

Ordering Code

WMCD - BS - 145 - _ _ - _ _ - _ _ - _ _ - _ _ - _ _

- 1
Model
- 2
Drive Unit
- 3
Size
- 4
Stroke
- 5
Pitch
- 6
Mounting Kit Model
- 7
Mounting Kit Assembly
- 8
Mounting Kit Side

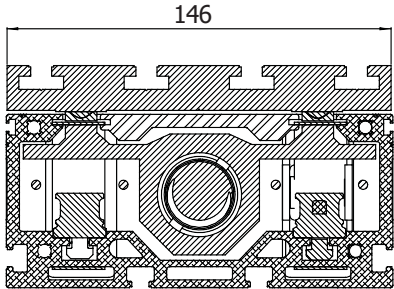
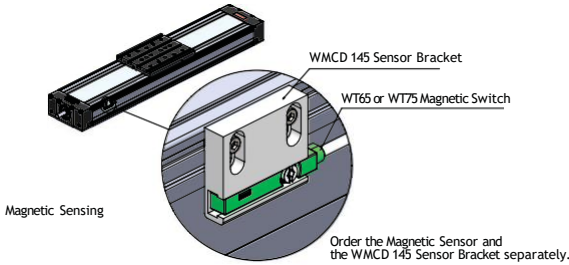
1 - Model

WMCD : Compact Linear Module

2 - Drive Unit

BS : Ball Screw

3 - Size

| | |
|---|--|
| <p>Standard</p>  <p style="text-align: center;">146</p> <p style="text-align: center;">WMCD - BS - 145</p> | <p>Option</p>  <p style="text-align: center;">Magnetic Sensing</p> <p style="text-align: center;">WMCD 145 Sensor Bracket WT65 or WT75 Magnetic Switch</p> <p style="text-align: center;">Order the Magnetic Sensor and the WMCD 145 Sensor Bracket separately.</p> <p style="text-align: center;">_ _ - MS</p> |
|---|--|

4 - Stroke

0000 : Maximum 1600 mm

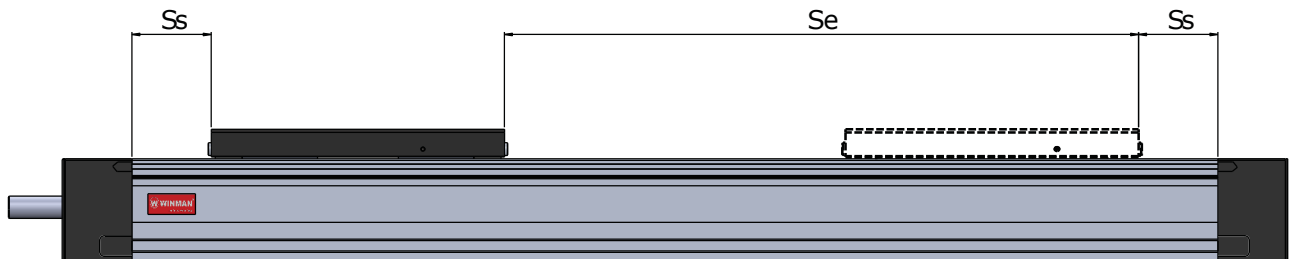
Movement Stroke

In addition to the desired movement stroke, it is recommended to leave a space on both sides until 2xPitch.

$$S_m = S_e + 2.S_s$$

$$S_s = 2.p$$

S_m : Movement Stroke
 S_e : Safety Stroke
 p : Ball Screw Pitch



5 - Pitch

- 05 : 5 mm/rev
- 10 : 10 mm/rev
- 20 : 20 mm/rev

Ordering Code

WMCD - BS - 145 - - - - -

- | | | | | | | | |
|-------|------------|------|--------|-------|--------------------|-----------------------|-------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Model | Drive Unit | Size | Stroke | Pitch | Mounting Kit Model | Mounting Kit Assembly | Mounting Kit Side |

6 - Mounting Kit Model

| | | |
|----------------------------------|------------------|---------------------|
| | | |
| 00 : Without Mounting (Standard) | WDAK : Axial Kit | WDPK : Parallel Kit |

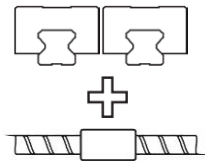
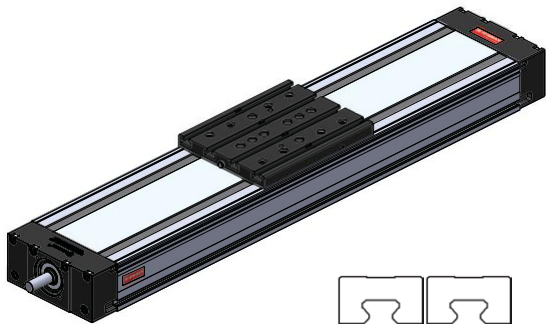
Note 1 : Please contact for different motor types and mounting sizes.
Note 2 : Please contact for to use reducer.

7 - Mounting Kit Assembly

| | | |
|-------------------------------|--------------------------|--------------------------|
| | | |
| 00 : Without Motor (Standard) | 070 : Ø70 motor mounting | 090 : Ø90 motor mounting |

8 - Mounting Kit Side

| | | |
|-----------------|--------|--------|
| 00 Standard | 01 | 02 |
| | 03 | 04 |

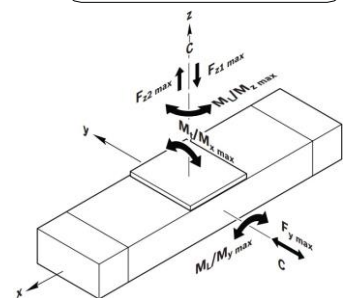
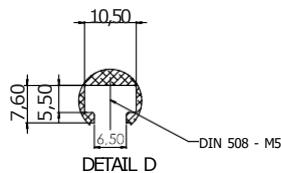
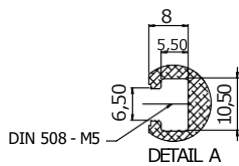
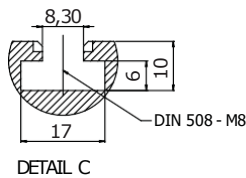
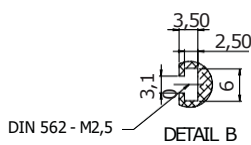
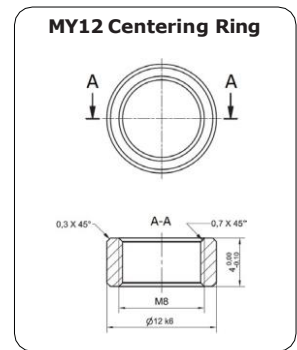
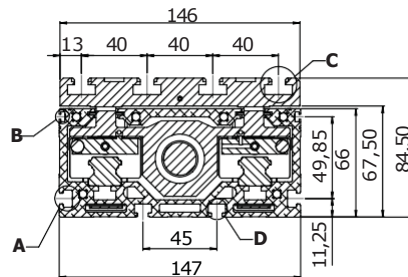
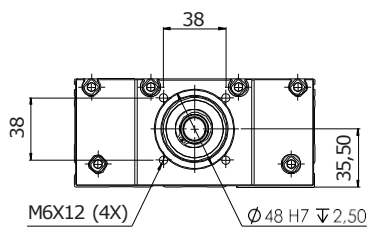
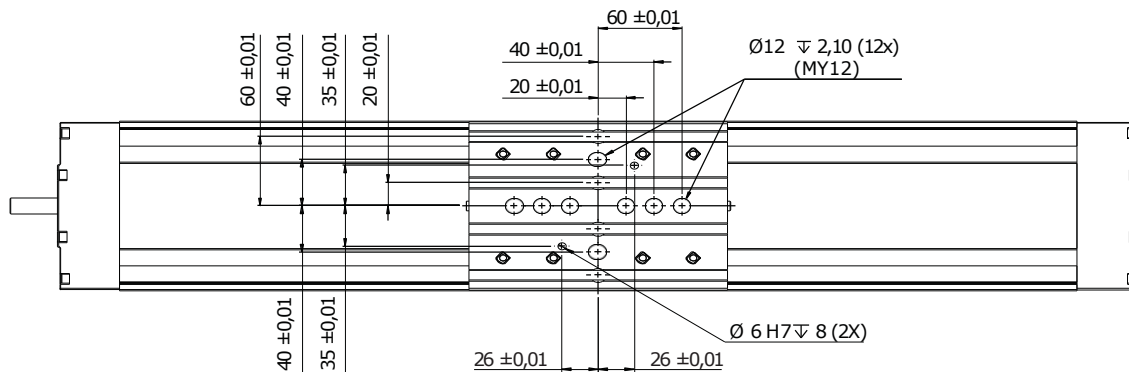
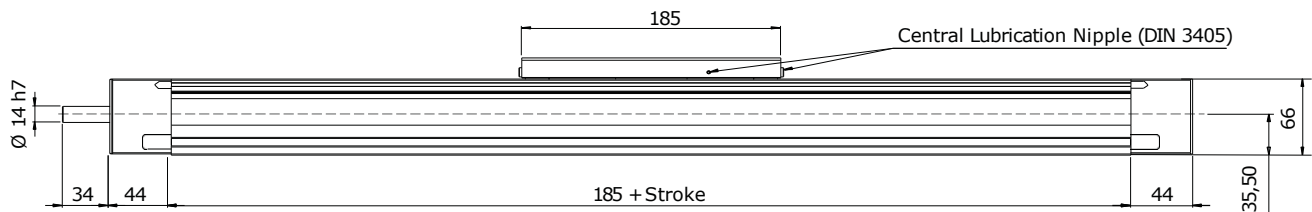
WINMAN WMCD-145 Series Compact Linear Module

Specification

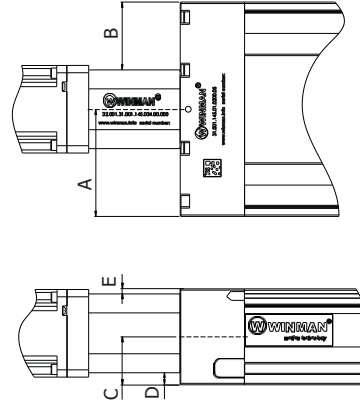
| | |
|---|----------|
| Maximum Stroke [mm] | 1600 |
| Position Accuracy [$\mu\text{m}/\text{mm}$] | 53/300 |
| Repeating Accuracy [mm] | $< 0,05$ |
| Acceleration [m/s^2] | 10 |

| Screw Lead [mm] | Dynamic Load Capacity [N] | | Dynamic Torsional Moment Load Capacity [Nm] | |
|-----------------|---------------------------|----------|---|-------|
| | C | C_{bs} | M_t | M_L |
| 5 | 57680 | 13350 | 4200 | 5400 |
| 10 | | 15580 | | |
| 20 | | 14650 | | |

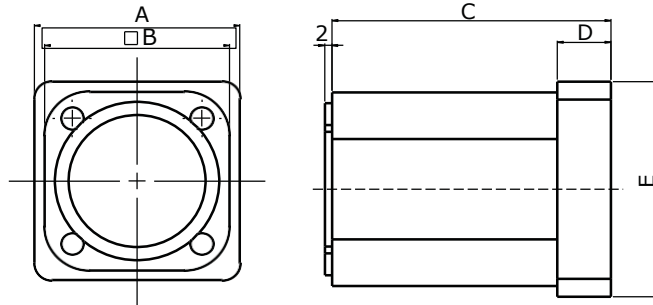
| Max. Permissible Torsional Moment Around The Axis [Nm] | | | Max. Dynamic Load in Directions [N] | | |
|--|-----------|-----------|-------------------------------------|--------------|--------------|
| M_x max | M_y max | M_z max | F_y max | F_{z1} max | F_{z2} max |
| 1475 | 1650 | 970 | 10385 | 20190 | 20190 |

Note : Calculated value are theoretical values. We recommend you to calculate safety factor as five(5).

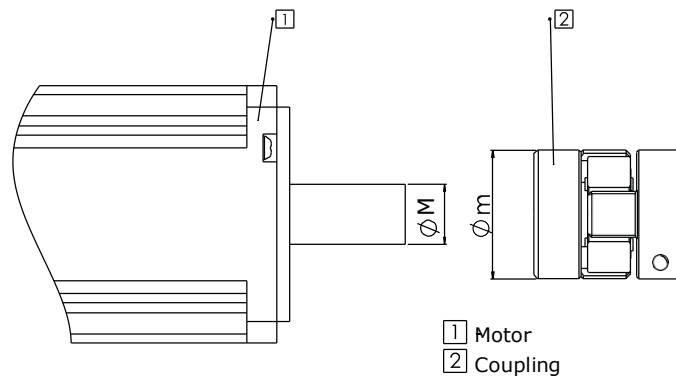
Technical Drawing


WDAK Axial Mounting Kit
Technical Drawing


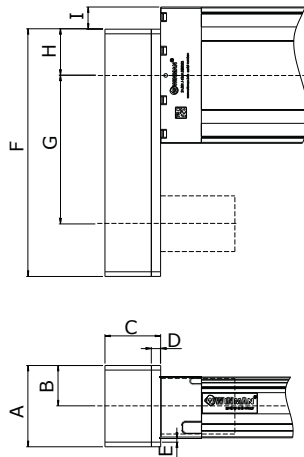
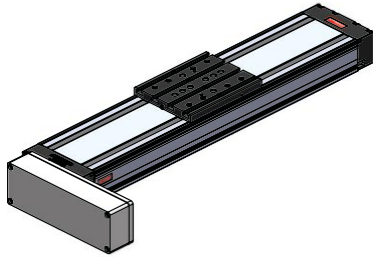
| Mounting Kit Type | A | B | C | D | E |
|-------------------|------|------|------|-----|-----|
| WDAK-070 | 73,5 | 46,5 | 35,5 | 8,5 | 3,5 |
| WDAK-090 | 73,5 | 43,5 | 35,5 | 5,5 | 0,5 |

Bellhousing


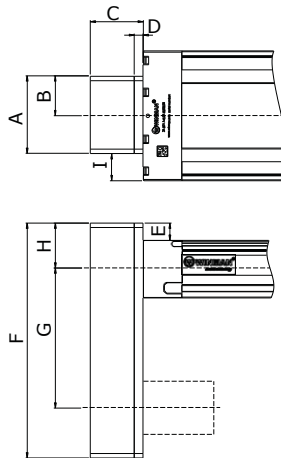
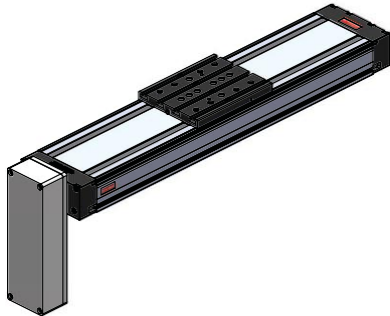
| Mounting Kit Type | A | B | C | D | E |
|-------------------|----|----|----|----|----|
| WDAK-070 | 60 | 54 | 78 | 15 | 60 |
| WDAK-090 | 80 | 60 | 95 | 20 | 80 |

Coupling


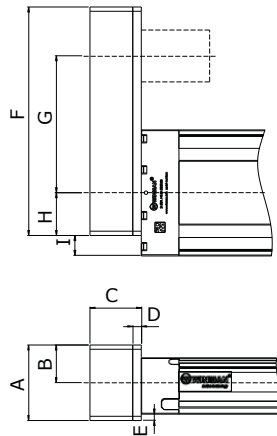
| Mounting Kit Type | M | m | Coupling Model |
|-------------------|----|----|----------------|
| WDAK-070 | 14 | 30 | WWJL - 30CRD |
| WDAK-090 | 19 | 40 | WWJL - 40CRD |

WDPK - Parallel Mounting Kit
Technical Drawing
WDPK - _ _ - 01


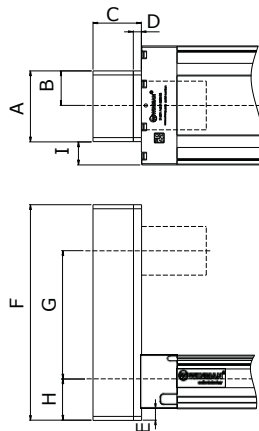
| Kit Assembly | WDPK - 070 - 01 | WDPK - 090 - 01 |
|--------------|------------------------|------------------------|
| A | 88 | 88 |
| B | 43 | 43 |
| C | 60 | 60 |
| D | 10 | 10 |
| E | 14,5 | 5 |
| F | 267 | 297 |
| G | 160 | 186 |
| H | 50 | 55,5 |
| I | 23,5 | 18 |

WDPK - _ _ - 02


| Kit Assembly | WDPK - 070 - 02 | WDPK - 090 - 02 |
|--------------|------------------------|------------------------|
| A | 88 | 88 |
| B | 43 | 43 |
| C | 60 | 60 |
| D | 10 | 10 |
| E | 14,5 | 9,5 |
| F | 267 | 297 |
| G | 160 | 186 |
| H | 50 | 55,5 |
| I | 28,5 | 18 |

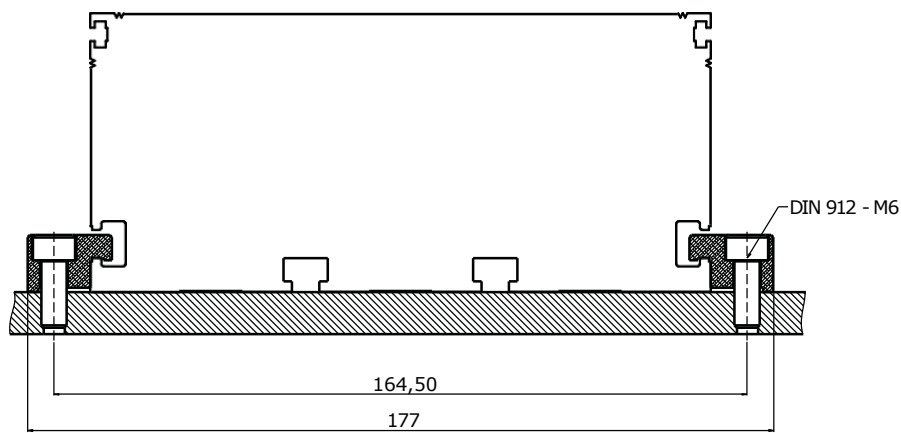
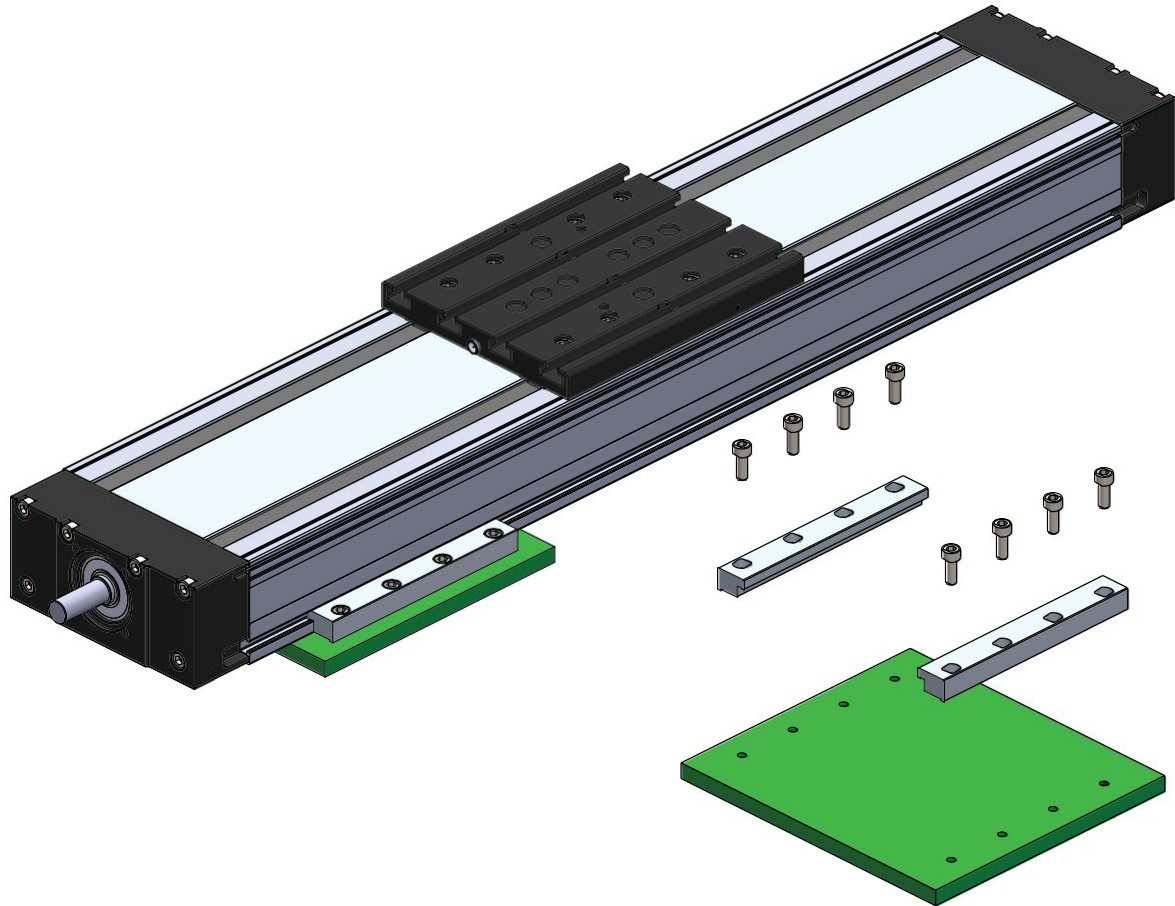
WDPK - _ _ - 03


| Kit Assembly | WDPK - 070 - 03 | WDPK - 090 - 03 |
|--------------|------------------------|------------------------|
| A | 88 | 88 |
| B | 43 | 43 |
| C | 60 | 60 |
| D | 10 | 10 |
| E | 9,5 | 20 |
| F | 267 | 297 |
| G | 160 | 186 |
| H | 50 | 55,5 |
| I | 23,5 | 28,5 |

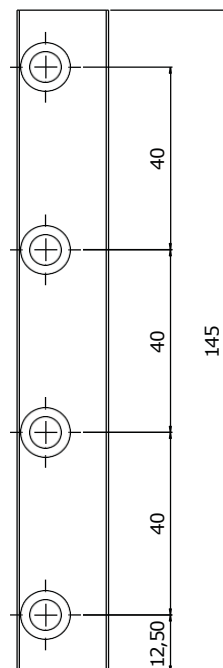
WDPK - _ _ - 04


| Kit Assembly | WDPK - 070 - 04 | WDPK - 090 - 04 |
|--------------|------------------------|------------------------|
| A | 88 | 88 |
| B | 43 | 43 |
| C | 60 | 60 |
| D | 10 | 10 |
| E | 14,5 | 20 |
| F | 267 | 297 |
| G | 160 | 186 |
| H | 50 | 55,5 |
| I | 28,5 | 28,5 |

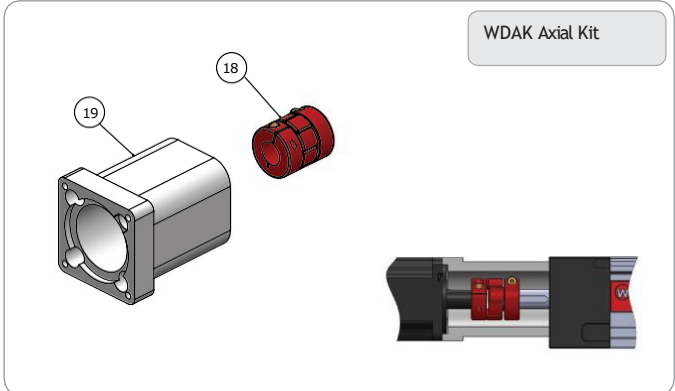
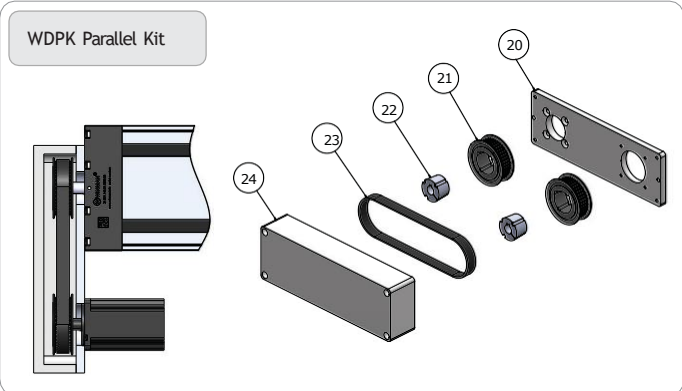
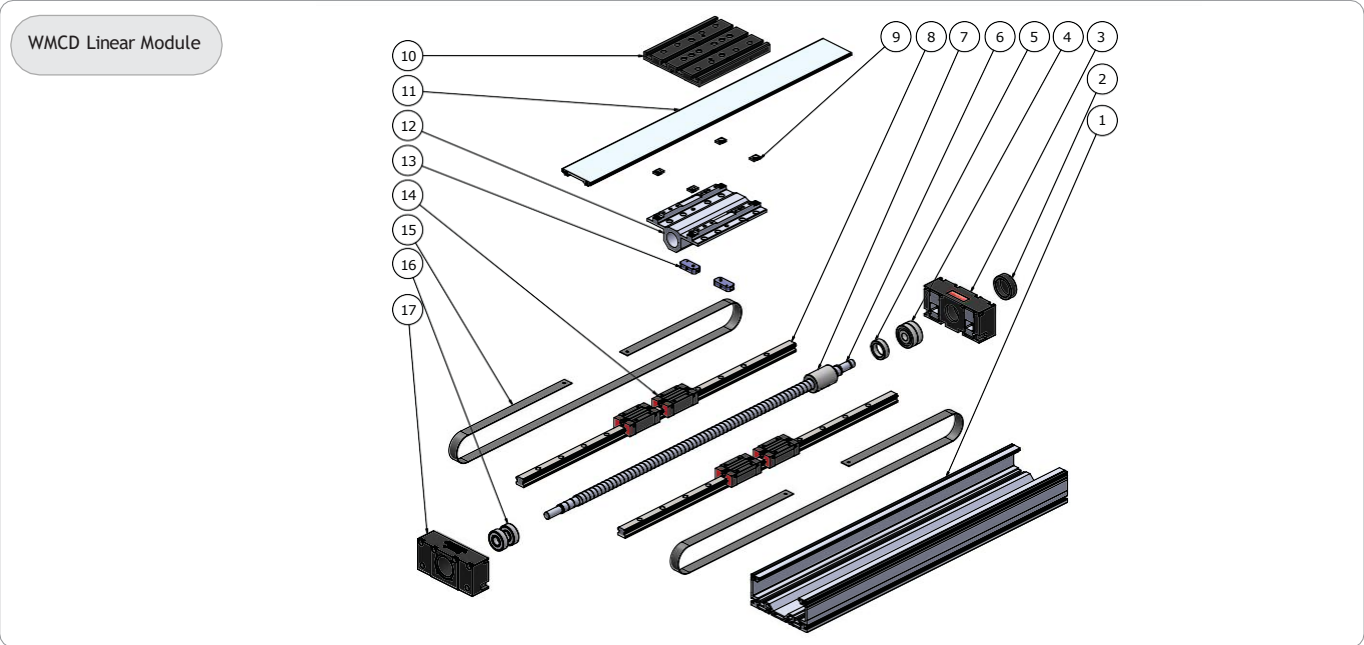
Assembly



WMCD 145 Clamping Fixtures



Assembly



| Piece | Qty | Part Name | Assembly |
|-------|-----|---------------------------------------|---------------------|
| 1 | 1 | Profile | Module |
| 2 | 1 | Block Nut | |
| 3 | 1 | Back Block | |
| 4 | 1 | Back Bearing | |
| 5 | 1 | Front Bearing Pressure Nut | |
| 6 | 1 | Ball screw | |
| 7 | 1 | Ball Nut | |
| 8 | 2 | Linear Guided | |
| 9 | 4 | Strip Mounting Piece | |
| 10 | 1 | Front Bearing | |
| 11 | 1 | Profile Cover | |
| 12 | 1 | Carriage | |
| 13 | 2 | Lubrication Port | |
| 14 | 4 | Linear Carriage | |
| 15 | 2 | Protection Strip Corrosion Resistance | |
| 16 | 1 | Front Bearing | |
| 17 | 1 | Front Block | |
| 18 | 1 | Coupling | Axial Kit |
| 19 | 1 | Bell housing | Parallel Kit |
| 20 | 1 | Parallel Kit Cover | |
| 21 | 1 | Toothed Belt | |
| 22 | 2 | Timing Belt Pulleys | |
| 23 | 2 | Taper Bushing | |
| 24 | 1 | Parallel Kit Box | |

Maintenance

Basic lubrication is done in-factory before shipment.

Bearings of the ball screw have been lubricated for life and will not require in-service lubrication under normal operating conditions.

The lubrication of ball nuts and carriages is made from a single port.

Compact modules must be lubricated with suitable grease.

Lithium soap grease should be used.

Caution: Do not use grease containing graphite or MoS!

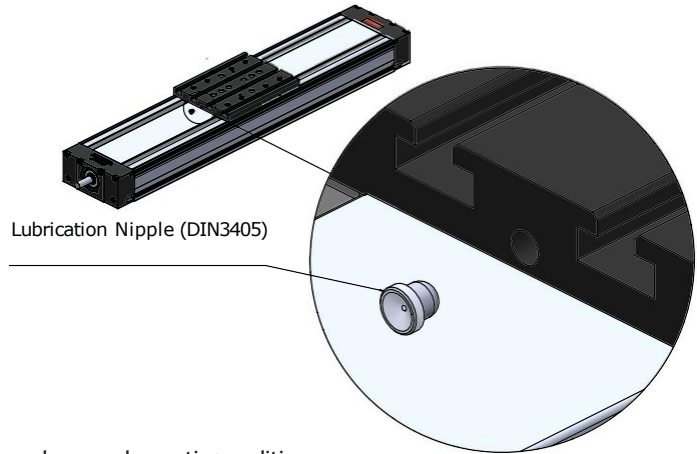
Lubrication is performed every 400 hours or 400 km total working distance by normal operating conditions.

Lubrication quantities are provided in table by normal operating conditions.

After lubrication, move the linear module at least three times. Do not exceed the movement value, the movement speed 10 mm / s.

Belt is assembled with a fixed axis distance between the pulleys in Parallel Kits. In consequence there is no need to adjust the tension of belt.

After maintenance, get information about the protection strip tension on the module.



Normal Working Conditions

Note : The lubrication quantity specified in the table is valid for normal operating conditions. The lubrication quantity may vary in different operating conditions. Get information for the lubrication quantity in different working conditions.

| | | |
|----------------------|-----------------|---------|
| Ambient Temperature | °C | 10 ~ 40 |
| Speed | m/s | ≤ 1,0 |
| Screw Rotation Speed | rev/min | 2500 |
| Load | kN | ≤ 0,2 C |
| Stroke | mm | > 60 |
| Lubrication Period | Km | 400 |
| | Hour | 400 |
| Lubricate Dose | cm ³ | 2,8 |