

# SureMotion<sup>®</sup> Linear Guides LU Series

## Overview

Tough, forgiving and CLEAN Linear Motion!

The the crowned or double-V wheel shape feature, along with NO lubrication requirement, makes this product ideal for applications where there is process debris but no foreign mechanism oils are allowed. The Guide Tracks and Carriages come in two styles (LUC & LUV) and are intended to work in tandem with each other for better forgiveness when used in unaligned frames and components. See the full list of engineered features below.

## Features

### Carriages

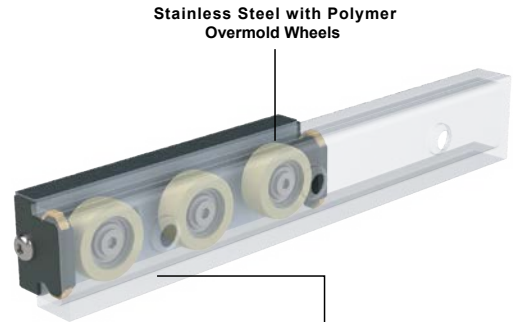
- Available in three sizes that match Guide Track sizes
- Available with two wheel shapes: Crown (C) or Double-V (V)
- Available with three, four, or five wheels
- All carriages have one or two adjustable eccentric wheel(s)
- All have felt wiper ends
- Carriage Plate Material: Aluminum with anodize finish
- Wheel Bearings: Single row ball, shielded
- Wheel Bearing Grease: Kluberplex BEM034-132
- Wheel Hub Material: 440C stainless steel
- Wheel Tread: Polymer, over-molded
- Rated Speed: 1 m/s

## Applications

- Food processing
- Paper processing
- Fabric processing
- Clean room processes

### Guide Tracks

- Available in three sizes that match carriage sizes
- Available in two cross-sectional shapes C or V
- Lengths up to 1520mm
- Can be butted end-to-end for longer travel
- Material: Aluminum with anodized finish

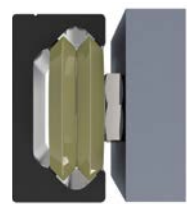


Stainless Steel with Polymer Overmold Wheels

Guide Tracks Precision Extruded Aluminum with Clear Anodize Finish

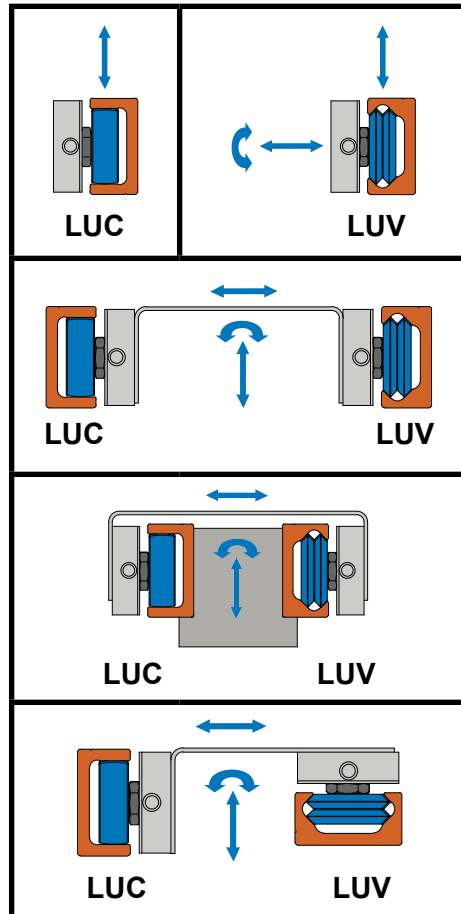


LUC Crown Wheels C-shaped guide tracks

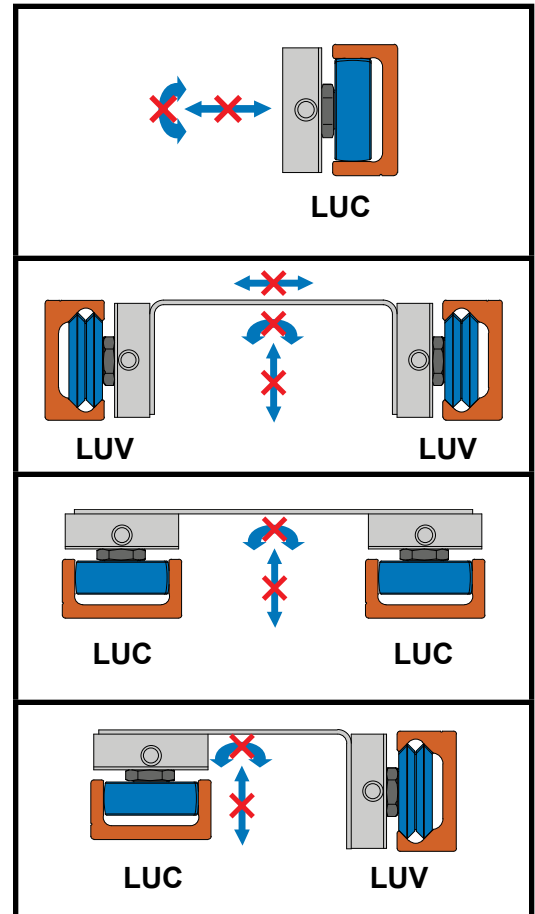


LUV Double V Wheels V-shaped guide tracks

### Recommended Applied Load Directions



### Not Recommended Applied Load Directions



| Range of Angular Misalignment |     |     |
|-------------------------------|-----|-----|
|                               | LUC | LUV |
| Series Size                   |     |     |
| 0                             | ±3° | 0°  |
| 1                             | ±4° |     |
| 2                             | ±6° |     |



# SureMotion<sup>®</sup> Linear Guides LUC Series (Crown Wheel)



**LUC-0-3W**

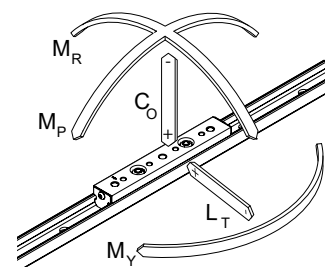


**LUC-0-4W**




**LUC-0-5W**

| LUC Series Crown Carriage |          |      |             |             |              |                   |                 |                  |                          |         |                     |
|---------------------------|----------|------|-------------|-------------|--------------|-------------------|-----------------|------------------|--------------------------|---------|---------------------|
| Part Number               | Price    | Size | Wheel Count | Static (Co) | Lateral (Lt) | Pitch Moment (Mp) | Yaw Moment (My) | Roll Moment (Mr) | Required Adjustment Tool | Price   | Drawing Link        |
| <a href="#">LUC-0-3W</a>  | \$145.00 | 0    | 3           | 0 N         | 53 N         | 0 N·m             | 0.6 N·m         | 0 N·m            | LUACC-0                  | \$25.00 | <a href="#">PDF</a> |
| <a href="#">LUC-0-4W</a>  | \$218.00 |      | 4           |             | 53 N         |                   | 1.8 N·m         |                  |                          |         | <a href="#">PDF</a> |
| <a href="#">LUC-0-5W</a>  | \$236.00 |      | 5           |             | 63 N         |                   | 1.8 N·m         |                  |                          |         | <a href="#">PDF</a> |
| <a href="#">LUC-1-3W</a>  | \$154.00 | 1    | 3           | 0 N         | 107 N        | 0 N·m             | 2 N·m           | 0 N·m            | LUACC-1                  | \$30.00 | <a href="#">PDF</a> |
| <a href="#">LUC-1-4W</a>  | \$218.00 |      | 4           |             | 107 N        |                   | 5.1 N·m         |                  |                          |         | <a href="#">PDF</a> |
| <a href="#">LUC-1-5W</a>  | \$245.00 |      | 5           |             | 127 N        |                   | 5.1 N·m         |                  |                          |         | <a href="#">PDF</a> |
| <a href="#">LUC-2-3W</a>  | \$166.00 | 2    | 3           | 0 N         | 142 N        | 0 N·m             | 3.2 N·m         | 0 N·m            | LUACC-2                  | \$32.00 | <a href="#">PDF</a> |
| <a href="#">LUC-2-4W</a>  | \$252.00 |      | 4           |             | 142 N        |                   | 9.3 N·m         |                  |                          |         | <a href="#">PDF</a> |
| <a href="#">LUC-2-5W</a>  | \$271.00 |      | 5           |             | 169 N        |                   | 9.3 N·m         |                  |                          |         | <a href="#">PDF</a> |



LU Series relative sizes



**LUC**

**LUV**

Size 0

20mm [0.79in]

Size 1

26mm [1.02in]

Size 2

40mm [1.58in]

**LUC-1-480 Track**  
**LUC-1-4W Carriage**

| LUC Series Guide Track     |          |             |                     |                     |
|----------------------------|----------|-------------|---------------------|---------------------|
| Part Number                | Price    | Size        | Length (mm [in])    | Drawing Links       |
| <a href="#">LUC-0-480</a>  | \$22.00  | 0           | 480 [18.9]          | <a href="#">PDF</a> |
| <a href="#">LUC-0-640</a>  | \$29.00  |             | 640 [25.2]          | <a href="#">PDF</a> |
| <a href="#">LUC-0-800</a>  | \$37.00  |             | 800 [31.5]          | <a href="#">PDF</a> |
| <a href="#">LUC-0-960</a>  | \$44.00  |             | 960 [37.8]          | <a href="#">PDF</a> |
| <a href="#">LUC-0-1120</a> | \$51.00  |             | 1120 [44.1]         | <a href="#">PDF</a> |
| <a href="#">LUC-0-1280</a> | \$59.00  |             | 1280 [50.4]         | <a href="#">PDF</a> |
| <a href="#">LUC-0-1520</a> | \$70.00  | 1520 [59.8] | <a href="#">PDF</a> |                     |
| <a href="#">LUC-1-480</a>  | \$24.00  | 1           | 480 [18.9]          | <a href="#">PDF</a> |
| <a href="#">LUC-1-640</a>  | \$32.00  |             | 640 [25.2]          | <a href="#">PDF</a> |
| <a href="#">LUC-1-800</a>  | \$40.00  |             | 800 [31.5]          | <a href="#">PDF</a> |
| <a href="#">LUC-1-960</a>  | \$48.00  |             | 960 [37.8]          | <a href="#">PDF</a> |
| <a href="#">LUC-1-1120</a> | \$56.00  |             | 1120 [44.1]         | <a href="#">PDF</a> |
| <a href="#">LUC-1-1280</a> | \$64.00  |             | 1280 [50.4]         | <a href="#">PDF</a> |
| <a href="#">LUC-1-1520</a> | \$76.00  | 1520 [59.8] | <a href="#">PDF</a> |                     |
| <a href="#">LUC-2-480</a>  | \$35.00  | 2           | 480 [18.9]          | <a href="#">PDF</a> |
| <a href="#">LUC-2-640</a>  | \$47.00  |             | 640 [25.2]          | <a href="#">PDF</a> |
| <a href="#">LUC-2-800</a>  | \$59.00  |             | 800 [31.5]          | <a href="#">PDF</a> |
| <a href="#">LUC-2-960</a>  | \$70.00  |             | 960 [37.8]          | <a href="#">PDF</a> |
| <a href="#">LUC-2-1120</a> | \$82.00  |             | 1120 [44.1]         | <a href="#">PDF</a> |
| <a href="#">LUC-2-1280</a> | \$94.00  |             | 1280 [50.4]         | <a href="#">PDF</a> |
| <a href="#">LUC-2-1520</a> | \$111.00 | 1520 [59.8] | <a href="#">PDF</a> |                     |



# SureMotion® Linear Guides LUV Series (Double V Wheel)



**LUV-0-3W**

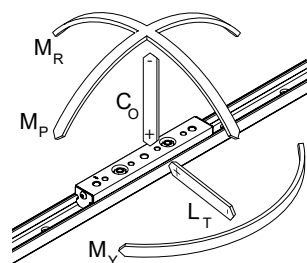


**LUV-0-4W**



**LUV-0-5W**

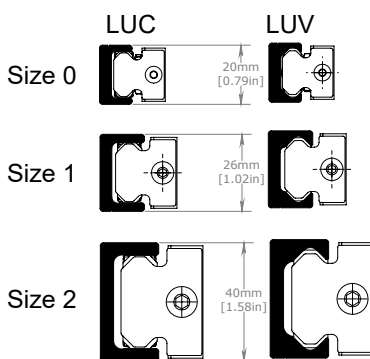
| LUV Series V-Carriage    |          |      |             |             |              |                   |                 |                  |                          |         |                     |  |
|--------------------------|----------|------|-------------|-------------|--------------|-------------------|-----------------|------------------|--------------------------|---------|---------------------|--|
| Part Number              | Price    | Size | Wheel Count | Static (Co) | Lateral (Lt) | Pitch Moment (Mp) | Yaw Moment (My) | Roll Moment (Mr) | Required Adjustment Tool | Price   | Drawing Link        |  |
| <a href="#">LUV-0-3W</a> | \$127.00 | 0    | 3           | 38 N        | 53 N         | 0.6 N·m           | 0.6 N·m         | 0.2 N·m          | LUACC-0                  | \$25.00 | <a href="#">PDF</a> |  |
| <a href="#">LUV-0-4W</a> | \$200.00 |      | 4           | 46 N        | 53 N         | 21.1 N·m          | 1.8 N·m         | 0.4 N·m          |                          |         | <a href="#">PDF</a> |  |
| <a href="#">LUV-0-5W</a> | \$227.00 |      | 5           | 54 N        | 63 N         | 21.1 N·m          | 1.8 N·m         | 0.4 N·m          |                          |         | <a href="#">PDF</a> |  |
| <a href="#">LUV-1-3W</a> | \$136.00 | 1    | 3           | 76 N        | 107 N        | 2 N·m             | 2 N·m           | 0.5 N·m          | LUACC-1                  | \$30.00 | <a href="#">PDF</a> |  |
| <a href="#">LUV-1-4W</a> | \$209.00 |      | 4           | 91 N        | 107 N        | 61.5 N·m          | 5.1 N·m         | 1 N·m            |                          |         | <a href="#">PDF</a> |  |
| <a href="#">LUV-1-5W</a> | \$227.00 |      | 5           | 107 N       | 127 N        | 61.5 N·m          | 5.1 N·m         | 1 N·m            |                          |         | <a href="#">PDF</a> |  |
| <a href="#">LUV-2-3W</a> | \$164.00 | 2    | 3           | 94 N        | 142 N        | 3.6 N·m           | 3.2 N·m         | 1.2 N·m          | LUACC-2                  | \$32.00 | <a href="#">PDF</a> |  |
| <a href="#">LUV-2-4W</a> | \$218.00 |      | 4           | 116 N       | 142 N        | 124.9 N·m         | 9.3 N·m         | 2.3 N·m          |                          |         | <a href="#">PDF</a> |  |
| <a href="#">LUV-2-5W</a> | \$245.00 |      | 5           | 133 N       | 169 N        | 124.9 N·m         | 9.3 N·m         | 2.3 N·m          |                          |         | <a href="#">PDF</a> |  |



LU Series relative sizes



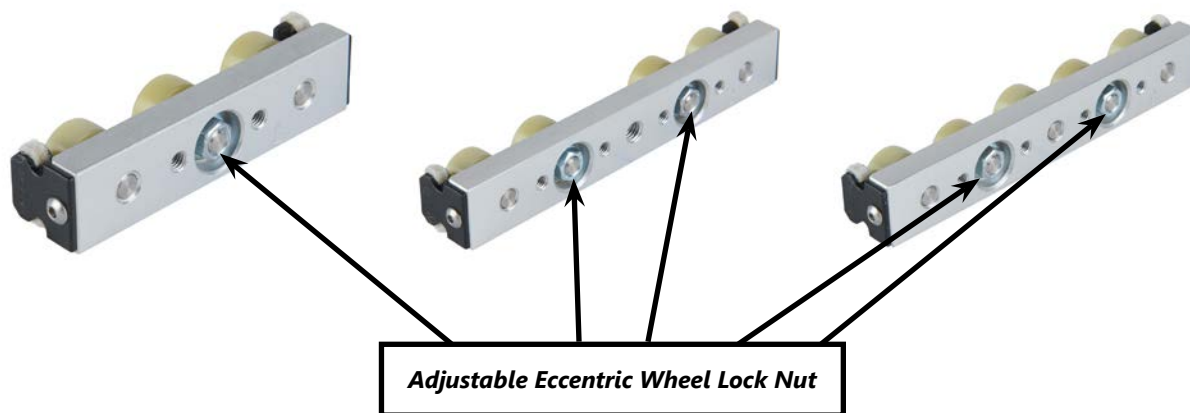
**LUV-1-480 Track**  
**LUV-1-4W Carriage**



| LUV Series Guide Track     |          |      |                  |                     |
|----------------------------|----------|------|------------------|---------------------|
| Part Number                | Price    | Size | Length (mm [in]) | Drawing Links       |
| <a href="#">LUV-0-480</a>  | \$22.00  | 0    | 480 [18.9]       | <a href="#">PDF</a> |
| <a href="#">LUV-0-640</a>  | \$29.00  |      | 640 [25.2]       | <a href="#">PDF</a> |
| <a href="#">LUV-0-800</a>  | \$37.00  |      | 800 [31.5]       | <a href="#">PDF</a> |
| <a href="#">LUV-0-960</a>  | \$44.00  |      | 960 [37.8]       | <a href="#">PDF</a> |
| <a href="#">LUV-0-1120</a> | \$51.00  |      | 1120 [44.1]      | <a href="#">PDF</a> |
| <a href="#">LUV-0-1280</a> | \$59.00  |      | 1280 [50.4]      | <a href="#">PDF</a> |
| <a href="#">LUV-0-1520</a> | \$70.00  |      | 1520 [59.8]      | <a href="#">PDF</a> |
| <a href="#">LUV-1-480</a>  | \$24.00  | 1    | 480 [18.9]       | <a href="#">PDF</a> |
| <a href="#">LUV-1-640</a>  | \$32.00  |      | 640 [25.2]       | <a href="#">PDF</a> |
| <a href="#">LUV-1-800</a>  | \$40.00  |      | 800 [31.5]       | <a href="#">PDF</a> |
| <a href="#">LUV-1-960</a>  | \$48.00  |      | 960 [37.8]       | <a href="#">PDF</a> |
| <a href="#">LUV-1-1120</a> | \$56.00  |      | 1120 [44.1]      | <a href="#">PDF</a> |
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| <a href="#">LUV-1-1520</a> | \$76.00  |      | 1520 [59.8]      | <a href="#">PDF</a> |
| <a href="#">LUV-2-480</a>  | \$35.00  | 2    | 480 [18.9]       | <a href="#">PDF</a> |
| <a href="#">LUV-2-640</a>  | \$47.00  |      | 640 [25.2]       | <a href="#">PDF</a> |
| <a href="#">LUV-2-800</a>  | \$59.00  |      | 800 [31.5]       | <a href="#">PDF</a> |
| <a href="#">LUV-2-960</a>  | \$70.00  |      | 960 [37.8]       | <a href="#">PDF</a> |
| <a href="#">LUV-2-1120</a> | \$82.00  |      | 1120 [44.1]      | <a href="#">PDF</a> |
| <a href="#">LUV-2-1280</a> | \$94.00  |      | 1280 [50.4]      | <a href="#">PDF</a> |
| <a href="#">LUV-2-1520</a> | \$111.00 |      | 1520 [59.8]      | <a href="#">PDF</a> |

# SureMotion<sup>®</sup> Linear Guides LUC and LUV Series

## Preloading and Adjustment

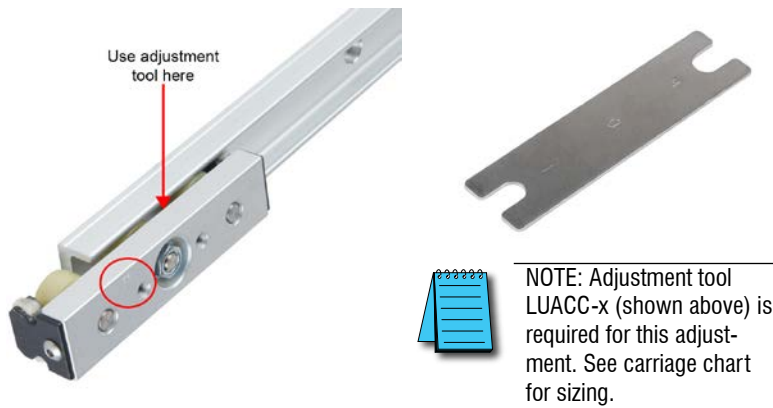


### Step 1

Using a socket wrench, loosen the adjustable eccentric wheel lock nut counterclockwise

### Step 2

Install the carriage into the guide track with the embossed arrow pointing in the same direction as the primary load. Using the adjusting tool, slowly turn the eccentric cam nut clockwise until a slight resistance is felt. This indicates wheel contact with the track.



### Step 3

Using the adjustment tool to hold the eccentric cam nut in place, use the socket wrench to slight tighten the adjustable eccentric wheel lock nut (clockwise).

### Step 4

Manually move the carriage along the entire length of the guide track to determine whether there are any noticeable resistance variations. If so, repeat 1-3

### Step 5

Using the adjustment tool to hold the eccentric cam nut in place, use the socket wrench to fully tighten the adjustable eccentric wheel lock nut (clockwise).