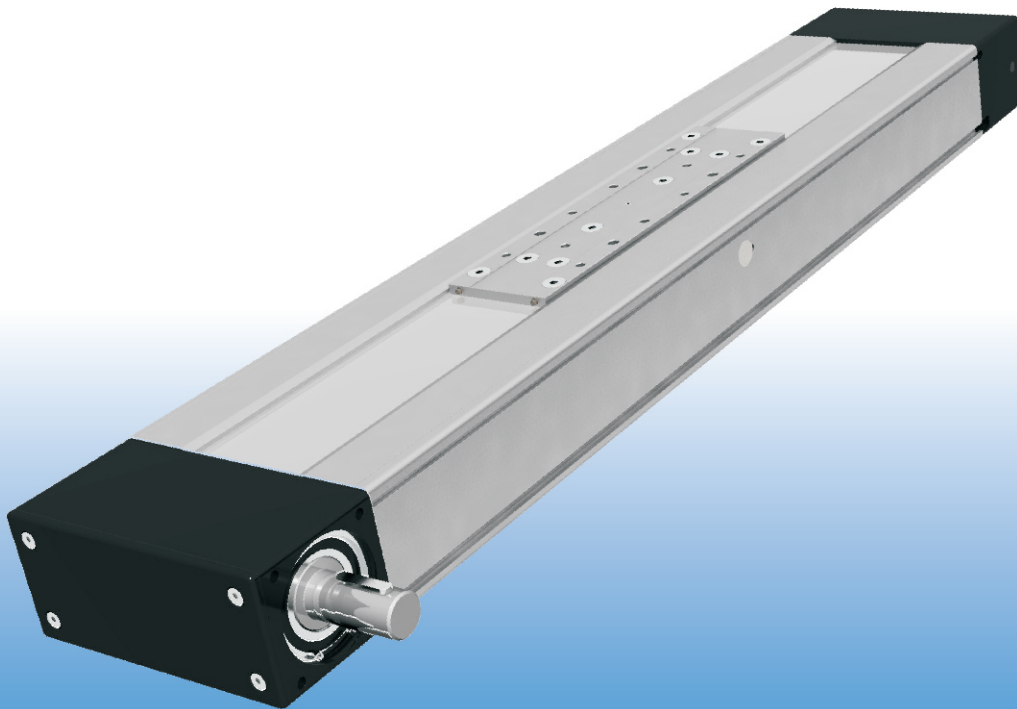


UNIMOTION



MAINTENANCE INSTRUCTIONS


CTJ SERIES


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Slovenija
Tel: +386 (0)4 5318700 Fax: +386 (0)4 5318740
www.unimotion.eu email: sales@unimotion.eu

www.unimotion.eu

OVERVIEW

Used symbols

 Remark, note

 Warning!


 For more information see the catalogue

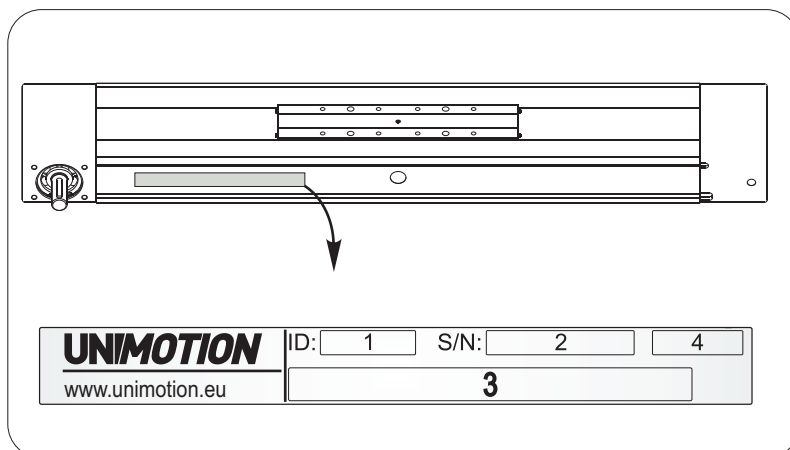
Recommended tightening torques (strength class 8.8)

8.8	M2	M2,5	M3	M4	M5	M6	M8	M10	M12
M_{max} [Nm]	0,4	0,7	1,3	3,0	6,0	10,3	25	45	74

Identification label and additional or replacement parts of the Linear Unit

- 1 - ID number
- 2 - Serial number
- 3 - Type of Linear Unit (ordering code)
- 4 - Special version


 In the case of ordering additional or replacement parts for the Linear Unit there must be given all data from the identification label.




MOUNTING

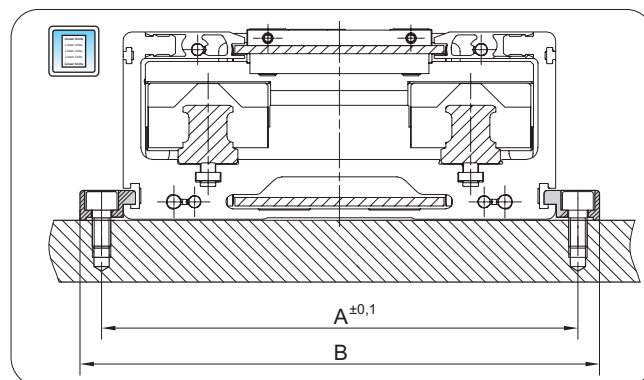
Fixing system



 Linear Unit must be mounted by the aluminium profile with evenly distributed clamping fixtures along the entire length!



 Number of clamping fixtures
Recommended number of clamping fixtures: 3 per meter on each side.



The modules are mounted by using fixtures which are placed in the slot on the side of the profile.

CTJ	A [mm]	B [mm]
90	102	112
110	125	140
145	160	175

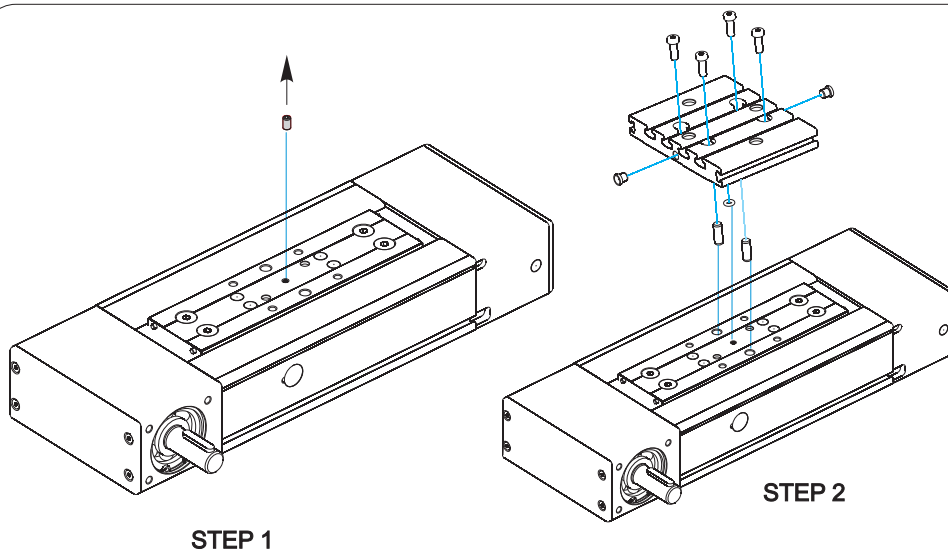
MOUNTING

Connection plates

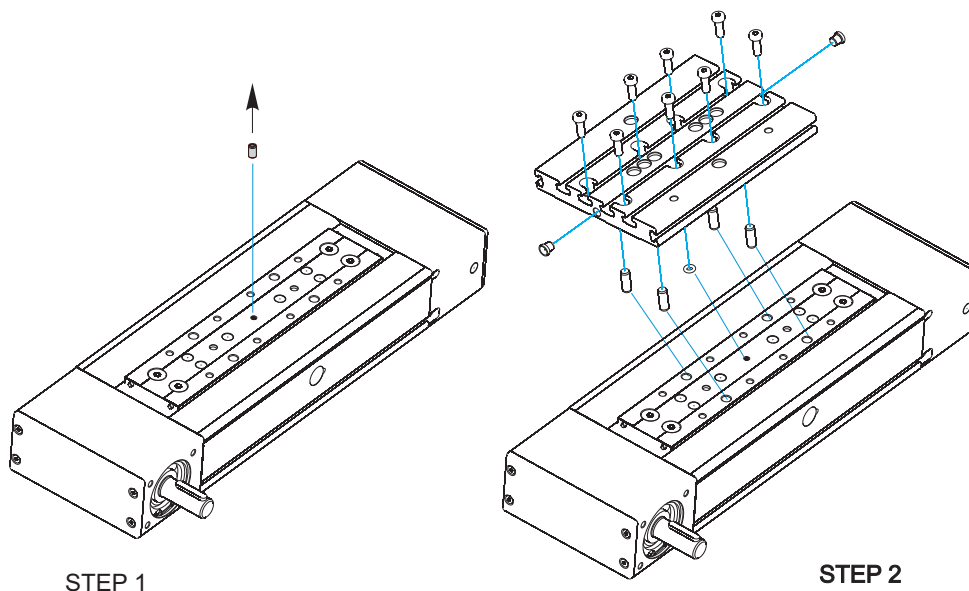


Connection plate contains two lubrication nipples DIN 3405D for the carriage. Before mounting the connection plate on the Linear Unit it must be fully filled with grease. The connection plate can be removed and replaced at any time.

Short Carriage version



Long Carriage version



STEP 1: The lubrication port is closed by a screw DIN 913. Untight the screw (DIN 913), which is placed on the carriage of the Linear Unit.

STEP 2: Place the O-RING seal on the location where the connection plate has it's deepening for the O-ring seal.

O-RING type for: CTJ90, CTJ 110 and CTJ 145

- O-RING - 4 x 2mm

- PART NUMBER: 48373

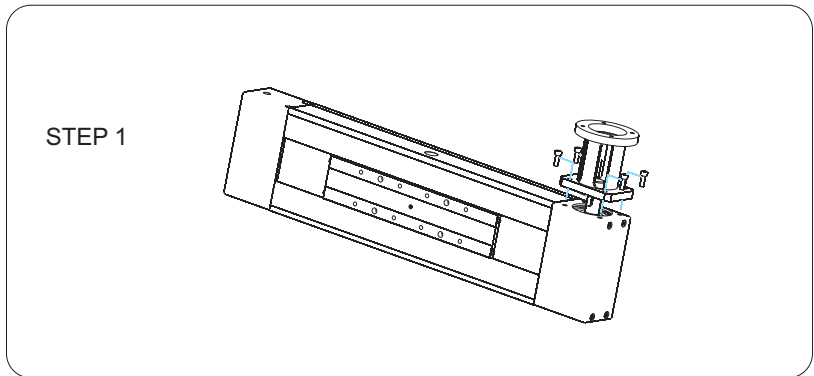
Insert cylindrical pins (DIN 6325) on the connection plate.

Insert the screws (DIN 7984) for attachment of the connection plate on the carriage and screw them.

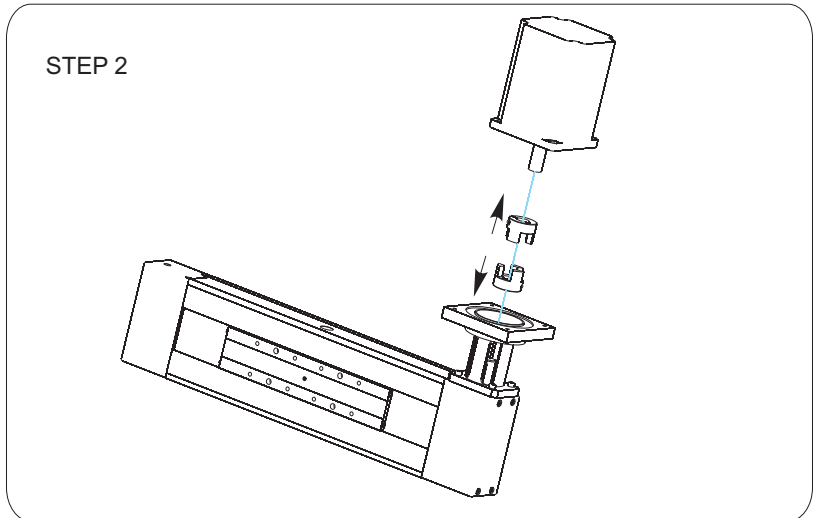
MOUNTING

Motor with coupling


STEP 1: Attach the motor adapter on a pre-prepared location on the Linear Unit and screw down.



STEP 2: Place the coupling halves on the drive journal of the Linear Unit and the motor.

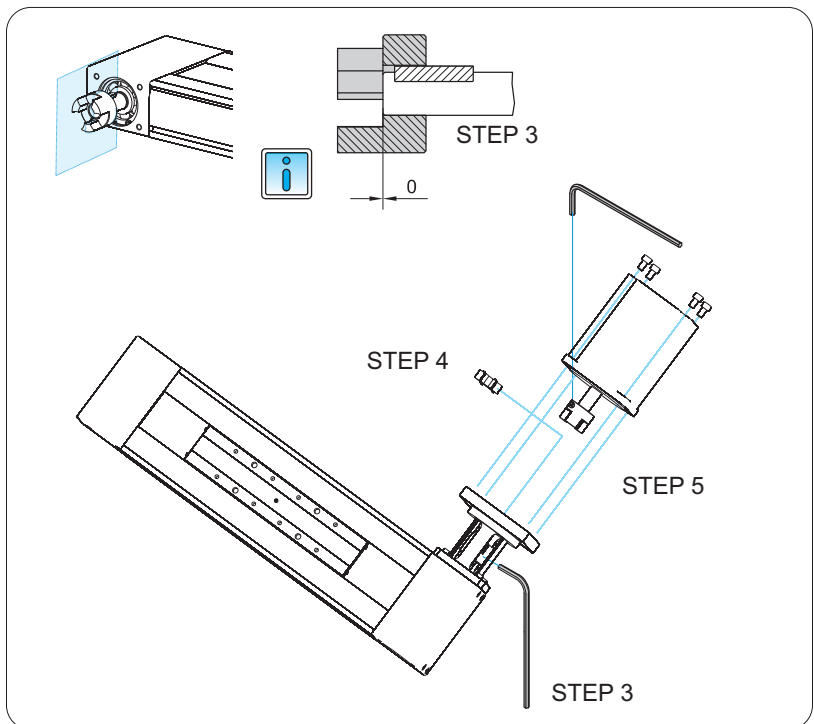



STEP 3: Ensure that the coupling halves and the drive journals are correctly aligned.

 Tighten the screws on the coupling halves with coupling tightening torque.

STEP 4: Insert the coupling spider into one of the coupling half.

STEP 5: Attach the motor on the motor adapter with screws and combine the coupling halves together at the same time.



 Maximum torque and maximum speed of the motor must never exceed the limits of the Linear Unit!

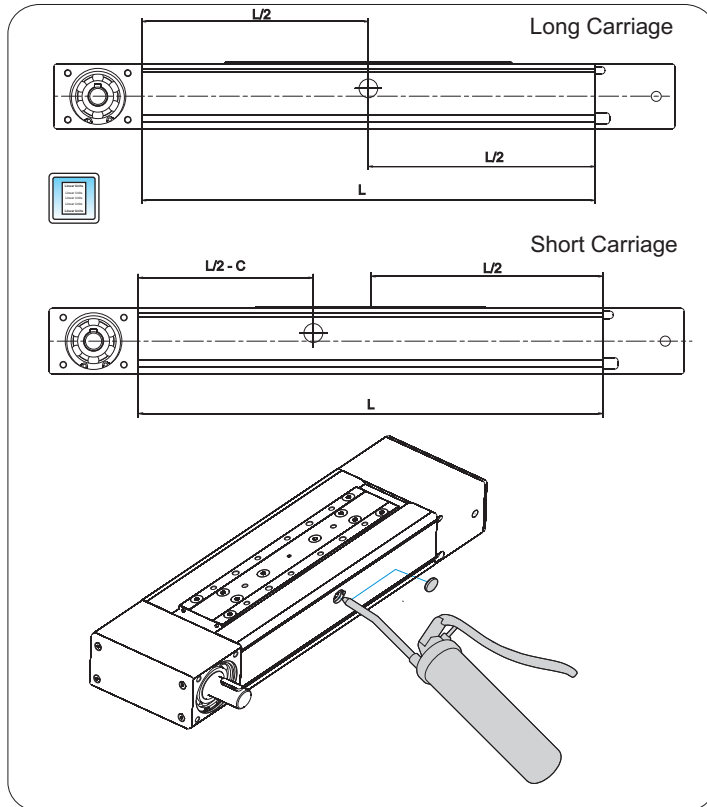


MAINTENANCE



For each Linear Unit the basic lubrication is done in factory before shipment. All bearings of the belt pulleys have been lubricated for life and do not require any additional lubrication under normal operating conditions.

Lubrication of the carriage



Lubrication ports for Long and Short Carriage version are placed on both sides of the profile as it is shown in figure beside.

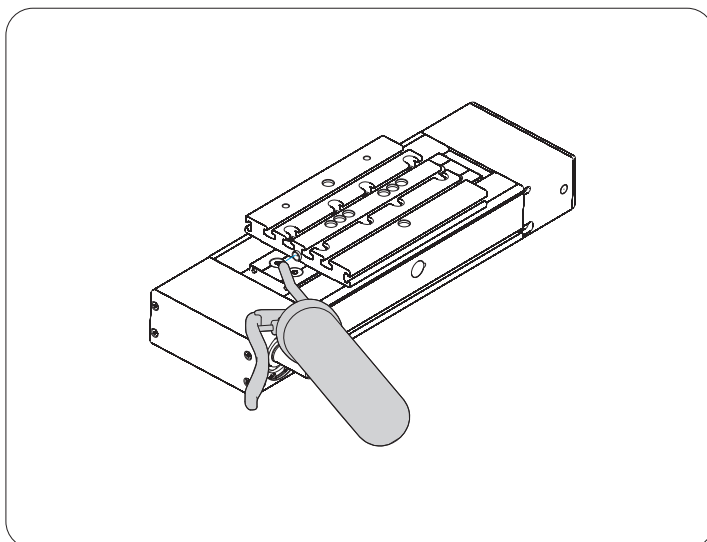
CTJ	C [mm]
90 S	23,7
110 S	42,5
145 S	47,5

For access to the lubrication nipples inside, the carriage must be moved to the middle position, i.e. $L/2$.

Lubrication ports have a cover, which must be removed in case of lubrication. The lubrication ports are central, which means you can lubricate the carriage through one lubrication port.

Place the cover back after lubrication.

Lubricating through the connection plate



Linear Unit with connection plate:

The connection plate has two lubrication nipples.

It is sufficient to lubricate through one of the two lubrication nipples only.

MAINTENANCE

Lubricant

Recommended grease for the lubrication

Lubcon TURMOGREASE Highspeed L 252/3 (K HC P 2/3 K-50)



For lubrication and re-lubrication of linear units, it must be used grease lubricant only! Do not use the grease which contains solid parts!

Lubricant quantities and intervals

CTJ	Travel path [km]	Grease - relubricating quantity [g]	
		Long Carriage	Short Carriage
90	5000	0,5	0,3
110	5000	1,4	0,7
145	5000	2,5	1,3



Lubrication ports for Long and Short Carriage version are placed on both sides of the profile. The lubrication ports are central ports which means you can lubricate the carriage through one lubrication port.

The stated lubrication intervals in the table above are sufficient for normal operating conditions. If you have special operating systems please contact us.

Lubrication intervals are every 500 operating hours or after the specified travel path stated in the table above.

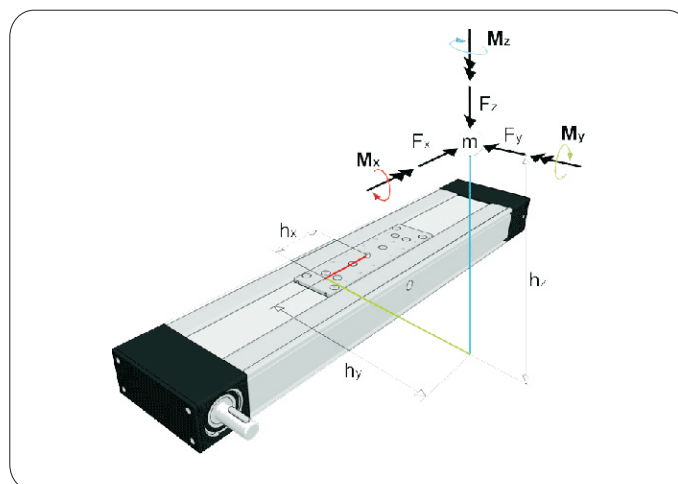
Normal operating conditions

Temperature: 10 °C - 30 °C

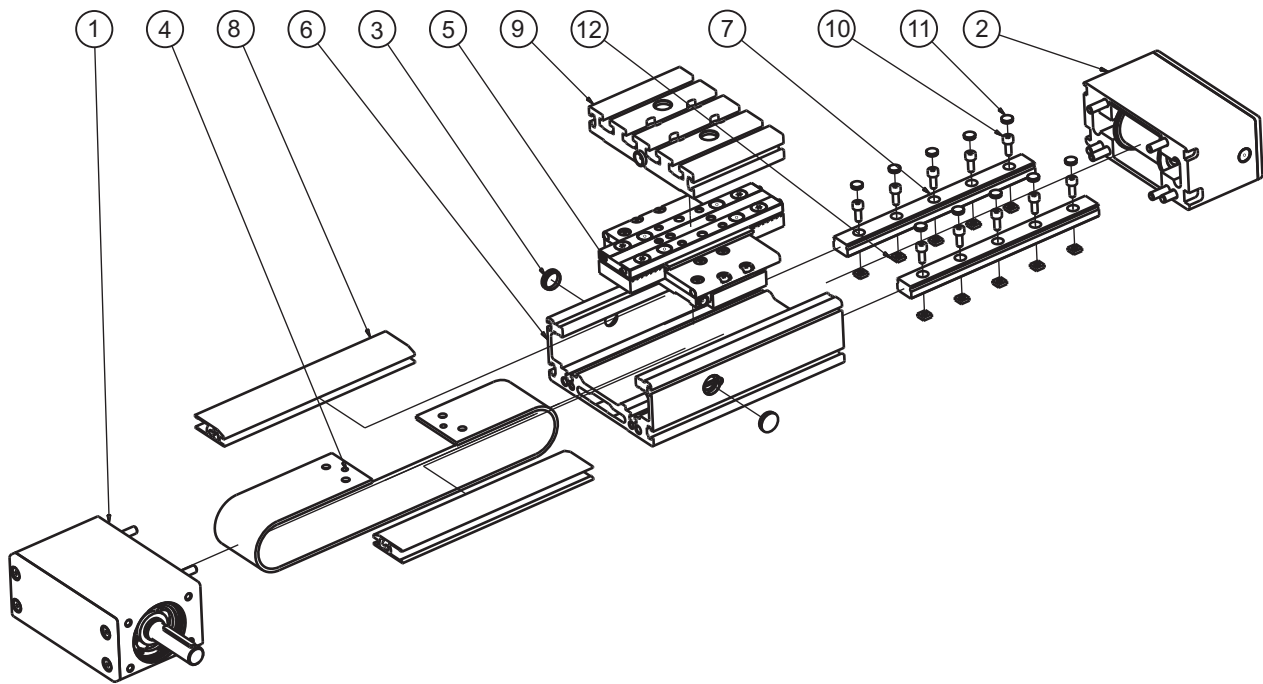
Travel speed: ≤ 5 m/s

Stroke: CTJ 110 > 50 mm
CTJ 145 > 60 mm

Load: $\leq 0,2$ C

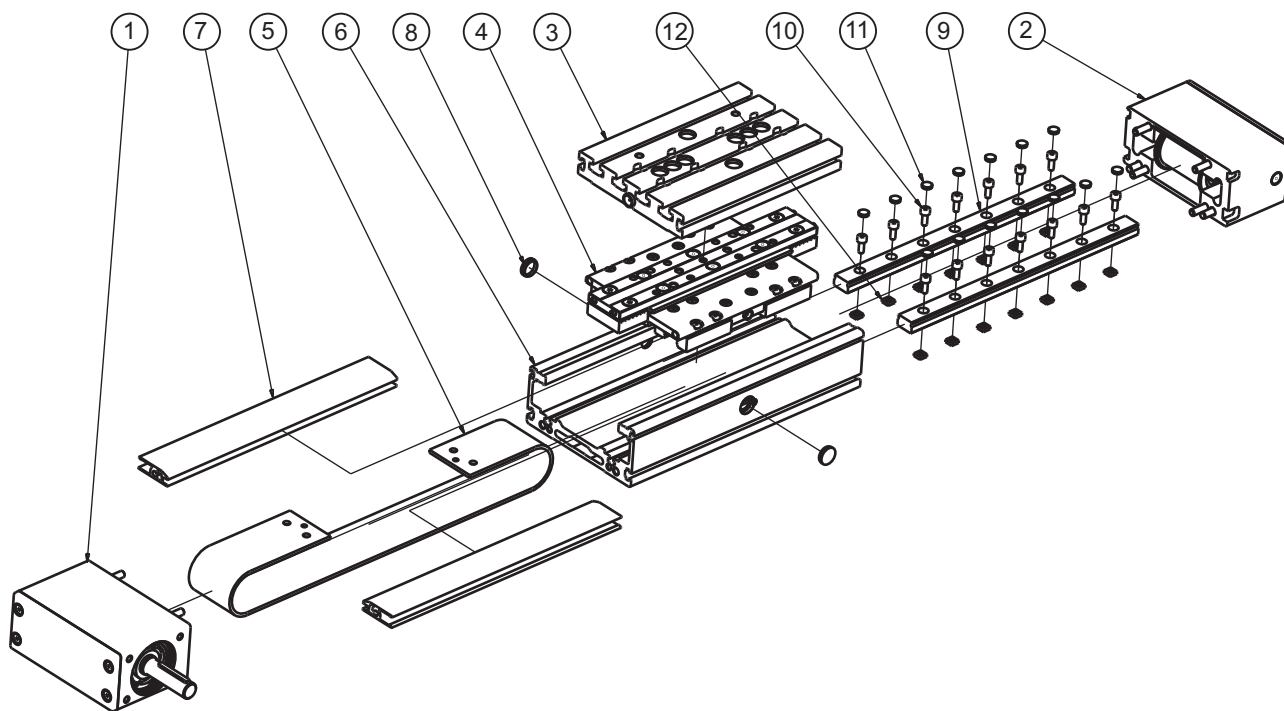


ASSEMBLY CTJ 90 S



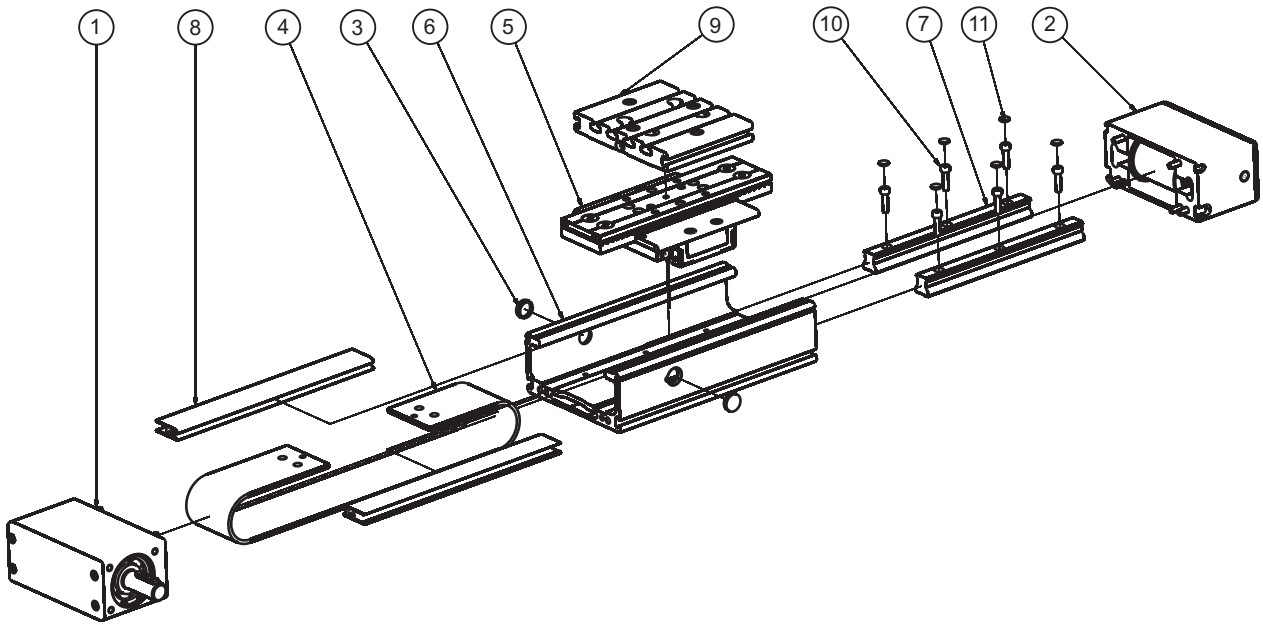
ITEM	QTY	PART NAME	LENGTH	ID
1	1	DRIVE BLOCK CTJ 90		
		TYPE 1 1R		48736
		TYPE 1 1L		48743
		TYPE 2		48744
2	1	TENSION BLOCK CTJ 90		48735
3	2	COVER BGR 25 FOR PROFILE		-
4	1	TOOTHED BELT AT3x35	2XSTROKE+376	49024
5	1	CARRIAGE CTJ 90 S		48742
6	1	PROFILE CTJ 90	STROKE+127	48718
7	2	RAIL GUIDE MR 12	STROKE+125	8207
8	2	GUIDE PROFILE CTJ 90	STROKE+127	48719
9	1	CONNECTION PLATE CTJ 90 S		48853
10	10	ALLEN SCREW M3 x 8		47083
11	10	COVER FOR MR 12		-
12	10	SQUARE NUT M3		37303

ASSEMBLY CTJ 90 L



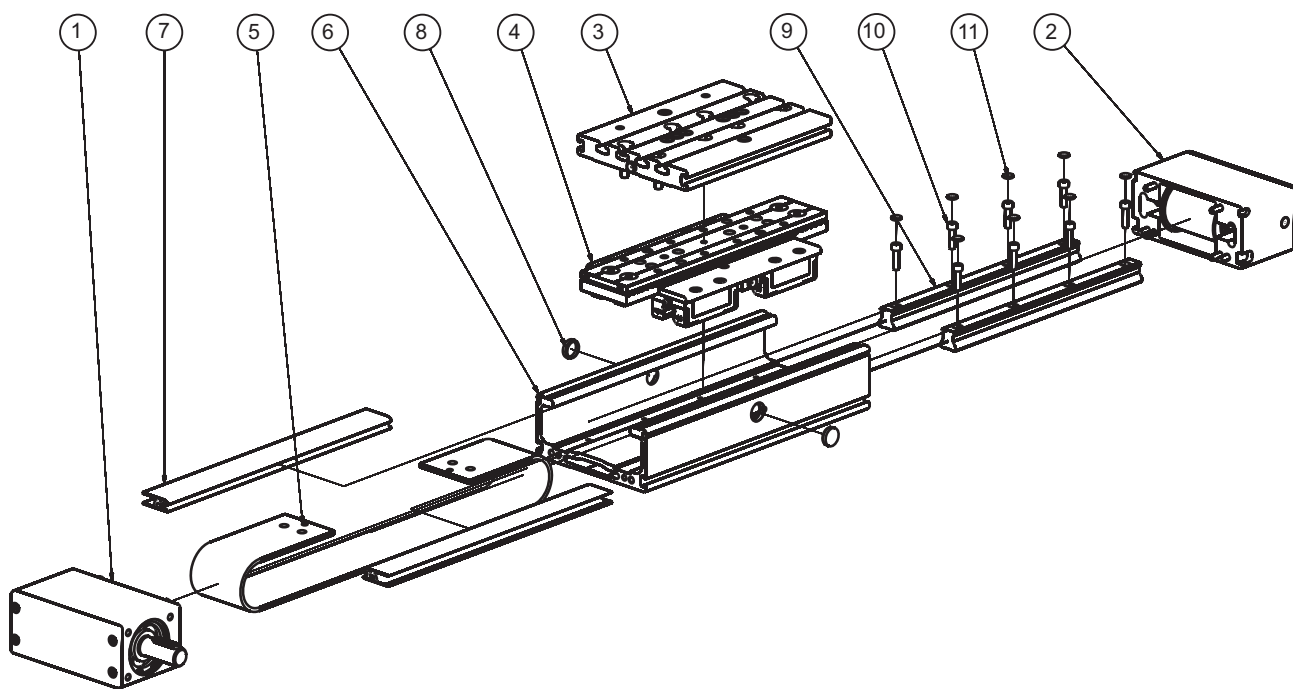
ITEM	QTY	PART NAME	LENGTH	ID
1	1	DRIVE BLOCK CTJ 90		
		TYPE 1 R		48736
		TYPE 1 L		48743
		TYPE 2		48744
2	1	TENSION BLOCK		48735
3	1	CONNECTION PLATE CTJ 90 L		48854
4	1	CARRIAGE CTJ 90 L		48743
5	1	TOOTHED BELT AT3x35	2XSTROKE + 430	49024
6	1	PROFILE CTJ 90	STROKE + 181	48718
7	2	GUIDE PROFILE CTJ 90	STROKE + 181	48719
8	2	COVER BGR 25 FOR PROFILE		-
9	2	RAIL GUIDE MR 12	STROKE + 179	8207
10	14	ALLEN SCREW M3x8		47083
11	14	COVER FOR MR 12		-
12	14	SQUARE NUT M3		37303

ASSEMBLY CTJ 110 S



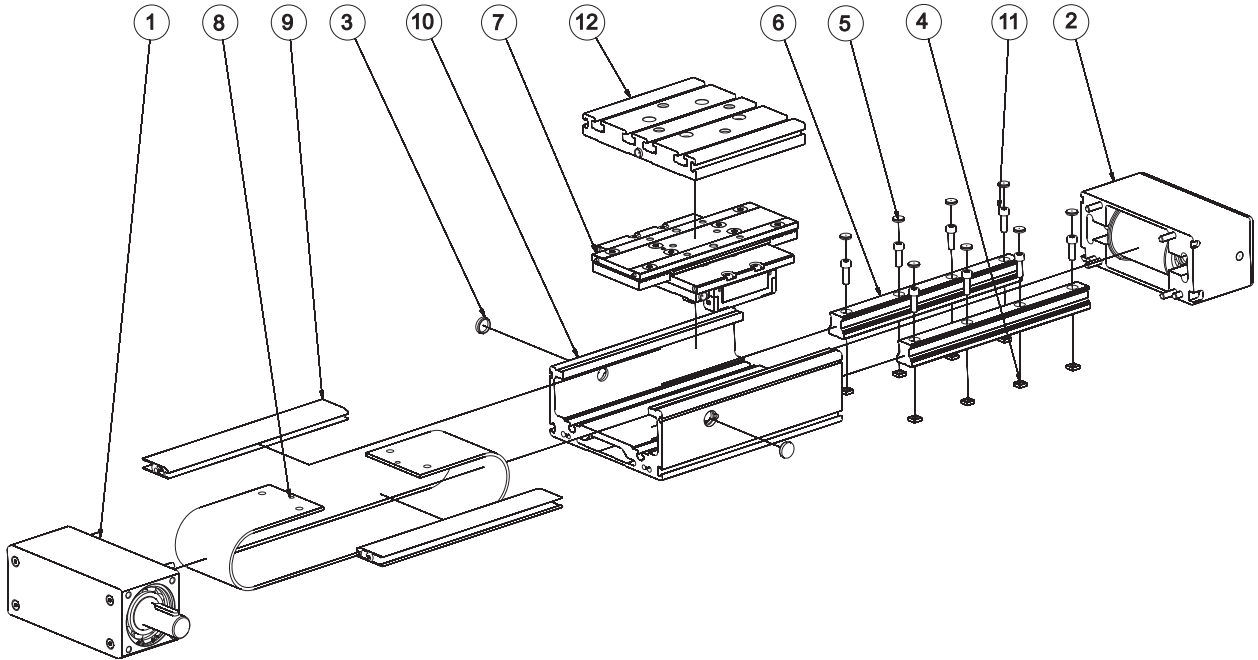
ITEM	QTY	PART NAME	LENGTH	ID
1	1	DRIVE BLOCK CTJ 110		
		TYPE 1 1R		48471
		TYPE 1 1L		48478
		TYPE 2		48479
2	1	TENSION BLOCK CTJ 110		48470
3	2	COVER BGR 30 FOR PROFILE		-
4	1	TOOTHED BELT At5x50	2XSTROKE+518	36892
5	1	CARRIAGE CTJ 110 S		48477
6	1	PROFILE CTJ 110	STROKE+195	48024
7	2	RAIL GUIDE AR/HR 15	STROKE+155	41518
8	2	GUIDE PROFILE CTJ 110	STROKE+195	48027
9	1	CONNECTION PLATE CTJ 110 S		48525
10	6	ALLEN SCREW M4 x 16		47079
11	6	COVER FOR AR / HR 15		-

ASSEMBLY CTJ 110 L



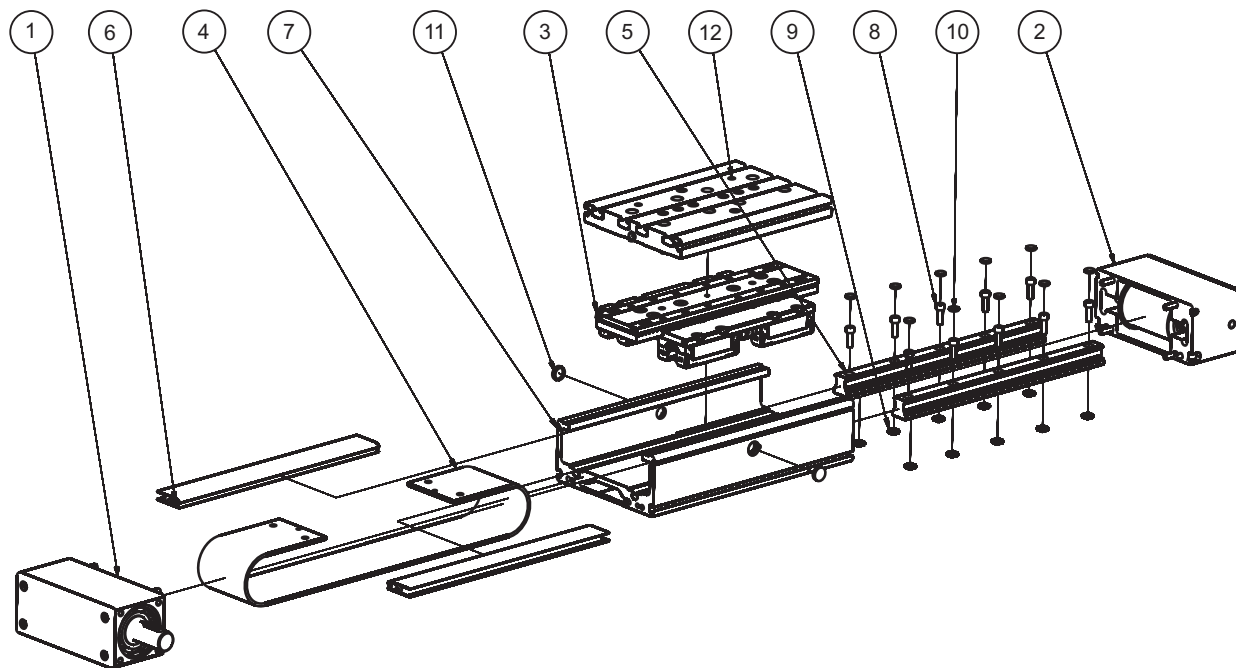
ITEM	QTY	PART NAME	LENGTH	ID
1	1	DRIVE BLOCK CTJ 110		
		TYPE 1 R		48471
		TYPE 1 L		48478
		TYPE 2		48479
2	1	TENSION BLOCK		48470
3	1	CONNECTION PLATE CTJ 110 L		48480
4	1	CARRIAGE CTJ 110 L		48469
5	1	TOOTHED BELT AT5x50	2XSTROKE + 562	36892
6	1	PROFILE CTJ 110	STROKE + 240	48024
7	2	GUIDE PROFILE CTJ 110	STROKE + 240	48027
8	2	COVER BGR 30 FOR PROFILE		-
9	2	RAIL GUIDE AR / HR 15	STROKE + 200	41518
10	8	ALLEN SCREW M4x16		47079
11	8	COVER FOR AR / HR 15		-

ASSEMBLY CTJ 145 S



ITEM	QTY	PART NAME	LENGTH	ID
1	1	DRIVE BLOCK CTJ 145		
		TYPE 1 R		48345
		TYPE 1 L		48358
		TYPE 2		48359
2	1	TENSION BLOCK CTJ 145		48344
3	2	COVER BGR 30 FOR PROFILE		-
4	8	NUT SQUARE M5 DIN 562		40768
5	8	COVER FOR AR / HR 20		-
6	2	RAIL GUIDE AR / HR 20	STROKE + 203	41515
7	1	CARRIAGE CTJ 145 S		48343
8	1	TOOTHED BEL AT 5x70	2XSTROKE + 585	48329
9	2	GUIDE PROFILE CTJ 145	STROKE + 205	46319
10	1	PROFILE CTJ 145	STROKE + 205	46318
11	8	ALLEN SCREW M5x18		47074
12	1	CONNECTION PLATE CTJ 145 S		46776

ASSEMBLY CTJ 145 L



ITEM	QTY	PART NAME	LENGTH	ID
1	1	DRIVE BLOCK CTJ 145		
		TYPE 1 R		48345
		TYPE 1 L		48358
		TYPE 2		48359
2	1	TENSION BLOCK CTJ 145		48344
3	1	CARRIAGE CTJ 145 L		48343
4	1	TOOTHED BELT AT 5 x 70	2XSTROKE + 645	48329
5	2	RAIL GUIDE AR-HR 20	STROKE + 263	41515
6	2	GUIDE PROFILE CTJ 145	STROKE + 265	46319
7	1	PROFILE CTJ 145	STROKE + 265	46318
8	10	ALLEN SCREW M5 x 18		47074
9	10	NUT SQUARE M5		40768
10	10	COVER FOR AR / HR 20		-
11	4	COVER BGR 30 FOR PROFILE		-
12	1	CONNECTION PLATE CTJ 145 L		46775