

# RIDER LIFTS FOR MEZZANINES & AUTOMATED MATERIAL LIFTS FOR MEZZANINES

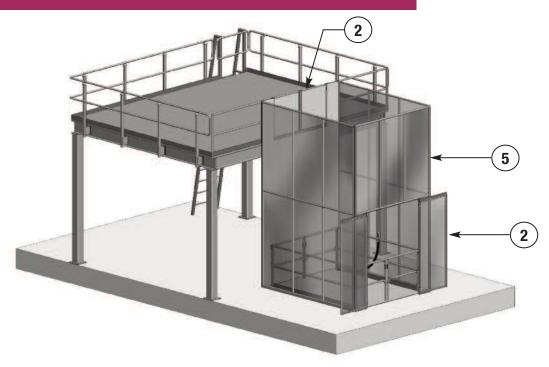


- ► INCREASE MEZZANINE UTILITY
- **▶ COST EFFECTIVE**

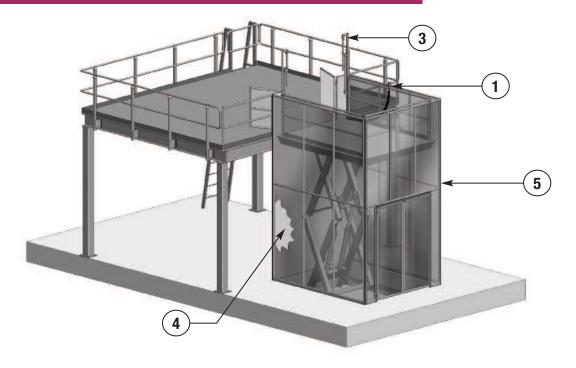
- **▶ SAFER LOADING & UNLOADING**
- ► FASTER LOADING & UNLOADING

CATALOG & APPLICATION GUIDE

# DRAWING OF LOWERED MEZZANINE LIFT



# Drawing of Raised Mezzanine Lift





Scissors lifts have been safely moving men and material from ground level to higher elevations for more than 60 years and are an economical alternative to reciprocating conveyors and elevators with their elaborate guiding and hoisting mechanisms.

Scissors lifts in general are governed by three ANSI codes:

- ▶ ANSI.MH29.1 is primarily concerned with "industrial scissors lifts".
- ▶ ANSI/SIA A92.3 and A92.6 are primarily concerned with "mobile elevating work platforms".

All of these ANSI codes allow for riders on the platforms with proper guard rails.

The writers of ANSI B20.1 Vertical Reciprocating Conveyors, ANSI 17.1 Elevators, and ASME A18.1 Safety Standard For Platform Lifts and Stairway Chairlifts have clearly stated that their codes do not apply to scissors lifts. (See back page for details)

# Typical Industrial Mezzanine Lift Installation For Rider/Operators

- 1. Lift control is a constant pressure push button with a 20 foot coil cord mounted on the platform which allows the rider/operator to be in constant control of vertical movement. Automatic (send/call) systems are not allowed with riders.
- **2.** The 42" high guard rail gate on the mezzanine and all enclosure doors are interlocked so that they can not be opened unless the lift is present and any open door or gate prevents lift movement.
- **3.** The 42" high guard rails with mid rails and 4" toe boards mounted on the platform are equipped with vertical folding gates for access and the gates are electrically interlocked so they must be closed to allow lift movement.
- **4.** The face of the mezzanine adjacent to the lift must be covered with a smooth surface from ground to top of guard rail to eliminate shear points. Windows and or interlocked doors are optional.
- **5.** The pit is enclosed on all sides not against a wall or smooth facia, with a mesh enclosure that extends upward to the top of the guard rail on the fully raised lift. Lower level access gates on the enclosure shall be interlocked so that they cannot be opened unless the lift is present and open gate will prevent lift movement.

Preproduction layout drawings will be available after receipt of order for preapproval by local authorities and we are pleased to assist in the code review process.

See White Paper and Inspection Checklist on rider mezzanine lifts at our website for more details.



# "BIG FRIGGIN" (BFL) SERIES LIFTS

The BFL series lifts were designed for the high travel applications that also require large platforms. These lifts are designed to move multiple pallets or large loads up a floor level or to high mezzanines. These big lifts are all built with tubular steel legs to maximize the rigidity of the unit and to minimize the weight.

# SPECIAL FEATURES & BENEFITS

- ▶ These units are equipped with the patented "Platform Centering Device".
- ▶ All of the controllers are assembled in our UL listed panel shop.
- ▶ These units are fully primed and finished with a baked enamel finish.
- ▶ The cylinders are machine grade with return lines.
- ▶ The oil reservoirs are mild steel for long life.
- ▶ These units conform to all applicable ANSI codes.
- ▶ All pressure hoses are double wire braid with JIC fittings.
- ▶ Two bi parting electrically interlocked folding gates are standard.
- ▶ A manual lowering valve is standard.



#### FEATURE DETAILS



► Patented Platform Centering Device



► BFL Cylinders w/Return Lines



► Power Unit w/Controller



► Double Wire Braid Hose



► BFL Swing Arm Safety Bar



# "BIG FRIGGIN" (BFL) SERIES LIFTS

# SPECIFICATION TABLE FOR BFL SERIES LIFTS

Model	Travel	Capacity	Std. Min. Platform	Opt. Max. Platform	Maximum End	Loading Side	Baseframe Size	Lowered Height	Raised Height	Speed Sec.	Motor H.P.	Ship Wt.
BFL2-2120	10′	2000	6′ X 8′	8' X 10'	1100	625	6′ X 8′	1′ 2-1/2″	11′ 2-1/2″	45	2	2,130
BFL2-4120	10′	4000	6' X 8'	8' X 10'	2150	1325	6' X 8'	1′ 3-1/2″	11′ 3-1/2″	47	5	2,607
BFL2-6120	10'	6000	6' X 8'	8' X 10'	3150	1825	6' X 8'	1′ 5-1/2″	11' 5-1/2"	45	5	2,653
BFL2-2144	12′	2000	6' X 9'	8' X 11'	1300	700	6' X 9'	1′ 3-1/2″	13' 3-1/2"	54	2	2,521
BFL2-4144	12′	4000	6' X 9'	8' X 11'	2550	1325	6' X 9'	1′ 5-1/2″	13' 5-1/2"	45	5	3,085
BFL2-6144	12'	6000	6' X 9'	8' X 11'	3500	1925	6' X 9'	1' 5-1/2"	13' 5-1/2"	54	5	3,767
BFL3-2180	15′	2000	6' X 8'	8' X 10'	1325	600	6' X 8'	1′ 8-1/2″	16' 8-1/2"	52	5	2,855
BFL3-4180	15′	4000	6' X 8'	8' X 10'	2650	1200	6' X 8'	1′ 11-1/2″	16′ 11-1/2″	54	5	3,930
BFL3-6180	15′	6000	6' X 8'	8' X 10'	4000	1950	6' X 8'	2' 2-1/2"	17′ 2-1/2″	65	5	3,990
BFL3-2216	18'	2000	6' X 10'	8' X 12'	1325	800	6' X 10'	2' 2-1/2"	20' 2-1/2"	60	5	5,065
BFL3-4216	18′	4000	6' X 10'	8' X 12'	2650	1025	6' X 10'	2' 2-1/2"	20' 2-1/2"	62	5	5,065
BFL3-6216	18′	6000	6' X 10'	8' X 12'	4000	2650	6' X 10'	2' 8-1/2"	20' 8-1/2"	64	5	6,954

## **OPTIONS:**

#### **ELECTRICAL:**

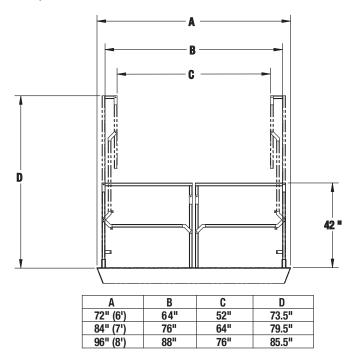
(Note the standard control is a constant pressure pushbutton on a 10' cord from the power unit controller.)

- 1. For rider units a platform mounted constant pressure pushbutton with 20 ft. coil cord and a keyswitch maintenance override mounted on the power unit controller.
- 2. For no rider call send units two (2) wall mounted three (3) button (up, down, E stop) momentary contact call/send buttons and a keyswitch maintenance override mounted on the power unit controller.
- 3. Proximity switches

#### **MECHANICAL:**

Our parting gates are available in standard widths of 6', 7,' or 8'. See chart for exact dimensions. The gates are held in the upright position by gas air springs. Electrical interlocks are standard.

- 1. Bi parting gate for 7 ft side with 64" clear width
- 2. Bi parting gate for 8 ft side with 76" clear width
- Enclosures that extend from ground level to top of guard rails in fully raised lift position are quoted based on application environment. Gates and doors in enclosures must be interlocked to prevent opening unless lift is present.





# Multi Stage (MSL) Series Lifts

The MSL Series lifts were designed for the higher travel applications that require shorter platform lengths than would be available with a single scissors design. The lighter capacity units are built with solid steel legs for more compact design and greater cost savings, while the higher capacity units are built with structural tubing legs for greater rigidity, lighter weight and optimum cost savings.



## SPECIAL FEATURES

- These units are equipped with the patented "Platform Centering Devices", which doubles or triples lift life.
- 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



► MSL Cylinder w/Clear Plastic Return Lines



► Power Unit w/Controller



► Double Wire Braid Hose



► MSL Swing Arm Safety Bar



# MULTI STAGE (MSL) SERIES LIFTS

# SPECIFICATION TABLE FOR MULTI STAGE LIFTS

Model	Travel	Capacity	Std Min			n Loading	Baseframe	Lowered	Raised	Speed	Motor	Ship
			Platform	Platform	End	Side S	Size	Height	Height	Sec.	H.P.	Wt.
MSL2-248	48	2000	30 X 42	48 X 66	1500	1500	30 X 42	10-1/2	58-1/2	16	2	750
MSL2-448	48	4000	30 X 42	48 X 66	2800	2800	30 X 42	12-1/2	60-1/2	25	2	875
MSL2-648	48	6000	30 X 42	48 X 66	3800	3800	30 X 42	13-1/2	61-1/2	37	2	1150
MSL2-260	60	2000	30 X 48	48 X 72	1400	1400	30 X 48	10-1/2	70-1/2	20	2	850
MSL2-460	60	4000	30 X 48	48 X 72	2500	2500	30 X 48	12-1/2	72-1/2	32	2	975
MSL2-660	60	6000	30 X 48	48 X 72	3400	3400	30 X 48	13-1/2	73-1/2	44	2	1250
MSL2-272	72	2000	30 X 54	48 X 78	1100	1100	30 X 54	10-1/2	82-1/2	23	2	925
MSL2-472	72	4000	30 X 54	48 X 78	2400	2400	30 X 54	12-1/2	84-1/2	37	2	1075
MSL2-672	72	6000	30 X 54	48 X 78	3000	3000	30 X 54	13-1/2	85-1/2	52	2	1400
MSL2-284	84	2000	38 X 60	56 X 84	1400	1400	38 X 60	12-1/2	96-1/2	27	2	1000
MSL2-484	84	4000	38 X 60	56 X 84	2300	2300	38 X 60	14-1/2	98-1/2	44	2	1100
MSL2-684	84	6000	38 X 68	56 X 92	3200	3200	38 X 68	16-1/2	100-1/2	66	2	1475
MSL2-884	84	8000	48 X 65	66 X 89	4400	4400	48 X 65	18-3/4	102-3/4	41	5	2200
MSL2-1084	84	10000	48 X 65	66 X 89	5200	5200	48 X 65	18-3/4	102-3/4	48	5	2250
MSL2-1284	84	12000	48 X 67	66 X 91	6300	6300	48 X 67	22-3/4	106-3/4	52	5	2550
MSL2-296	96	2000	38 X 66	56 X 90	1300	1300	38 X 72	12-1/2	108-1/2	31	2	1050
MSL2-496	96	4000	38 X 66	56 X 90	2200	2200	38 X 66	14-1/2	110-1/2	49	2	1225
MSL2-696	96	6000	38 X 72	56 X 96	3300	3300	38 X 72	16-1/2	112-1/2	71	2	1525
MSL2-896	96	8000	48 X 71	66 X 95	4600	4600	48 X 71	18-3/4	114-3/4	45	5	2400
MSL2-1096	96	10000	48 X 71	66 X 95	5400	5400	48 X 71	18-3/4	114-3/4	56	5	2675
MSL2-1296	96	12000	48 X 74	66 X 98	6000	6000	48 X 74	22-3/4	118-3/4	58	5	2775
MSL3-2108	108	2000	32 X 54	44 X 78	1100	1100	32 X 54	14	122	33	2	1000
MSL3-4108	108	4000	32 X 58	44 X 82	2100	2100	32 X 58	20	128	55	2	1275
MSL3-6108	108	6000	34 X 60	46 X 84	3700	3700	34 X 60	23	131	38	5	1800
MSL3-2126	126	2000	32 X 62	44 X 86	1300	1300	32 X 62	17	143	62	2	1250
MSL3-4126	126	4000	34 X 66	46 X 90	2400	2400	34 X 66	20	146	88	2	1500
MSL3-6126	126	6000	36 X 68	48 X 92	3400	3400	36 X 68	23	149	60	5	2175
MSL3-8126	126	8000	42 X 71	54 X 95	4000	4000	42 X 71	25-1/4	151-1/4	59	5	2425
MSL3-10126	126	10000	42 X 71	54 X 95	5600	5600	42 X 71	25-1/4	151-1/4	69	5	2925
MSL3-12126	126	12000	42 X 72	54 X 96	6200	6200	42 X 72	31-1/4	157-1/4	81	5	3200
MSL3-2144	144	2000	32 X 72	44 X 96	1100	1100	32 X 72	17	161	69	2	1400
MSL3-4144	144	4000	34 X 73	46 X 97	2100	2100	34 X 73	20	164	97	2	1650
MSL3-6144	144	6000	36 X 74	48 X 98	3000	3000	36 X 74	23	167	65	5	2325
MSL3-8144	144	8000	42 X 77	54 X 101	4400	4400	42 X 77	25-1/4	169-1/4	65	5	3150
MSL3-10144	144	10000	42 X 77	54 X 101	5000	5000	42 X 77	25-1/4	169-1/4	84	5	3225
MSL3-12144	144	12000	42 X 80	54 X 104	6000	6000	42 X 80	31-1/4	175-1/4	92	5	3850

Consult the factory for higher speeds with larger power units, custom travels, custom platform sizes and capacities.

## **OPTIONS:**

For movement between floor levels, see pages 2, 3 & 5 for necessary options. Guard and gates are not included in base prices of MSL's.



## Scissors Lifts Are Not Elevators:

The biggest differences between rider scissors lifts and elevators or vertical reciprocating conveyors are as follows:

- 1. Scissors lifts are factory assembled not field assembled from kits.
- Scissors lifts have no external guide rails and/or pulley mechanisms to entangle riders.All the stability and lifting is provided by the scissors lift mechanism <u>beneath</u> the platform.
- Rider scissors lifts use constant pressure push buttons which means the rider operator is in constant control.

Although fixed scissor lifts under ANSI MH29.1 and the mobile elevating platforms in ANSI A92.3 and 92.6 are very similar, the fixed scissor lifts are far safer because they are lagged in place and are therefore much more stable, they do not tip over and cannot run into things.

ANSI B20.1 for vertical reciprocating conveyors in paragraph 1.2 specifically lists "Industrial scissors lifts as covered in ANSI MH29.1" as equipment not covered in B20.1.

The committee responsible for writing and maintaining ASME A17.1 the safety code for elevators and escalators stated clearly in "Interpretations Number 11 for November 1986 – April 1987" in response to inquiry 86-46, that in regard to scissor lifts "since the equipment does not move in guide rails, it is not an elevator as defined in section 3 and is not within the scope of A17.1"

ASME A18.1 "Safety Standard For Platform Lifts and Stairway Chairlifts" states clearly in the first sentence of the first paragraph of the standard that it applies to "lifts intended for transportation of mobility impaired person only". Which means it applies to handicap lifts only.

Inspections that use A17.1, A18.1 or B20.1 as the appropriate authority over scissor lifts are contradicting the writers of those codes.

For automated applications with call send buttons at the various levels, it shall be understood that an enclosure with minimum height of 8' will be required at ground level and riders will not be allowed on the platforms during vertical movement of the lift. Enclosures should extend upward the full height of the lift plus the height of upper level guarding.

#### WARRANTY:

#### **ADVANCE LIFTS WARRANTY:**

For a period of one 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 years or 125,000 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.

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