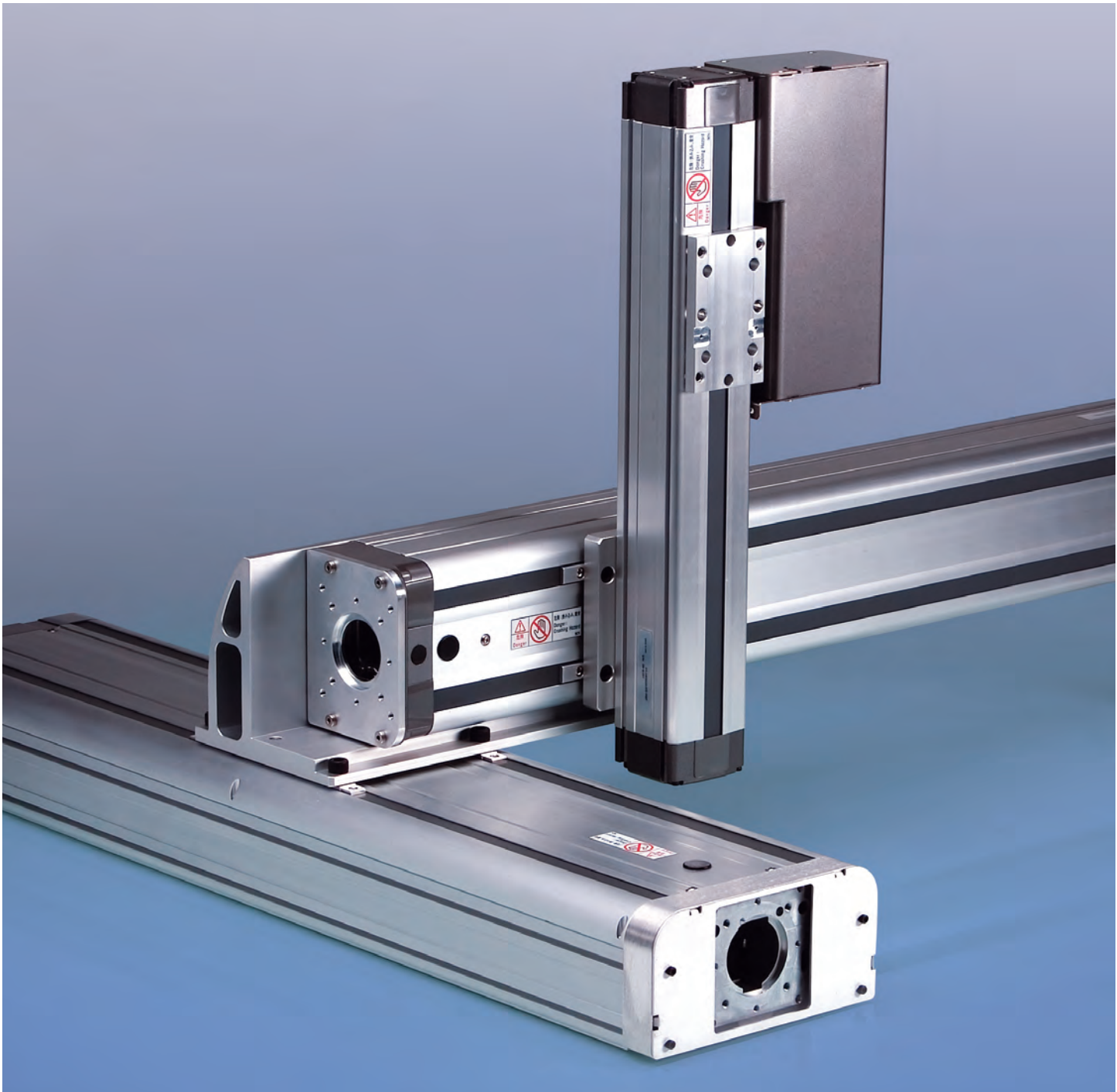




ROBOT MODULE™ MR SERIES

High precision motor ready linear system adaptable to common motor sizes including NEMA 23 & 34 and 60mm metric frame motors.



Robot Module™ – MR Series Quick Reference



RS Module
Pages 11 & 12



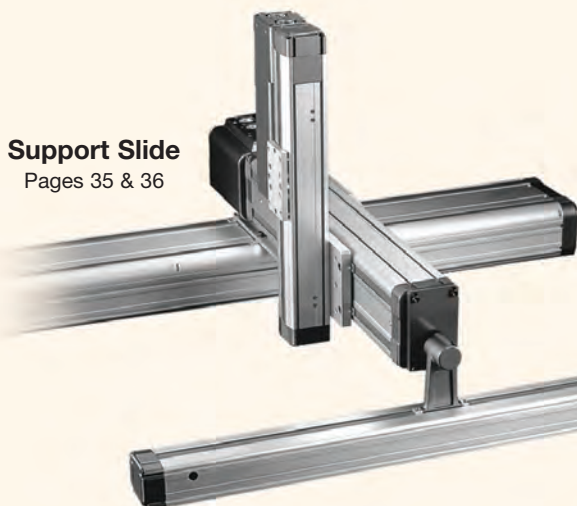
RM Module
Page 14



**Combining
Brackets**
Pages 37 to 39



**RH Module
including
extended stroke**
Pages 15 & 16



Support Slide
Pages 35 & 36

**Multi Axis
Combinations**
Pages 21 to 34



**Motor
Mounting Kit**
Page 17 & 18

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RS Module - Right motor mount	Page 12
RM module	Page 14
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Motor mounting kits	Pages 17 & 18
Motor interface dimensions	Page 19
2 Axis combination overview	Page 21
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Combination type: RG-HM	Pages 23 & 24
Combination type: RD-MS	Page 25
Combination type: RD-HM	Page 26
Combination type: RX-HM	Page 27
Combination type: RX-HH	Page 28
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3 Axis combination overview	Page 30
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Combination type: RJ-HMS	Page 34
Accessory support slide for combination types: RG-HM & RP-HMS	Pages 35 & 36
Combining brackets	Pages 37 to 39
Module mounting plates	Page 40
Limit sensor kits	Page 41
Square nut for module t-slots	Page 42

Robot Module™ – MR Series

General

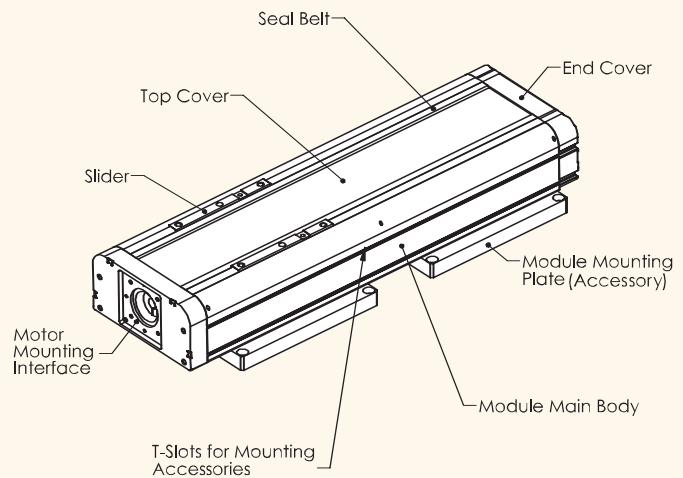
Robot Modules are complete linear axis high precision systems for semiconductor, electronic, medical and automated assembly and production applications. High-quality NSK Linear Guides, NSK Ball Screws and NSK Monocarriers ensure high level of mechanical reliability and U.S. manufacturing results in faster product delivery. NSK offers this sophisticated technology in an ergonomic design enclosed in an aluminum housing. The motorless design of these Robot Modules allows users the flexibility to choose their preferred motors when designing new systems or automating existing processes.

Features

Utilization of NSK Robot Modules provides the following advantages:

- NSK components ensure high mechanical reliability of each axis resulting in systems with high rigidity, long life and smooth motion.
- Reduced time and labor costs associated with a pre-assembled axis.
- 3 different types available - RS (small), RM (medium) and RH (heavy) to meet application stroke and payload requirements.
- Standard patented K1™ Lubrication Units on the NSK Ball Screws, Linear Guides and Monocarriers provide maintenance-free operation up to 50000 km or 5 years.
- Combination brackets are available for attaching individual Robot Modules together into two- or three-axes configurations.
- Module Mounting Plates are available for attaching Robot Modules to your machine.
- Motor Mounting Kits are available for 60mm metric frame, NEMA 23 and NEMA 34 motor interfaces.
- Optional Stroke Limit and Home Position sensor kits.
- Motorless design offers user flexibility for motors of choice.
- Most Robot Modules sizes available from stock.
- Equipped with seal belt for dust resistance.

Module Construction



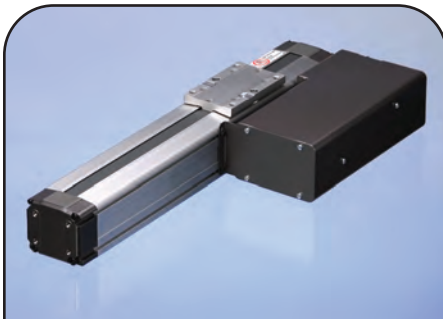
CAD Data Downloads

To make it easy for you to obtain 2D/3D CAD files and technical information for NSK's Robot Modules, NSK has partnered with Solid Components. Visit NSK's website (www.nskprecision.com) and click on CAD files to download.

Robot Module™ – MR Series Product Line



Multi Axis Combinations
(Pages 21 to 34)



RS Module
(Pages 11 & 12)



RM Module
(Page 14)



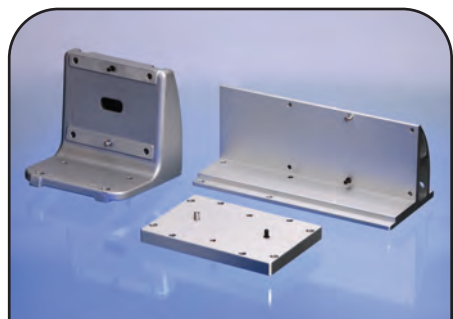
RH Module
(Pages 15 & 16)



Motor Mounting Kit
(Pages 17 & 18)



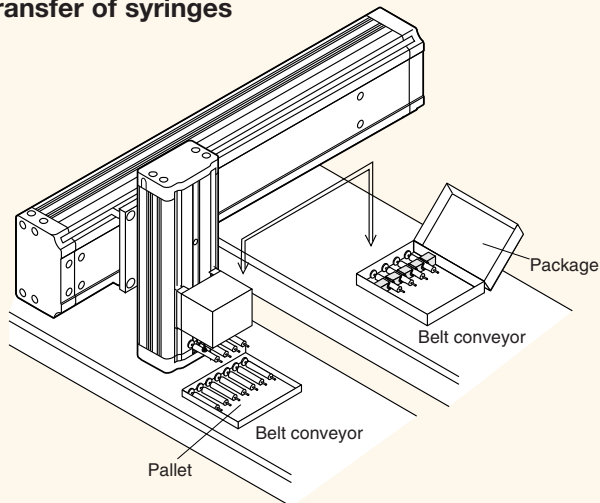
Support Slide
(Pages 35 & 36)



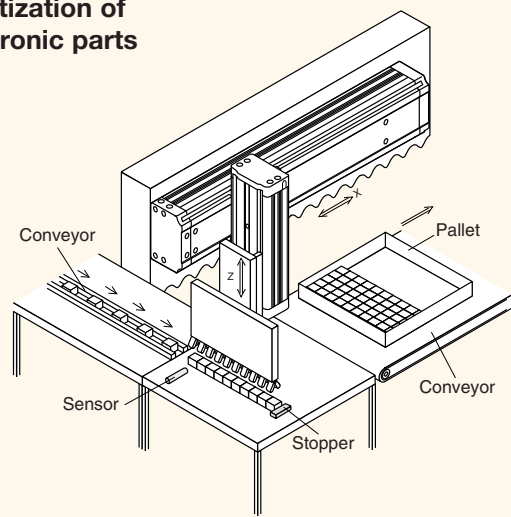
Combining Brackets
(Pages 37 to 39)

Robot Module™ – MR Series Application Examples

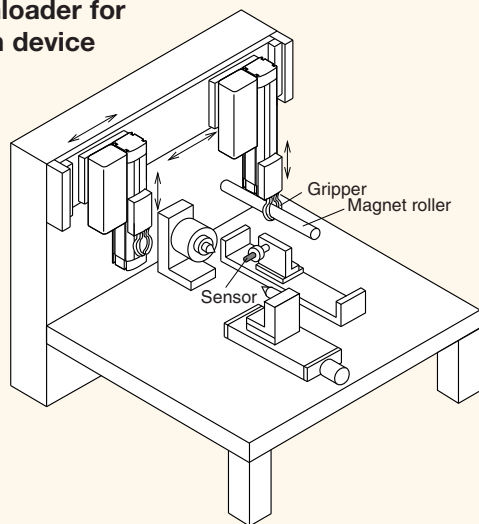
1–Transfer of syringes



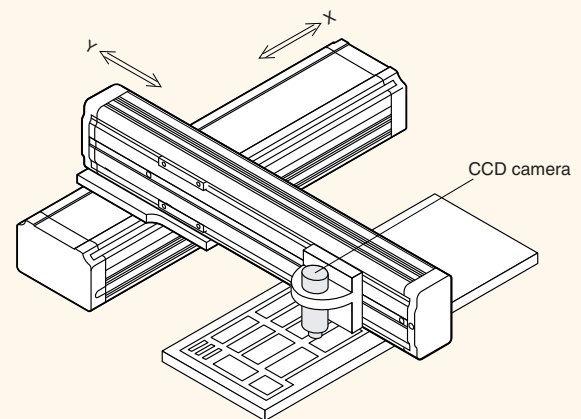
2–Palletization of electronic parts



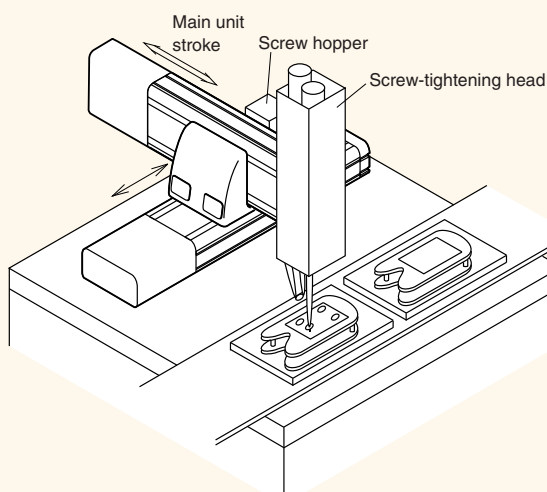
3–Loader/unloader for inspection device



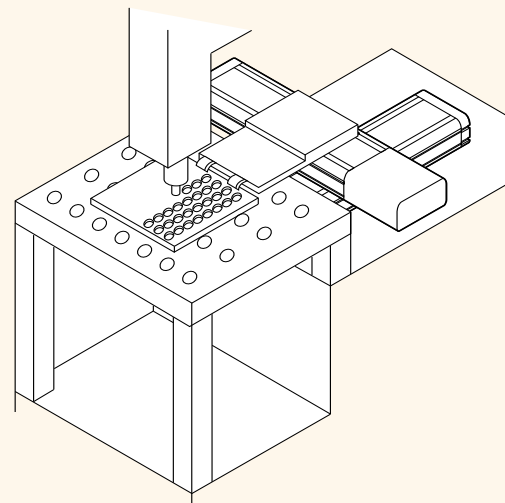
4–Loader/unloader for inspection device

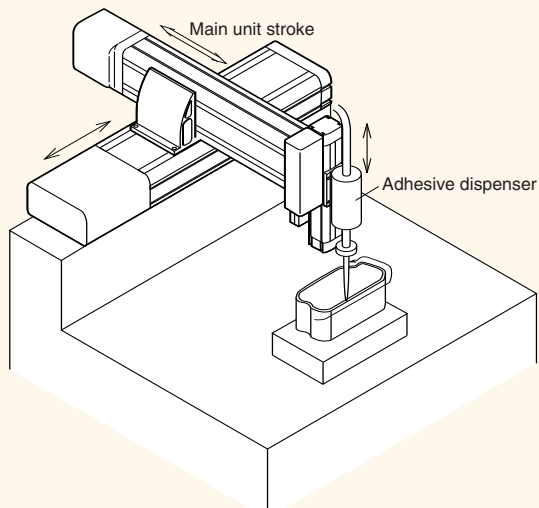
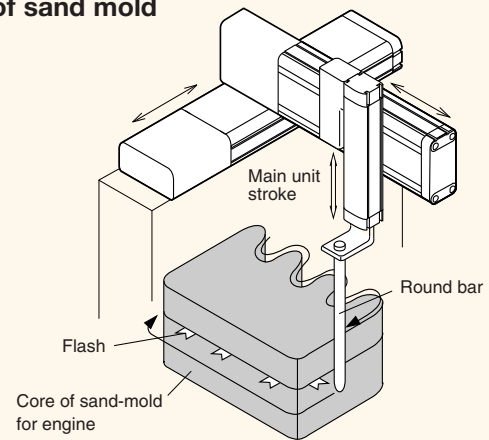
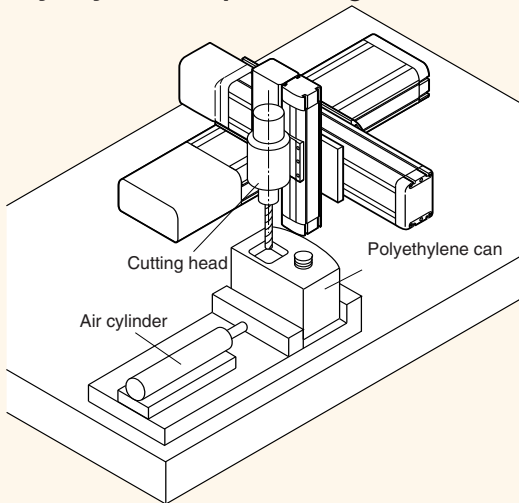
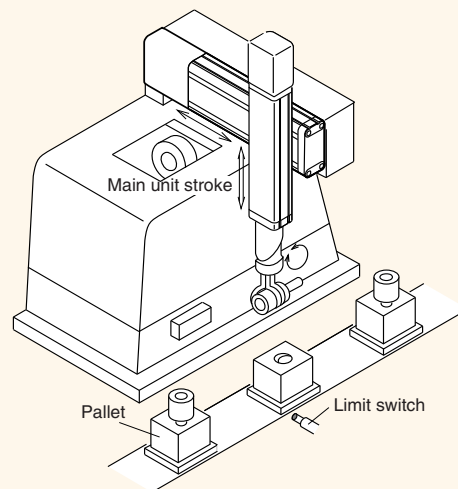


5–Screw-tightening machine in assembly line



6–Work feed in stamping machine

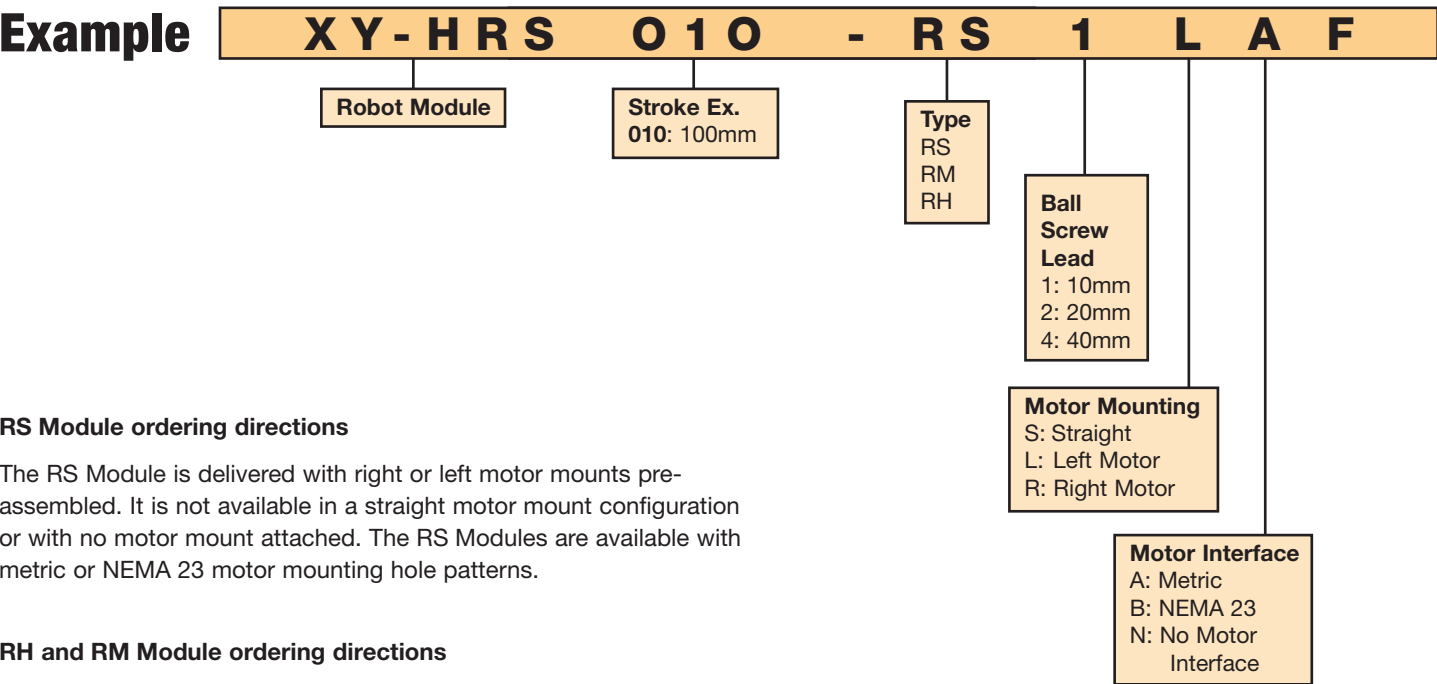


7-Automobile taillight bonding**8-Deflashing device for core of sand mold****9-Polyethylene can processing machine****10- Parts loader/unloader for processing machinery**

Robot Module™ – MR Series

Reference Numbers

The reference number for the Robot Module is composed of the basic specifications of the unit.



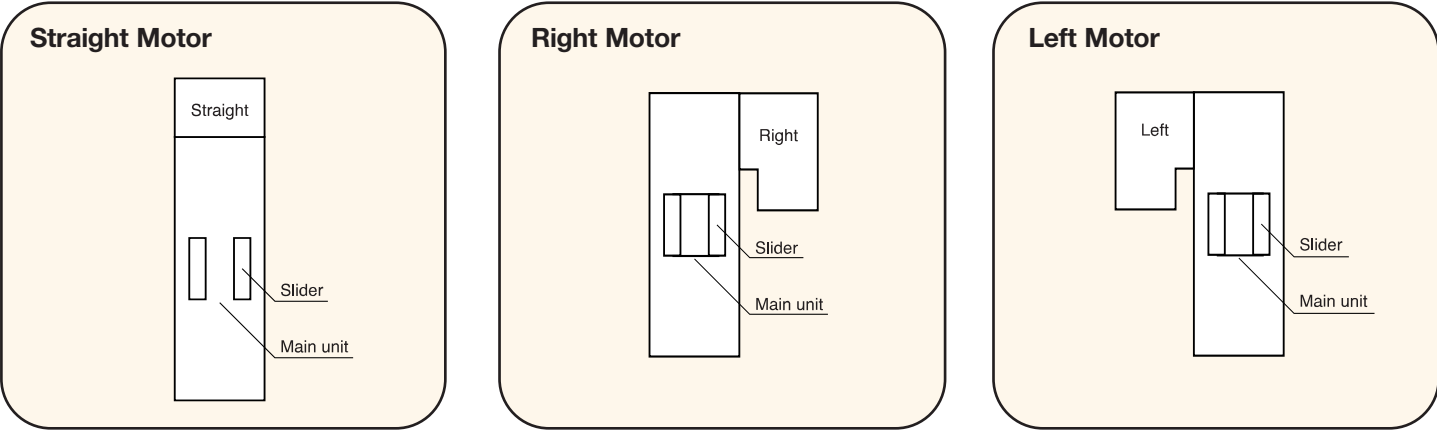
RS Module ordering directions

The RS Module is delivered with right or left motor mounts pre-assembled. It is not available in a straight motor mount configuration or with no motor mount attached. The RS Modules are available with metric or NEMA 23 motor mounting hole patterns.

RH and RM Module ordering directions

Both the modules and motor mounting kits are purchased separately. Motor mounting kits for the RM and RH modules are available with metric, NEMA 23 or NEMA 34 motor mounting hole patterns.

Motor Mounting Positions



List of Modules

Robot Module	Stroke (mm)																		Ball Screw Lead	Payload, kg ¹		Linear Guide Moment Capacities Nm ²			
																				Horizontal	Vertical	Rolling	Pitching	Yawing	
RS Type	100	200		300		400		500											10 mm	20	20	32	24	24	
RM Type			250		350		450				750		950						10 mm	40	40	70	120	120	
RM Type			250		350		450				750		950						20 mm	40	20	70	120	120	
RH Type				300		400		500		600		800		1000					10 mm	200	40	600	450	400	
RH Type				300		400		500		600		800		1000	1200	1400	1600	1800	2000	20 mm	80	20	600	450	400
RH Type															1200	1400	1600	1800	2000	40 mm	80	20	600	450	400

Notes:

- 1) If your payload exceeds listed value call NSK.
2) The individual moment capacities are defined as the value at which the fatigue life is 10,000 km when that moment acts continuously on the linear guide.

Robot Module™ – MR Series

Single Axis Selection

RS Module - Left Motor Mount

Reference Number	Motor Mounting Kit	Module Mounting Plate	Limit Sensor Kit	Square Nut
XY-HRS010-RS1LAF	Pre-installed	XY-P170S-2	XY-L3544RM	XY-P170M3-1
XY-HRS020-RS1LAF				
XY-HRS030-RS1LAF				
XY-HRS040-RS1LAF				
XY-HRS050-RS1LAF				
XY-HRS010-RS1LBF				
XY-HRS020-RS1LBF				
XY-HRS030-RS1LBF				
XY-HRS040-RS1LBF				
XY-HRS050-RS1LBF				

RS Module - Right Motor Mount

Reference Number	Motor Mounting Kit	Module Mounting Plate	Limit Sensor Kit	Square Nut
XY-HRS010-RS1RAF	Pre-installed	XY-P170S-2	XY-L3544RM	XY-P170M3-1
XY-HRS020-RS1RAF				
XY-HRS030-RS1RAF				
XY-HRS040-RS1RAF				
XY-HRS050-RS1RAF				
XY-HRS010-RS1RBF				
XY-HRS020-RS1RBF				
XY-HRS030-RS1RBF				
XY-HRS040-RS1RBF				
XY-HRS050-RS1RBF				

RM Module - Straight Motor Mount

Reference Number	Motor Mounting Kit	Module Mounting Plate	Limit Sensor Kit	Square Nut
XY-HRS025-RM1SNF	XY-P5586RM (NEMA 23-1/4" shaft) or XY-P5587RM (NEMA 34-3/8" shaft) or XY-P5588RM (Metric) or XY-P5717RM (NEMA 23-3/8" shaft) or XY-P5718RM (NEMA 34-1/2" shaft)	XY-P170M-1	XY-L3543RM	XY-P170M3-1
XY-HRS025-RM2SNF				
XY-HRS035-RM1SNF				
XY-HRS035-RM2SNF				
XY-HRS045-RM1SNF				
XY-HRS045-RM2SNF				
XY-HRS055-RM1SNF				
XY-HRS055-RM2SNF				
XY-HRS075-RM1SNF				
XY-HRS075-RM2SNF				
XY-HRS095-RM1SNF				
XY-HRS095-RM2SNF				

RH Module - Straight Motor Mount, Stroke ≤ 1000mm

Reference Number	Motor Mounting Kit	Module Mounting Plate	Limit Sensor Kit	Square Nut
XY-HRS030-RH1SNF	XY-P5586RM (NEMA 23-1/4" shaft) or XY-P5587RM (NEMA 34-3/8" shaft) or XY-P5588RM (Metric) or XY-P5717RM (NEMA 23-3/8" shaft) or XY-P5718RM (NEMA 34-1/2" shaft)	XY-P170H-1	XY-L3542RM	XY-P170M3-1
XY-HRS030-RH2SNF				
XY-HRS040-RH1SNF				
XY-HRS040-RH2SNF				
XY-HRS050-RH1SNF				
XY-HRS050-RH2SNF				
XY-HRS060-RH1SNF				
XY-HRS060-RH2SNF				
XY-HRS080-RH1SNF				
XY-HRS080-RH2SNF				
XY-HRS100-RH1SNF				
XY-HRS100-RH2SNF				

Robot Module™ – MR Series

Single Axis Selection

RH Module - Left and Right Motor Mount, Stroke > 1200mm

Reference Number	Motor Mounting Kit	Module Mounting Plate	Limit Sensor Kit	Square Nut
XY-HRS120-RH2SNF	XY-P5743RM NEMA 23, 1:1 or XY-P5744RM NEMA 23, 2:1 or XY-P5745RM NEMA 34, 1:1 or XY-P5746RM NEMA 34, 2:1 or XY-P5747RM Metric, 1:1 or XY-P5748RM Metric, 2:1	XY-P170H-1	XY-L3542RM	XY-P170M3-1
XY-HRS120-RH4SNF				
XY-HRS140-RH2SNF				
XY-HRS140-RH4SNF				
XY-HRS160-RH2SNF				
XY-HRS160-RH4SNF				
XY-HRS180-RH2SNF				
XY-HRS180-RH4SNF				
XY-HRS200-RH2SNF				
XY-HRS200-RH4SNF				

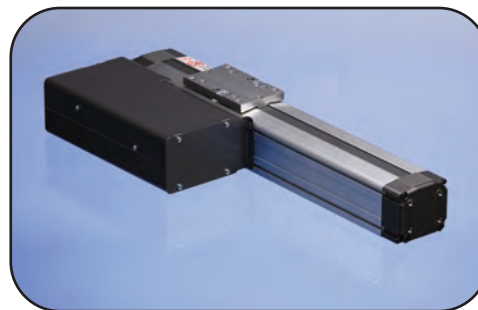
Robot Module™ – MR Series

RS Module - Left Motor Mount

XY-HRS 010 - RS 1 L A F
Stroke Ex.
010: 100mm

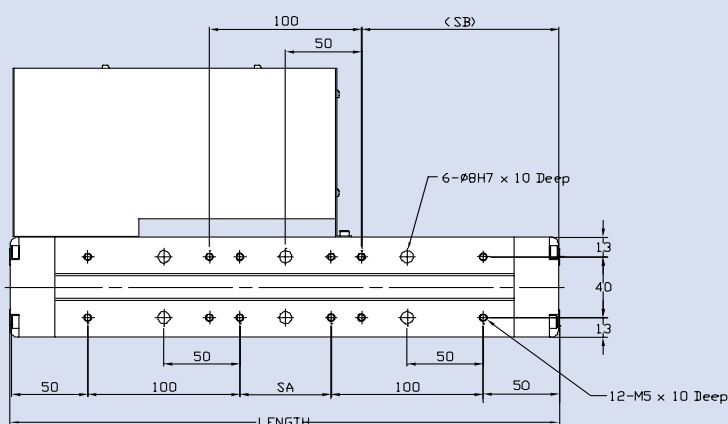
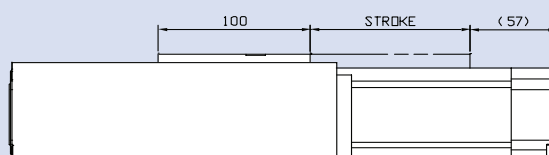
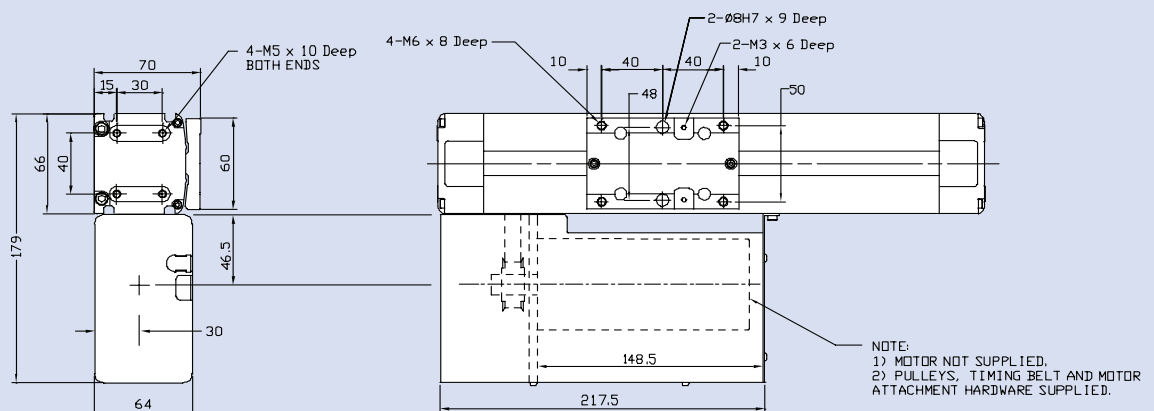
Type
Motor Interface
A: Metric
B: NEMA 23

Motor Mounting
L: Left

Ball Screw Lead 1: 10mm


Note: Reference number includes motor mounting kit.

Reference Number	Nominal Stroke, mm	Stroke Limit +/- 2mm	Ballscrew Lead, mm	L mm	SA mm	SB mm	Speed Max mm/s	Inertia kg-m ²	Breakaway Torque, N-m	Mass kg	Payload, kg ¹		Backlash, mm
XY-HRS010-RS1L*F	100	110	10	360	60	130	972	1.58E-05	0.07	4.9	20	20	.020
XY-HRS020-RS1L*F	200	210		460	160	180	972	1.74E-05		5.5	20	20	
XY-HRS030-RS1L*F	300	310		560	260	230	972	1.90E-05		6.2	20	20	
XY-HRS040-RS1L*F	400	410		660	360	280	972	2.06E-05		6.8	20	20	
XY-HRS050-RS1L*F	500	510		760	460	330	725	2.22E-05		7.5	20	20	



Options

		Ref Page
Limit Sensor Kit	XY-L3544RM	41
Module Mounting Plate	XY-P170S-2	40
Square Nut	XY-P170M3-1	42

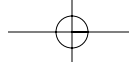
Linear Guide Moment Capacities²

Rolling Moment	[Nm]	32
Pitching Moment	[Nm]	24
Yawing Moment	[Nm]	24

Note: Maximum input torque is 1.9 N-m

1) If your payload exceeds listed value call NSK.

2) The individual moment capacities are defined as the value at which the fatigue life is 10,000 km when that moment acts continuously on the linear guide.



Robot Module™ – MR Series

RH Module – Straight Motor Mount

Motor Mounting Kit

XY-HRS 030 - RH 1 S N F
+
XY-P**RM**
Stroke Ex.
030: 300mm

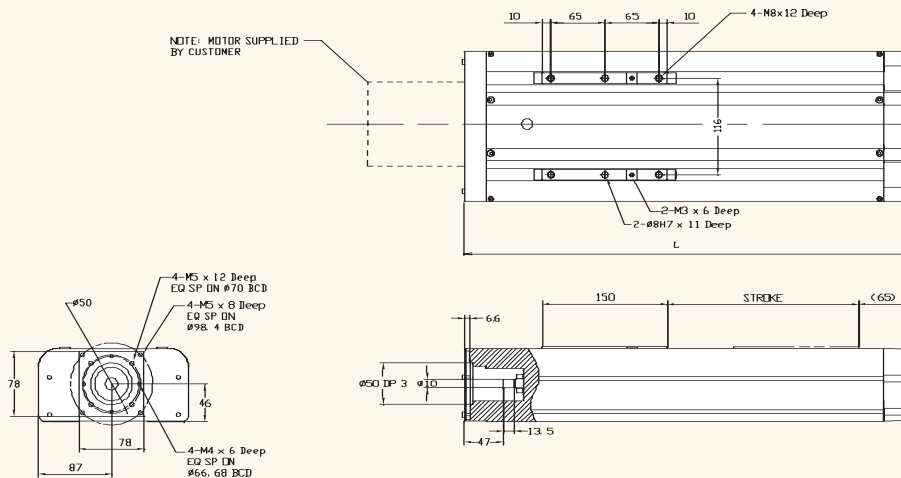
Type
Motor Interface
N: Motor Adapter
not Included

Ball Screw Lead
1: 10mm
2: 20mm

Motor Mounting
S: Straight

5586: NEMA 23 - 1/4"
5587: NEMA 34 - 3/8"
5588: METRIC
5717: NEMA 23 - 3/8"
5718: NEMA 34 - 1/2"


Reference Number	Nominal Stroke, mm	Stroke Limit +/- 2mm	Ball screw Lead, mm	L mm	SA mm	SB mm	Speed Rating mm/s	Inertia kg-m ²	Breakaway Torque, N-m	Mass kg	Payload, kg ¹		Backlash, mm
											Horiz	Vert	
XY-HRS030-RH1SNF	300	310	10	612	100	190	778	4.12E-05	0.7	18	200	40	.005
XY-HRS030-RH2SNF			20				1556	7.12E-05	1.3	17	80	20	
XY-HRS040-RH1SNF	400	410	10	712	200	240	778	4.51E-05	0.7	20	200	40	
XY-HRS040-RH2SNF			20				1556	7.51E-05	1.3	19	80	20	
XY-HRS050-RH1SNF	500	510	10	812	300	290	778	4.90E-05	0.7	22	200	40	
XY-HRS050-RH2SNF			20				1556	7.90E-05	1.3	21	80	20	
XY-HRS060-RH1SNF	600	610	10	912	400	340	778	5.29E-05	0.7	24	200	40	
XY-HRS060-RH2SNF			20				1556	8.29E-05	1.3	23	80	20	
XY-HRS080-RH1SNF	800	810	10	1112	600	440	671	6.07E-05	0.7	28	200	40	
XY-HRS080-RH2SNF			20				1341	9.07E-05	1.3	27	80	20	
XY-HRS100-RH1SNF	1000	1010	10	1312	800	540	583	1.72E-04	0.7	33	200	40	
XY-HRS100-RH2SNF			20				1167	2.02E-04	1.3	32	80	20	



Motor Mounting Kits

		Ref Page
NEMA 23 - 1/4" shaft	XY-P5586RM	17
NEMA 23 - 3/8" shaft	XY-P5717RM	17
NEMA 34 - 3/8" shaft	XY-P5587RM	17
NEMA 34 - 1/2" shaft	XY-P5718RM	18
60mm Frame Metric Motor Kit	XY-P5588RM	18

Options

		Ref Page
Limit Sensor Kit	XY-L3542RM	41
Module Mounting Plate	XY-P170H-1	40
Square Nut	XY-P170M3-1	42

Linear Guide Moment Capacities²

Rolling Moment	[Nm]	600
Pitching Moment	[Nm]	450
Yawing Moment	[Nm]	400

Note: Maximum input torque is 3.8 N-m
 1) If your payload exceeds listed value call NSK.
 2) The individual moment capacities are defined as the value at which the fatigue life is 10,000 km when that moment acts continuously on the linear guide.

Robot Module™ – MR Series

RH Module – Extended Stroke

XY-HRS 120 - RH 2 S N F
Stroke Ex.
120: 1200mm

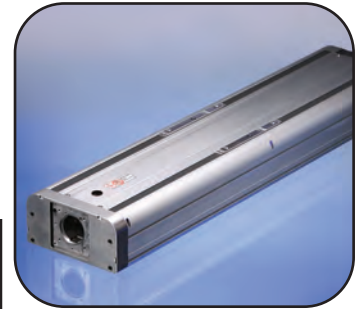
Type
Motor Interface
N: Motor Adapter
not Included

Ball Screw Lead 2: 20mm
4: 40mm

+

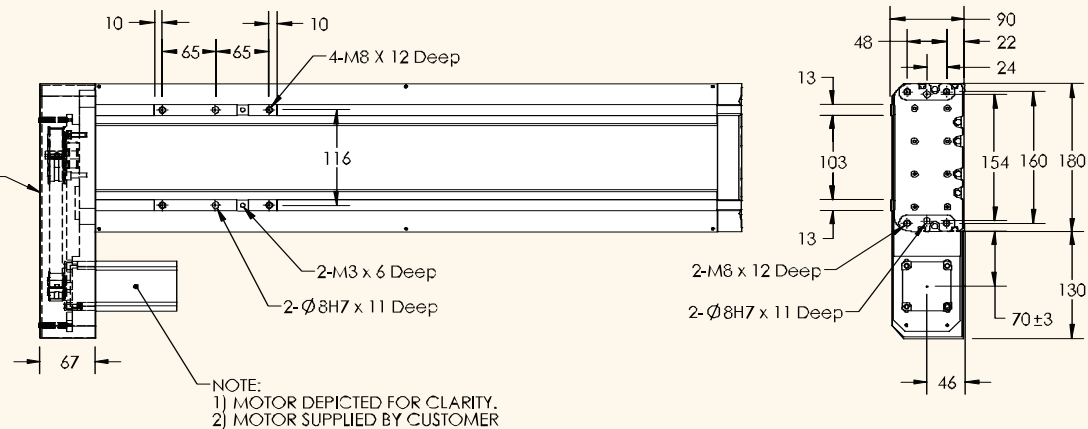
Motor Mounting Kit

XY-P**RM**

5743: NEMA 23, 1:1 PULLEY RATIO
5744: NEMA 23, 2:1 PULLEY REDUCTION
5745: NEMA 34, 1:1 PULLEY RATIO
5746: NEMA 34, 2:1 PULLEY REDUCTION
5747: METRIC, 1:1 PULLEY RATIO
5748: METRIC, 2:1 PULLEY REDUCTION


Reference Number	Nominal Stroke, mm	Stroke Limit +/- 2mm	Ballscrew Lead, mm	L mm	SA mm	SB mm	Speed Rating mm/s	Inertia kg-m ²	Breakaway Torque, N-m	Mass kg	Payload, kg ¹		Backlash, mm
											Horiz	Vert	
XY-HRS120-RH2SNF	1200	1210	20	1548	1000	640	837	1.46E-04	1.3	41	200	40	.005
XY-HRS120-RH4SNF			40				1673	1.76E-04	1.9	40	80	20	
XY-HRS140-RH2SNF	1400	1410	20	1748	1200	740	617	1.70E-04	1.3	45	200	40	
XY-HRS140-RH4SNF			40				1235	2.00E-04	1.9	44	80	20	
XY-HRS160-RH2SNF	1600	1610	20	1948	1400	840	474	1.95E-04	1.3	50	200	40	
XY-HRS160-RH4SNF			40				949	2.25E-04	1.9	49	80	20	
XY-HRS180-RH2SNF	1800	1810	20	2148	1600	940	376	2.20E-04	1.3	54	200	40	
XY-HRS180-RH4SNF			40				751	2.50E-04	1.9	53	80	20	
XY-HRS200-RH2SNF	2000	2010	20	2348	1800	1040	305	2.44E-04	1.3	58	200	40	
XY-HRS200-RH4SNF			40				610	2.74E-04	1.9	57	80	20	

NOTE:
1) MOTOR ADAPTER KIT SHOWN
INSTALLED FOR CLARITY.
2) MOTOR ADAPTER KIT SOLD
SEPARATELY.



Motor Mounting Kits

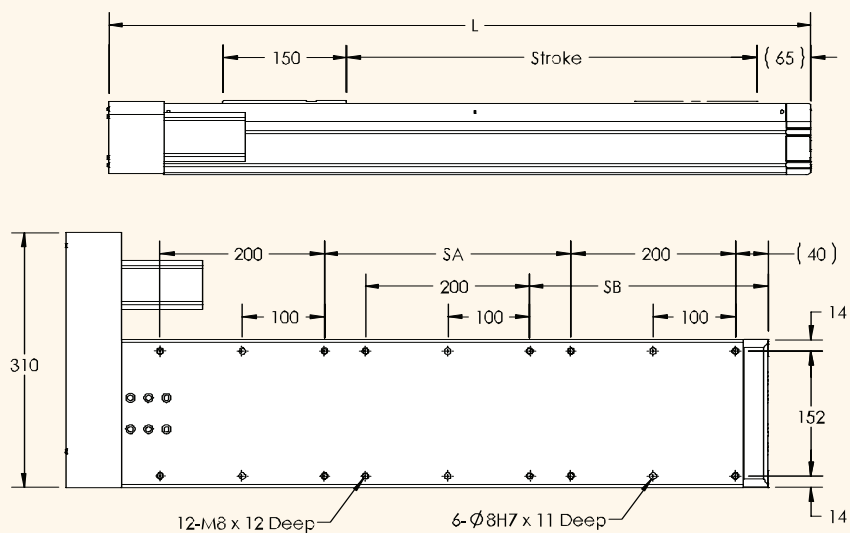
		Ref Page
NEMA 23, 1:1 Pulley Ratio	XY-P5743RM	18
NEMA 23, 2:1 Pulley Reduct	XY-P5744RM	18
NEMA 34, 1:1 Pulley Ratio	XY-P5745RM	18
NEMA 34, 2:1 Pulley Reduct	XY-P5746RM	18
Metric, 1:1 Pulley Ratio	XY-P5747RM	18
Metric, 2:1 Pulley Reduct	XY-P5748RM	18

Options

		Ref Page
Limit Sensor Kit	XY-L3542RM	41
Module Mounting Plate	XY-P170H-1	40
Square Nut	XY-P170M3-1	42

Linear Guide Moment Capacities²

Rolling Moment	[Nm]	600
Pitching Moment	[Nm]	450
Yawing Moment	[Nm]	400



- 1) If your payload exceeds listed value call NSK.
2) The individual moment capacities are defined as the value at which the fatigue life is 10,000 km when that moment acts continuously on the linear guide.

Robot Module™ – MR Series Motor Mounting Kits

Motor Mounting Kits provide the hardware necessary to connect NEMA 23, NEMA 34 or 60mm Frame Metric motors to the base module. These kits allow the user the flexibility to attach motors of their choice to the base module.

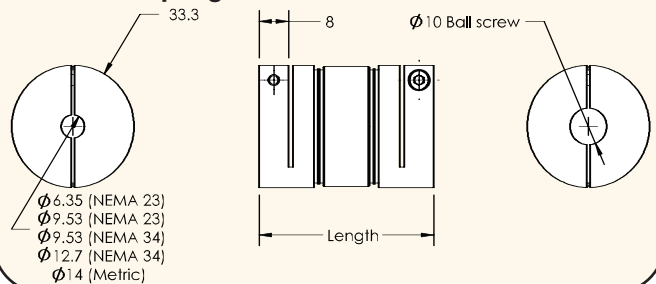
See opposite page for definition of the various motor interfaces.

There are two kits for the RS module, five kits for RH/RM $\leq 1000\text{mm}$ and six kits for the RH extended module $> 1200\text{mm}$.

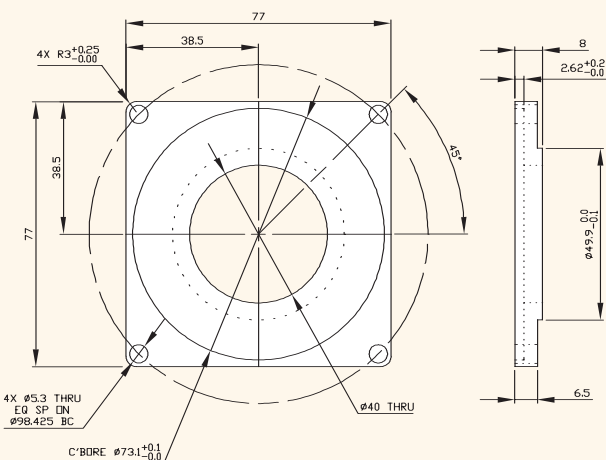
The motor mounting kit for the RS module comes installed and ready to accept the user's motor.



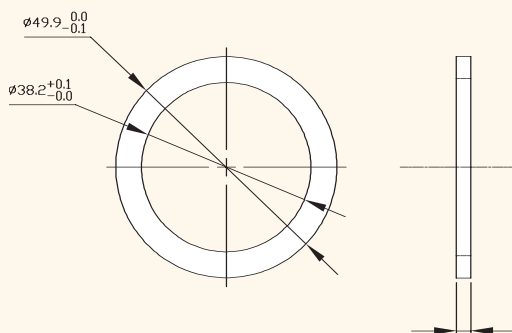
Shaft Coupling



NEMA 34 Motor Adapter Plate RH/RM $\leq 1000\text{mm}$



NEMA 23 Motor Adapter Ring RH/RM $\leq 1000\text{mm}$



RS Module

PN XY-P5584RM, 60mm Frame Metric Motor Kit

- 60mm Frame Metric Motor Plate
- 60mm Frame Metric Motor Mounting Nut Plate
- Motor Shaft Pulley, $\phi 14\text{mm}$ ID
- Timing Belt
- Qty 4, M5 x 14 Socket Head Cap Screw

PN XY-P5585RM, NEMA 23 Motor Mounting Kit

- NEMA 23 Motor Plate
- NEMA 23 Motor Mounting Nut Plate
- Motor Shaft Pulley, $\phi 1/4"$ ID, $\phi 3/8"$ ID
- Timing Belt
- Qty 4, M4 x 14 Socket Head Cap Screw

RH/RM Modules – Stroke $\leq 1000\text{mm}$

PN XY-P5586RM, NEMA 23 $\phi 1/4"$ Motor Mounting Kit

- NEMA 23 Motor Adapter Ring
- Jaw Type Shaft Coupling, $\phi 10\text{mm} \times \phi 1/4" \times 47.6\text{mm}$ long
- Disk Type Shaft Coupling, $\phi 10\text{mm} \times \phi 1/4" \times 44.5\text{mm}$ long
- Qty 4, M4 x 8 Socket Head Cap Screw

PN XY-P5717RM, NEMA 23 $\phi 3/8"$ Motor Mounting Kit

- NEMA 23 Motor Adapter Ring
- Jaw Type Shaft Coupling, $\phi 10\text{mm} \times \phi 3/8" \times 47.6\text{mm}$ long
- Disk Type Shaft Coupling, $\phi 10\text{mm} \times \phi 3/8" \times 44.5\text{mm}$ long
- Qty 4, M4 x 8 Socket Head Cap Screw

PN XY-P5587RM, NEMA 34 $\phi 3/8"$ Motor Mounting Kit

- NEMA 34 Motor Adapter Plate
- Jaw Type Shaft Coupling, $\phi 10\text{mm} \times \phi 3/8" \times 47.6\text{mm}$ long
- Disk Type Shaft Coupling, $\phi 10\text{mm} \times \phi 3/8" \times 44.5\text{mm}$ long
- Qty 4, M5 x 16 Socket Head Cap Screw

Robot Module™ – MR Series

Motor Mounting Kits, continued

PN XY-P5718RM, NEMA 34 ϕ 1/2" Motor Mounting Kit

- NEMA 34 Motor Adapter Plate
- Jaw Type Shaft Coupling, ϕ 10mm x ϕ 1/2" x 47.6mm long
- Disk Type Shaft Coupling, ϕ 10mm x ϕ 1/2" x 44.5mm long
- Qty 4, M5 x 16 Socket Head Cap Screw

PN XY-P5588RM, 60mm Frame Metric Motor Kit

- Jaw Type Shaft Coupling, ϕ 10mm x ϕ 14mm x 47.6mm long
- Disk Type Shaft Coupling, ϕ 10mm x ϕ 14mm x 44.5mm long
- Qty 4, M5 x 16 Socket Head Cap Screw

RH Module Strokes > 1200mm

PN XY-P5743RM, NEMA 23, 1:1 Pulley Ratio, Motor Mounting Kit

- NEMA 23 Motor Mounting Plate
- NEMA 23 Motor Mounting Nut Plate
- Belt Cover
- Qty 4, M3 Hex Standoff
- Motor Pulley, 1/4" ID, 31.83 PD
- Motor Pulley, 3/8" ID, 31.83 PD
- Ballscrew Pulley, 10mm ID, 31.83 PD
- Timing Belt
- Assorted Fasteners

PN XY-P5745RM NEMA 34, 1:1 Pulley Ratio, Motor Mounting Kit

- NEMA 34 Motor Mounting Plate
- NEMA 34 Motor Mounting Nut Plate
- Belt Cover
- Qty 4, M3 Hex Standoff
- Motor Pulley, 3/8" ID, 31.83 PD
- Motor Pulley, 1/2" ID, 31.83 PD
- Ballscrew Pulley, 10mm ID, 31.83 PD
- Timing Belt
- Assorted Fasteners

PN XY-P5747RM, Metric 60mm, 1:1 Pulley Ratio, Motor Mounting Kit

- Metric Motor Mounting Plate
- Nut Plate, Metric Motor
- Belt Cover
- Qty 4, M3 Hex Standoff
- Motor Pulley, 14mm ID, 31.83 PD
- Ballscrew Pulley, 10mm ID, 31.83 PD
- Timing Belt
- Assorted Fasteners

Shaft Couplings Features:

Jaw Type - three piece coupling consisting of two hubs and a spider. The spider is made from polyurethane thereby providing damping and protection against impulse loads. The spider is pressed into the hubs providing zero backlash operation.

Disk Type - five piece coupling consisting of two hubs, a center member and thin metallic disks that transmit torque. Disk type couplings provide higher torsional rigidity with lower inertia than other coupling types.

PN XY-P5744RM, NEMA 23, 2:1 Pulley Reduction, Motor Mounting Kit

- NEMA 23 Motor Mounting Plate
- NEMA 23 Motor Mounting Nut Plate
- Belt Cover
- Qty 4, M3 Hex Standoff
- Motor Pulley, 1/4" ID, 31.83 PD
- Motor Pulley, 3/8" ID, 31.83 PD
- Ballscrew Pulley, 10mm ID, 63.66 PD
- Timing Belt
- Assorted Fasteners

PN XY-P5746RM, NEMA 34, 2:1 Pulley Reduction, Motor Mounting Kit

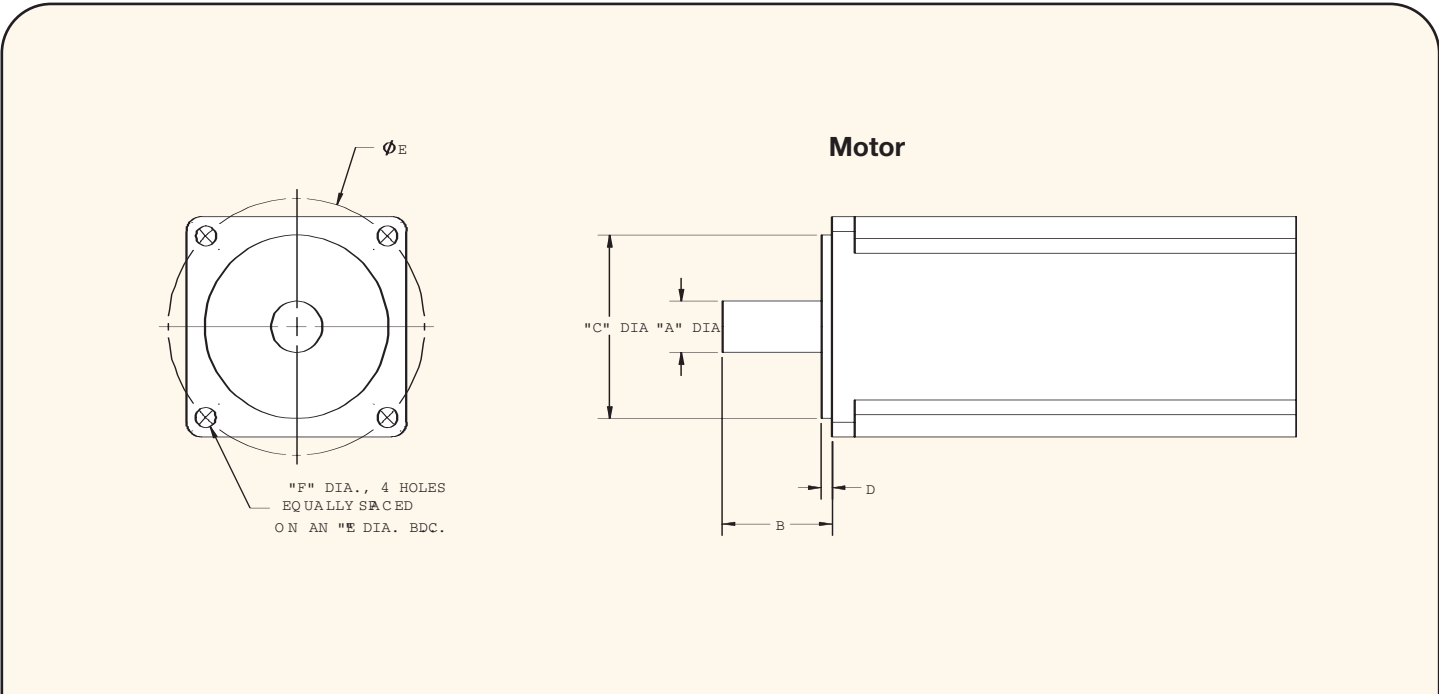
- NEMA 34 Motor Mounting Plate
- NEMA 34 Motor Mounting Nut Plate
- Belt Cover
- Qty 4, M3 Hex Standoff
- Motor Pulley, 3/8" ID, 31.83 PD
- Motor Pulley, 1/2" ID, 31.83 PD
- Ballscrew Pulley, 10mm ID, 63.66 PD
- Timing Belt
- Assorted Fasteners

PN XY-P5748RM, Metric 60mm, 2:1 Pulley Reduction, Motor Mounting Kit

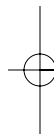
- Metric Motor Mounting Plate
- Metric Motor Mounting Nut Plate
- Belt Cover
- Qty 4, M3 Hex Standoff
- Motor Pulley, 14mm ID, 31.83 PD
- Ballscrew Pulley, 10mm ID, 63.66 PD
- Timing Belt
- Assorted Fasteners

Robot Module™ – MR Series

Motor Interface Dimensions



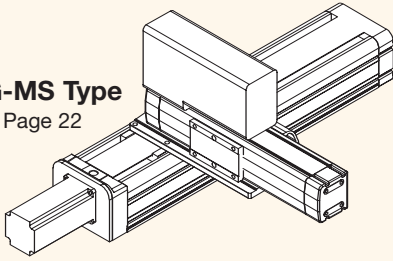
Item	Dimension	Motor Interface		
		Metric 60mm	NEMA 23	NEMA 34
A	Motor Shaft Diameter	14	6.35 or 9.53	9.53 or 12.7
B	Motor Shaft Length	30	20.57	31.75
C	Pilot Diameter	50	38.1	73.03
D	Pilot Length	3	2.36	2.36
E	Mounting Bolt Circle Diameter	70	66.68	98.43
F	Bolt Hole Size	5.5	4.95	5.54



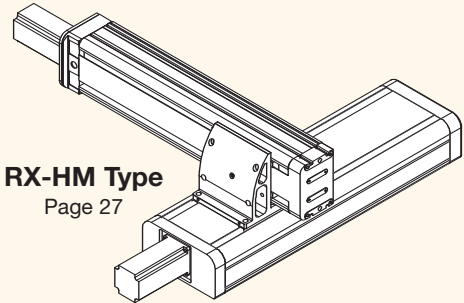
Robot Module™ – MR Series

2 Axis Combinations

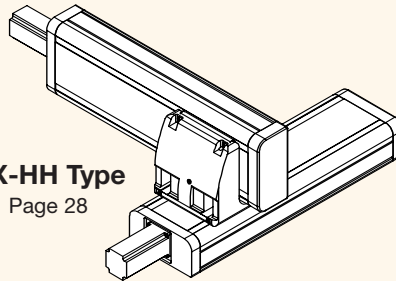
RG-MS Type
Page 22



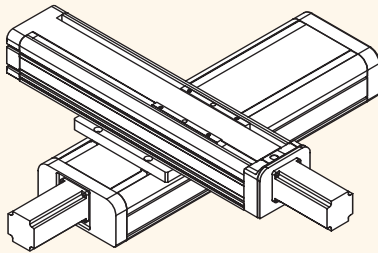
RX-HM Type
Page 27



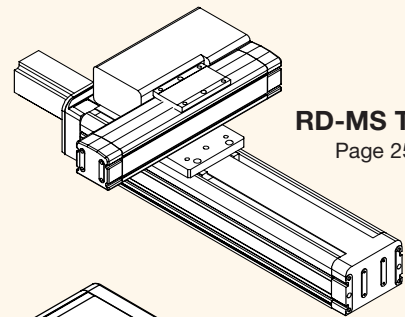
RX-HH Type
Page 28



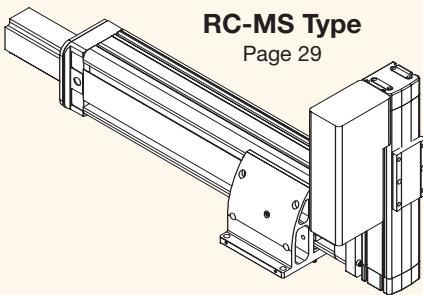
RD-HM Type
Page 26



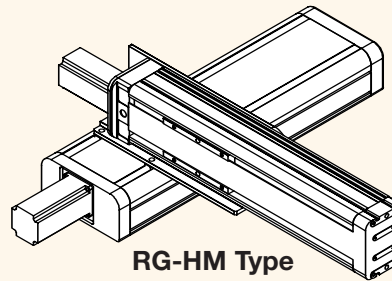
RD-MS Type
Page 25



RC-MS Type
Page 29



RG-HM Type
Pages 23 & 24

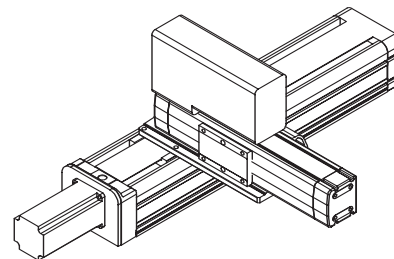


2-Axis Selection

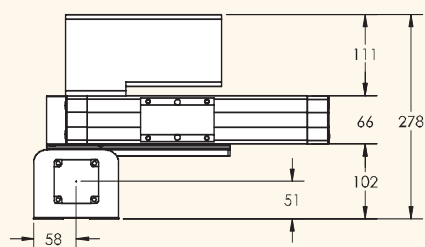
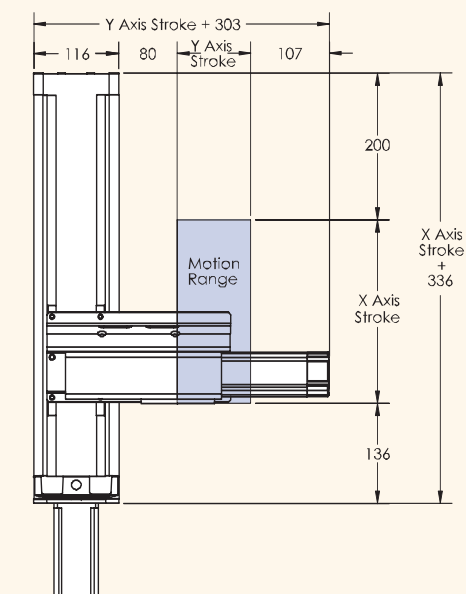
Combination	Type	X Axis	Y Axis	Combining Bracket	Module Mounting Plate	Limit Sensor Kit	Square Nut
RG-MS	Type A or B	XY-HRS0*5-RM*SNF & XY-P **** RM	XY-HRS0*0-RS1R*F	XY-P175GMS-1	XY-P170M-1	X Axis: XY-L3543RM Y Axis: XY-L3544RM	XY-P170M3-1
RG-HM	Type A or C	XY-HRS0**0-RH*SNF & XY-P **** RM	XY-HRS0*5-RM*SNF & XY-P****RM	XY-P175GHM-1	XY-P170H-1	X Axis: XY-L3542RM Y Axis: XY-L3543RM	
	Type B or D			XY-P175GHM-2			
RD-MS	Type A	XY-HRS0*5-RM*SNF & XY-P **** RM	XY-HRS0*0-RS1L*F	XY-P175DMS-1	XY-P170M-1	X Axis: XY-L3543RM Y Axis: XY-L3544RM	
	Type B		XY-HRS0*0-RS1R*F				
RD-HM	Type A or B	XY-HRS0**0-RH*SNF & XY-P **** RM	XY-HRS0*5-RM*SNF & XY-P**** RM	XY-P175DHM-1	XY-P170H-1	X Axis: XY-L3542RM Y Axis: XY-L3543RM	
RX-HM	Type A or B	XY-HRS0**0-RH*SNF & XY-P **** RM	XY-HRS0*5-RM*SNF & XY-P**** RM	XY-P175XHM-1	XY-P170H-1	X Axis: XY-L3542RM Y Axis: XY-L3543RM	
RX-HH	Type A or B	XY-HRS0**0-RH*SNF & XY-P **** RM	XY-HRS0**0-RH*SNF & XY-P **** RM	XY-P175XHH-1	XY-P170H-1	XY-L3542RM	
RC-MS	Type A	XY-HRS0*5-RM*SNF & XY-P **** RM	XY-HRS0*0-RS1L*F	XY-P175CMS-1	NA	X Axis: XY-L3543RM Y Axis: XY-L3544RM	
	Type B		XY-HRS0*0-RS1R*F	& XY-P175XHM-1			

Robot Module™ – MR Series

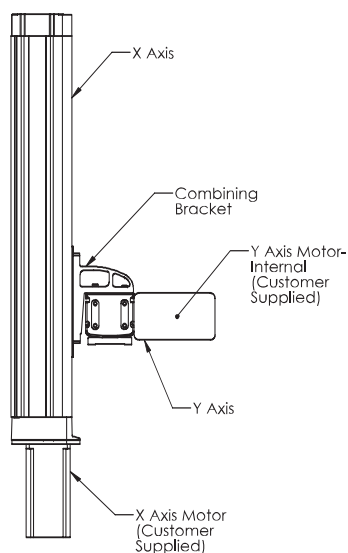
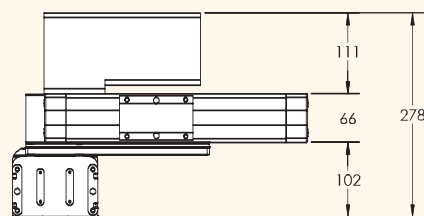
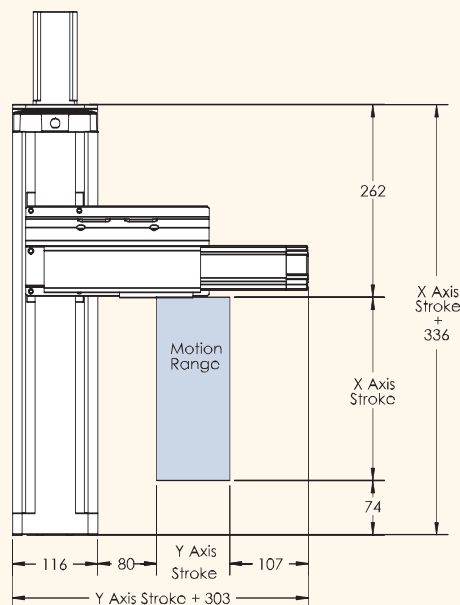
Combination Type: RG-MS



Type A



Type B



Note: Assembly of system required

Combination Type and Reference Numbers

Combination Type	Type A or B	Ref Page
X Axis	XY-HRS0*5-RM*SNF	14
X Axis Motor Mounting Kit	XY-P***RM	17 & 18
Y Axis	XY-HRS0*0-RS1R*F	12
XY Combining Bracket	XY-P175GMS-1	38
Options:		
Limit Sensor Kit, X Axis	XY-L3543RM	41
Limit Sensor Kit, Y Axis	XY-L3544RM	41
X Axis Module Mounting Plate	XY-P170M-1	40
Square Nut	XY-P170M3-1	42

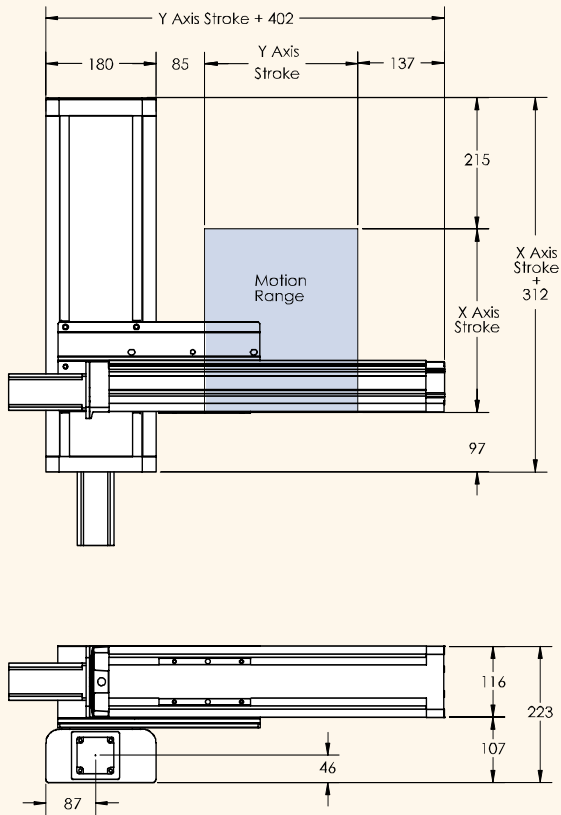
Transportable Mass Table [kg]

Acceleration m/s ²	Y Axis Stroke, mm				
	100	200	300	400	500
4.9	20	15	11	8	6
9.8	18	12	9	6.5	5

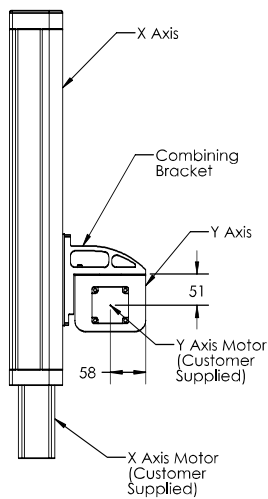
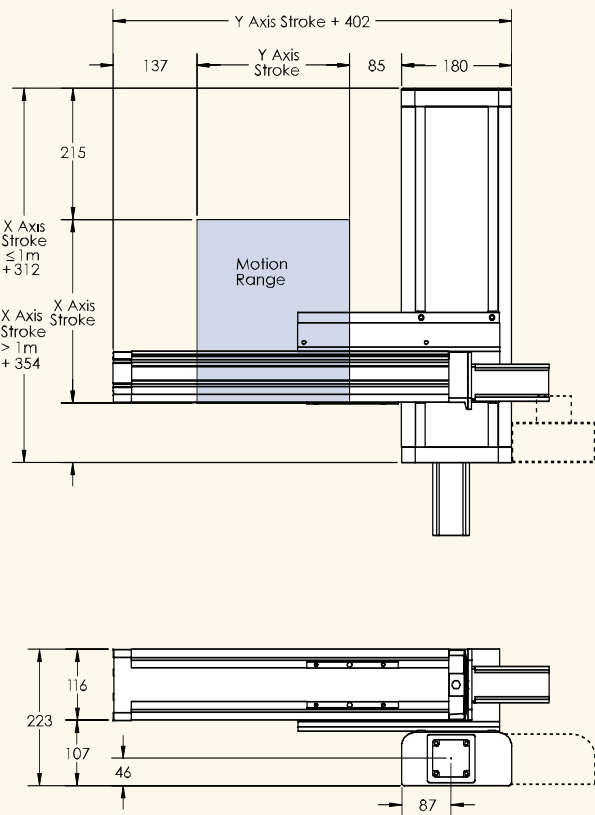
Robot Module™ – MR Series

Combination Type: RG-HM

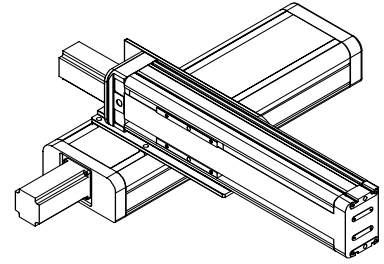
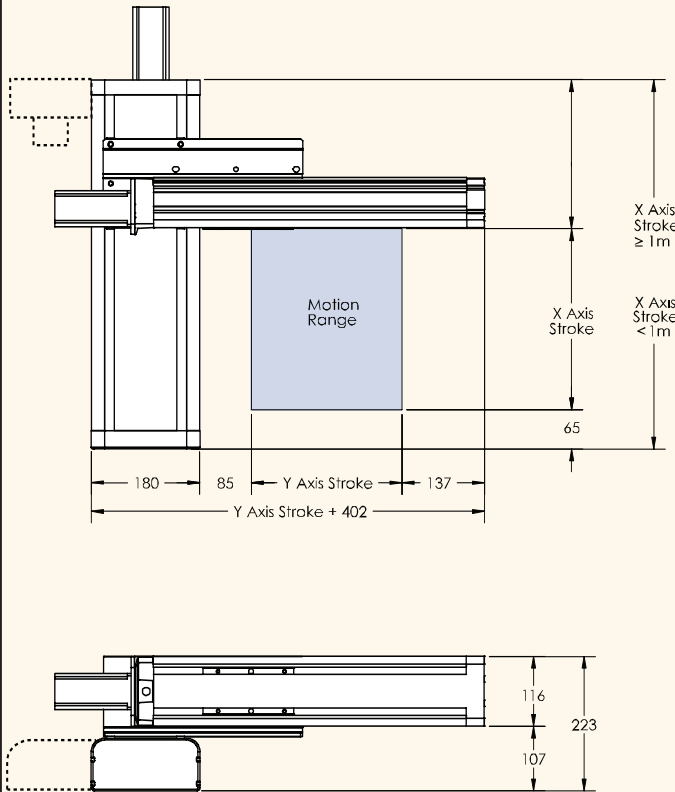
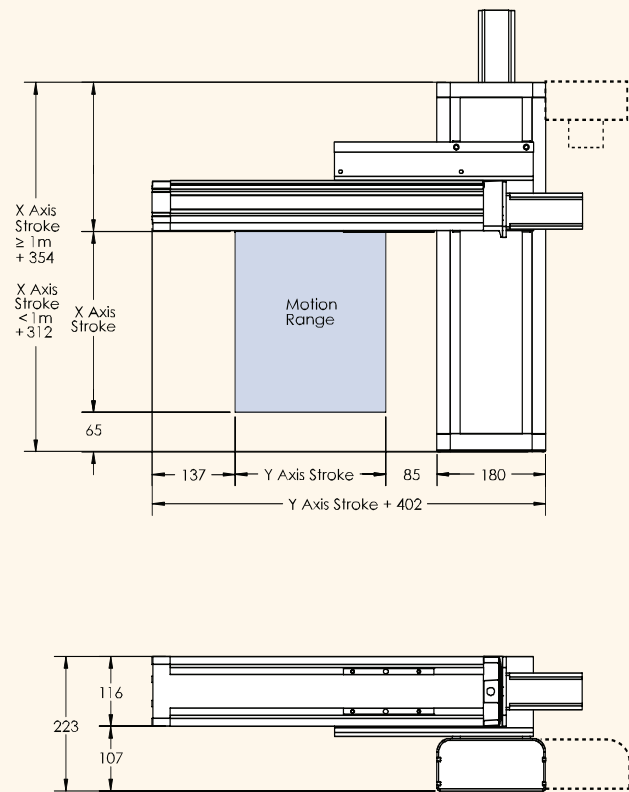
Type A



Type B



Note: Assembly of system required

**Type C****Type D****Combination Type and Reference Numbers**

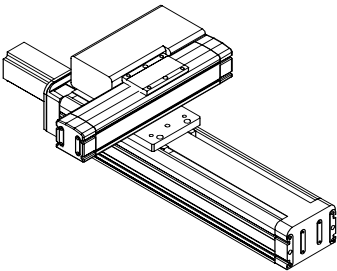
Combination Type	Type A or C	Type B or D	Ref Page
X Axis	XY-HRS0**0-RH*SNF		15 & 16
X Axis Motor Mounting Kit	XY-P* *** RM		17 & 18
Y Axis	XY-HRS0* 5-RM* SNF		14
Y Axis Motor Mounting Kit	XY-P* *** RM		17 & 18
XY Combining Bracket	XY-P175GHM-1	XY-P175GHM-2	38
Options:			
Limit Sensor Kit, X Axis	XY-L3542RM		41
Limit Sensor Kit, Y Axis	XY-L3543RM		41
X Axis Module Mounting Plate	XY-P170H-1		40
Square Nut	XY-P170M3-1		42

Transportable Mass Table [kg]

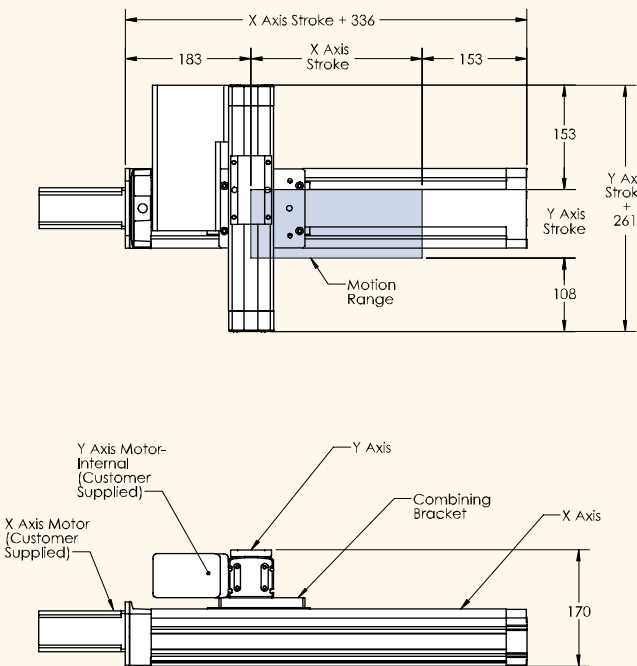
Acceleration m/s ²	Y Axis Stroke, mm					
	250	350	450	550	750	950
4.9	40	40	40	40	33	24
9.8	40	40	33	28	19	13

Robot Module™ – MR Series

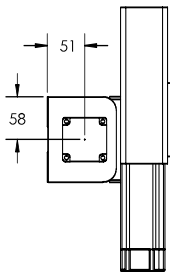
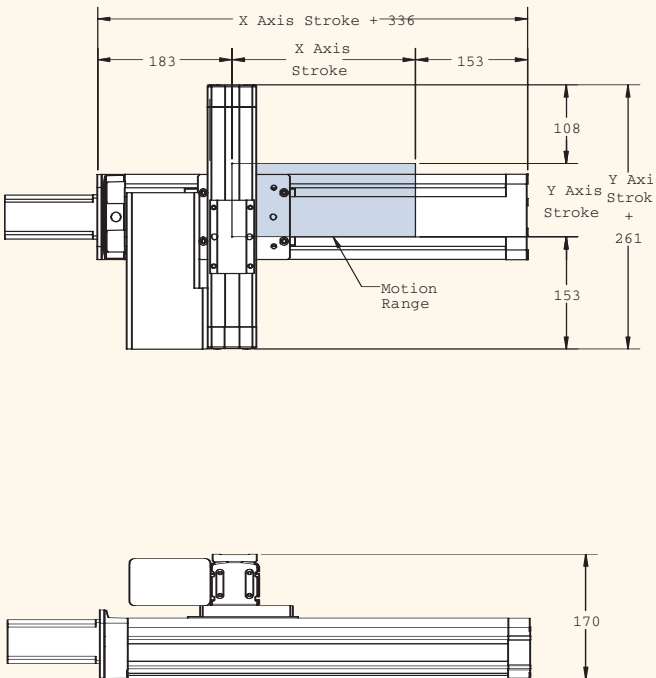
Combination Type: RD-MS



Type A



Type B



Combination Type and Reference Numbers

Combination Type	Type A	Type B	Ref Page
X Axis	XY-HRS0*5-RM*SNF		14
X Axis Motor Mounting Kit	XY-P****RM		17 & 18
Y Axis	XY-HRS0*0-RS1L*F	XY-HRS0*0-RS1R*F	11 & 12
XY Combining Bracket	XY-P175DMS-1		38
Options:			
Limit Sensor Kit, X Axis	XY-L3543RM		41
Limit Sensor Kit, Y Axis	XY-L3544RM		41
X Axis Module Mounting Plate	XY-P170M-1		40
Square Nut	XY-P170M3-1		42

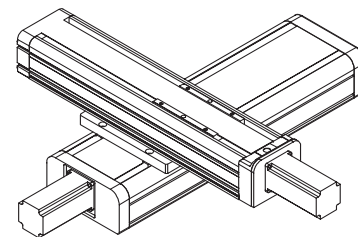
Transportable Mass Table [kg]

Acceleration m/s ²	Y Axis Stroke, mm				
	100	200	300	400	500
4.9	20	20	20	20	20
9.8	20	20	20	20	20

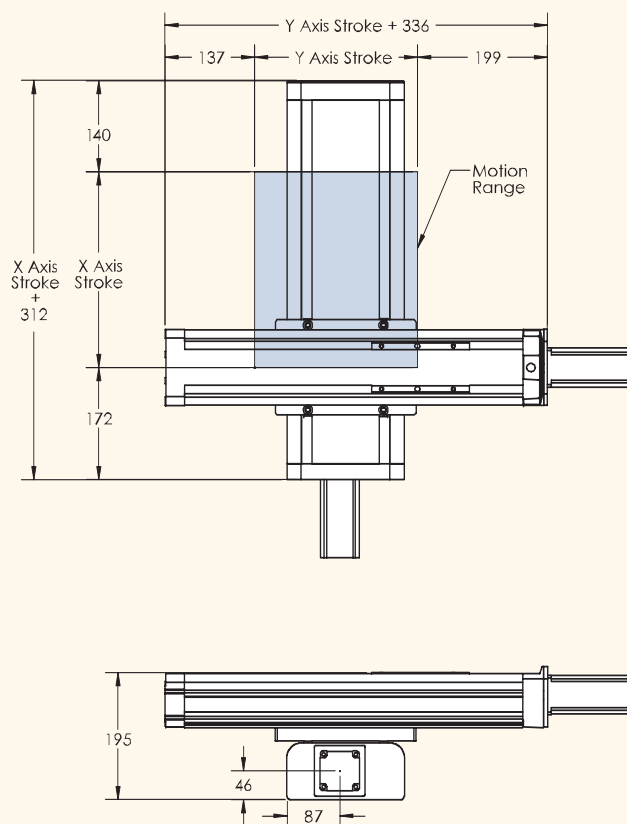
Note: Assembly of system required

Robot Module™ – MR Series

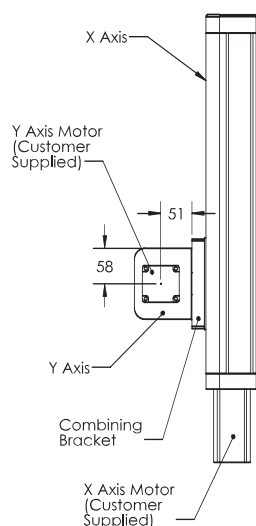
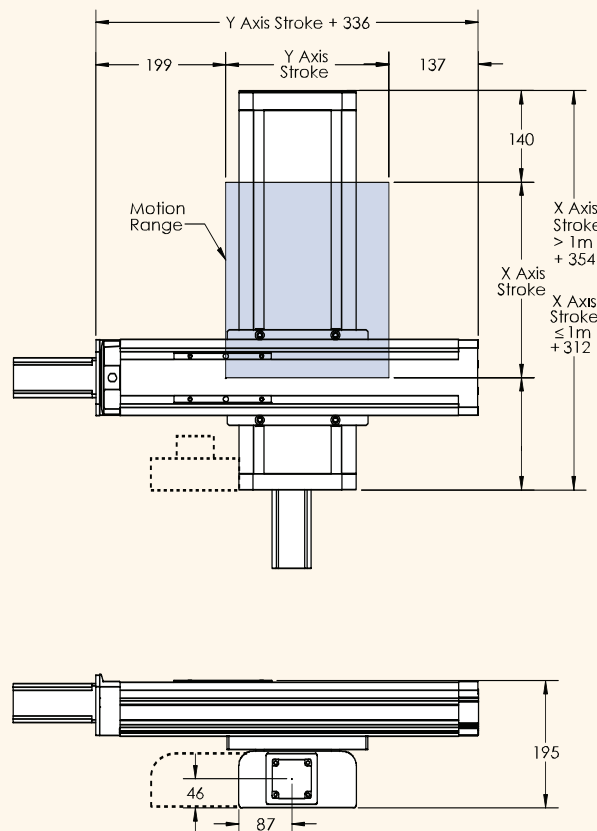
Combination Type: RD-HM



Type A



Type B



Combination Type and Reference Numbers

Combination Type	Type A or B	Ref Page
X Axis	XY-HRS**0-RH*SNF	15 & 16
X Axis Motor Mounting Kit	XY-P****RM	17 & 18
Y Axis	XY-HRS0*5-RM*SNF	14
Y Axis Motor Mounting Kit	XY-P****RM	17 & 18
XY Combining Bracket	XY-P175DHM-1	38
Options:		
Limit Sensor Kit, X Axis	XY-L3542RM	41
Limit Sensor Kit, Y Axis	XY-L3543RM	41
X Axis Module Mounting Plate	XY-P170H-1	40
Square Nut	XY-P170M3-1	42

Transportable Mass Table [kg]

Acceleration m/s ²	Y axis stroke, mm					
	250	350	450	550	750	950
4.9	40	40	40	40	40	40
9.8	40	40	40	40	40	40

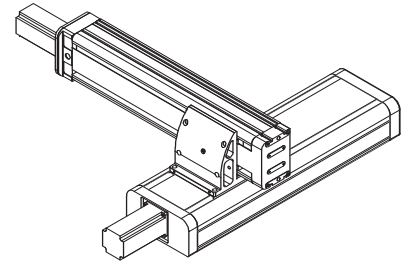
Note: Assembly of system required

Modules – pages 11 to 16 • Motor mounting kits – pages 17 & 18 • Module mounting plates – page 40 • Limit sensor kit – page 41

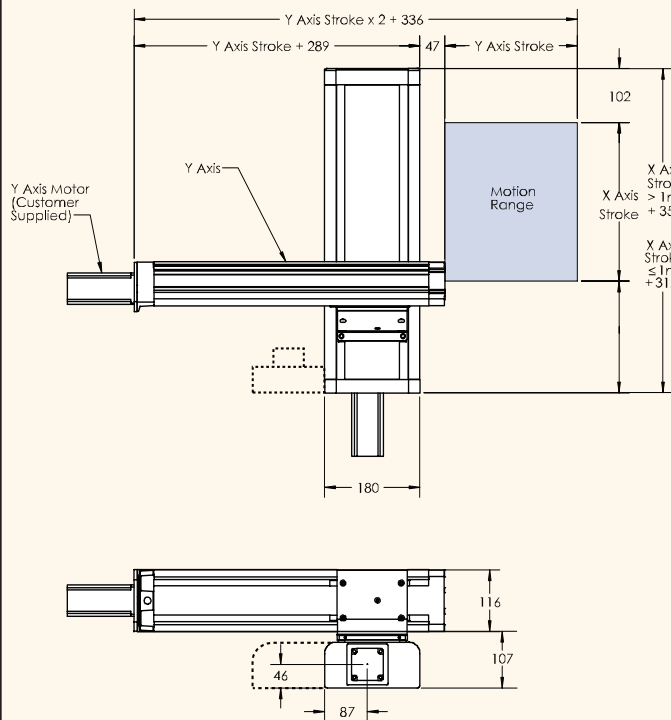
NSK | 26

Robot Module™ – MR Series

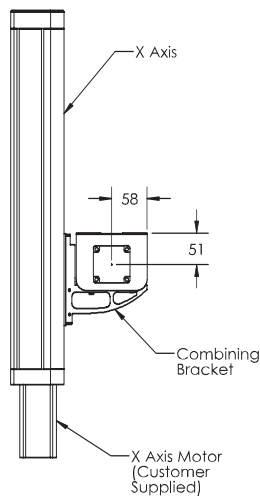
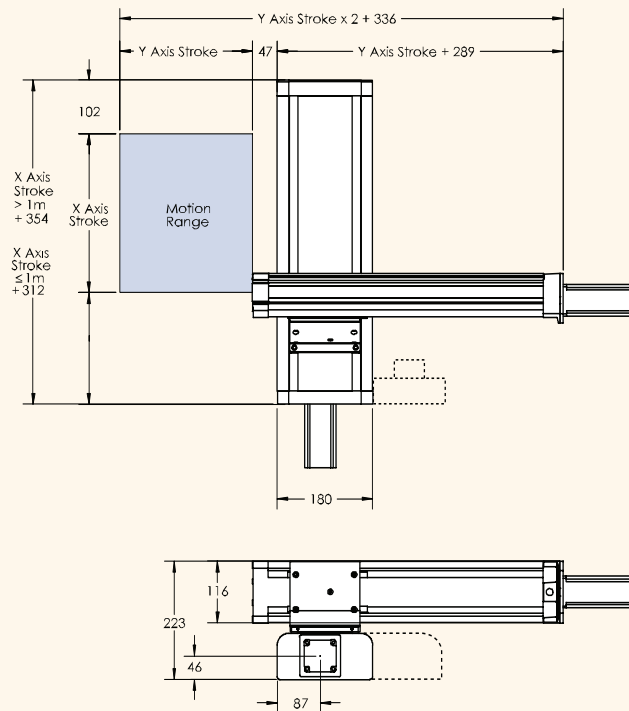
Combination Type: RX-HM



Type A



Type B



Combination Type and Reference Numbers

Combination Type	Type A or B	Ref Page
X Axis	XY-HRS**0-RH*SNF	15 & 16
X Axis Motor Mounting Kit	XY-P****RM	17 & 18
Y Axis	XY-HRS0*5-RM*SNF	14
Y Axis Motor Mounting Kit	XY-P****RM	17 & 18
XY Combining Bracket	XY-P175XHM-1	39
Options:		
Limit Sensor Kit, X Axis	XY-L3542RM	41
Limit Sensor Kit, Y Axis	XY-L3543RM	41
X Axis Module Mounting Plate	XY-P170H-1	40
Square Nut	XY-P170M3-1	42

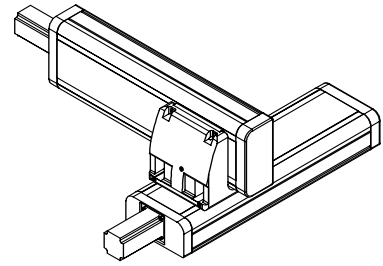
Transportable Mass Table [kg]

Acceleration m/s ²	Y Axis Stroke, mm					
	250	350	450	550	750	950
3.3	24	19	15	12	7	3
4.9	21	16	12	9	5	2

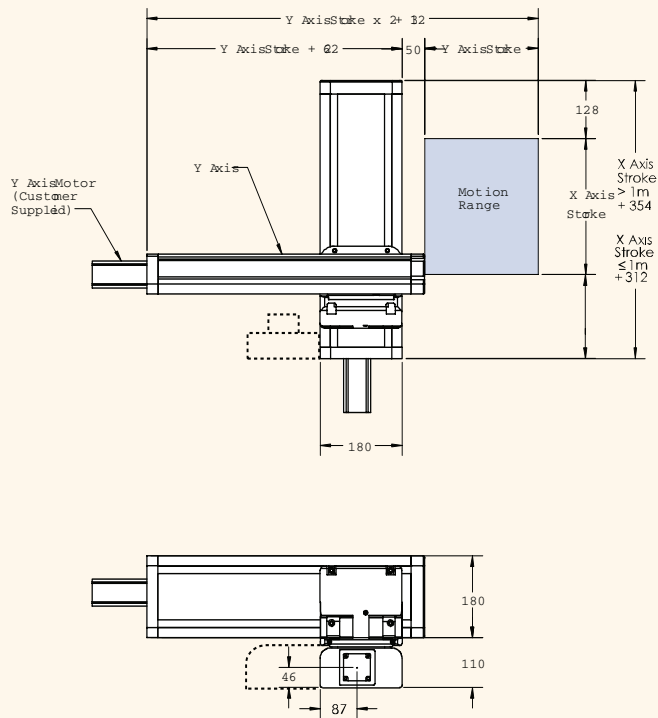
Note: Assembly of system required

Robot Module™ – MR Series

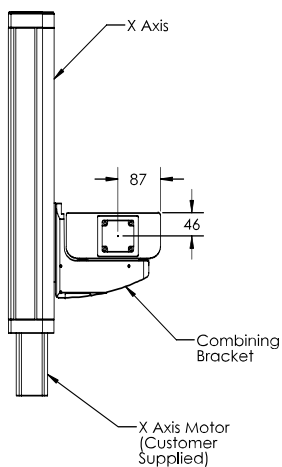
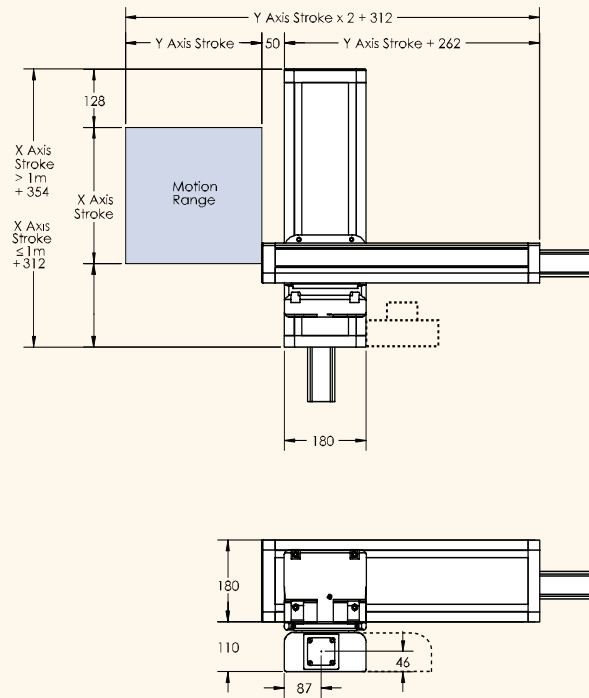
Combination Type: RX-HH



Type A



Type B



Combination Type and Reference Numbers

Combination Type	Type A or B	Ref Page
X Axis	XY-HRS**0-RH*SNF	15 & 16
X Axis Motor Mounting Kit	XY-P****RM	17 & 18
Y Axis	XY-HRS**0-RH*SNF	15 & 16
Y Axis Motor Mounting Kit	XY-P****RM	17 & 18
XY Combining Bracket	XY-P175XHH-1	39
Options:		
Limit Sensor Kit, X Axis	XY-L3542RM	41
Limit Sensor Kit, Y Axis	XY-L3542RM	41
X Axis Module Mounting Plate	XY-P170H-1	40
Square Nut	XY-P170M3-1	42

Transportable Mass Table [kg]

Acceleration m/s ²	Y Axis Stroke, mm					
	300	400	500	600	800	100
3.3	40	40	40	40	29	20
4.9	40	40	40	39	28	19

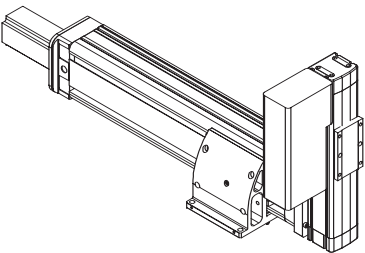
Note: Assembly of system required

Modules – pages 11 to 16 • Motor mounting kits – pages 17 & 18 • Module mounting plates – page 40 • Limit sensor kit – page 41

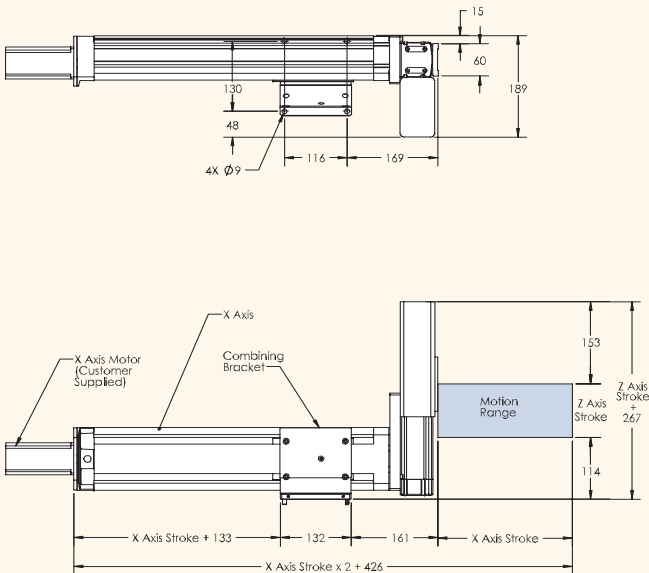
NSK | 28

Robot Module™ – MR Series

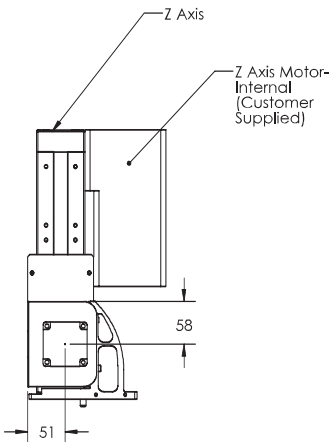
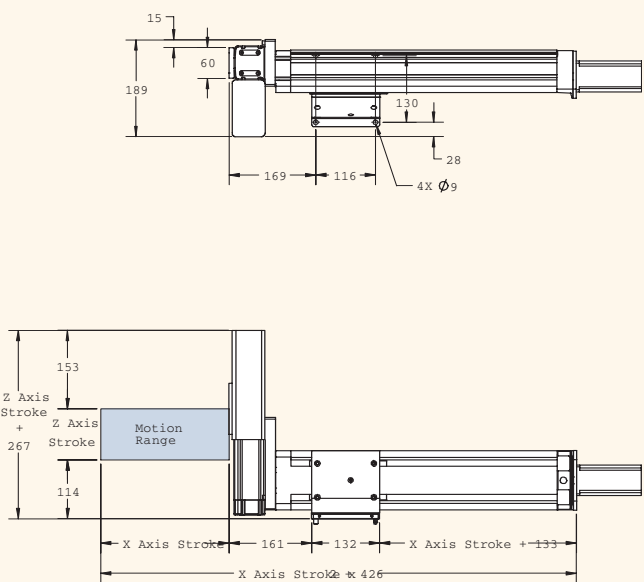
Combination Type: RC-MS



Type A



Type B



Combination Type and Reference Numbers

Combination Type	Type A	Type B	Ref Page
X Axis	XY-HRS0*5-RM*SNF		14
X Axis Motor Mounting Kit	XY-P****RM		17 & 18
Z Axis	XY-HRS0*0-RS1L*F	XY-HRS0*0-RS1R*F	11 & 12
XY Combining Bracket	XY-P175XHM-1, XY-P175CMS-1		39
Options:			
Limit Sensor Kit, X Axis	XY-L3543RM		41
Limit Sensor Kit, Z Axis	XY-L3544RM		41
X Axis Module Mounting Plate	NA		40
Square Nut	XY-P170M3-1		42

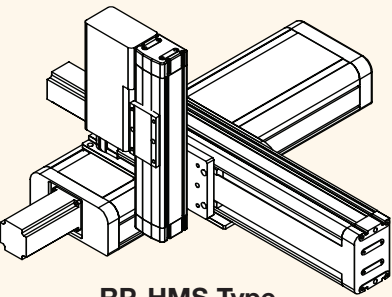
Transportable Mass Table [kg]

Z Axis Stroke	Acceleration m/s ²	X Axis Stroke, mm			
		250	350	450	550
100mm	3.9	8	8	8	5.4
	4.9	8	8	5.4	2.4
200mm	3.9	8	8	7	4.7
	4.9	8	8	4.7	1.7

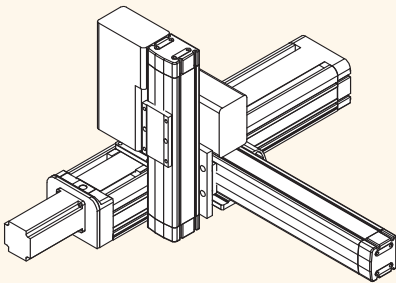
Note: Assembly of system required

Robot Module™ – MR Series

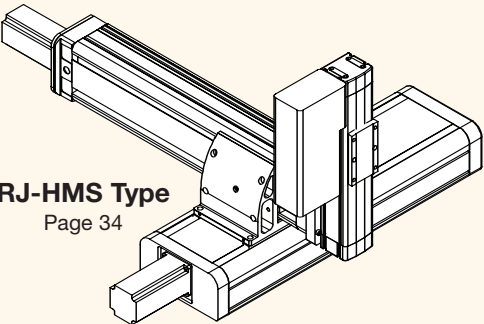
3 Axis Combinations



RP-HMS Type
Pages 31 & 32



RP-MSS Type
Page 33



RJ-HMS Type
Page 34

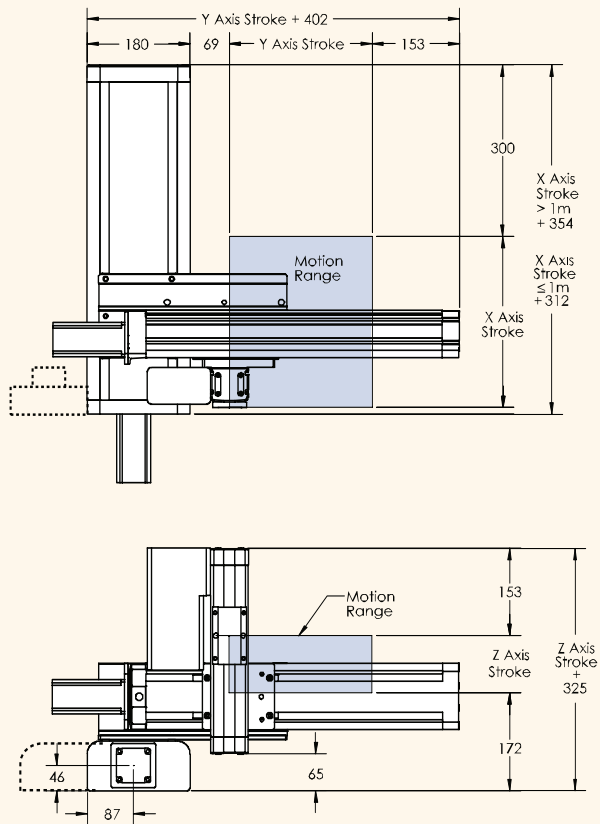
3-Axis Selection

Combination	Type	X Axis	Y Axis	Z Axis	XY Combining Bracket	YZ Combining Bracket	Mounting Plate	Limit Sensor Kit	Square Nut
RJ-HMS	Type A	XY-HRS0*0-RH*SNF & XY-P****RM	XY-HRS0*5-RM*SNF & XY-P****RM	XY-HRS0*0-RS1L*F	XY-P175XHM-1	XY-P175CMS-1	XY-P170H-1	X Axis: XY-L3542RM	XY-P170M3-1
	Type B			XY-HRS0*0-RS1R*F				Y Axis: XY-L3543RM Z Axis: XY-L3544RM	
RP-HMS	Type A or C	XY-HRS0*0-RH*SNF & XY-P****RM	XY-HRS0*5-RM*SNF & XY-P****RM	XY-HRS0*0-RS1L*F	XY-P175GHM-1	XY-P175DMS-1	XY-P170H-1	X Axis: XY-L3542RM	
	Type B or D			XY-HRS0*0-RS1R*F	XY-P175GHM-2			Y Axis: XY-L3543RM Z Axis: XY-L3544RM	
RP-MSS	Type A or B	XY-HRS0*5-RM*SNF & XY-P****RM	XY-HRS0*0-RS1R*F	XY-HRS0*0-RS1L*F	XY-P175GMS-1	XY-P175DSS-1	XY-P170M-1	X Axis: XY-L3543RM Y Axis: XY-L3544RM Z Axis: XY-L3544RM	

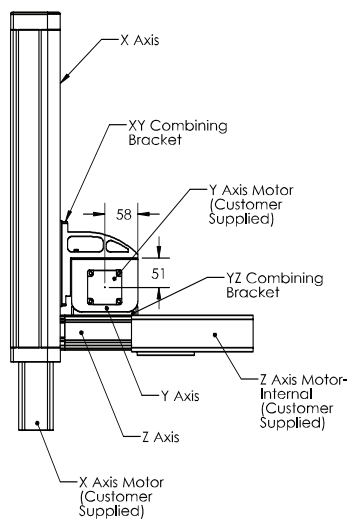
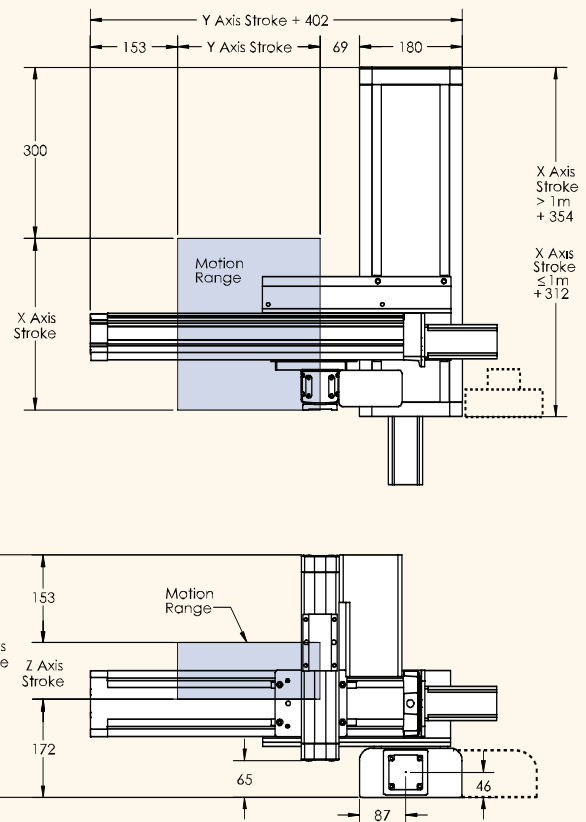
Robot Module™ – MR Series

Combination Type: RP-HMS

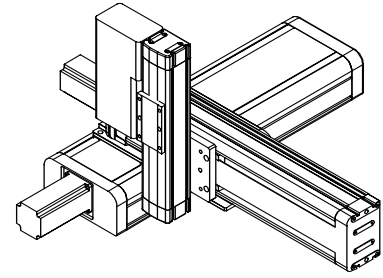
Type A



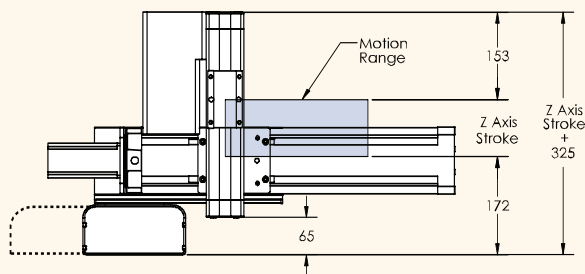
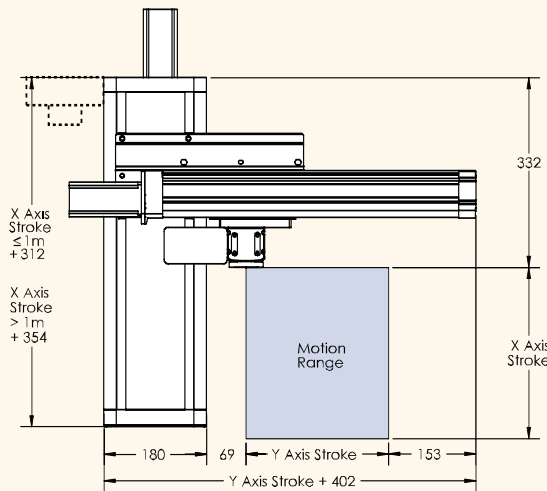
Type B



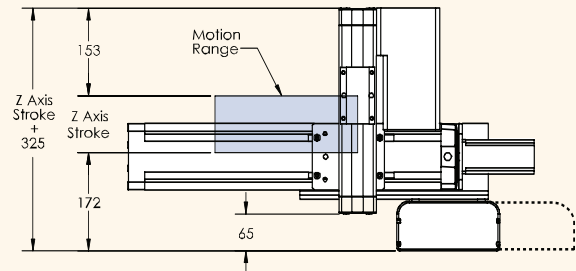
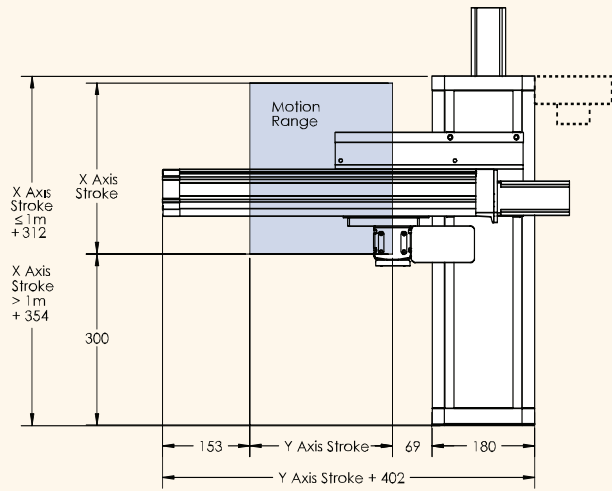
Note: Assembly of system required



Type C



Type D



Combination Type and Reference Numbers

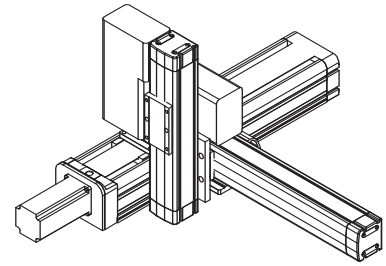
Combination Type	Type A or C	Type B or D	Ref Page
X Axis	XY-HRS**0-RH*SNF		15 & 16
X Axis Motor Mounting Kit	XY-P**** RM		17 & 18
Y Axis	XY-HRS0*5-RM*SNF		14
Y Axis Motor Mounting Kit	XY-P**** RM		17 & 18
Z Axis	XY-HRS0*0-RS1L*F	XY-HRS0*0-RS1R*F	11 & 12
XY Combining Bracket	XY-P175GHM-1	XY-P175GHM-2	38
YZ Combining Bracket	XY-P175DMS-1		38
Options:			
Limit Sensor Kit, X Axis	XY-L3542RM		41
Limit Sensor Kit, Y Axis	XY-L3543RM		41
Limit Sensor Kit, Z Axis	XY-L3544RM		41
X Axis Module Mounting Plate	XY-P170H-1		40
Square Nut	XY-P170M3-1		42

Transportable Mass Table [kg]

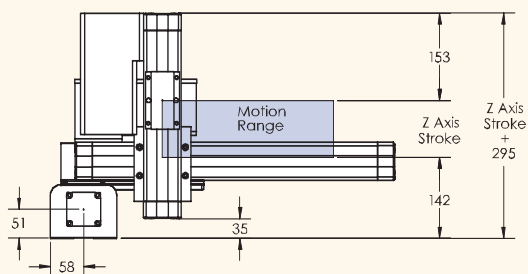
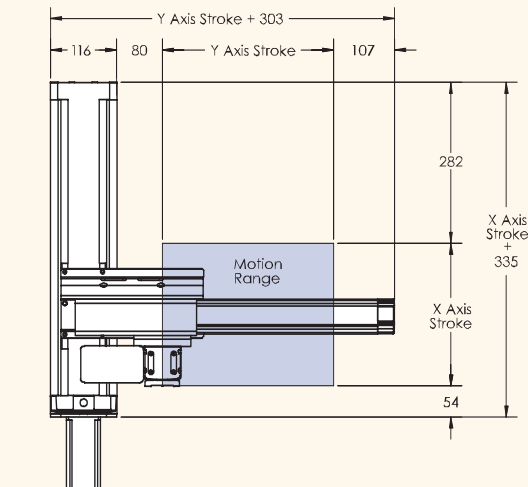
Z Axis Stroke	Acceleration m/s^2	Y Axis Stroke, mm					
		250	350	450	550	750	950
100 or 200	4.9	20	20	20	20	20	16
	9.8	20	20	20	20	12.6	6.6

Robot Module™ – MR Series

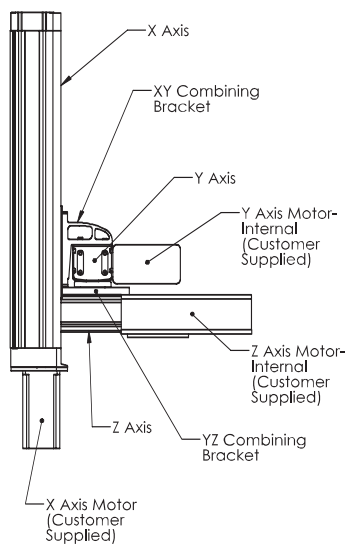
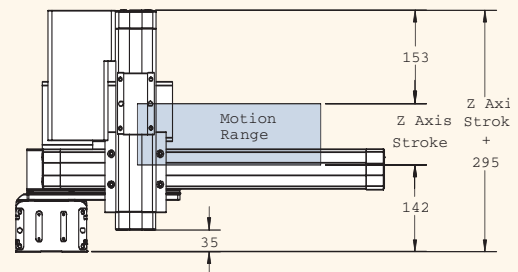
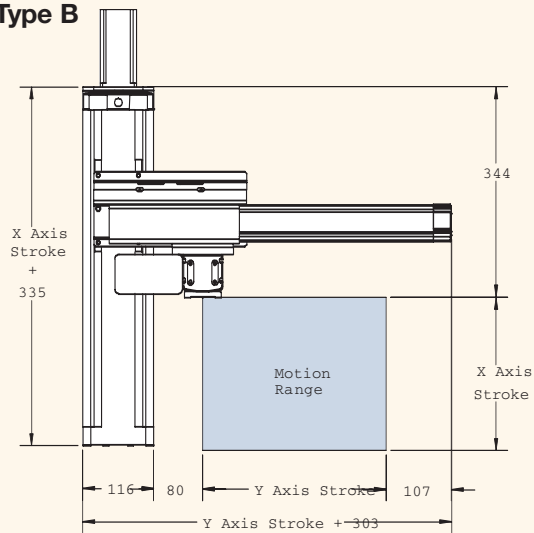
Combination Type: RP-MSS



Type A



Type B



Note: Assembly of system required

Combination Type and Reference Numbers

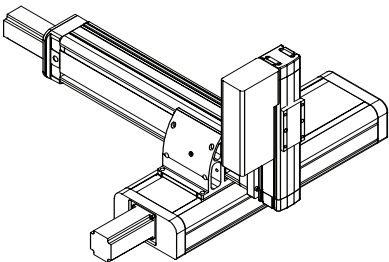
Combination Type	Type A and B	Ref Page
X Axis	XY-HRS0*5-RM*SNF	14
X Axis Motor Mounting Kit	XY-P****RM	17 & 18
Y Axis	XY-HRS0*0-RS1R*F	12
Z Axis	XY-HRS0*0-RS1L*F	11
XY Combining Bracket	XY-P175GMS-1	38
YZ Combining Bracket	XY-P175DSS-1	37
Options:		
Limit Sensor Kit, X Axis	XY-L3543RM	41
Limit Sensor Kit, Y Axis	XY-L3544RM	41
Limit Sensor Kit, Z Axis	XY-L3544RM	41
X Axis Module Mounting Plate	XY-P170M-1	40
Square Nut	XY-P170M3-1	42

Transportable Mass Table [kg]

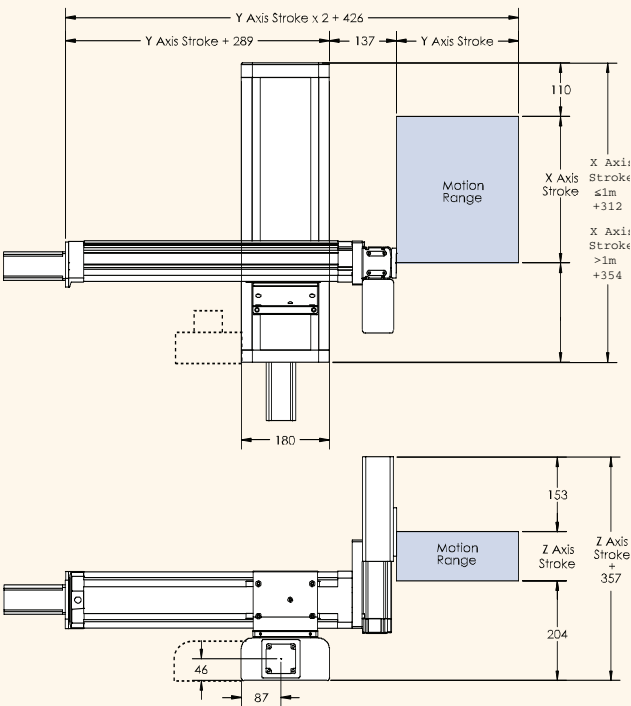
Z Axis Stroke	Acceleration m/s ²	Y Axis Stroke, mm			
		100	200	300	400
100mm	4.9	8	8	4.8	1.8
	9.8	8	5.8	2.8	–
200mm	4.9	8	8	4.1	1.1
	9.8	8	5.1	2.1	–

Robot Module™ – MR Series

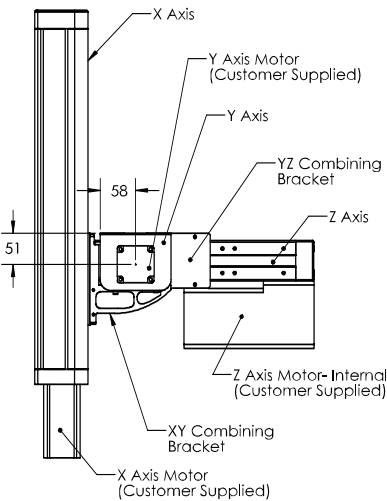
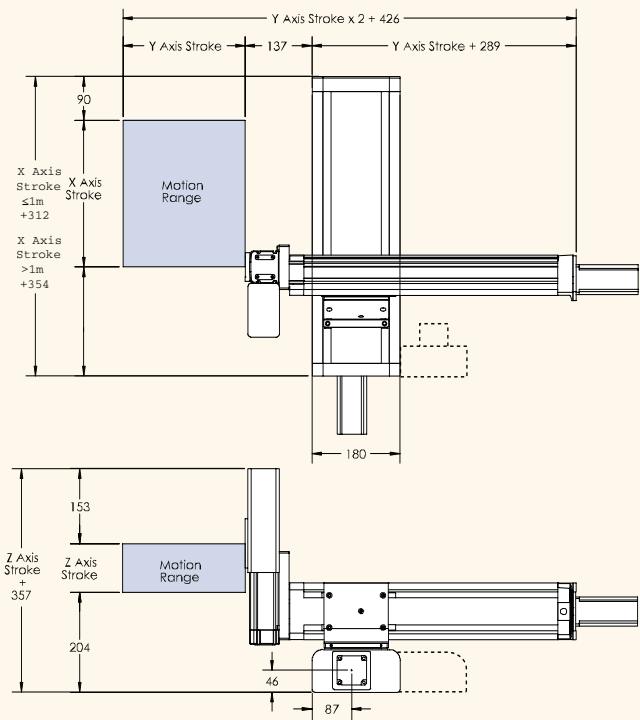
Combination Type: RJ-HMS



Type A



Type B



Note: Assembly of system required

Combination Type and Reference Numbers

Combination Type	Type A	Type B	Ref Page
X Axis	XY-HRS**0-RH*SNF		15 & 16
X Axis Motor Mounting Kit	XY-P****RM		17 & 18
Y Axis	XY-HRS0*5-RM*SNF		14
Y Axis Motor Mounting Kit	XY-P****RM		17 & 18
Z Axis	XY-HRS0*0-RS1L*F	XY-HRS0*0-RS1R*F	11 & 12
XY Combining Bracket	XY-P175XHM-1		39
YZ Combining Bracket	XY-P175CMS-1		39
Options:			
Limit Sensor Kit, X Axis	XY-L3542RM		41
Limit Sensor Kit, Y Axis	XY-L3543RM		41
Limit Sensor Kit, Z Axis	XY-L3544RM		41
X Axis Module Mounting Plate	XY-P170H-1		40
Square Nut	XY-P170M3-1		42

Transportable Mass Table [kg]

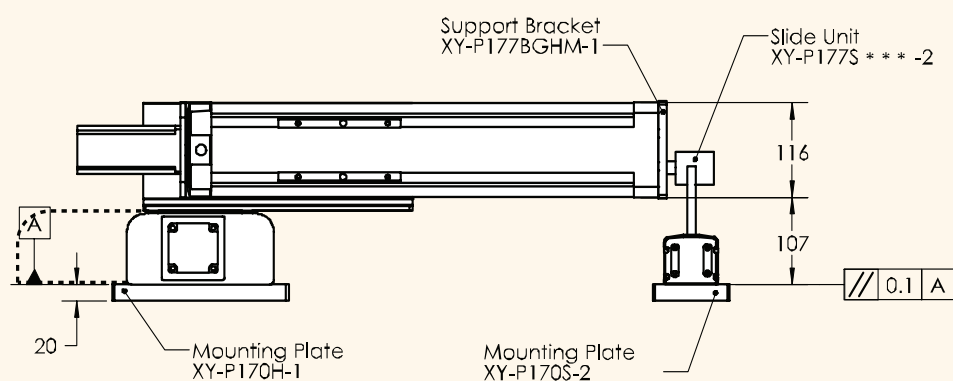
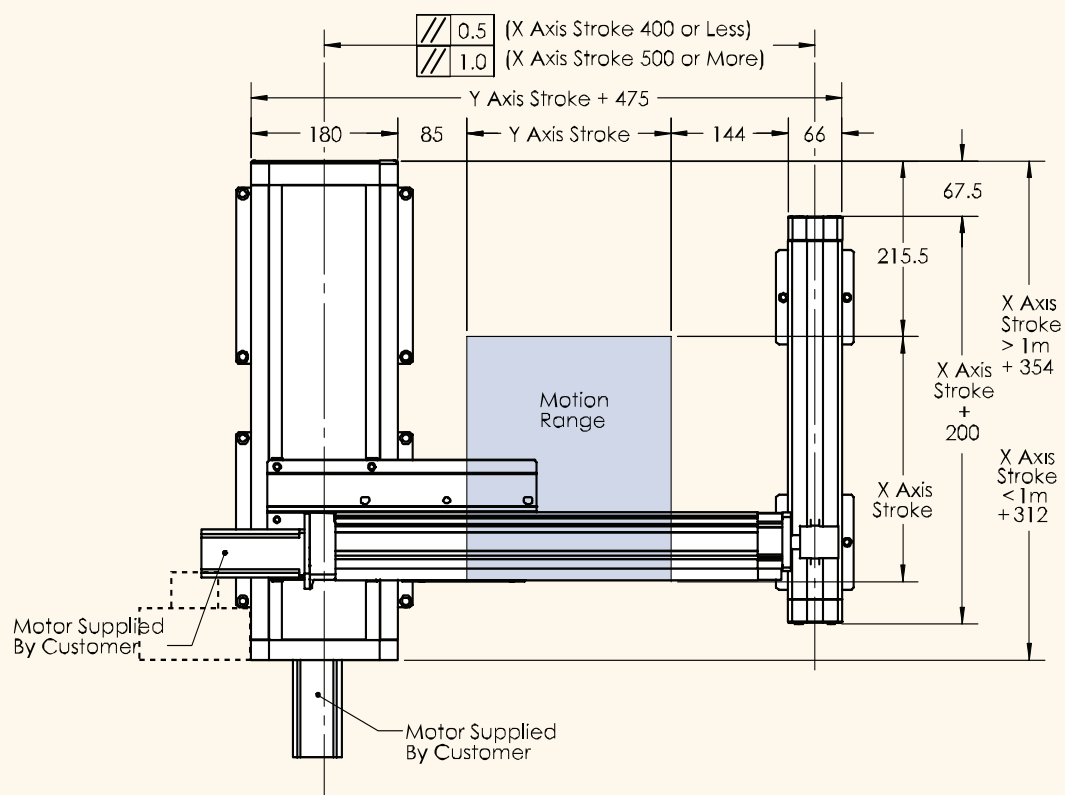
Z Axis Stroke	Acceleration m/s ²	Y Axis Stroke, mm			
		250	350	450	550
100mm	3.3	8	8	8	5.4
	4.9	8	8	5.4	2.4
200mm	3.3	8	8	7.7	4.7
	4.9	8	8	4.7	1.7

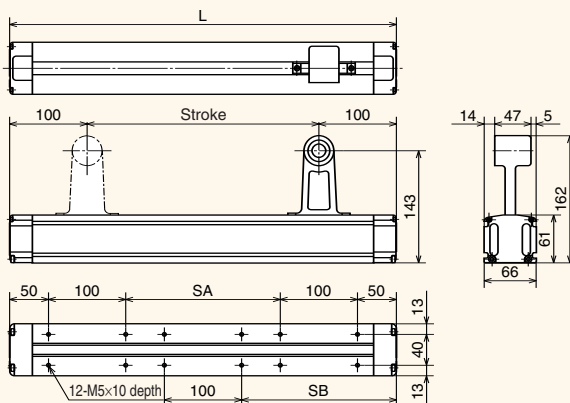
Robot Module™ – MR Series

Accessories

Support Slide

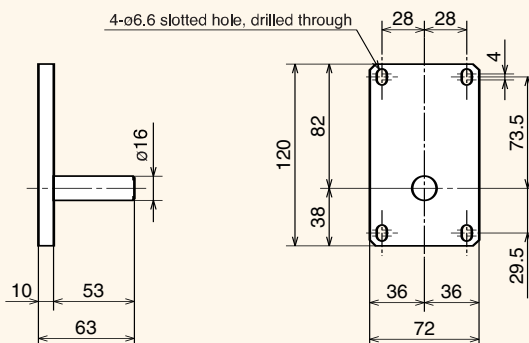
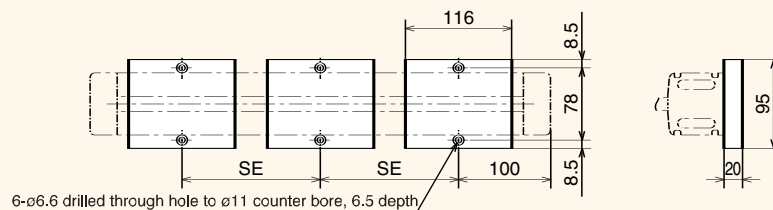
For Combination Types:
RG-HM and RP-HMS



Slide unit**Example of reference number:****XY-P177S030-2****Stroke Ex.
030: 300 mm**

For stroke 300 to 1,000

Part Number	Stroke, mm	L, mm	SA, mm	SB, mm	SE, mm	Mass, kg
XY-P177S030-2	300	500	200	200	150	4.8
XY-P177S040-2	400	600	300	250	200	5.4
XY-P177S050-2	500	700	400	300	250	6.0
XY-P177S060-2	600	800	500	350	300	6.6
XY-P177S080-2	800	1000	700	450	400	7.8
XY-P177S100-2	1000	1200	900	550	500	9.0

Support bracket**Reference number:****XY-P177BGHM-1****Module mounting plate****Reference number:****XY-P170S-2**

* We recommend three plates per slide. Reference number designates a quantity of 1 plate.

Robot Module™ – MR Series Combining Brackets

XY - P175 G H M - 1

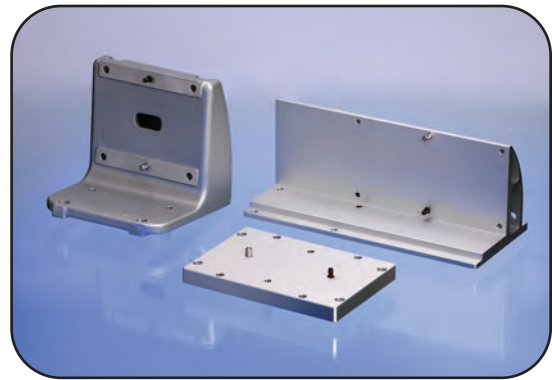
P175: For R Series

Combination Type

Design Number

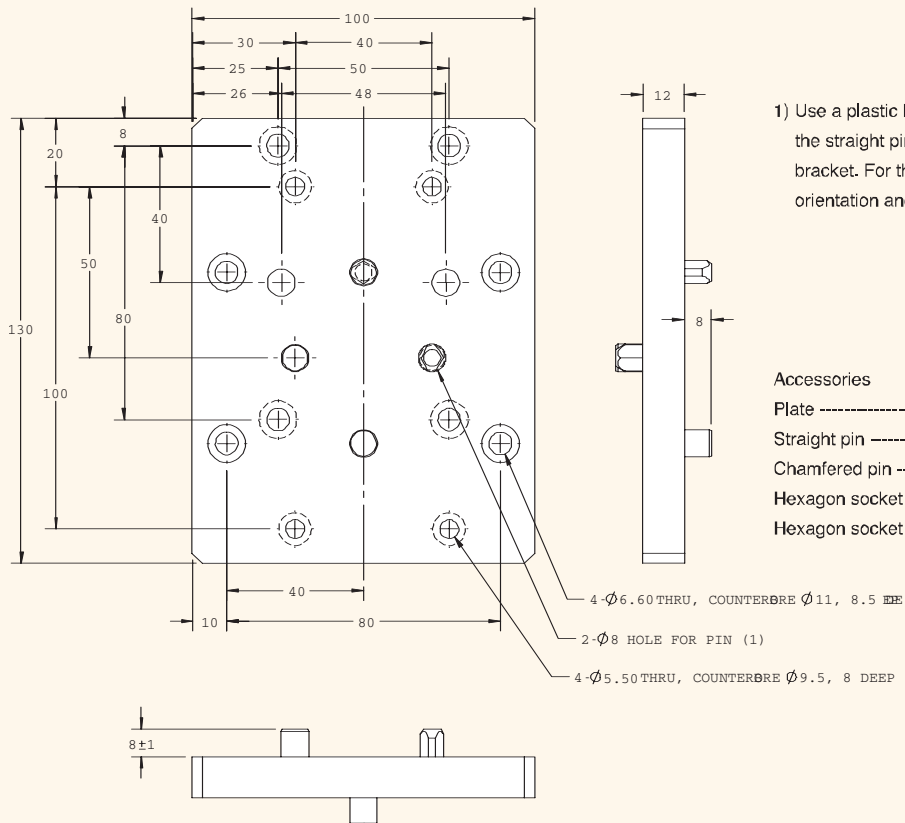
Module Size attached to the moving side

Module Size attached to the fixed side



- Brackets for combining modules into 2-axis and 3-axis mechanisms.
- Combining brackets contain dowel pins to ensure a high reproducibility of assembly accuracy.

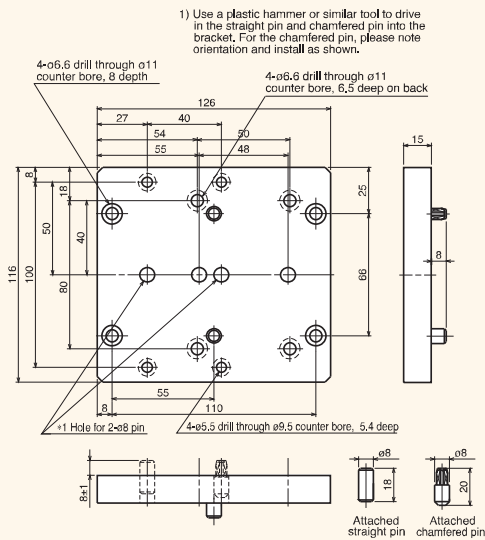
XY-P175DSS-1



- 1) Use a plastic hammer or similar tool to install the straight pin and chamfered pin into the bracket. For the chamfered pin, please note orientation and install as shown.

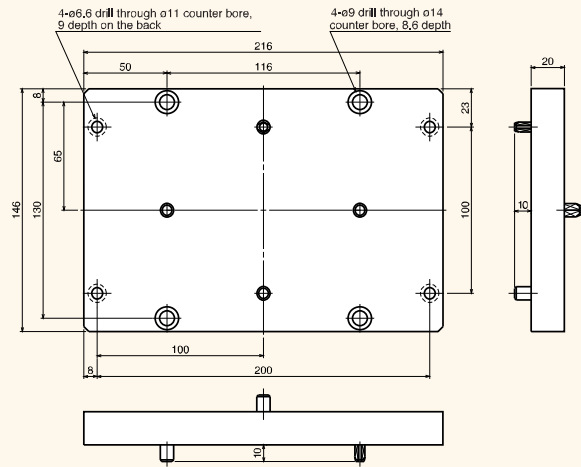
Accessories

- | | | |
|-------------------------------------|-------|--------|
| Plate | ----- | 1 pc. |
| Straight pin | ----- | 1 pc. |
| Chamfered pin | ----- | 1 pc. |
| Hexagon socket head cap screw M5×18 | ---- | 8 pcs. |
| Hexagon socket head cap screw M6×10 | ---- | 8 pcs. |

XY-P175DMS-1

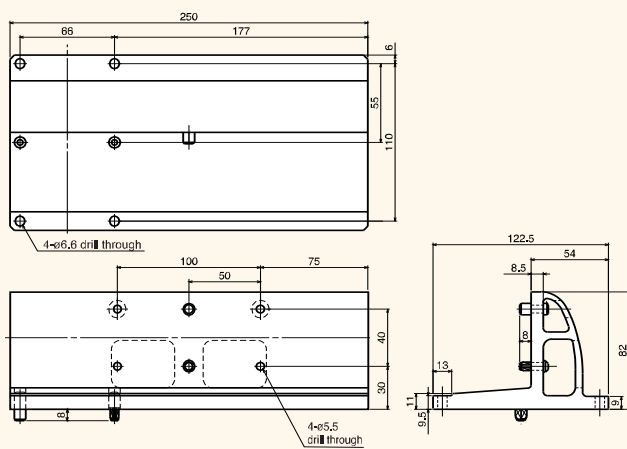
About 0.6kg

Accessories:
 Straight pin 1 pc.
 Chamfered pin 1 pc.
 Hexagon socket head cap screw M5 $\times$ 18 4 pcs.
 Hexagon socket head cap screw M6 $\times$ 16 8 pcs.

XY-P175DHM-1

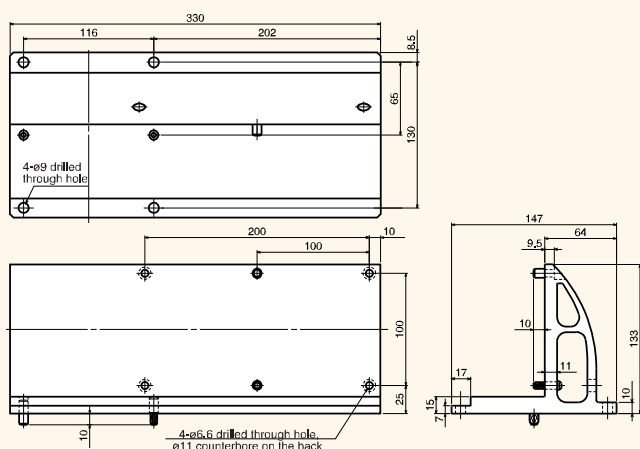
About 1.6kg

Accessories:
 Hexagon socket head cap screw M6 $\times$ 20 4 pcs.
 Hexagon socket head cap screw M8 $\times$ 25 4 pcs.

XY-P175GMS-1

About 1.6kg

Accessories:
 Hexagon socket head cap screw M6 $\times$ 18 4 pcs.
 Hexagon socket head cap screw M5 $\times$ 16 4 pcs.

XY-P175GHM-1

About 3.6kg

Accessories:
 Hexagon socket head cap screw M8 $\times$ 20 4 pcs.
 Hexagon socket head cap screw M6 $\times$ 20 4 pcs.

Mirror image bracket: XY-P175GHM-2

Robot Module™ – MR Series Module Mounting Plates

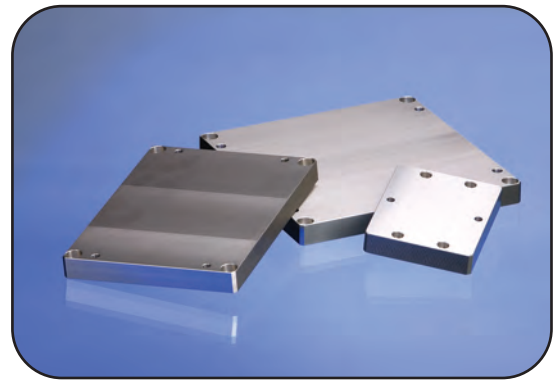
XY - P170 H - 1

P170: For R Series

Design Number

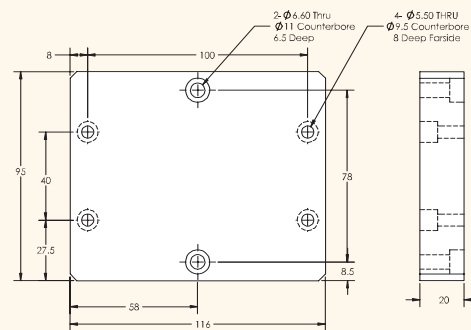
Module Type

H: RH Module
M: RM Module
S: RS Module



- These plates are used for mounting the module in a “top down manner”.
- Two mounting plates are required per fixed module.
- Part number designates a quantity of one mounting plate.

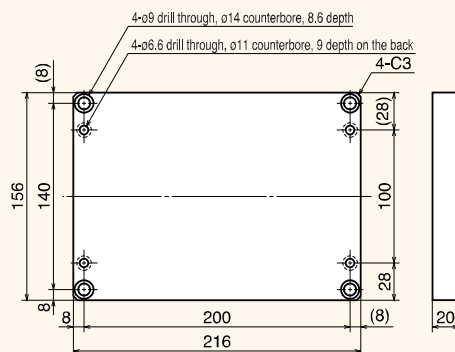
XY-P170S-2



About 0.4kg

Accessory
Hexagon socket head bolt M5 x 20 — 4 pcs

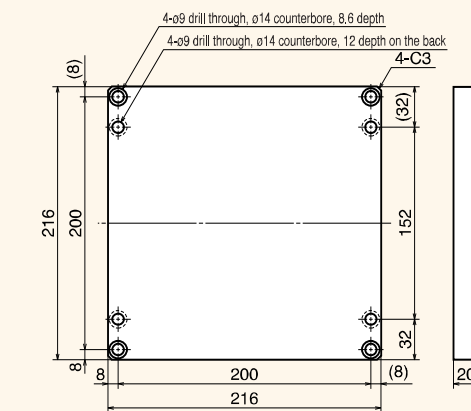
XY-P170M-1



About 1.8kg

Accessory
Hexagon socket head bolt M6 x 20 — 4 pcs.

XY-P170H-1



About 2.4kg

Accessory
Hexagon socket head bolt M8 x 20 — 4 pcs.

Robot Module™ – MR Series Limit Sensor Kits

XY - L * * * * RM

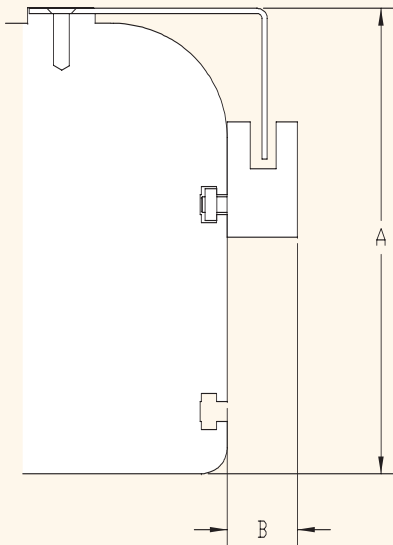
Definition of ****

3542: RH Sensor Kit
3543: RM Sensor Kit
3544: RS Sensor Kit



- Provides necessary hardware to set module stroke limits and home position externally.
- Specially designed kit for each module type.
- Sensors are mounted using module T-slots for maximum flexibility in positioning sensors.
- Kits come with “High-Flex” sensor cable for high reliability.
- Sensor flag mounts below slider mounting surface.

Module Cross Section



	Dimension A	Dimension B
RH Module	90mm	14mm
RM Module	85mm	14mm
RS Module	70mm	14mm

RH Module Sensor Kit- PN XY-L3542RM

- RH Module Limit Sensor Flag qty 1
- Limit Sensor (Omron EE-SX672A) qty 3
- Limit Sensor Cable with Connector, 2m long (Omron EE-1010-R2M) qty 3
- Limit Sensor T-Slot Nut Plate qty 3
- M3 x 8 Socket Head Cap Screw qty 6
- M3 x 6 Flat Head Screw qty 1

RM Module Sensor Kit- PN XY-L3543RM

- RM Module Limit Sensor Flag qty 1
- Limit Sensor (Omron EE-SX672A) qty 3
- Limit Sensor Cable with Connector, 2m long (Omron EE-1010-R2M) qty 3
- Limit Sensor T-Slot Nut Plate qty 3
- M3 x 8 Socket Head Cap Screw qty 6
- M3 x 6 Flat Head Screw qty 1

RS Module Sensor Kit- PN XY-L3544RM

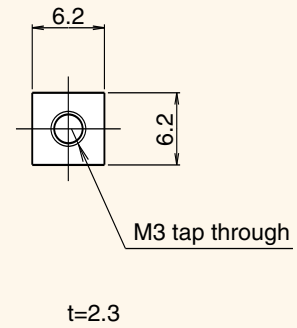
- RS Module Limit Sensor Flag qty 1
- Limit Sensor (Omron EE-SX672A) qty 3
- Limit Sensor Cable with Connector, 2m long (Omron EE-1010-R2M) qty 3
- Limit Sensor T-Slot Nut Plate qty 3
- M3 x 8 Socket Head Cap Screw qty 6
- M3 x 6 Flat Head Screw qty 1

Robot Module™ – MR Series Square Nut for Module T-Slots

XY - P170 M 3 - 1

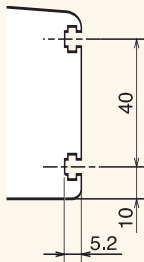
- This nut is used to secure accessories to the side of the module.
- Nuts are supplied in sets of 4.
- T-slot locations are shown below for the various module types.

XY-P170M3-1

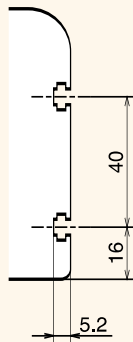


T-Slot Locations on Modules

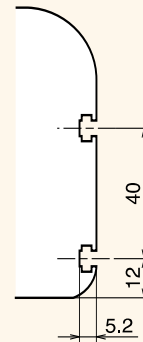
RS Module



RM Module



RH Module



NSK Precision America, Inc.
 US Headquarters &
 Manufacturing Facility
 3450 Bearing Drive
 Franklin, IN 46131
 tel: 1-800-255-4773
 www.nskprecision.com



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India:

Rane NASTECH Ltd.
 Chennai tel: 04114-65313, 65314, 65365, 66002
 NSK representative office
 Chennai tel: 044-4334732

Indonesia:

PT. NSK Bearings Manufacturing Indonesia
 Jakarta tel: 021-898-0155

Korea:

NSK Korea Co., Ltd.
 Seoul tel: 02-3287-0300
 NSK Korea Co., Ltd., Changwon Plant
 Changwon tel: 0551-287-6001

Malaysia:

NSK Bearings (Malaysia) Sdn. Bhd.
 Kuala Lumpur tel: 03-7958-4396
 NSK Micro Precision (M) Sdn. Bhd.
 Kuala Lumpur tel: 03-961-6288

New Zealand:

NSK New Zealand Ltd.
 Auckland www.nsk-rhp.co.nz
 tel: (09) 276-4992

Philippines:

NSK representative office
 Manila tel: 02-759-6246

Singapore:

NSK International (Singapore) Pte Ltd.
 Singapore tel: (65) 273 0357
 NSK Singapore (Pte) Ltd.
 Singapore tel: (65) 278 1711

Taiwan:

Taiwan NSK Precision Co., Ltd.
 Taipei tel: 02-2591-0656

Thailand:

NSK Bearings (Thailand) Co., Ltd.
 Bangkok tel: 02-6412150-58
 NSK Safety Technology (Thailand) Co., Ltd.
 Chonburi tel: (038) 214-317-8
 Siam NASTECH Co., Ltd.
 Chachoengsao tel: (038) 522-343-350

Europe

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NSK Deutschland GmbH
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Neueweg Fertigung GmbH

Munderkingen tel: 07393-540

Italy:

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 Milano tel: 02-995-191

Poland:

NSK Europe Ltd. Warsaw Liaison Office
 Warsaw tel: 48-22-645-1525, 1526

NSK Iskra S.A.

Kielce tel: 48-41-366-6111

Spain:

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United Kingdom:

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