

Movotec® Lift Systems





## SUSPA® - The Company

SUSPA® is a world leading supplier of lift, dampening and adjustment mechanisms. Thousands of SUSPA® employees across the globe work every day to ensure their customers receive products of the highest quality and the best value. SUSPA® is known for innovating solutions that meet specific customer needs, and SUSPA® is also highly recognized for providing outstanding customer service.

### Why Choose Movotec®?

Why do so many manufacturers of height adjustable work benches, work stations and work surfaces choose Movotec®?

#### Technology

Years of experience, engineering and research have resulted in a product that goes well beyond the competition. Whether it be a proprietary process or patented product, Movotec® remains the technology leader.

**Sealing Technology** - Providing superior sealing technology means a product that performs at peak levels, requires no maintenance, and provides years and years of flawless performance. Only Movotec® uses its unique combination of engineered fluids, sealing surfaces and sealing materials.

**Proprietary Manufacturing Operations** - Much of Movotec's superior performance is the result of highly refined manufacturing operations. Years of experience and engineering have resulted in consistently producing a highly reliable product. Our customers can feel the difference when they grasp the crank handle or press the switch and see the results.

**Fluid Properties** - Movotec® NT15 is a specially formulated oil that is clear, odorless, reduces friction, has superior sealing qualities, and is safe for all applications, including food processing.

**Motor Technology** - Do the comparison: Put any motorized lift system next to a Movotec® System and compare noise level, speed, ease of use and features. Movotec® provides the motor control technology designed for years of service, with programmable features and built-in intelligence.

**Patented Products/Features** - Many times it is the unique products and features offered that keep SUSPA Movotec® customers among those with the highest level of customer satisfaction. The Movotec® ATU and numerous cylinders are patented and are used in SUSPA Movotec® exclusively.

#### Value

No other height adjustment system provider compares to Movotec® in terms of providing overall value. The Movotec® team understands the importance of providing a high quality product, delivered in a timely fashion.

**Service** - Taking pride in every aspect of the order fulfillment process and providing exceptional customer service is part of the SUSPA Movotec® culture.

**Support** - Movotec® Lift Systems are backed with a knowledgeable staff ready to meet the needs of each individual customer. Comprehensive design implementation (CAD drawings and 3-D models), installation and operating instructions are available online 24/7 to ensure all customer expectations are met.

**Warranty** - As part of SUSPA's quality sales and exceptional service, all Movotec® products come with a factory warranty. It's SUSPA's way of making sure the products delivered to our valued customers perform as promised. For details about the SUSPA Movotec® warranty, please see "terms of sales" on our website.

**Quality** - For the last few decades and continuing today, SUSPA® products are recognized in the industry for top quality. Movotec® products are engineered to the highest quality utilizing ISO9001 standards. In addition, Movotec® products are manufactured at a production facility that meets the ISO/TS 16949 quality standards. The highest quality products are the result of employee pride, empowerment, customer loyalty and a commitment to be the best.

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"Bolt-On" Systems are the most popular configurations of Movotec® components - ideal for transforming static work surfaces into dynamic ones. These Lift Systems have four "Bolt-On" lift cylinders and are available in both hand-crank and motorized models.

### System Includes

- A Crank or Motor Driven System
- Four "Bolt-On" lift cylinders
- Two 2.5m (8 ft.) and two 3m (10 ft.) sections of flexible tubing
- Four glides
- Drilling templates, tubing clips and cable ties
- Installation and operating instructions

Movotec® "Bolt-On" lift systems are readily available, shipped completely assembled and ready for installation.



Crank Driven System



Motor Driven System



### Lift System Dimensions

System Lift Capacity (kg / lbs.)	Adjustment Range* (mm / in.)	Crank-Driven System Part Number	Motor-Driven System (120V) Part Number	Motor-Driven System (230V)** Part Number	Includes Pump	Includes Cylinders (x4)
340 / 750	150 / 5.9	MLS-00001	MLS-00001E	MLS-00009E	Q4809	CB415
340 / 750	200 / 7.9	MLS-00002	MLS-00002E	MLS-00010E	Q4812	CB420
340 / 750	300 / 11.8	MLS-00003	MLS-00003E	MLS-00011E	Q4818	CB431
340 / 750	400 / 15.7	MLS-00004	MLS-00004E	MLS-00012E	Q4824	CB440
454 / 1000	150 / 5.9	MLS-00005	MLS-00005E	MLS-00013E	Q4612	CB415
454 / 1000	200 / 7.9	MLS-00006	MLS-00006E	MLS-00014E	Q4615	CB420
454 / 1000	300 / 11.8	MLS-00007	MLS-00007E	MLS-00015E	Q4623	CB431
454 / 1000	400 / 15.7	MLS-00008	MLS-00008E	MLS-00016E	Q4631	CB440
590 / 1300	150 / 5.9	MLS-00080	MLS-00080E	MLS-00084E	Q4615	CB615
590 / 1300	230 / 9.1	MLS-00081	MLS-00081E	MLS-00085E	Q4623	CB631
590 / 1300	300 / 11.8	MLS-00082	MLS-00082E	MLS-00086E	Q4631	CB631
590 / 1300	393 / 15.5	MLS-00083	MLS-00083E	MLS-00087E	Q4639	CB640

\* The adjustment range is reduced for motorized systems by 6-8mm - Other adjustment ranges available upon request

\*\* 230V System supplied with Schuko plugs

The Movotec® Dual Drive "Bolt-On" Lift Systems can be supplied with 6 or 8 cylinders and can lift up to 907 kg / 2000 lbs.

### System Includes

- Two synchronized Motor Driven Systems with controllers and switch
- Five to eight "Bolt-On" Lift Cylinders
- One or two 2.5m (8 ft.) and two 3m (10 ft.) sections of flexible tubing for each drive unit
- Glides for each lift cylinder
- Drilling templates, tubing clips and cable ties
- Installation and operating instructions

Movotec® Dual Drive Lift Systems are shipped assembled and ready for installation.



Optional:  
Motor Cover 662-00039



### Lift System Dimensions

# of Cylinders	System Lift Capacity (kg / lbs.)	Adjustment Range* (mm / in.)	Motor-Driven System (120V) Part Number	Motor-Driven System (230V)** Part Number	Includes Pump (x2)	Includes Cylinders (x6)
6	680 / 1500	150 / 5.9	MLS-00020	MLS-00028	Q3612	CB415
	680 / 1500	200 / 7.9	MLS-00021	MLS-00029	Q3615	CB420
	680 / 1500	300 / 11.8	MLS-00022	MLS-00030	Q3623	CB431
	680 / 1500	400 / 15.7	MLS-00023	MLS-00031	Q3631	CB440
8	907 / 2000	150 / 5.9	MLS-00024	MLS-00032	Q4612	CB415
	907 / 2000	200 / 7.9	MLS-00025	MLS-00033	Q4615	CB420
	907 / 2000	300 / 11.8	MLS-00026	MLS-00034	Q4623	CB431
	907 / 2000	400 / 15.7	MLS-00027	MLS-00035	Q4631	CB440

\* The adjustment range is reduced for motorized systems by 6-8mm

\*\* 230V System supplied with Schuko plugs

Note: 5 and 7 cylinder systems provided on request. Larger load capacity available upon request

# 3 Corner Leg System

Corner Leg Lift Systems are used with 40-45mm (1.6 in. - 1.8 in) aluminum extrusion material to quickly and easily assemble a height adjustable table or work surface. Corner Leg systems come with four Corner Leg cylinders and hand-crank or motor drive unit.

## System Includes

- A Crank or Motor Driven System with controller and switch
- Four Corner Leg Lift Cylinders
- Two 2.5m (8 ft.) and two 3m (10 ft.) sections of flexible tubing
- Four glides
- Tubing clips and cable ties
- Installation and operating instructions

Corner Leg Lift Systems are readily available and require minor assembly.

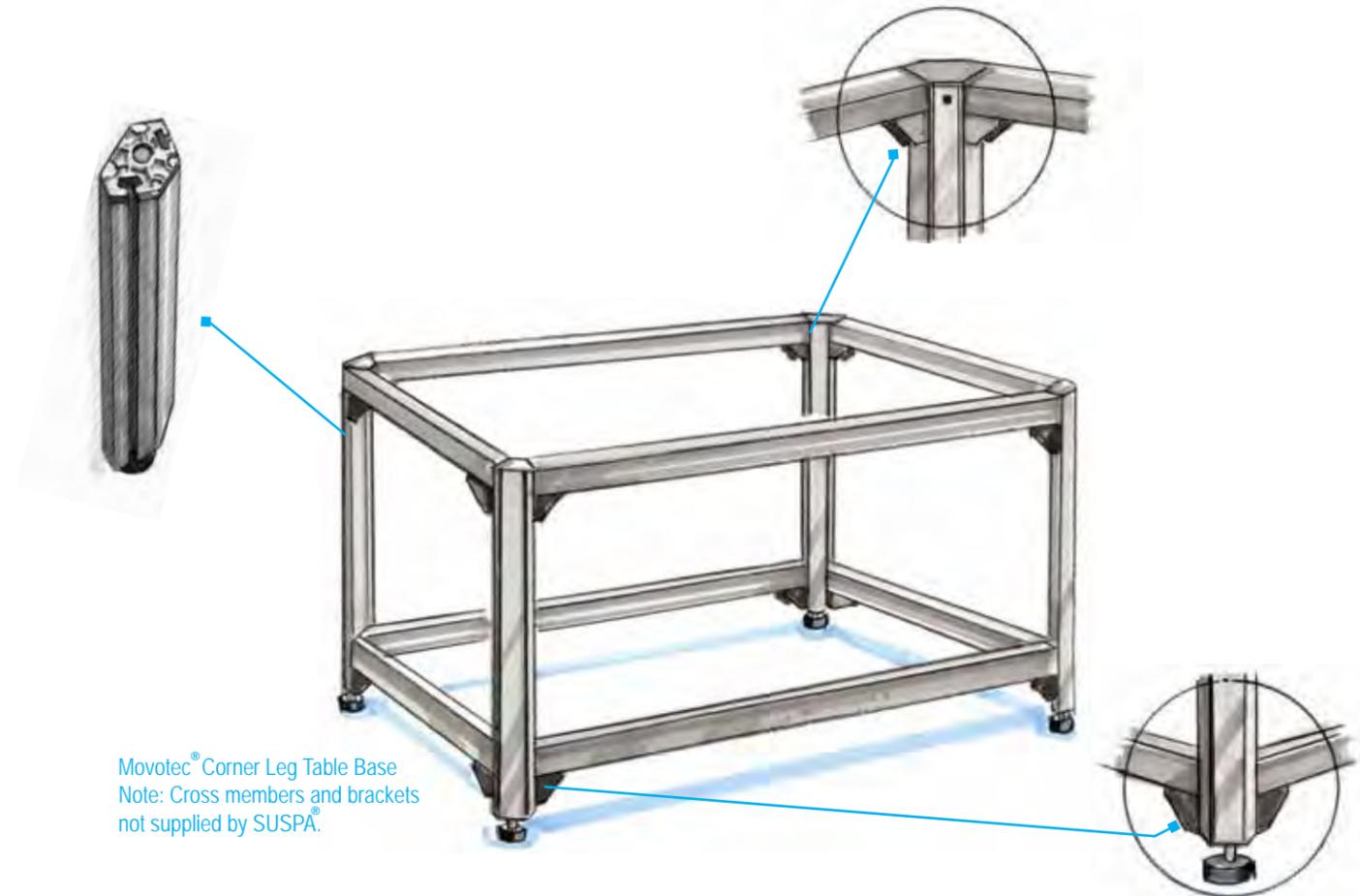


## Lift System Dimensions

System Lift Capacity (kg / lbs.)	Adjustment Range* (mm / in.)	Crank-Driven System Part Number	Motor-Driven System (120V) Part Number	Motor-Driven System (230V)** Part Number	Includes Pump	Includes Cylinders (x4)
340 / 750	150 / 5.9	MLS-00040	MLS-00044	MLS-00048	Q4809	CL450 (150)
340 / 750	200 / 7.9	MLS-00041	MLS-00045	MLS-00049	Q4812	CL450 (200)
340 / 750	300 / 11.8	MLS-00042	MLS-00046	MLS-00050	Q4818	CL450 (300)
340 / 750	400 / 15.7	MLS-00043	MLS-00047	MLS-00051	Q4824	CL450 (400)

\* The adjustment range is reduced for motorized systems by 6-8mm

\*\* 230V System supplied with Schuko plug



# 4 Aluminum Telescoping Upright (ATU) Lift System

The Aluminum Telescoping Upright (ATU) Lift System can be used with a variety of brackets, hardware, or other structural components to create a height adjustable workstation. With smooth telescoping movement and rigid structural integrity, the patented two-piece anodized aluminum extrusion was designed to support the application of our CE cylinders and crank or motor driven units. ATU lift systems have a 227 kg (500 lbs.) lift capacity.

## System Includes

- A crank or motor drive system
- Two lift cylinders with ATU bracket
- Two ATU's
- Two flexible tubing sections 0.9m (3ft.) and 1.8m (6 ft.)



## Lift System Dimensions

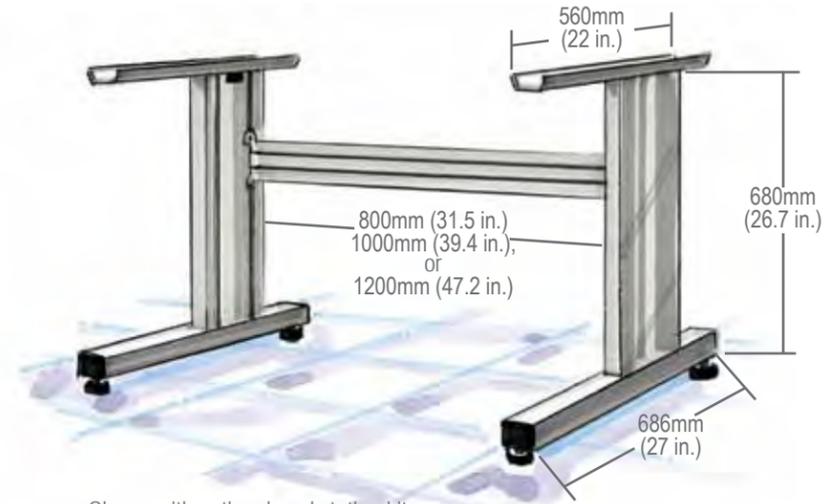
Adjustment Range* (mm / in.)	ATU Length (mm / in.)	Crank Driven System Part Number	Motor Driven Unit (120V) Part Number	Motor Driven Unit (230V)** Part Number	Includes Pump	Includes Cylinder (x2)
200 / 7.9	500 / 19.7	MLS-00060	MLS-00062	MLS-00064	Q2812	CE420
300 / 11.8	600 / 23.6	MLS-00061	MLS-00063	MLS-00065	Q2818	CE430

\* The adjustment range is reduced for motorized systems by 6-8mm

\*\* 230V System supplied with Schuko plug

## Workstation Components and Kits

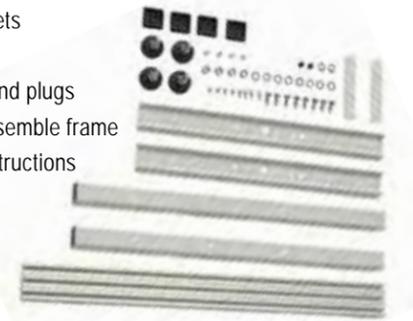
The Movotec® ATU workstation components and kits are intended to be used with a Movotec® ATU Lift System to offer a complete height adjustable workstation solution. Workstation components can be purchased separately or as a complete workstation kit. The typical installation of the Movotec® ATU workstation kit is shown here.



- Shown with optional workstation kit

## Workstation Kit

- Includes:
- Two foot brackets
  - Two top brackets
  - Cross beam
  - All fasteners and plugs required to assemble frame
  - Installation instructions



- 800mm Cross Beam Kit - D44-00033
- 1000mm Cross Beam Kit - D44-00034
- 1200mm Cross Beam Kit - D44-00035

## Workstation Configurations

The Movotec® workstation kits allows the workstation to be assembled in either a centered or cantilever configuration. (Tabletop not included)



Note: ATU Cross Beam, ATU Top Bracket & ATU Foot Bracket are available separately.

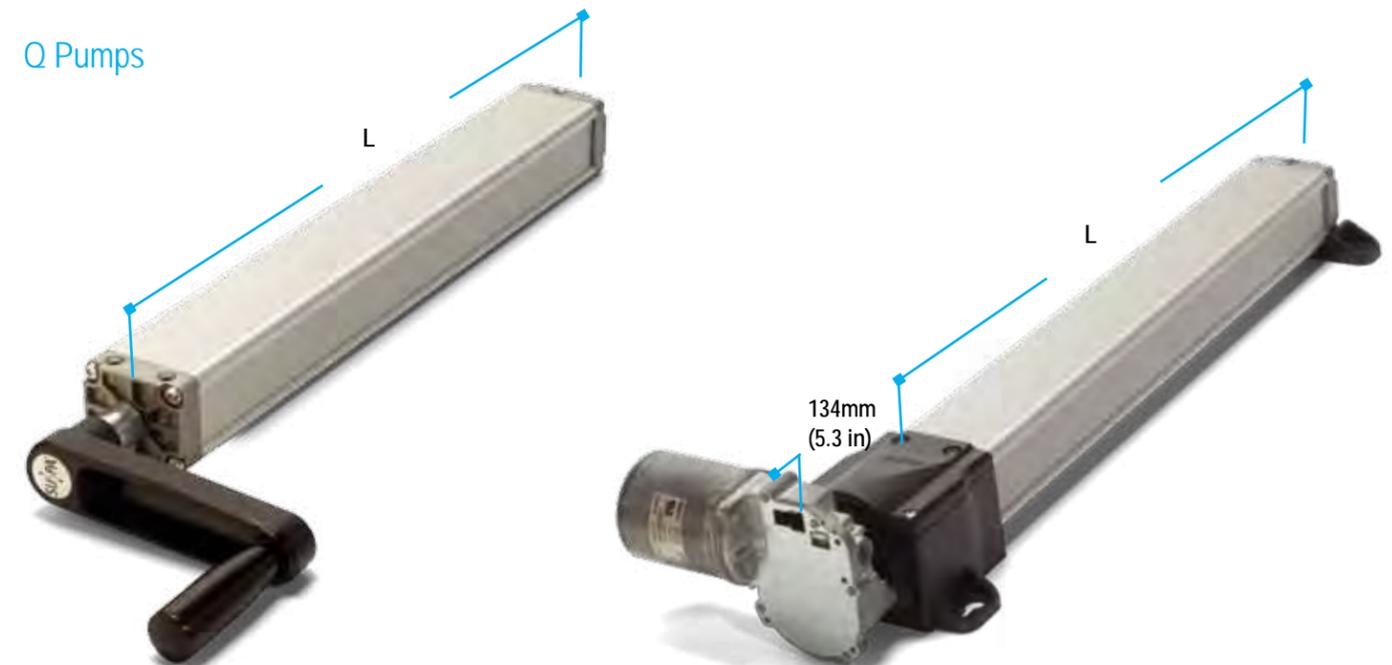
The Movotec® Q pump can accommodate up to four independent pressure elements to drive one to four cylinders. This unique design allows Movotec® Lift System cylinders to maintain equal displacements regardless of the load on the work surface. The Q pump uses the latest technology to ensure quiet and reliable service along with easy integration of Movotec® hand-crank and motors.

### Technical Data

- Anodized aluminum housing
- Aluminum die-cast front and endplates
- Splined output shaft



Splined pump output shaft provides superior engagement for Crank and Motor Drives.



Grip folds into handle

### Pump Dimensions

Pump Model Number	For Use With x Cylinders	Part Number	Length (L) (mm / in.)
Q2809	2	D43-02015	292 (11.5)
Q2812	2	D43-02016	352 (13.9)
Q2818	2	D43-02017	472 (18.6)
Q2824	2	D43-02018	594 (23.4)
Q4809	4	D43-02006	292 (11.5)
Q4812	4	D43-02007	352 (13.9)
Q4818	4	D43-02008	472 (18.6)
Q4824	4	D43-02009	594 (23.4)
Q4612	4	D43-02001	352 (13.9)
Q4615	4	D43-02002	412 (16.2)
Q4623	4	D43-02003	594 (23.4)
Q4631	4	D43-02004	722 (28.4)
Q4639	4	D43-02005	898 (35.4)

Pumps to drive 1 or 3 cylinders available upon request.

# 6 Guided Cylinders - CB and CN "Bolt-On" Cylinders

For O.E.M. or retrofit applications, the patented CB and CN cylinders were designed to bolt on to virtually any structure for height adjustability. CB "Bolt-On" cylinders have an in-line tubing port and can be used for most applications. CN "Bolt-On" cylinders have a 90° tubing port and are designed for applications where tubing bend radius clearance is limited. (See design guidelines on page 23 for details.)

Both cylinders have 4 tapped holes that make mounting easy, or choose mounting brackets shown on page 18.

### Technical Data

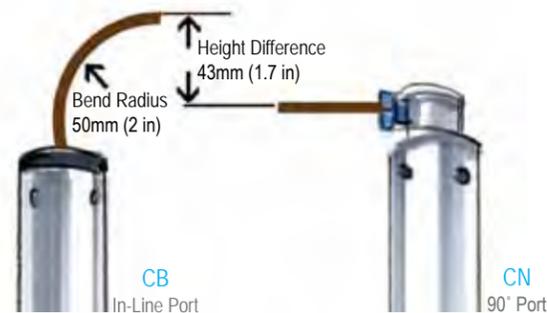
- Anodized aluminum housing
- Corrosion resistant extension tube

The CN Cylinder port rotates to any desired angle.



### Cylinder Dimensions

CB Cylinder Model Number	CN Cylinder Model Number	Length (A) (mm / in.)	Stroke (L) (mm / in.)
CB415	CN415	258.5 / 10.2	150 / 5.9
CB420	CN420	333.5 / 13.1	200 / 7.9
CB431	CN431	463.5 / 18.2	300 / 11.8
CB440	CN440	558.5 / 22.0	400 / 15.7



### Note:

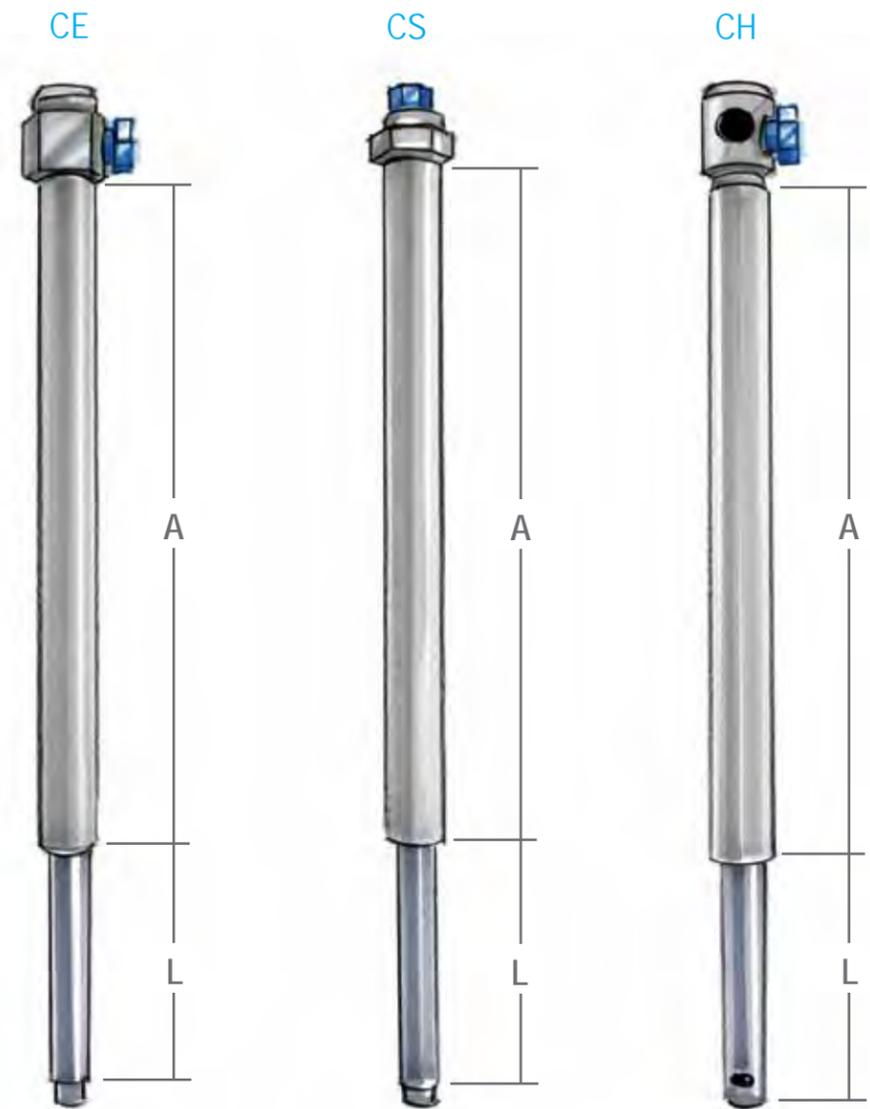
Corrosion resistant CB cylinders are available for applications in environments subject to periodic wash-down.

# 7 Unguided Cylinders

Designed for O.E.M. applications, each cylinder utilizes a unique set of end-fitting configurations to assist in your design and manufacturing process. CE & CS cylinders are secured with retaining rings (not included). These cylinders must be used in conjunction with an external guide mechanism to prevent non-axial loading of the cylinder. Custom combination or unique rod & tube ends available.

## Technical Data

- Brass cylinder tubes
- Stainless steel rods



### Cylinder Dimensions

CE Cylinder Model Number	CS Cylinder Model Number	CH Cylinder Model Number	Length (A) (mm / in.)	Stroke (L) (mm / in.)
CE415	CS415	CH415	188 / 7.4	150 / 5.9
CE420	CS420	CH420	238 / 9.4	200 / 7.9
CE430	CS430	CH430	338 / 13.3	300 / 11.8
CE440	CS440	CH440	438 / 17.2	400 / 15.7

**Standard Glide**

The "foot pad" provided with standard Movotec® systems is the Standard Glide. The Standard Glide includes a nylon base with a non-skid TPE pad and steel M10 threaded bolt with lock nut for adjustability.



**Standard Glide**  
D44-01031

**Mounting Glide**

The Mounting Glide is used in applications when fastening the lift actuator to a floor or work surface is necessary. Mounting Glides are also used in applications where the Movotec® lift cylinder is mounted inverted with the glide upward. The Mounting Glide base is aluminum with a steel thread and lock nut for adjustability.



**Mounting Glide**  
D44-00003

**Disc Glide**

The Disc Glide is similar to the Standard Glide but does not have the non-skid feature. The Disc Glide has a nylon base, steel thread and lock nut for adjustability.



**Disc Glide**  
644-01037

**Casters**

Casters are available in locking or non-locking models. Both casters include M10 threaded steel bolts sized for easy assembly to Movotec® CB, CN and CL cylinders. Caster wheel is Polyurethane on Polypropylene hub.



**Caster**  
D44-00038



**Locking Caster**  
D44-00037

**Note:**

The standard glide and mounting glide are also available in a corrosion-resistant version for applications in environments subject to periodic wash-down.

**Brackets**

Mounting Brackets may be used when the threaded holes in Movotec® CB and CN cylinders are not conveniently located for the application. Order one bracket set per lift cylinder in the application.



**Small Mounting Bracket Set**



D44-00002A



**Large Mounting Bracket Set**



D44-00001



**L Mounting Bracket Set**



D44-00018



**Creform™ Bracket Adaptor Set**



D44-00027

(For easy mounting of Creform™ brackets, shown in black but not included.)



#### Low-Profile Switch 645-02553

- Standard, industrial-grade activation switch
- Commonly used with bolt-on and corner leg systems
- Ergonomically designed with durable, plastic body
- Switch provided with mounting screws
- 22mm high x 55mm wide x 59mm deep
- 1.8m cable length



#### Office Switch 645-03103

- Office-oriented motor activation switch
- Ergonomically compact design with large, easy to use buttons
- 18mm high x 67mm wide x 46mm deep
- 1.8m cable length



#### Foot Switch D45-02375

- Designed for hands-free motor operation
- Foot pedal made from durable zinc diecast with a medium grey finish and non-skid pad
- Available with or without custom decal
- 37mm high x 108mm wide x 122mm long
- 3m cable length



#### IR Remote Control Switch 645-03105

- Provides wireless control of lift system
- Features 4 memory presets
- IR receiver mounts using adhesive pad
- 2m cable length



#### Display Switch 645-03102

- Designed for applications requiring user memory presets and work-surface height display
- Features four memory presets
- Features digital display
- Switch slides under work surface when not in use
- Switch provided with mounting plate and screws
- 26mm high x 136mm wide x 82mm deep
- 2m cable length



#### Remote Hand Switch D45-02368

- Provides remote access to switch
- Includes magnetic strip for mounting to steel surfaces
- 101mm high x 51mm wide x 32mm deep
- 3m cable length



#### Dual Switch Splitter Cable 645-03311

- Allows use of two switch options on a single lift system
- 200mm cable length



#### Switch Interface Cable D99-00078

- Includes instructions with pinout for easy integration with other switches or PLC devices
- 3m cable length

#### Note:

Motor and switch extension cables available upon request.

Movotec® Lift Systems come in both custom and standard configurations. Specifications and part numbers for all standard configurations are on the previous pages. Please use part number listed on those pages for standard Bolt-On, Dual Drive, Corner Leg and ATU Systems.

To specify a unique combination of Movotec® Pumps and Cylinders, please use the guidelines below and on the following to specify a System Model Number.

### 1 Number of Cylinders

Determine how many cylinders will be required for the application.

Note: 6 and 8 cylinder systems work using 2 pumps simultaneously. As such, they are only available as a motor-driven system.

### 2 Maximum Lifting Capacity

Check / Determine the appropriate lift capacity for the application.

### 3 Adjustment Range

Determine the adjustment range required for the application.

### 4 Style of Cylinder

Choose the style of cylinder; reference pages 13-16 for details on all types of cylinders (guided and unguided). Then, insert the cylinder letter into the shaded gray box on the following page, omitting the initial "C" from the cylinder description:

Example:

CB cylinder B 415

CE cylinder E 415

### 5 System Model Number

Next, put the cylinder letter in column 4 into column 5. Finally, determine whether a hand-crank or motor is required for the application.

Motorized systems are available in a variety of voltages. Select from the list below to complete the model number.

C01 - Folding Hand Crank

E1L - 120V Motor Drive (North America)

E2L - 230V Motor Drive (with Schuko plug)

E3L - 100V Motor Drive (Japan)

Example:

Crank Driven or Motor Driven

2Q6-B4150-C01 or 2Q6-B4150-E1L

### When Ordering

In addition to specifying the model number please indicate the flexible tubing lengths. Also list any accessories such as glides, casters, mounting brackets or non-standard switches.

1	2	3	4	5
# of Cylinders	Lifting Capacity	Adjustment Range	Pump Model #	Cylinder Model # System Model #
1	113 kg / 250 lb	150 mm / 5.9 in	Q1809	<span style="background-color: #cccccc; padding: 2px;">415</span> 1Q8- <span style="background-color: #00a0e3; color: white; padding: 2px;">4150-</span>
		200 mm / 7.9 in	Q1812	<span style="background-color: #cccccc; padding: 2px;">420</span> 1Q8- <span style="background-color: #00a0e3; color: white; padding: 2px;">4200-</span>
		300 mm / 11.8 in	Q1818	<span style="background-color: #cccccc; padding: 2px;">431</span> 1Q8- <span style="background-color: #00a0e3; color: white; padding: 2px;">4300-</span>
		400 mm / 15.8 in	Q1824	<span style="background-color: #cccccc; padding: 2px;">440</span> 1Q8- <span style="background-color: #00a0e3; color: white; padding: 2px;">4400-</span>
2	227 kg / 500 lb	150 mm / 5.9 in	Q2809	<span style="background-color: #cccccc; padding: 2px;">415</span> 2Q8- <span style="background-color: #00a0e3; color: white; padding: 2px;">4150-</span>
		200 mm / 7.9 in	Q2812	<span style="background-color: #cccccc; padding: 2px;">420</span> 2Q8- <span style="background-color: #00a0e3; color: white; padding: 2px;">4200-</span>
		300 mm / 11.8 in	Q2818	<span style="background-color: #cccccc; padding: 2px;">431</span> 2Q8- <span style="background-color: #00a0e3; color: white; padding: 2px;">4300-</span>
		400 mm / 15.8 in	Q2824	<span style="background-color: #cccccc; padding: 2px;">440</span> 2Q8- <span style="background-color: #00a0e3; color: white; padding: 2px;">4400-</span>
3	340 kg / 750 lb	150 mm / 5.9 in	Q3612	<span style="background-color: #cccccc; padding: 2px;">415</span> 3Q6- <span style="background-color: #00a0e3; color: white; padding: 2px;">4150-</span>
		200 mm / 7.9 in	Q3615	<span style="background-color: #cccccc; padding: 2px;">420</span> 3Q6- <span style="background-color: #00a0e3; color: white; padding: 2px;">4200-</span>
		300 mm / 11.8 in	Q3623	<span style="background-color: #cccccc; padding: 2px;">431</span> 3Q6- <span style="background-color: #00a0e3; color: white; padding: 2px;">4300-</span>
		400 mm / 15.8 in	Q3631	<span style="background-color: #cccccc; padding: 2px;">440</span> 3Q6- <span style="background-color: #00a0e3; color: white; padding: 2px;">4400-</span>
4	340 kg / 750 lb	150 mm / 5.9 in	Q4809	<span style="background-color: #cccccc; padding: 2px;">415</span> 4Q8- <span style="background-color: #00a0e3; color: white; padding: 2px;">4150-</span>
		200 mm / 7.9 in	Q4812	<span style="background-color: #cccccc; padding: 2px;">420</span> 4Q8- <span style="background-color: #00a0e3; color: white; padding: 2px;">4200-</span>
		300 mm / 11.8 in	Q4818	<span style="background-color: #cccccc; padding: 2px;">431</span> 4Q8- <span style="background-color: #00a0e3; color: white; padding: 2px;">4300-</span>
		400 mm / 15.8 in	Q4824	<span style="background-color: #cccccc; padding: 2px;">440</span> 4Q8- <span style="background-color: #00a0e3; color: white; padding: 2px;">4400-</span>
4	454 kg / 1000 lb	150 mm / 5.9 in	Q4612	<span style="background-color: #cccccc; padding: 2px;">415</span> 4Q6- <span style="background-color: #00a0e3; color: white; padding: 2px;">4150-</span>
		200 mm / 7.9 in	Q4615	<span style="background-color: #cccccc; padding: 2px;">420</span> 4Q6- <span style="background-color: #00a0e3; color: white; padding: 2px;">4200-</span>
		300 mm / 11.8 in	Q4623	<span style="background-color: #cccccc; padding: 2px;">431</span> 4Q6- <span style="background-color: #00a0e3; color: white; padding: 2px;">4300-</span>
		400 mm / 15.8 in	Q4631	<span style="background-color: #cccccc; padding: 2px;">440</span> 4Q6- <span style="background-color: #00a0e3; color: white; padding: 2px;">4400-</span>
4	590 kg / 1300 lb	150 mm / 5.9 in	Q4615	<span style="background-color: #cccccc; padding: 2px;">615</span> 4Q6- <span style="background-color: #00a0e3; color: white; padding: 2px;">6150-</span>
		230 mm / 9.1 in	Q4623	<span style="background-color: #cccccc; padding: 2px;">631</span> 4Q6- <span style="background-color: #00a0e3; color: white; padding: 2px;">6230-</span>
		300 mm / 11.8 in	Q4631	<span style="background-color: #cccccc; padding: 2px;">631</span> 4Q6- <span style="background-color: #00a0e3; color: white; padding: 2px;">6300-</span>
		400 mm / 15.8 in	Q4639	<span style="background-color: #cccccc; padding: 2px;">640</span> 4Q6- <span style="background-color: #00a0e3; color: white; padding: 2px;">6400-</span>
6	680 kg / 1500 lb	150 mm / 5.9 in	Q3612	<span style="background-color: #cccccc; padding: 2px;">415</span> 6Q6- <span style="background-color: #00a0e3; color: white; padding: 2px;">4150-E</span> <span style="background-color: #00a0e3; color: white; padding: 2px;">L</span>
		200 mm / 7.9 in	Q3615	<span style="background-color: #cccccc; padding: 2px;">420</span> 6Q6- <span style="background-color: #00a0e3; color: white; padding: 2px;">4200-E</span> <span style="background-color: #00a0e3; color: white; padding: 2px;">L</span>
		300 mm / 11.8 in	Q3623	<span style="background-color: #cccccc; padding: 2px;">431</span> 6Q6- <span style="background-color: #00a0e3; color: white; padding: 2px;">4300-E</span> <span style="background-color: #00a0e3; color: white; padding: 2px;">L</span>
		400 mm / 15.8 in	Q3631	<span style="background-color: #cccccc; padding: 2px;">440</span> 6Q6- <span style="background-color: #00a0e3; color: white; padding: 2px;">4400-E</span> <span style="background-color: #00a0e3; color: white; padding: 2px;">L</span>
8	907 kg / 2000 lb	150 mm / 5.9 in	Q4612	<span style="background-color: #cccccc; padding: 2px;">415</span> 8Q6- <span style="background-color: #00a0e3; color: white; padding: 2px;">4150-E</span> <span style="background-color: #00a0e3; color: white; padding: 2px;">L</span>
		200 mm / 7.9 in	Q4615	<span style="background-color: #cccccc; padding: 2px;">420</span> 8Q6- <span style="background-color: #00a0e3; color: white; padding: 2px;">4200-E</span> <span style="background-color: #00a0e3; color: white; padding: 2px;">L</span>
		300 mm / 11.8 in	Q4623	<span style="background-color: #cccccc; padding: 2px;">431</span> 8Q6- <span style="background-color: #00a0e3; color: white; padding: 2px;">4300-E</span> <span style="background-color: #00a0e3; color: white; padding: 2px;">L</span>
		400 mm / 15.8 in	Q4631	<span style="background-color: #cccccc; padding: 2px;">440</span> 8Q6- <span style="background-color: #00a0e3; color: white; padding: 2px;">4400-E</span> <span style="background-color: #00a0e3; color: white; padding: 2px;">L</span>



### Single Acting

Movotec® Lift Systems are single acting. That means lifting a load is done with the action of a hand crank or motor, and lowering is accomplished with the help of gravity. Each cylinder requires 11-16kg (25-35 lbs.) for the retraction stroke. Keep this in mind when lifting light loads or when the load on the work surface may be unevenly distributed. Lower load applications may be achieved with optional tubing or shorter tubing lengths.



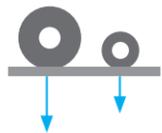
### Tubing Radius

The hydraulic lines that connect the pump to the lift cylinders should be positioned so that the radius of the tubing is not less than 50mm (2 in.).



### Duty Cycle

Movotec® Lift Systems are designed with a 10% duty cycle. This means that for every minute of operation, a system should remain idle for nine minutes. Movotec® Lift Systems are not designed for continuous operation.



### Uneven Loading/Load Distribution

Movotec® Lift Systems are designed to handle uneven load distributions on work surfaces. The maximum load on the work surface should not exceed the rated lift capacity of the system. The maximum load per cylinder must not exceed 136kg (300 lb) for CX4XX cylinders or 181kg (400 lb) for CX6XX cylinders.



### Durability Testing

Movotec® Lift Systems are regularly tested to ensure the system performs flawlessly for at least 10,000 full up/down cycles under full load.



### Tubing Length

Predetermined hydraulic tubing lengths are listed with each standard Movotec® Lift System. Excess tubing can easily be coiled. If you have unique tubing length requirements, please let us know. A ratio of tubing length of 1:3 should be maintained. (Minimum tubing length 0.5m (1.6 ft) - maximum tubing length 5m (197 in.))



### Operating Temperature

Movotec® Lift Systems perform best with operating temperatures between 0°C (32°F) and 46°C (115°F).



### Installation and Operating Manuals Available

Detailed information about installing and operating Movotec® Lift Systems is available online.



### Many Options for Easy Installation and Operation

A variety of mounting brackets and switches are available to ensure ease of installation and operation (please see pages 17-20 for details).



### Unique Product Branding

Standard Movotec® hand-crank systems come with a domed circular Suspa adhesive label. Movotec® customers are welcome to order custom systems without the label or to remove the label and provide their own unique label. See our website for information on specifications for a unique label.

SUSPA® reserves the right to make changes without advance notice.



### Hydraulic Fluid

Movotec® NT15 Oil is a specially formulated food-grade lubricant used in all Movotec® systems and applications. Movotec® NT15 is clear, odorless and safe for incidental food contact. Movotec® NT15 Oil is registered with the National Sanitation Foundation under number 132507. See our website for Material Safety Data Sheets.



### Underwriter's Laboratory

In combination, the SUSPA Movotec® gear motor, controller and cable are UL recognized under UL file: E258745. See the SUSPA® website for more information.



### CE

Movotec® Components and Systems are defined as partly completed machines under the scope of the Machine Safety Directive 2006/42/EC. Components and Movotec® Lift Systems assemblies have been designed with essential health and safety requirements in mind. See our website for technical documentation, assembly instructions and our Declaration of Incorporation.



### RoHS

Reduction of Hazardous Substances

SUSPA® understands its responsibility as a steward of the environment. As a result, SUSPA Movotec® components meet the requirements of the European Union RoHS Directive.

### ISO14001

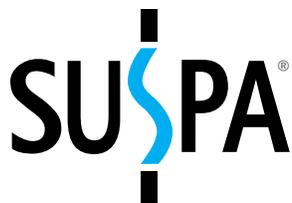
Environmental Standards

At SUSPA®, we respect our community and the environment in which we operate. We believe that strong environmental standards and practices are consistent with high quality in manufacturing and efficient business operations. SUSPA Movotec® Component and Lift System manufacturing and assembly in the United States are carried out in our ISO14001 certified facility.

### ISO9001

Quality Standards

SUSPA® products are designed and manufactured under the highest quality standards. Movotec® components and assemblies are produced in the United States and meet the strict quality standards of ISO/TS 16949.



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