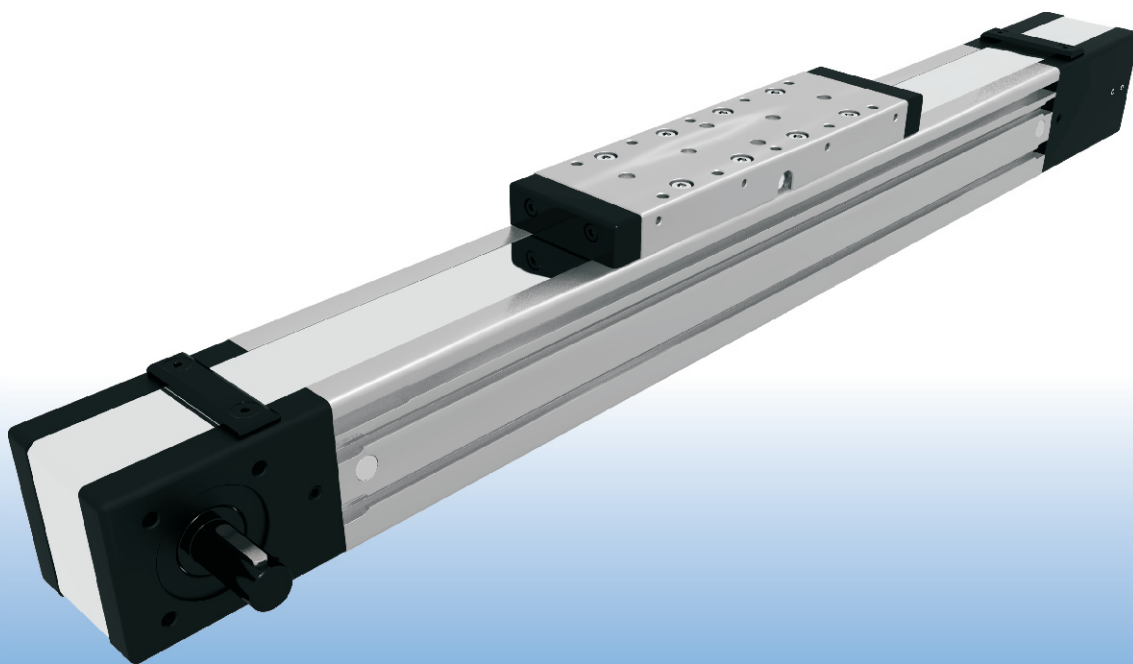


UNIMOTION



MAINTENANCE INSTRUCTIONS

MTJ MRJ SERIES

Hypex d.o.o.
Alpska cesta 43, 4248 Lesce
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)

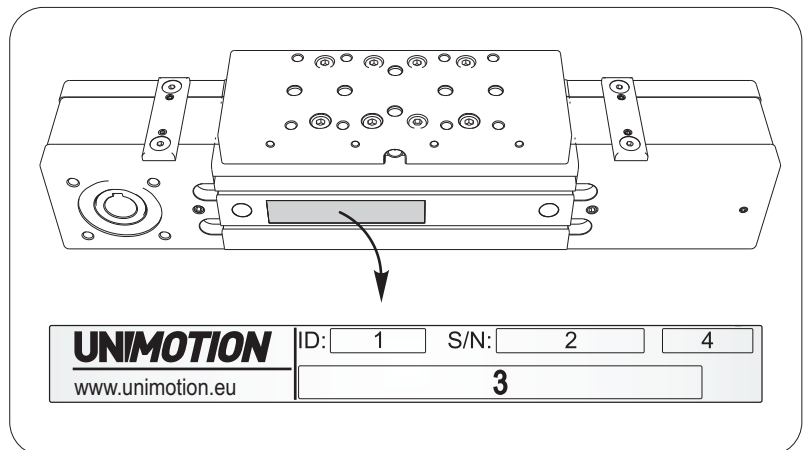
8.8	M2	M2,5	M3	M4	M5	M6	M8	M10	M12
M_{max} [Nm]	0,4	0,7	1,3	3,0	6,0	10,3	25	45	74

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.

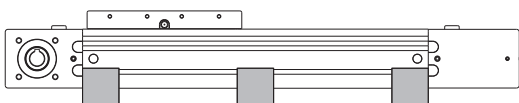


MOUNTING

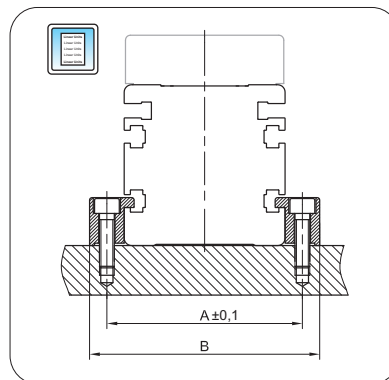
Fixing system



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.

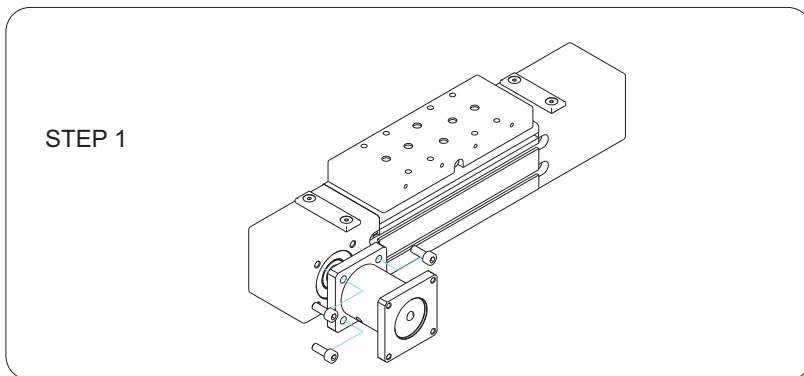


The modules are mounted by using fixtures which are placed in the slot on the side of the profile.

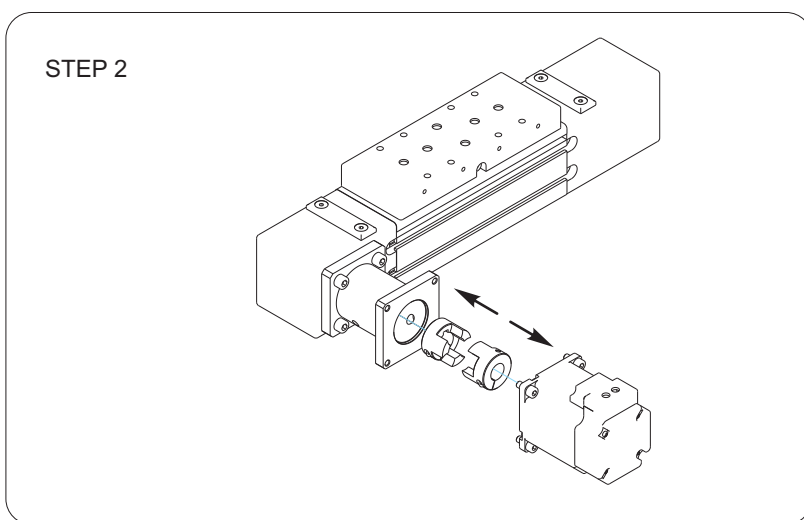
MTJ MRJ	A [mm]	B [mm]
40	50	64,4
65	78	93
80	93	108
110	130	150
ECO		
40	52	66

MAINTENANCE

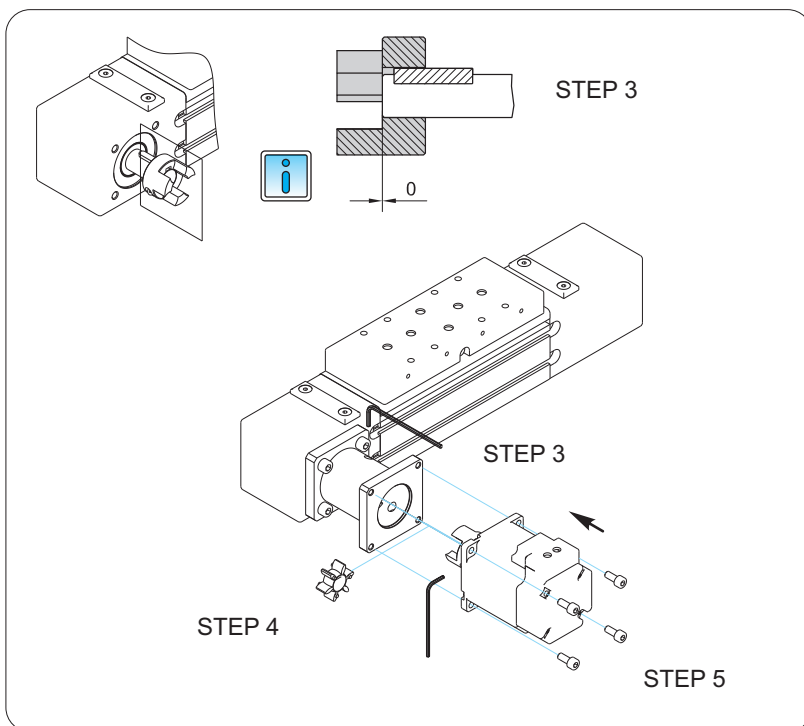
Motor with coupling



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 have been lubricated for life and not require any additional lubrication under normal operating conditions.

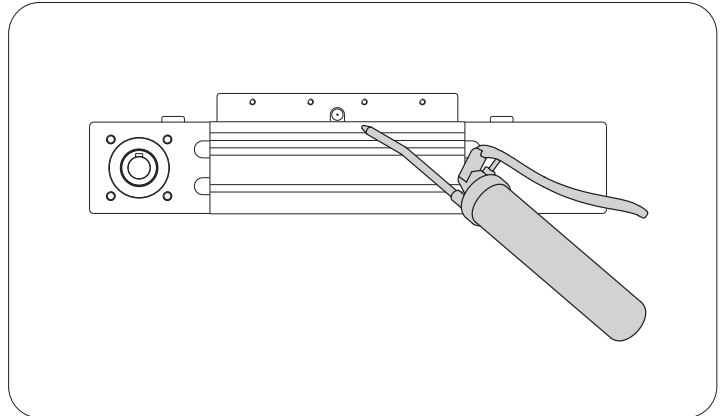
Lubrication of the carriage

Carriage lubrication is done via lubricating nipple DIN 3405 D at the center of the carriage.

Lubrication of the cover strip

Only goes for linear units with steel cover strip!

Apply a thin oil film to the cover strip. That the oil is applied equally on the cover strip move the carriage over the entire trail. Please note, if the linear unit is working in an area with many dust particles, the lubrication must reapplied every once in a while.



Lubricant

Recommended grease for MTJ

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

Recommended oil for MRJ

Klüber STRUCTOVIS 15

Recommended oil for steel cover strip

Lubcon TURMOFLUID ED 13



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

Lubricant quantities and intervals

MTJ	Travel path [km]	Grease - relubricating quantity [cm ³]	
		Carriage	2nd Carriage
65	5000	0,4	0,4
80	5000	0,7	0,7
110	10000	1,4	1,4
ECO			
40	5000	0,7	0,7

MRJ	Travel path [km]	Oil - relubricating quantity [cm ³]
65	5000	6
80	5000	8
110	5000	12,5



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.

MAINTENANCE

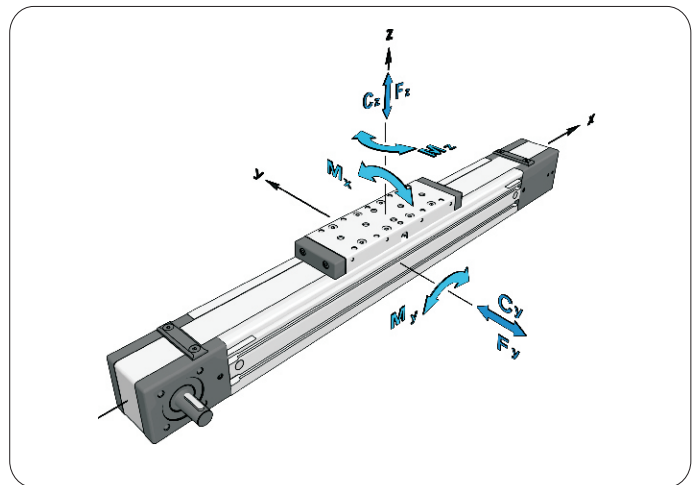
Normal operating conditions

Temperature: 10 °C - 40 °C

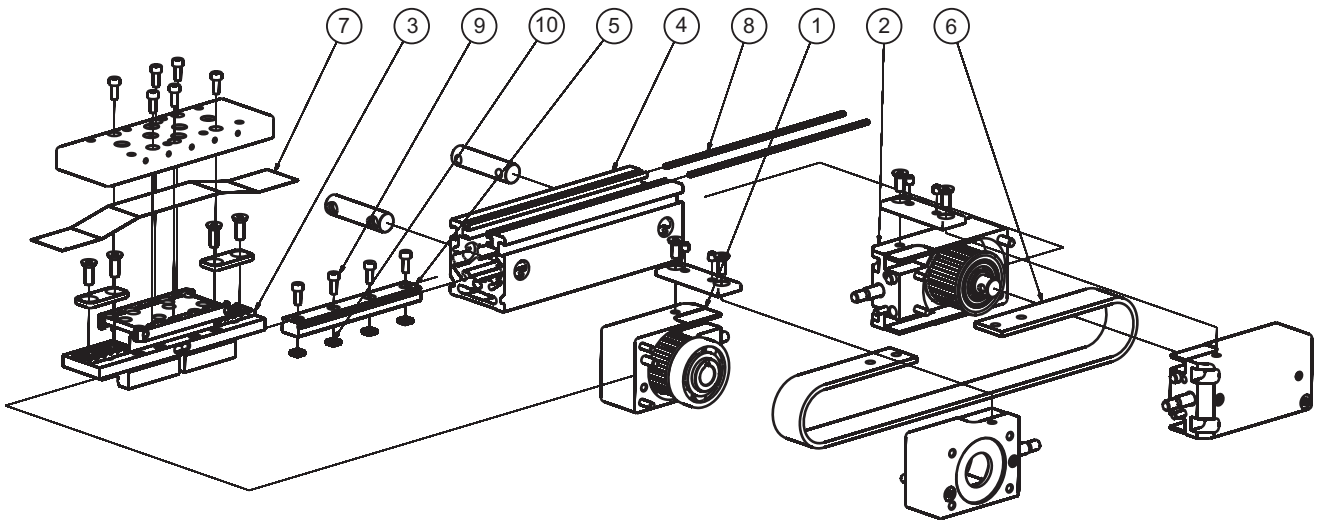
Travel speed: MRJ ≤ 10 m/s
MTJ 3 m/s

Stroke: MTJ MRJ 40 > 50 mm
MTJ MRJ 65, 80, 110 > 60 mm

Load: $\leq 0,2$ C

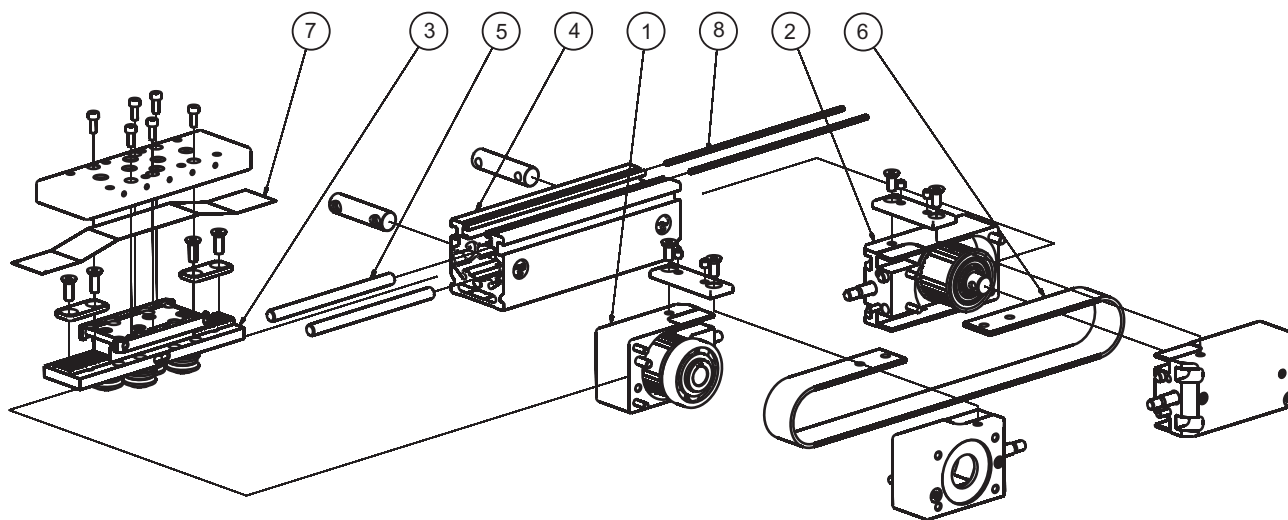


ASSEMBLY MTJ 40



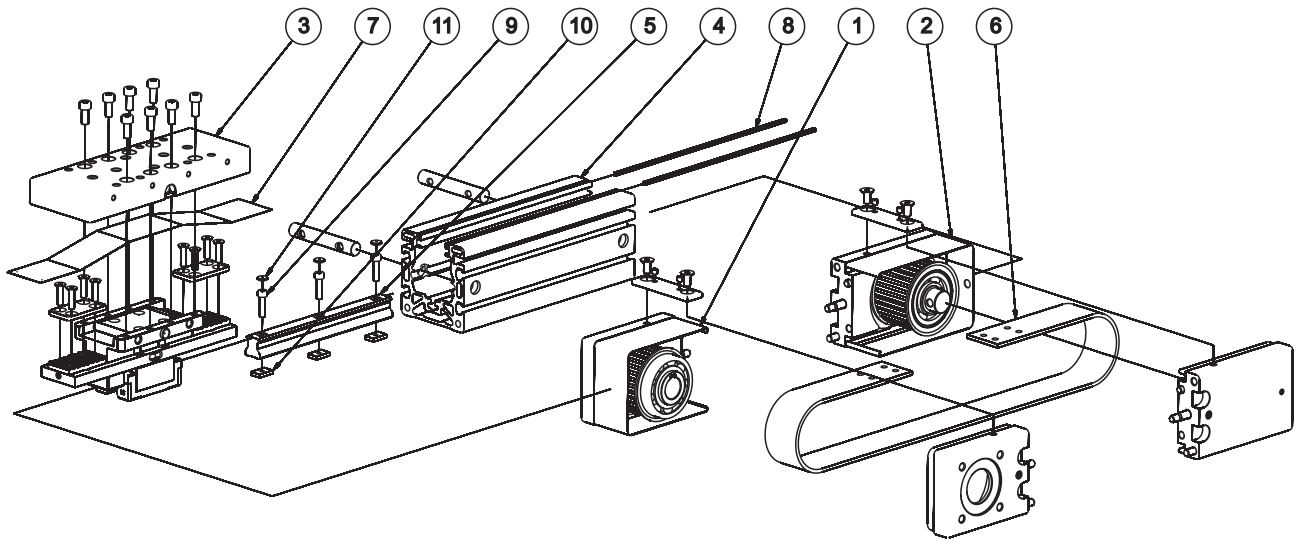
ITEM	QTY	PART NAME	LENGTH	ID
1	1	DRIVE BLOCK MTJ / MRJ 40		
		TYP 0		36543
		TYP 1 - L		36644
		TYP 1 - R		36772
		TYP 2		36645
2	1	TENSION BLOCK MTJ / MRJ 40		36541
3	1	CARRIAGE MTJ / MRJ 40		36540
4	1	PROFILE MTJ / MRJ 40	STROKE + 124	36591
5	1	RAIL GUIDE MR 12 - M	STROKE + 85	8207
6	1	BELT AT5 X 20 FOR MTJ / MRJ 40	2 X STROKE + 425	40300
7	1	PROTECTION STRIP FOR MTJ / MRJ 40	STROKE + 165	41318
8	2	MAGNET FOR PROTECTION STRIP MTJ / MRJ 40	STROKE + 124	36932
9	3	ALLEN SCREW M3 x 8 DIN 912		47083
10	3	NUT SQUARE M3 DIN 562		37303

ASSEMBLY MRJ 40



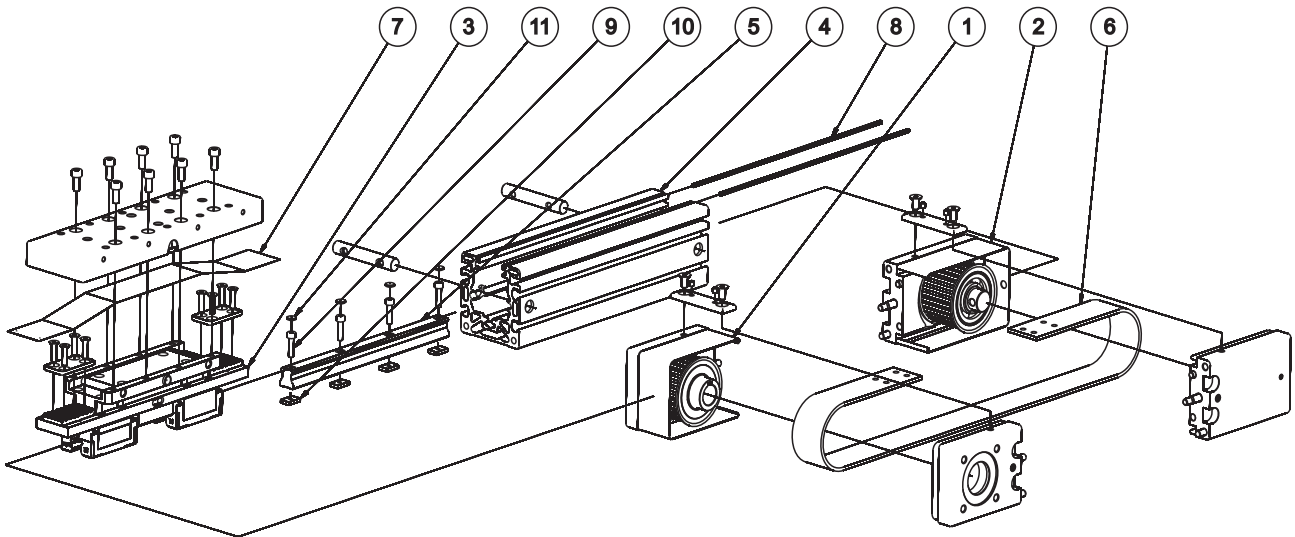
ITEM	QTY	PART NAME	LENGTH	ID
1	1	DRIVE BLOCK MTJ / MRJ 40		
		TYP 0		36543
		TYP 1 - L		36644
		TYP 1 - R		36772
		TYP 2		36645
2	1	TENSION BLOCK MTJ / MRJ 40		36541
3	1	CARRIAGE MTJ 40		36555
4	1	PROFILE MTJ / MRJ 40	STROKE + 124	36591
5	2	ROUND GUIDE FI 6	STROKE + 85	13271
6	1	BELT AT5 X 20 FOR MTJ / MRJ 40	2 X STROKE + 425	40300
7	1	PROTECTION STRIP FOR MTJ / MRJ 40	STROKE + 165	41318
8	2	MAGNET FOR PROTECTION STRIP MTJ / MRJ 40	STROKE + 124	36932

ASSEMBLY MTJ 65 S



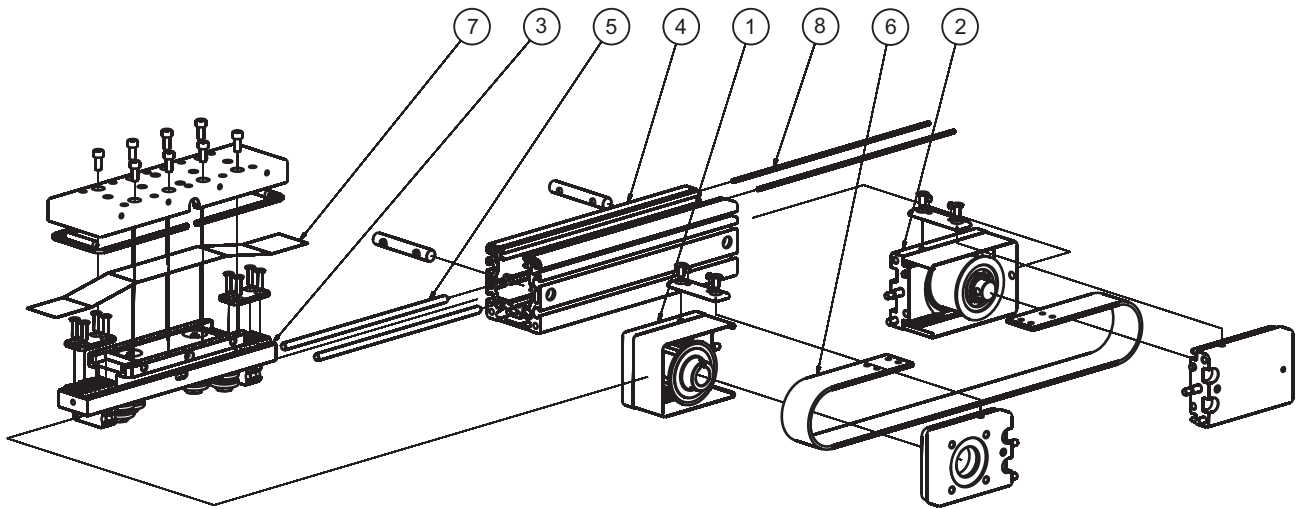
ITEM	QTY	PART NAME	LENGTH	ID
1	1	DRIVE BLOCK MTJ / MRJ 65		
		TYP 0		36615
		TYP 1 - L		37033
		TYP 1 - R		37039
		TYP 2		37040
2	1	TENSION BLOCK MTJ / MRJ 65		36616
3	1	CARRIAGE MTJ 65 S		36617
4	1	PROFILE MTJ / MRJ 65	STROKE + 180	36620
5	1	RAIL GUIDE AR - HR 15	STROKE + 140	41518
6	1	BELT AT5 X 32 FOR MTJ / MRJ 65	2 X STROKE + 635	41388
7	1	PROTECTION STRIP FOR MTJ / MRJ 65	STROKE + 250	41317
8	2	MAGNET FOR PROTECTION STRIP MTJ / MRJ 65	STROKE + 180	36933
9	3	SCREW DIN 912 M4 X 16		47079
10	3	SLOT NUT 5 M4 FLAT		5779
11	3	COVER FOR AR - HR 15		

ASSEMBLY MTJ 65 L



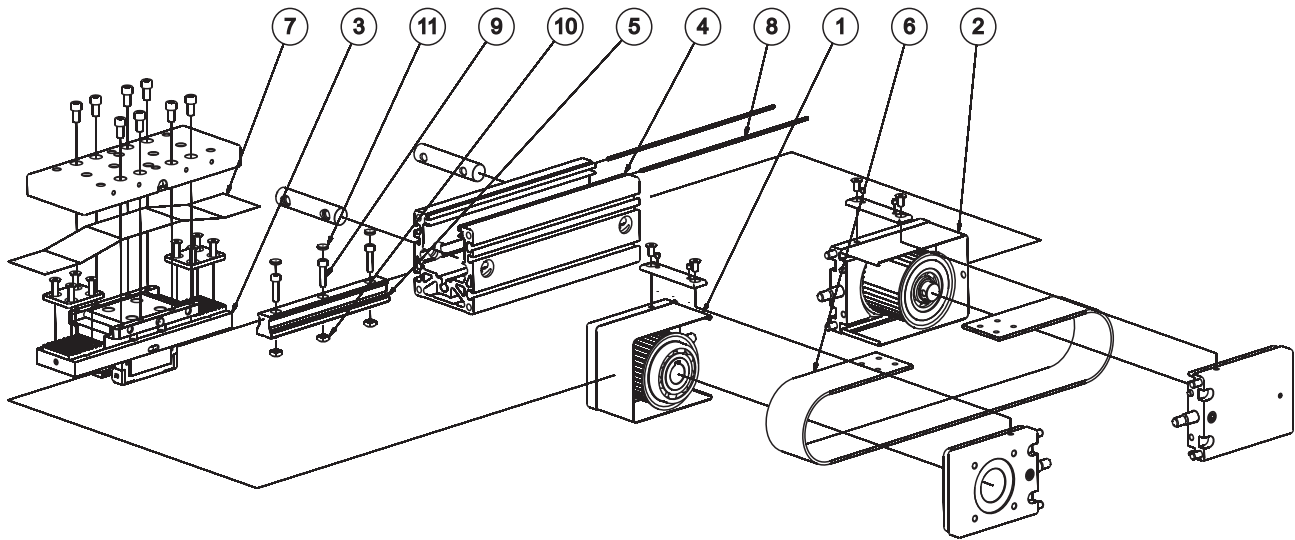
ITEM	QTY	PART NAME	LENGTH	ID
1	1	DRIVE BLOCK MTJ / MRJ 65		
		TYP 0		36615
		TYP 1 - L		37033
		TYP 1 - R		37039
		TYP 2		37040
2	1	TENSION BLOCK MTJ / MRJ 65		36616
3	1	CARRIAGE MTJ 65 L		36618
4	1	PROFILE MTJ / MRJ 65	STROKE + 230	36620
5	1	RAIL GUIDE AR - HR 15	STROKE + 190	41518
6	1	BELT AT5 X 32 FOR MTJ / MRJ 65	2 X STROKE + 685	41388
7	1	PROTECTION STRIP FOR MTJ / MRJ 65	STROKE + 300	41317
8	2	MAGNET FOR PROTECTION STRIP MTJ / MRJ 65	STROKE + 230	36933
9	4	SCREW DIN 912 M4 X 16		13421
10	4	SLOT NUT 5 M4 FLAT		5779
11	4	COVER FOR AR - HR 15		

ASSEMBLY MRJ 65 L



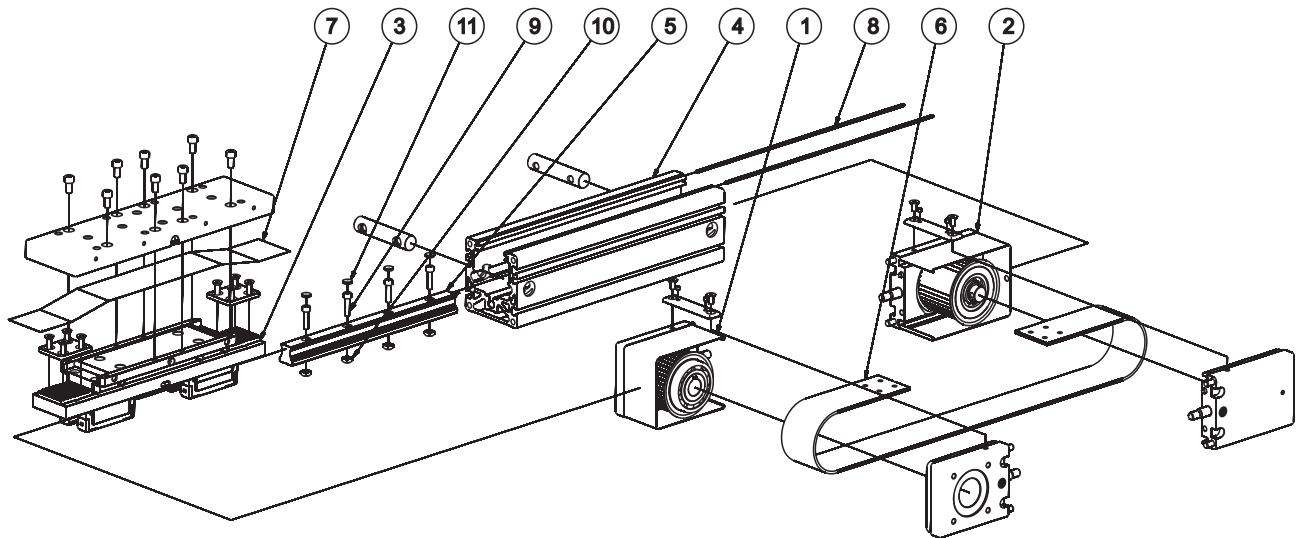
ITEM	QTY	PART NAME	LENGTH	ID
1	1	DRIVE BLOCK MTJ / MRJ 65		
		TYP 0		36615
		TYP 1 - L		37033
		TYP 1 - R		37039
		TYP 2		37040
2	1	TENSION BLOCK MTJ / MRJ 65		36616
3	1	CARRIAGE MRJ 65 L		36619
4	1	PROFILE MTJ / MRJ 65	STROKE + 230	36620
5	2	ROUND GUIDE FI 6	STROKE + 190	13271
6	1	BELT AT5 X 32 FOR MTJ / MRJ 65	2 X STROKE + 685	41388
7	1	PROTECTION STRIP FOR MTJ / MRJ 65	STROKE + 300	41317
8	2	MAGNET FOR PROTECTION STRIP MTJ / MRJ 65	STROKE + 230	36933

ASSEMBLY MTJ 80 S



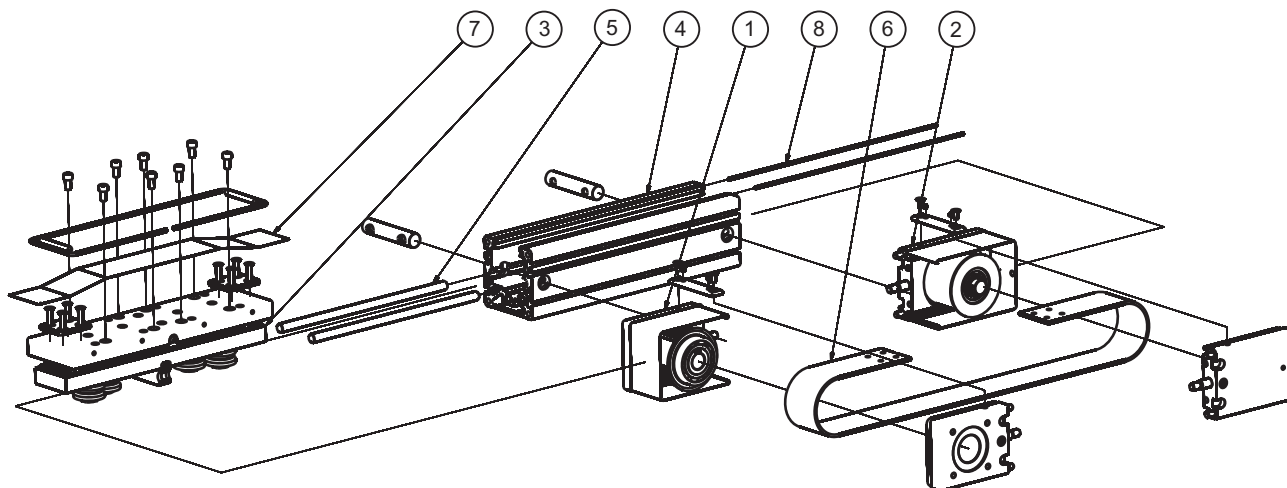
ITEM	QTY	PART NAME	LENGTH	ID
1	1	DRIVE BLOCK MTJ / MRJ 80		
		TYP 0		36700
		TYP 1 - L		36770
		TYP 1 - R		36766
		TYP 2		36767
2	1	TENSION BLOCK MTJ / MRJ 80		36684
3	1	CARRIAGE MTJ 80 S		36722
4	1	PROFILE MTJ / MRJ 80	STROKE + 212	36889
5	1	RAIL GUIDE AR - HR 20	STROKE + 150	41515
6	1	BELT AT5 X 50 FOR MTJ / MRJ 80	2 X STROKE + 750	41389
7	1	PROTECTION STRIP FOR MTJ / MRJ 80	STROKE + 275	41319
8	2	MAGNET FOR PROTECTION STRIP MTJ / MRJ 80	STROKE + 212	36933
9	3	SCREW DIN 912 M5 X 20		47073
10	3	NUT SQUARE DIN 557 M5		40769
11	3	COVER FOR AR - HR 20		

ASSEMBLY MTJ 80 L



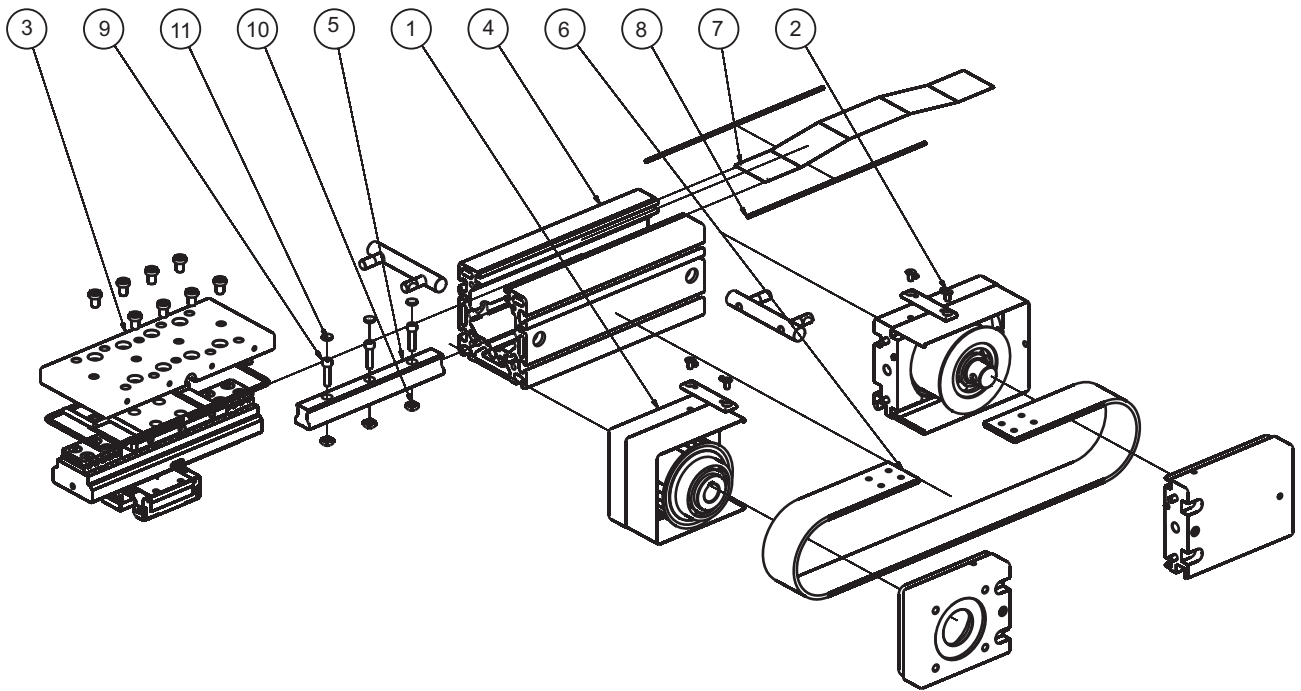
ITEM	QTY	PART NAME	LENGTH	ID
1	1	DRIVE BLOCK MTJ / MRJ 80		
		TYP 0		36700
		TYP 1 - L		36770
		TYP 1 - R		36766
		TYP 2		36767
2	1	TENSION BLOCK MTJ / MRJ 80		36684
3	1	CARRIAGE MTJ 80 L		36743
4	1	PROFILE MTJ / MRJ 80	STROKE + 302	36889
5	1	RAIL GUIDE AR - HR 20	STROKE + 240	41515
6	1	BELT AT5 X 50 FOR MTJ / MRJ 80	2 X STROKE + 840	41389
7	1	PROTECTION STRIP FOR MTJ / MRJ 80	STROKE + 365	41319
8	2	MAGNET FOR PROTECTION STRIP MTJ / MRJ 80	STROKE + 302	36933
9	4	SCREW DIN 912 M5 X 20		47073
10	4	DIN 557 M5		40769
11	4	COVER FOR AR - HR 20		

ASSEMBLY MRJ 80 L



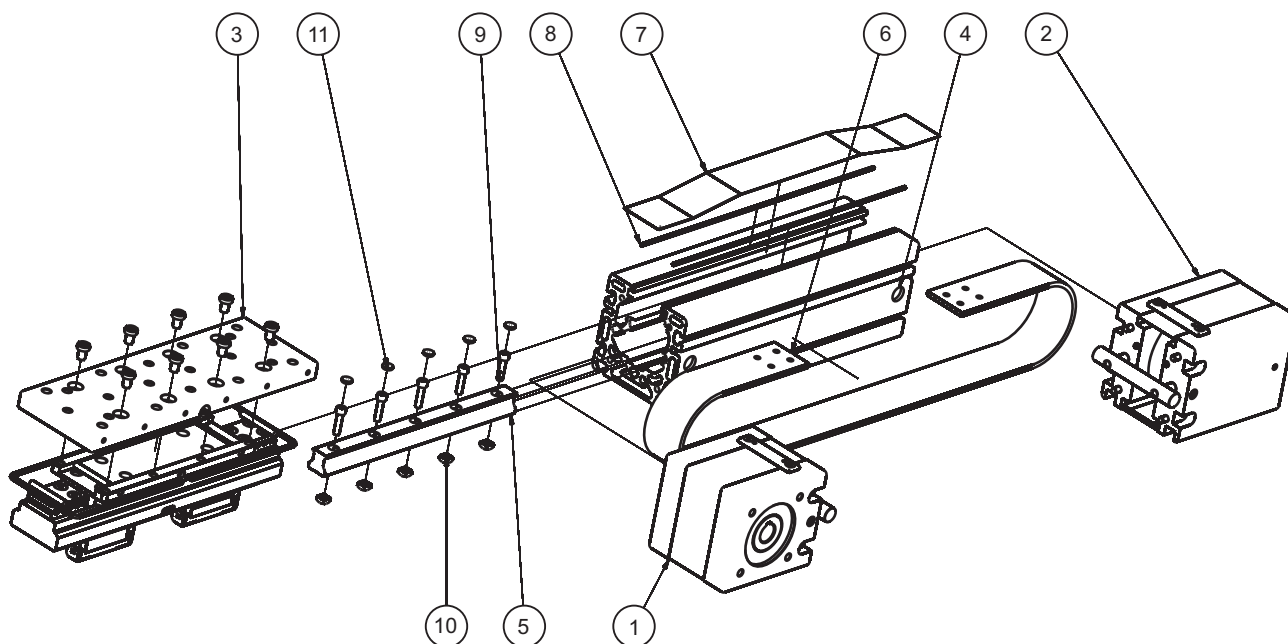
ITEM	QTY	PART NAME	LENGTH	ID
1	1	DRIVE BLOCK MTJ / MRJ 80		
		TYP 0		36700
		TYP 1 - L		36770
		TYP 1 - R		36766
		TYP 2		36767
2	1	TENSION BLOCK MTJ / MRJ 80		36684
3	1	CARRIAGE MRJ 80		36870
4	1	PROFILE MTJ / MRJ 80	STROKE + 302	36889
5	2	ROUND GUIDE FI 10	STROKE + 240	13273
6	1	BELT AT5 X 50 FOR MTJ / MRJ 80	2 X STROKE + 840	41389
7	1	PROTECTION STRIP FOR MTJ / MRJ 80	STROKE + 365	41319
8	2	MAGNET FOR PROTECTION STRIP MTJ / MRJ 80	STROKE + 302	36933

ASSEMBLY MTJ 110 S



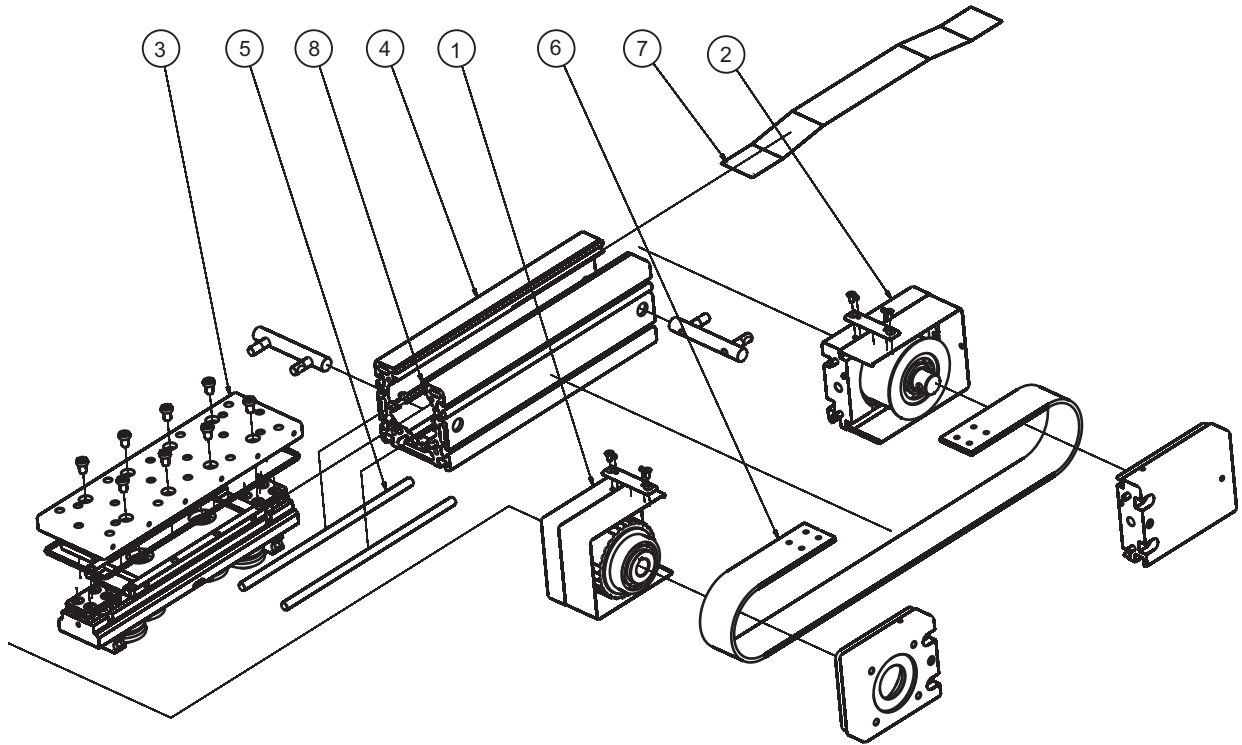
ITEM	QTY	PART NAME	LENGTH	ID
1	1	DRIVE BLOCK MTJ / MRJ 110		
		TYP 0		44553
		TYP 1 - L		44554
		TYP 1 - R		44555
		TYP 2		44556
2	1	TENSION BLOCK MTJ / MRJ 110		44535
3	1	CARRIAGE MTJ 110 S		44598
4	1	PROFILE MTJ / MRJ 110	STROKE + 252	43955
5	1	RAIL GUIDE AR - HR 25	STROKE + 190	42972
6	1	BELT AT10 X 50 FOR MTJ / MRJ 110	2 X STROKE + 960	43884
7	1	PROTECTION STRIP FOR MTJ / MRJ 110	STROKE + 296	41319
8	2	MAGNET FOR PROTECTION STRIP MTJ / MRJ 110	STROKE + 180	36933
9	4	SCREW DIN 912 M6 X 25		47070
10	4	NUT SQUARE M6 DIN 557		44454
11	4	COVER FOR AR - HR 25		

ASSEMBLY MTJ 110 L



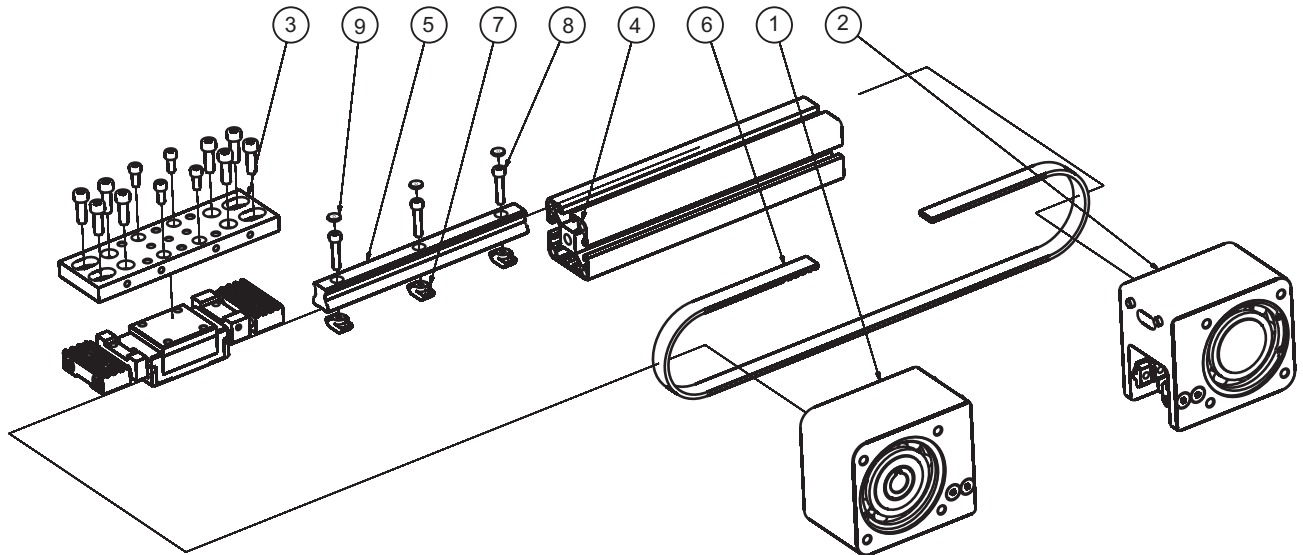
ITEM	QTY	PART NAME	LENGTH	ID
1	1	DRIVE BLOCK MTJ / MRJ 110		
		TYP 0		44553
		TYP 1 - L		44554
		TYP 1 - R		44555
		TYP 2		44556
2	1	TENSION BLOCK MTJ / MRJ 110		44535
3	1	CARRIAGE MTJ 110 L		44599
4	1	PROFILE MTJ / MRJ 110	STROKE + 342	43955
5	1	RAIL GUIDE AR - HR 25	STROKE + 280	42972
6	1	BELT AT10 X 50 FOR MTJ / MRJ 110	2 X STROKE + 1050	43884
7	1	PROTECTION STRIP FOR MTJ / MRJ 110	STROKE + 386	41319
8	2	MAGNET FOR PROTECTION STRIP MTJ / MRJ 110	STROKE + 270	36933
9	4	SCREW DIN 912 M6 X 25		47070
10	4	NUT SQUARE M6 DIN 557		44454
11	4	COVER FOR AR - HR 25		

ASSEMBLY MRJ 110 L



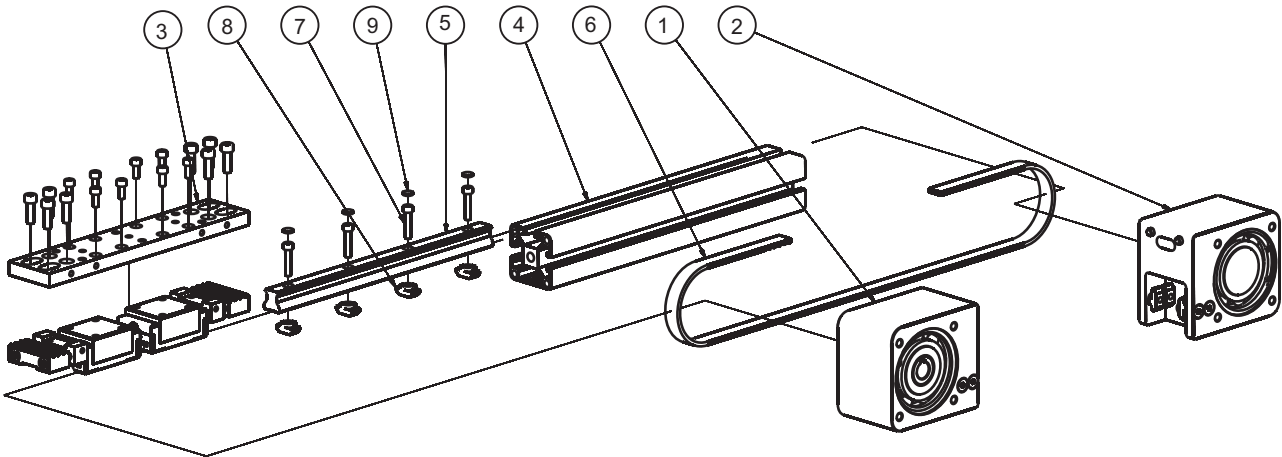
ITEM	QTY	PART NAME	LENGTH	ID
1	1	DRIVE BLOCK MTJ / MRJ 110		
		TYP 0		44553
		TYP 1 - L		44554
		TYP 1 - R		44555
		TYP 2		44556
2	1	TENSION BLOCK MTJ / MRJ 110		44535
3	1	CARRIAGE MRJ 110 L		44642
4	1	PROFILE MTJ / MRJ 110	STROKE + 342	43955
5	2	ROUND GUIDE FI 10 FOR MRJ 110	STROKE + 280	13273
6	1	BELT AT10 X 50 FOR MTJ / MRJ 110	2 X STROKE + 1050	43884
7	1	PROTECTION STRIP FOR MTJ / MRJ 110	STROKE + 386	41319
8	2	MAGNET FOR PROTECTION STRIP MTJ / MRJ 110	STROKE + 270	36933

ASSEMBLY MTJ ECO 40 S



ITEM	QTY	PART NAME	LENGTH	ID
1	1	DRIVE BLOCK MTJ ECO 40		
		TYP 0		37196
		TYP 1 - L		37189
		TYP 1 - R		41030
		TYP 2		37190
2	1	DRIVEN BLOCK MTJ ECO 40		37179
3	1	CARRIAGE MTJ ECO 40 S		37210
4	1	PROFILE MTJ ECO 40	STROKE + 187	36439
5	1	RAIL GUIDE AR - HR 15	STROKE + 146	41518
6	1	BELT AT5 X 12 FOR MTJ ECO 40	STROKE + 605	37198
7	3	HAMMER NUT 8 - M4		5744
8	3	ALLEN SCREW M4 x 20 DIN 912		47078
9	3	COVER FOR AR - HR 15		-

ASSEMBLY MTJ ECO 40 L



ITEM	QTY	PART NAME	LENGTH	ID
1	1	DRIVE BLOCK MTJ ECO 40		
		TYP 0		37196
		TYP 1 - L		37189
		TYP 1 - R		41030
		TYP 2		37190
2	1	DRIVEN BLOCK MTJ ECO 40		37179
3	1	CARRIAGE MTJ ECO 40		37183
4	1	PROFILE MTJ ECO 40	STROKE + 255	36439
5	1	RAIL GUIDE AR-HR 15	STROKE + 214	41518
6	1	BELT AT5 X 12 FOR MTJ ECO 40	STROKE + 675	37198
7	4	ALLEN SCREW M4 x 20 DIN 912		47078
8	4	HAMMER NUT 8 - M4		5744
9	4	COVER FOR AR - HR 15		-