

Lift Column

electrically operated



Installation instructions

MOVETEC



True Innovative Moving Technology

Thank you for choosing Movetec's Lift Column. Movetec is one of the leading brands in Scandinavia for ergonomic workplace equipment. With our extensive product range, we can provide complete workstations for most environments with an emphasis on industry. With Movetec products you are guaranteed high-quality equipment with optimised function and a long service life.

Description

Areas of application

Movetec lift columns are supposed to be built in and used to adjust the working position of workstations, fixtures or other machines. Other areas of application can be dangerous, so instructions from Movetec must be carefully studied and followed.



Warning

- Lift columns should not be used during hot work such as welding without specific precautions being taken
- Lift columns must not be suspended from a ceiling or walls
- Lift columns must not be used to lift people

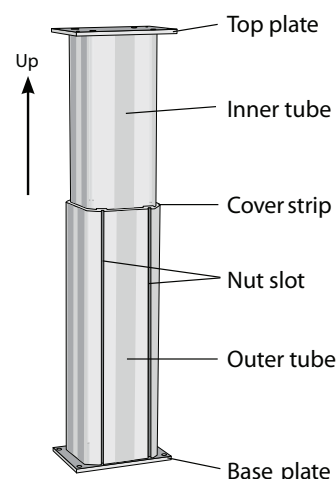
Design

The image to the right shows the lift column's various components.

Function

The lift function of the lift column is driven by an electric actuator housed inside the telescopic element. The actuator is powered by a low voltage transmitted via an external power source/control unit and regulated by a controller. Integrated limit switches stop the column at its top and bottom positions.

An integrated Hall effect sensor (all lift columns with an 8-pin connector) measures and compares pulses between two lift columns in order to synchronize them and achieve precise parallel operation.



Accessories

Examples of accessories from the Movetec range:

- Control unit for single or synchronized operation with one or more motor groups
- Controllers, such as table or hand control, foot pedal
- Reinforced base for floor installation

Installation instructions



Warning

Inaccurate handling can cause malfunction. Please make sure that all the steps in this assembly instruction always are implemented in order to ensure correct and safe function of the product.

- Compare the specifications of the product with your current application. Only when your specifications are within the products specified range can the product be used.
- Follow local laws and regulations
- Use the product in its original design without any changes.

Transport damage

Inspect the goods as soon as they arrive and report any transport damage direct to the forwarder.

Transport/handling

Storage: time in original packaging should be kept short. Keep in a cool dry place, protected from light and dust.

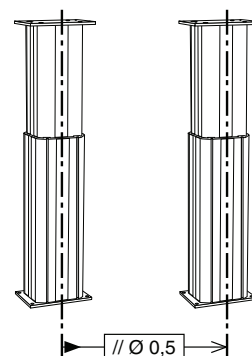
Transport: depending on design the lift columns can weigh 30 kg or more. Crush hazard: should the product tip over it can cause crush injuries. Suitable lifting equipment should be used to ensure safe handling of the product during transport and assembly.



Risk of crushing

Assembly

- Movetec lift columns must be installed indoors in well-lit premises that are at room temperature.
- Ensure that the lift column is level by assembling it on a stable surface. For freestanding applications, base frames are available as an accessory. Control units and controllers must be positioned to avoid damage during operation.
- Movetec lift columns must be positioned at least 120 mm from walls or surrounding objects to avoid the risk of crushing. Ensure that there is no contact with surrounding objects and no risk of crushing as the lift column is raised and lowered.
- When installing mechanically-linked lift columns for parallel operation, the columns must be assembled so that any deviation in parallelism is less than 0.5 mm per 1,000 mm. If this is not possible, one or more attachments must be flexible enough to absorb deviations.
- All Movetec lift columns are to be assembled with the inner tube positioned upwards as shown in the accompanying illustration if not otherwise specified.



Risk of crushing

Safety instructions

Ensure that the distance between the lifting mechanism and adjacent objects is such that there is no risk of crushing. Do not place objects within the lift columns' range of movement, neither above nor below. The force produced by the lift columns can cause serious personal injury and damage if used incorrectly.



Warning! Risk of crushing!

Do not expose the lift column to heavy blows or impacts.

Ensure that the lift column and any equipment on top of it is properly secured.

Do not attach equipment to the lift column using anything other than nut slots and bolt holes.

Never dismantle a lift column yourself, as internal components can spring out and cause personal injury if handled incorrectly.

When welding close to the lift column, the control unit and cabling must be shielded and kept at a suitable distance from the welding transformer and its cables. Otherwise there is a risk of permanent damage to the lift column's electronics.

In the event of a warranty claim, any dismantling work must be performed by Movetec or authorized personnel.



Any dismantling work and servicing must be performed by Movetec or authorized personnel.

Inspections and maintenance

The lift column structure does not normally require anything more than normal cleaning. Keep equipment clean using a mild and environmentally-friendly detergent.

Inspect the lift column daily for any damage to the cabling and other electrical equipment.

Specification of materials

| | |
|--------------|---|
| Telescope: | Natural anodized aluminium |
| Plates: | Galvanized steel |
| Actuator: | Plastic/aluminium/copper |
| Cable: | Plastic/copper |
| Cable gland: | Rubber |
| Packaging: | Plastic/wood/corrugated paper (to be recycled according to current regulations) |


Technical data

| | |
|--------------------|---|
| Lifting power: | See the type plate |
| Bending moments: | See productsheet for each lift column model |
| Voltage: | 24V DC |
| Power consumption: | See the type plate |
| Intermittence: | 15 %, max. 2 min. continuous or 5 cycles |
| Sound level: | <70 dB |

For dimensions and other data, see the Movetec datasheet for each model.

Certificate/Type plate

The Movetec lift column is supplied with a certificate for built-in of a partially incomplete machine according to the EU directive on machinery 2006/42/EC, appendix II 1B.

| | | |
|---|-----------------|--|
|  | | Manufacturer |
| Movetec Solutions ApS | | |
| 5500 Middelfart – Denmark | | Retailer |
| Type: | 23120/20-123400 | Type designation |
| Max Load: | F=2000N | Max. load for lift column/lift column system |
| Current: | 4A | Power consumption |
| Date: | 2012.01 | Year/month of manufacture |

Troubleshooting

| Symptom | Checks | Action |
|--|--|--|
| Lift column does not move. | <p>Is the control unit powered?</p> <p>Are all plugs correctly connected?</p> <p>Is the motor cable's plug properly inserted into the control unit?</p> <p>Are any of the cables damaged?</p> <p>For synchronized systems, check whether the lift columns are at the same height.</p> <p>Is the control unit or lift column damaged/not functioning?</p> | <p>Check the power supply.</p> <p>Check connections.</p> <p>The sealing ring on the motor cable plug can be removed in normal environments to aid connection.</p> <p>Contact Movetec or your retailer.</p> <p>Perform a reset as per the instructions.</p> <p>If you do not hear a click when the control unit is connected to the mains, the unit may be defective and must be replaced.</p> <p>Try another control unit.</p> |
| Lift column can only move downwards. | <p>Has the system been overloaded?</p> <p>Is the lift column in contact with other objects?</p> | <p>Reduce the load to the specified max. load, see type plate.</p> <p>Make some space or move the system.</p> |
| Lift column can only move downwards at slow speed. | Are the lift columns at different heights? | The system is in reset mode. Complete a full reset as per the instructions. |
| Lift column stops and can only move in opposite direction. | <p>Has the lift column reached its top or bottom position?</p> <p>Does the lift column always stop in the same place?</p> | <p>Perform a reset as per the instructions.</p> <p>A virtual limit may have been programmed by mistake. Contact Movetec or your retailer.</p> |
| Lift column does not achieve full stroke length. | <p>Is the lift column in contact with other objects?</p> <p>Has the lift column reached its top or bottom position?</p> | Make some space or move the system. |
| One lift column is lower than the others in the system. | <p>Has the lift column hit anything?</p> <p>Has the system been moved?</p> <p>Has the system's point load been exceeded?</p> | <p>Perform a reset as per the instructions.</p> <p>NB! It may be necessary to press and hold the down button for longer until the system starts, up to 30 seconds.</p> |

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