

Kawasaki Robot Lineup



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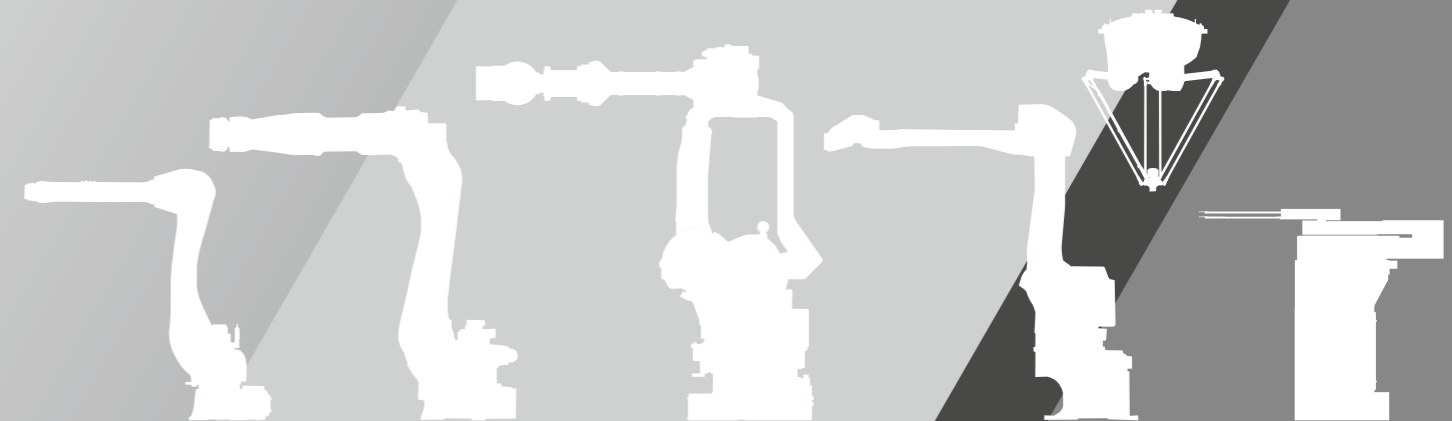
* Materials and specifications are subject to change without notice.

CAUTIONS TO BE TAKEN TO ENSURE SAFETY

- For those persons involved with the operation / service of your system, including Kawasaki Robot, they must strictly observe all safety regulations at all times. They should carefully read the Manuals and other related safety documents.
- Products described in this catalogue are general industrial robots. Therefore, if a customer wishes to use the Robot for special purposes, which might endanger operators or if the Robot has any problems, please contact us. We will be pleased to help you.
- Be careful as Photographs illustrated in this catalogue are frequently taken after removing safety fences and other safety devices stipulated in the safety regulations from the Robot operation system.



ISO certified in Akashi Works.



Our Product Philosophy is “Simple and friendly”

With more than 45 years’ experience in industrial robotics, we have consolidated our state-of-art technologies into productivity enhancing flexible automation solutions that are simple and friendly. Our product lineup offers comprehensive functionality with operational ease of use.

Kawasaki began the manufacture and sales of industrial robots in 1969. Since that time, we have consistently produced high quality, cost effective industrial robots featuring state-of-the-art technology for both the domestic and overseas markets.

Our broad product portfolio services a wide range of applications across diverse industries; from the assembly of miniature components weighing only a few grams, to the material handling of castings weighing 700 kg. Our high-performance lineup is supported by our continuous development of control technology to improve functionality and operation for optimum control of the manipulator.

Our human and environmentally friendly robot systems provide a high level of skill and intelligence. We hope that you will benefit from our technology and experience in your future automation projects to increase production, lower costs and improve quality.



- Small-to-medium payload Robots**
R-Series
- Large payload Robots**
CX-Series
- Large payload Robots**
Z-Series
- Extra large payload Robots**
M-Series
- Spot Welding Robots**
B-Series
- Arc Welding Robots**
RA/BA-Series
- Painting Robots**
Explosion-proof
K-Series
- Palletizing Robots**
RD/TD/MD/CP-Series
- Pick & Place Robots**
Y-Series
- Clean Robots**
NT-Series
- Medical & Pharmaceutical Robots**
MS/MC-Series

Small-to-medium payload robots up to 80 kg

R-Series

Setting the benchmark in its class - higher speed and longer reach in a compact design.



RS020N

Large payload robots up to 210 kg

CX-Series

Kawasaki's latest advances in technology deliver increased robot motion speed and installation flexibility.



CX210L

		RS003N	RS005N/005L	RS006L/010N	RS015X	RS010L/020N	RS030N/050N/080N
Application		●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●
Degree of freedom		6					
Max. payload (kg)		3	5	6/10	15	10/20	30/50/80
Max. reach (mm)		620	705/903	1,650/1,450	3,150	1,925/1,725	2,100
Repeatability (mm)*1		±0.05	±0.02/±0.03	±0.05/±0.04	±0.15	±0.06/±0.05	±0.07
Motion range (°)	Arm rotation (JT1)	±160	±180	±180	±180	±180	±180
	Arm out-in (JT2)	+150 - -60	+135 - -80	+145 - -105	+140 - -105	+155 - -105	+140 - -105
	Arm up-down (JT3)	+120 - -150	+118 - -172	+150 - -163	+135 - -155	+150 - -163	+135 - -155
	Wrist swivel (JT4)	±360	±360	±270	±360	±270	±360
	Wrist bend (JT5)	±135	±145	±145	±145	±145	±145
	Wrist twist (JT6)	±360	±360	±360	±360	±360	±360
Max. speed (°/s)	Arm rotation (JT1)	360	360/300	250	180	190	180
	Arm out-in (JT2)	250	360/300	250	180	205	180
	Arm up-down (JT3)	225	410/300	215	200	210	185/185/160
	Wrist swivel (JT4)	540	460	365	410	400	260/260/185
	Wrist bend (JT5)	225	460	380	360	360	260/260/165
	Wrist twist (JT6)	540	740	700	610	610	360/360/280
Mass (kg)		20	34/35	150	545	230	555
Installation		Floor, Ceiling					
Controller	America	E76	E77	E01/E40/E71	E02/E42	E01/E40/E91	E02/E42
	Europe	E70	E71				
	Japan & Asia	E73	E74				

*1 conforms to ISO9283 *2 Model code has changed. The configuration is also slightly different from that shown in the photo.
Application: ● Assembly ● Dispensing ● Machine tending ● Material handling ● Material removal ● Palletizing ● Arc welding

		CX110L	CX165L	CX210L
Application		●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●
Degree of freedom		6		
Max. payload (kg)		110	165	210
Max. reach (mm)		2,699	2,699	2,699
Repeatability (mm)*1		±0.3	±0.3	±0.3
Motion range (°)	Arm rotation (JT1)	±160	±160	±160
	Arm out-in (JT2)	+80 - -60	+80 - -60	+80 - -60
	Arm up-down (JT3)	+95 - -83	+95 - -83	+95 - -83
	Wrist swivel (JT4)	±210	±210	±210
	Wrist bend (JT5)	±120	±120	±120
	Wrist twist (JT6)	±360	±360	±360
Max. speed (°/s)	Arm rotation (JT1)	140	130	125
	Arm out-in (JT2)	135	120	115
	Arm up-down (JT3)	135	120	115
	Wrist swivel (JT4)	250	180	180
	Wrist bend (JT5)	250	180	180
	Wrist twist (JT6)	320	260	220
Mass (kg)		800	800	800
Installation		Floor		
Controller	America	E02		
	Europe			
	Japan & Asia			

*1 conforms to ISO9283
Application: ● Assembly ● Material handling ● Palletizing ● Spot welding

Large payload robots up to 300 kg

Z-Series

Robust low-maintenance design with wide work envelope provides application flexibility.



ZX165U

Extra large payload robots up to 700 kg

M-Series

Maximum payload capacity: 700 kg. The M-Series offers compact profile and high wrist torque.



MX500N

		ZX130S/130L/165U/200S/300S	ZH100U	ZT130S/165U/200S	ZT130Y/165X/165Y
Application		●●●●	●●●	●●●●	●●●●
Degree of freedom		6			
Max. payload (kg)		130/130/165/200/300	100	130/165/200	130/165/165
Max. reach (mm)		2,651/2,951/2,651/2,651/2,501	1,634	3,230	3,130/2,830/3,130
Repeatability (mm)*1		±0.3	±0.3	±0.3	±0.3
Motion range (°)	Arm rotation (JT1)	±180	±160	±180	±180
	Arm out-in (JT2)	+75 - -60	+120 - -60	+60 - -75	+50 - -120
	Arm up-down (JT3)	+250 - -120	+75 - -90	+165 - -95	+150 - -65
	Wrist swivel (JT4)	±360	±360	±360	±360
	Wrist bend (JT5)	±130/±130/±130/±120/±120	±130	±130/±130/±120	±130
	Wrist twist (JT6)	±360	±360	±360	±360
Max. speed (°/s)	Arm rotation (JT1)	130/110/110/105/100	140	130/105/100	120/120/105
	Arm out-in (JT2)	130/110/110/110/85	100	130/105/100	110/110/105
	Arm up-down (JT3)	130/110/115/105/85	100	130/105/90	115/115/100
	Wrist swivel (JT4)	180/140/140/120/90	150	180/135/120	160/140/140
	Wrist bend (JT5)	180/135/155/120/90	150	180/135/115	180/155/155
	Wrist twist (JT6)	280/230/260/200/150	250	280/210/180	280/260/260
Mass (kg)		1,350/1,400/1,350/1,400/1,400	750	1,550/1,550/1,600	1,665/1,650/1,665
Installation		Floor		Shelf	
Controller	America	E32			
	Europe	E42			
	Japan & Asia	E22			

*1 conforms to ISO9283
Application: ● Assembly ● Material handling ● Palletizing ● Spot welding

		MX350L	MX420L	MX500N	MX700N	MT400N
Application				●●		
Degree of freedom		6				
Max. payload (kg)		350	420	500	700	400
Max. reach (mm)		3,018	2,778	2,540	2,540	3,503
Repeatability (mm)*1		±0.5	±0.5	±0.5	±0.5	±0.5
Motion range (°)	Arm rotation (JT1)	±180	±180	±180	±180	±180
	Arm out-in (JT2)	+90 - -45	+90 - -45	+90 - -45	+90 - -45	+15 - -135
	Arm up-down (JT3)	+20 - -115	+20 - -125	+20 - -130	+20 - -130	+106 - -30
	Wrist swivel (JT4)	±360	±360	±360	±360	±360
	Wrist bend (JT5)	±110	±110	±110	±110	±120
	Wrist twist (JT6)	±360	±360	±360	±360	±360
Max. speed (°/s)	Arm rotation (JT1)	80	80	80	65	80
	Arm out-in (JT2)	70	70	70	50	70
	Arm up-down (JT3)	70	70	70	45	70
	Wrist swivel (JT4)	80	80	80	50	70
	Wrist bend (JT5)	80	80	80	50	70
	Wrist twist (JT6)	120	120	120	95	130
Mass (kg)		2,800	2,800	2,750	2,860	2,600
Installation		Floor				Shelf
Controller	America	E34				E32
	Europe	E44				E42
	Japan & Asia	E24				E22

*1 conforms to ISO9283
Application: ● Machine tending ● Material handling

Spot Welding Robots

B-Series

High speed spot welding with greater spot control. Space saving design supports “high density” applications.



BX200L

Arc Welding Robots

Kawasaki robots use the latest arc welding technology to rival the quality of a skilled human welder.



BA006N

		BX100S	BX100N	BX100L/165L/200L	BX130X	BX165N	BX250L/300L	BT200L
Application		●						
Degree of freedom		6						
Max. payload (kg)		100	100	100/165/200	130	165	250/300	200
Max. reach (mm)		1,634	2,200	2,597	2,991	2,325	2,812	3,151
Repeatability (mm)*1		±0.2	±0.2	±0.2	±0.2	±0.2	±0.2	±0.2
Motion range (°)	Arm rotation (JT1)	±160	±160	±160	±160	±160	±180	±160
	Arm out-in (JT2)	+120 - -65	+120 - -65	+76 - -60	+76 - -60	+76 - -60	+76 - -60	+80 - -130
	Arm up-down (JT3)	+90 - -81	+90 - -77	+90 - -75	+90 - -75	+90 - -75	+90 - -120	+90 - -75
	Wrist swivel (JT4)	±210	±210	±210	±210	±210	±210	±210
	Wrist bend (JT5)	±125	±125	±125	±125	±125	±125	±125
	Wrist twist (JT6)	±210	±210	±210	±210	±210	±210	±210
Max. speed (°/s)	Arm rotation (JT1)	135	135	105/120/105	105	105	125	105
	Arm out-in (JT2)	125	110	130/110/90	90	130	120/102	85
	Arm up-down (JT3)	155	140	130/130/100	130	130	100/85	100
	Wrist swivel (JT4)	200	200	200/170/120	200	120	140/105	120
	Wrist bend (JT5)	160	200	160/170/120	160	160	140/110	120
	Wrist twist (JT6)	300	300	300/280/200	300	300	200/180	200
Mass (kg)		720	740	930	970	903	1,460	1,100
Installation		Floor						Shelf
Controller	America	E02/E42						
	Europe							
	Japan & Asia							

*1 conforms to ISO9283
Application: ● Spot welding

		BA006N	RA006L	RA010N	RA010L	RA020N
Application		●				
Degree of freedom		6				
Max. payload (kg)		6	6	10	10	20
Max. reach (mm)		1,445	1,650	1,450	1,925	1,725
Repeatability (mm)*1		±0.06	±0.06	±0.06	±0.06	±0.06
Motion range (°)	Arm rotation (JT1)	±165	±180	±180	±180	±180
	Arm out-in (JT2)	+150 - -90	+145 - -105	+145 - -105	+155 - -105	+155 - -105
	Arm up-down (JT3)	+90 - -175	+150 - -163	+150 - -163	+150 - -163	+150 - -163
	Wrist swivel (JT4)	±180	±270	±270	±270	±270
	Wrist bend (JT5)	±135	±145	±145	±145	±145
	Wrist twist (JT6)	±360	±360	±360	±360	±360
Max. speed (°/s)	Arm rotation (JT1)	240	250	250	190	190
	Arm out-in (JT2)	240	250	250	205	205
	Arm up-down (JT3)	220	215	215	210	210
	Wrist swivel (JT4)	430	365	365	400	400
	Wrist bend (JT5)	430	380	380	360	360
	Wrist twist (JT6)	650	700	700	610	610
Mass (kg)		150	150	150	230	230
Installation		Floor, Ceiling				
Controller	America	E01	E01/E40			
	Europe					
	Japan & Asia					

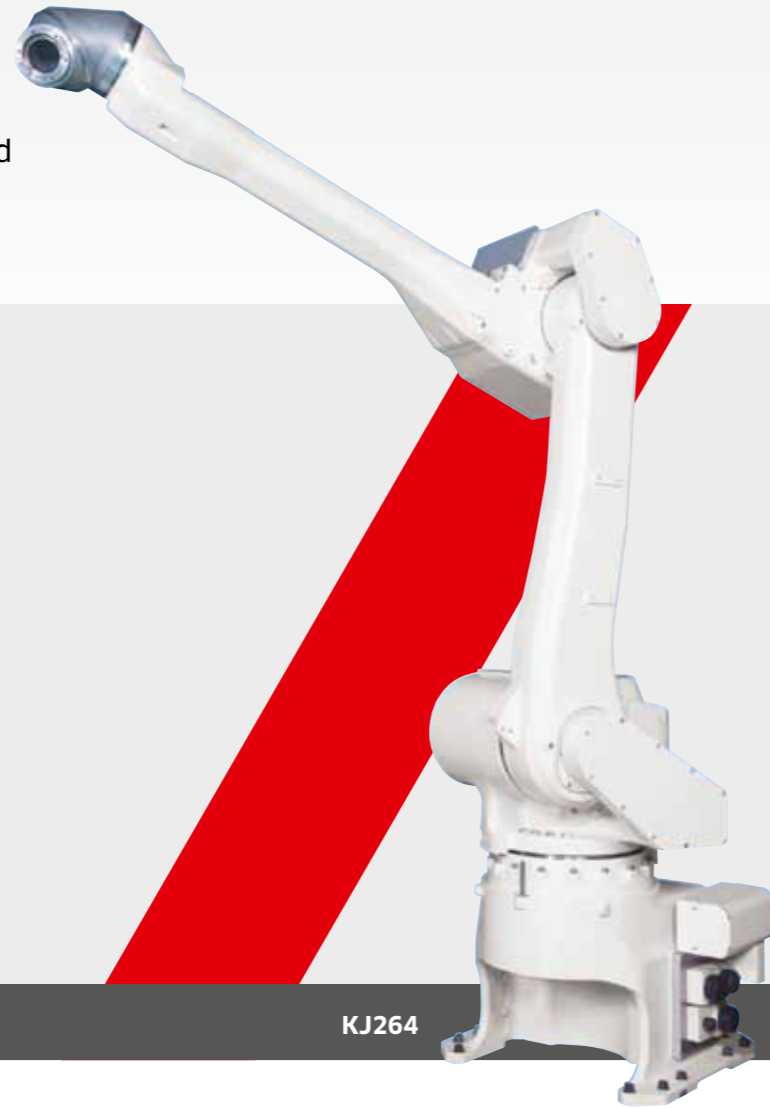
*1 conforms to ISO9283
Application: ● Arc welding

Painting Robots explosion-proof

K-Series

The optimum wrist configuration and model can be selected according to the workpiece.

Servo controlled part positioning equipment available.



KJ264

Palletizing Robots

Kawasaki's high-speed palletizing robots meet the demands for flexibility and speed.



CP500L

	KF121	KF192/193/194	KF262/263/264	KG264	KJ264(Floor/Shelf/Wall)/314	
Application	●					
Degree of freedom	6				6/6/6/7	
Max. payload (kg)	5	Wrist : 12 Arm : 20	Wrist : 12 Arm : 20	Wrist : 20 Arm : 30	Wrist : 15 Arm : 25	
Max. reach (mm)	1,240	1,973/1,973/1,978	2,665/2,665/2,668	2,665	2,640/2,640/2,640/3,100	
Repeatability (mm)*1	±0.2	±0.5	±0.5	±0.5	±0.5	
Motion range (°)	Arm rotation (JT1)	±160*2	±150*2	±150*2	±120*2	±120/±120/+30 - -120/±120
	Arm out-in (JT2)	±90	+110 - -60	+110 - -60	+120 - -60	+130 - -80
	Arm up-down (JT3)	±150	+90 - -80	+90 - -80	+90 - -65	+90 - -65
	Wrist swivel (JT4)	±270	±360/±720/±720	±360/±720/±720	±720	±720
	Wrist bend (JT5)	±145	±360/±720/±720	±360/±720/±720	±720	±720
	Wrist twist (JT6)	±360	±360/±410/±410	±360/±410/±410	±410	±410
	Arm swing (JT7)	-	-	-	-	-/-/-/±90
Wrist type	RBR	BBR/3Rø40/3Rø70	BBR/3Rø40/3Rø70	3Rø70	3Rø70	
Mass (kg)	140	690/720/750	720/740/770	795	540/530/530/720	
Explosion protection	Combination of pressurized type and intrinsically safety type (Expib II BT4/Exib II BT4)				Combination of pressurized type and intrinsically safety type (f2G4/Exib II BT4)	
Installation	Floor, Wall				Floor/Shelf/Wall	
Controller	America	E37		E35		
	Europe	E47		E45		
	Japan & Asia	E27		E25		

*1 conforms to ISO9283 *2 smaller at wall mount position
Application: ● Painting

	RD80N	ZD130S	ZD250S	CP180L	CP300L	CP500L	
Application	●						
Degree of freedom	5	4 (5 : option)					
Max. payload (kg)	80	130	250	180	300	500	
Motion range (°)	Arm rotation (JT1)	±180	±180	±180	±160	±160	±160
	Arm out-in (JT2)	+140 - -105	+90 - -50	+90 - -50	+95 - -46	+95 - -46	+95 - -46
	Arm up-down (JT3)	+40 - -205	+15 - -120	+15 - -120	+15 - -110	+15 - -110	+15 - -110
	Wrist swivel (JT4)	±360	±360	±360	±360	±360	±360
	Wrist compensation (JT5)	±10*1	-	-	-	-	-
Max. speed (°/s)	Arm rotation (JT1)	180	148	95	140*4/130	115*5/100	85
	Arm out-in (JT2)	180	110	90	125*4/120	100*5/90	80
	Arm up-down (JT3)	175	130	95	130*4/125	100*5/90	80
	Wrist swivel (JT4)	360	400	190	400*4/330	250*5/220	180
Moment of inertia (kg•m ²)	13,7	50	100	50*4/85	100*5/140	250	
Palletizing capacity*2 (Payload)	900 cycle/hour	1,700 cycle/hour	1,500 cycle/hour	2,050*4/1,800 cycle/hour	1,700*5/1,500 cycle/hour	1,000 cycle/hour	
Positional repeatability (mm)	±0.07	±0.5	±0.5	±0.5	±0.5	±0.5	
Mass (kg)	540	1,350	1,350	1,600	1,600	1,650	
Power requirements (kVA)*3	4.5	10		12			
Controller	America	E32	E33		E03		
	Europe	E42	E43				
	Japan & Asia	E22	E23				

*1 operating angle of the JT5 is ±10 degrees perpendicular to the ground. *2 Motion pattern (400mm up, 2,000mm horizontal, 400mm down in a to-and-fro motion)
*3 depends on the payload and motion patterns *4 in case of 130 kg payload and less *5 in case of 250 kg payload and less
Application: ● Palletizing

Pick & Place Robots

Y-Series

Ultra high-speed picking robot with renowned Kawasaki product quality and reliability.



		YS002N	YF003N
Application		● ●	
Type		Parallel link type	
Max. payload (kg)		2	3
Degree of freedom (axes)	Standard	4	
	Option	-	5
Motion range (mm)		ø600 × H200 ^{*4}	ø1,300 × H500 ^{*5}
Cycle time ^{*1} (Payload)		0.3 s (0.5 kg) 0.36 s (2 kg)	0.27 s (1 kg) 0.45 s (3 kg)
Positional repeatability ^{*2} (mm)		± 0.04	± 0.1
Angular repeatability (°)		± 0.1	
Mass (kg)		60	145
Body color		Munsell 10GY9/1 equivalent	
Installation		Ceiling	
Environmental condition	Ambient Temperature (°C)	0 - 40	0 - 45
	Relative Humidity (%)	35 - 85 (No dew, nor frost allowed)	
Power requirements ^{*3} (kVA)		3.0	4.0
Degree of protection	Standard	IP65	
	Option	-	IP 67
Controller	America	E97	E20, E97
	Europe	E91	E40, E91
	Japan & Asia	E94	E30, E94

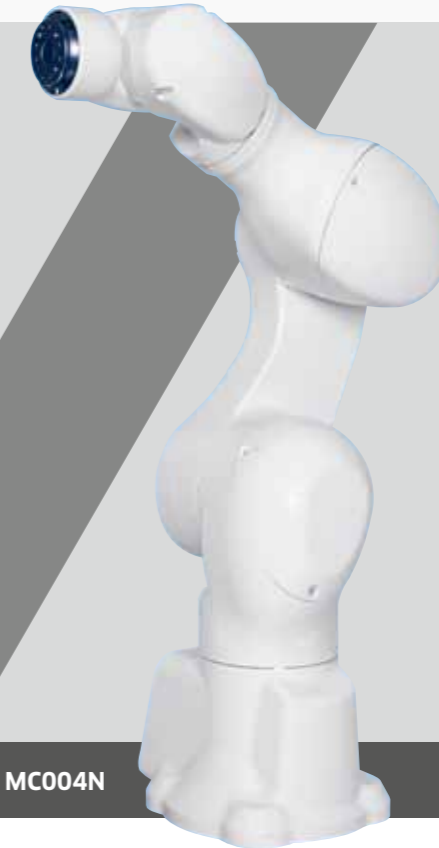
^{*1} Motion pattern (25mm up, 305mm horizontal, 25mm down in a to-and-fro motion)
^{*2} conforms to ISO9283 ^{*3} depends on the payload and motion patterns ^{*4} Motion range is changing at H=150 ^{*5} Motion range is changing at H=300
 Application: ● Assembly ● Material handling

YF003N

Medical & Pharmaceutical Robots

MC004N

A clean robot for medical and pharmaceutical applications.



		MC004N
Degree of freedom		6
Max. payload (kg)		4
Max. reach (mm)		505.8
Repeatability (mm) ^{*1}		±0.05
Motion range (°)	Arm rotation (JT1)	±180
	Arm out-in (JT2)	+135 - -95
	Arm up-down (JT3)	+60 - -155
	Wrist swivel (JT4)	±270
	Wrist bend (JT5)	±120
	Wrist twist (JT6)	±270
Max. speed (°/s)	Arm rotation (JT1)	200
	Arm out-in (JT2)	180
	Arm up-down (JT3)	225
	Wrist swivel (JT4)	700
	Wrist bend (JT5)	500
	Wrist twist (JT6)	350
Mass (kg)		25
Installation		Floor, ceiling
Controller	America	E76
	Europe	E70
	Japan & Asia	E73

^{*1} conforms to ISO9283

MC004N

Clean Robots

NT-Series

Horizontal Articulated type

We offer a wide range of clean robots that can be used in semi-conductor manufacturing lines.



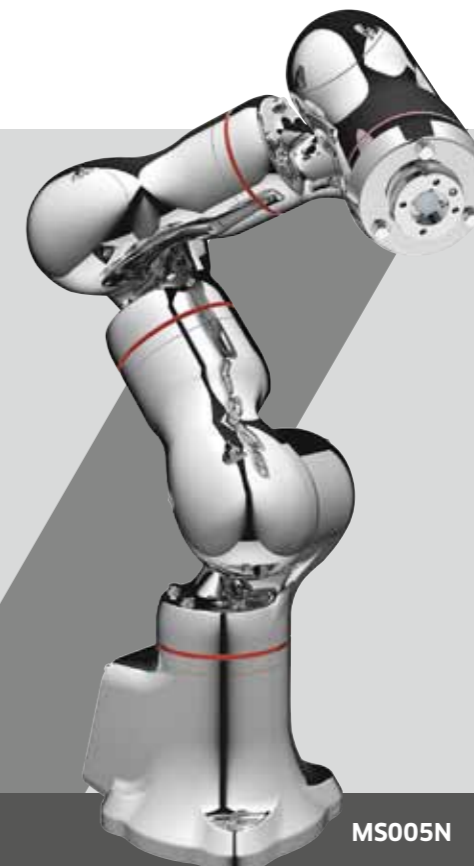
First in industry!
4 FOUPs without traverse truck.

Fastest in industry!
Higher than 500WPH is possible with option.

NT520

MS005N

MS005N is an enhanced version of the MC004N. An all stainless steel robot for medical and pharmaceutical applications with 7 axes.



		MS005N
Degree of freedom		7
Max. payload (kg)		5
Max. reach (mm)		660
Repeatability (mm) ^{*1}		±0.1
Motion range (°)	Arm rotation (JT1)	±180
	Arm out-in (JT2)	+135 - -90
	Arm up-down (JT3)	±120
	Wrist swivel (JT4)	±180
	Wrist bend (JT5)	±115
	Wrist twist (JT6)	±180
	Wrist twist (JT7)	±180
Max. speed (°/s)	Arm rotation (JT1)	130
	Arm out-in (JT2)	130
	Arm up-down (JT3)	255
	Wrist swivel (JT4)	300
	Wrist bend (JT5)	300
	Wrist twist (JT6)	480
	Wrist twist (JT7)	215
Mass (kg)		50
Installation		Floor, ceiling
Controller	America	E76
	Europe	E70
	Japan & Asia	E73

^{*1} conforms to ISO9283

MS005N

Controller

Combines high performance, unprecedented reliability, a host of integrated features and simple operation all in a compact design.

The enhanced CPU capacity allows for more accurate trajectory control and faster application program execution.



E73



E94



E01/02/03



E40



E35



D60

America	E76/77	E97	E01/02/03
Europe	E70/71	E91	
Japan & Asia	E73/74	E94	
Features	The E7X controllers are extremely compact, and specially designed for small robot arms (RS03N, 05N, 05L, 06L and 10N). Though compact in design, these controllers offer high performance and expandability.	The E9X controllers are extremely compact, and specially designed for medium robot arms (Y-series, RS10L and RS20N). This compact size enables it to be installed vertically or horizontally in practically any location, such as under a conveyor or on an arm mount rack.	The E0X controllers are standard for world-wide use and available for multiple primary power supply voltages with a separate transformer unit. Achieve extremely compact design, compared to E2X/3X/4X controllers. The E03 controller, for use on palletizing robots, has an electricity regeneration function that reduces energy consumption.
Type of driving	Full digital servo system	Full digital servo system	Full digital servo system
Programming	Block and AS-Language	Block and AS-Language	Block and AS-Language
Teach pendant	Color LCD teach pendant	Color LCD teach pendant	Color LCD teach pendant
Memory capacity (MB)	8	8	8
I/O signals	External operation	Emergency stop, Hold etc.	Emergency stop, Hold etc.
	Input (Channels)	32 (max. 96)	32 (max. 96)
	Output (Channels)	32 (max. 96)	32 (max. 96)
Structure	Enclosed structure with indirect cooling system	Open structure with direct cooling system (Option: Enclosed structure)*1	Enclosed structure with indirect cooling system
Mass (kg)	30	40	40/40/45

*1 Enclosed structure with indirect cooling system In the case of E91

America	E30/32/33/34	E35/37	D60/61
Europe	E40/42/43/44	E45/47	
Japan & Asia	E10/12/13/14/20/22/23/24	E25/27	
Features	These controllers are optimum controllers for each region's primary power supply voltage and have high expandability and maintainability.	These controllers are for explosion-proof painting robots with a new explosion-proof teach pendant featuring a color LCD. Programming and editing work can efficiently be carried out from inside the explosion-proof paint booth.	The D6X controllers are for semiconductor robots. The D60 controller is for single robot and the D61 controller is for two robots. The D60 controller can control 7 axes and the D61 controller can control 12 axes, both come with compact packaging. The D6X controllers are world-wide use, meeting all SEMI and CE marking.
Type of driving	Full digital servo system	Full digital servo system	Full digital servo system
Programming	Block and AS-Language	Block and AS-Language	Block and AS-Language
Teach pendant	Color LCD teach pendant	Explosion-proof teach pendant Color LCD teach pendant	Small teach pendant
Memory capacity (MB)	8	8	8
I/O signals	External operation	Emergency stop, Hold etc.	Emergency stop, Hold etc.
	Input (Channels)	32 (max. 128)	32 (max. 128)
	Output (Channels)	32 (max. 128)	32 (max. 128)
Structure	Enclosed structure with indirect cooling system	Enclosed structure with indirect cooling system	Open structure with direct cooling system
Mass (kg)	145/180/195/180*2,*3	170*2	14/20

*2 for America *3 for MX series

Teach pendant

Color LCD teach pendant for the E series controllers

The teach pendant boasts a significantly lighter body with an optimized weight balance that reduces the burden of teaching work. The operator can now switch on the motors and activate the cycle start all from the teach pendant. In addition, new features such as the easy-to-navigate screen and switch layout allow for a more convenient control system. Two information windows can be displayed simultaneously on the monitor screen, providing access to different type of information (e.g. positional information and signal information).



Explosion-proof teach pendant

The explosion-proof teach pendant features a color LCD with a large-sized touch screen that allows for teaching, editing, and monitoring of information such as current position and I/O signals in the painting area. It is possible to customize the interface panel according to user preference. The backlight provides a clear view of the screen in dark locations.

