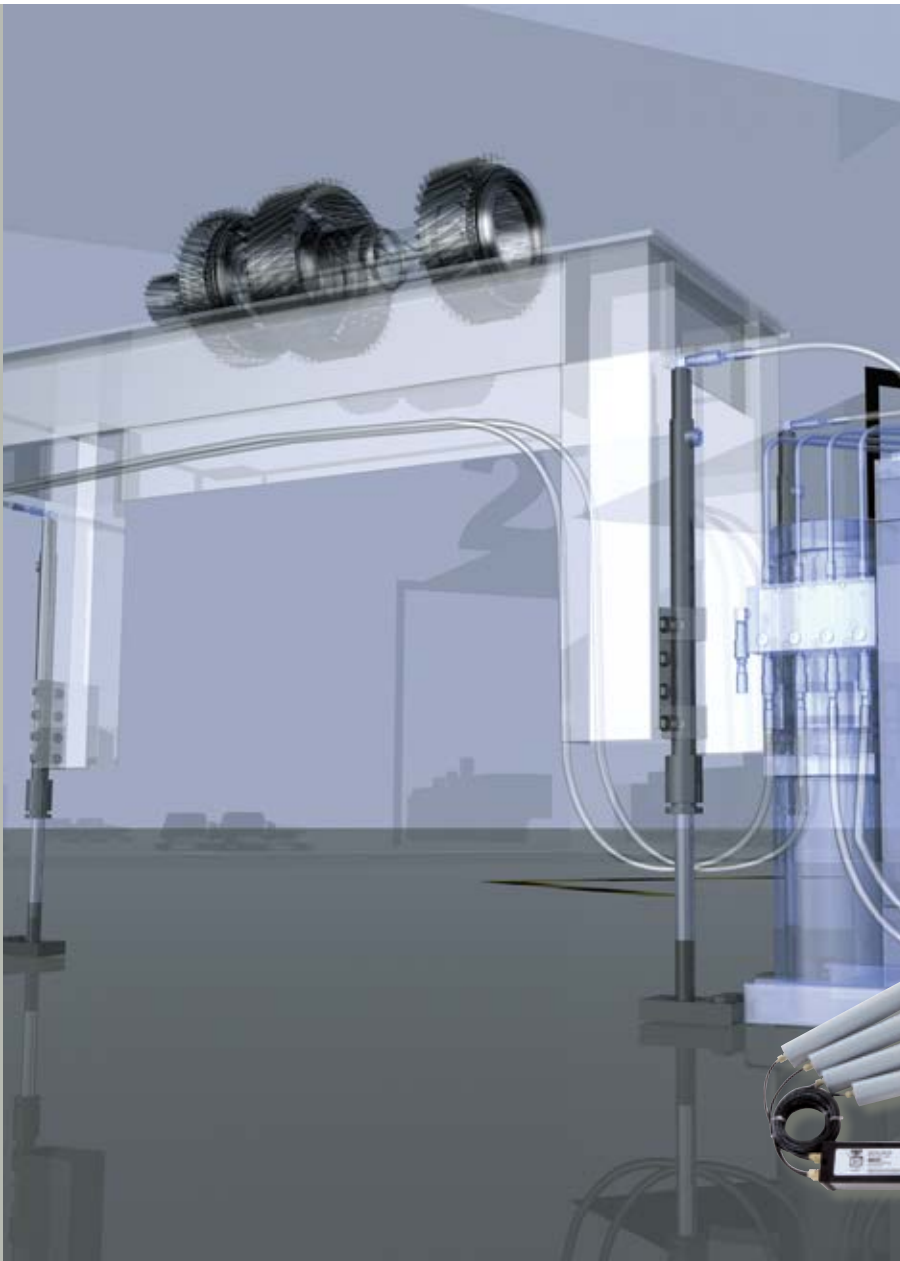


Find the right height for your application requirements

# Ergonomic Height Adjustable Systems



**Dyna-Lift**<sup>®</sup>

ISO 9001: 2008 Registered  
Made in USA





## Innovation and High Performance

- In-house research and development with dedicated production facilities utilizing the latest technologies
- Expertise and competence in products and applications
- Optimized solutions for the customer
- High quality standards, reliability and service



## We set the table for your requirements

Ergonomic, height-adjustable workbenches are quickly becoming the standard in the industry. As more people demand height-adjustability, Dyna-Lift® is the standard for delivering it.

Dyna-Lift ergonomic systems are available with lift capabilities ranging anywhere from a few hundred pounds to 1,500 pounds.

In addition to work tables, other common applications include office furniture, hospital beds, assembly line fixtures and rehabilitation tables. Less conventional applications have included casket lifts, massage table lifts and lectern/podium lifts.

We have developed Dyna-Lift® applications for many light and heavy industrial, office and medical applications, including a successful product to help Boeing make the production of airplane wings height-adjustable for workers.

Every customer has a special, unique need that they use Dyna-Lift® to satisfy. That is the reason why Bucher Hydraulics excels at a timely response, outstanding research of our clients' needs, engineering of the right applications and ultimately the best solution for each situation.

### Table of Contents:

Dyna-Lift Options: Manual, Electric and Multi-Post Units	4
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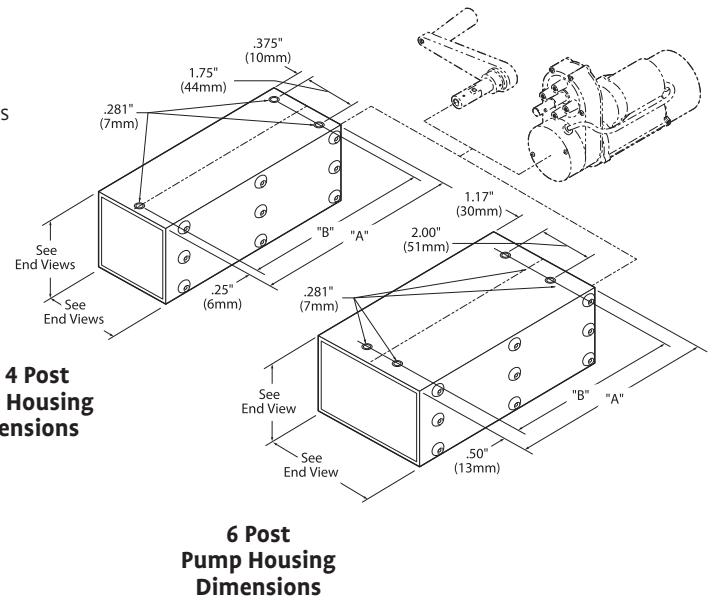
# Manual, Electric and Multi-Post Units

## General Description

- Complete, ready-to-install, Height Adjustable System
- Choose from 1 - 6 Cylinders
- Manual or Electric Operation
- Custom Systems Available

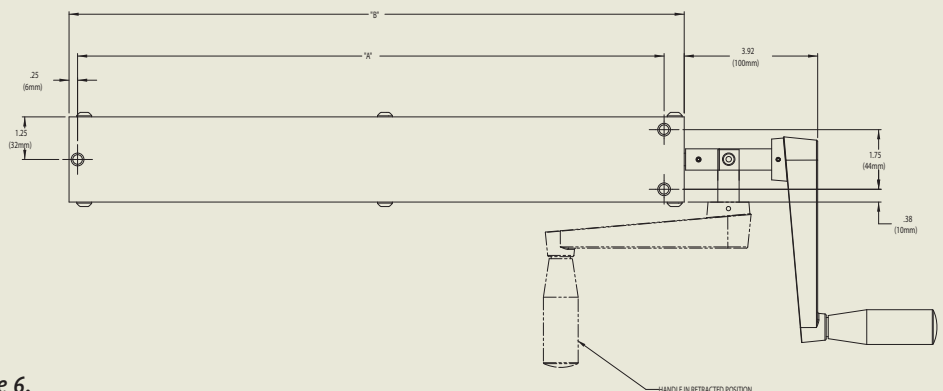
## Technical Information

- System Capacity:
  - 250 lbs. (113 kg) per Cylinder
  - 1000 lbs. (450 kg) max. capacity on all Base Dyna-Lifts®
  - 1500 lbs. (680 kg) maximum capacity on Heavy Duty Dyna-Lift® Systems
- Weight: Typical 2 Post Manual Unit with 16 Inch Stroke Cylinder:
  - 10 Pounds (4.54 kg)
  - Typical 4 Post Manual Unit with 12 Inch Stroke Cylinder:
    - 27 Pounds (12.25 kg)
    - Typical 6 Post Electric Unit with 12 Inch Stroke Cylinder:
      - 72 Pounds (32.69 kg)
- System Must Be Guided
- System Ships Fully Charged and Ready-to-Install
- Smooth, Quiet Operation
- Flexible Tubing: 1" Bend Radius
- Highly Refined White Hydraulic Fluid
- Units are Rechargeable and Fully Serviceable in the Field
- Powder Coated Housing Finish
- **Manual Unit:**
  - Five Revolutions Per Inch Travel
  - Retractable Handle (Standard)
- **Electric Unit:**
  - 87 RPM
  - Internal Limit Switches
  - Thermal Overload Protection
  - UL Recognized CSA Certified
  - 12 VDC Switch. 30mA in Operation



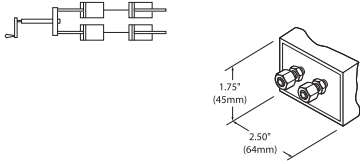
## Typical 4 Post Manual Pump Assembly

4 Post Manual		
Stroke	"A" Dimension	"B" Dimension
6 (152)	11.12 (282 mm)	11.96 (304 mm)
8 (203)	13.15 (334 mm)	13.99 (355 mm)
10 (254)	15.18 (386 mm)	16.02 (407 mm)
12 (305)	17.21 (437 mm)	18.05 (458 mm)
16 (406)	21.28 (541 mm)	22.12 (562 mm)



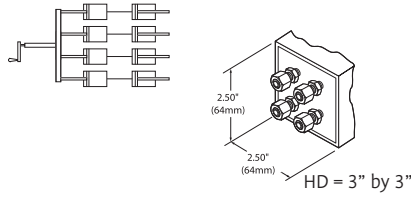
Typical 4 Post Electric Pump Assembly on page 6.

### 2 Post System Schematic



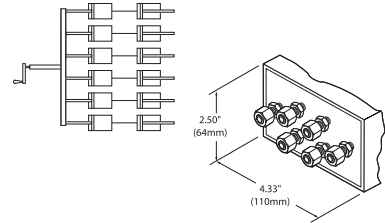
2 Post End View

### 4 Post System Schematic



4 Post End View

### 6 Post System Schematic



6 Post End View

#### 2 Post Pump Housing

Lift Cylinder Adj. Range IN (mm)	A Length IN (mm)	B Length IN (mm)
6 (152)	11.96 (304)	11.12 (283)
8 (203)	13.99 (355)	13.15 (334)
10 (254)	16.02 (407)	15.18 (386)
12 (305)	18.05 (458)	17.21 (438)
16 (406)	22.12 (562)	21.28 (541)

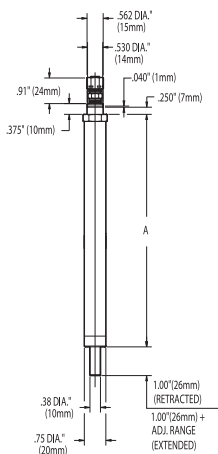
#### 4 Post Pump Housing

Lift Cylinder Adj. Range IN (mm)	A Length IN (mm)	B Length IN (mm)
6 (152)	11.96 (304)	11.12 (283)
8 (203)	13.99 (355)	13.15 (334)
10 (254)	16.02 (407)	15.18 (386)
12 (305)	18.05 (458)	17.21 (438)
16 (406)	22.12 (562)	21.28 (541)

#### 6 Post Pump Housing

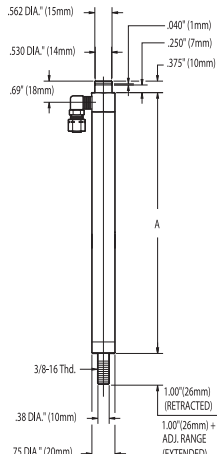
Lift Cylinder Adj. Range IN (mm)	A Length IN (mm)	B Length IN (mm)
6 (152)	12.15 (309)	11.40 (290)
8 (203)	14.18 (360)	13.43 (341)
10 (254)	16.21 (412)	15.48 (393)
12 (305)	18.24 (463)	17.49 (444)
16 (406)	22.31 (567)	21.56 (548)

### Typical Cylinder Configurations



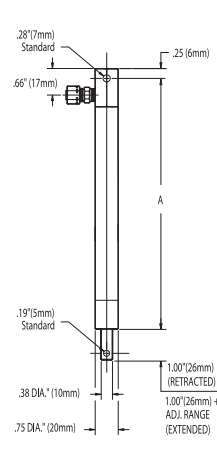
#### Cylinder Type A1A

Lift Cylinder Adj. Range IN (mm)	A Length IN (mm)
6 (152)	8.38 (213)
8 (203)	10.38 (264)
10 (254)	12.38 (314)
12 (305)	14.38 (365)
16 (406)	18.38 (467)
20 (508)	22.38 (568)
	HD Only



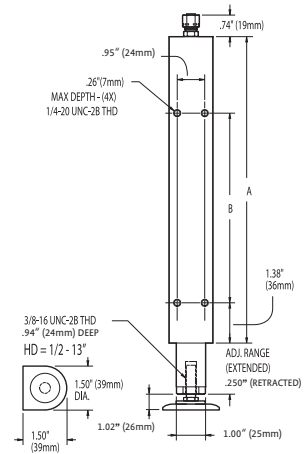
#### Cylinder Type B2D

Lift Cylinder Adj. Range IN (mm)	A Length IN (mm)
6 (152)	8.75 (222)
8 (203)	10.75 (273)
10 (254)	12.75 (324)
12 (305)	14.75 (375)
16 (406)	18.75 (476)
20 (508)	22.75 (578)
	HD Only



#### Cylinder Type C1C

Lift Cylinder Adj. Range IN (mm)	A Length IN (mm)
6 (152)	8.88 (226)
8 (203)	10.88 (276)
10 (254)	12.88 (327)
12 (305)	14.88 (378)
16 (406)	18.88 (480)
20 (508)	23.25 (591)
	HD Only



#### Cylinder Type D1A and 20" D1D

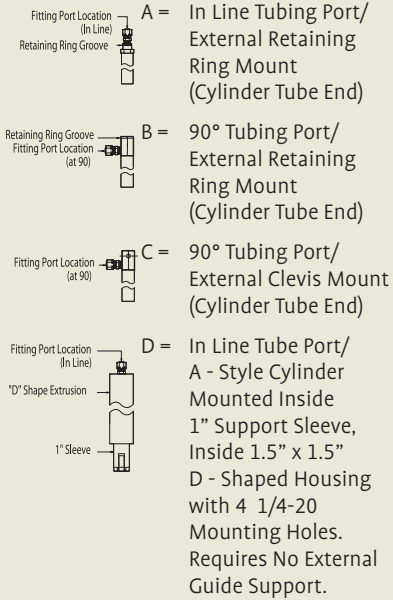
Lift Cylinder Adj. Range IN (mm)	A Length IN (mm)	B Length IN (mm)
6 (152)	11.50 (292)	6.50 (165)
8 (203)	13.50 (343)	9.45 (240)
10 (254)	15.50 (394)	9.45 (240)
12 (305)	17.50 (445)	13.38 (340)
16 (406)	21.50 (546)	13.38 (340)
20 (508)	25.50 (648)	17.38 (442)
		HD Only

# Dyna-Lift® System Selection Guide

# of Cylinders	Actuator Type	Cylinder Body Type	Cylinder/Pump Fitting Type
----------------	---------------	--------------------	----------------------------

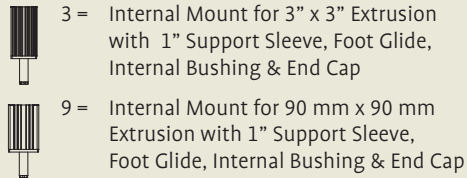
- 1 M = Manual Crank Drive
- 2 N = No motor / handle
- 3 E = 115 V AC (60 Hertz)
- 4 2 = 220 V AC (50 Hertz)
- 5 3 = 12 V DC
- 6 4 = 24 V DC
- 5 = 115 V AC High speed
- P = Programmable Switch

(AC motors include a rocker switch. DC motors do not.)



- 1 = Straight / straight
- 2 = 90° / straight
- 3 = Straight / 90°
- 4 = 90° / 90°
- 5 = 180° / straight
- 6 = 180° / 90°
- 7 = Straight / velocity fuse / straight
- 8 = Straight / velocity fuse / 90°

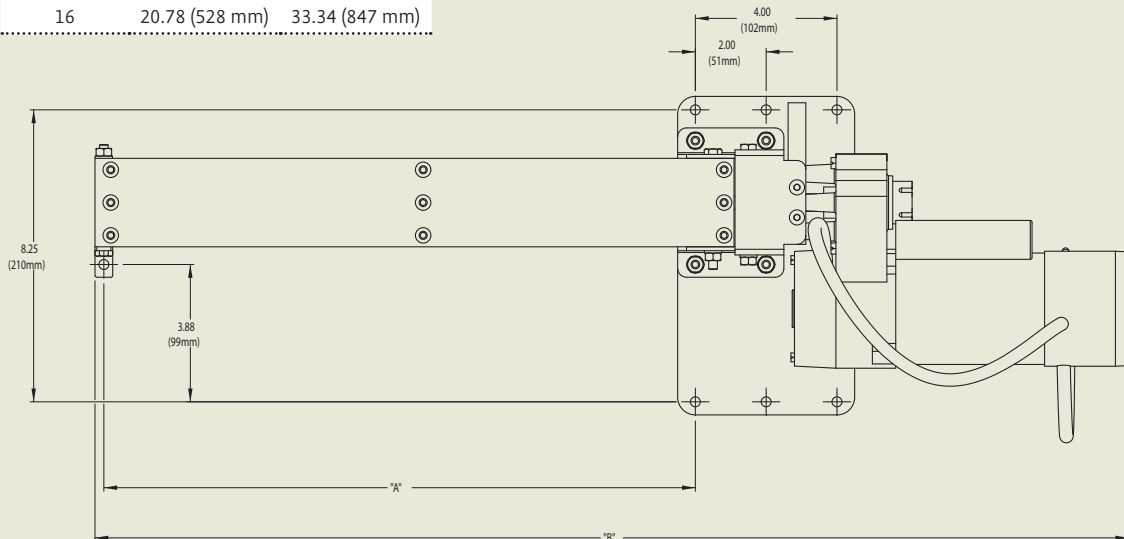
(see page 5 for typical cylinder configurations)



(see page 10 for internal mount cylinders)

## Typical 4 Post Electric Pump Assembly

4 Post Electric		
Stroke	"A" Dimension	"B" Dimension
6	10.62 (270 mm)	23.18 (589 mm)
8	12.65 (321 mm)	25.21 (640 mm)
10	14.68 (373 mm)	27.24 (691 mm)
12	16.71 (424 mm)	29.27 (744 mm)
16	20.78 (528 mm)	33.34 (847 mm)



Live End Rod Type	Cylinder Adjustment Range Inches (mm)	Standard or Custom	Tubing Lengths
-------------------	---------------------------------------	--------------------	----------------

**Guided "D" Rod End Options**

- A = 3/8" Adapter with 3/8" Foot Glide
- B = 3/8" Adapter without Foot Glide
- C = 1/2" Adapter with 1/2" Caster
- D = 1/2" Adapter with 1/2" Foot Glide
- E = 1/2" Adapter without Foot Glide
- F = 3/8" SS Adapter, 3/8" SS Foot Glide with SS Piston Rod (for clean room and wash down environments)
- G = 1/2" SS Adapter, 1/2" SS Foot Glide with SS Piston Rod (for clean room and wash down environments)

- 06 (156)
- 08 (203)
- 10 (254)
- 12 (305)
- 16 (406)
- \*\* Std. Units Only \*\*
- 20 (508)

\*\* 4 Post HD Units Only \*\*

- S = Standard
  - H = Heavy Duty 1500 lb. capacity
  - T = Telescopic Leg Assembly (T.L.A.)
- (With B1C leg cylinder only.)

**Custom Flexible Tubing Lengths Required From Pump Unit To Each Cylinder**





- Cyl # 1 \_\_\_\_\_
- Cyl # 2 \_\_\_\_\_
- Cyl # 3 \_\_\_\_\_
- Cyl # 4 \_\_\_\_\_
- Cyl # 5 \_\_\_\_\_
- Cyl # 6 \_\_\_\_\_

**Standard Tube Lengths**

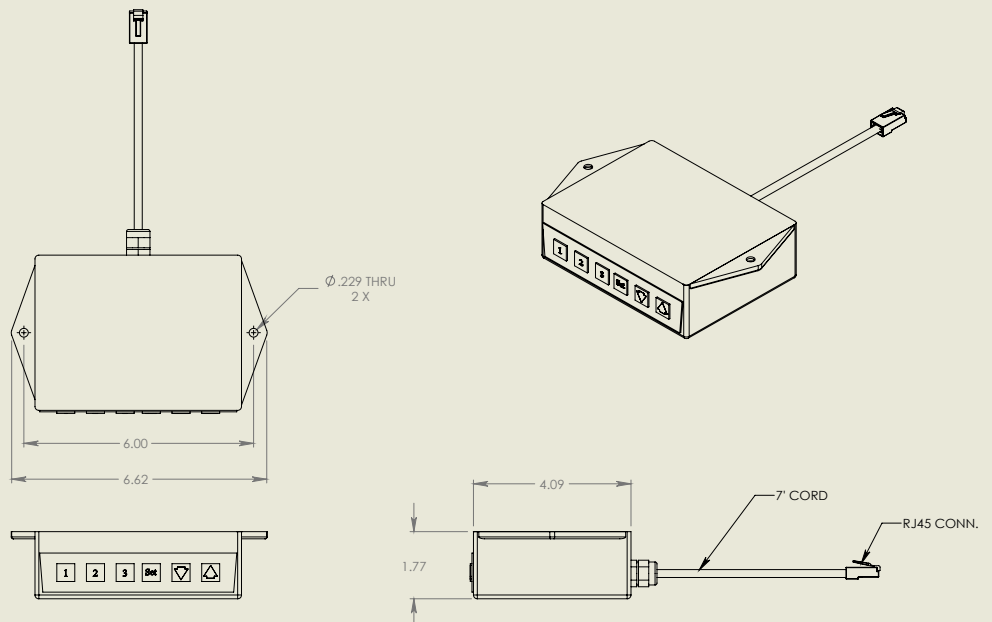
- 2 cyl. 96"-60"
- 4 cyl. 96"-96"-60"-60"
- 6 cyl. 120"-120"-120"-96"-96"-96"

**Max. Recommended Tube Length is 12'**

**Unguided Rod End Options**

-  A = Straight Rod End
-  B = Retainer Ring Rod End
-  C = Clevis Rod End
-  D = Threaded Rod End

**Programmable Switch**



# Working with you for the best hydraulic solution



Heavy Duty Dyna-Lift®  
(1,500 lbs (680 kg) capacity)



Internal & External  
Aluminum Extrusion Mount



Telescopic Leg Assembly (T.L.A.)  
(250 lbs (115 kg) per column)



Electric or Manual

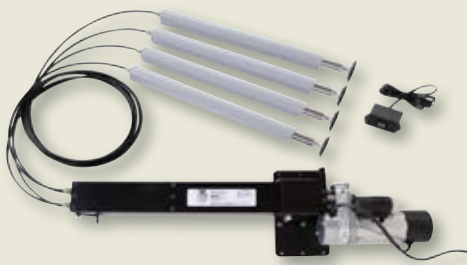


# Heavy Duty Dyna-Lift®

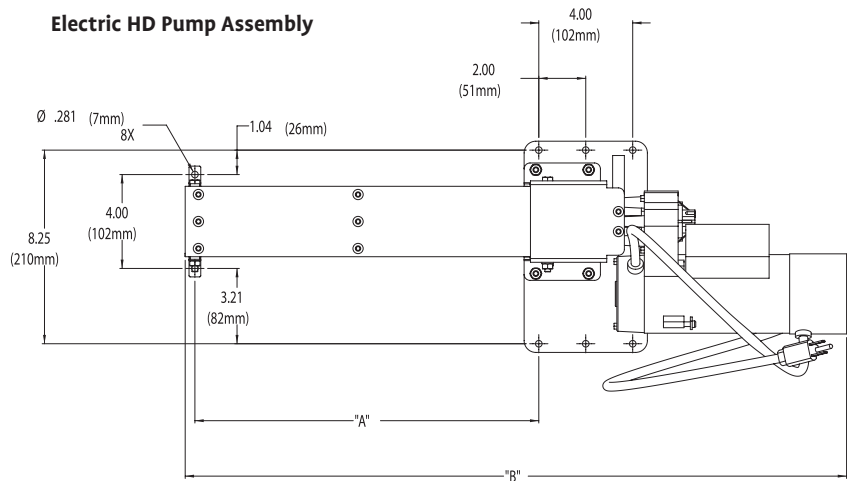
1,500 lbs. (680 kg) Capacity

**Height adjustability in minutes with an Easy-to-Install Heavy Duty Dyna-Lift® kit.**

The New Heavy Duty Dyna-Lift® kit quickly converts a fixed height structure to one with a 0 -20" range of height adjustment. Now the void is filled from the maximum 1,000 lbs. lift capacity of the "Base" Dyna-Lift® to the 1,500 lbs. capacity Heavy Duty. Dyna-Lift® is now available for both retrofit and OEM applications in either manual or electric actuation.



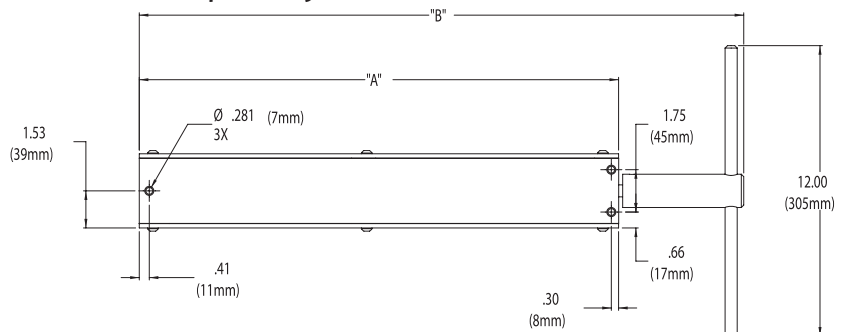
## Electric HD Pump Assembly



Manual			Electric		
Stroke	"A" Dimension	"B" Dimension	Stroke	"A" Dimension	"B" Dimension
6	15.75 (400 mm)	20.91 (531 mm)	6	14.65 (372 mm)	28.48 (723 mm)
8	15.74 (400 mm)	20.91 (531 mm)	8	14.65 (372 mm)	28.48 (723 mm)
10	19.80 (503 mm)	24.97 (634 mm)	10	18.71 (475 mm)	32.54 (827 mm)
12	19.80 (503 mm)	24.97 (634 mm)	12	18.71 (475 mm)	32.54 (827 mm)
20	27.92 (709mm)	33.09(840mm)	20	26.85 (682mm)	40.35 (1025mm)

Specifications		
Description	mm	Model #
4 Cylinder, Electric, 06" Stroke	152	4E-D1D-06-H
4 Cylinder, Electric, 08" Stroke	203	4E-D1D-08-H
4 Cylinder, Electric, 10" Stroke	254	4E-D1D-10-H
4 Cylinder, Electric, 12" Stroke	305	4E-D1D-12-H
4 Cylinder, Electric, 20" Stroke	508	4E-D1D-20-H
4 Cylinder, Manual, 06" Stroke	152	4M-D1D-06-H
4 Cylinder, Manual, 08" Stroke	203	4M-D1D-08-H
4 Cylinder, Manual, 10" Stroke	254	4M-D1D-10-H
4 Cylinder, Manual, 12" Stroke	305	4M-D1D-12-H
4 Cylinder, Manual, 20" Stroke	508	4M-D1D-20-H

## Manual HD Pump Assembly



# Dyna-Lift® Internal Aluminum Extrusion Mount

Raise or Lower your Structures with an Easy-to-Install Dyna-Lift® System



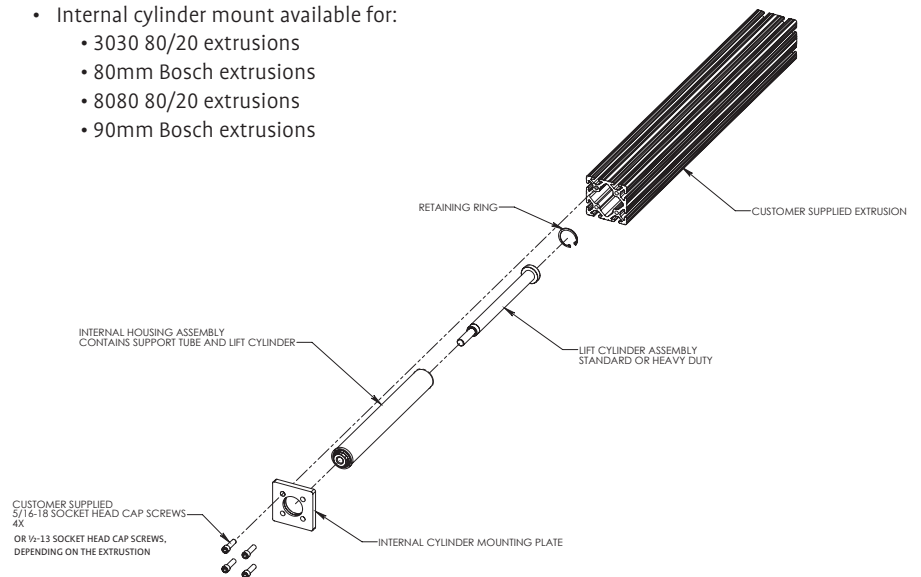
**Internal Leg Assembly**



**Internal Mount**

## Technical Information

- Adjustment ranges available in: 6", 8", 10", and 12" stroke.
  - Lifting capacities up to 1,500 lbs. (with a Heavy Duty Dyna-Lift®).
  - Single acting cylinders, power up and gravity down. Approximately 20 lbs. of weight per cylinder needed to retract properly.
  - Manual (hand crank) or electric actuation available.
- 
- Internal cylinder mount available for:
    - 3030 80/20 extrusions
    - 80mm Bosch extrusions
    - 8080 80/20 extrusions
    - 90mm Bosch extrusions



## Advantages of Internal Leg Assembly

- Internally mounted cylinder neatly hides away unwanted outside obstructions – no external hardware
- Perfect application for OEM's and custom machine builders

# Dyna-Lift® External Aluminum Extrusion Mount



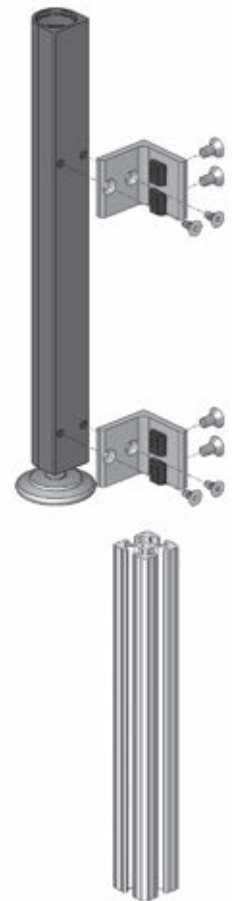
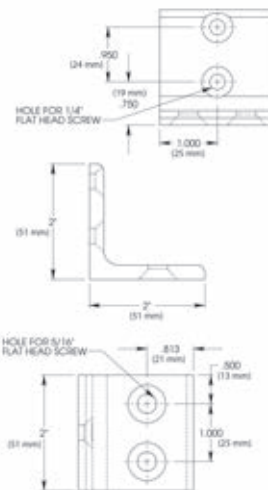
External Leg Assembly



External Mount

## Technical Information

- Adjustment ranges available in: 6", 8", 10", 12", 16" and 20" stroke.
- Lifting capacities up to 1,500 lbs. (with a Heavy Duty Dyna-Lift®).
- Single acting cylinders, power up and gravity down. Approximately 20 lbs. of weight per cylinder needed to retract properly.
- Manual (hand crank) or electric actuation available.



## External Mount Features

- Retrofit the "D" style cylinder to many different size extrusions via the Dyna-Lift "L" Bracket.
- Dyna-Lift "L" Bracket universally fits different sizes of extrusion via the T-Slot.
- Simply tighten down Bracket to T-Slot with an allen wrench.

## Advantages of External Leg Assembly

- Universally fits many different sizes of extruded aluminum structures via T-Slot.
- Easy installation as an OEM design or as an add-on retrofit to a pre-existing structure.

# Telescopic Leg Assembly (T.L.A.)

Specifically designed to provide optimum form and function for industry specific ergonomic height adjustable needs. The two piece anodized aluminum extrusions were designed to work in tandem with each other to provide smooth, quiet, rigid height adjustability regardless of off-center or cantilever loads. The T.L.A. System allows Original Equipment Manufacturers to easily integrate the columns into custom applications. Simply bolt on your top and bottom frame with cross member, then add your table top. The T.L.A. System offers the perfect height adjustable solution for your ergonomic OEM design.

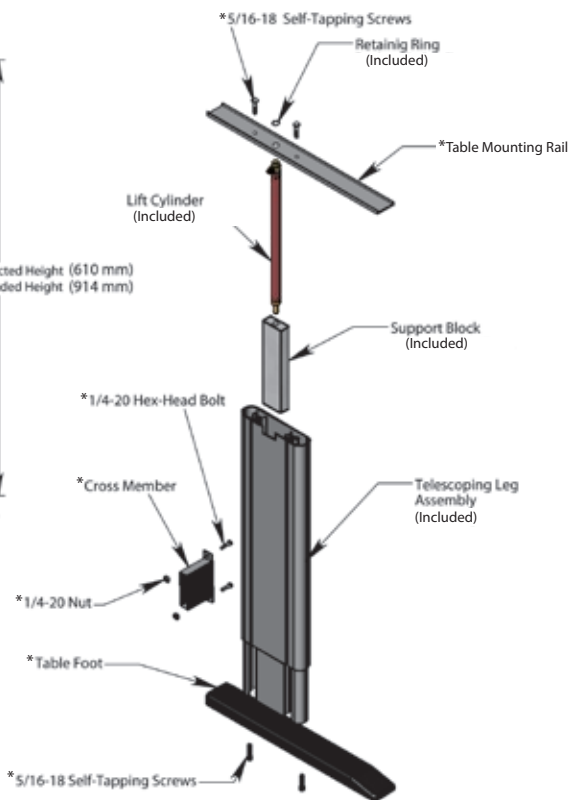
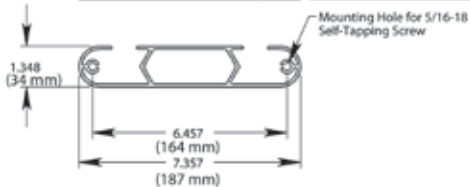
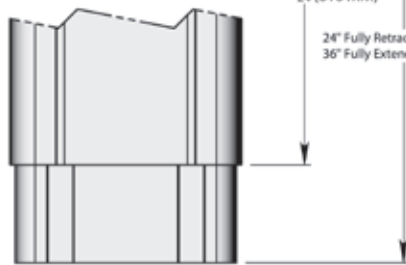
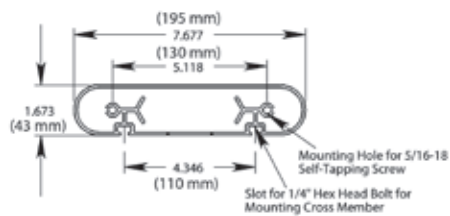
### Technical Information

- Materials: extruded aluminum with clear matte anodized finish
- Adjustment range: 12" (305mm)  
24" (610mm) fully retracted  
36" (914mm) fully extended
- Capacity:  
250 lbs. per column  
500 lbs. per set of 2 columns
- Multiple columns available
- Designed to be used with B1C cylinders
- Manual (hand crank) or electric actuation



Exterior view    Interior view





Description	mm	Model #
Two Cylinder, Manual, 12" Stroke	305	2M-B1C-12-T
Two Cylinder, Electric, 12" Stroke	305	2E-B1C-12-T
Two Cylinder, Manual, 12" Stroke /Rails	305	2M-B1C-12-T12
Two Cylinder, Electric, 12" Stroke /Rails	305	2E-B1C-12-T12

\* Items above with an asterisk are not included with the T.L.A. Assembly

# Dyna-Lift® Quick Ship Units

Available to ship within 1-5 business days.

Every customer has a special, unique reason why they choose Dyna-Lift for their application. We understand that every customer may have different timely demands depending on that application. That is why we have created our Dyna-Lift Quick Ship Program. We keep our standard units on the shelf, ready-to-ship when expediting is needed.

We offer our manual and electric units conveniently ready-to-ship within 1-5 business days. Units come fully charged, system complete; available in manual (hand crank) or electric (115 V AC motor). Stroke lengths available are 6", 8", 10", 12" and 16" with straight fittings and standard hose lengths of 96"-96"-60"-60".

Installation is simple: Once you receive your Dyna-Lift Quick Ship unit, the next step is to bolt the unit to your existing structure, which takes just minutes. Easy-to-follow instructions are included in every shipment, giving you height adjustability and complete satisfaction in no time.

### How to order:

Our customer service representatives are just a phone call away. In order to get your order placed for a Dyna-Lift Quick Ship Unit, consult your customer service representative. You will see firsthand the simplicity of a Quick Ship order. Call today, 616-458-1306.



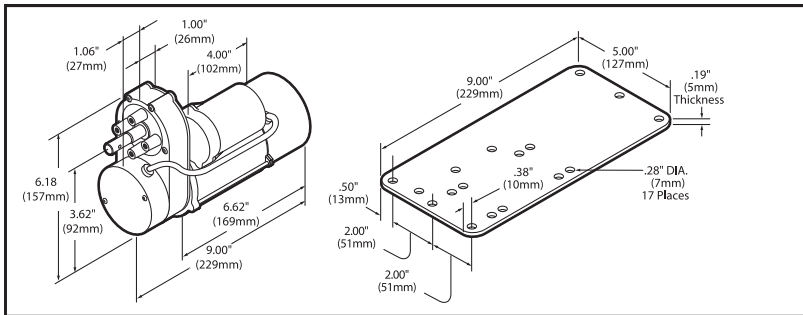
Manual		
Description / Model #	Size	Weight
4 Cylinder, Manual, 06" Stroke 4M-DIA-06-S	27x9x7	20 lbs.
4 Cylinder, Manual, 08" Stroke 4M-DIA-08-S	27x9x7	23 lbs.
4 Cylinder, Manual, 10" Stroke 4M-DIA-10-S	37x9x8	27 lbs.
4 Cylinder, Manual, 12" Stroke 4M-DIA-12-S	37x9x8	30 lbs.
4 Cylinder, Manual, 16" Stroke 4M-DIA-16-S	37x9x8	35 lbs.

Electric		
Description / Model #	Size	Weight
4 Cylinder, Electric, 06" Stroke 4E-DIA-06-S	37x9x8	35 lbs.
4 Cylinder, Electric, 08" Stroke 4E-DIA-08-S	37x9x8	37 lbs.
4 Cylinder, Electric, 10" Stroke 4E-DIA-10-S	37x9x8	40 lbs.
4 Cylinder, Electric, 12" Stroke 4E-DIA-12-S	37x9x8	42 lbs.
4 Cylinder, Electric, 16" Stroke 4E-DIA-16-S	44x9x8	48 lbs.

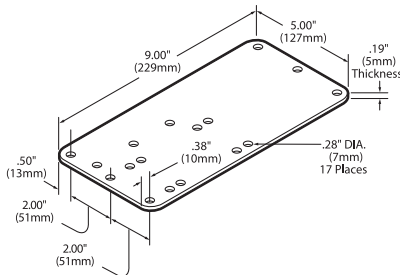
# Dyna-Lift® Parts and Accessories

## Parts and Accessories

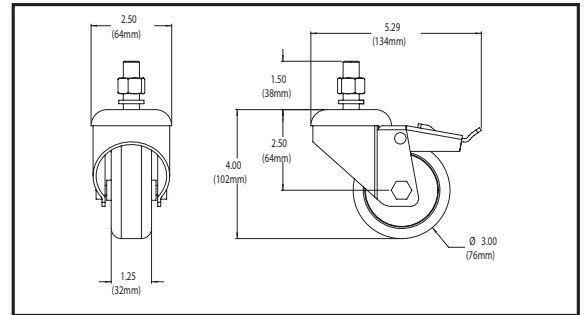
The following components can be ordered separately should modifications be needed in the field. Please consult our factory for any specific requirements you may have prior to shipment.



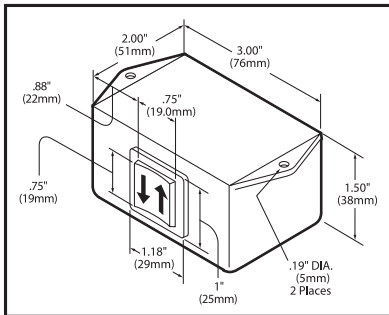
**Electric Motor**



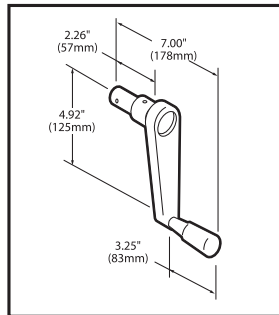
**Motor Mounting Bracket**



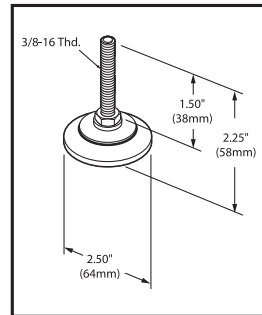
**Locking Caster Option**



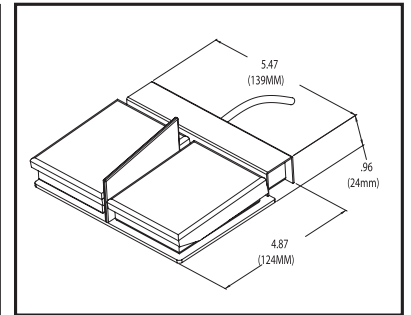
**Rocker Switch Housing (Standard with Electric Unit)**



**Retractable Folding Handle For Manual Unit**



**Foot Glide For 4 Post System**



**Footpedal (option w/electric unit)**



**DL Gear Motor 115 V**  
DH-07000  
500220207000



**HD DL Motor 220 V**  
DH-07001  
500220207001



**T.L.A. Column**  
DC-14100-12  
50026011410012



**Recharge Kit**  
DH-16000  
500220216000

# Dyna-Lift® Parts and Accessories



**Velocity Fuse**  
DH-04105  
500220204105



**Velocity Fuse HD**  
DH-04107  
500220204107



**Base Caster**  
DH-17203  
500220217203



**Base Caster HD**  
DH-17204  
500220217204



**3/8" Footglide**  
DH-06900  
500220206900



**1/2" Footglide**  
DH-06904  
500220206904



**SS 3/8" Footglide**  
DH-06906  
500220206906



**SS 1/2" Footglide**  
DH-06908  
500220206908



**3/8" Adapter**  
DC-03000  
500220103000



**1/2" Adapter**  
DC-03004  
500220103004



**SS 3/8" Adapter**  
DC-03002  
500220103002



**SS 1/2" Adapter**  
DC-03012  
500220103012



# Dyna-Lift® Parts and Accessories



**Straight Fitting**  
DH-04100  
500220204100



**90° Fitting**  
DH-04200  
500220204200



**180° Fitting**  
DH-04110  
500220204110



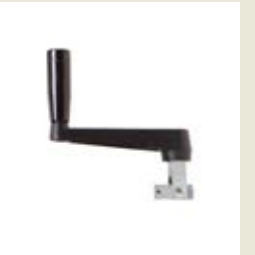
**180° Fitting HD**  
DH-04112  
500220204112



**L Bracket**  
DH-08000  
500220208000



**T Handle**  
DH-06503  
500220206503



**Base DL Handle**  
DH-17100  
500260217100



**Programmable Switch**  
DH-08414  
500220208414



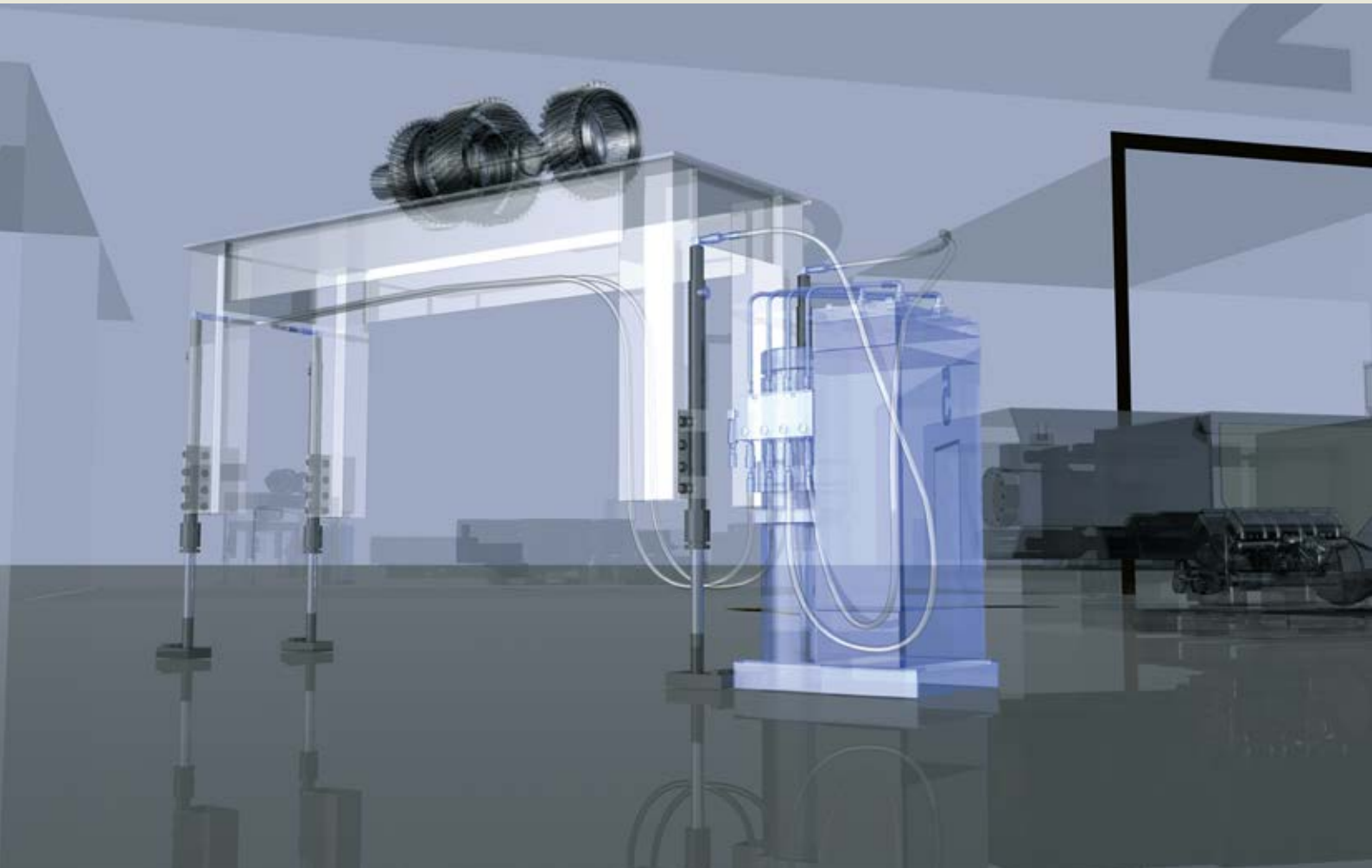
**Foot Pedal**  
DH-08405  
500220208405



**Rocker Switch**  
DH-08400  
500220208400

# Industries Served:

- Workstations
- Office Furniture
- Hospital Beds
- Assembly Line Fixtures
- Rehabilitation Tables
- Casket Lifts
- Massage Table Lifts
- Lectern/Podium Lifts



# At your service worldwide!

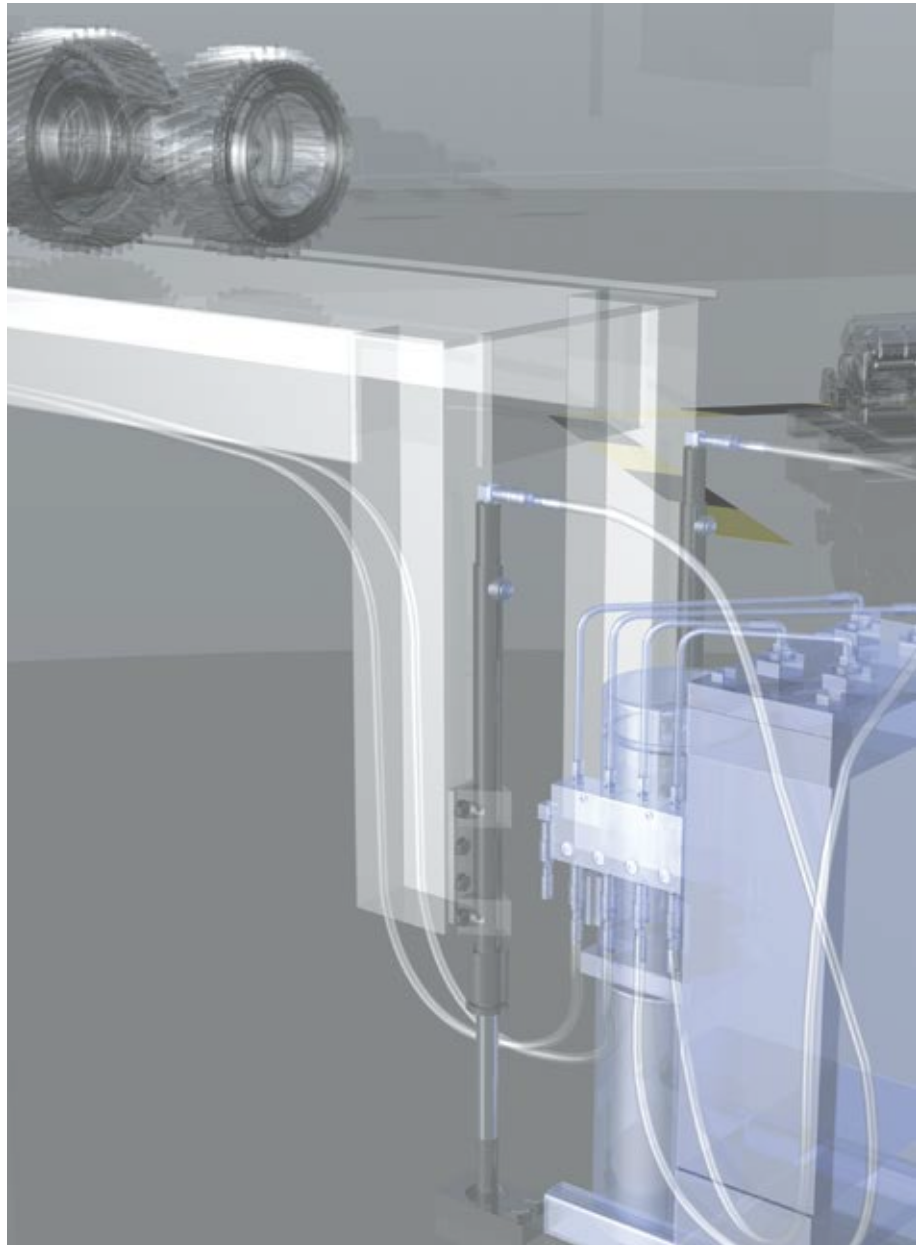


**Bucher Hydraulics is an international leading provider of innovative hydraulic drive and control technologies for mobile and industrial applications, such as the Dyna-Lift ergonomic tables.**

Contributing high levels of technical expertise, we support our clients' product development activities from the initial project phase to the finished machine. We can provide valuable help in creating very advanced machinery that features stringent technical demands and exacting quality standards.

**Combined forces:** Privately owned Monarch Hydraulics, proud of its more than 150-year history as a successful family run company, has been a leading and renowned producer of hydraulic power units with a well established customer base throughout North America. By acquiring Monarch Hydraulics, Bucher Hydraulics has established a strong engineering and manufacturing base with a powerful sales and service network in the USA.

Bucher Hydraulics, Europe's leading supplier of custom hydraulic and control solutions now has an excellent customer focus here in North America coupled with organizational, engineering and production expertise as well as an established sales force. This provides a professional platform to expand Bucher Hydraulics business with North American customers operating both locally and globally.



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For further information visit us at:  
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