Scissor Lifts
The Essential Guide

Scissor Lifts

When you need a little extra strength for moving heavy objects, a *scissor lift* table might be the product to consider. A scissor lift table is a work platform that uses folding components to raise and lower materials, personnel, and products for loading/unloading and work positioning. Scissors lifts are a time-proven method to move heavy objects from one height to another and have proven to increase productivity while reducing worker injuries.

This ebook is made possible by Beaton Industrial, and their continued partnership with Advance Lifts. All Advance Lifts are made 100% in the USA (St. Charles, IL), with the best warranty in the industry, 10 Years / 250,000 cycles.

Advance Lifts, Lower Cost Due To Longer Life!

Call 800-724-4052 x 101 or visit BeatonIndustrial.com to request pricing on any of the lifts found within this book.

LIFT APPLICATIONS, SPECIFICATIONS & SELECTION

The basic information necessary to select an appropriate lift for an application includes all of the topics listed below:

- CAPACITY
- NATURE OF THE LOAD
- MEANS OF LOADING AND UNLOADING
  - EDGE LOADING
  - DERATING OVERSIZE PLATFORMS
  - SIDE LOADING
  - INCREASING SIDE LOAD CAPACITY
  - ROLLING AXLE LOADS
  - SLIDING LOADS
  - PLACED OR STACKED LOADS
- TRAVEL AND LOWERED HEIGHT
- PLATFORM SIZE
- SPEED REQUIREMENTS
- POWER AND DUTY CYCLE REQUIREMENTS
- SPECIAL FEATURES AND ACCESSORIES
  - BONUS SECTION– HOW TO CONFIGURE YOUR OWN DW – DL – DH UNITS

The following discussions will be used to clarify the meanings of these topics, point out special considerations to be aware of, and provide us with a common vocabulary.

CAPACITY: The capacity of a unit is the total weight being placed on a unit and consists of the total live load + the total dead load as described below:

Live load weight and description: Live loads are the items that will be placed on the unit and removed from the unit. It is important to know the maximum weight. It should also be noted if the load will be unbalanced due to a lopsided or irregular configuration or a loading operation that can cause temporary uneven loads.

Dead load weight and description: The dead load is the weight that is applied to the unit on a permanent basis such as conveyor, weight scales, or fixtures. A good description including how the dead weight will be supported by the platform and attached to the platform is necessary so that our engineers can determine if the structure of our standard platform can satisfactorily support the incurred loads without deflection or twisting. Any unbalanced loads such as offset conveyor drive motors must be mentioned so that the center of gravity for fully loaded and minimally loaded configurations can be determined.

NATURE OF THE LOAD: This requires a good description of what the load consists of, the weights of the load components, the center of gravity of the load, if it is not centered on the load, and the physical dimensions of the load.

Our concern here is that off centered loads can reduce lift life dramatically if not properly handled. They can put more severe demands on a structure than the simple lifting effort. In all cases, we assume the worst loading to be encountered with the lift in motion will be no more than half of the load on half of the platform. The critical information in these cases is where the center of gravity of the load will be in relation to the center of the platform (center of the supporting leg structure as described by the minimum platform size) when the unit is put in motion. Ideally, we like to see the center of gravity of a load in the center of the platform.

Fork truck counterbalance weights and oil filled transformers are just two examples of loads that present severe off center loads when their foot prints are nicely centered on platforms. Off center loads due to loading or unloading operations while the lift is stationary is discussed as a separate topic below.

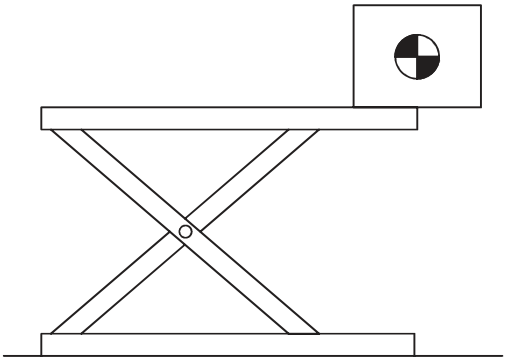
There are many ways to handle off centered loads satisfactorily, provided that the requirements are understood by our engineers early in the selection and design process.

MEANS OF LOADING AND UNLOADING: How loads are transitioned onto and off of the lifts can be the critical factor in choosing an appropriate lift design. These movements determine the "edge loading" and/or "impact" that the structure must sustain and they may contribute to off centered load conditions during the lifting cycle. The most common ways in which loads are transitioned on and off lifts are as follows:

- **ROLLED ON/ ROLLED OFF –** *with a wheeled vehicle or cart*
- **SLID ON/ SLID OFF –** *as in sheet feeding operations or conveyor operations*
- **PLACED ON/ PICKED OFF –** *as in stacking operations or crane loading*

Before we talk about these specific applications we need to discuss unit capacity ratings.

GENERAL DISCUSSION: "Edge loading" capacities of lifts are generally stated in this catalog as a "static" capacity. This is equivalent to a uniform stiff load teetering on the edge of a minimum size platform edge with no allowance for any impact. This is illustrated below:



Static edge load

In real life this condition rarely exists and the "static" rating in the catalog must be modified with an appropriate multiplier for the various types of "dynamic" or moving loads that will actually be encountered.

EDGE LOADING: What matters most with edge loading is what loads will pass over the edge of the lift in anything other than the fully lowered position. In the fully lowered position the baseframe, cylinders and leg assembly are fully supported and only the overhang of larger than minimum tops are subject to any bending forces. Therefore, a maximum capacity load may pass over the edge of a minimum size platform of a fully lowered lift and we would have no concerns about the edge loading of the lift. If the platform were larger then minimum, then our engineers would have to ensure that proper supports were placed under the platform to prevent any potential deflecting or bending.

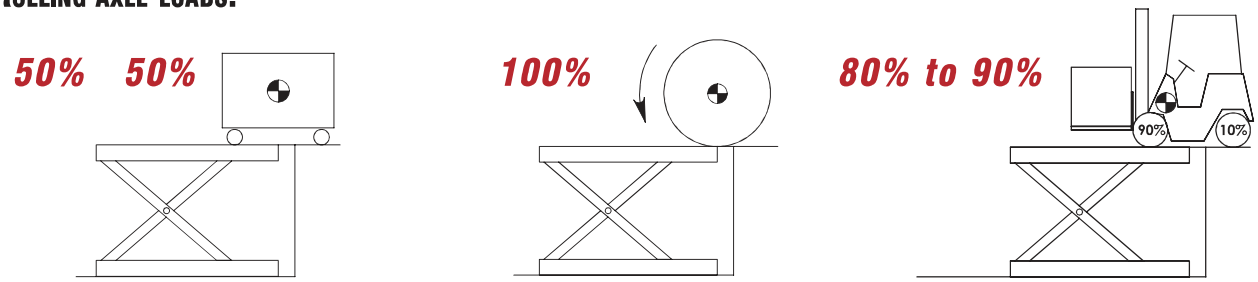
DERATING FOR OVERSIZE PLATFORMS: The "static" edge load capacity of over sized platforms must be derated because the oversize platform overhang acts as a lever, increasing the forces incurred by the supporting leg assemblies for any given weight. Edge loading capacities are derated by the rule of thumb of 2% per inch for every inch that a platform is wider than minimum width and for every inch that it is longer than minimum length. For example, a P-2536 has a minimum platform size of 24" X 48". If it were equipped with a 48" X 54" platform, the unit would have the side edge load capacity reduced by (48" – 24") X 2% = 48%. The end of platform capacity rating would be reduced by (54"- 48") X 2% = 12%. There are many variables that go into the actual edge load capacities, but the 2% rule of thumb is a good general rule to use.

LIFT APPLICATIONS, SPECIFICATIONS & SELECTION

SIDE LOADING: Most scissor lift designs have much greater strength over the ends of the lifts than they have over the sides of the lifts. For this reason, we prefer to see loads travel over the ends of lifts, parallel to the lift legs, rather than over the sides when the lifts are anything but fully closed.

INCREASING SIDE LOAD CAPACITY: We have developed EW (extra wide) models and VW (very wide) models for many series of lifts. The wider units are built with wider stance leg assemblies which means that for a given platform size the side edge loading does not have to be reduced as much as their narrower brother. In the P-2536 example given above, we could chose the PVW-2036 lift model which has a minimum platform size (and leg structure) of 48" X 48". If this model were equipped with a 48" X 54" platform, the side edge loading would not have to be reduced at all because the minimum width on that model is the same as the chosen platform, so the derating calculation would be (48"– 48") X 2% =0%. The end load rating would still have to be reduced by 12%, but not having to reduce the side edge load rating by using the wider leg set can be a real advantage in some applications. The EW (extra wide) and VW (very wide options) are available on many lift series including P's, HD's, MSL's and AT's. Usually the EW's are 12" wider and VW's are 24" wider than standard minimum width platforms. The maximum platform widths on these units are also proportionately wider. Check the exact models to be sure of the sizes.

ROLLING AXLE LOADS:

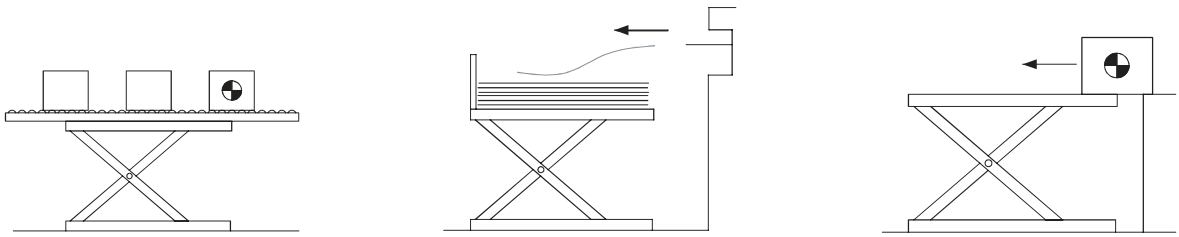


Manual pallet jacks & carts | *Single Axle* | *Typical Loaded Fork Truck*

Axle loads may be expressed in static edge load terms by simply adding 50% for impact and dynamic forces. For example, a two axle cart loaded to a 2,000# total weight would have a 1,000# axle load. To calculate the static load equivalent, we would simply add 50%, so we would have a 1,500# static load. If we were rolling a 2,000# coil of steel or paper over an edge, we would have a 2,000# axle load that would be equivalent to a 3,000# static load. If the static load rating of the lift/platform configuration you have chosen does not meet the calculated requirement, you must choose a stronger or larger lift that does.

There are two (2) cautions in these simple axle load conversions. First, fully loaded fork trucks can have 80% to 90% of their total weight on their front axle, not the 50% that is used on other two axle vehicles, therefore appropriate allowances must be made. Secondly, very short carts rolling onto platforms with long overhangs can present situations where the entire cart is on the overhang. In these situations, please give the distance between axles to our sales people so that they can check with our engineers about what can be done to accommodate the load. Typically, units with longer leg sets must be chosen so that the center of gravity of the entire cart will be within the leg set outline before the second axle reaches the platform.

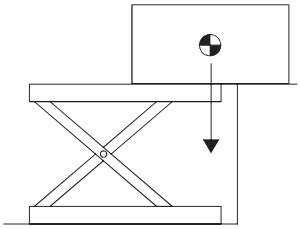
SLIDING LOADS:



Typical Conveyor Load | *Supple Sheet or Small Increments* | *Stiff Bottomed Load*

The loading that requires the most judgement is the sliding load. When a load is sliding onto a conveyor, there is less of an impact factor on the lift than a rolling axle would apply and the end conveyor roller (and platform edge) would never see the entire weight of the load because of deflection within the lift mechanism. In the case of supple incremental loads such as sliding sheets of paper onto a unit, the edge loading and impact are trivial and not a factor in selecting a lift. In the case of an ingot of lead being slid onto a platform, impact and edge loading requirements may be the deciding factor in lift selection. Therefore when considering the entire range of applications, judgements must be made about all of the following factors:

1. Friction and impact: Conveyor virtually eliminates friction for items being loaded onto a lift. Steel items sliding on steel platforms usually have a coefficient of friction of approximately 30%. Rubber based items can have extremely high coefficients of friction. Since sliding forces are more horizontal than vertical, they usually can be ignored except for extreme situations. Impact becomes a factor when loads are traveling at high speeds. If either of these factors is of concern to you, please allow our engineers to make the value judgements.
2. Horizontal impact against stops: Many conveyor applications require stops be added to our lifts either by us or by our customers. The horizontal force imparted by the stop must be parallel to the leg members and shock absorbers should be considered. Horizontal impact forces must not impact the unit perpendicular to the leg members or there will be structural damage. When you consult with the factory, be sure you have the weight of the moving object and the speed of movement.
3. Incremental layers: Each load increment must be considered as a percentage of both the total lifting capacity and the edge load rating. Small percentages are no factor and large percentages may dictate choosing units with higher edge load ratings. If the incremental layer being moved onto a raised lift is large, then consideration of items 4 through 6 below become more important.
4. Footprint of the load increments relative to the overall platform size: If the foot print of the increments match the platform size, then the load will probably come onto the unit in a gradual manner and edge loading will be fairly negligible. If the foot print is relatively small, estimates of the edge loading that will be produced become important, as do items 5 & 6 below.
5. Footprint of the load increments relative to the minimum platform size (supporting leg outline): If the proposed lift will be equipped with a minimum platform size, then the load will always transition onto satisfactory leg support. If there is a large oversized top, it is necessary that the load have more than 50% of its footprint and weight over the supporting leg outline when it is no longer supported by the adjacent surface.



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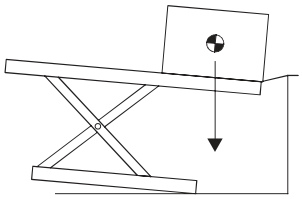

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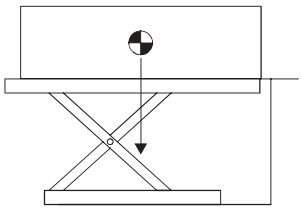

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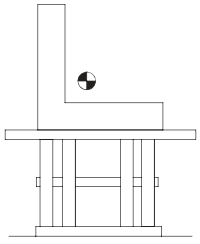
6. Location of center of gravity of the load increments relative to the minimum platform size (supporting leg outline): When items are not uniform in shape or weight, we must be careful that the center of gravity of the load is always within the supporting leg outline, (minimum size platform outline) when the load is no longer supported by the adjacent surface.



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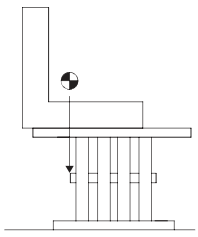

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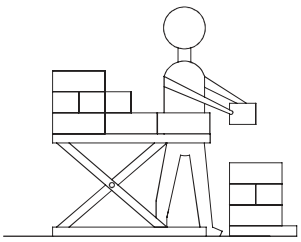
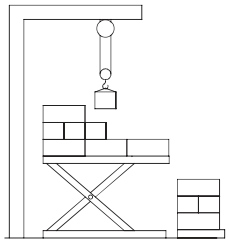
LIFT APPLICATIONS, SPECIFICATIONS & SELECTION

PLACED OR STACKED LOADS:



Manual Stacking



Crane Loading

Some loading produces no edge loading requirements. Manually stacking layers of boxes would be a good example. This type of operation imposes negligible impact and no edge loading.

Vertical loading with a crane or other overhead device is a good example of no edge loading, but the possibility of very high impact to the lift. With a maximum capacity load, a lowering speed of 17 ft. per minute (fpm) will produce acceptable impact loads on opened lifts. Speeds in excess of 17 fpm may create damage to cylinder packings, hoses or structural members. Most industrial cranes are limited to speeds of 17 fpm or less, but applications with vacuum assist lifts, vertical conveyors or free fall applications, may produce destructive impacts. Obviously, the slower the rate of vertical impact the better.

TRAVEL AND LOWERED HEIGHT: Travel refers to the vertical movement of the unit. It should not be confused with raised height, which is the sum of the lowered height and travel. The only time the travel is the same as the height above ground is when a unit is recessed into a pit. The vertical travel of a unit can never be increased, but it can be decreased or limited with limit switches or mechanical stops. Units with excess travel are chosen for some applications, so that longer platforms can be made available.

Published lowered heights can never be reduced, but they can be increased by either blocking units open or building up beneath the base frames.

PLATFORM SIZE: The platform sizes must fall within the maximum and minimum sizes shown in the catalog. Note that if something is affixed to our platform like a conveyor or other device, it must also fall within the maximum size constraints listed for our platform as the attached device in fact becomes the platform.

SPEED REQUIREMENTS: Usually the standard speed offered with each lift model is satisfactory for most applications, but occasionally faster speeds are required. The formula for horsepower is work (force X distance) divided by (550 X time). Therefore, the shorter the amount of time to do the work, the more horsepower that will be required. In the case of units with internal power units, any increment in horsepower size will require moving the power unit externally because the larger motors will no longer fit within the structure. As horsepower goes up in size and cost, so do the electrical controls, hydraulic pumps and valves. Costs often rise quickly.

To combat these steep price increases, some customers have suggested that their applications only require that the lift only go up fast "empty" and come down slowly with a load. It should be understood that from a safety aspect, we will not produce a unit that can not lift its maximum loaded capacity, in case someone gets a body part caught within the lift.

Speed cautions begin at speeds of 15 fpm (ft. per min.) to 24 fpm. At these speeds enough energy is built up so that damage can occur to the units over time unless something is done to decelerate the units at the limits of travel. The worst conditions are going up empty and down fully loaded. In this speed range, depending on the actual application, we can do simple things like adding shock absorbers at the bottom of travel, providing adjustable flow controls or simply adding limit switches at the limits of travel. Good descriptions of travel increments and load increments will provide the necessary information to determine what, if any, precautions should be taken.

Speeds greater than 24 fpm will definitely require a more sophisticated deceleration system. Speeds of 100 fpm can be provided, but position sensing and special hydraulics are mandatory to preserve lift life. Very high speeds can triple or quintuple the cost of a lift.

POWER AND DUTY CYCLE REQUIREMENTS: The actual power available at the intended location of the equipment should be confirmed at the beginning of the selection process. Some units will not operate at catalog speeds on single phase currents. On air applications, PSI and CFM availability at the equipment site must also be confirmed.

When considering the duty requirements of the lift, it is necessary to think in terms of two (2) systems, the lift mechanism and the power unit. It is necessary to know whether the lift application requires full stroke movement "up" or "down", or will there be a series of incremental "jogs" in one of the directions. Specifically, we need the time intervals between operations and the direction and size of movement in each operational increment. Finally, the total number of cycles per hour, day and year should be calculated.

Applications with many short jogs in quick intervals may require the need of a special power unit. If the jogs are in a downward direction, the standard lowering solenoids are of a continuous duty type and nothing needs to be done. However, if the increments are in the "up" direction, the standard motor would not take the frequent motor starts without overheating. Therefore, the options to consider are going to an air operated unit, air over water unit, or a continuous running power unit. (See the power unit options for the specific table model that you are considering.)

Applications without frequent jogging are usually easier on the power units, but check the operational sequence against the rule of thumb of eleven (11) seconds off for every one (1) second on with full loads. Keep in mind that most applications seldom see full loads. If overheating is an issue, consider a continuous running power unit or check with the factory for other power unit options.

Once the total number of cycles per year are calculated, that number can be compared to the "warranty life" and "expected life" as explained in the warranty section of this booklet. Note that there is a large difference in the warranty life of a standard unit and an ultra high cycle unit, just as there is a large difference in price. If the application that you are considering falls somewhere in between, contact us to see if a modified standard unit can be designed to better fit the application and the budget.

SPECIAL FEATURES & ACCESSORIES: These items are generally divided into two categories, standard options which are included in the catalog and price lists and those unusual items that must be priced by the factory.

Items that require factory consultation include:

- Special environments such as freezers, proximity to high heat, or damp locations
- Hazardous environments such as explosion proof for dust or for vapor
  (Note: We can supply explosion proof components, but the installing electrician is the only one who can guaranty compliance to local electrical codes for explosion proof.)
- Special finishes such as stainless steel, polyurethane paints, epoxy paints
- High cycle requirements that fall between our standard units and our ultra high cycle units
- Any requirements that do not fit within any of our standard groups of equipment
- AC or DC self propelled units
- Bellows and roller shades

Items shown in our catalog and price lists: (see accessory sections)

- Power units that are deluxe, continuous duty or continuous running
- Push buttons, footswitches, and other control options
- Oversize platforms and platforms with bevel toe guards
- Portability options such as wheel and dolly sets and casters

LIFT APPLICATIONS, SPECIFICATIONS & SELECTION

How to configure your own DW-DL-DH units: Doubling units to provide more capacity, width, length or travel is a common practice. This catalog contains some double wide, double long, and double high units. It does not contain every possible combination of lifts as it would add too many pages. You, however, can configure your own double units to suit your needs if you follow the rules listed below.

Double High (DH) Configuration Rules:

- MSL units cannot be stacked into DH units.
- The lifts making up a DH unit must be of equal travel and both of their base frames must be the same width and length.
- The capacity of a DH unit can only equal the capacity of the upper lift, when the lower lift capacity equals or exceeds the sum of the weight and capacity of the upper lift. If there is a shortfall in the capacity of the lower lift, this must be subtracted from the capacity of the upper lift to determine total unit capacity.
- The DH travel is equal to the sum of the travel of the upper and lower units.
- The maximum platform size may be up to 12" wider than the minimum platform dimension and no longer than the maximum listed platform length for the upper unit.
- The end load and side load capacity is equal to one half of the upper lift end and side capacity.
- Side load capacity is reduced by 4% per inch increase over minimum platform width.
- End load capacity is reduced by 4% per inch increase over minimum platform length.
- DH units with total platform travel over 72", should use guide angles to reduce potential sway during loading and unloading operations.
- If personnel are going to ride the units, then handrails, gates and interlocks should be considered and local safety codes should be investigated.
- Units with internal power units will continue to have internal power units when they are stacked.
- The speed of the stacked units will equal the sum of the individual unit speeds.

Note: Unlike MSL units, the legs on upper and lower units do not open equally during operation. Usually the top legs partially open first, then the lower legs open and the units continue to move alternately.

Double Long (DL) Configuration Rules:

- The lifts making up a DL must be of equal capacity and travel and must have the same width and length base frames.
- DL lifting capacity equals twice the catalog capacity of a single unit provided that the platform is no longer than twice the length of the maximum platform allowed for a single lift.
- The factory engineers will reduce capacity for units with extra long platforms. Consult the factory for exact capacities.
- DL travel equals the travel of the base lift.
- The maximum platform width may be up to 24" wider than the minimum platform width of the base lift.
- The minimum platform length is (2 x base frame length + 2").
- DL side load capacity equals twice the base unit side load capacity.
- Side load capacity is reduced by 2% per inch increase over the minimum platform width of the base unit.
- DL end load capacity is the same as the base unit end load capacity.
- End load capacity is reduced by 2% per inch increase over the minimum platform length of the DL unit.
- Lowered height may increase for applications where the platform is not evenly loaded (contact factory for specific applications).

Double Wide (DW) Configuration Rules:

- The units making up a DW must be of equal capacity and travel and must have the same width and length base frame.
- DW capacity equals the catalog capacity of a single unit, times 160%.
- DW travel equals the travel of the base unit less 2".
- DW lowered height equals base unit lowered height + 2".
- The maximum platform width may be up to 24" wider than sum of the minimum platform widths of the base units.
- The maximum platform length may be up to 24" longer than the minimum platform length of the base unit.
- DW side loads equal (base unit side load x 2) x 60%.
- Side load capacity is reduced by 2% per inch increase over the minimum platform width of the DW unit.
- DW end load capacity is twice the capacity for a single unit.
- End load capacity is reduced by 2% per inch increase over the minimum platform length of the base unit.

If you configure your own double unit, be sure to check with our sales department before you order the lift.

PRODUCTION (P) SERIES LIFTS

The P-Series lifts are our most popular series as they fit a wide array of manufacturing applications.

SPECIAL FEATURES

- These units are equipped with the patented "Platform Centering Devices".
- All of the controllers are Underwriter Laboratory approved assemblies.
- These units are fully primed and finished with a baked enamel finish.
- The cylinders are machine grade with clear plastic return lines.
- All pressure hoses are double wire braid with JIC fittings.
- The reservoirs are mild steel.
- These units conform to all applicable ANSI codes.

FEATURE DETAILS

Platform Centering Device

Cylinder

Double Wire Braid Hose

Power Unit

PRODUCTION (P) SERIES LIFTS

SPECIFICATION TABLE FOR SINGLE SCISSOR UNITS

Model	Travel	Capacity	Std Min Platform	Opt. Max. Platform	Maximum Loading End	Maximum Loading Side	Baseframe Size	Lowered Height	Raised Height	Speed Sec.	Motor H.P.	Ship Wt.
P-2524	24	2500	24 X 36	48 X 60	2500	2500	24 X 36	6-1/2	30-1/2	10	1-1/2	500
P-4024	24	4000	24 X 36	48 X 60	4000	3000	24 X 36	6-1/2	30-1/2	15	1-1/2	550
P-6024	24	6000	24 X 36	48 X 60	4200	3800	24 X 36	6-1/2	30-1/2	22	1-1/2	560
PEW-2524	24	2500	36 X 36	60 X 60	2500	2500	36 X 36	6-1/2	30-1/2	10	1-1/2	650
PEW-4024	24	4000	36 X 36	60 X 60	4000	3100	36 X 36	6-1/2	30-1/2	15	1-1/2	700
PEW-6024	24	6000	36 X 36	60 X 60	4300	4000	36 X 36	6-1/2	30-1/2	22	1-1/2	710
PVW-2024	24	2000	48 X 36	72 X 60	2000	2000	48 X 36	6-1/2	30-1/2	10	1-1/2	750
PVW-4024	24	4000	48 X 36	72 X 60	4000	3200	48 X 36	6-1/2	30-1/2	15	1-1/2	800
PVW-6024	24	6000	48 X 36	72 X 60	4300	4000	48 X 36	6-1/2	30-1/2	22	1-1/2	815
P-2536	36	2500	24 X 48	48 X 72	2500	2500	24 X 48	6-1/2	42-1/2	11	2	600
P-4036	36	4000	24 X 48	48 X 72	3300	2900	24 X 48	6-1/2	42-1/2	17	2	650
P-6036	36	6000	24 X 48	48 X 72	4100	3500	24 X 48	6-1/2	42-1/2	23	2	680
PEW-2536	36	2500	36 X 48	60 X 72	2500	2500	36 X 48	6-1/2	42-1/2	11	2	765
PEW-4036	36	4000	36 X 48	60 X 72	3300	3100	36 X 48	6-1/2	42-1/2	17	2	815
PEW-6036	36	6000	36 X 48	60 X 72	4300	3100	36 X 48	6-1/2	42-1/2	23	2	845
PVW-2036	36	2000	48 X 48	72 X 72	2000	2000	48 X 48	6-1/2	42-1/2	11	2	870
PVW-4036	36	4000	48 X 48	72 X 72	3300	3100	48 X 48	6-1/2	42-1/2	17	2	920
PVW-6036	36	6000	48 X 48	72 X 72	4300	3800	48 X 48	6-1/2	42-1/2	23	2	945
P-2548	48	2500	24 X 64	48 X 96	2500	2200	24 X 64	7	55	19	2	730
P-4048	48	4000	24 X 64	48 X 96	3500	2800	24 X 64	7	55	28	2	830
P-6048	48	6000	24 X 64	48 X 96	3500	3000	24 X 64	7	55	38	2	850
PEW-2548	48	2500	36 X 64	60 X 96	2500	2300	36 X 64	7	55	19	2	920
PEW-4048	48	4000	36 X 64	60 X 96	3400	3000	36 X 64	7	55	28	2	1015
PEW-6048	48	6000	36 X 64	60 X 96	3400	3000	36 X 64	7	55	38	2	1040
PVW-2048	48	2000	48 X 64	72 X 96	2000	2000	48 X 64	7	55	19	2	1040
PVW-4048	48	4000	48 X 64	72 X 96	3400	3100	48 X 64	7	55	28	2	1135
PVW-6048	48	6000	48 X 64	72 X 96	3400	3000	48 X 64	7	55	38	2	1150
P-2560	60	2500	24 X 84	48 X 120	2500	2500	24 X 84	10	70	28	2	1000
P-4060	60	4000	24 X 84	48 X 120	4000	4000	24 X 84	10	70	42	2	1150
P-6060	60	6000	24 X 84	48 X 120	5700	4000	24 X 84	10	70	57	2	1175
PEW-2560	60	2500	36 X 84	60 X 120	2500	2500	36 X 84	10	70	29	2	1210
PEW-4060	60	4000	36 X 84	60 X 120	4000	4000	36 X 84	10	70	42	2	1335
PEW-6060	60	6000	36 X 84	60 X 120	5700	4400	36 X 84	10	70	57	2	1365
PVW-2560	60	2500	48 X 84	72 X 120	2500	2500	48 X 84	10	70	29	2	1365
PVW-4060	60	4000	48 X 84	72 X 120	4000	4000	48 X 84	10	70	42	2	1490
PVW-6060	60	6000	48 X 84	72 X 120	5600	4500	48 X 84	10	70	57	2	1510

The next page lists the double wide units which provide greater capacity and wider platform sizes. There are also double long units that provide greater capacity and longer platform sizes. For units with greater vertical travel, refer to the multiple scissors section of this booklet starting on *page 38* to see the multiple scissor lifts (MSL's) and the double high (DH) units.

If you do not find what you need, give us a call. The units shown in this catalog are only a small sampling of what can be done by combining units. Furthermore, if combining existing units will not meet your needs, we are always happy to quote on a custom design unit.

DOUBLE WIDE (P) SERIES UNITS

SPECIFICATION TABLE FOR DOUBLE WIDE UNITS

Model	Travel	Capacity	Std Min Platform	Opt. Max. Platform	Maximum Loading End	Maximum Loading Side	Baseframe Size	Lowered Height	Raised Height	Speed Sec.	Motor H.P.	Ship Wt.
PDW-4022	22	4000	48 X 36	72 X 60	5000	3000	48 X 36	8-1/2	30-1/2	20	1-1/2	1000
PDW-6422	22	6400	48 X 36	72 X 60	8000	3600	48 X 36	8-1/2	30-1/2	30	1-1/2	1100
PDW-9622	22	9600	48 X 36	72 X 60	8400	4500	48 X 36	8-1/2	30-1/2	44	1-1/2	1120
PEDW-4022	22	4000	72 X 36	96 X 60	5000	3000	72 X 36	8-1/2	30-1/2	20	1-1/2	1300
PEDW-6422	22	6400	72 X 36	96 X 60	8000	3700	72 X 36	8-1/2	30-1/2	30	1-1/2	1400
PEDW-9622	22	9600	72 X 36	96 X 60	8600	4800	72 X 36	8-1/2	30-1/2	44	1-1/2	1420
PVDW-3222	22	3200	96 X 36	120 X 60	4000	2400	96 X 36	8-1/2	30-1/2	20	1-1/2	1500
PVDW-6422	22	6400	96 X 36	120 X 60	8000	3800	96 X 36	8-1/2	30-1/2	30	1-1/2	1600
PVDW-9622	22	9600	96 X 36	120 X 60	8600	4800	96 X 36	8-1/2	30-1/2	44	1-1/2	1630
PDW-4034	34	4000	48 X 48	72 X 72	5000	3000	48 X 48	8-1/2	42-1/2	22	2	1200
PDW-6434	34	6400	48 X 48	72 X 72	6600	3400	48 X 48	8-1/2	42-1/2	34	2	1300
PDW-9634	34	9600	48 X 48	72 X 72	8200	4200	48 X 48	8-1/2	42-1/2	46	2	1360
PEDW-4034	34	4000	72 X 48	96 X 72	5000	3000	72 X 48	8-1/2	42-1/2	22	2	1530
PEDW-6434	34	6400	72 X 48	96 X 72	6600	3700	72 X 48	8-1/2	42-1/2	34	2	1630
PEDW-9634	34	9600	72 X 48	96 X 72	8600	4400	72 X 48	8-1/2	42-1/2	46	2	1690
PVDW-3234	34	3200	96 X 48	120 X 72	3200	2400	96 X 48	8-1/2	42-1/2	22	2	1740
PVDW-6434	34	6400	96 X 48	120 X 72	6600	3700	96 X 48	8-1/2	42-1/2	34	2	1840
PVDW-9634	34	9600	96 X 48	120 X 72	8600	4500	96 X 48	8-1/2	42-1/2	46	2	1890
PDW-4046	46	4000	48 X 64	72 X 96	5000	2600	48 X 64	9	55	38	2	1460
PDW-6446	46	6400	48 X 64	72 X 96	7000	3300	48 X 64	9	55	56	2	1660
PDW-9646	46	9600	48 X 64	72 X 96	7000	3600	48 X 64	9	55	76	2	1700
PEDW-4046	46	4000	72 X 64	96 X 96	5000	2700	72 X 64	9	55	38	2	1840
PEDW-6446	46	6400	72 X 64	96 X 96	6800	3600	72 X 64	9	55	56	2	2030
PEDW-9646	46	9600	72 X 64	96 X 96	6800	3600	72 X 64	9	55	76	2	2080
PVDW-3246	46	3200	96 X 64	120 X 96	4000	2400	96 X 64	9	55	38	2	2080
PVDW-6446	46	6400	96 X 64	120 X 96	6800	3700	96 X 64	9	55	56	2	2270
PVDW-9646	46	9600	96 X 64	120 X 96	6800	3600	96 X 64	9	55	76	2	2300
PDW-4058	58	4000	48 X 84	72 X 120	5000	3000	48 X 84	12	70	56	2	2000
PDW-6458	58	6400	48 X 84	72 X 120	8000	4800	48 X 84	12	70	84	2	2300
PDW-9658	58	9600	48 X 84	72 X 120	11400	4800	48 X 84	12	70	114	2	2350
PEDW-4058	58	4000	72 X 84	96 X 120	5000	3000	72 X 84	12	70	56	2	2420
PEDW-6458	58	6400	72 X 84	96 X 120	8000	4800	72 X 84	12	70	84	2	2670
PEDW-9658	58	9600	72 X 84	96 X 120	11400	5200	72 X 84	12	70	114	2	2730
PVDW-4058	58	4000	96 X 84	120 X 120	5000	3000	96 X 84	12	70	56	2	2730
PVDW-6458	58	6400	96 X 84	120 X 120	8000	4800	96 X 84	12	70	84	2	2980
PVDW-9658	58	9600	96 X 84	120 X 120	11200	5400	96 X 84	12	70	114	2	3020

Wider units are available in the Heavy Duty and Super Duty lift section. Also, the factory can modify existing units or design custom units, so please call us if you do not find a size that you need.

DOUBLE LONG (P) SERIES UNITS

SPECIFICATION TABLE FOR DOUBLE LONG UNITS

LENGTH 74"-98"

Model	Travel	Capacity	Std Min Platform	Opt. Max. Platform	Maximum Loading End	Maximum Loading Side	Baseframe Size	Lowered Height	Raised Height	Speed Sec.	Motor H.P.	Ship Wt.
PDL-5024	24	5000	24 X 74	48 X 98	2500	5000	24 X 74	6-1/2	30-1/2	20	1-1/2	1000
PDL-8024	24	8000	24 X 74	48 X 98	4000	6000	24 X 74	6-1/2	30-1/2	30	1-1/2	1100
PDL-12024	24	12000	24 X 74	48 X 98	4200	7600	24 X 74	6-1/2	30-1/2	44	1-1/2	1120
PEWDL-5024	24	5000	36 X 74	60 X 98	2500	5000	36 X 74	6-1/2	30-1/2	22	1-1/2	1300
PEWDL-8024	24	8000	36 X 74	60 X 98	4000	6200	36 X 74	6-1/2	30-1/2	32	1-1/2	1400
PEWDL-12024	24	12000	36 X 74	60 X 98	4300	8000	36 X 74	6-1/2	30-1/2	46	1-1/2	1420
PVWDL-4024	24	4000	48 X 74	72 X 98	2000	4000	48 X 74	6-1/2	30-1/2	24	1-1/2	1500
PVWDL-8024	24	8000	48 X 74	72 X 98	4000	6400	48 X 74	6-1/2	30-1/2	32	1-1/2	1600
PVWDL-12024	24	12000	48 X 74	72 X 98	4300	8000	48 X 74	6-1/2	30-1/2	46	1-1/2	1630

LENGTH 84"-108"

Model	Travel	Capacity	Std Min Platform	Opt. Max. Platform	Maximum Loading End	Maximum Loading Side	Baseframe Size	Lowered Height	Raised Height	Speed Sec.	Motor H.P.	Ship Wt.
PEDL-5024	24	5000	24 X 84	48 X 108	2500	5000	24 X 84	6-1/2	30-1/2	20	1-1/2	1070
PEDL-8024	24	8000	24 X 84	48 X 108	4000	6000	24 X 84	6-1/2	30-1/2	30	1-1/2	1170
PEDL-12024	24	12000	24 X 84	48 X 108	4200	7400	24 X 84	6-1/2	30-1/2	44	1-1/2	1190
PEWEDL-5024	24	5000	36 X 84	60 X 108	2500	5000	36 X 84	6-1/2	30-1/2	22	1-1/2	1390
PEWEDL-8024	24	8000	36 X 84	60 X 108	4000	6200	36 X 84	6-1/2	30-1/2	32	1-1/2	1490
PEWEDL-12024	24	12000	36 X 84	60 X 108	4300	7800	36 X 84	6-1/2	30-1/2	46	1-1/2	1510
PVWEDL-4024	24	4000	48 X 84	72 X 108	2000	4000	48 X 84	6-1/2	30-1/2	24	1-1/2	1600
PVWEDL-8024	24	8000	48 X 84	72 X 108	4000	6200	48 X 84	6-1/2	30-1/2	32	1-1/2	1700
PVWEDL-12024	24	12000	48 X 84	72 X 108	4300	8000	48 X 84	6-1/2	30-1/2	46	1-1/2	1730

LENGTH 108"-144"

Model	Travel	Capacity	Std Min Platform	Opt. Max. Platform	Maximum Loading End	Maximum Loading Side	Baseframe Size	Lowered Height	Raised Height	Speed Sec.	Motor H.P.	Ship Wt.
PVDL-5024	24	5000	24 X 108	48 X 144	2500	5000	24 X 108	6-1/2	30-1/2	20	1-1/2	1150
PVDL-8024	24	8000	24 X 108	48 X 144	4000	6000	24 X 108	7	31	30	1-1/2	1310
PVDL-12024	24	12000	24 X 108	48 X 144	4200	7400	24 X 108	7-1/2	31-1/2	44	1-1/2	1330
PEWVDL-5024	24	5000	36 X 108	60 X 144	2500	5000	36 X 108	6-1/2	30-1/2	22	1-1/2	1700
PEWVDL-8024	24	8000	36 X 108	60 X 144	4000	6200	36 X 108	7	31	32	1-1/2	1830
PEWVDL-12024	24	12000	36 X 108	60 X 144	4300	7800	36 X 108	7-1/2	31-1/2	46	1-1/2	1920
PVWVDL-4024	24	4000	48 X 108	72 X 144	2000	4000	48 X 108	6-1/2	30-1/2	22	1-1/2	1940
PVWVDL-8024	24	8000	48 X 108	72 X 144	4000	6200	48 X 108	7	31	32	1-1/2	2070
PVWVDL-12024	24	12000	48 X 108	72 X 144	4300	7800	48 X 108	7-1/2	31-1/2	46	1-1/2	2160

LENGTH 98"-122"

Model	Travel	Capacity	Std Min Platform	Opt. Max. Platform	Maximum Loading End	Maximum Loading Side	Baseframe Size	Lowered Height	Raised Height	Speed Sec.	Motor H.P.	Ship Wt.
PDL-5036	36	5000	24 X 98	48 X 122	2500	5000	24 X 98	6-1/2	42-1/2	22	2	1200
PDL-8036	36	8000	24 X 98	48 X 122	3300	5800	24 X 98	6-1/2	42-1/2	34	2	1320
PDL-12036	36	12000	24 X 98	48 X 122	4100	7000	24 X 98	6-1/2	42-1/2	46	2	1380
PEWDL-5036	36	5000	36 X 98	60 X 122	2500	5000	36 X 98	6-1/2	42-1/2	24	2	1550
PEWDL-8036	36	8000	36 X 98	60 X 122	3300	6000	36 X 98	6-1/2	42-1/2	36	2	1650
PEWDL-12036	36	12000	36 X 98	60 X 122	4300	7400	36 X 98	6-1/2	42-1/2	48	2	1710
PVWDL-4036	36	4000	48 X 98	72 X 122	2000	4000	48 X 98	6-1/2	42-1/2	24	2	1760
PVWDL-8036	36	8000	48 X 98	72 X 122	3300	6200	48 X 98	6-1/2	42-1/2	36	2	1860
PVWDL-12036	36	12000	48 X 98	72 X 122	4300	7400	48 X 98	6-1/2	42-1/2	48	2	1910

**Base frame length may vary on longer platforms.*

DOUBLE LONG (P) SERIES UNITS

SPECIFICATION TABLE FOR DOUBLE LONG UNITS

LENGTH 120"-144"

Model	Travel	Capacity	Std Min Platform	Opt. Max. Platform	Maximum Loading End	Maximum Loading Side	Baseframe Size	Lowered Height	Raised Height	Speed Sec.	Motor H.P.	Ship Wt.
PEDL-5036	36	5000	24 X 120	48 X 144	2500	4800	24 X 120	6-1/2	42-1/2	22	2	1350
PEDL-8036	36	8000	24 X 120	48 X 144	3300	5800	24 X 120	6-1/2	42-1/2	34	2	1400
PEDL-12036	36	12000	24 X 120	48 X 144	4100	7000	24 X 120	7	43	46	2	1500
PEWEDL-5036	36	5000	36 X 120	60 X 144	2500	5000	36 X 120	6-1/2	42-1/2	24	2	1650
PEWEDL-8036	36	8000	36 X 120	60 X 144	3300	6000	36 X 120	6-1/2	42-1/2	36	2	1750
PEWEDL-12036	36	12000	36 X 120	60 X 144	4300	7400	36 X 120	7	43	48	2	1850
PVWEDL-4036	36	4000	48 X 120	72 X 144	2000	4000	48 X 120	6-1/2	42-1/2	24	2	1880
PVWEDL-8036	36	8000	48 X 120	72 X 144	3300	6200	48 X 120	6-1/2	42-1/2	36	2	1980
PVWEDL-12036	36	12000	48 X 120	72 X 144	4300	7400	48 X 120	7	43	48	2	2070

LENGTH 144"-192"

Model	Travel	Capacity	Std Min Platform	Opt. Max. Platform	Maximum Loading End	Maximum Loading Side	Baseframe Size	Lowered Height	Raised Height	Speed Sec.	Motor H.P.	Ship Wt.
PVDL-5036	36	5000	24 X 144	48 X 192	2500	4800	24 X 144	6-1/2	42-1/2	22	2	1450
PVDL-8036	36	8000	24 X 144	48 X 192	3300	5800	24 X 144	7-1/2	43-1/2	34	2	1580
PVDL-12036	36	12000	24 X 144	48 X 192	4000	7000	24 X 144	8	44	46	2	1680
PEWVDL-5036	36	5000	36 X 144	60 X 192	2500	5000	36 X 144	6-1/2	42-1/2	24	2	1770
PEWVDL-8036	36	8000	36 X 144	60 X 192	3200	6000	36 X 144	7-1/2	43-1/2	36	2	1950
PEWVDL-12036	36	12000	36 X 144	60 X 192	3900	7200	36 X 144	8	44	48	2	2050
PVWVDL-4036	36	4000	48 X 144	72 X 192	2000	4000	48 X 144	6-1/2	42-1/2	24	2	2020
PVWVDL-8036	36	8000	48 X 144	72 X 192	3200	6000	48 X 144	7-1/2	43-1/2	36	2	2210
PVWVDL-12036	36	12000	48 X 144	72 X 192	3900	7400	48 X 144	8	44	48	2	2300

LENGTH 130"-160"

Model	Travel	Capacity	Std Min Platform	Opt. Max. Platform	Maximum Loading End	Maximum Loading Side	Baseframe Size	Lowered Height	Raised Height	Speed Sec.	Motor H.P.	Ship Wt.
PDL-5048	48	5000	24 X 130	48 X 160	2500	4400	24 X 130	7	55	36	2	1540
PDL-8048	48	8000	24 X 130	48 X 160	3500	5600	24 X 130	7	55	54	2	1680
PDL-12048	48	12000	24 X 130	48 X 160	3500	5600	24 X 130	7	55	74	2	1720
PEWDL-5048	48	5000	36 X 130	60 X 160	2500	4600	36 X 130	7	55	38	2	1860
PEWDL-8048	48	8000	36 X 130	60 X 160	3400	6000	36 X 130	7	55	56	2	2050
PEWDL-11848	48	11800	36 X 130	60 X 160	3400	6000	36 X 130	7	55	76	2	2100
PVWDL-4048	48	4000	48 X 130	72 X 160	2000	4000	48 X 130	7	55	38	2	2100
PVWDL-8048	48	8000	48 X 130	72 X 160	3400	6000	48 X 130	7	55	56	2	2290
PVWDL-11648	48	11600	48 X 130	72 X 160	3400	6000	48 X 130	7	55	76	2	2320

LENGTH 160"-192"

Model	Travel	Capacity	Std Min Platform	Opt. Max. Platform	Maximum Loading End	Maximum Loading Side	Baseframe Size	Lowered Height	Raised Height	Speed Sec.	Motor H.P.	Ship Wt.
PEDL-5048	48	5000	24 X 160	48 X 192	2500	4400	24 X 160	7	55	36	2	1660
PEDL-8048	48	8000	24 X 160	48 X 192	3400	5400	24 X 160	7-1/2	55-1/2	54	2	1860
PEDL-11848	48	11800	24 X 160	48 X 192	3400	5600	24 X 160	8	56	74	2	1900
PEWEDL-5048	48	5000	36 X 160	60 X 192	2500	4600	36 X 160	7	55	38	2	2000
PEWEDL-8048	48	8000	36 X 160	60 X 192	3400	6000	36 X 160	7-1/2	55-1/2	56	2	2210
PEWEDL-11648	48	11600	36 X 160	60 X 192	3400	6000	36 X 160	8	56	76	2	2300
PVWEDL-4048	48	4000	48 X 160	72 X 192	2000	4000	48 X 160	7	55	38	2	2270
PVWEDL-8048	48	8000	48 X 160	72 X 192	3200	6000	48 X 160	7-1/2	55-1/2	56	2	2480
PVWEDL-11448	48	11400	48 X 160	72 X 192	3300	6000	48 X 160	8	56	76	2	2560

**Base frame length may vary on longer platforms.*

SPECIFICATION TABLE FOR DOUBLE LONG UNITS

LENGTH 192"-256"

Model	Travel	Capacity	Std Min Platform	Opt. Max. Platform	Maximum Loading End	Maximum Loading Side	Baseframe Size	Lowered Height	Raised Height	Speed Sec.	Motor H.P.	Ship Wt.
PVDL-4848	48	4800	24 X 192	48 X 256	2400	4200	24 X 192	7	55	36	2	1800
PVDL-8048	48	8000	24 X 192	48 X 256	3400	5400	24 X 192	8	56	54	2	2040
PVDL-11448	48	11400	24 X 192	48 X 256	3300	5400	24 X 192	9	57	74	2	2180
PEWVDL-4848	48	4800	36 X 192	60 X 256	2400	4600	36 X 192	7	55	40	2	2170
PEWVDL-8048	48	8000	36 X 192	60 X 256	3300	5800	36 X 192	8	56	56	2	2470
PEWVDL-11248	48	11200	36 X 192	60 X 256	3300	5800	36 X 192	9	57	76	2	2620
PVWVDL-4048	48	4000	48 X 192	72 X 256	2000	4000	48 X 192	7	55	40	2	2470
PVWVDL-8048	48	8000	48 X 192	72 X 256	3300	6000	48 X 192	8	56	56	2	2770
PVWVDL-11048	48	11000	48 X 192	72 X 256	3200	5800	48 X 192	9	57	76	2	2900

LENGTH 170"-212"

Model	Travel	Capacity	Std Min Platform	Opt. Max. Platform	Maximum Loading End	Maximum Loading Side	Baseframe Size	Lowered Height	Raised Height	Speed Sec.	Motor H.P.	Ship Wt.
PDL-5060	60	5000	24 X 170	48 X 212	3300	5600	24 X 170	10	70	58	2	2100
PDL-8060	60	8000	24 X 170	48 X 212	5600	8000	24 X 170	10	70	84	2	2300
PDL-12060	60	12000	24 X 170	48 X 212	5700	8000	24 X 170	10	70	114	2	2350
PEWDL-5060	60	5000	36 X 170	60 X 212	2900	5000	36 X 170	10	70	59	2	2560
PEWDL-8060	60	8000	36 X 170	60 X 212	5600	8000	36 X 170	10	70	85	2	2680
PEWDL-12060	60	12000	36 X 170	60 X 212	5700	8800	36 X 170	10	70	115	2	2740
PVWDL-5060	60	5000	48 X 170	72 X 212	2800	5000	48 X 170	10	70	60	2	2905
PVWDL-8060	60	8000	48 X 170	72 X 212	5600	9000	48 X 170	10	70	86	2	2995
PVWDL-12060	60	12000	48 X 170	72 X 212	5600	9000	48 X 170	10	70	116	2	3035

LENGTH 212"-254"

Model	Travel	Capacity	Std Min Platform	Opt. Max. Platform	Maximum Loading End	Maximum Loading Side	Baseframe Size	Lowered Height	Raised Height	Speed Sec.	Motor H.P.	Ship Wt.
PEDL-5060	60	5000	24 X 212	48 X 254	3300	5600	24 X 212	10	70	58	2	2300
PEDL-8060	60	8000	24 X 212	48 X 254	5600	8000	24 X 212	10	70	84	2	2510
PEDL-12060	60	12000	24 X 212	48 X 254	5700	8000	24 X 212	10	70	114	2	2560
PEWEDL-4860	60	4800	36 X 212	60 X 254	2400	4800	36 X 212	10	70	59	2	2790
PEWEDL-8060	60	8000	36 X 212	60 X 254	5600	8600	36 X 212	10	70	85	2	2920
PEWEDL-12060	60	12000	36 X 212	60 X 254	5600	8600	36 X 212	10	70	115	2	2980
PVWEDL-4860	60	4800	48 X 212	72 X 254	2300	4600	48 X 212	10	70	60	2	3170
PVWEDL-8060	60	8000	48 X 212	72 X 254	5600	8800	48 X 212	10	70	86	2	3270
PVWEDL-12060	60	12000	48 X 212	72 X 254	5600	8800	48 X 212	10	70	116	2	3310

LENGTH 252"-336"

Model	Travel	Capacity	Std Min Platform	Opt. Max. Platform	Maximum Loading End	Maximum Loading Side	Baseframe Size	Lowered Height	Raised Height	Speed Sec.	Motor H.P.	Ship Wt.
PVDL-5060	60	5000	24 X 252	48 X 336	3200	5600	24 X 252	10	70	59	2	2485
PVDL-8060	60	8000	24 X 252	48 X 336	5600	8000	24 X 252	10	70	85	2	2710
PVDL-12060	60	12000	24 X 252	48 X 336	5600	7800	24 X 252	11	71	115	2	2890
PEWVDL-4660	60	4600	36 X 252	60 X 336	2300	4600	36 X 252	10	70	60	2	3010
PEWVDL-8060	60	8000	36 X 252	60 X 336	5600	8600	36 X 252	10	70	86	2	3130
PEWVDL-12060	60	12000	36 X 252	60 X 336	5500	8600	36 X 252	11	71	116	2	3345
PVWVDL-4460	60	4400	48 X 252	72 X 336	2200	4400	48 X 252	10	70	61	2	3430
PVWVDL-8060	60	8000	48 X 252	72 X 336	5500	8800	48 X 252	10	70	86	2	3530
PVWVDL-12060	60	12000	48 X 252	72 X 336	5500	8600	48 X 252	11	71	117	2	3710

**Base frame length may vary on longer platforms.*

HEAVY DUTY (HD) SERIES LIFTS

The HD-Series lifts were designed for the higher capacity applications beyond the scope of the P-Series units.

SPECIAL FEATURES

- These units are equipped with the patented "Platform Centering Devices".
- All of the controllers are Underwriter Laboratory approved assemblies.
- These units are fully primed and finished with a baked enamel finish.
- The cylinders are machine grade with clear plastic return lines.
- All pressure hoses are double wire braid with JIC fittings.
- The reservoirs are mild steel.
- These units conform to all applicable ANSI codes.

FEATURE DETAILS

Platform Centering Device

Controller

Cylinder

Double Wire Braid Hose

Power Unit

SPECIFICATION TABLE FOR SINGLE SCISSOR UNITS

Model	Travel	Capacity	Std Min Platform	Opt. Max. Platform	Maximum Loading End	Maximum Loading Side	Baseframe Size	Lowered Height	Raised Height	Speed Sec.	Motor H.P.	Ship Wt.
HD-0824	24	8000	30 X 48	54 X 78	10000	7500	30 X 48	9-3/4	33-3/4	12	5	1300
HD-1024	24	10000	30 X 48	54 X 78	11000	9700	30 X 48	9-3/4	33-3/4	18	5	1400
HD-1224	24	12000	30 X 48	54 X 78	11000	9700	30 X 48	9-3/4	33-3/4	19	5	1450
HDEW-0824	24	8000	42 X 48	66 X 78	10000	7900	42 X 48	11-3/4	35-3/4	13	5	1550
HDEW-1024	24	10000	42 X 48	66 X 78	11000	10400	42 X 48	11-3/4	35-3/4	18	5	1650
HDEW-1224	24	12000	42 X 48	66 X 78	11000	10400	42 X 48	11-3/4	35-3/4	19	5	1700
HDVW-0824	24	8000	54 X 48	78 X 78	10000	8300	54 X 48	11-3/4	35-3/4	13	5	1700
HDVW-1024	24	10000	54 X 48	78 X 78	10900	10600	54 X 48	11-3/4	35-3/4	18	5	1800
HDVW-1224	24	12000	54 X 48	78 X 78	10900	10700	54 X 48	11-3/4	35-3/4	19	5	1850
HD-0836	36	8000	30 X 60	54 X 90	8200	6000	30 X 60	9-3/4	45-3/4	18	5	1450
HD-1036	36	10000	30 X 60	54 X 90	10000	8300	30 X 60	9-3/4	45-3/4	26	5	1550
HD-1236	36	12000	30 X 60	54 X 90	10000	8800	30 X 60	9-3/4	45-3/4	27	5	1600
HDEW-0836	36	8000	42 X 60	66 X 90	8100	6600	42 X 60	11-3/4	47-3/4	18	5	1700
HDEW-1036	36	10000	42 X 60	66 X 90	10000	9200	42 X 60	11-3/4	47-3/4	26	5	1800
HDEW-1236	36	12000	42 X 60	66 X 90	10000	9300	42 X 60	11-3/4	47-3/4	27	5	1880
HDVW-0836	36	8000	54 X 60	78 X 90	8100	6800	54 X 60	11-3/4	47-3/4	18	5	1900
HDVW-1036	36	10000	54 X 60	78 X 90	10000	9500	54 X 60	11-3/4	47-3/4	26	5	2010
HDVW-1236	36	12000	54 X 60	78 X 90	9600	9600	54 X 60	11-3/4	47-3/4	27	5	2090
HD-0848	48	8000	30 X 68	54 X 98	7400	5100	30 X 68	10	58	24	5	1680
HD-1048	48	10000	30 X 68	54 X 98	8500	7100	30 X 68	10	58	34	5	1800
HD-1248	48	12000	30 X 68	54 X 98	8500	7300	30 X 68	10	58	35	5	1880
HDEW-0848	48	8000	42 X 68	66 X 98	7300	5500	42 X 68	12	60	24	5	1990
HDEW-1048	48	10000	42 X 68	66 X 98	8400	7800	42 X 68	12	60	34	5	2110
HDEW-1248	48	12000	42 X 68	66 X 98	8400	7800	42 X 68	12	60	35	5	2200
HDVW-0848	48	8000	54 X 68	78 X 98	7200	5700	54 X 68	12	60	24	5	2190
HDVW-1048	48	10000	54 X 68	78 X 98	8400	8000	54 X 68	12	60	34	5	2340
HDVW-1248	48	12000	54 X 68	78 X 98	8400	8000	54 X 68	12	60	35	5	2410
HD-0860	60	8000	30 X 84	54 X 114	6200	3700	30 X 84	10	70	32	5	1950
HD-1060	60	10000	30 X 84	54 X 114	8300	5300	30 X 84	10	70	47	5	2100
HD-1260	60	12000	30 X 84	54 X 114	8800	7100	30 X 84	10	70	48	5	2190
HDEW-0860	60	8000	42 X 84	66 X 114	6100	4000	42 X 84	12	72	33	5	2290
HDEW-1060	60	10000	42 X 84	66 X 114	8200	5800	42 X 84	12	72	48	5	2450
HDEW-1260	60	12000	42 X 84	66 X 114	8700	8700	42 X 84	12	72	48	5	2550
HDVW-0860	60	8000	54 X 84	78 X 114	6000	4200	54 X 84	12	72	33	5	2510
HDVW-1060	60	10000	54 X 84	78 X 114	8200	5900	54 X 84	12	72	48	5	2690
HDVW-1260	60	12000	54 X 84	78 X 114	8600	8100	54 X 84	12	72	48	5	2780

The next page lists the double wide units which provide greater capacity and wider platform sizes. There are also double long units that provide greater capacity and longer platform sizes. For units with greater vertical travel, refer to the multiple scissors section of this booklet starting on *page 38* to see the multiple scissor lifts (MSL's) and the double high (DH) units.

If you do not find what you need, do not be discouraged, give us a call. The units shown in this catalog are only a small sampling of what can be done by combining units. Furthermore, if combining existing units will not meet your needs, we are always happy to quote on a custom design unit.

HEAVY DUTY (HD) SERIES LIFTS

SPECIFICATION TABLE FOR DOUBLE WIDE UNITS

Model	Travel	Capacity	Std Min Platform	Opt. Max Platform	Maximum Loading End	Maximum Loading Side	Baseframe Size	Lowered Height	Raised Height	Speed Sec.	Motor H.P.	Ship Wt.
HDDW-12822	22	12800	60 X 48	84 X 78	19200	9000	60 X 48	11-3/4	33-3/4	24	5	2600
HDDW-16022	22	16000	60 X 48	84 X 78	22000	11600	60 X 48	11-3/4	33-3/4	36	5	2800
HDDW-19222	22	19200	60 X 48	84 X 78	22000	11600	60 X 48	11-3/4	33-3/4	38	5	2900
HDEDW-12822	22	12800	84 X 48	108 X 78	19200	9400	84 X 48	13-3/4	35-3/4	26	5	3100
HDEDW-16022	22	16000	84 X 48	108 X 78	22000	12400	84 X 48	13-3/4	35-3/4	36	5	3300
HDEDW-19222	22	19200	84 X 48	108 X 78	22000	12400	84 X 48	13-3/4	35-3/4	38	5	3400
HDVDW-12822	22	12800	108 X 48	132 X 78	19200	9900	108 X 48	13-3/4	35-3/4	26	5	3400
HDVDW-16022	22	16000	108 X 48	132 X 78	21800	12700	108 X 48	13-3/4	35-3/4	36	5	3600
HDVDW-19222	22	19200	108 X 48	132 X 78	21800	12800	108 X 48	13-3/4	35-3/4	38	5	3700
HDDW-12834	34	12800	60 X 60	84 X 90	16400	7200	60 X 60	11-3/4	45-3/4	36	5	2900
HDDW-16034	34	16000	60 X 60	84 X 90	20000	9900	60 X 60	11-3/4	45-3/4	52	5	3100
HDDW-19234	34	19200	60 X 60	84 X 90	20000	10500	60 X 60	11-3/4	45-3/4	54	5	3200
HDEDW-12834	34	12800	84 X 60	108 X 90	16200	7900	84 X 60	13-3/4	47-3/4	36	5	3400
HDEDW-16034	34	16000	84 X 60	108 X 90	20000	11000	84 X 60	13-3/4	47-3/4	52	5	3600
HDEDW-19234	34	19200	84 X 60	108 X 90	20000	11100	84 X 60	13-3/4	47-3/4	54	5	3760
HDVDW-12834	34	12800	108 X 60	132 X 90	16200	8100	108 X 60	13-3/4	47-3/4	36	5	3800
HDVDW-16034	34	16000	108 X 60	132 X 90	20000	11400	108 X 60	13-3/4	47-3/4	52	5	4020
HDVDW-19234	34	19200	108 X 60	132 X 90	19200	11500	108 X 60	13-3/4	47-3/4	54	5	4180
HDDW-12846	46	12800	60 X 68	84 X 98	14800	6100	60 X 68	12	58	48	5	3360
HDDW-16046	46	16000	60 X 68	84 X 98	17000	8500	60 X 68	12	58	68	5	3600
HDDW-19246	46	19200	60 X 68	84 X 98	17000	8700	60 X 68	12	58	70	5	3760
HDEDW-12846	46	12800	84 X 68	108 X 98	14600	6600	84 X 68	14	60	48	5	3980
HDEDW-16046	46	16000	84 X 68	108 X 98	16800	9300	84 X 68	14	60	68	5	4220
HDEDW-19246	46	19200	84 X 68	108 X 98	16800	9300	84 X 68	14	60	70	5	4400
HDVDW-12846	46	12800	108 X 68	132 X 98	14400	6800	108 X 68	14	60	48	5	4380
HDVDW-16046	46	16000	108 X 68	132 X 98	16800	9600	108 X 68	14	60	68	5	4680
HDVDW-19246	46	19200	108 X 68	132 X 98	16800	9600	108 X 68	14	60	70	5	4820
HDDW-12858	58	12800	60 X 84	84 X 114	12400	4400	60 X 84	12	70	64	5	3900
HDDW-16058	58	16000	60 X 84	84 X 114	16600	6300	60 X 84	12	70	94	5	4200
HDDW-19258	58	19200	60 X 84	84 X 114	17600	8500	60 X 84	12	70	96	5	4380
HDEDW-12858	58	12800	84 X 84	108 X 114	12200	4800	84 X 84	14	72	66	5	4580
HDEDW-16058	58	16000	84 X 84	108 X 114	16400	6900	84 X 84	14	72	96	5	4900
HDEDW-19258	58	19200	84 X 84	108 X 114	17400	9300	84 X 84	14	72	96	5	5100
HDVDW-12858	58	12800	108 X 84	132 X 114	12000	5000	108 X 84	14	72	66	5	5020
HDVDW-16058	58	16000	108 X 84	132 X 114	16400	7000	108 X 84	14	72	96	5	5380
HDVDW-19258	58	19200	108 X 84	132 X 114	17200	9700	108 X 84	14	72	96	5	5560

Wider units are available in the Super Duty lift section. Also, the factory can quote on modified Heavy Duty units to meet your needs.

SPECIFICATION TABLE FOR DOUBLE LONG UNITS

Model	Travel	Capacity	Std Min Platform	Opt. Max. Platform	Maximum Loading End	Maximum Loading Side	Baseframe Size	Lowered Height	Raised Height	Speed Sec.	Motor H.P.	Ship Wt.
HDDL-16024	24	16000	30 X 98	54 X 122	10000	15000	30 X 98	9-3/4	33-3/4	24	5	2600
HDDL-20024	24	20000	30 X 98	54 X 122	11000	19400	30 X 98	9-3/4	33-3/4	36	5	2800
HDDL-24024	24	24000	30 X 98	54 X 122	11000	19400	30 X 98	9-3/4	33-3/4	38	5	2900
HDEWDL-16024	24	16000	42 X 98	66 X 122	10000	15800	42 X 98	11-3/4	35-3/4	26	5	3100
HDEWDL-20024	24	20000	42 X 98	66 X 122	11000	20800	42 X 98	11-3/4	35-3/4	36	5	3300
HDEWDL-24024	24	24000	42 X 98	66 X 122	11000	20800	42 X 98	11-3/4	35-3/4	38	5	3400
HDVWDL-16024	24	16000	54 X 98	78 X 122	10000	16600	54 X 98	11-3/4	35-3/4	26	5	3400
HDVWDL-20024	24	20000	54 X 98	78 X 122	10900	21200	54 X 98	11-3/4	35-3/4	36	5	3600
HDVWDL-24024	24	24000	54 X 98	78 X 122	10900	21400	54 X 98	11-3/4	35-3/4	38	5	3700
HDDL-16036	36	16000	30 X 122	54 X 146	8200	12000	30 X 122	9-3/4	45-3/4	36	5	2900
HDDL-20036	36	20000	30 X 122	54 X 146	10000	16600	30 X 122	9-3/4	45-3/4	52	5	3100
HDDL-24036	36	24000	30 X 122	54 X 146	10000	17600	30 X 122	9-3/4	45-3/4	54	5	3200
HDEWDL-16036	36	16000	42 X 122	66 X 146	8100	13200	42 X 122	11-3/4	47-3/4	36	5	3400
HDEWDL-20036	36	20000	42 X 122	66 X 146	10000	18400	42 X 122	11-3/4	47-3/4	52	5	3600
HDEWDL-24036	36	24000	42 X 122	66 X 146	10000	18600	42 X 122	11-3/4	47-3/4	54	5	3760
HDVWDL-16036	36	16000	54 X 122	78 X 146	8100	13600	54 X 122	11-3/4	47-3/4	36	5	3800
HDVWDL-20036	36	20000	54 X 122	78 X 146	10000	19000	54 X 122	11-3/4	47-3/4	52	5	4020
HDVWDL-24036	36	24000	54 X 122	78 X 146	9600	19200	54 X 122	11-3/4	47-3/4	54	5	4180
HDDL-16048	48	16000	30 X 138	54 X 162	7400	10200	30 X 138	10	58	48	5	3360
HDDL-20048	48	20000	30 X 138	54 X 162	8500	14200	30 X 138	10	58	68	5	3600
HDDL-24048	48	24000	30 X 138	54 X 162	8500	14600	30 X 138	10	58	70	5	3760
HDEWDL-16048	48	16000	42 X 138	66 X 162	7300	11000	42 X 138	12	60	48	5	3980
HDEWDL-20048	48	20000	42 X 138	66 X 162	8400	15600	42 X 138	12	60	68	5	4220
HDEWDL-24048	48	24000	42 X 138	66 X 162	8400	15600	42 X 138	12	60	70	5	4400
HDVWDL-16048	48	16000	54 X 138	78 X 162	7200	11400	54 X 138	12	60	48	5	4380
HDVWDL-20048	48	20000	54 X 138	78 X 162	8400	16000	54 X 138	12	60	68	5	4680
HDVWDL-24048	48	24000	54 X 138	78 X 162	8400	16000	54 X 138	12	60	70	5	4820
HDDL-16060	60	16000	30 X 170	54 X 194	6200	7400	30 X 170	10	70	64	5	3900
HDDL-20060	60	20000	30 X 170	54 X 194	8300	10600	30 X 170	10	70	94	5	4200
HDDL-24060	60	24000	30 X 170	54 X 194	8800	14200	30 X 170	10	70	96	5	4380
HDEWDL-16060	60	16000	42 X 170	66 X 194	6200	8000	42 X 170	12	72	66	5	4580
HDEWDL-20060	60	20000	42 X 170	66 X 194	8200	11600	42 X 170	12	72	96	5	4900
HDEWDL-24060	60	24000	42 X 170	66 X 194	8700	15600	42 X 170	12	72	96	5	5100
HDVWDL-16060	60	16000	54 X 170	78 X 194	6000	8400	54 X 170	12	72	66	5	5020
HDVWDL-20060	60	20000	54 X 170	78 X 194	8200	11800	54 X 170	12	72	96	5	5380
HDVWDL-24060	60	24000	54 X 170	78 X 194	8600	16200	54 X 170	12	72	96	5	5560

Note: Longer units can be created as needed. Contact the factory for specifications and pricing.

COLOR OPTIONS

YOU CHOOSE THE COLOR. *Every Advance product is protected by a four-part paint process. All products are washed and acid etched, then hot air dried and inspected, then prime painted, finish painted, and then baked to provide the best paint finish in the industry.*

8 STANDARD COLORS AVAILABLE


Blue


Yellow


Tan


Green


Gray


Orange

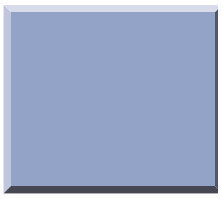

Brown


Red

ANY CUSTOM COLOR AVAILABLE — ONE TIME SET-UP CHARGE


Mediterranean Royal


Hunter Green


Platinum


Santa Fe Turquoise

YOU TELL US THE COLOR AND WE'LL MATCH IT
(COLOR TONES MAY VARY FROM CATALOG AND PAINT BATCHES.)

ABOUT ADVANCE

Our state of the art 120,000 square foot building houses all operations including sales, design, manufacturing and shipping.

Since 1974, our business platform has been built upon three pillars. These are the principles of "Be fair", "Make it right" and "Provide superior service". Our employees are given these guidelines on the day that they are hired and reminded of them often. We believe each and every employee, not just managers, should be able to make daily decisions based on these basic principles to optimize our relationship with our suppliers, our fellow employees and most importantly, you, our customers.

All Americans have a strong sense of what fair treatment is, so we find that this requires almost no explanation to our employees.

When a process or product goes astray, the principle of "make it right" tells everyone what needs to be done and reinforces the principle of "be fair".

Providing superior service is defined as maximum responsiveness to questions and requests and being as easy to deal with as possible. We pride ourselves on providing the fastest quotations, fastest deliveries, and fastest response to service questions of anyone in business. We strive to provide the most helpful literature, service manuals and website available.

In today's business environment, providing high quality equipment is only a starting point. What really differentiates businesses is the quality of the relationship and service during the entire buying and maintenance process. We believe our faithful dedication to our three basic principles will provide great value to our customers and put us head and shoulders above our competition.

Why it pays to buy from an Advance distributor!

SALES – Advance distributor sales engineers are trained to help you apply the correct equipment to your specific application, thereby saving you time and money and precluding costly misapplications. Because they visit hundreds of facilities each year, they are aware of the latest equipment and techniques to solve your problems.

INSTALLATION – Advance distributors can install what they sell, which makes your job easier and assures you the job will be done right and the equipment will function to your satisfaction. Their trained technicians have the experience required to meet your installation requirements.

SERVICE – When your equipment needs service, your Advance distributor is right there to help. They have trained service personnel to get you up and running as fast as possible, thereby saving on downtime costs.

VALUE – It's very simple. Advance distributors save you money by applying the right equipment to the job, making sure it's installed correctly, and making sure you get service when you need it. Call the Advance distributor nearest you to insure your project's success.

Advance Lifts Inc. Warranty

For a period of one (1) year from date of shipment from the Company's plant, the Company agrees to replace or repair, free of charge, any defective parts, material or workmanship on new equipment. This shall include electrical and hydraulic components.

For a period of ten (10) years or 250,000 cycles (whichever occurs first) from date of shipment from Company's plant, the Company agrees to replace or repair any defective structure.

Company authorization must be obtained prior to the commencement of any work. The Company reserves the right of choice between effecting repairs in the field or paying all freight charges and effecting the repairs at the Company's plant. The Company further reserves the right of final determination in all warranty considerations. Evidence of overloading, abuse or field modification of units without Company approval shall void this warranty. No contingent liabilities will be accepted.

Advance Lifts Inc. Ultra High Cycle Warranty

Structural portion:

For a period of ten (10) years or 3,000,000 cycles (whichever occurs first) from date of shipment from the Company's plant, the Company agrees to replace or repair, any defective parts, material or workmanship in the lift structure. This includes axles, bearings and cylinders, but not cylinder packings.

Power unit portion:

For a period of one (1) year from date of shipment from the Company's plant, the Company agrees to replace or repair any defective parts. This shall include all electric and hydraulic components including cylinder packings.

Company authorization must be obtained prior to the commencement of any work. The Company reserves the right of choice between effecting repairs in the field or paying all freight charges and effecting the repairs at the Company's plant. The Company further reserves the right of final determination in all warranty considerations. Evidence of overloading, abuse or field modification of units without Company approval shall void this warranty. No contingent liabilities will be accepted.

Expected Life Versus Warranty Life

We at Advance Lifts base our warranties on units being used at maximum capacity and full range of motion on every cycle. In most real world applications, this is not the case. Most units are usually cycled only a portion of their full range and are only loaded to maximum capacity occasionally, if ever. This means that most lifts last much longer than the warranty period. In normal operating environments, we expect the average unit to last several times the warranted cycle limit. It is not unusual for our parts department to sell consumable parts (wheels or packing kits) for units that are more than 25 years old and still going strong. The keys to reaching expected lives well beyond warranty are avoiding abuse and attending to maintenance.