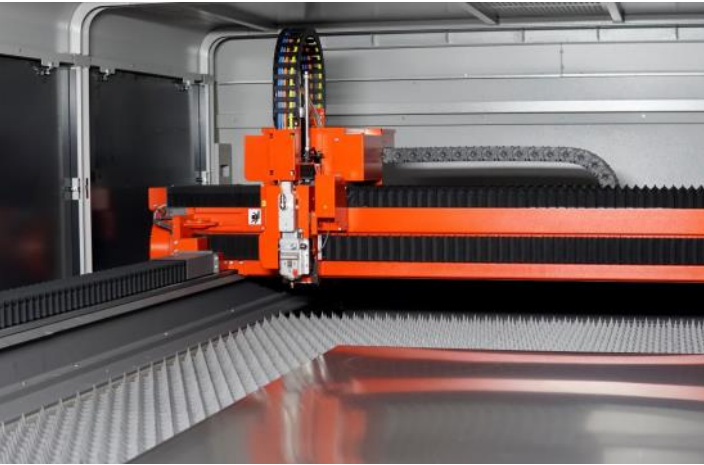
Scale of manufacturing gives us the flexibility to work on multiple projects concurrently.

## Solidworks & PDM

Our Engineering team designs all of our products in SolidWorks PDM, and test them using FEA analysis before fabrication.



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 division allows us to reduce lead times with 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**



## Locomotive 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 Con-Ag Equipment Manufacturer.



### Quick Mold & Die Changer

Custom engineered Mold & Die Changers are designed to maximize safety and efficiency.



### Battery Transporter

All-electric battery powered transporters are built to your capacity, size, and stroke requirements.



### Air Caster Transporter

Air Caster Transporter with RF Controls, Integrated Hose Reels and 200 Ton Capacity.



Air Caster Transporter with a three stage hydraulic telescoping lift.



## Platform with Radioactive Shield

Air Caster Platform built with radioactive shielding for transporting hazardous materials.



## Starliner Space Capsule

NASA capsule weighing 30,000 lbs. being moved on Airfloat Air Skids.



## Mining Truck Assembly

Mining Truck OEM transformed their single rail to a multi-rail assembly line with a Flush Floor Turntable.



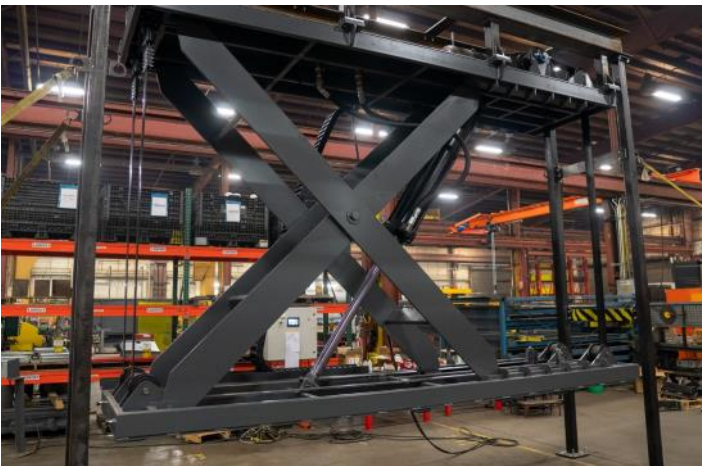
## Glass Rack Handling

Robotic Turntables interface with glass handling robots to increase production efficiency.





Locomotive Assembly Line using a custom Air Caster Transporter with a 300,000 lbs. capacity.



### Inverted Belt Lift

10,000 lbs. capacity Inverted ceiling belt lift with a secondary safety hydraulic lock.



### Chain Conveyor System

Custom system with integrated lifts, roll-overs, over head lifting, and automated sorting.



### Wheeled Cart with Lift Glides

Custom wheeled cart that utilizes Lift Glides for heavier loads and uses Hedin Battery Tugger.



### Hydraulic Upender with Tooling

Hydraulic Upender with custom fixture for Con-Ag equipment manufacturer.

# Airfloat Air Casters



Airfloat Air Casters are pneumatic devices that form a lubricating film of air between the load and floor surface, similar to that of a hovercraft or an air hockey table. These are a great solution for moving and positioning heavy and difficult loads with low friction, omnidirectional movement. Designed with slide-out trays, our casters are able 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 air flow of 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 a tremendous air supply..."

Air Casters can move 300,000 lbs. with less than 150 SCFM at 35 PSI.

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

Our Air Casters are designed and rated to work on most standard industrial floors, even steel, epoxy and concrete floors of varying quality.

### "It's difficult to control..."

Air Casters create easy omnidirectional movement, and we offer a variety of options to assist in operator control.

### 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.

# Steel Air Skids

Interactive PDF



NASA Starliner floating on Airfloat Air Skids

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 approximately 1 lbs. of force.

- **6-Kit Capacities up to 315,000 lbs.**
- **360° Omnidirectional movement**
- **Superior efficiency compared to wheels**
- **Designed to work on most industrial floors**

## Features & Benefits



### Quality Materials & Superior Design

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

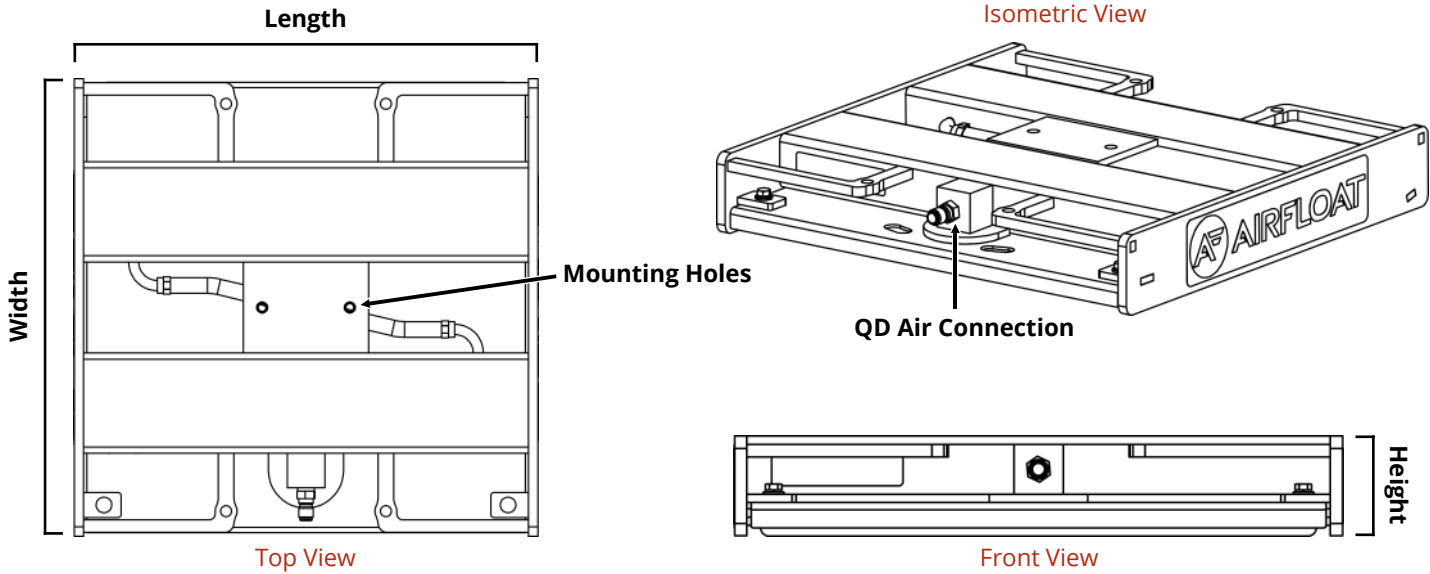
### Slide-Out Air Casters

Air Skids feature a slide-out air caster tray design that allow skids to be serviced without removing the load. This 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

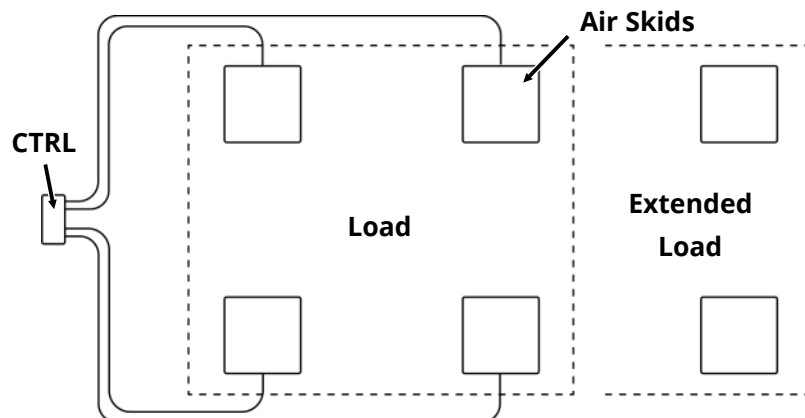
Model No.	Capacity	Caster	Air Flow	Skid Size	Height	Weight
AF010	Total (4x Skid)	Diameter	Avg (4x Skid)	L x W	Deflated <sup>1</sup>	1x Skid
AF01012-4	12,000lb 5,443kg	12" 305mm	44 SCFM 1,246L/m	13.25" x 13.25" 337mm x 337mm	3" 76mm	26lb 12kg
AF01017-4	25,000lb 11,339kg	17" 432mm	64 SCFM 1,812L/m	18.5" 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) - 1.88"(48mm).

### Set of 4 Air Skids Includes

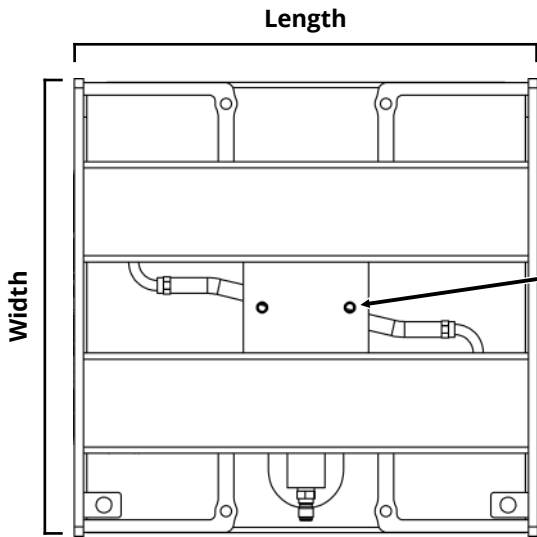
Included	Quantity	Part No.
Air Skid	4x	AF010XXX-1
4 Port Air Skid Controller	1x	AF5016
Deadman Pendant	1x	AF5018
32ft Single Hose (12" - 30" Skid)	4x	AF5105
32ft Single Hose (36" - 48" Skid)	4x	AF5106
Spare Air Caster	1x	H-00XX
Controller Bracket	Optional	AF5019

### Typical Skid Arrangement Beneath Load

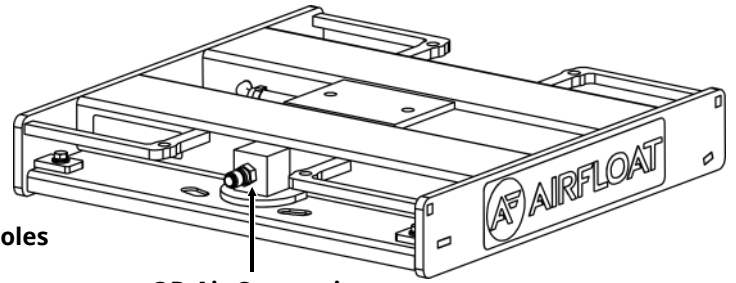


# Set of 6 Air Skids

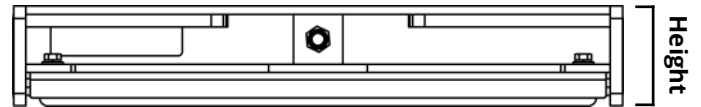
Isometric View



Top View



QD Air Connection



Front View

## Set of 6 Air Skid Specifications

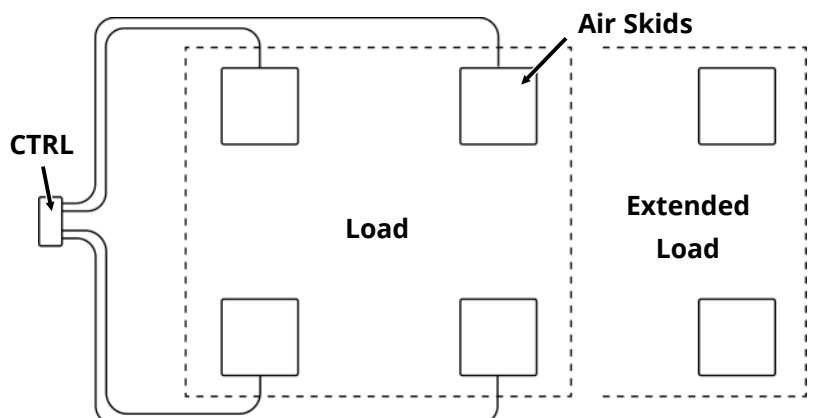
Model No.	Capacity	Caster	Air Flow	Skid Size	Height	Weight
AF010	Total (6x Skid)	Diameter	Avg (6x Skid)	L x W	Deflated <sup>1</sup>	1x Skid
AF01012-6	18,000lb 8,164kg	12" 305mm	66 SCFM 1,869L/m	13.25" x 13.25" 337mm x 337mm	3" 76mm	26lb 12kg
AF01017-6	37,500lb 17,010kg	17" 432mm	96 SCFM 2,719L/m	18.5" 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) - 1.88"(48mm).

### 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
Spare Air Caster	1x	H-00XX
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 four variety sizes, the kit contains everything needed to operate an Air Skid set including spare parts in a steel lock box for years of trouble-free storage and operation.

- **Capacities up to 75,000 lbs.**
- **Protects Air Skids while in storage**
- **Easy on floors unlike steel rollers**
- **Includes spare parts, hoses, a hand controller and more**

## Features & Benefits



### 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.

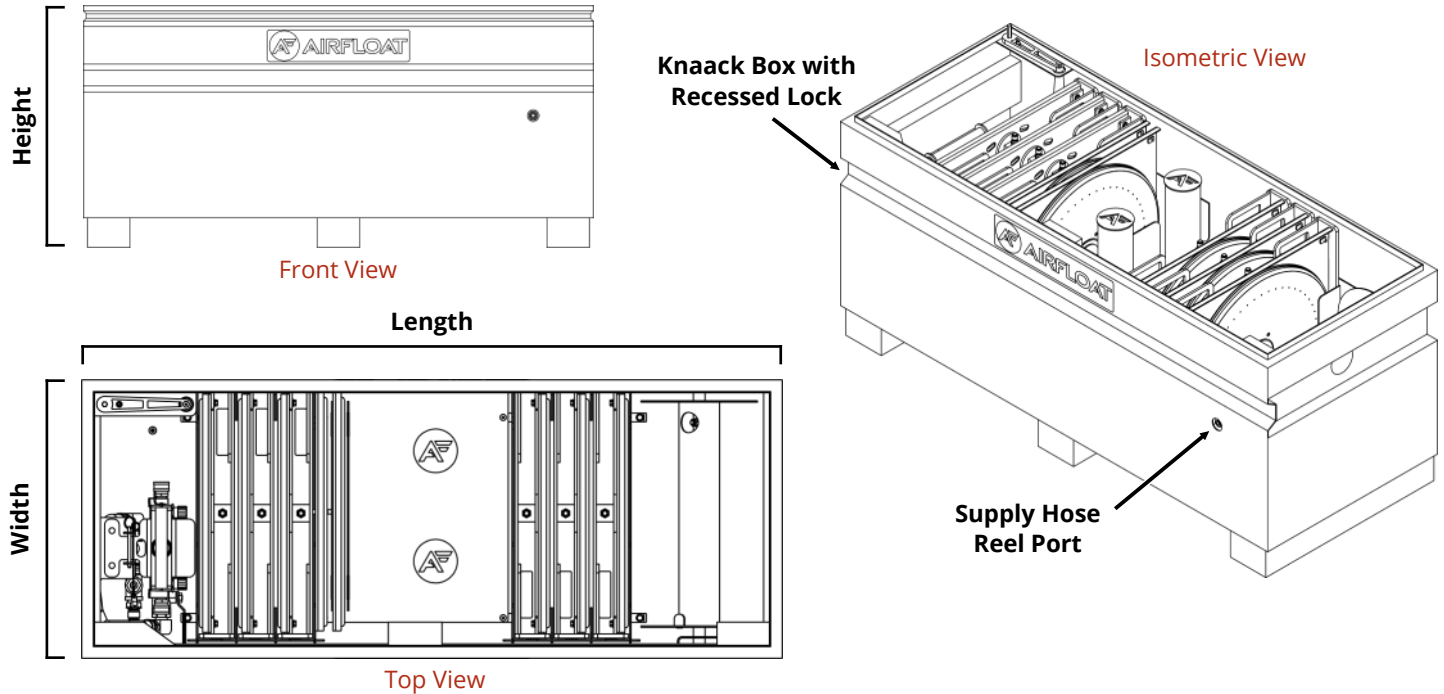
### Secure Housing

Portable Knaack Box and 3-point latch with a 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.	Capacity	Caster	Air Flow	Skid Size	Kit Weight	Box Size
AF011	Total	Diameter	Avg 6x skids	L x W	Total	L x W x H
AF01112-6	18,000lb 8,164kg	12" 305mm	66 SCFM 1,869L/m	13.25" x 13.25" 337mm x 337mm	580lb 263kg	60" x 24" x 28.25" 1,524mm x 610mm x 716mm
AF01117-6	37,500lb 17,010kg	17" 432mm	96 SCFM 2,719L/m	18.5" x 18.25" 470mm x 464mm	710lb 322kg	60" x 24" x 28.25" 1,524mm x 610mm x 716mm
AF01120-6	49,500lb 22,453kg	20" 508mm	108 SCFM 3,059L/m	21.5" x 21.25" 546mm x 540mm	800lb 363kg	60" x 24" x 28.25" 1,524mm x 610mm x 716mm
AF01124-6	75,000lb 34,019kg	24" 610mm	132 SCFM 3,738L/m	25.75" x 25.25" 654mm x 641mm	1,350lb 612kg	66" x 30" x 36" 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	AF50181
32ft Single Hose	6x	AF5105
85ft Supply Hose	1x	AHA0083



# Lift Glide Air Skids



Lift Glide Air Skids are designed to be retrofitted to existing wheeled units, allowing you to utilize 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 and float the unit.

- **Capable of loads up to 125,000 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

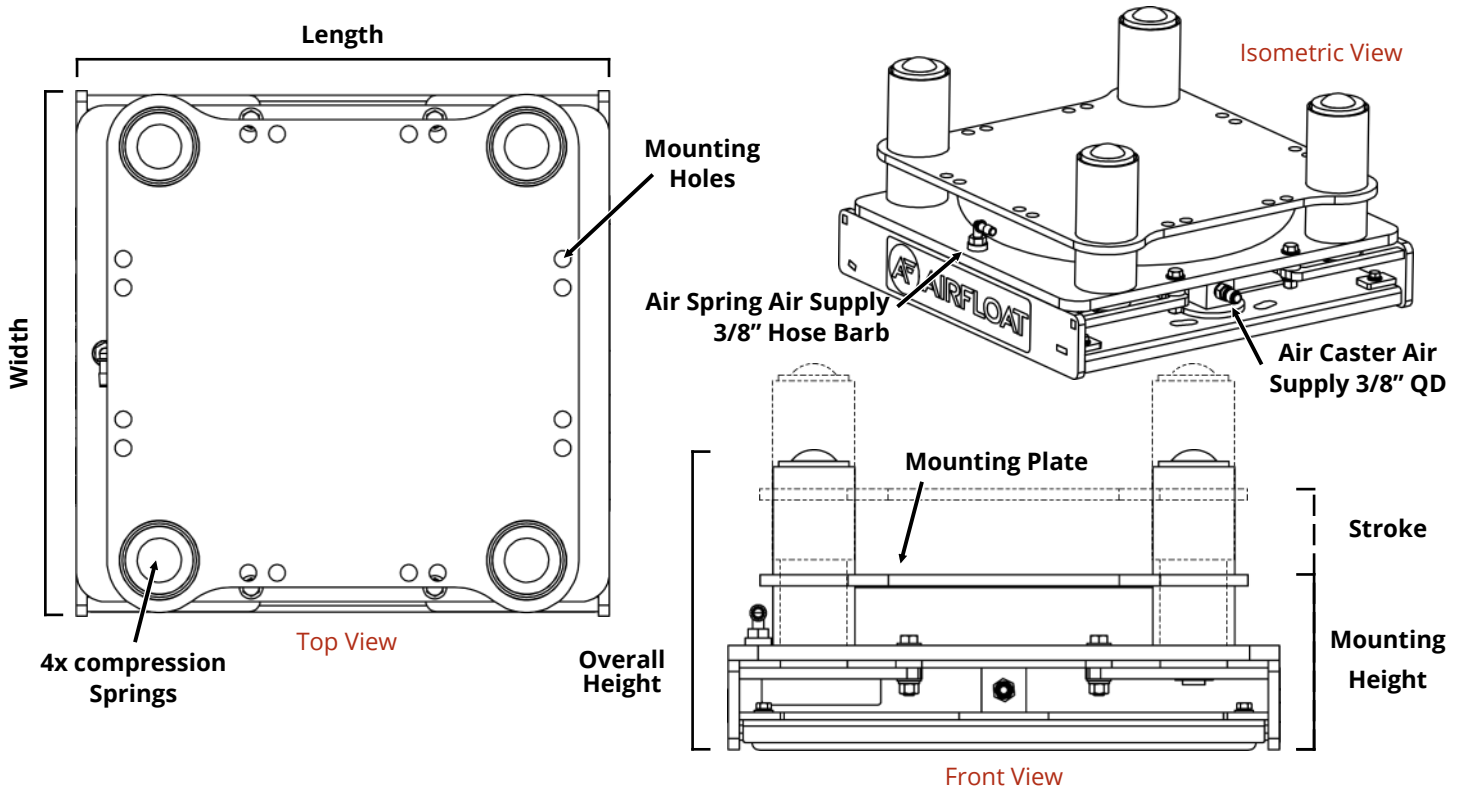
Air casters allow for 360° movement of heavy loads, making our systems the most versatile and flexible alternatives to traditional wheeled solutions.

#### Flexible

Keep the full advantages of wheeled movement for going long distances moving unloaded, or moving over sub-par floor conditions.



# Set of 4 Lift Glide Air Skids



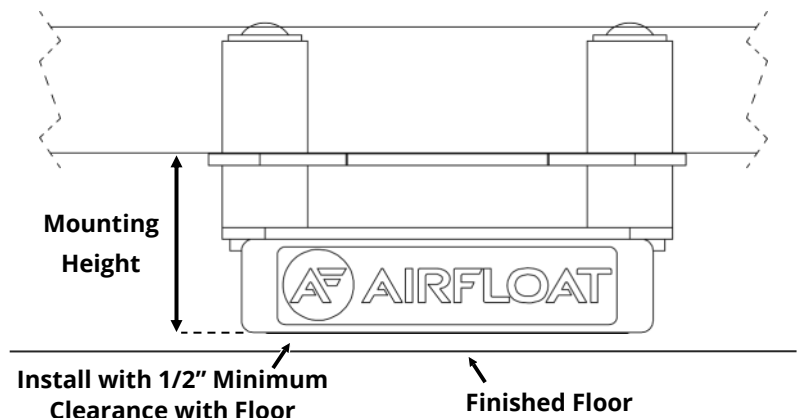
## Set of 4 Lift Glide Air Skids Specifications

Model No.	Capacity	Caster	Air Flow	Stroke	Mounting Height	Skid Size
AF060	Total (4x Skid)	Diameter	Avg (4x Skid)		Deflated <sup>1</sup>	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
AF06030-4	85,000lb 38,555kg	30" 762mm	112 SCFM 3,172L/m	2.88" 73mm	8.63" 219mm	31.75" x 31.5" x 15.5" 806mm x 800mm x 394mm
AF06036-4	125,000lb 56,700kg	36" 914mm	140 SCFM 3,965L/m	2.88" 73mm	9.13" 232mm	37.75" x 37.5" x 15.9" 959mm x 953mm x 404mm

1. The height to the mounting plate. Inflated height adds approximately .25"(6mm) - 1.31"(33mm).

### Set of 4 Lift Glide Air Skids 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



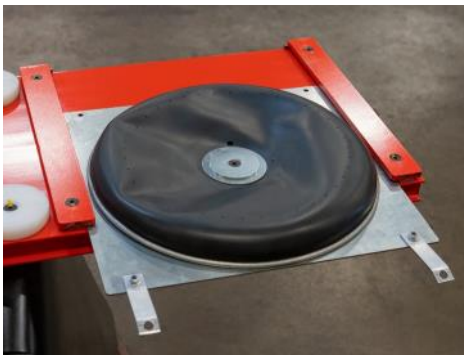
# Aluminum Air Planks



Air Plank systems allow for the safe, nearly frictionless movement of large loads or machinery. 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 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 approximately 1 lbs. of force pushes 1,000 lbs. of weight.



### Lightweight Aluminum

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

# Steel Air Planks



Air Plank systems allow for the safe, nearly frictionless movement of large loads or machinery. 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 makes the maintenance and replacing of air casters simple with minimal downtime.



### High Capacity

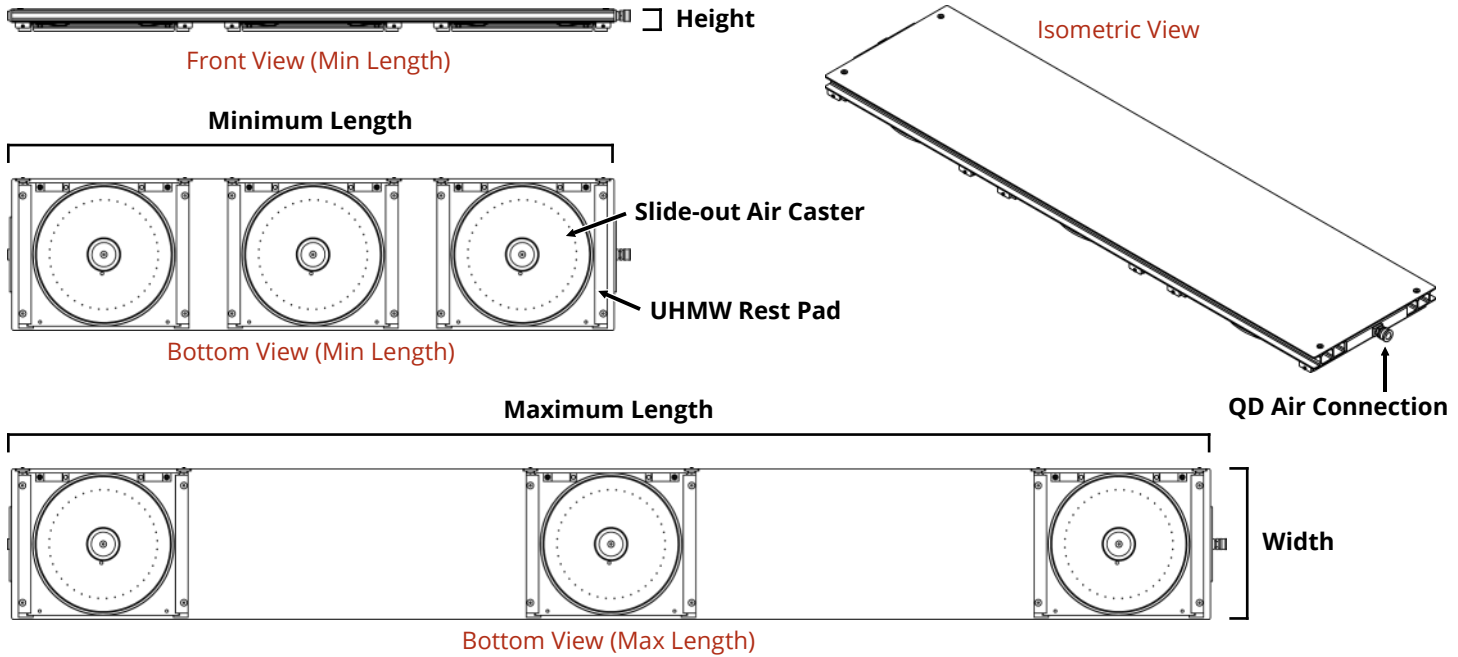
Aluminum Plank has a max capacity of up to 204,000 lbs. per set of two, making high capacity moves easy to accomplish as approx. 1 lbs. of force pushes 1,000 lbs. of weight.



### Optional Guide Wheel

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

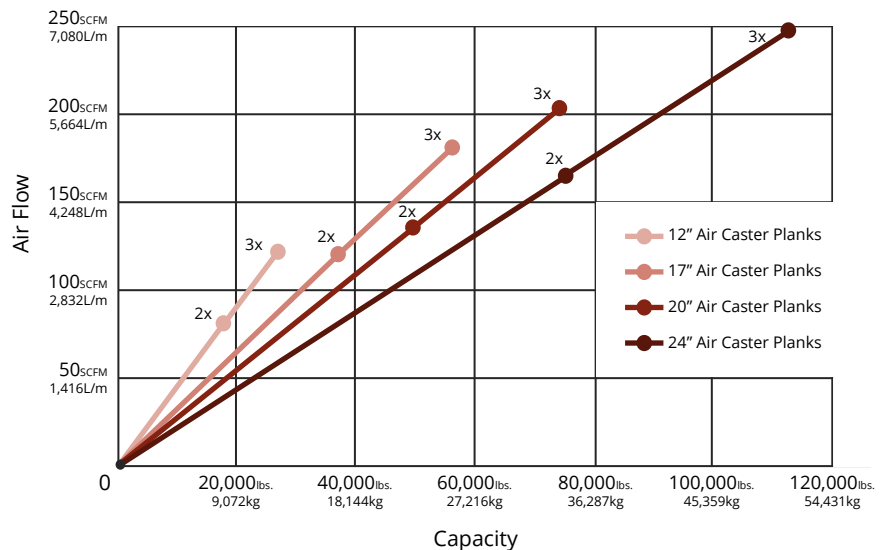
Model No.	Capacity	Caster	Air Flow	Length	Width	Height	Weight
AF040	Total (2x Plank)	Diameter	Avg (2x Plank)	Min - Max <sup>1</sup>		Deflated <sup>2</sup>	Min - Max (1x Plank)
AF04012-2XXX	18,000lb 8,165kg	12" 305mm	66 SCFM 1,869L/m	60" - 144" 1,524mm - 3,658mm	13" 330mm	2.5" 64mm	60lb - 100lb 27kg - 45kg
AF04017-2XXX	37,500lb 17,010kg	17" 432mm	96 SCFM 2,719L/m	60" - 144" 1,524mm - 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	84" - 144" 2,134mm - 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) - 1.31"(33mm).

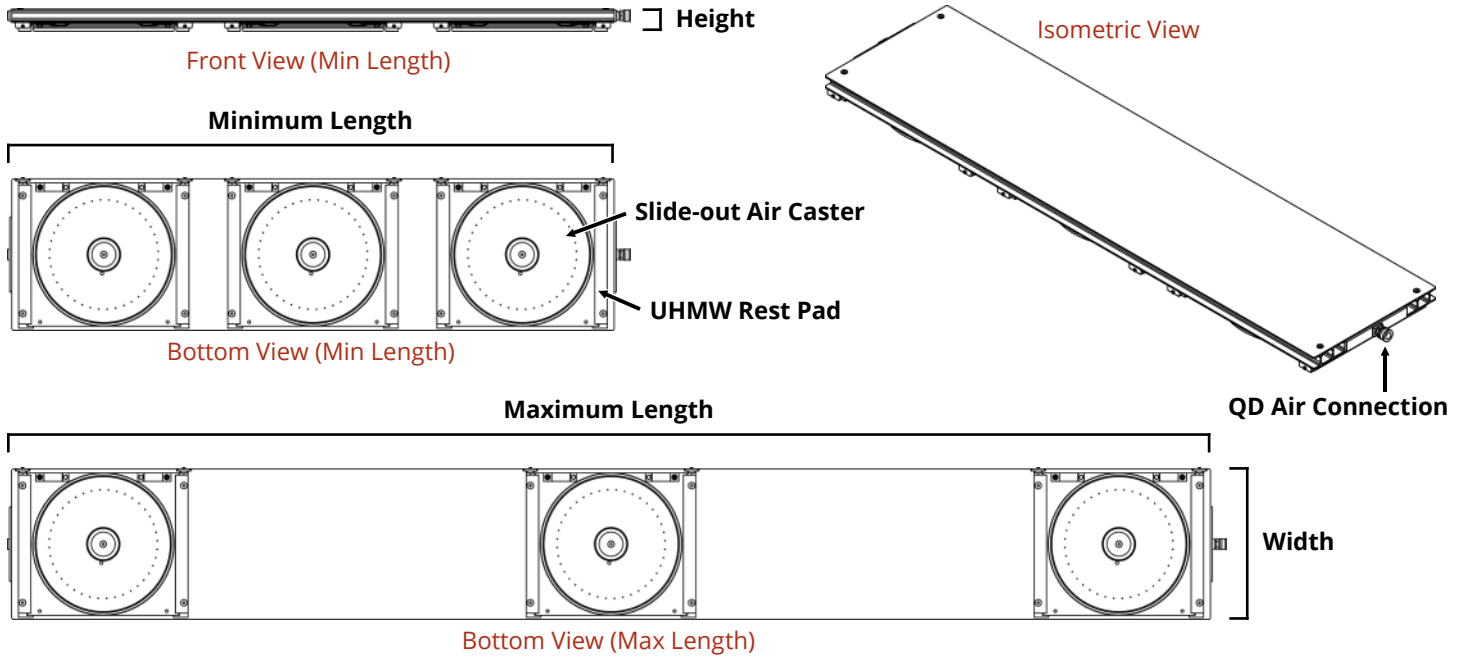
### Set of 2 Aluminum Air Planks Includes

Included	Quantity	Part No.
Air Planks	2x	AF040XX-1XXX
4 Port Air Skid Controller	1x	AF5016
Deadman Pendant	1x	AF5018
32ft Single Hose	2x	AF5109
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

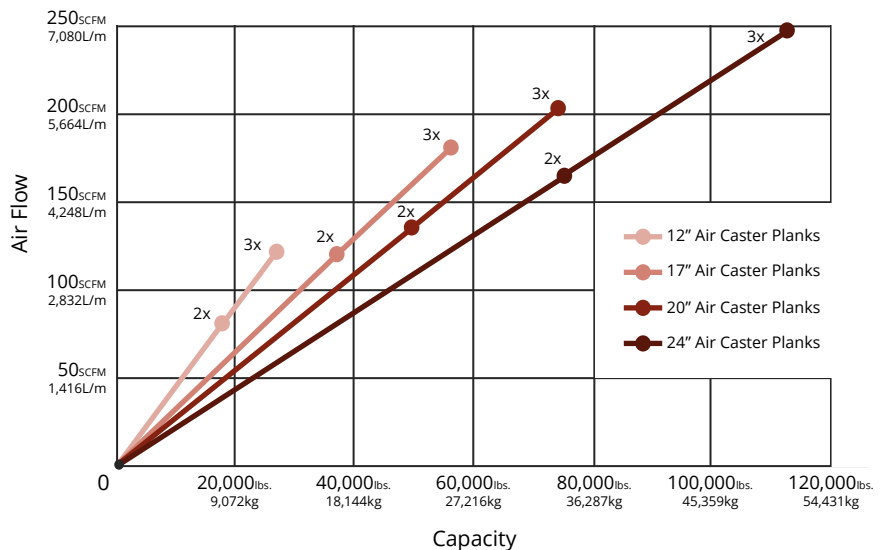
Model No.	Capacity	Caster	Air Flow	Length	Width	Height	Weight
AF040	Total (3x Plank)	Diameter	Avg (3x Plank)	Min - Max <sup>1</sup>		Deflated <sup>2</sup>	Min - Max (1x Plank)
AF04012-3XXX	27,000lb 12,247kg	12" 305mm	99 SCFM 2,804L/m	60" - 144" 1,524mm - 3,658mm	13" 330mm	2.5" 64mm	60lb - 100lb 27kg - 45kg
AF04017-3XXX	56,000lb 25,401kg	17" 432mm	144 SCFM 4,078L/m	60" - 144" 1,524mm - 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	84" - 144" 2,134mm - 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) - 1.31"(33mm).

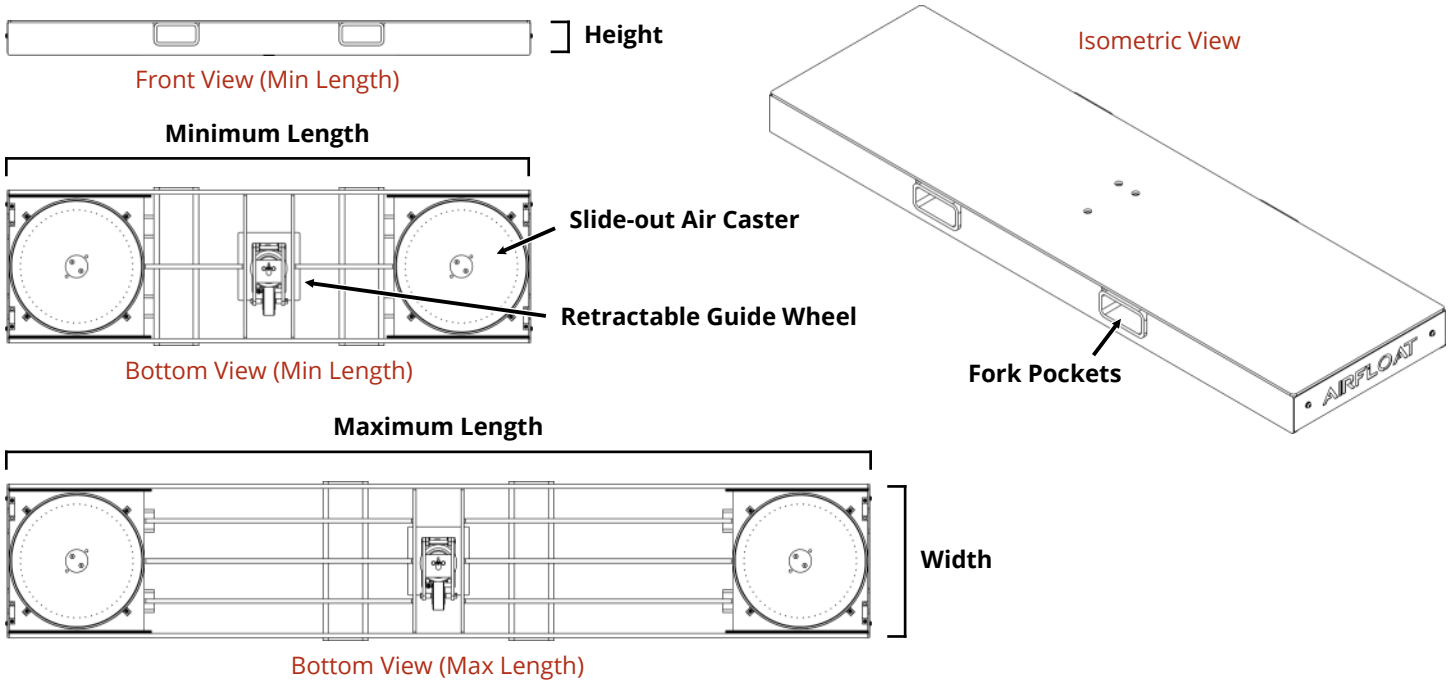
### Set of 3 Aluminum Air Planks Includes

Included	Quantity	Part No.
Air Planks	3x	AF040XX-1XXX
4 Port Air Skid Controller	1x	AF5016
Deadman Pendant	1x	AF5018
32ft Single Hose	3x	AF5109
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

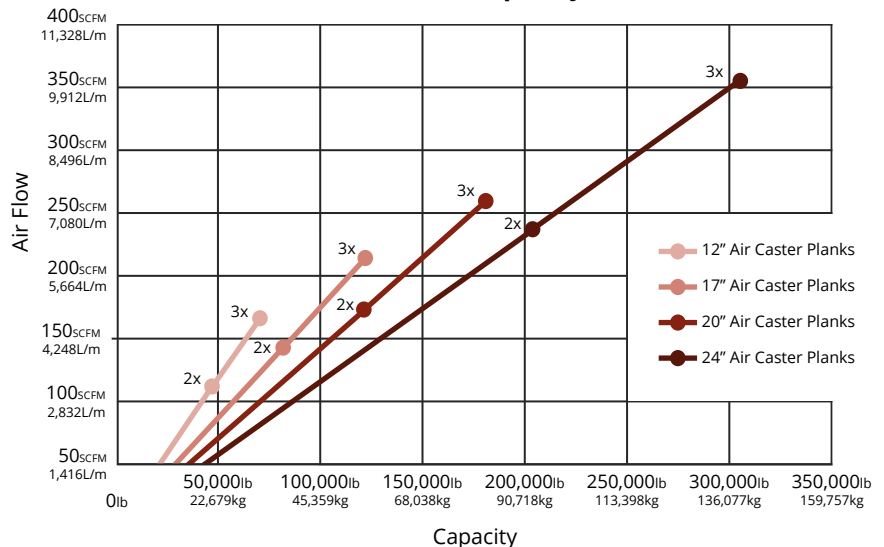
Model No.	Capacity	Caster	Air Flow	Length	Width	Height	Weight
AF041	Total (2x Plank)	Diameter	Avg (2x Plank)	Min - Max <sup>1</sup>		Deflated <sup>2</sup>	Min - Max (1x Plank)
AF04124-2XXX	47,000lb 21,364kg	24" 610mm	110 SCFM 3,115L/m	96" - 156" 2,438mm - 3,962mm	27" 686mm	6" 152mm	1,500lb - 2,500lb 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) - 1.88"(48mm).

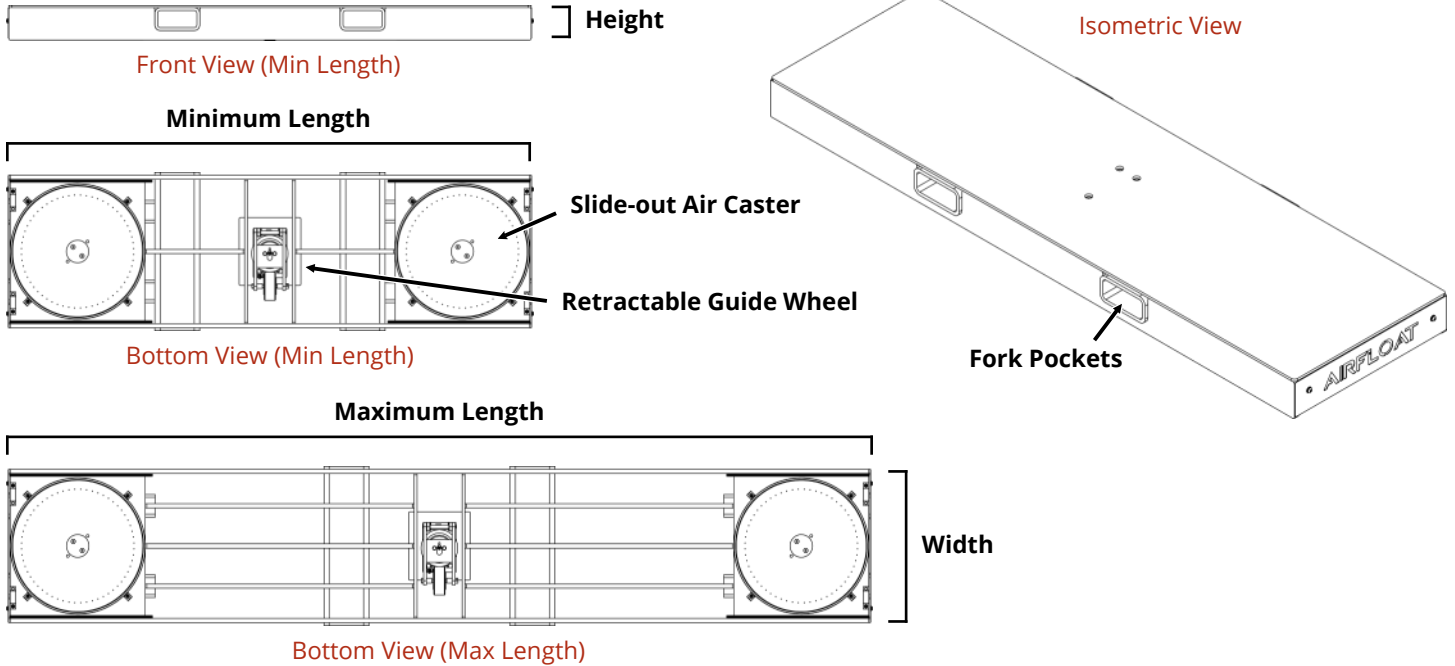
### Set of 2 Steel Air Planks Includes

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

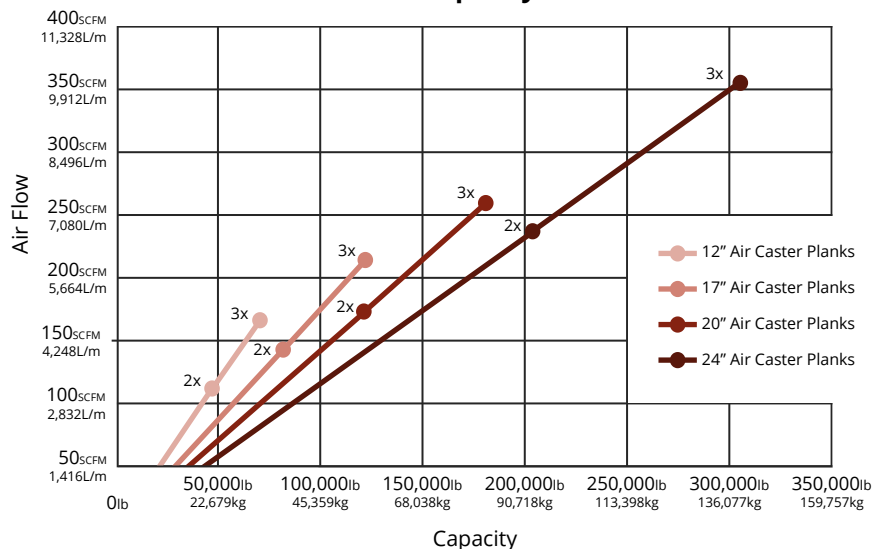
Model No.	Capacity	Caster	Air Flow	Length	Width	Height	Weight
AF041	Total (3x Plank)	Diameter	Avg (3x Plank)	Min - Max <sup>1</sup>		Deflated <sup>2</sup>	Min - Max (1x Plank)
AF04124-3XXX	70,500lb 32,045kg	24" 610mm	165 SCFM 4,673L/m	96" - 156" 2,438mm - 3,962mm	27" 686mm	6" 152mm	1,500lb - 2,500lb 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) - 1.88"(48mm).

### 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. Utility Platforms also feature an optional 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.

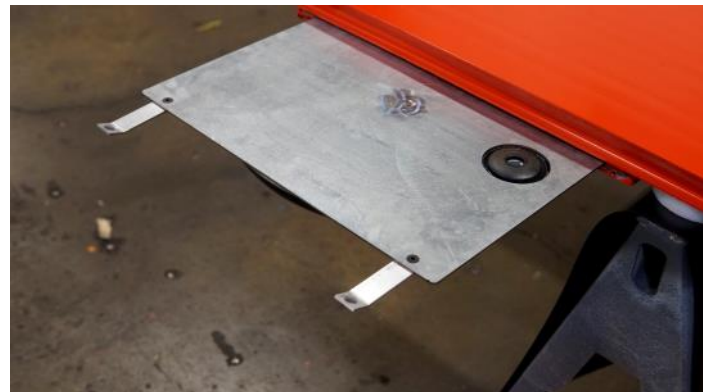
- **Capacities up to 12,000 lbs.**
- **Down heights as low as 3"**
- **Range of lengths from 30" to 120"**
- **Slide-out trays for easy maintenance**
- **Optional retractable guide wheel**

## 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.

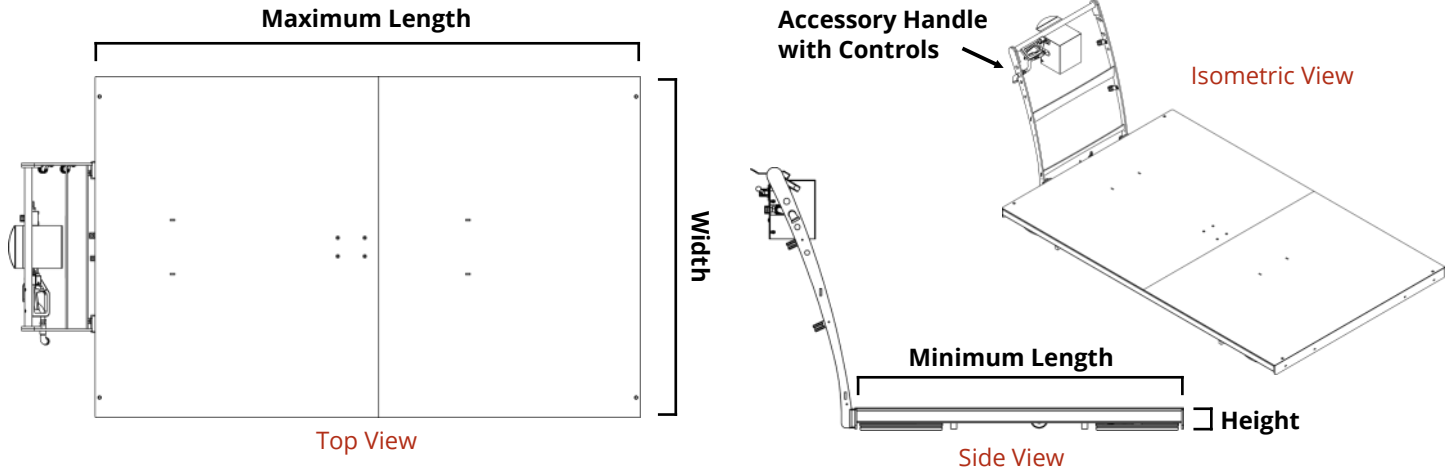


### Slide-Out Trays

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



# Utility Platform

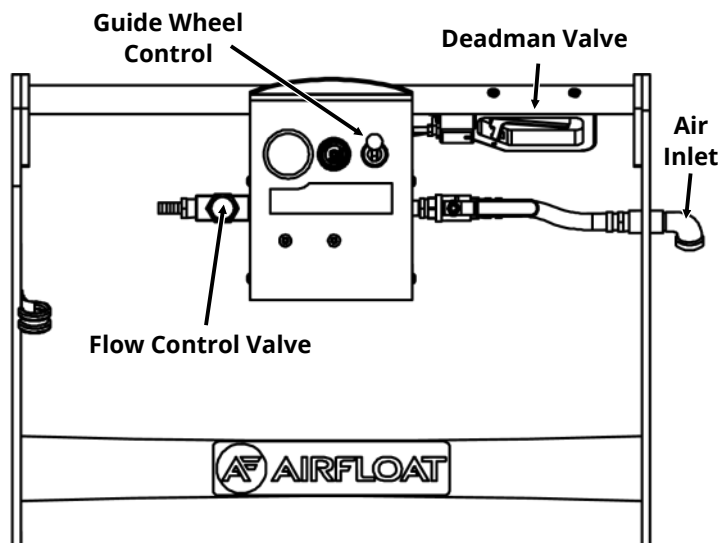


## Utility Platform Specifications

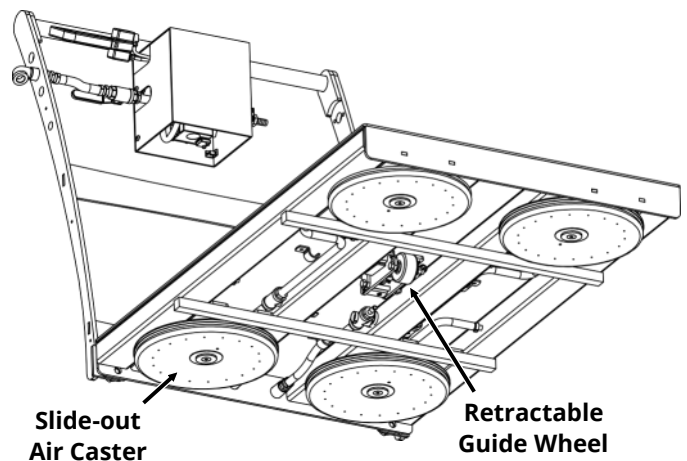
Model No.	Capacity	Length	Width	Height	Caster	Air Flow
AF020	Total	Min - Max <sup>1</sup>		Deflated <sup>2</sup>	Diameter	Average
AF020-30XXX	8,000lb 3,629kg	30" - 60" 762mm - 1,524mm	30" 762mm	3" 76mm	12" 305mm	44 SCFM 1,246L/m
AF020-36XXX	8,000lb 3,629kg	36" - 72" 914mm - 1,829mm	36" 914mm	3" 76mm	12" 305mm	44 SCFM 1,246L/m
AF020-42XXX	12,000lb 5,443kg	42" - 84" 1,067mm - 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



Air Caster Platforms allow an operator to efficiently move pallets or any heavy or difficult to handle load up to 120,000 lbs. with ease. Using Air Caster technology, Air Platforms provide near friction-free movement in any direction, giving them an advantage over wheeled carts and forklifts for moving pallets and heavy loads. Pair with Pneumatic Tugger for fully air powered single man movement.

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

## Features & Benefits



### 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 makes the maintenance and replacing of air casters simple with minimal downtime.

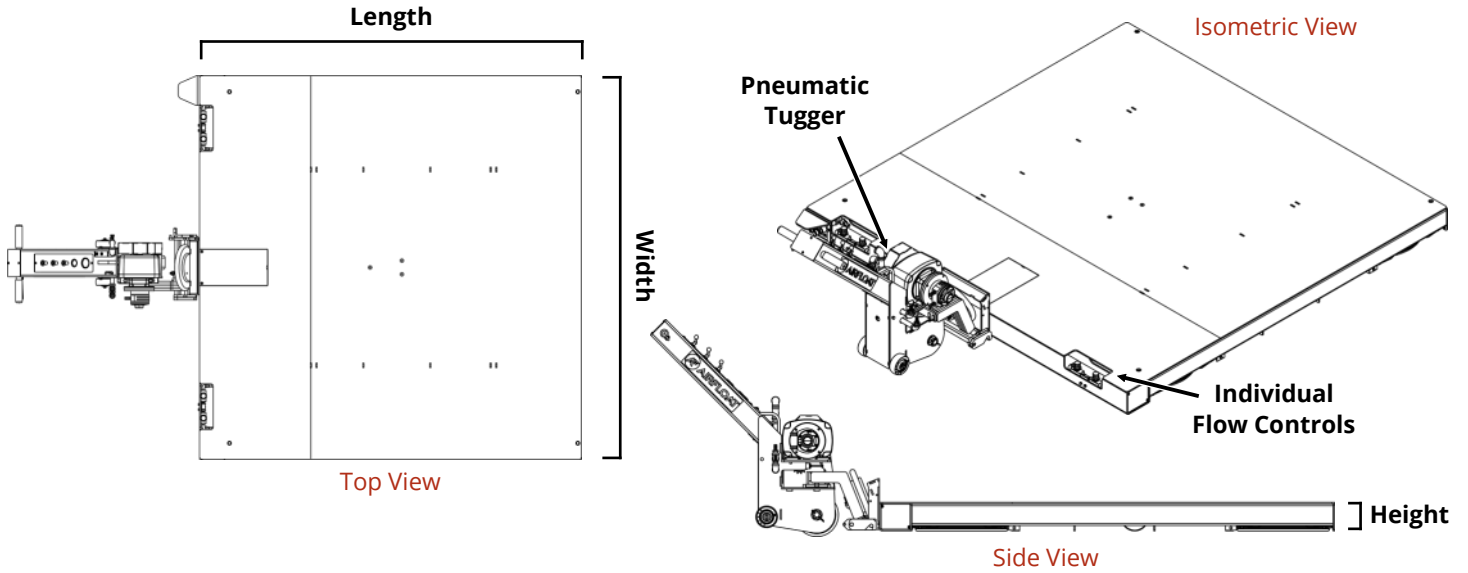
### Optional Auxiliary Lift

The Air Caster Platform can be kitted with an optional auxiliary lift, granting operators the ability to lift and transport pallets without needing a overhead cranes.

### Optional Guide Wheel

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



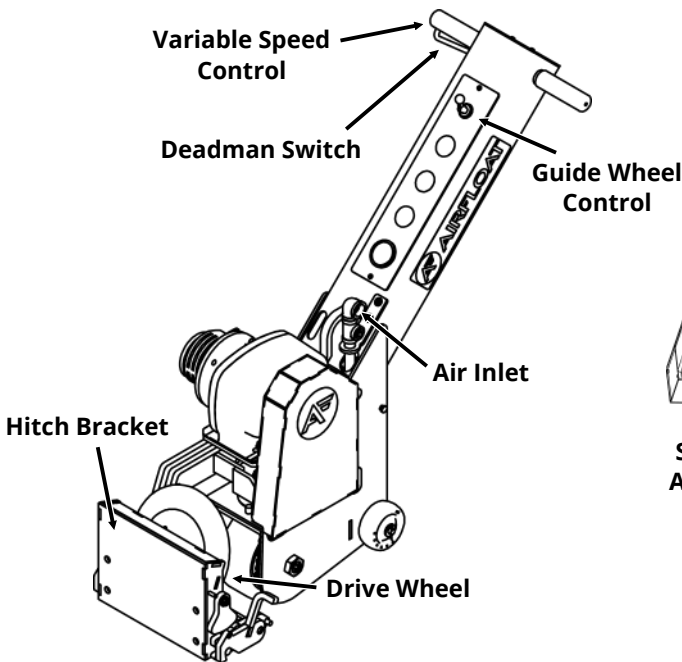
## Air Caster Platform Specifications

Model No.	Capacity	Width	Length	Height	Caster	Air Flow
AF03X	Total	Min - Max <sup>1</sup>	Min - Max <sup>1</sup>	Deflated <sup>2</sup>	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

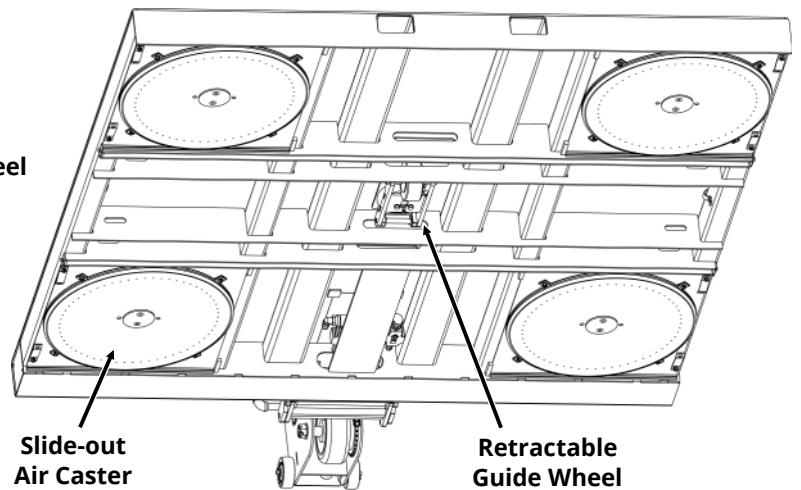
1. Standard lengths available in 6" increments. 2. Inflated height adds approximately .25"(6mm) - 1.38"(35mm).

### Optional Pneumatic Tugger

(see next page for details)



### Air Caster Platform Bottom View



# Pneumatic Power Tugger



Working in conjunction with Air Caster Platforms, Power Tuggers enable one person to easily and precisely move unrestrained loads up to 300,000 lbs. Utilizing the same cushion of plant-supplied air as your Air Caster Platform, the Pneumatic Power Tugger delivers 180° of steering motion.

- **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 Platform



### Mounting Bracket

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

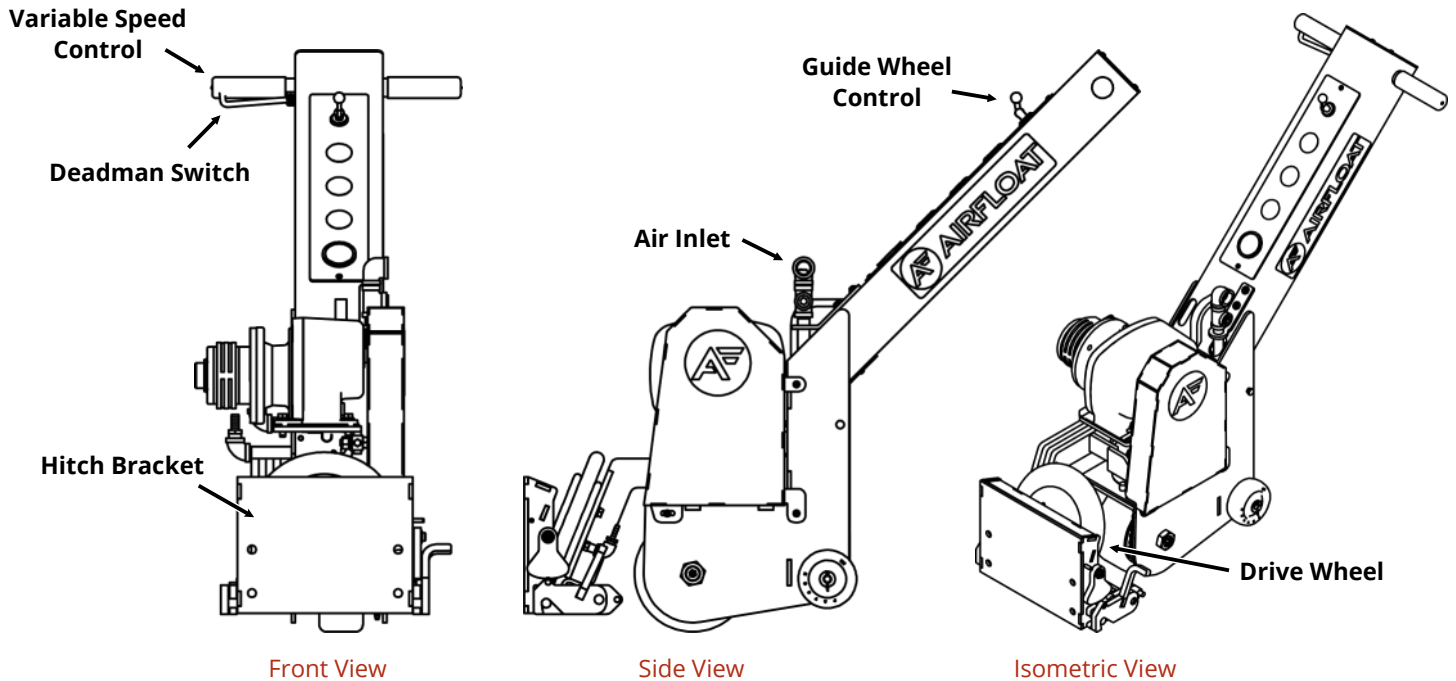
### High Capacities

Since the Pneumatic Power Tuggers have a capacity of up to 300,000 lbs., 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



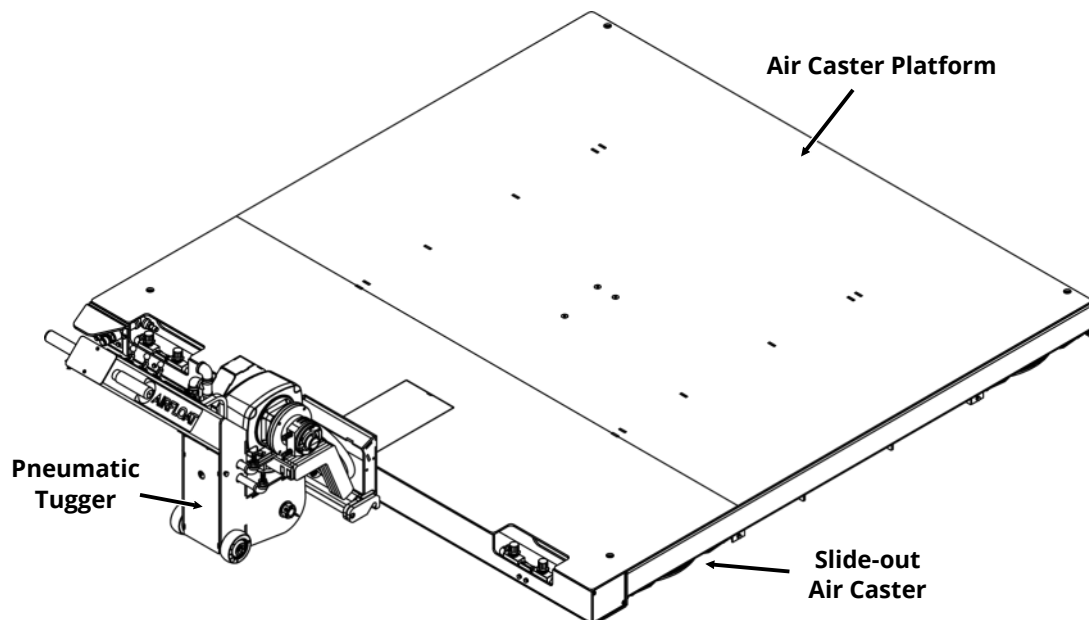
## Pneumatic Powered Tugger Specifications

Model No.	Capacity	Drawbar Force	Speed	Steering	Air Flow	Weight
AF050	Total <sup>1</sup>	Total <sup>2</sup>	Max		Avg	
AF050-0650	100,000lb 22,680kg	650lb 2,891N	58fpm 18mpm	180°	67 SCFM 2,266L/m	170lbs 77kg
AF050-1700	300,000lb 136,078kg	1,700lb 7,562N	45fpm 14mpm	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 previous page for details)



# Air Caster Transporter

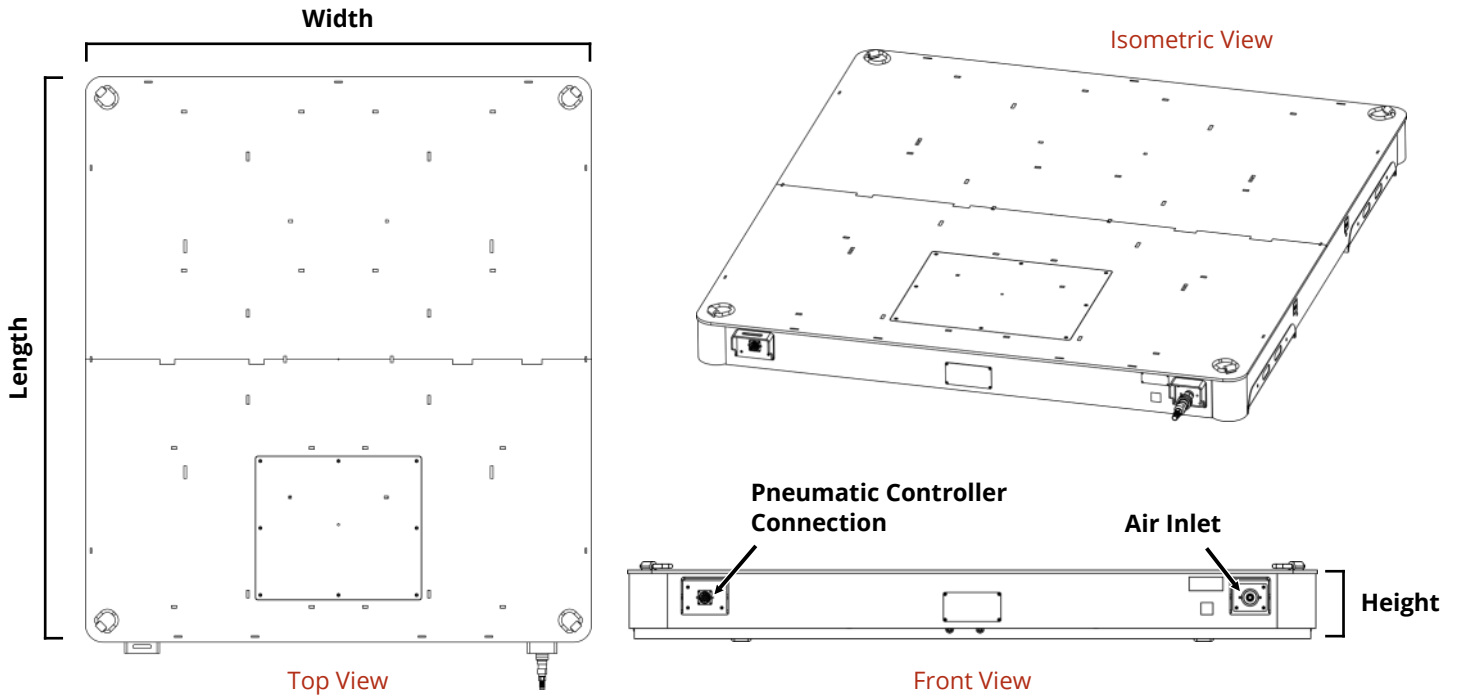


Air Caster Transporters were designed to deliver a flexible solution for moving heavy loads. We understand the importance of streamlined machinery transport that is safe and affordable. Our transporters offer omnidirectional movement of the load, making our solution easily maneuverable around your facility.

- **Capacities up to 200,000 lbs.**
- **Down heights as low as 10"**
- **Range of lengths from 96" to 196"**
- **Slide-out trays for easy maintenance**
- **Internal drive system with quad drive option**



# Air Caster Transporter

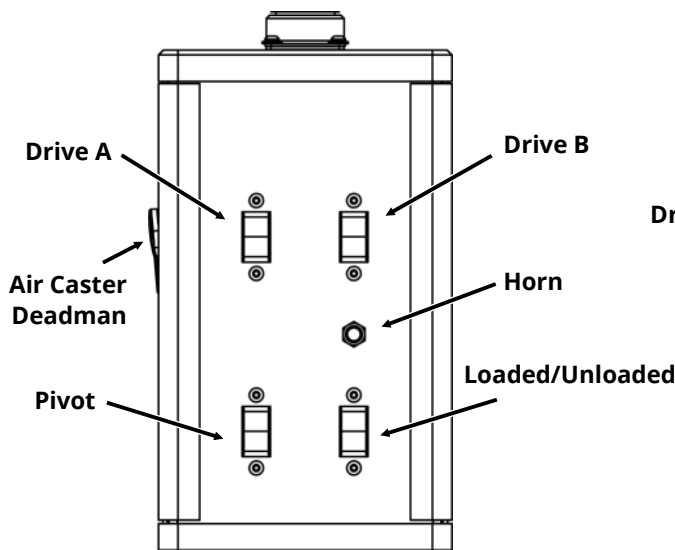


## Air Caster Transporter Specifications

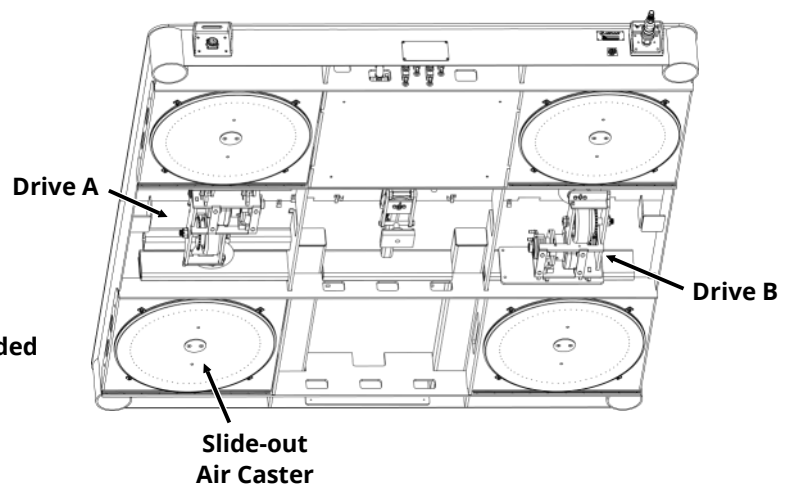
Model No.	Capacity	Transporter Size		Height	Caster	Air Flow
	Total	Width (Min - Max <sup>1</sup> )	Length (Min - Max <sup>1</sup> )	Deflated <sup>2</sup>	Diameter	Average
AF07X						
AF070-XXXXXX	45,000lb 20,412kg	96" - 144" 2,438mm - 3,658mm	96" - 196" 2,438mm - 4,978mm	10" 254mm	24" 610mm	66 SCFM 1,869L/m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

1. Standard lengths available in 6" increments. 2. Inflated height adds approximately .25"(6mm) - 1.88"(48mm).

### Pneumatic Pendant Controller



### Air Caster Transporter Bottom View



# Air Platform Roll Transporter with Cradle



Air Platform with Roll Cradle and Roll Lift allows you to move difficult paper and material rolls effortlessly. Air Casters provide omnidirectional and nearly friction-free movement for maximum flexibility even in tight spaces. Easily maintain the equipment 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., low down height of 3" and adjustable chocks that can handle up to 80" or 110" diameter rolls with extended handle.



### Air Platform with Cradle & Lift

Air Platform with Roll Lift features a capacity up to 6,000 lbs., 36" of stroke and an adjustable chock that can handle up to 80" diameter rolls.



# Cradle Roll Transporter



Fixed and adjustable fork style roll transporters allow for rolls to be lifted right off the floor without needing forklifts or overhead cranes. Featuring up to 2" of stroke and omni-directional nearly friction-free movement with air casters. Easily maintain the equipment 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

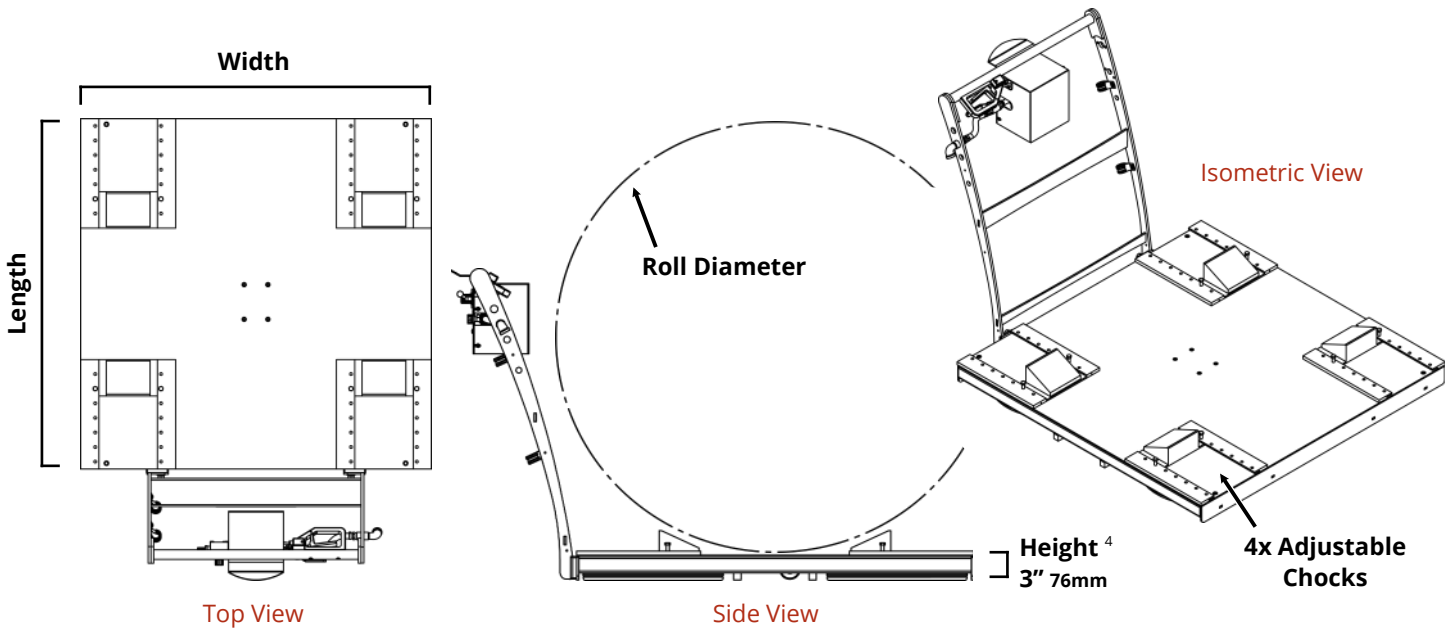
Fixed fork style roll transporter allows for roll sizes up to 96". The Cradle Roll Transporter features the ability to lift a roll right from the floor with no forklifts or overhead cranes, as well as omnidirectional movement.



### Adjustable Roll Transporter

Adjustable fork style roll transporter allows for a range of roll sizes up to 96". Features include an adjustable width up to 20", ability to lift the roll right from the floor, and omnidirectional movement.

# Air Platform with Roll Cradle



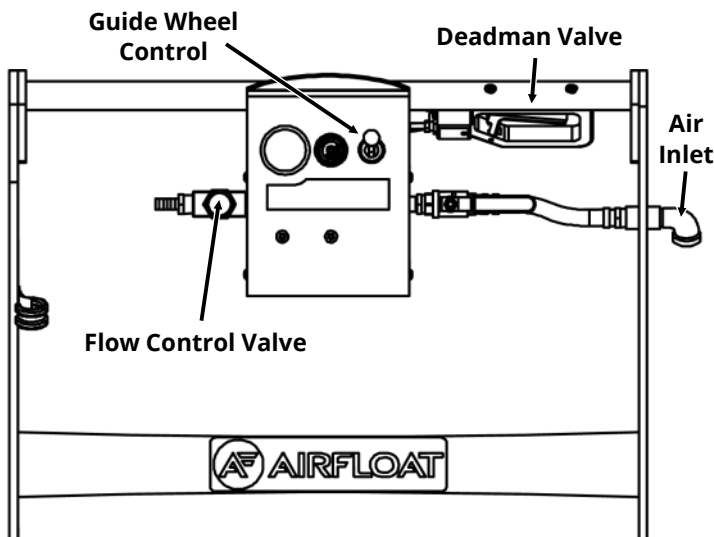
## Air Platform with Roll Cradle Specifications

Model No.	Capacity	Roll Size			Platform Size		Caster	Air Flow
		Max Dia.	Ext. Dia. <sup>1</sup>	Length <sup>2</sup>	Width	Length (Min - Max) <sup>3</sup>		
AF081	Total							
AF081-30XXX	8,000lb 3,628kg	58" 1,473mm	82" 2,083mm	42" 1,067mm	30" 762mm	30" - 60" 762mm - 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" 1067mm - 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

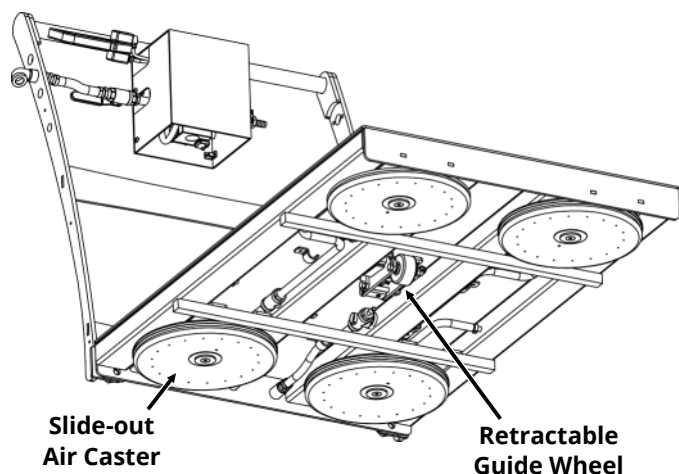
1. Extended handle allows for larger roll diameters. 2. Load may overhang, assuming roll does not deflect. 3. Standard lengths available in 6" increments.

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

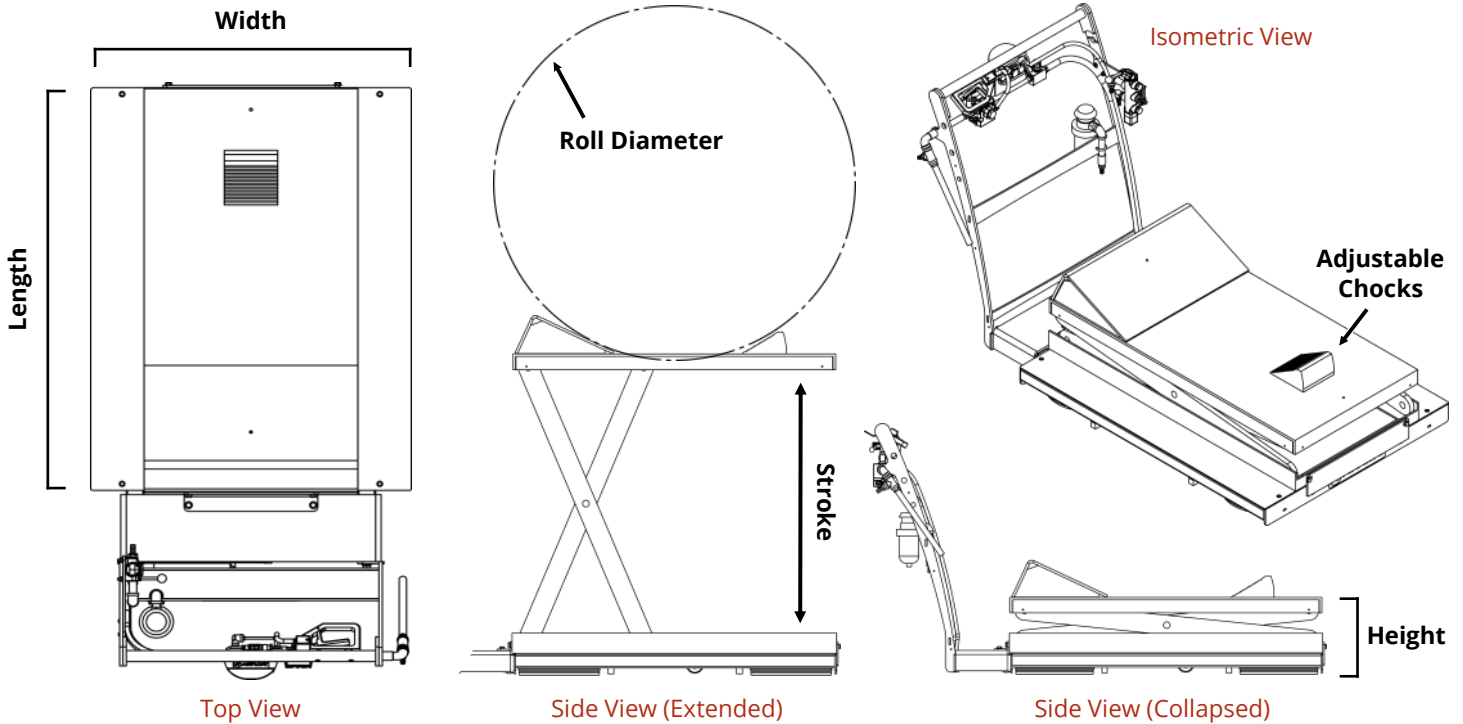
### Plank Roll Transporter Accessory Handle



### Plank Roll Transporter Bottom View



# Air Platform with Cradle & Lift

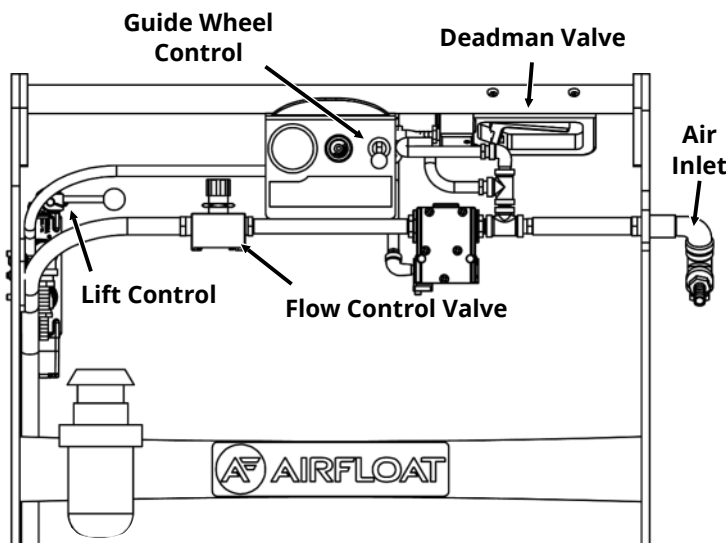


## Air Platform with Cradle & Lift Specifications

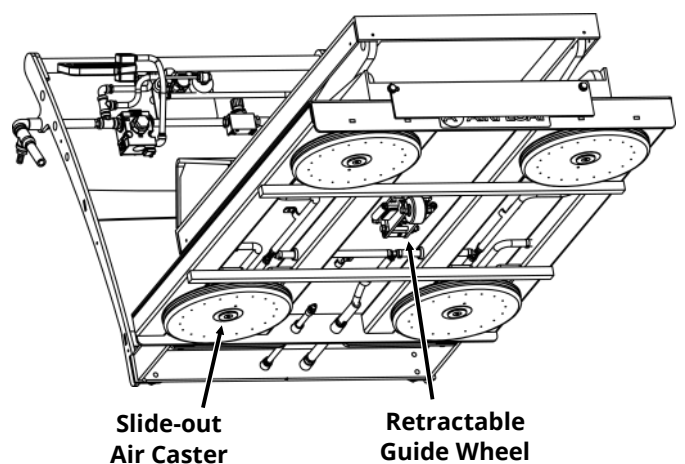
Model No.	Capacity	Roll Size		Stroke	Platform Size <sup>2</sup>	Caster	Air Flow
AF08X	Total	Max Dia.	Length <sup>1</sup>		L x W x H	Diameter	Average
AF084-3648	2,000lb 907kg	80" 2,032mm	48" 1,219mm	36" 914mm	48" x 36" x 11.56" 1,219mm x 914mm x 294mm	12" 305mm	60 SCFM 1,699L/m
AF085-4848	6,000lb 2,721kg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

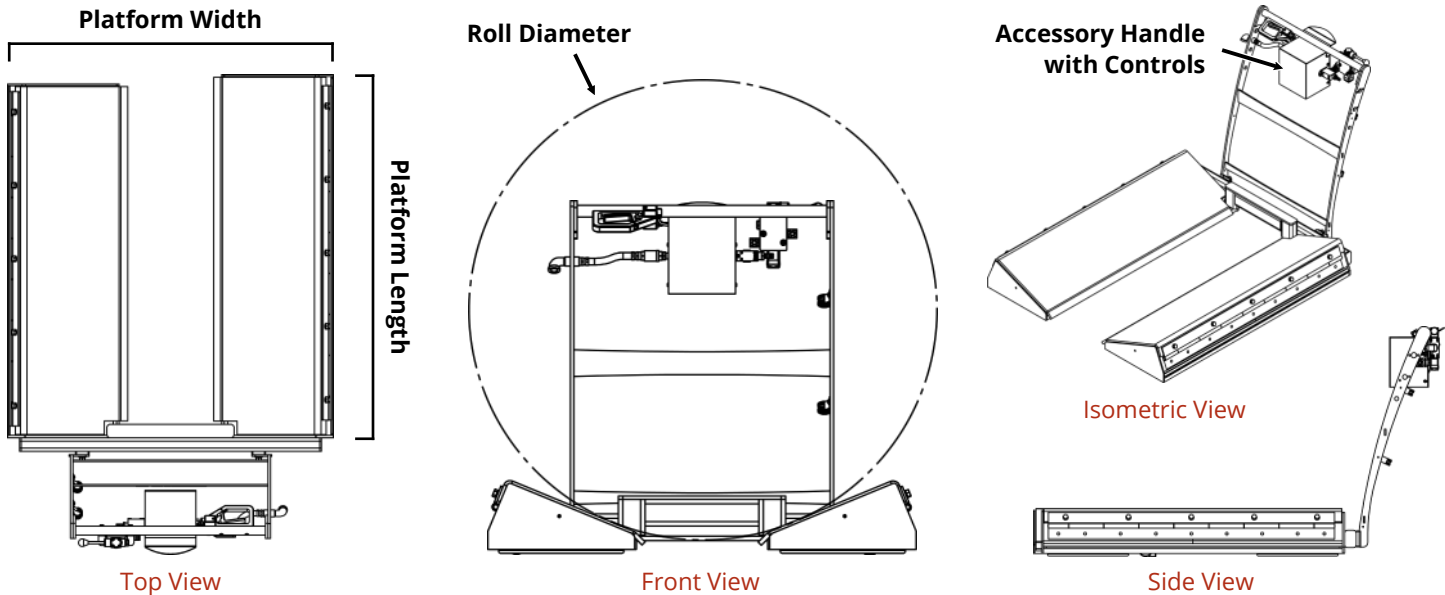
### Coil Roll Transporter Accessory Handle



### Coil Roll Transporter Bottom View



# Fixed Cradle Roll Transporter

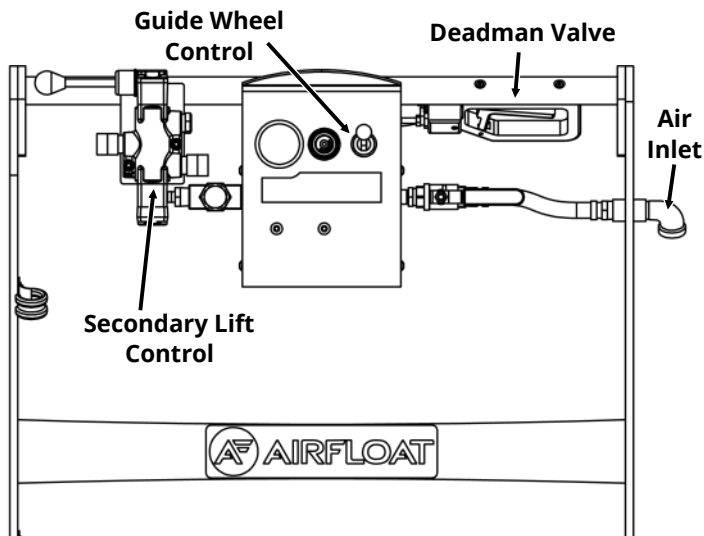


## Fixed Cradle Roll Transporter Specifications

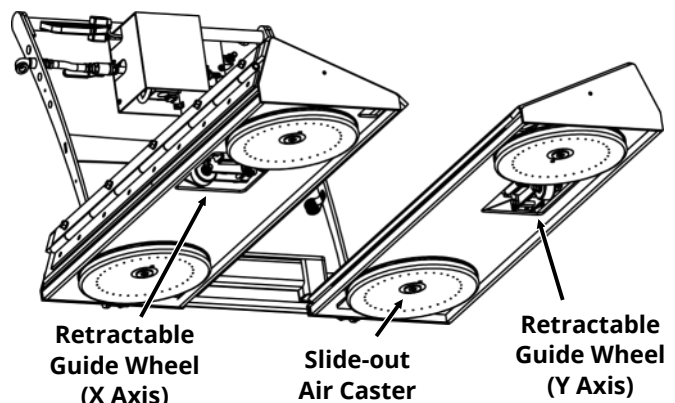
Model No.	Capacity	Roll Size		Platform Size		Stroke	Caster	Air Flow
		Diameter	Length <sup>1</sup>	Length	Width			
AF082	Total							
AF082-3642	5,000lb 2,268kg	36" 914mm	42" 1,066mm	36" 914mm	40" 1,016mm	1" 25mm	10" 254mm	48 SCFM 1,359L/m
AF082-4854	5,000lb 2,268kg	48" 1,219mm	54" 1,372mm	48" 1,219mm	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).

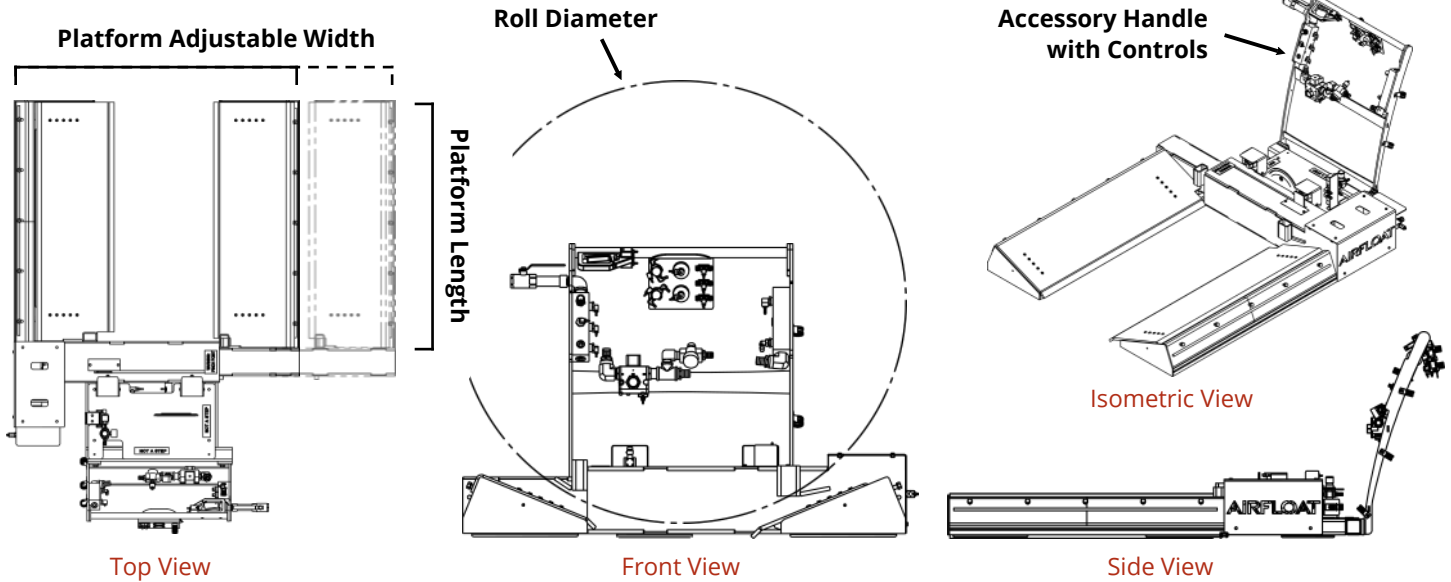
### Fixed Roll Transporter Accessory Handle



### Fixed Roll Transporter Accessory Handle



# Adjustable Cradle Roll Transporter

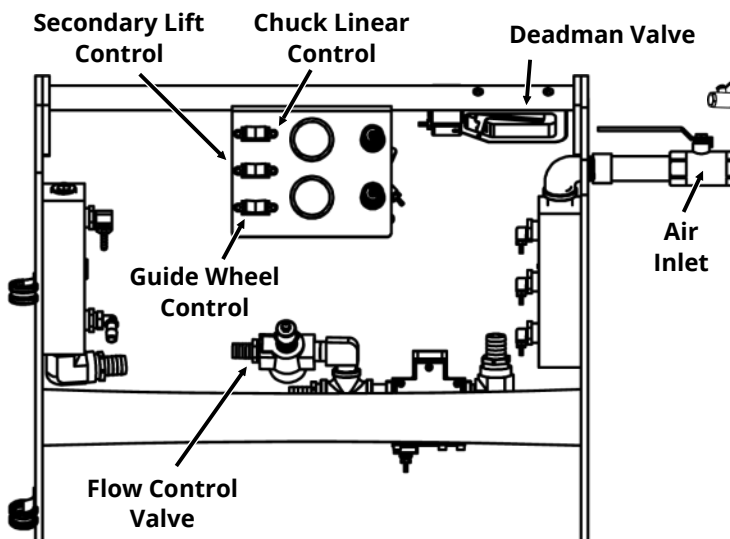


## Adjustable Cradle Roll Transporter Specifications

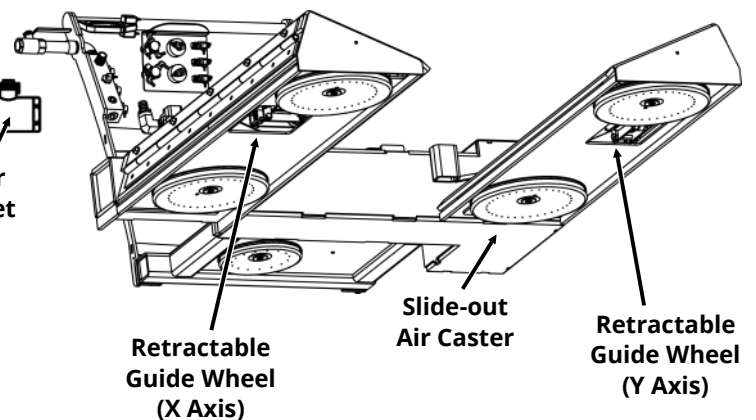
Model No.	Capacity	Roll Size		Platform Size		Stroke	Caster	Air Flow
		Diameter	Length <sup>1</sup>	Length	Width			
AF083	Total							
AF083-3642	5,000lb 2,268kg	24" - 36" 610mm - 914mm	42" 1,066mm	36" 914mm	40" 1,016mm	1" 25mm	10" 254mm	80 SCFM 2,266L/m
AF083-4854	5,000lb 2,268kg	36" - 48" 914mm - 1,219mm	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



# Battery Powered Tugger



Move up to 100,000 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 120 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 100,000 lbs.**
- **Low hitch point of 6"**
- **Charge with 120v wall outlet**
- **On board battery recharge system**
- **Optional 100,000 lbs. Tugger Cart**

## Available Models



### 30,000 lbs. Capacity

APS030-1200 features a hitch point capacity of 6,750 lbs, 45 minute battery life, 5,500 ft-lbs. of torque, and movement speeds of 120 fpm.



### 100,000 lbs. Capacity

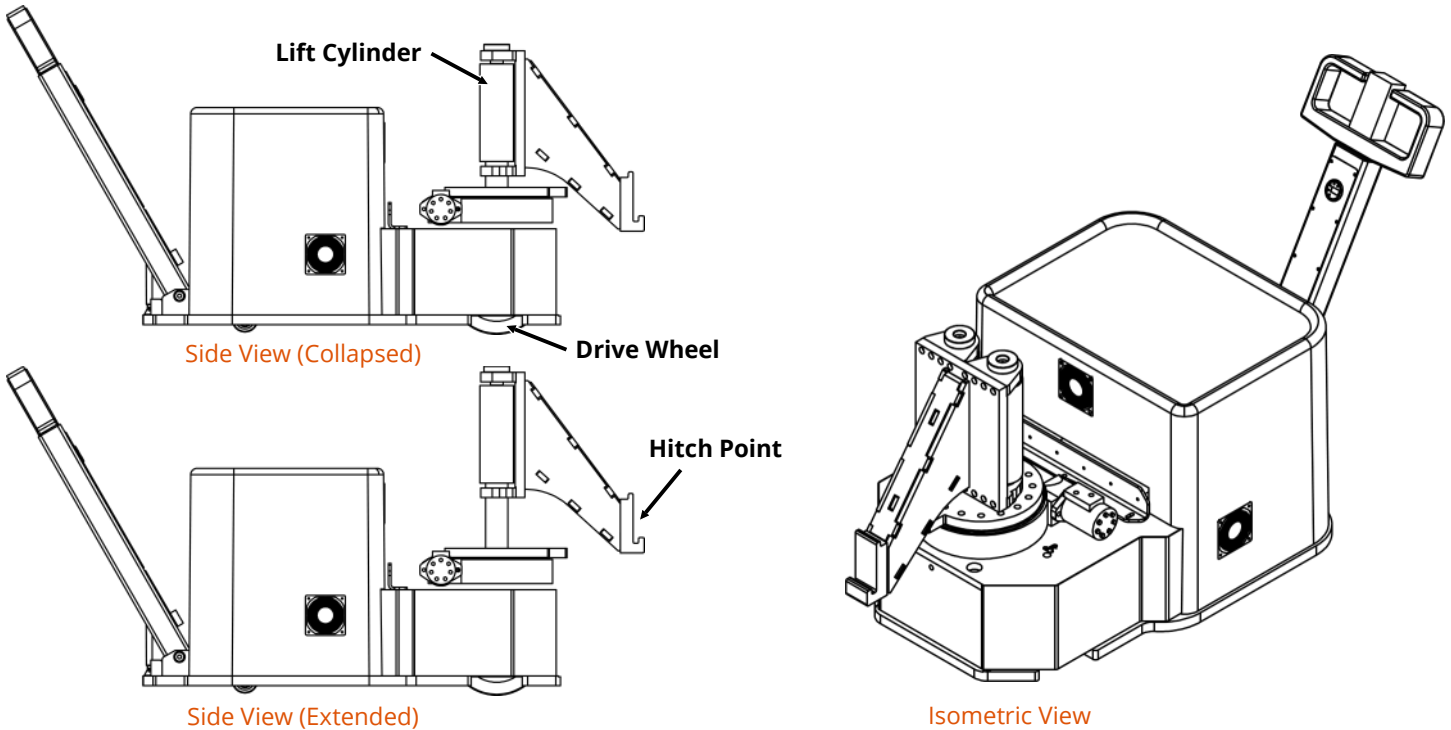
APS030-2200 features a hitch point capacity of 12,000 lbs, with a 105 minute battery life, 23,500 ft-lbs. of torque, and movement speeds of 100 fpm.



### Custom Cart

We offer custom designed carts that work in tandem with our Battery Powered Tuggers, allowing for our Tuggers to be used for a wide variety of solutions.

# Battery Powered Tugger



## Battery Powered Tugger

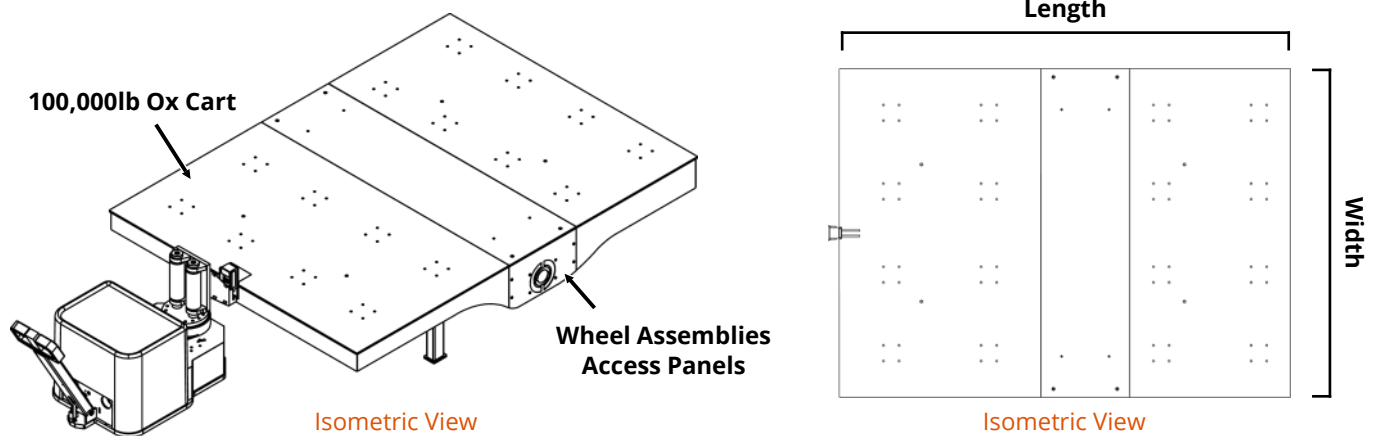
Model No.	Capacity	Drawbar Force	Hitch Point		Range	Speed
			Stroke	Capacity		
APS030	Total <sup>1</sup>	Total			Distance <sup>2</sup>	Max
APS030-1200	30,000lb 13,600kg	1,686lb 7500N	6" 150mm	6,750lb 3,000kg	6,500ft 2,000m	120fpm 37mpm
APS030-2200	100,000lb 45,360kg	7,193lb 32,000N	6" 150mm	12,000lb 5,500kg	9,600ft 2,900m	100fpm 30mpm

1. Based on proper load positioning, quality floor surface, and 92A durometer wheels. 2. Battery capacity is an estimation based upon a full charge, under full load, with continuous operation in a linear path.

## Optional Ox Tugger Cart

Model No.	Capacity	Minimum Cart Size at Max Capacity <sup>1</sup>		Bed Height	Wheel Size	Wheel Tread
		Width	Length			
APS031	Total				Diameter	
APS031	100,000lb 45,360kg	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.



# Ride-On Tugger



The Ride-On Tug is designed to distribute loads up to 132,500 lbs. to the wheels, allowing an operator to ride on board and confidently steer the load. Featuring a rechargeable battery and speeds up to 150 fpm, the Ride-On tug is ideal for moving loads around your facility in a quick, safe, and controllable manner.

- **Move loads up to 132,500 lbs.**
- **Speeds up to 150 fpm**
- **On board battery recharge system**
- **Pin or hook hitch options available**

## Features & Benefits



### Perfect With Pallet System

Tuggers are designed to interface best with our application designed steel pallets, making the movement of heavy palletized loads easy.

### Optional Remote Control

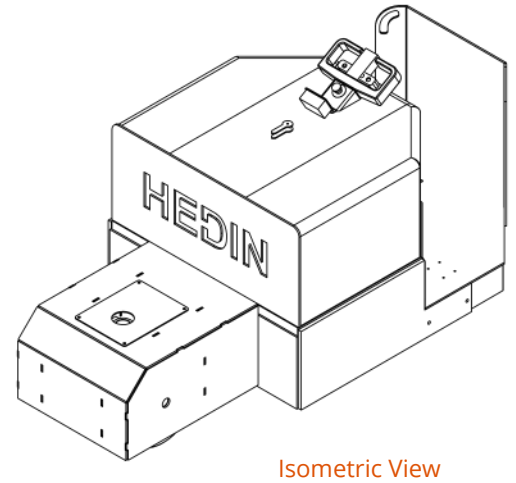
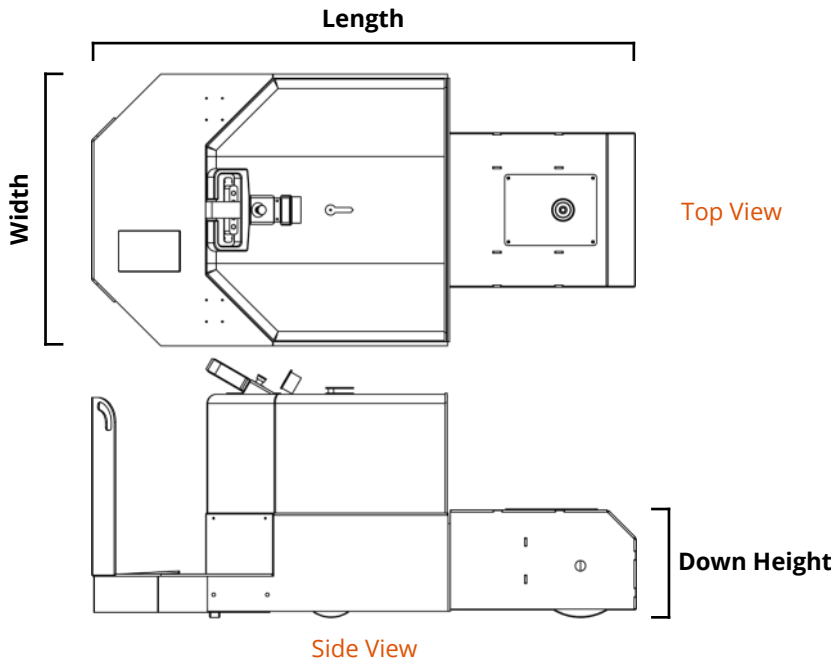
Optional RF Remote Control empowers operators to control Tugger either on the platform or from a more safe distance.

### Competitive

With load movement speed of up to 150 fpm the Ride-On Tugger offers fast & flexible movement for heavy and difficult to move equipment.



# Ride-On Tugger



## Ride-On Tugger Specifications

Model No.	Tow Capacity	Lifting Capacity	Stroke	Range	Speed	Transporter Size		
	Total <sup>1</sup>	Total <sup>1</sup>				Length	Width	Down Height
ROT-20	44,000lb 20,000kg	33,100lb 15,000kg	5.87" 150mm	8,800ft 2,700m	150fpm 45mpm	104.33" 2,650mm	51.97" 1,320mm	14.76" 375mm
ROT-40	88,000lb 40,000kg	48,500lb 22,000kg	5.87" 150mm	8,800ft 2,700m	100fpm 30mpm	108.27" 2,750mm	62.6" 1,590mm	18.7" 475mm
ROT-60	132,500lb 60,000kg	48,500lb 22,000kg	7.87" 200mm	6,600ft 2,000m	85fpm 26mpm	112.2" 2,850mm	62.6" 1,590mm	22.64" 575mm

1. Based on centrally located load. 2. Battery capacity is an estimation based upon a full charge, under full load, with continuous operation in a linear path. Lithium Battery option available, extend run time by 2.5x. (plan for longer lead time)



# GT Tugger



GT Tuggers give operators the ability to move materials around a plant via Remote Control, allowing for maximum control over the load. GT Tuggers can also be equipped with AGV guidance systems, enabling them to operate without the need for an operator to input movement. Our tuggers are built to lift up the front end of wheeled carts and trailers, distributing the heavy load evenly - making it effortless to move up to 220,000 lbs.

- **Move loads up to 220,000 lbs.**
- **Speeds up to 150 fpm**
- **On board battery recharge system**
- **Multiple control options like RF Controller or Automated Guided Vehicle (AGV)**

## Features & Benefits



### Multiple Control Options

GT Tuggers are controlled by an RF controller, or can be programmed with optional AGV technology.



### High Capacity

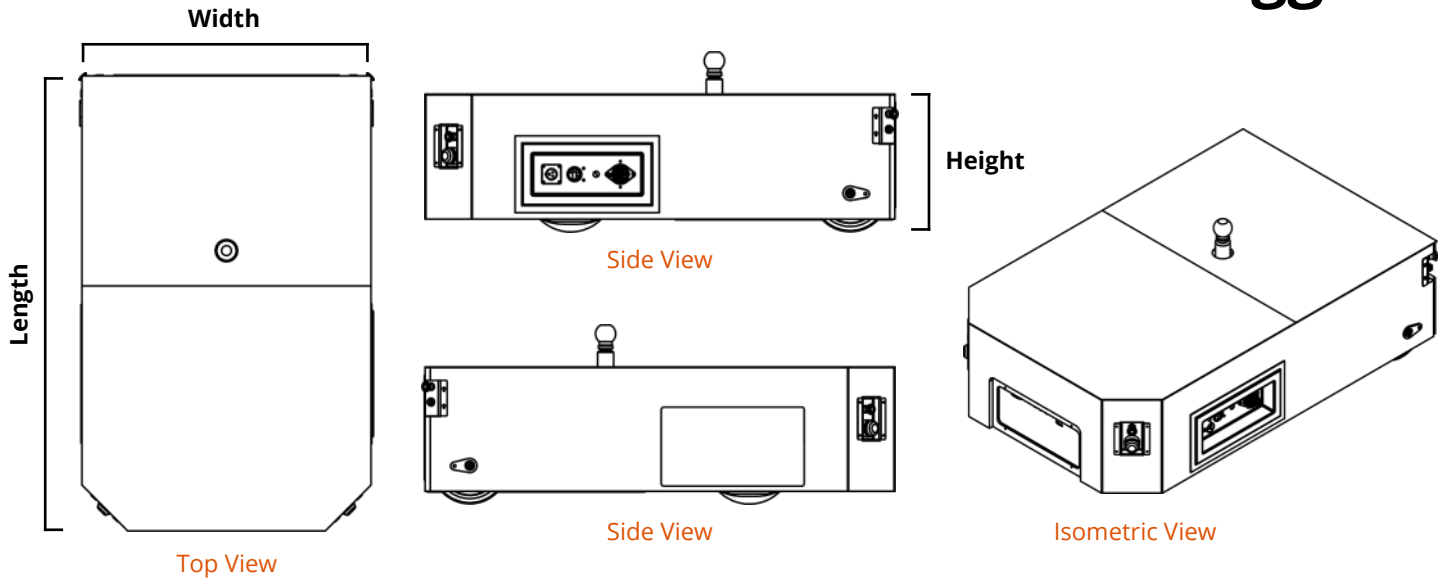
GT Tuggers have capacities that can move loads up to 220,000 lbs., making even the heaviest moves possible.



### Safety First

The operator is kept at a safe distance from the moving load, ensuring that there is no possibility of the operator being injured during load transport.

Interactive PDF



### GT Tugger Specifications

Model No.	Tow Capacity	Lifting Capacity	Stroke	Range	Speed	Transporter Size		
	Total <sup>1</sup>	Total <sup>1</sup>				Length	Width	Height
GTT				Distance <sup>2</sup>	Max			
GTT-30	66,000lb 30,000kg	33,000lb 15,000kg	5.87" 150mm	13,100ft 4,000m	150fpm 45mpm	74.76" 1,900mm	47.24" 1,200mm	21.61" 550mm
GTT-50	110,000lb 50,000kg	44,000lb 20,000kg	5.87" 150mm	13,100ft 4,000m	100fpm 30mpm	84.60" 2,150mm	53.11" 1,350mm	25.63" 650mm
GTT-100	220,000lb 100,000kg	66,000lb 30,000kg	7.87" 200mm	13,100ft 4,000m	85fpm 26mpm	98.39" 2,500mm	63" 1,600mm	29.5" 750mm

1. Based on centrally located load. 2. Battery capacity is based upon full charge, under full load, with continuous operation in a linear path.



# Coil Car with Spike



Coil Car with Spike offers an easy solution to the transportation of coils, with capacities up to 55,000 lbs. and custom larger options available. Ultimately eliminating the need for an overhead crane or rail-based systems. As an all-electric battery powered unit, the Coil Car operates independently from the rest of your production line—allowing the operator to use it whenever and wherever necessary.

- Capacities up to 55,000 lbs.
- Speeds up to 150 fpm
- Coil Spike stroke up to 72"
- On board battery recharge system

## Features & Benefits



### The Coil Handling Solution

Coil Cars are designed to move and position heavy coils in warehouse and manufacturing operations, eliminating the need for invasive rail-based and overhead cranes systems.



### Multiple Control Options

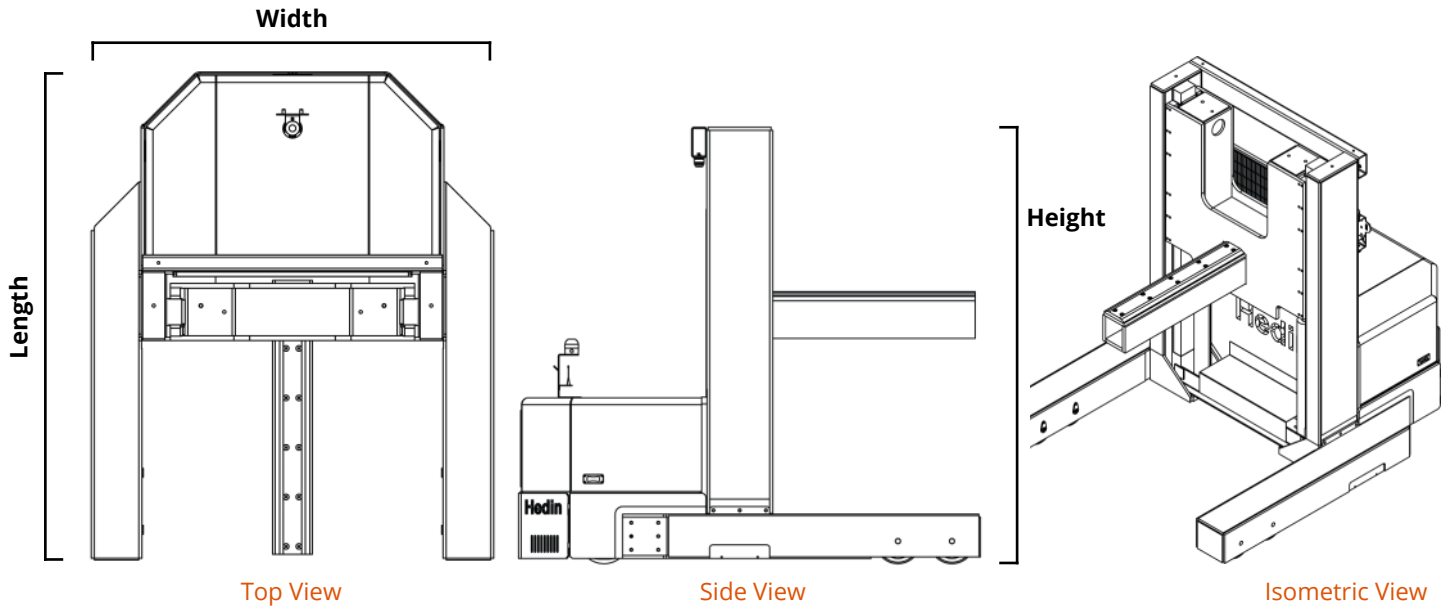
Coil Cars are available with a steering handle, RF remote controller, as a ride-along model or automated guided vehicle (AGV).



### Adjustable Coil Height

The adjustable stroke allows for variable height changes, giving operators the freedom to easily and efficiently position coils.

# Coil Car with Spike



## Coil Car with Spike Specifications

Model No.	Capacity	Stroke	Range	Speed	Transporter Size		
					Length	Width	Height
HED060	Total <sup>1</sup>		Distance <sup>2</sup>	Max			
HED060-0006	13,000lb 6,000kg	64.96" 1,650mm	16,400ft 5,000m	150fpm 45mpm	110.24" 2,800mm	72.83" 1,850mm	100.39" 2,550mm
HED060-0012	26,500lb 12,000kg	72.83" 1,850mm	13,100ft 4,000m	150fpm 45mpm	114.17" 2,900mm	86.61" 2,200mm	108.27" 2,750mm
HED060-0055	55,000lb 25,000kg	39.37" 1,000mm	13,100ft 4,000m	100fpm 30mpm	122.05" 3,100mm	100.39" 2,550mm	114.17" 2,900mm

1. Based on centrally located load. 2. Battery capacity is based upon full charge, under full load, with continuous operation in a linear path.



# Coil Car with Cradle



Coil Car with Cradle offers an easy solution to the transportation of coils, with capacities up to 55,000 lbs. and custom larger options available. Ultimately eliminating the need for an overhead crane or rail-based systems. As an all-electric battery powered unit, the Coil Car operates independently from the rest of your production line—allowing the operator to use it whenever and wherever necessary.

- **Capacities up to 55,000 lbs.**
- **Speeds up to 150 fpm**
- **Coil Spike stroke up to 72"**
- **On board battery recharge system**

## Features & Benefits



### Perfect Coil Handling Solution

Coil Cars are designed to move and position heavy coils in warehouse and manufacturing operations, eliminating the need for invasive rail-based and overhead cranes systems.

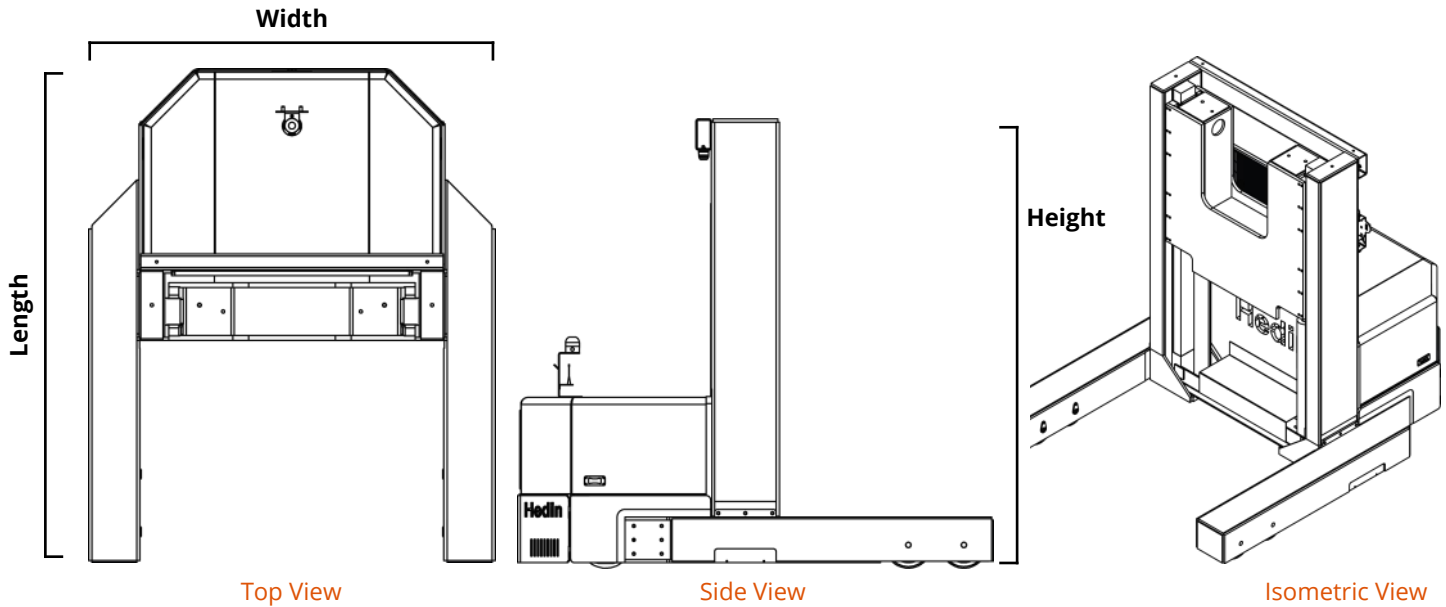
### Multiple Control Options

Coil Cars are available with a steering handle, RF remote controller, as a ride-along model or automated guided vehicle (AGV).

### Adjustable Coil Height

The adjustable stroke allows for variable height changes, giving operators the freedom to easily and efficiently position coils.

# Coil Car with Cradle



## Coil Car with Cradle Specifications

Model No.	Capacity	Stroke	Range	Speed	Transporter Size		
					Length	Width	Height
HED050	Total <sup>1</sup>		Distance <sup>2</sup>	Max			
HED050-0006	13,000lb 6,000kg	64.96" 1,650mm	16,400ft 5,000m	150fpm 45mpm	110.24" 2,800mm	72.83" 1,850mm	100.39" 2,550mm
HED050-0012	26,500lb 12,000kg	72.83" 1,850mm	13,100ft 4,000m	150fpm 45mpm	114.17" 2,900mm	86.61" 2,200mm	108.27" 2,750mm
HED050-0025	55,000lb 25,000kg	39.37" 1,000mm	13,100ft 4,000m	100fpm 30mpm	122.05" 3,100mm	100.39" 2,550mm	114.17" 2,900mm

1. Based on centrally located load. 2. Battery capacity is based upon full charge, under full load, with continuous operation in a linear path.



# Coil Tipper



Coil Tippers are an all in one solution for the positioning of coils. We offer the ability to tilt 90° horizontally and vertically, and an added function of 180° rotation. With capacities up to 100,000 lbs., our Coil Car offers an easy solution to the transportation of coils, ultimately eliminating the need for an overhead crane or rail-based systems.

- **Capacities up to 44,000 lbs.**
- **Optional 180° rotation**
- **90° rotation times of 30 seconds**
- **All electric unit with no hydraulic mess**

## Features & Benefits



### Positioning

Not only do our Coil Tippers offer 90° tilting of coils horizontally and vertically, but they can also turn coils by 180°. We've got all the positions covered.

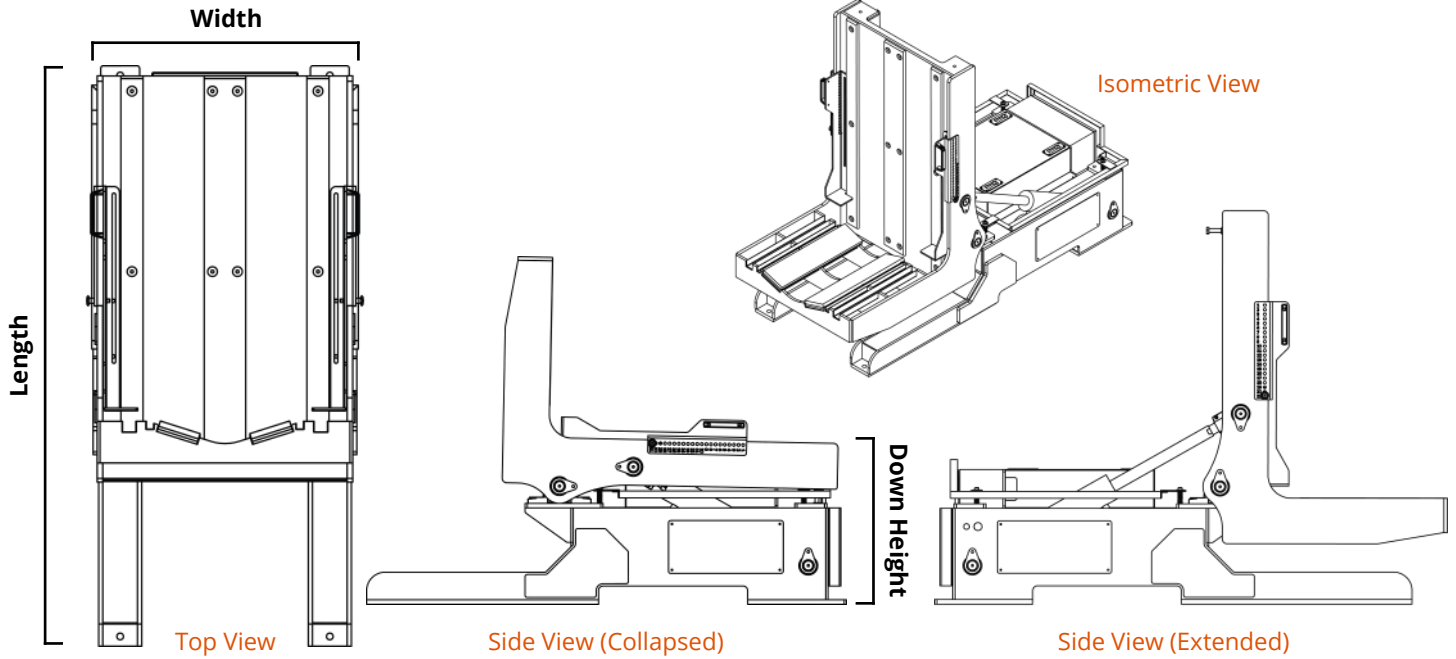
### Accessibility

The Coil Tipper is designed to take up less space in your facility, all while maintaining ideal accessibility for coils to be picked up and transported by coil cars or cranes.

### Compatible

The Coil Tipper can be directly used with our Coil Cars. Rotate and tilt the coils with the Coil Tipper, and pick them up with the Coil Car to complete your positioning needs.





## Coil Car Tipper Specifications

Model No.	Capacity	Max Coil Size			Unit Size			90° Tilt Time
		Max Diameter	Max Depth	Length	Width	Down Height		
HED080	Total <sup>1</sup>							
HED080-005	11,000lb 5,000kg	55.12" 1,400mm	23.62" 600mm	90.55" 2,300mm	39.37" 1,000mm	23.62" 600mm	30 Seconds	
HED080-010	22,000lb 10,000kg	62.99" 1,600mm	31.49" 800mm	98.43" 2,500mm	47.24" 1,200mm	23.62" 600mm	30 Seconds	

1. Based on centrally located load.



# Pallet Transporter



The Pallet Transporter is the ideal solution for easily moving heavy loads on steel pallets, with capacity of up to 132,500 lbs. The Pallet Transporter is available with a number of options including safety scanners, enhanced batteries, and AGV drive systems.

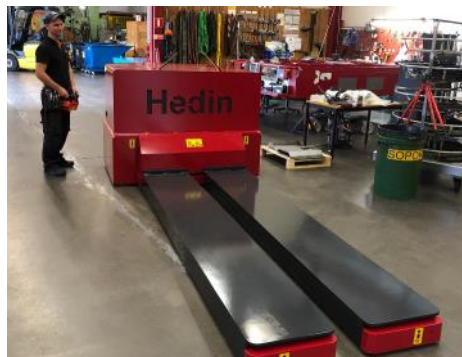
- **Capacities up to 132,500 lbs.**
- **Adjustable fork widths**
- **On board battery recharge system**
- **RF Controller standard with optional manual steering**

## Features & Benefits



### Variable Solutions

Along with setting the load on top of the Pallet Transporter, operators can use the transporter's auxiliary lift with a pallet system featuring a center support or directly with the product.



### Multiple Control Options

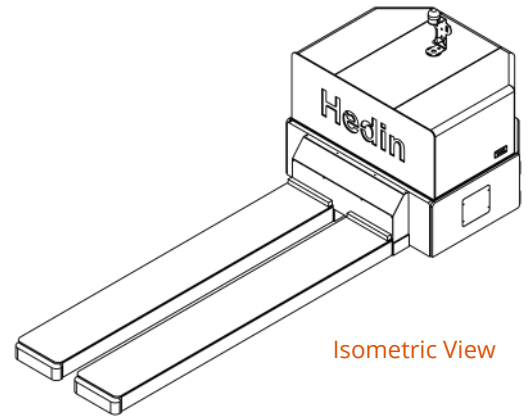
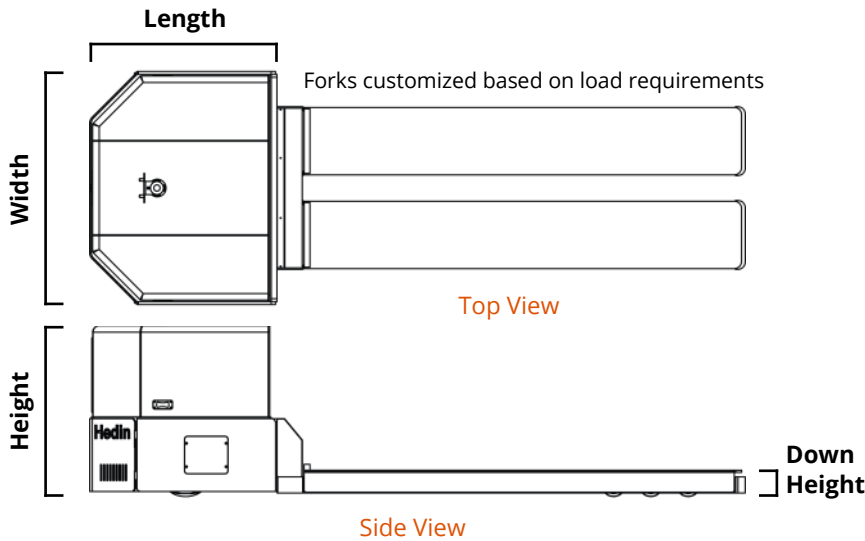
Pallet Transporters are available with a steering handle, RF remote controller, as a ride-along model or automated guided vehicle (AGV).



### Optional Auxiliary Lift

The Pallet Transporter can be kitted with an optional auxiliary lift, granting operators the ability to lift and transport pallets - removing the need for overhead cranes.

# Pallet Transporter



## Pallet Transporter Specifications

Model No.	Capacity	Range	Speed	Header Size			Typical	
				Length	Width	Height	Stroke	Down Height
HED030	Total <sup>1</sup>	Distance <sup>2</sup>	Max					
HED030-0012	26,500lb 12,000kg	13,100ft 4,000m	180fpm 55mpm	49.21" 1,250mm	30.71" 780mm	43.31" 1,100mm	2.36" 60mm	7.09" 180mm
HED030-0020	44,000lb 20,000kg	13,100ft 4,000m	150fpm 45mpm	49.21" 1,250mm	37.40" 950mm	43.31" 1,100mm	2.36" 60mm	8.66" 220mm
HED030-0030	66,000lb 30,000kg	13,100ft 4,000m	100fpm 30mpm	49.21" 1,250mm	41.34" 1,050mm	46.46" 1,180mm	3.15" 80mm	9.45" 240mm
HED030-0040	88,000lb 40,000kg	13,100ft 4,000m	100fpm 30mpm	49.21" 1,250mm	57.09" 1,450mm	46.46" 1,180mm	3.15" 80mm	11.81" 300mm
HED030-0060	132,500lb 60,000kg	9,850ft 3,000m	100fpm 30mpm	49.21" 1,250mm	57.09" 1,450mm	46.46" 1,180mm	3.94" 100mm	13.78" 350mm

1. Based on centrally located load. 2. Battery capacity is based upon full charge, under full load, with continuous operation in a linear path.



## Customized Forks

Pallet Transporters are custom engineered to your capacity, size, and stroke requirements. No matter how big or small your request is, we're here to exceed your needs.

### Adjustable Width

Our Pallet Transporter can feature adjustable width, giving operators the option to change the width between forks based on the size of the pallet.

### Why Split Forks?

Split Forks allow the transporter to flex, keeping a lower down height and ensuring traction and stability while on uneven floors.

# Platform Transporter



The Platform Transporter is the ideal solution for easily moving heavy loads on steel pallets, with capacity of up to 264,500 lbs. The platform Transporter is available with a number of options including safety scanners, enhanced batteries, and AGV drive systems.

- Capacities up to 132,500 lbs.
- Speed up to 150 fpm
- On board battery recharge system
- RF controller standard with optional manual steering

## Features & Benefits



### Variable Solutions

Along with setting the load on top of the Platform Transporter, operators can use the transporter's auxiliary lift with a pallet system or directly with the product.



### Multiple Control Options

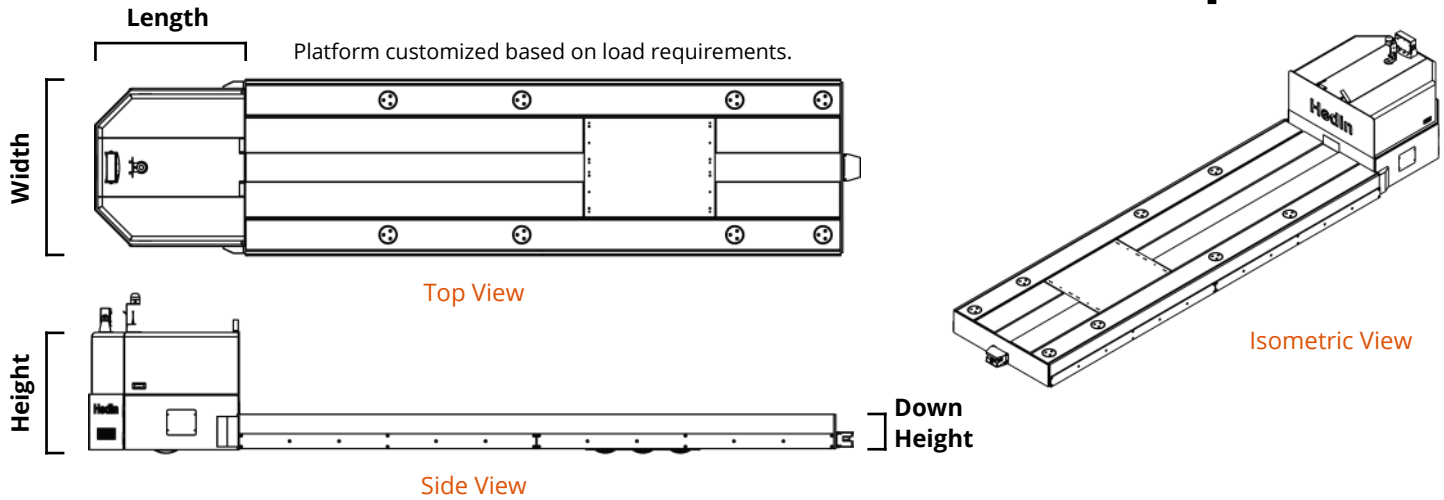
Platform Transporters are available with a steering handle, RF remote controller, as a ride-along model or automated guided vehicle (AGV).



### Optional Auxiliary Lift

The Platform Transporter can be kitted with an optional auxiliary lift, granting operators the ability to lift and transport pallets - removing the need for overhead cranes.

# Platform Transporter



## Platform Transporter Specifications

Model No.	Capacity	Range	Speed	Header Size			Typical	
				Length	Width	Height	Stroke	Down Height
HED031	Total <sup>1</sup>	Distance <sup>2</sup>	Max					
HED031-0020	44,000lb 20,000kg	16,400ft 5,000m	150fpm 45mpm	49.21" 1,250mm	50.39" 1,280mm	43.31" 1,100mm	3.11" 80mm	11" 280mm
HED031-0030	66,000lb 30,000kg	14,750ft 4,500m	100fpm 30mpm	49.21" 1,250mm	61" 1,550mm	46.46" 1,180mm	3.94" 100mm	13" 330mm
HED031-0040	88,000lb 40,000kg	13,100ft 4,000m	100fpm 30mpm	49.21" 1,250mm	61" 1,550mm	46.46" 1,180mm	3.94" 100mm	13" 330mm
HED031-0060	132,500lb 60,000kg	11,500ft 3,500m	100fpm 30mpm	49.21" 1,250mm	61" 1,550mm	46.46" 1,180mm	3.94" 100mm	14.96" 380mm
HED031-0080	176,500lb 80,000kg	9,850ft 3,000m	100fpm 30mpm	61.02" 1,550mm	66.54" 1,690mm	51.18" 1,300mm	3.94" 100mm	14.96" 380mm
HED031-0120	264,500lb 120,000kg	6,550ft 2,000m	70fpm 21mpm	61.02" 1,550mm	86.61" 2,200mm	51.18" 1,300mm	3.94" 100mm	15.7" 400mm

1. Based on centrally located load. 2. Battery capacity is based upon full charge, under full load, with continuous operation in a linear path.



## Customized Platform

Platform Transporters are custom engineered to your capacity, size, and stroke requirements. No matter how big or small your request is, we're here to exceed your needs.

### Range of Bed Height

Our engineering team will work with you to find the best solution for your bed height requirements.

### Customizable Pallets

The need for overhead cranes is eliminated with the use of the optional auxiliary lift, working in tandem with custom pallets made for your specific needs.

# Mold & Die Transporter



The Mold & Die Transporter is designed to maximize safety and efficiency, creating the easiest way to transport and change dies. With capacities up to 200,000 lbs., the Mold & Die Transporter allows operators to move heavy dies via remote control from a safe distance - improving efficiency and reducing time lost between die changes.

- **Capacities up to 200,000 lbs.**
- **Push/Pull mechanisms for die movements**
- **On board battery recharge system**
- **Improved efficiency when transporting and changing dies**

## Features & Benefits



### Increased Efficiency

In addition to increased safety, our Quick Mold Die Changers offer increased efficiency over traditional die movements involving overhead cranes, fork trucks, and rail systems.



### Multiple Control Options

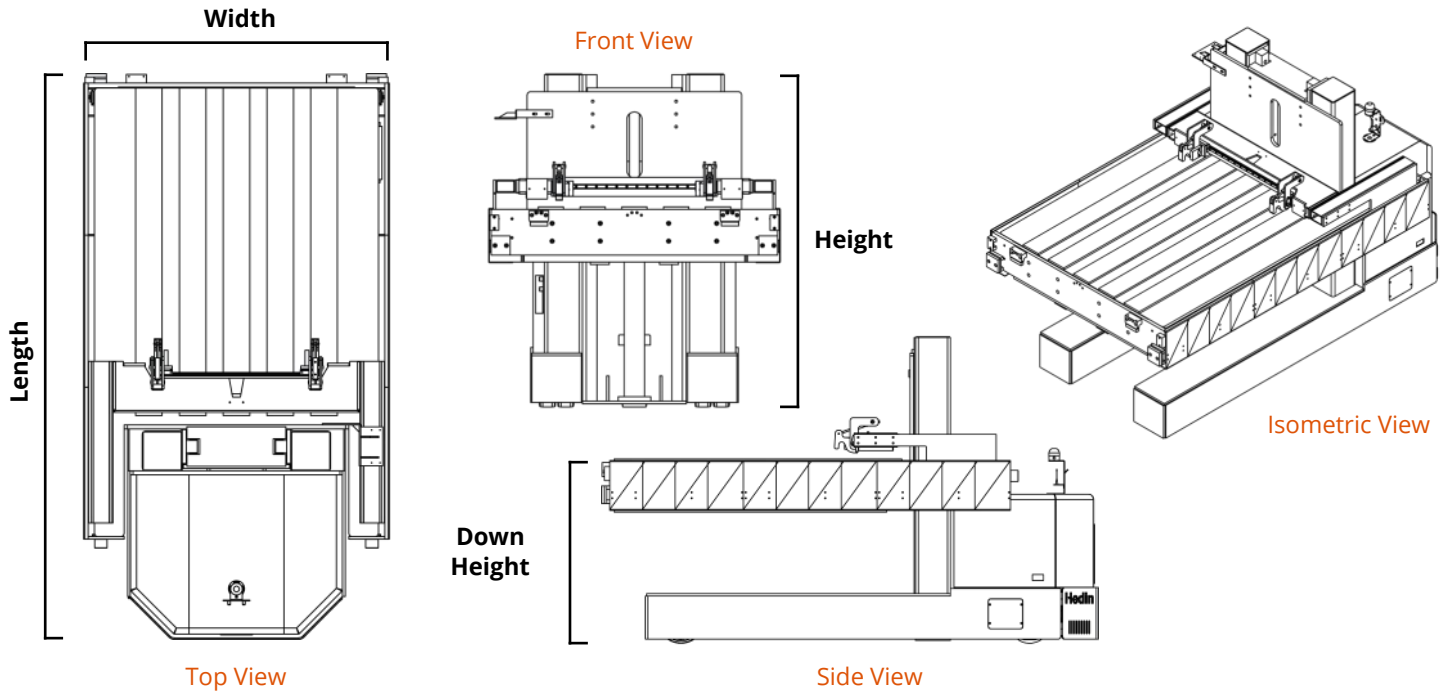
Quick-Change Mold and Die Transporters are available with a steering handle, RF remote controller, as a ride-along model or automated guided vehicle (AGV).



### Adjustable Bed Height

The adjustable stroke allows for variable height changes, giving operators the freedom to easily and efficiently change the transporter bed height for a quick change over.

# Mold & Die Transporter



## Quick-Change Mold & Die Transporter Specifications

Model No.	Capacity	Range	Speed	Transporter Size			Typical	
				Length	Width	Height	Stroke	Down Height
HED040-0006	13,000lb 6,000kg	13,100ft 4,000m	150fpm 45mpm	165.35" 4,200mm	90.55" 2,300mm	104.33" 2,650mm	41.73" 1,060mm	21.65" 550mm
HED040-0012	26,500lb 12,000kg	13,100ft 4,000m	100fpm 30mpm	165.35" 4,200mm	90.55" 2,300mm	104.33" 2,650mm	41.73" 1,060mm	21.65" 550mm
HED040-0020	44,000lb 20,000kg	9,800ft 3,000m	100fpm 30mpm	177.16" 4,500mm	98.43" 2,500mm	114.17" 2,900mm	41.73" 1,060mm	21.65" 550mm
HED040-0010	22,000lb 10,000kg	13,100ft 4,000m	150fpm 45mpm	141.73" 3,600mm	55.12" 1,400mm	82.68" 2,100mm	31.89" 810mm	21.65" 550mm

1. Based on centrally located load. 2. Battery capacity is based upon full charge, under full load, with continuous operation in a linear path.

### Higher Capacity Custom Die Changers Available



# Flatbed Transporter Single-Drive



Designed to move loads up to 220,000 lbs. with a battery propelled drive unit, the Flatbed Transporter makes moving heavy loads on a facility floor easy. The Flatbed Transporter offers controls via radio controller or an optional automated guidance system.

- **Capacities up to 220,00 lbs.**
- **Optional auxiliary lift**
- **Multiple control options**
- **On board battery recharge system**

## Features & Benefits



### Range of Capacity Solutions

Hedin USA Flatbed Transporters offer the capability to move loads with capacities ranging from a few thousand pounds to a few hundred thousand pounds.



### Optional Auxiliary Lift

The Flatbed Transporter can be kitted with an optional auxiliary lift, granting operators the ability to lift and transport pallets - removing the need for overhead cranes.



### Automated Guided Vehicle

Improve facility efficiency with the optional AGV package, allowing the Flatbed Transporter to navigate your facility without a rail system. (Available on Multi-Drive model)



# Flatbed Transporter Multi-Drive



Multi-Drive Flatbed Transporters makes moving heavy loads easy, with operating capacity up to 1,000,000lbs. The Flatbed Transporter multi-drive offers a zero-degree turn radius and is controllable via radio controller or an optional automated guidance system for precise automated movement. Our Multi-Drive Flatbed Transporters can also be configured to operate in tandem, enabling the movement of loads up to 2,000,000lbs.

- Capacities up to 1,000,000 lbs.
- Optional Auxiliary Lift
- Onboard Recharging System
- Zero-Turn Drive System Optional
- Tandem Unit Operation Available

## Features & Benefits



### Multi-directional Drives

Multi-directional drives enable the Flatbed Transporter to perform zero degree turn, crab steer, and other complex movements.



### Optional Auxiliary Lift

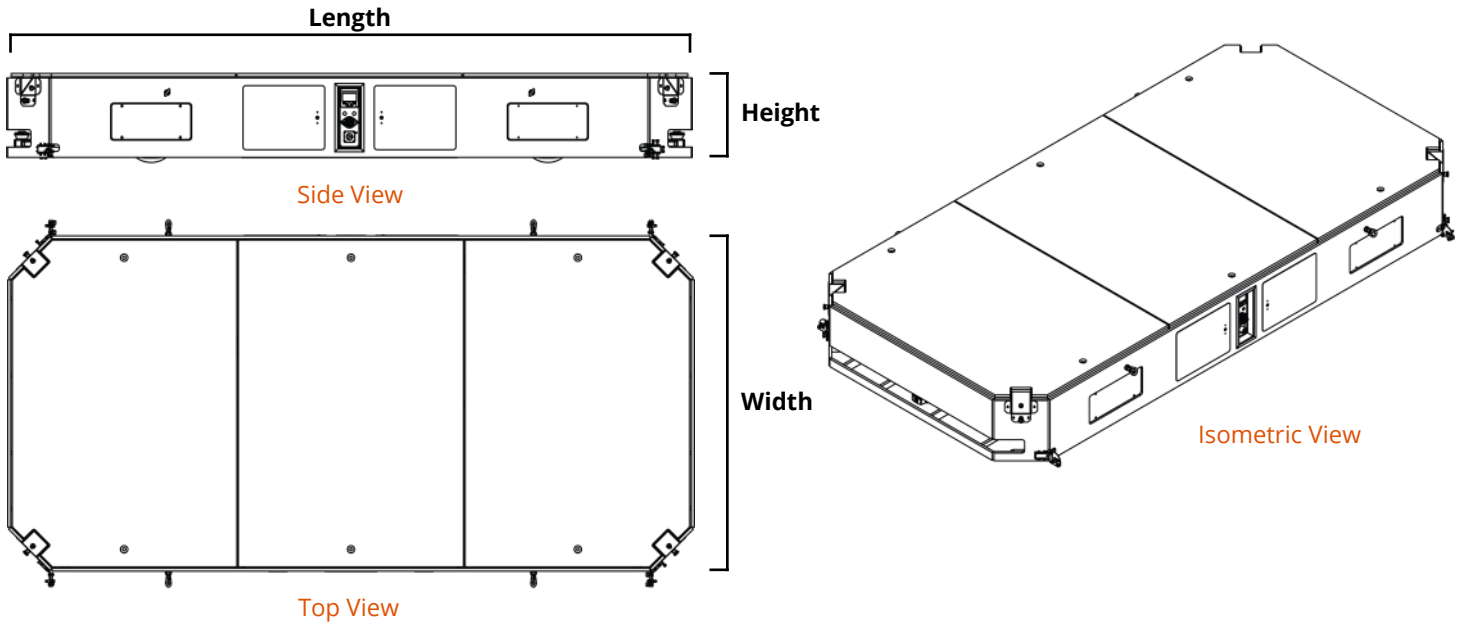
The Flatbed Transporter can be kitted with an optional auxiliary lift, granting operators the ability to lift and transport pallets - removing the need for overhead cranes.



### Tandem Operation

Multiple Flatbed Transporters can be connected for tandem operation, resulting in high powered, high capacity transportation.

# Flatbed Transporter Single-Drive



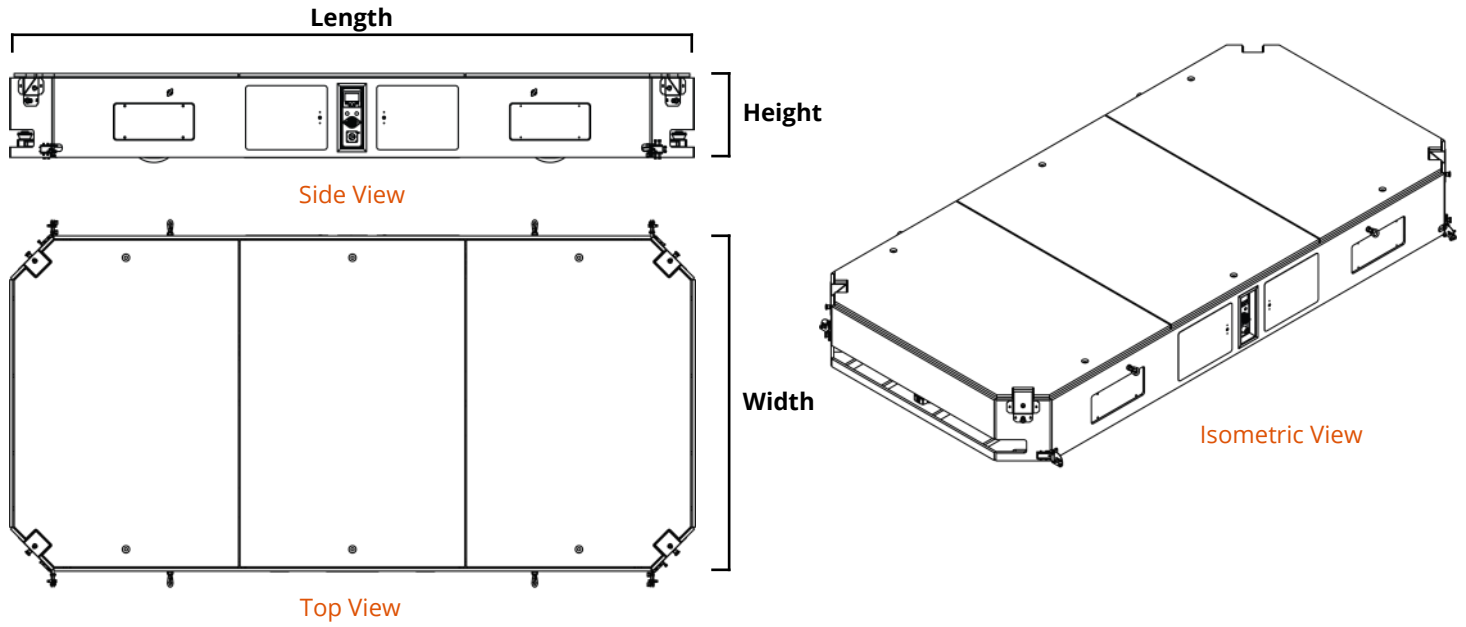
## Flatbed Transporter Single-Drive Specifications

Model No.	Capacity	Range	Speed	Transporter Size <sup>2</sup>		
				Length	Width	Height
HED010	Total <sup>1</sup>	Distance <sup>2</sup>	Max			
HED010-0010	22,000lb 10,000kg	13,100ft 4,000m	180fpm 55mpm	98.43" 2,500mm	55.12" 1,400mm	19.69" 500mm
HED010-0020	44,000lb 20,000kg	19,700ft 6,000m	150fpm 45mpm	118.11" 3,000mm	63" 1,600mm	22.83" 580mm
HED010-0030	66,000lb 30,000kg	19,700ft 6,000m	100fpm 30mpm	137.80" 3,500mm	78.74" 2,000mm	25.59" 650mm
HED010-0040	88,000lb 40,000kg	13,100ft 4,000m	100fpm 30mpm	157.48" 4,000mm	78.74" 2,000mm	25.59" 650mm
HED010-0060	132,500lb 60,000kg	13,100ft 4,000m	100fpm 30mpm	157.48" 4,000mm	78.74" 2,000mm	25.59" 650mm
HED010-0080	176,500lb 80,000kg	9,850ft 3,000m	85fpm 26mpm	177.17" 4,500mm	90.55" 2,300mm	29.53" 750mm
HED010-0100	220,500lb 100,000kg	9,850ft 3,000m	85fpm 26mpm	177.17" 4,500mm	90.55" 2,300mm	29.53" 750mm

1. Based on centrally located load. 2. Battery capacity is based upon full charge, under full load, with continuous operation in a linear path.



# Flatbed Transporter Single-Drive with Lift



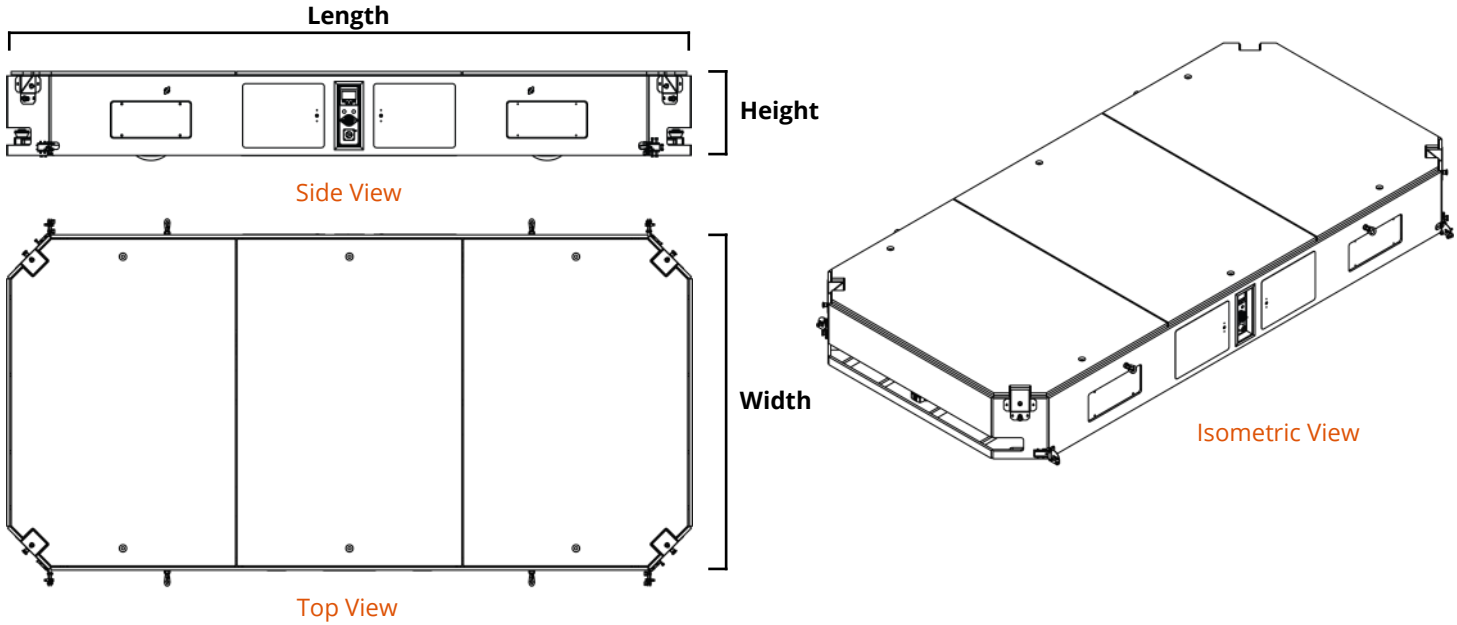
## Flatbed Transporter Single-Drive with Lift Specifications

Model No.	Capacity	Stroke	Range	Speed	Transporter Size <sup>2</sup>		
					Length	Width	Height
HED020	Total <sup>1</sup>		Distance <sup>2</sup>	Max			
HED020-0010	22,000lb 10,000kg	3.15" 80mm	13,100ft 5,000m	180fpm 55mpm	98.43" 2,500mm	55.12" 1,400mm	19.69" 500mm
HED020-0020	44,000lb 20,000kg	3.15" 80mm	19,700ft 6,000m	150fpm 45mpm	118.11" 3,000mm	63" 1,600mm	22.83" 580mm
HED020-0030	66,000lb 30,000kg	3.94" 100mm	19,700ft 6,000m	100fpm 30mpm	137.80" 3,500mm	78.74" 2,000mm	25.59" 650mm
HED020-0040	88,000lb 40,000kg	3.94" 100mm	13,100ft 4,000m	100fpm 30mpm	157.48" 4,000mm	78.74" 2,000mm	25.59" 650mm
HED020-0060	132,500lb 60,000kg	3.94" 100mm	13,100ft 4,000m	100fpm 30mpm	157.48" 4,000mm	78.74" 2,000mm	25.59" 650mm
HED020-0080	176,500lb 80,000kg	5.91" 150mm	9,850ft 3,000m	85fpm 26mpm	177.17" 4,500mm	90.55" 2,300mm	29.53" 750mm
HED020-0100	220,500lb 100,000kg	5.91" 150mm	9,850ft 3,000m	85fpm 26mpm	177.17" 4,500mm	90.55" 2,300mm	29.53" 750mm

1. Based on centrally located load. 2. Battery capacity is based upon full charge, under full load, with continuous operation in a linear path.



# Flatbed Transporter Multi-Drive



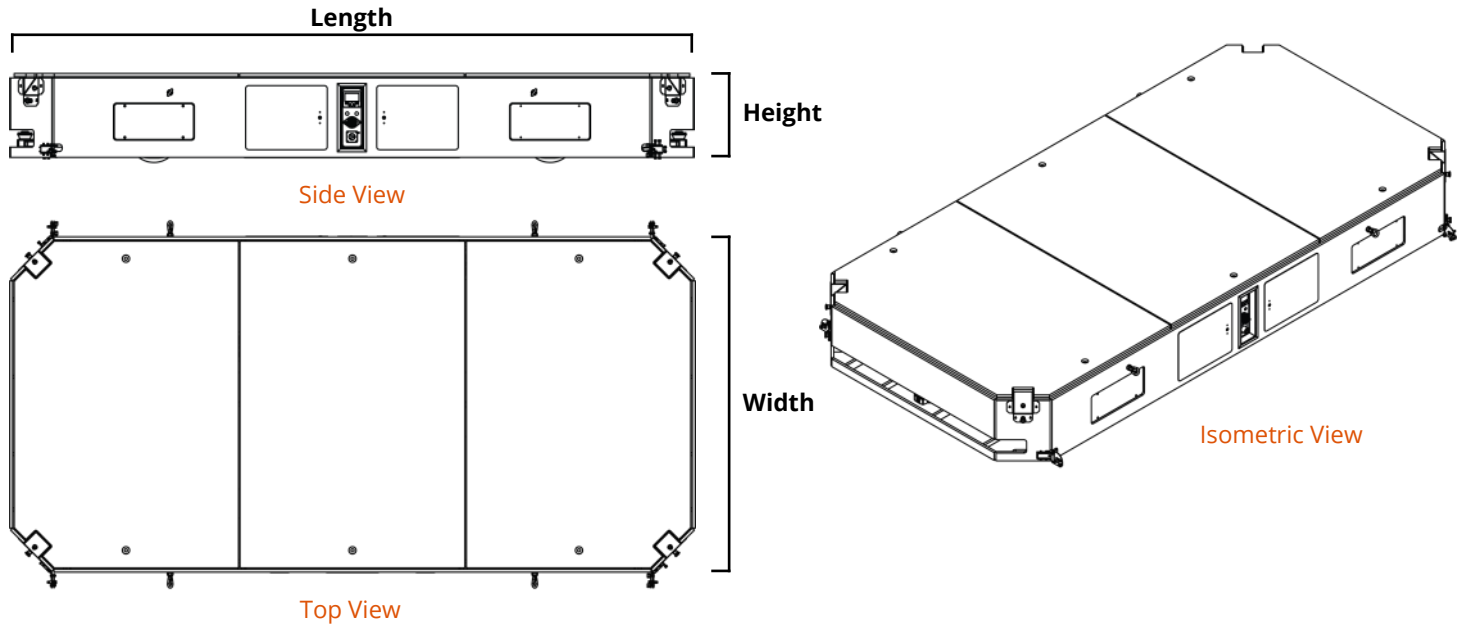
## Flatbed Transporter Multi-Drive Specifications

Model No.	Capacity	Range	Speed	Transporter Size <sup>2</sup>		
				Length	Width	Height
HED011	Total <sup>1</sup>	Distance <sup>2</sup>	Max			
HED011-0010	22,000lb 10,000kg	13,100ft 5,000m	180fpm 55mpm	118.11" 3,000mm	70.87" 1,800mm	19.69" 500mm
HED011-0020	44,000lb 20,000kg	19,700ft 6,000m	150fpm 45mpm	137.80" 3,500mm	78.74" 2,000mm	22.83" 580mm
HED011-0040	88,000lb 40,000kg	19,700ft 6,000m	100fpm 30mpm	177.17" 4,500mm	90.55" 2,300mm	25.59" 650mm
HED011-0060	132,500lb 60,000kg	16,400ft 5,000m	150fpm 45mpm	196.85" 5,000mm	90.55" 2,300mm	29.53" 750mm
HED011-0100	220,500lb 100,000kg	13,100ft 4,000m	150fpm 45mpm	196.85" 5,000mm	90.55" 2,300mm	29.53" 750mm
HED011-0250	551,000lb 250,000kg	9,850ft 3,000m	100fpm 30mpm	275.59" 7,000mm	114.17" 2,900mm	35.43" 900mm
HED011-0450	992,000lb 450,000kg	9,850ft 3,000m	70fpm 21mpm	334.65" 8,500mm	208.66" 5,300mm	51.18" 1,300mm

1. Based on centrally located load. 2. Battery capacity is based upon full charge, under full load, with continuous operation in a linear path.



# Flatbed Transporter Multi-Drive with Lift



## Flatbed Transporter Multi-Drive with Lift Specifications

Model No.	Capacity	Stroke	Range	Speed	Transporter Size <sup>2</sup>		
					Length	Width	Height
HED021	Total <sup>1</sup>		Distance <sup>2</sup>	Max			
HED021-0010	22,000lb 10,000kg	1.38" 35mm	13,100ft 3,993m	180fpm 55mpm	118.11" 3,000mm	70.87" 1,800mm	19.69" 500mm
HED021-0020	44,000lb 20,000kg	1.38" 35mm	19,700ft 6,005m	150fpm 45mpm	137.80" 3,500mm	78.74" 2,000mm	22.83" 580mm
HED021-0040	88,000lb 40,000kg	1.77" 45mm	19,700ft 6,005m	100fpm 30mpm	177.17" 4,500mm	90.55" 2,300mm	25.59" 650mm
HED021-0060	132,500lb 60,000kg	1.77" 45mm	16,400ft 4,998m	150fpm 45mpm	196.85" 5,000mm	90.55" 2,300mm	29.53" 750mm
HED021-0100	220,500lb 100,000kg	1.58" 40mm	13,100ft 3,993m	150fpm 45mpm	196.85" 5,000mm	90.55" 2,300mm	29.53" 750mm
HED021-0250	551,000lb 250,000kg	1.58" 40mm	9,850ft 3,002m	100fpm 30mpm	275.59" 7,000mm	114.17" 2,900mm	35.43" 900mm
HED021-0450	992,000lb 450,000kg	2.36" 60mm	9,850ft 3,002m	70fpm 21mpm	334.65" 8,500mm	208.66" 5,300mm	51.18" 1,300mm

1. Based on centrally located load. 2. Battery capacity is based upon full charge, under full load, with continuous operation in a linear path.



# Air Caster Turntable



Air Caster Turntables are fitted with Airfloat air caster technology. Which creates a thin layer of air between the base and the top of the table, making the table nearly friction-free to move 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**
- **Varying levels of control - from manual push to turn-key robotics integration**
- **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. flush-floor air caster turntables.

#### Seamless Integration

The pit-mounted air caster turntables works in conjunction with existing rail systems, moving Caterpillar from a single rail to a multi-rail system.

#### Productivity Increase

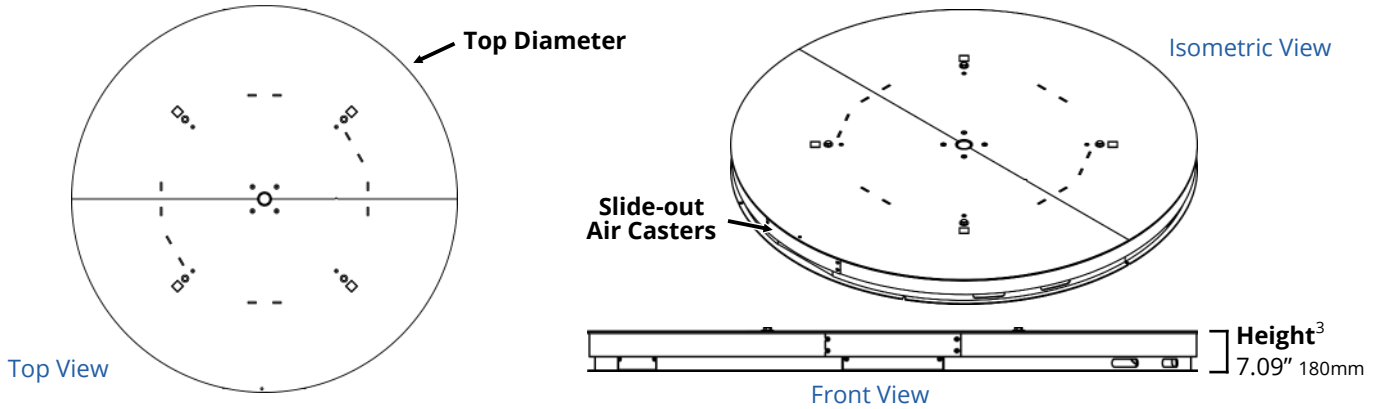
After implementing Air Caster Turntables, Caterpillar's assembly line had a substantial productivity increase.

# Air Caster Turntable

	Options	Part No.	Description
<b>Options</b>	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.
<b>Config. Options</b>	Hand Control Stand	APS5030-XXXX	Manual, hand-operated control stand.
	Foot Control Stand	APS5020-XXXX	Manual, foot-operated control stand.
	Robotic Interface Control Stand	AX5010-0040	I/O block provided to communicate with components and existing or robotic controller.
	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).	
<b>Custom Options</b>	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



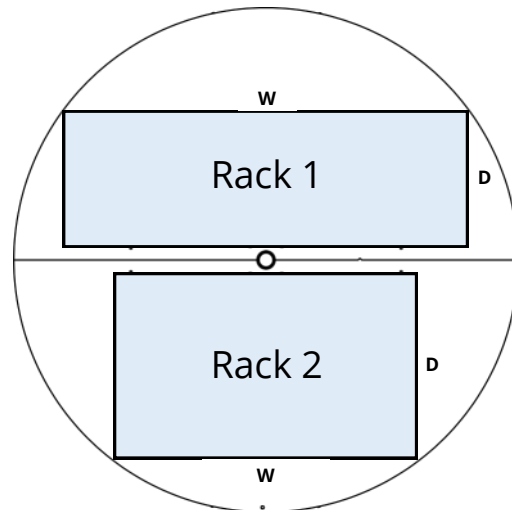
## Round Air Caster Turntable Specifications

Model No.	Capacity	Cycle Time	Base Size	Height	Caster	Air Flow
AX040	Total <sup>1</sup>	180° Fully Loaded <sup>2</sup>	Diameter	Deflated <sup>3</sup>	Diameter	Average
AX040-0060	8,000lb 3,629kg	10 - 16 Sec.	60" 1,524mm	7.09" 180mm	12" 305mm	28 SCFM 793L/m
AX040-0072	8,000lb 3,629kg	10 - 16 Sec.	72" 1,829mm	7.09" 180mm	12" 305mm	32 SCFM 906L/m
AX040-0084	12,000lb 5,443kg	12 - 16 Sec.	84" 2,134mm	7.09" 180mm	17" 432mm	32 SCFM 906L/m
AX040-0096	16,000lb 7,257kg	12 - 18 Sec.	96" 2,438mm	7.09" 180mm	17" 432mm	40 SCFM 1,133L/m
AX040-0108	16,000lb 7,257kg	14 - 20 Sec.	108" 2,743mm	7.09" 180mm	17" 432mm	48 SCFM 1,359L/m
AX040-0120	16,000lb 7,257kg	14 - 20 Sec.	120" 3,048mm	7.09" 180mm	17" 432mm	48 SCFM 1,359L/m
AX040-0132	16,000lb 7,257kg	16 - 22 Sec.	132" 3,353mm	7.09" 180mm	17" 432mm	48 SCFM 1,359L/m
AX040-0144	16,000lb 7,257kg	16 - 24 Sec.	144" 3,658mm	7.09" 180mm	17" 432mm	48 SCFM 1,359L/m

1. Capacity evenly distributed across the table. 2. Cycle time for 180° rotation. Times will vary depending on drive type and loading conditions. May decrease with lighter load.

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

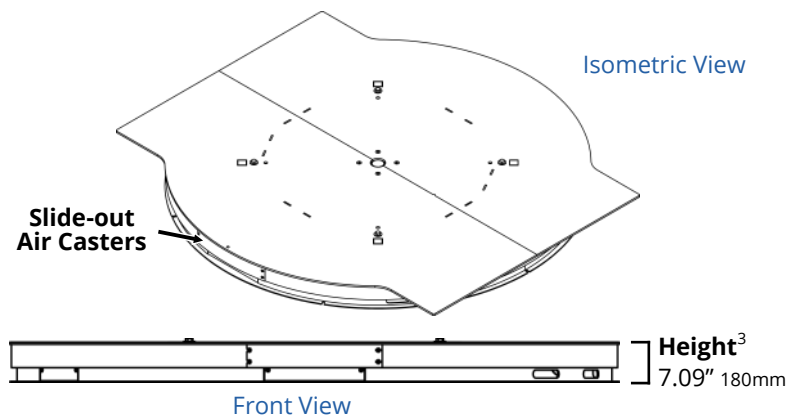
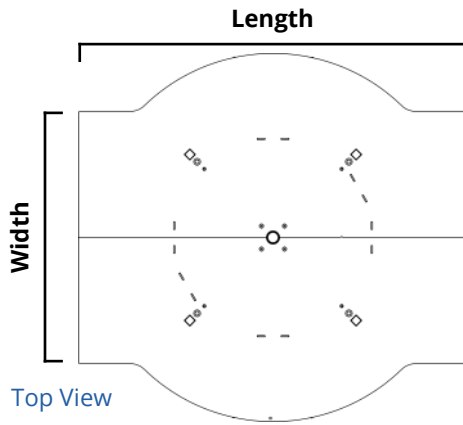
Model No.	Rack Example 1	Rack Example 2
AX040	W x D @ Max Cap.	W x D @ Max Cap.
AX040-0060	52" x 12" 1,320mm x 305mm	26" x 22" 660mm x 559mm
AX040-0072	62" x 15" 1,575mm x 381mm	32" x 28" 813mm x 711mm
AX040-0084	74" x 18" 1,880mm x 457mm	38" x 36" 965mm x 914mm
AX040-0096	84" x 22" 2,134mm x 559mm	50" 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 610mm	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

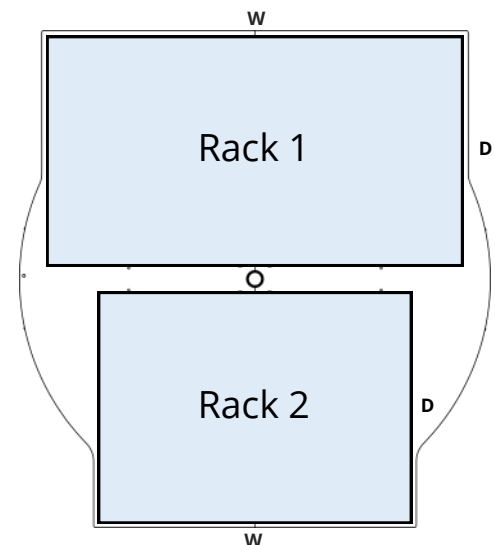


## Square Air Caster Turntable Specifications

Model No.	Capacity	Cycle Time	Base Size	Top Size		Swing Radius	Air Flow
				Max Width <sup>4</sup>	Max Depth <sup>4</sup>		
AX04X	Total <sup>1</sup>	180° Fully Loaded <sup>2</sup>	Diameter			max table size	Average
AX042-XXXXX	8,000lb 3,629kg	10 - 16 Sec.	60" 1,524mm	66" 1,676mm	66" 1,676mm	48" 1,219mm	28 SCFM 793L/m
AX043-XXXXX	8,000lb 3,629kg	10 - 16 Sec.	72" 1,829mm	78" 1,981mm	78" 1,981mm	56" 1,422mm	32 SCFM 906L/m
AX044-XXXXX	12,000lb 5,443kg	12 - 16 Sec.	84" 2,134mm	90" 2,286mm	90" 2,286mm	64" 1,626mm	32 SCFM 906L/m
AX045-XXXXX	16,000lb 7,257kg	12 - 18 Sec.	96" 2,438mm	102" 2,591mm	102" 2,591mm	72" 1,829mm	40 SCFM 1,133L/m
AX046-XXXXX	16,000lb 7,257kg	14 - 20 Sec.	108" 2,743mm	114" 2,896mm	114" 2,896mm	82" 2,083mm	48 SCFM 1,359L/m
AX047-XXXXX	16,000lb 7,257kg	14 - 20 Sec.	120" 3,048mm	126" 3,200mm	126" 3,200mm	90" 2,286mm	48 SCFM 1,359L/m
AX048-XXXXX	16,000lb 7,257kg	16 - 22 Sec.	132" 3,353mm	138" 3,505mm	138" 3,505mm	98" 2,489mm	48 SCFM 1,359L/m
AX049-XXXXX	16,000lb 7,257kg	16 - 24 Sec.	144" 3,658mm	150" 3,810mm	150" 3,810mm	106" 2,692mm	48 SCFM 1,359L/m

1. Capacity evenly distributed across the table. 2. Cycle time for 180° rotation. Times will vary depending on drive type and 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.	Rack Example 1	Rack Example 2
AX04X	W x D @ Max Cap.	W x D @ Max Cap.
AX042-XXXXX	52" x 12" 1,320mm x 305mm	26" x 22" 660mm x 559mm
AX043-XXXXX	62" x 15" 1,575mm x 381mm	32" x 28" 813mm x 711mm
AX044-XXXXX	84" x 42" 2,134mm x 1,067mm	52" x 42" 1,321mm x 1,067mm
AX045-XXXXX	96" x 48" 2,438mm x 1,219mm	68" x 48" 1,727mm x 1,219mm
AX046-XXXXX	108" x 54" 2,743mm x 1,372mm	84" x 54" 2,134mm x 1,372mm
AX047-XXXXX	120" x 60" 3,048mm x 2,524mm	96" x 60" 2,438mm x 2,524mm
AX048-XXXXX	132" x 66" 3,353mm x 2,676mm	110" x 66" 2,794mm x 2,676mm
AX049-XXXXX	144" x 72" 3,658mm 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



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.

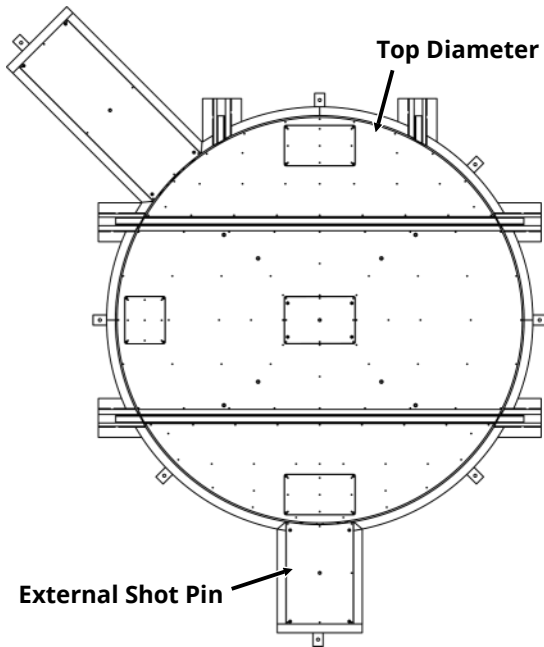
- **Capacities up to 100,000 lbs.**
- **Top sizes from 96" to 324"**
- **Optional rail spurs and curb ring**
- **Lower cost option compared to mechanical systems**

## Flush Floor Turntable Options

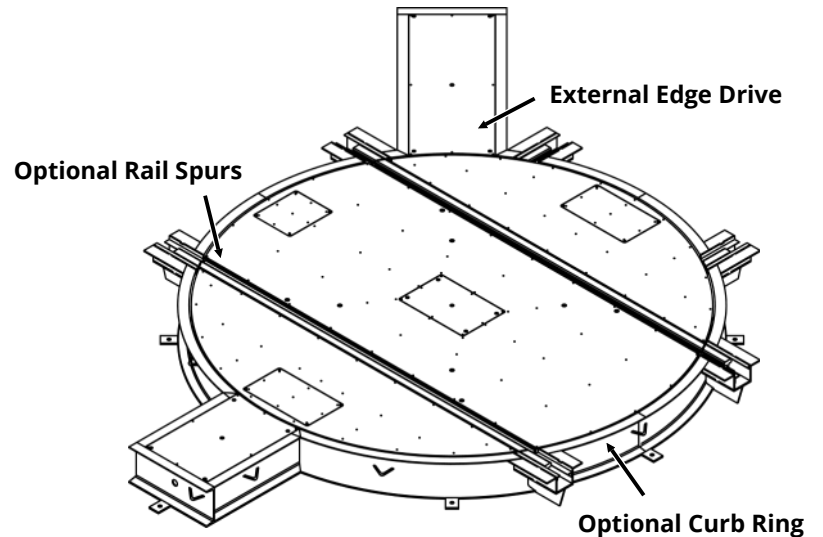
	Options	Part No.	Description
	Electric Edge Drive	AX5020-0060	AX050 series external electric drive assembly.
	Pneumatic Edge Drive	AX5020-0070	AX050 series external pneumatic drive assembly / lubed motor.
	Internal 180° Shock Stop with Precision Locator	AX5030-0022	AX050 series turntable shock stop with prox. sensor assembly kit.
	External Shot Pin	AX5030-0031	AX050 series shot pin assembly kit.
<b>Options</b>	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 AX04X Air Caster Turntable configurable and custom options.

# 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 <sup>1</sup>	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) - 1.5"(38mm).

# 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 & Benefits



### Easy to Maintain

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

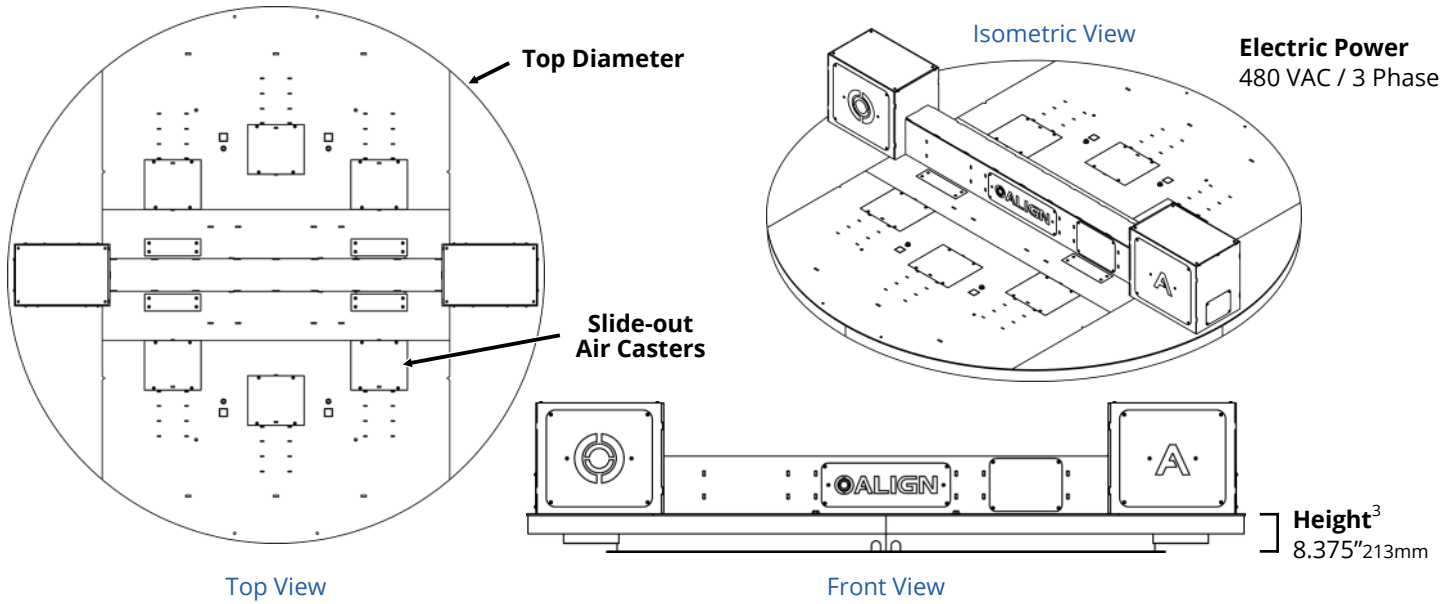
The tables have a low load height of 8" making it easy to load and unload the tables. Operators can access the components by easily stepping onto the turntable.

# High Speed Turntable

	Options	Part No.	Description
<b>Config. Options</b>	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.
<b>Custom Options</b>	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.
	Scrapper 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

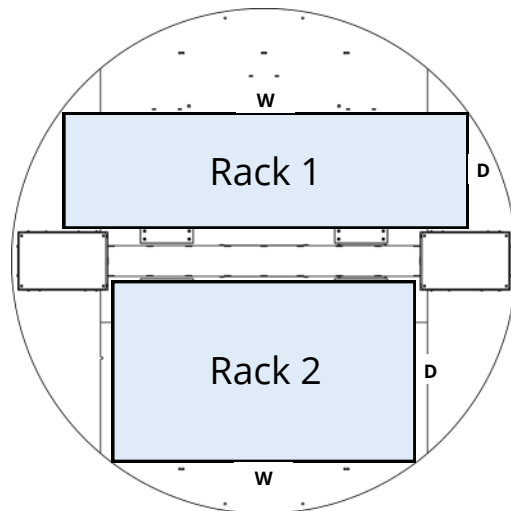
Model No.	Capacity	Cycle Time	Top Size	Base Size	Height	Caster	Air Flow
AX020	Total <sup>1</sup>	180° Fully Loaded <sup>2</sup>	Diameter	Diameter	Deflated <sup>3</sup>	Diameter	Average
AX020-0108	10,000lb 4,536kg	6 Seconds	108" 2,743mm	72" 1,829mm	8.375" 213mm	12" 305mm	60 SCFM 1,699L/m
AX020-0120	10,000lb 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. 5,000 lbs. per side, 10,000 lbs. total. 2. Cycle time for 180° rotation. Times will vary depending on loading conditions. May decrease with lighter load.

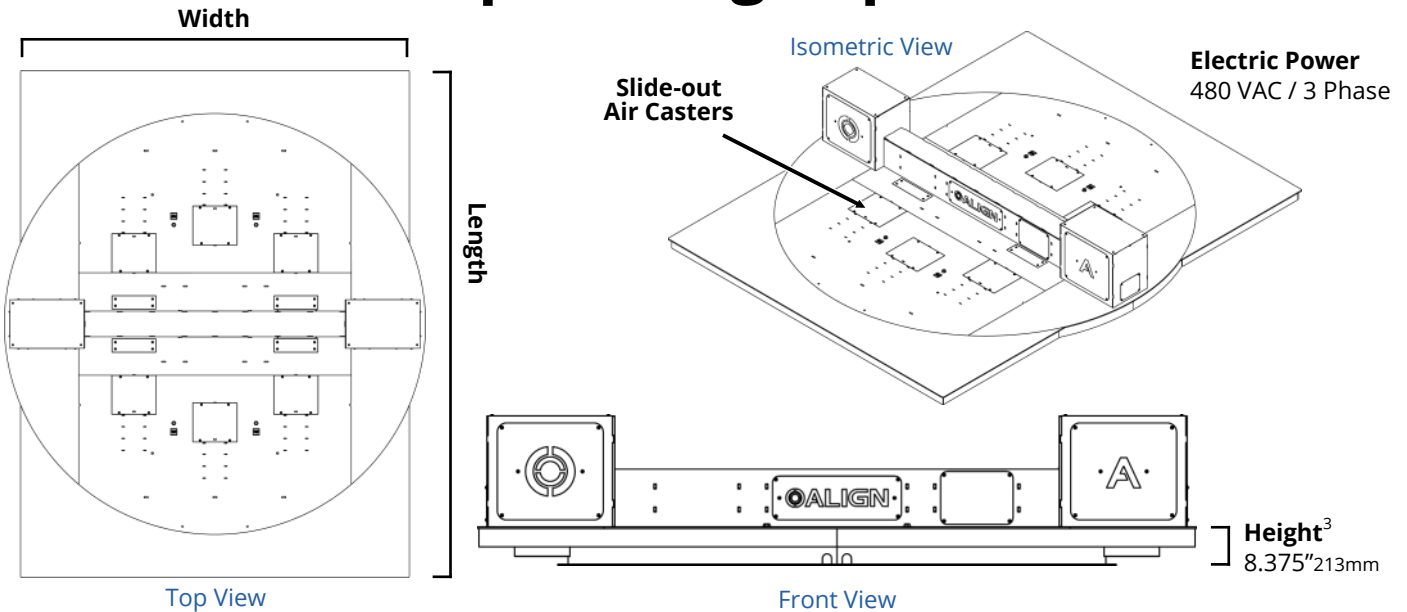
3. Inflated height adds approximately .25"(6mm) - 1"(25mm).

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

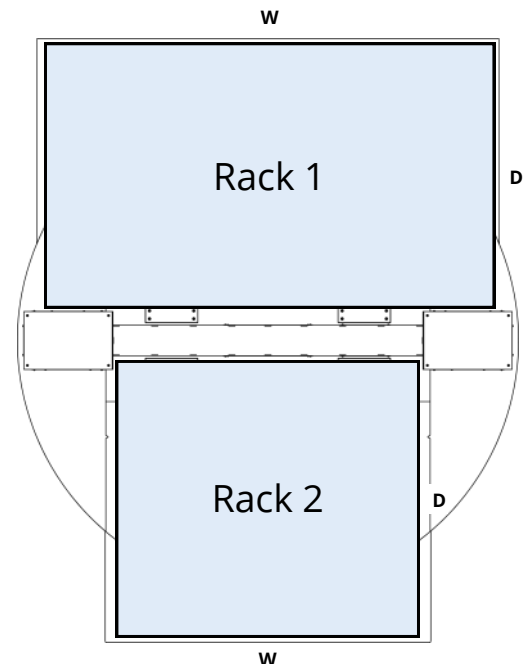
Model No.	Capacity	Cycle Time	Base Size	Top Size		Air Flow
				Max Width <sup>4</sup>	Max Depth <sup>4</sup>	
AX021	Total <sup>1</sup>	180° Fully Loaded <sup>2</sup>	Diameter			Average
AX021-0108	10,000lb 4,536kg	6 Seconds	72" 1,829mm	104" 2,642mm	114" 2,896mm	60 SCFM 1,699L/m
AX021-0120	10,000lb 4,536kg	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. 5,000 lbs. per side, 10,000 lbs. total. 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  $\leq 0.01"$**
- **Integrate easily with robotic work cells**
- **Resolver for accurate, infinite positioning**
- **Fully programable system, turn-key operation available**

## Features & Benefits



### High speed Accuracy

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

### Integration

The turntable can be 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.

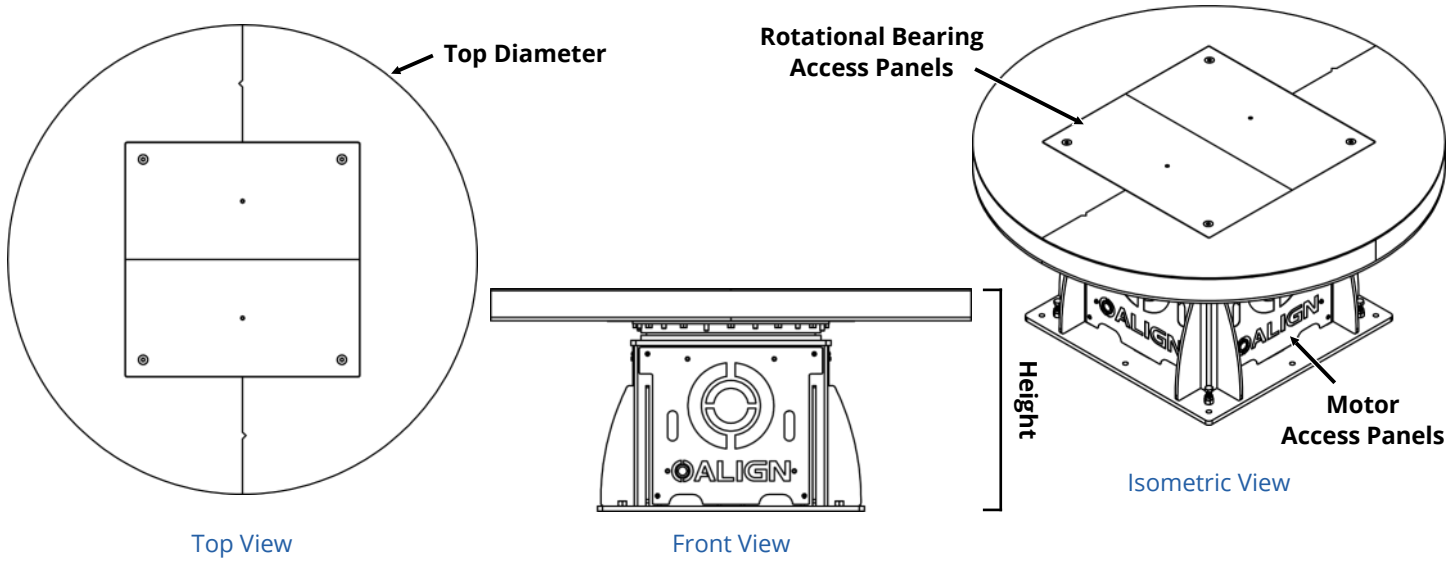


# Precision Mechanical Turntable

	Options	Part No.	Description
	Central Grounding Block	APS5041-0130	Table mounted spring loaded 500A rotary block with shavings capture bracket.
<b>Config. Options</b>	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.
<b>Custom Options</b>	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

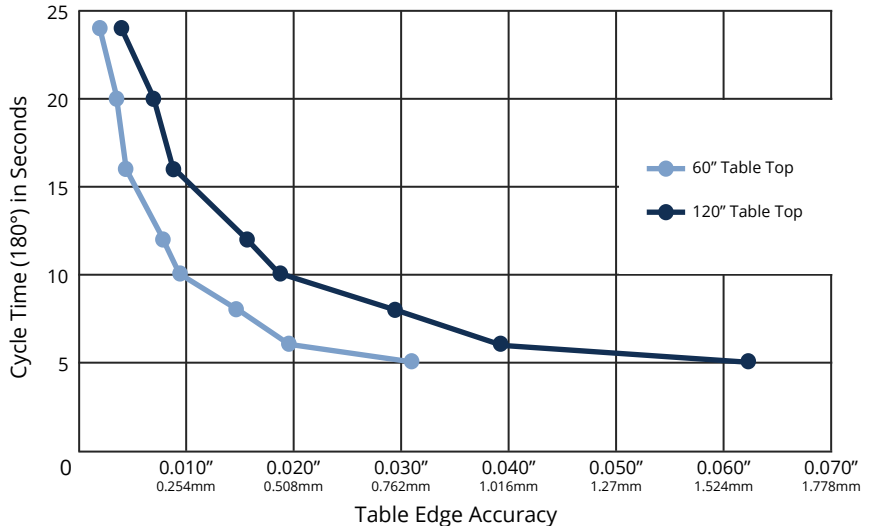
Model No.	Capacity	Cycle Time	Accuracy	Top Size	Height	Base Size
APS070	Total <sup>1</sup>	Fastest/Standard <sup>2</sup>	Fastest/Standard	Diameter <sup>3</sup>		L x W
APS070-0060	5,000lb 2,268kg	4.5 Seconds 10 Seconds	0.066° 0.018°	60" 1,524mm	38" 965mm	40" x 40" 1,016mm - 1,016mm
APS070-0072	5,000lb 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.

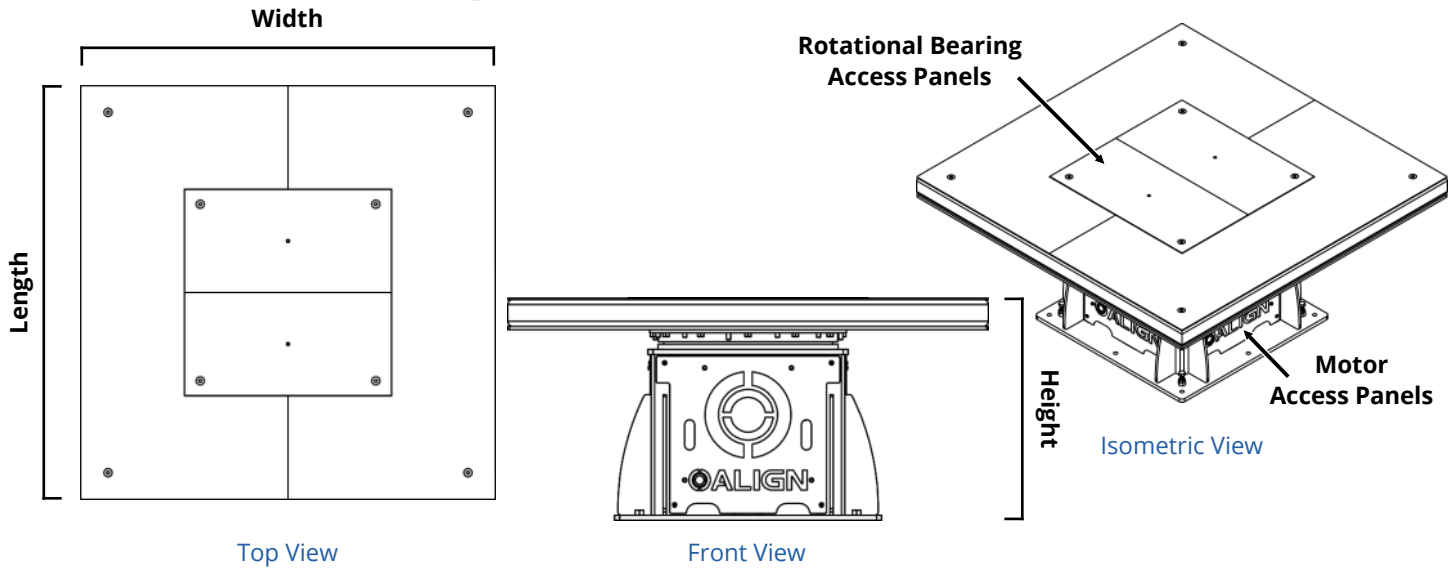
Cycle Time vs Table Edge Accuracy

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

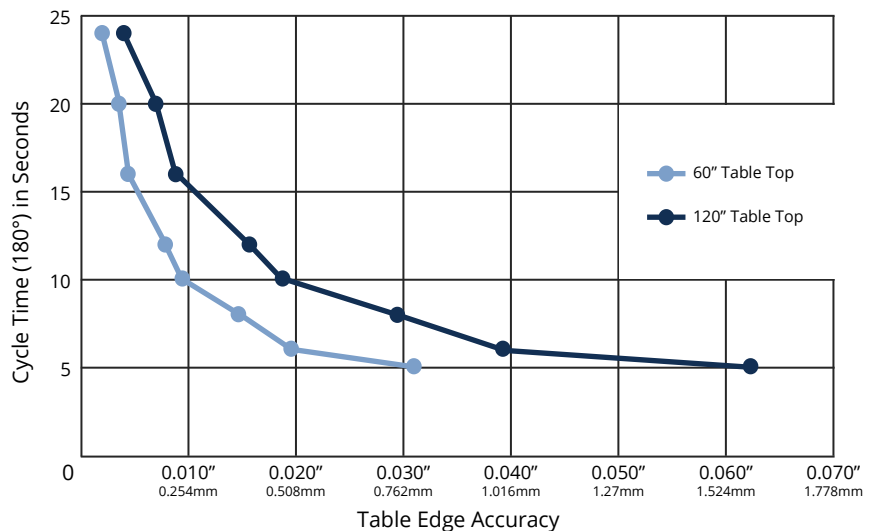
Model No.	Capacity	Cycle Time	Accuracy	Top Size	Height	Base Size
APS071	Total <sup>1</sup>	Fastest/Standard <sup>2</sup>	Fastest/Standard	L / D (Min-Max) <sup>3</sup>		L x W
APS071-0060	5,000lb 2,268kg	4.5 Seconds 10 Seconds	0.066° 0.018°	40" - 60" 1,016mm - 1,524mm	38" 965mm	40" x 40" 1,016mm - 1,016mm
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



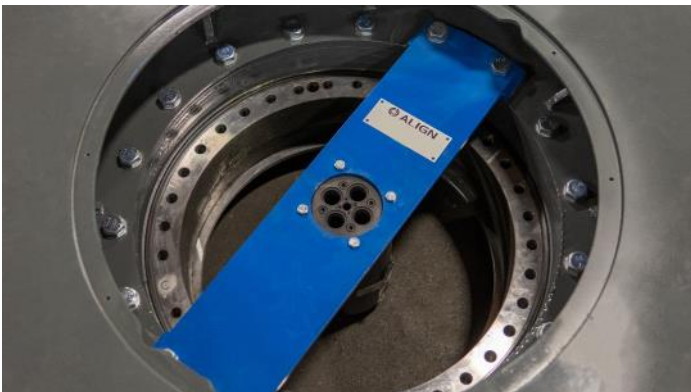
# Mechanical Turntable



Take your robotic manufacturing to the next level of performance with mechanical 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 mechanical turntable is designed and built in the United States.

- 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 & Benefits



### Slewing Drive

Features include 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

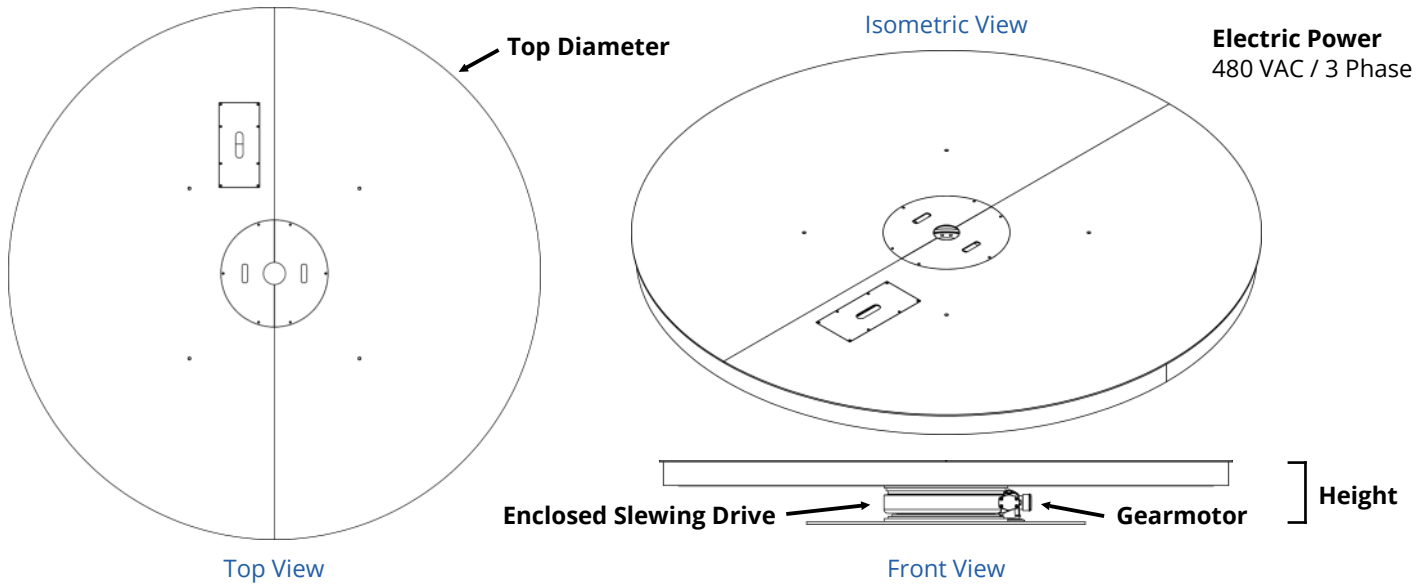
All electric unit built to minimize wear and potential downtime with few moving parts and easy access to internal components if an issue arises.

# Mechanical Turntable

	Options	Part No.	Description
<b>Options</b>	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.
<b>Config. Options</b>	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.	
<b>Custom Options</b>	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.

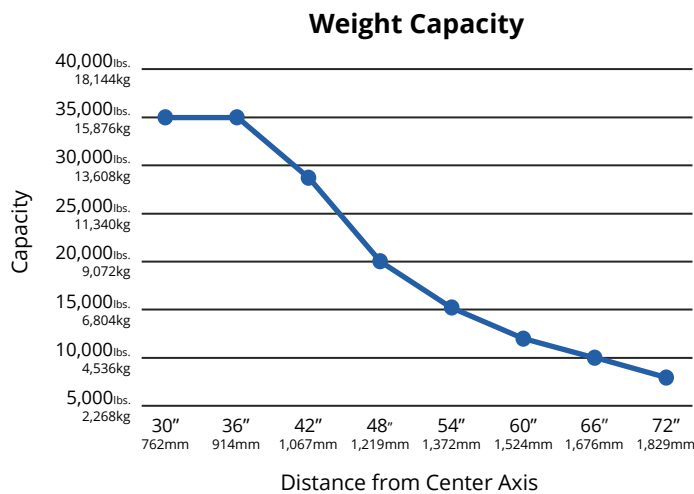
# Mechanical Turntable



## Mechanical Turntable Specifications

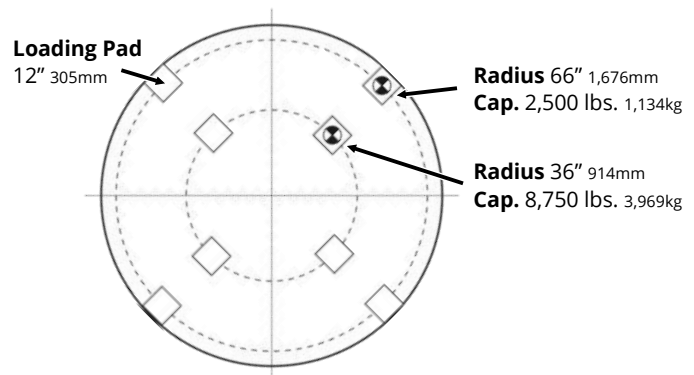
Model No.	Capacity	Top Size	Height	Base Size	RPM	Accuracy
	Total <sup>1</sup>	Diameter		L x W	Min - Max <sup>2</sup>	Degrees <sup>3</sup>
APS060-0072	35,000lb 15,876kg	72" 1,829mm	16" 406mm	70" x 70" 1,778mm x 1,778mm	0.5 - 2.2 RPM	0.3°
APS060-0084	35,000lb 15,876kg	84" 2,134mm	16" 406mm	70" x 70" 1,778mm 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



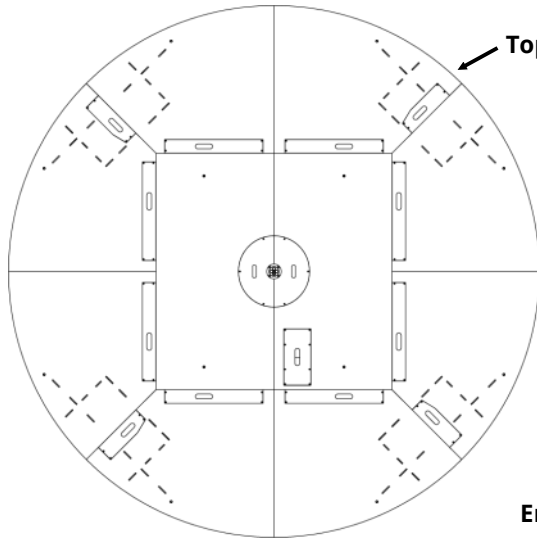
### Example CG Table Diagram

144" 3,658mm Diameter

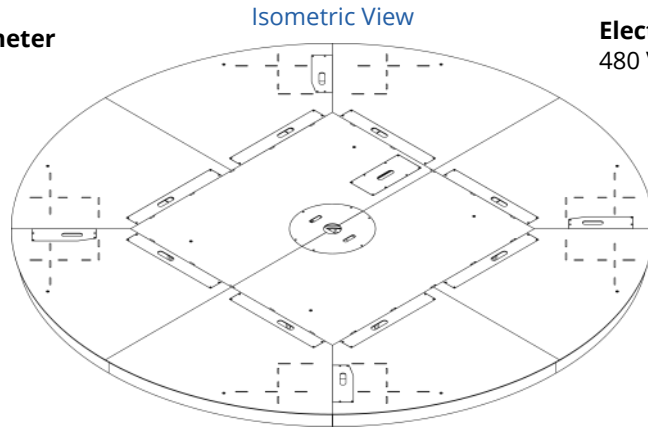


Consult with application engineer for assistance with sizing.

# Mechanical Turntable

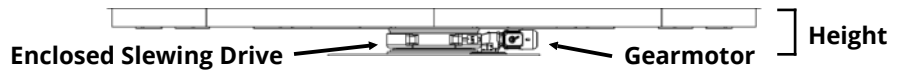


Top View



Isometric View

**Electric Power**  
480 VAC / 3 Phase

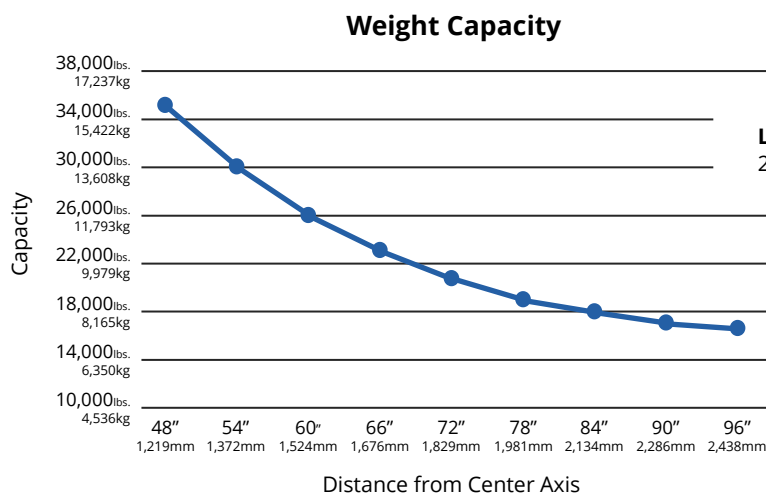


Front View

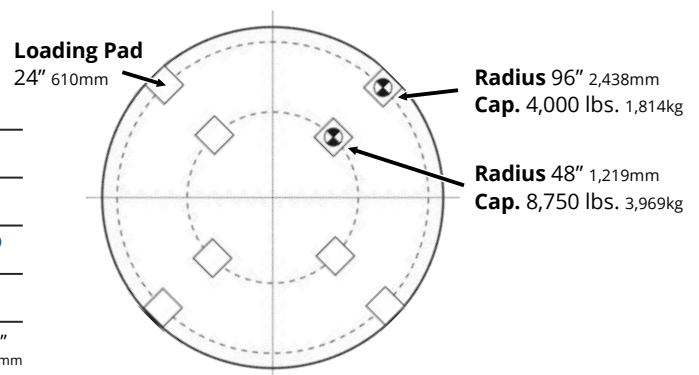
## Mechanical Turntable Specifications

Model No.	Capacity	Top Size	Height	Base Size	RPM	Accuracy
APS061	Total <sup>1</sup>	Diameter		L x W	Min - Max <sup>2</sup>	Degrees <sup>3</sup>
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



Heavy Duty Mechanical Turntable features a geared 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, with larger load sizes, wheels will be added in order to give the table additional stability. These turntables are also excellent for outdoor areas or areas that an air supply cannot be easily connected.

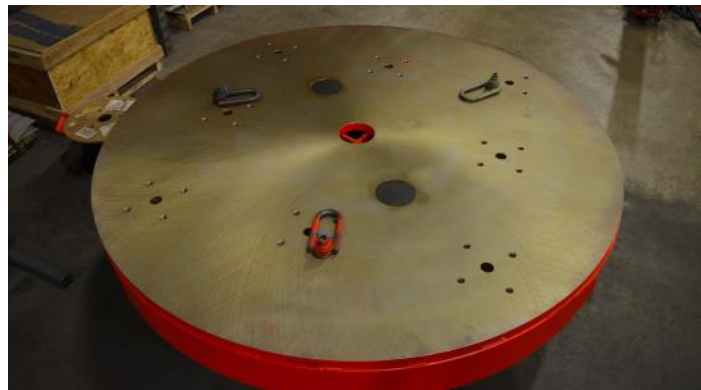
- **Capacities up to 150,000 lbs.**
- **Top sizes from 48" to 120"**
- **Integrate easily with robotic work cells**
- **If needed, larger table sizes can have wheels added for table stability**

## Features & Benefits



### Slewing Bearing Drive

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

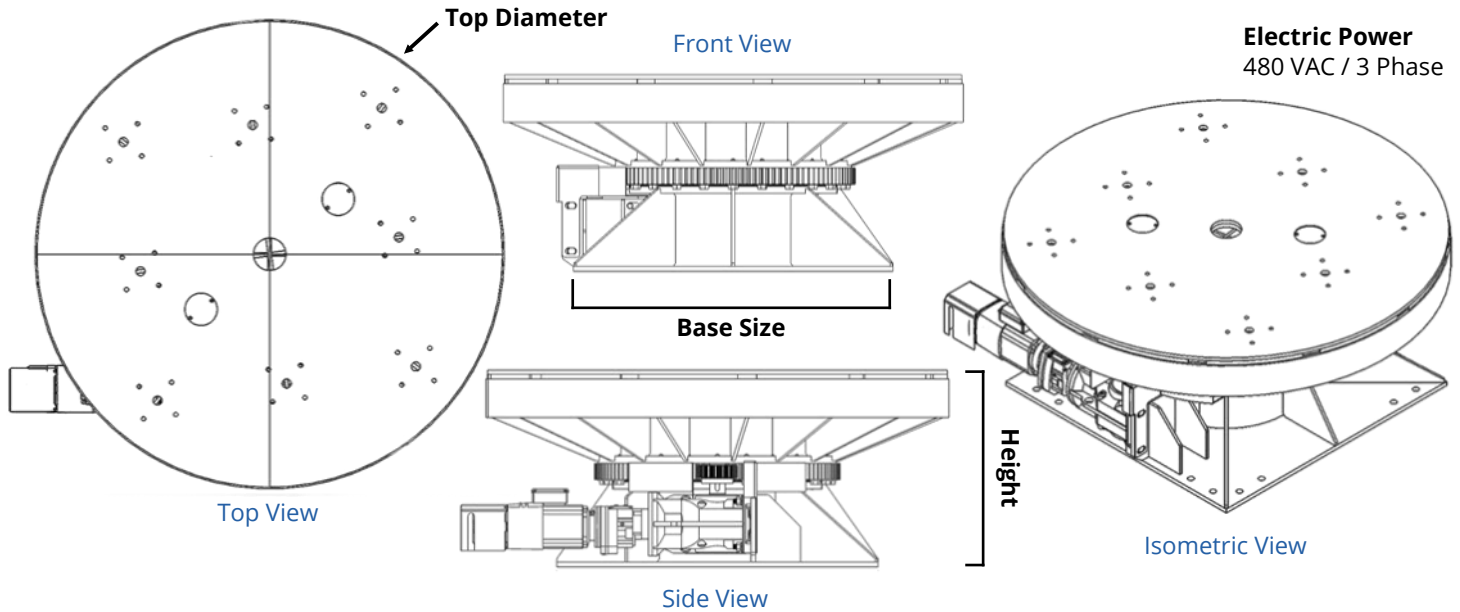


### Low Maintenance

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



# Heavy Duty Mechanical Turntable



## High Capacity Turntable Specifications

Model No.	Capacity	Top Size	Height	RPM	Accuracy	Base Size
AX010	Total <sup>1</sup>	Diameter		Min - Max <sup>2</sup>	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**

## Available Models

### Heavy Duty Welding Positioners

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 and or length adjustment to further fine tune weldments into the optimal welding position.

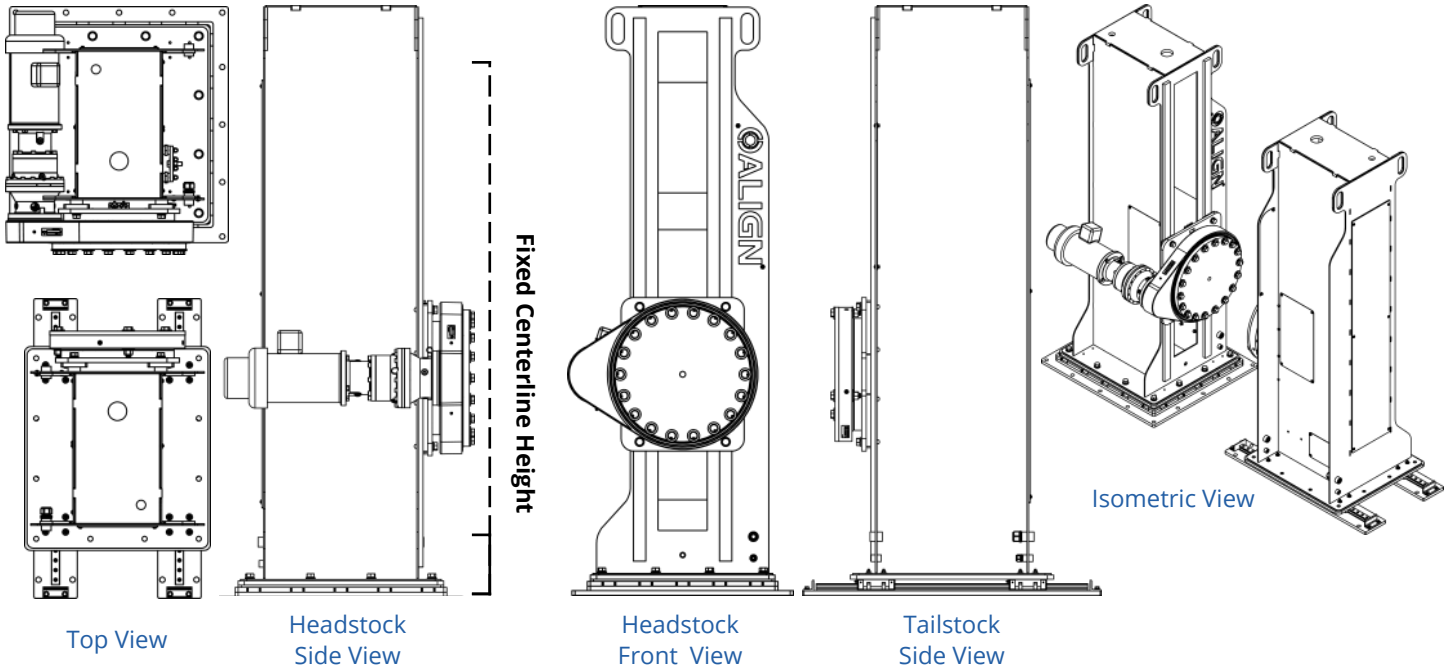


# Heavy Duty Head & Tailstock

	Options	Part No.	Description
<b>Options</b>	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.
<b>Config. Options</b>	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).
<b>Custom Options</b>	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

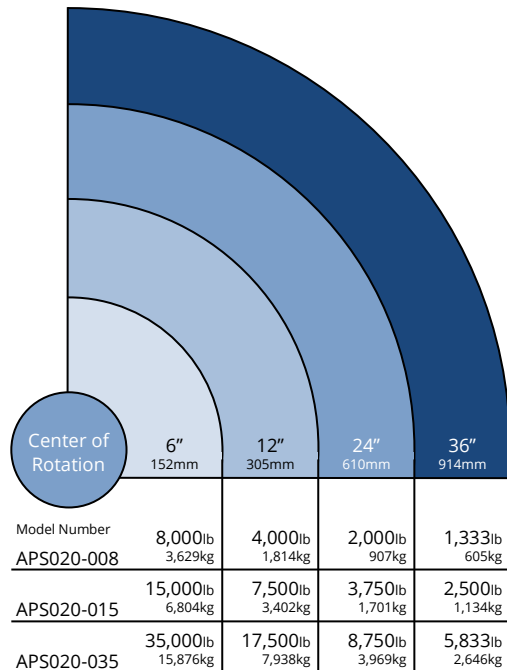
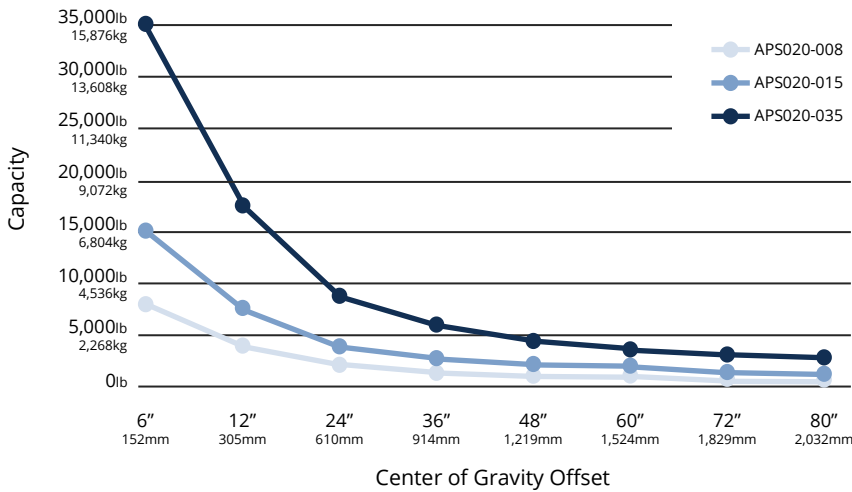


## Fixed Head and Tailstock Specifications

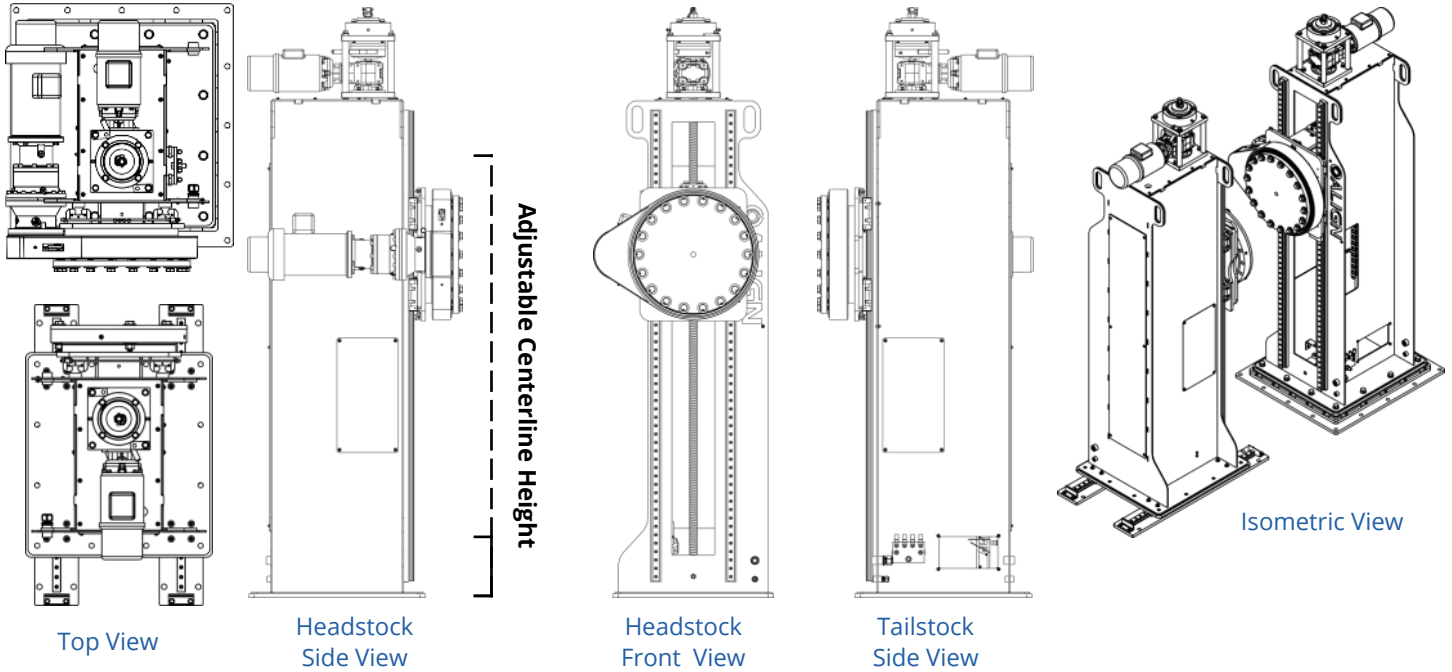
Model No.	Capacity	Rotational	Centerline Height	Optional Grounding
APS020	Total <sup>1</sup>	Torque <sup>2</sup>	Min - Max	Max Current
APS020-008	8,000lb 3,629kg	48,000in/lb 5,423Nm	18" - 80" 457mm - 2,032mm	800A
APS020-015	15,000lb 6,804kg	75,000in/lb 8,474Nm	18" - 80" 457mm - 2,032mm	800A
APS020-035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

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

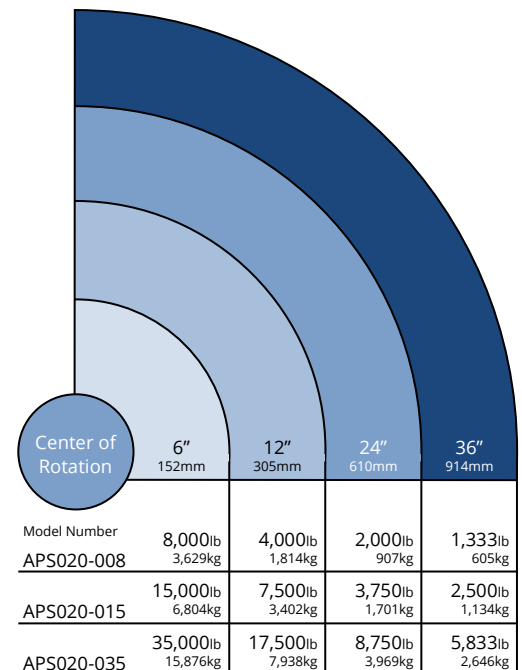
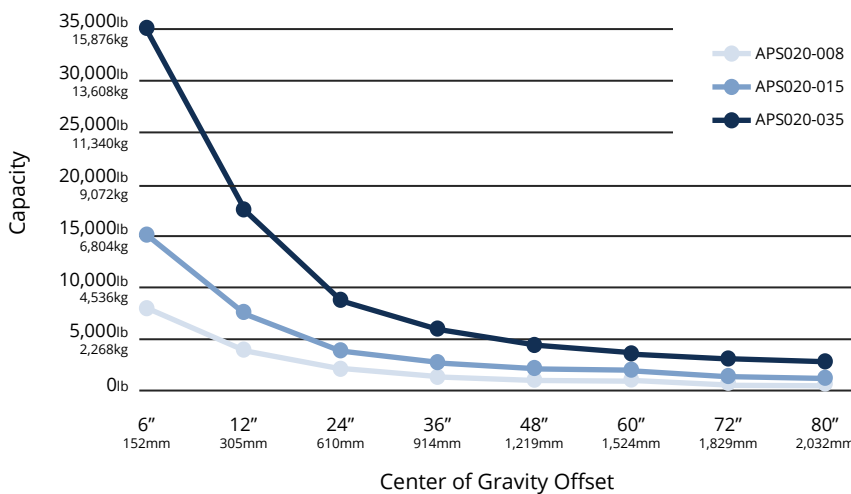


## Adjustable Head and Tailstock Specifications

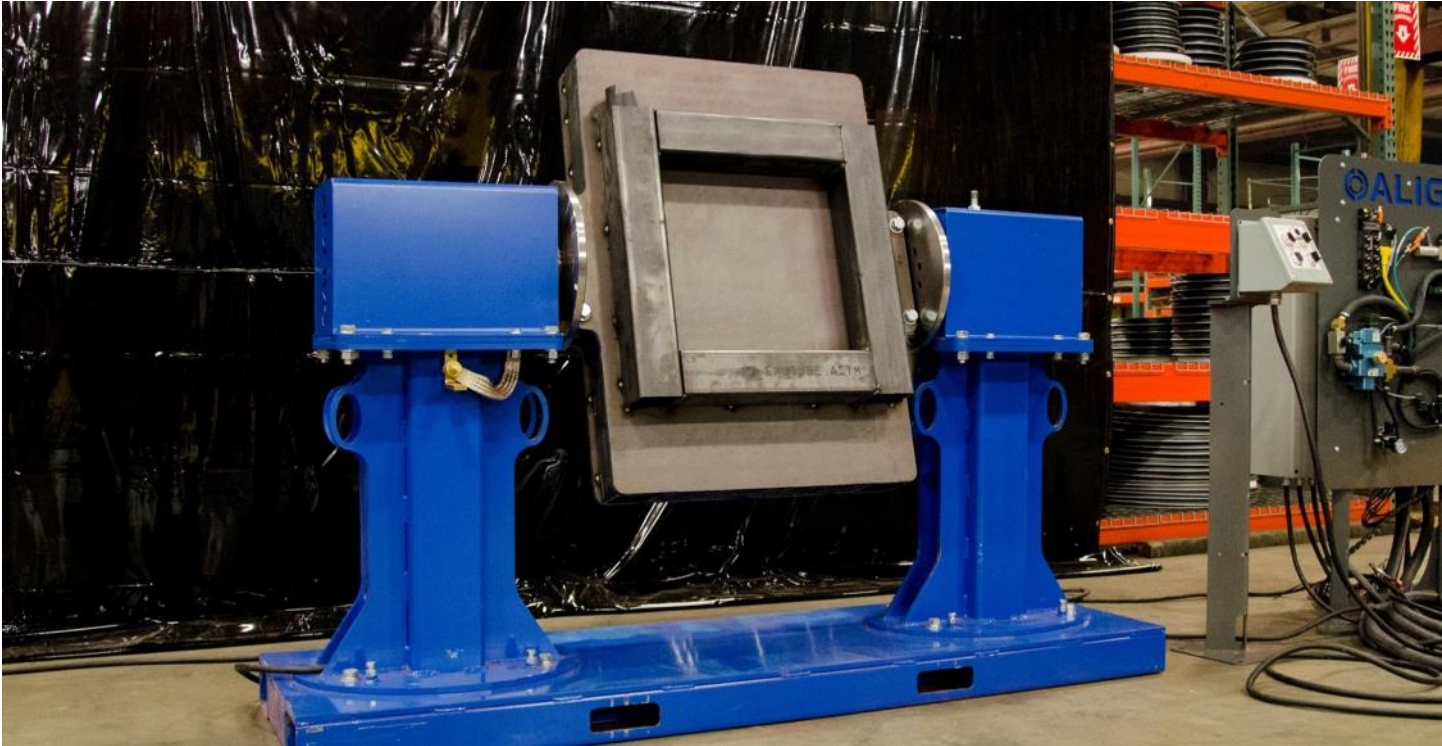
Model No.	Capacity	Rotational		Vertical		Centerline Height	Optional Grounding
		Torque <sup>2</sup>	RPM	Travel	Travel Speed	Min - Max	Max Current
APS021	Total <sup>1</sup>						
APS021-008	8,000lb 3,629kg	48,000in/lb 5,423Nm	0.1 - 3.0 RPM (Variable)	60" 1,524mm	1.7 - 34.0 in/min (Var)	16" - 76" 406mm - 1,930mm	800A
APS021-015	15,000lb 6,804kg	75,000in/lb 8,474Nm	0.1 - 2.0 RPM (Variable)	60" 1,524mm	1.7 - 34.0 in/min (Var)	16" - 76" 406mm - 1,930mm	800A
APS021-035	35,000lb 15,876kg	190,000in/lb 21,467Nm	0.04 - 0.9 RPM (Variable)	60" 1,524mm	1.7 - 34.0 in/min (Var)	20" - 80" 508mm - 2,032mm	1,500A

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. 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



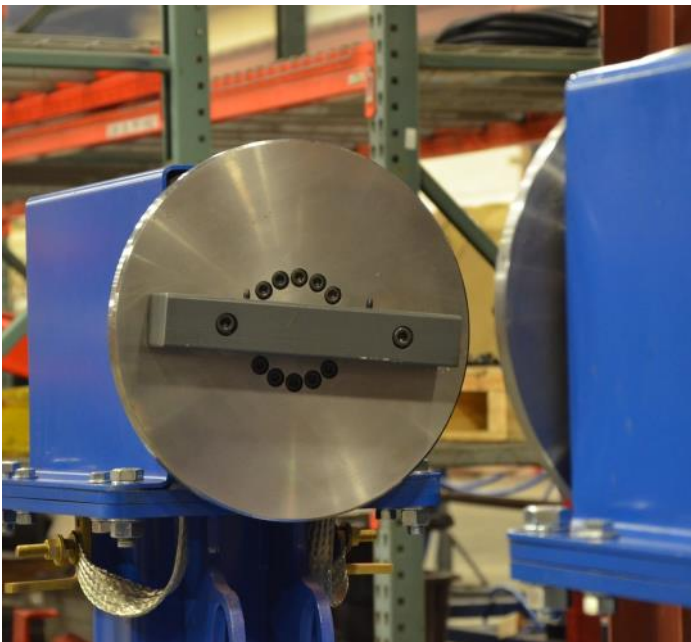
# Head & Tailstock



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**

## Positioner Benefits



### Improve Worker Safety

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

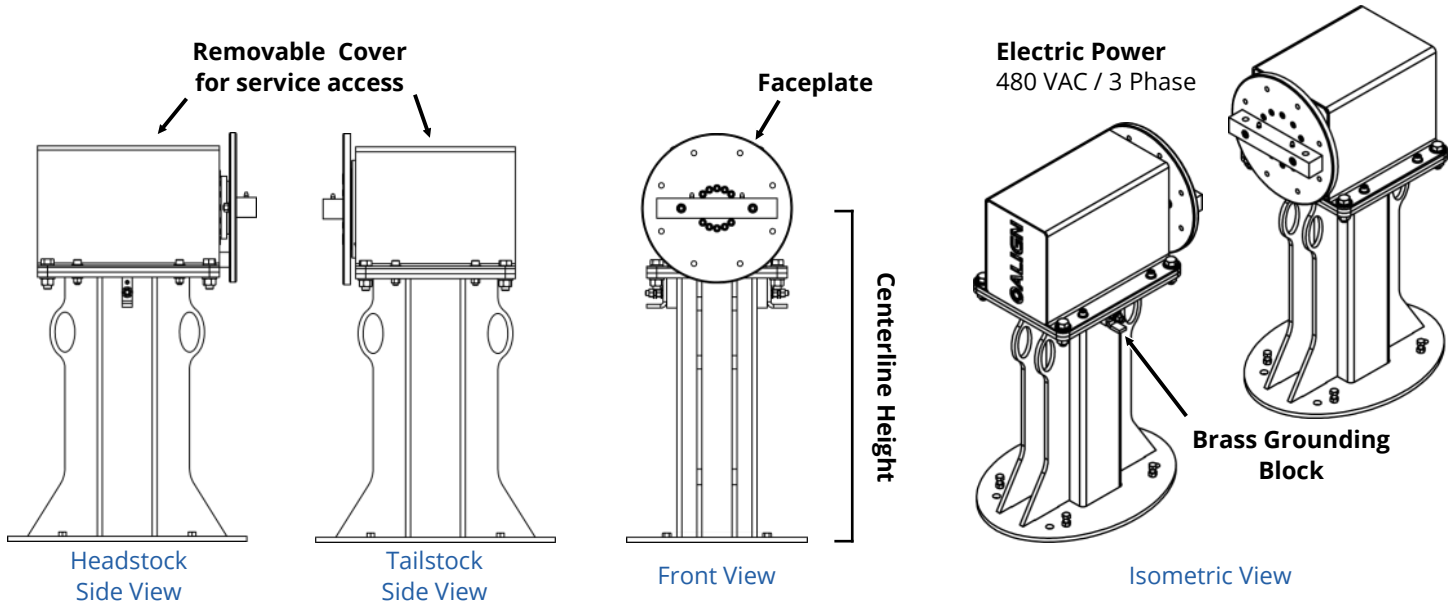
### Ergonomic Benefits

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 while increasing safety.

# Head and Tailstock

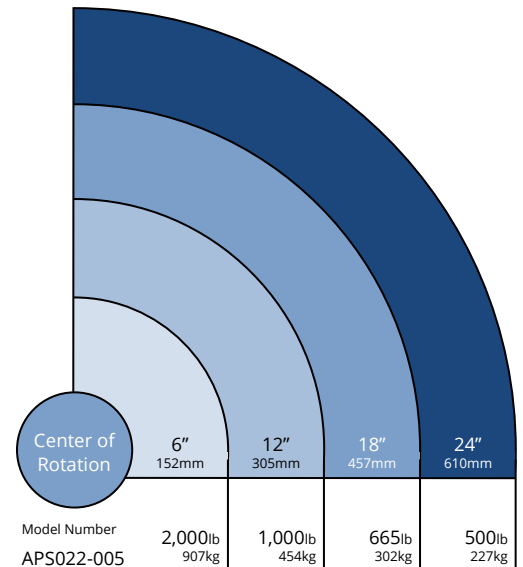
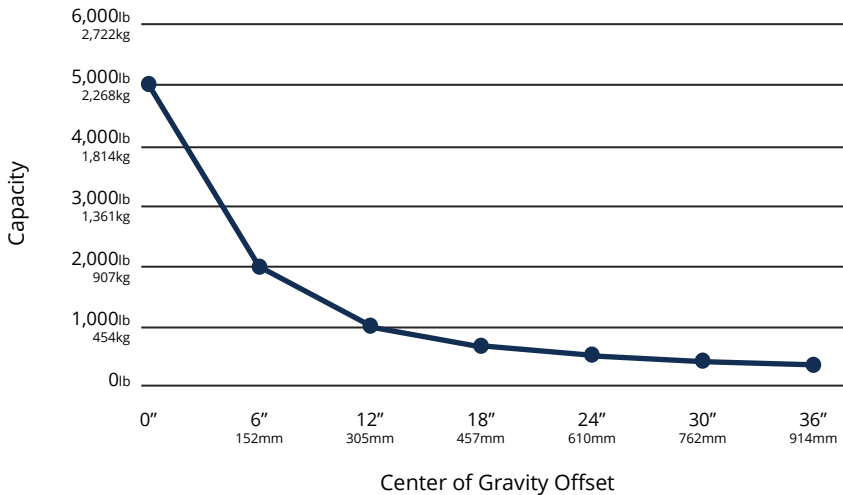


## Fixed Head and Tailstock Specifications

Model No.	Capacity	Rotational		Centerline Height	Faceplate
		Torque <sup>2</sup>	RPM		
APS022	Total <sup>1</sup>				Diameter
APS022-005	5,000lbs 2,268kg	12,000in/lbs 1,356Nm	0.6 to 6.0 Variable	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

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

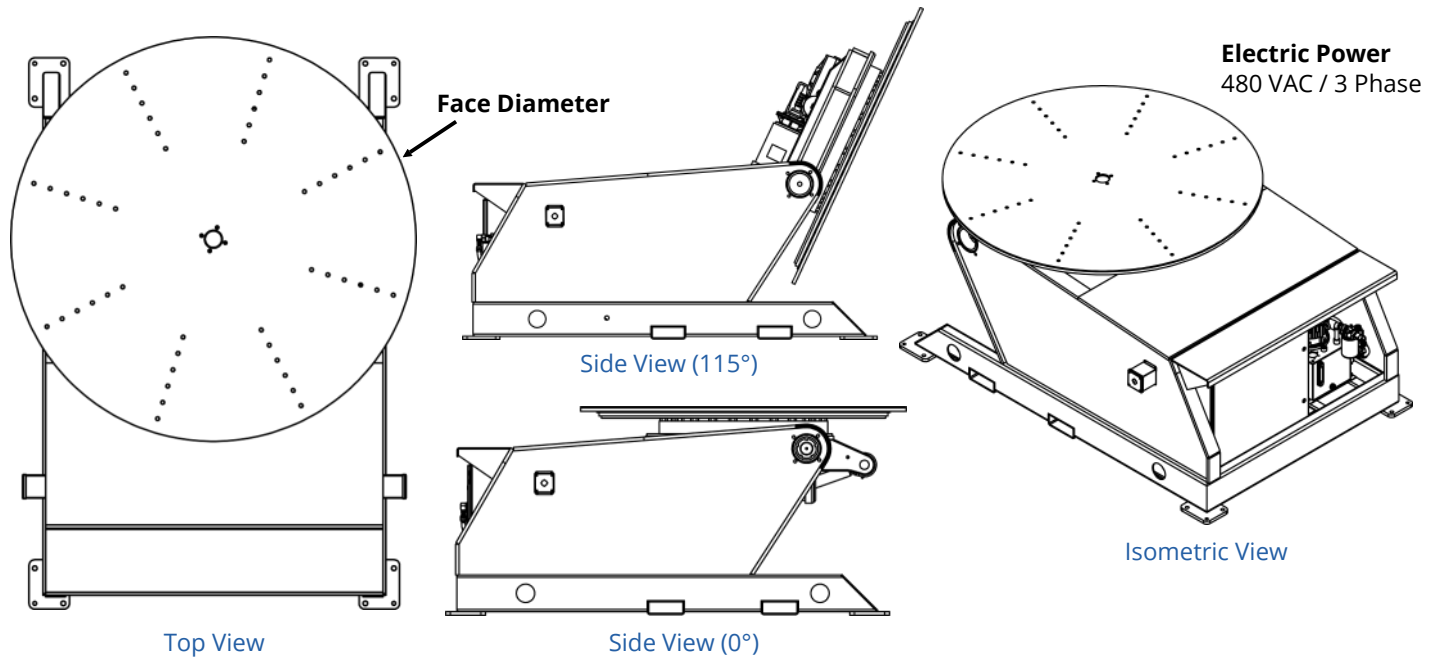
Feature four radial housings to solidly fix the piece to the positioner during fabrication.

### Reduce Fatigue

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°

# 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



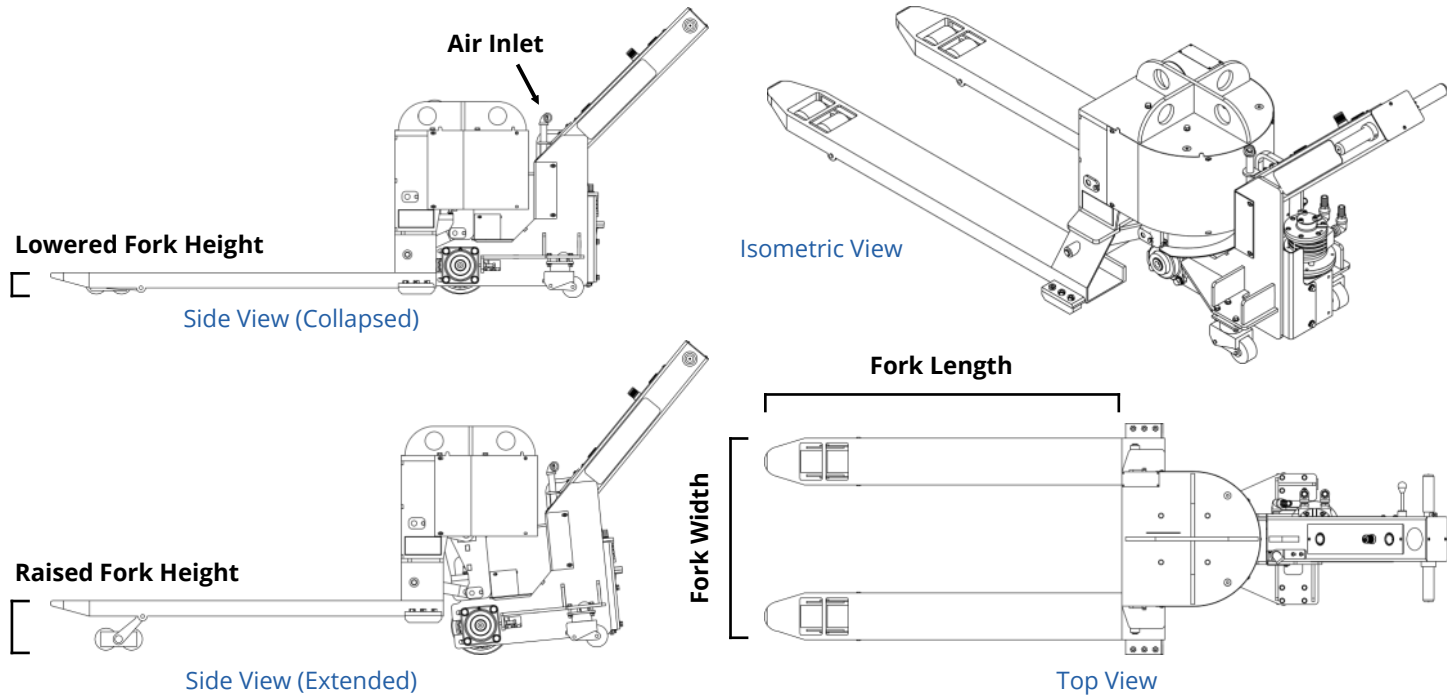
### High Capacity

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 your hands. Simple controls make it easy to pick up and guide your load without having to overthink the hand controls.

# Pneumatic Pallet Jack

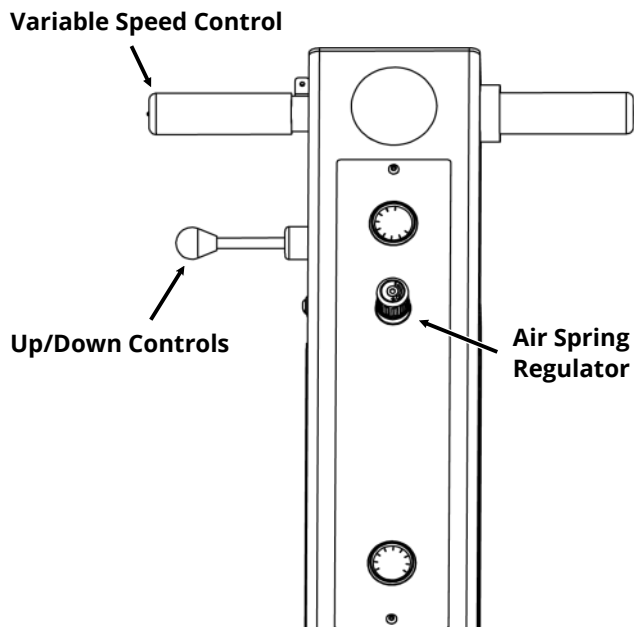


## Pneumatic Pallet Jack Specifications

Model No.	Capacity	Drawbar Force	Fork Size	Fork Height		Speed	Air Flow
				Lowered	Raised		
ST040	Total <sup>1</sup>	Total <sup>2</sup>	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 15mpm	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 12mpm	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



Pneumatic Lift tables are built to withstand the demands of manufacturing. All of our tables feature solid steel cross arms, and are engineered for optimum performance, strength, and durability unsurpassed in the industry. All scissor lifts meet the ANSI MH29.1-2012 design standards. In addition to standalone operation, our lift tables can be integrated into a solution with other equipment.

- Capacities up to 8,000 lbs.
- Vertical stroke of 24" and 25"
- Collapsed height of 8.25"
- Self lubricating Rulon Bushings
- Designed for off-center loading
- ANSI MH29.1-2012 design standards

## Common Configuration



### Lift with Extended Bolt-on Tops

Above shows our oversized table top that bolts on to the lift table. Our Extended Tops are built to your measurements.



### Lift with Pneumatic Tilt

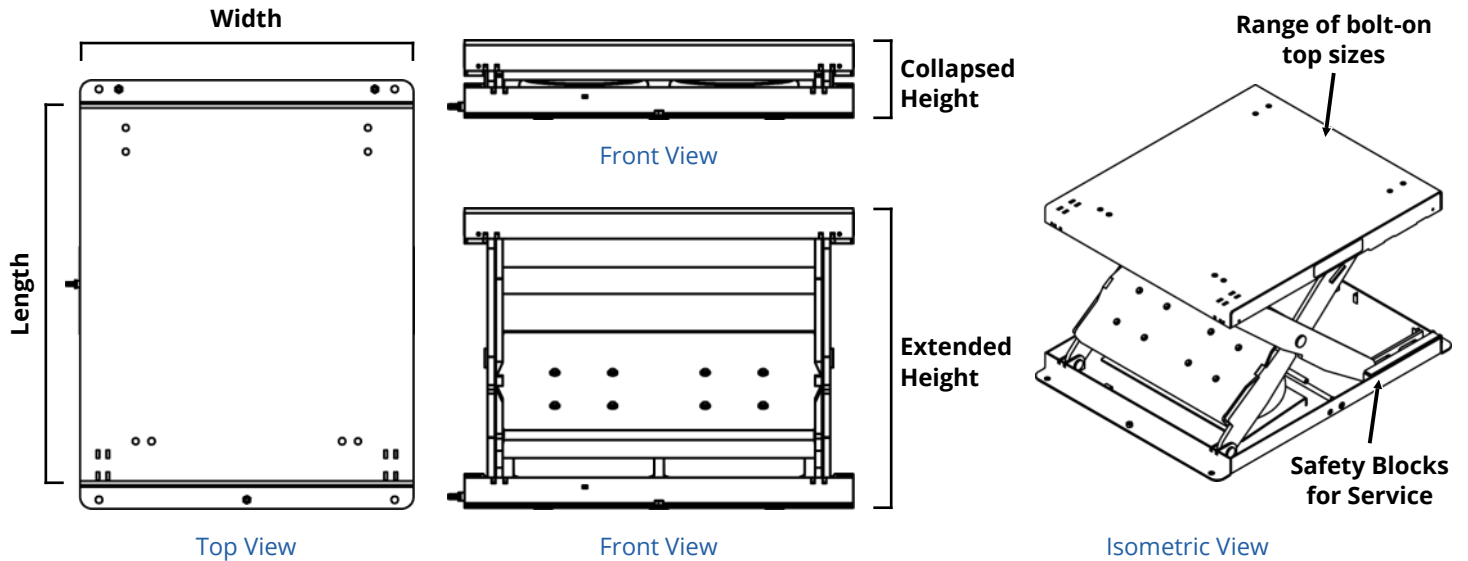
Featured above is our Pneumatic Lift Table combined with our Tilt Table. This is often used for part packaging or presentation.



### Lift with Mechanical Rotate

Putting our Pneumatic Lift Table with our Mechanical Rotate makes 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	25" 635mm	8.25" - 33.25" 210mm - 845mm	24" 610mm	48" 1,219mm	24" 610mm	48" 1,219mm
ST011-4248	4,000lb 1,814kg	Lever	25" 635mm	8.25" - 33.25" 210mm - 845mm	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

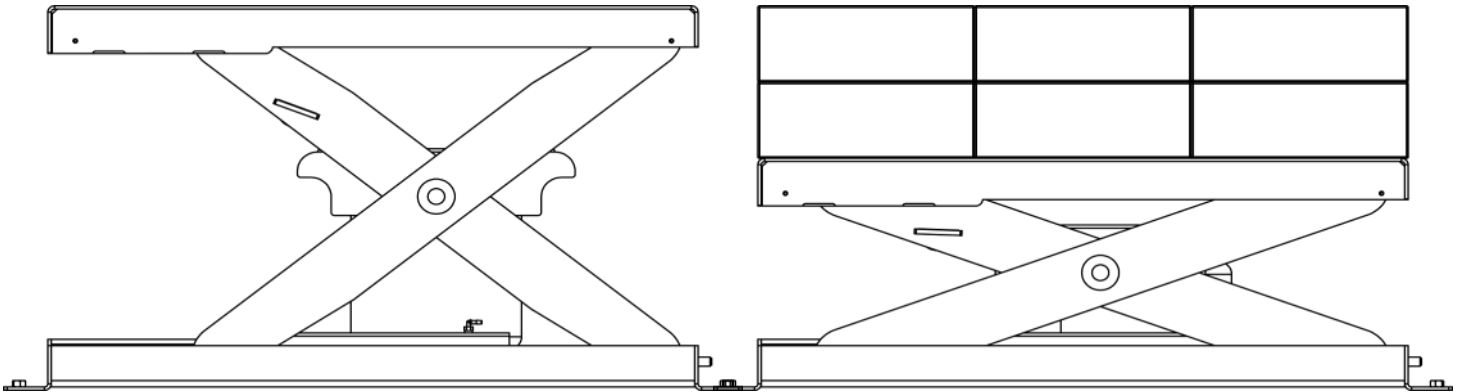
### Options for the Pneumatic Lifts

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
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



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.**
- **Vertical stroke of 20"**
- **Collapsed height of 10"**
- **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.

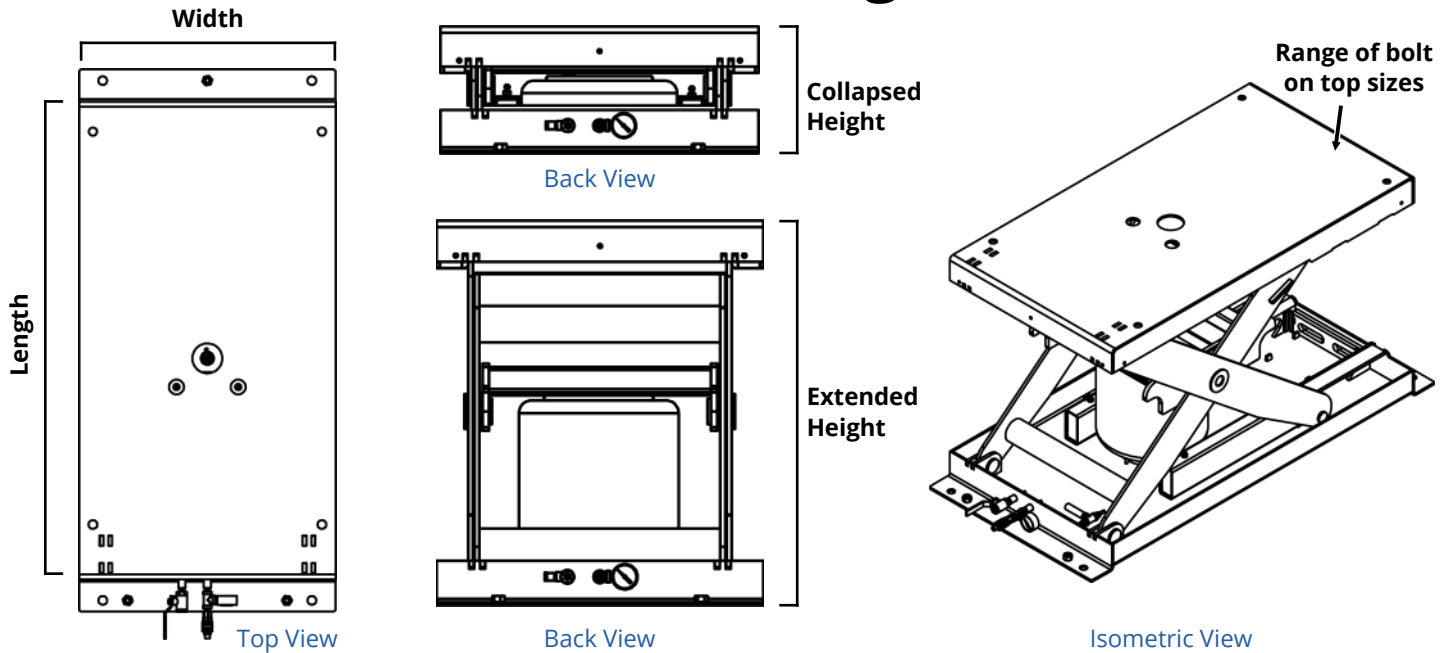
### Easily Integrated

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	Stroke	Height	Base Size		Top Size	
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

For Lift Model No.	Extended bolt-on top sizes	
	Width	Length
ST08X	Min - Max	Min - Max
ST080-2648	26" - 48" 660mm x 1,219mm	48" - 70" 1,219mm x 1,778mm

# Pneumatic Tilt



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

## Non-Invasive Model

### Pneumatic Non-Invasive Tilt

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.

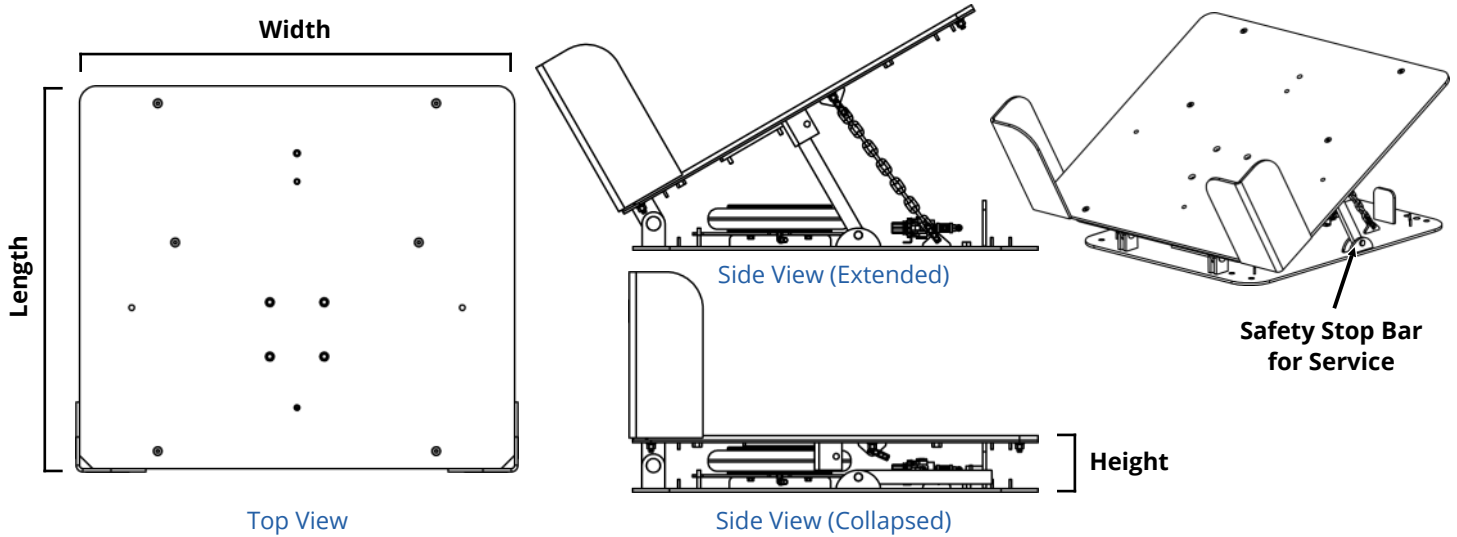
#### Rulon Bushings

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





# Pneumatic Tilt



## Pneumatic Tilt Specifications

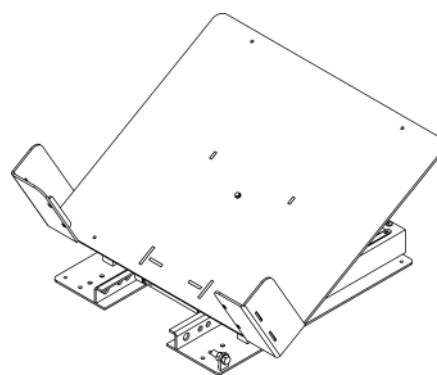
Model No.	Capacity	Tilt Angle	Height	Base Size	Top Size	
					Width	Length
ST02X/ST07X <sup>(1)</sup>	Total	Degrees	Down	W x L	Width	Length
ST020-XXXX	2,000lb 907kg	30°	6" 152mm	36" x 44" 914mm - 1,118mm	38" - 62" 965mm - 1,575mm	44" - 56" 1,118mm - 1,422mm
ST022-XXXX	4,000lb 1,814kg	30°	6" 152mm	36" 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

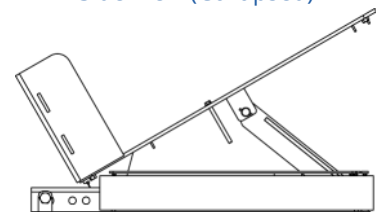
### Non-Invasive Tilt Drawing



Isometric View



Side View (Collapsed)



Side View (Extended)

# Mechanical Rotate



Both of Align's Mechanical Rotate options 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 or turntable bearings with cam follower supports. 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



### Integration with Lifts

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.

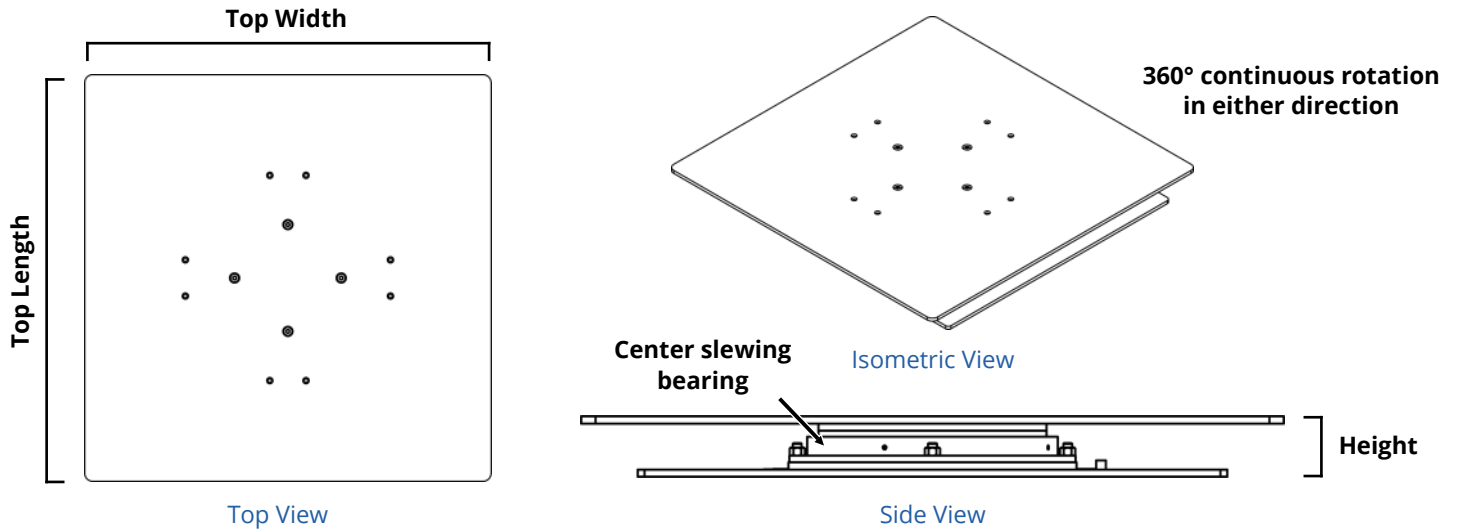
### Custom Designs

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 maintenance, work positioning and ergonomic handling, as well as simple design and easy installation.

# Mechanical Rotates



## Mechanical Rotates Specifications

Model No.	Capacity	Height	Base Size	Top Size		Rotation Type
				Width	Length	
ST03X	Total		W x L			
ST030-XXXX	4,000lb 1,814kg	4" 102mm	42" - 48" 1,067mm - 1,219mm	38" - 62" 965mm - 1,575mm	38" - 62" 965mm - 1,575mm	Slewing Bearing
ST031-XXXX	4,000lb 1,814kg	4" 102mm	42" - 48" 1,067mm - 1,219mm	38" - 62" 965mm - 1,575mm	38" - 62" 965mm - 1,575mm	Turntable Bearing

### ST031 Economy Turntable Bearing Rotate

- Medium-duty bearing life cycle
- Minimal biannual maintenance schedule
- Turntable bearing with cam follower support
- OSHA compliant manual pull required for rotation
- Budget-friendly option

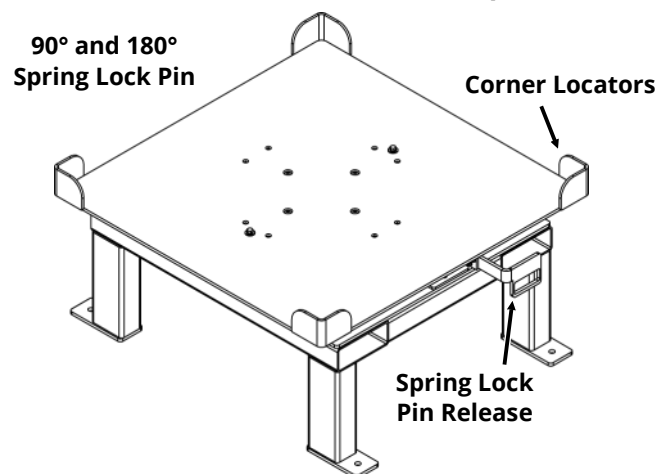
### ST030 Heavy Duty Slewing Bearing Rotate

- Extremely long bearing life cycle
- Virtually maintenance free for life of product
- Precision slewing bearing rotation
- Lightweight manual pull required for rotation
- Higher cost for higher quality

### 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



Hydraulic Lifts are built to withstand the demands of manufacturing. All of our tables feature solid steel cross arms, an internal HPU and are engineered for optimum performance, strength, and durability unsurpassed in the industry. All scissor lifts meet the ANSI MH29.1-2012 design standards. In addition to stand-alone operation, our lift tables can be integrated into a solution with other equipment.

- **Capacities up to 8,000 lbs.**
- **Vertical stroke of 32"**
- **Collapsed height as low as 9"**
- **Self lubricating Rulon Bushings**
- **Designed for off-center loading**

## Features & Benefits



### Easily Integrated

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

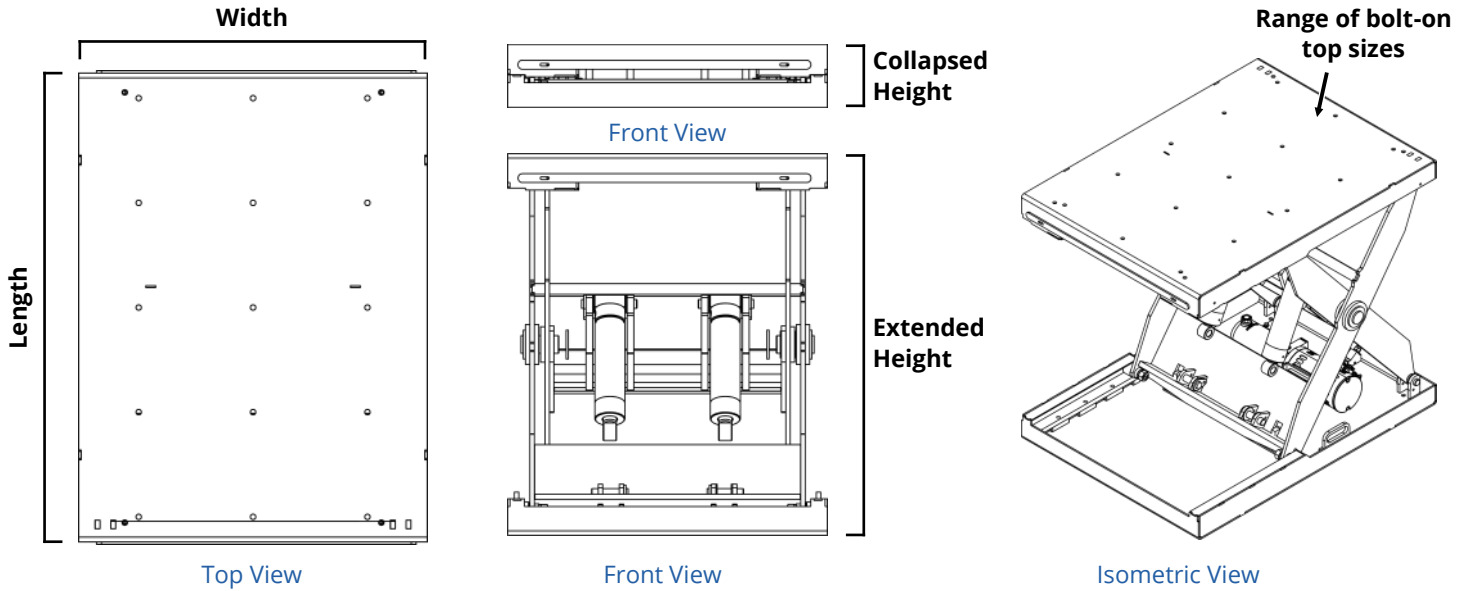
### Custom Designs

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

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				
ST051-3648	4,000lb 1,814kg	Lever	32" 813mm	9" - 41" 229mm - 1,041mm	36" 914mm	48" 1,219mm	36" 914mm	48" 1,219mm
ST053-3648	8,000lb 3,629kg	Lever	32" 813mm	14" - 48" 356mm - 1,219mm	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		

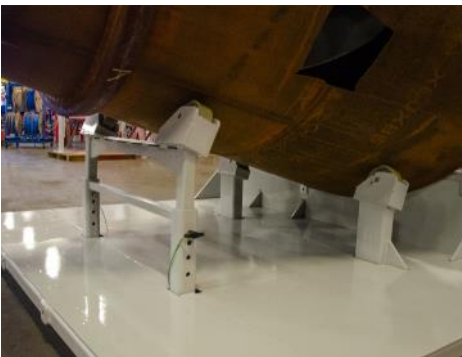
# Hydraulic 90° Degree Upender



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.

- **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

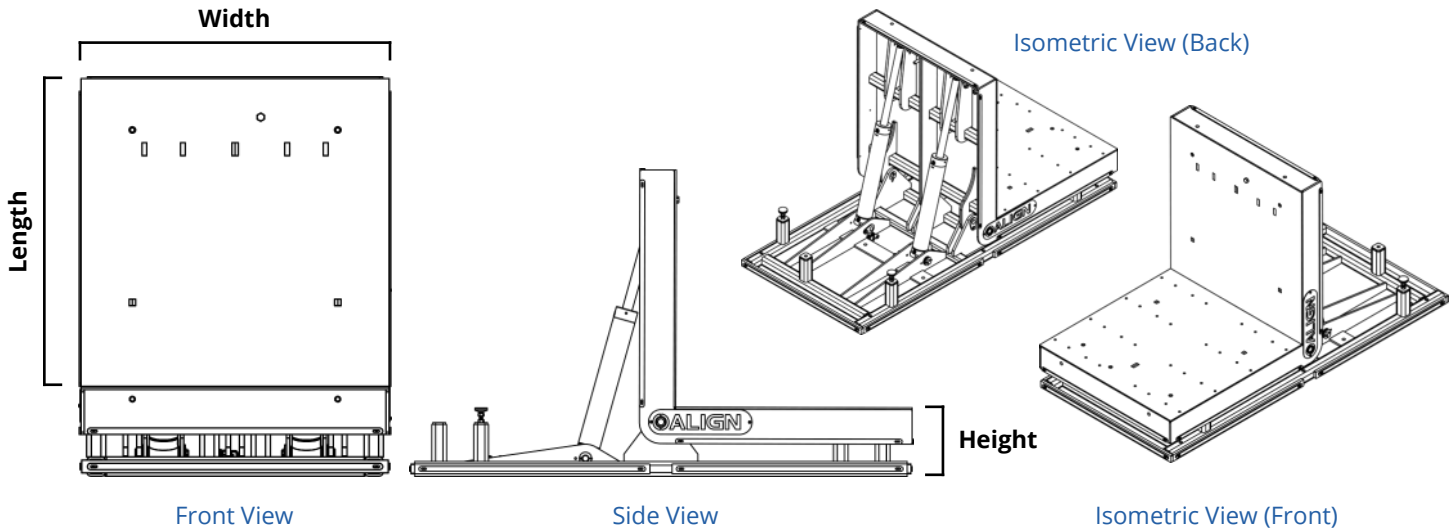
Upenders adjustable leveling pads for leveling the upender’s deck in the 0° and 90° positions.



### 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

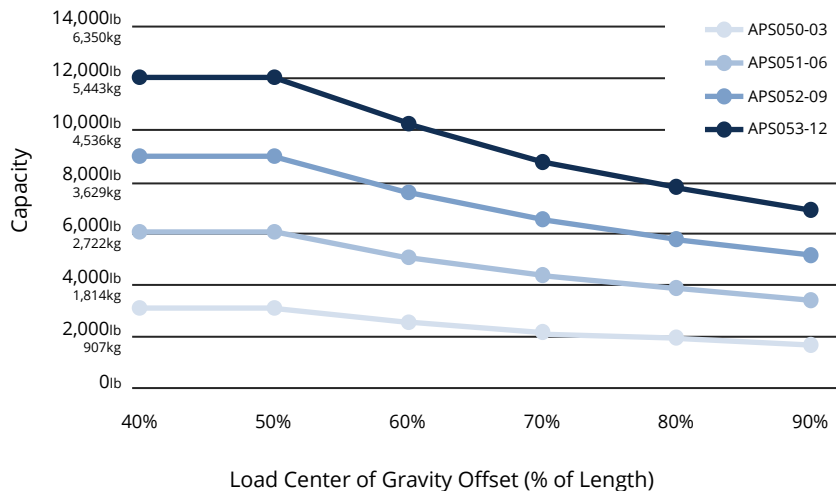


## Hydraulic 90 Degree Upender Specifications

Model No.	Capacity	Platform Size		Down Height	90° Rotation Time
		Width	Length		
APS05X	Total <sup>1</sup>				
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

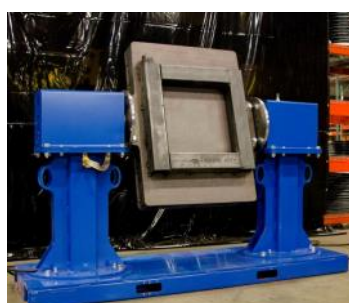
1. Based on centrally located load

### Upender Capacity vs C.G. Distance



### Capacity at % of Length

	0 - 50%	60%	70%	80%
Model Number	3,000lb 1,361kg	2,550lb 1,157kg	2,190lb 993kg	1,950lb 885kg
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



1.800.888.0018

[SALES@ALIGNPROD.COM](mailto:SALES@ALIGNPROD.COM)

REVISION 21.23.23 © 2021

[WWW.ALIGNPROD.COM](http://WWW.ALIGNPROD.COM)