

KAWASAKI ROBOT PRODUCTS

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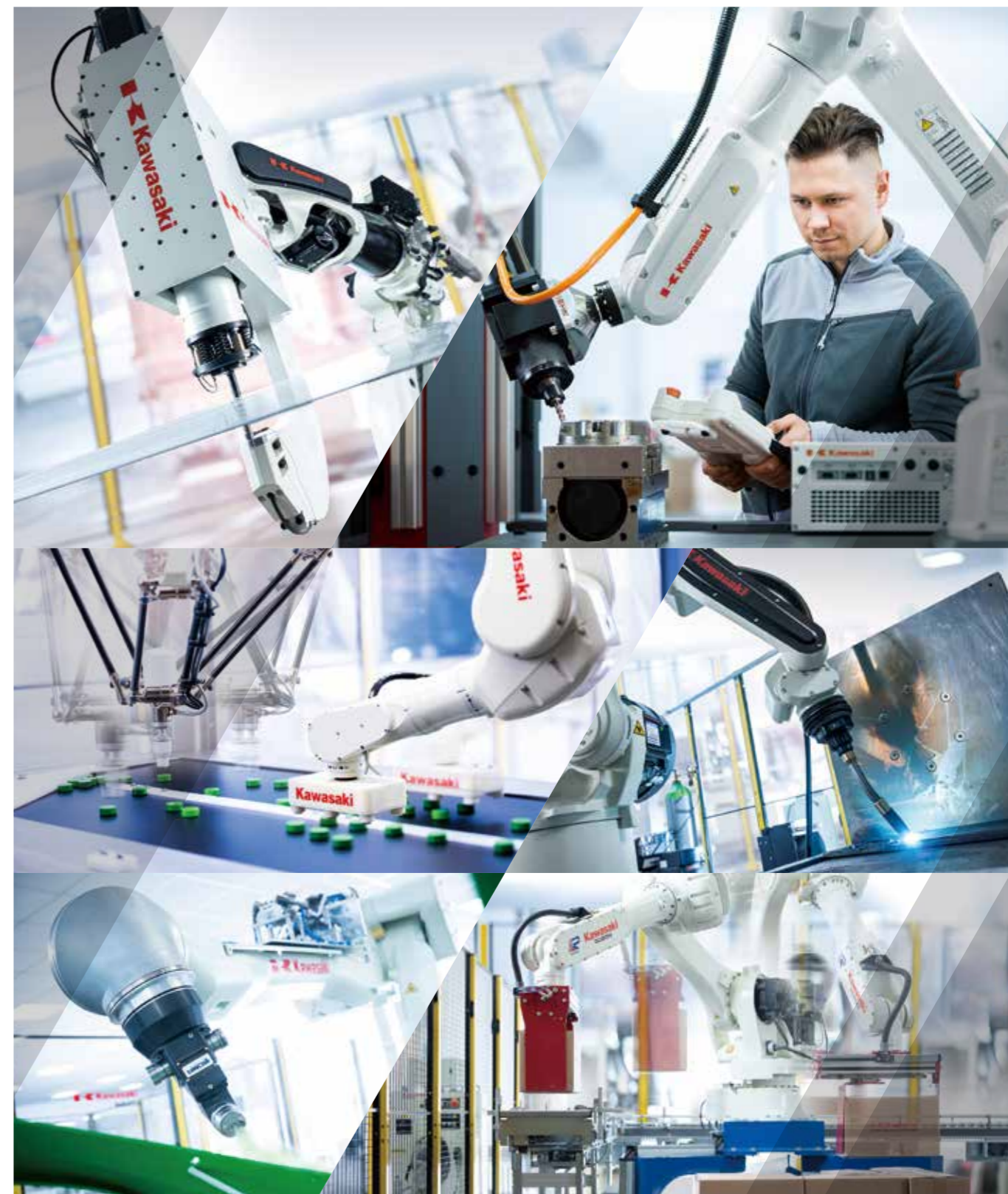
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CAUTIONS TO BE TAKEN TO ENSURE SAFETY

- For any persons involved with the operation / servicing of your system, including Kawasaki Robot, they must strictly observe all safety regulations at all times. Please 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 happy to help you.
- Please be careful as Photographs illustrated in this catalogue are frequently taken after the removal of safety fences and other safety devices stipulated in the safety regulations from the Robot operation system.

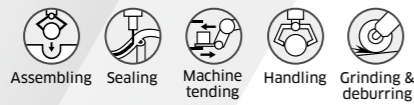
Unlocking Human Ingenuity to Create Robotics that Enrich the Future

With a vision of a prosperous society where people and robots coexist, we strive to deliver our robots to everyone who seeks them. As a comprehensive robot manufacturer that stands close to our customers, Kawasaki will continue to take on new challenges.

Backed by more than half a century of experience and proven achievements in the industrial robot field, Kawasaki Robotics delivers optimal automation and labor-saving solutions tailored to a wide range of industries and applications.

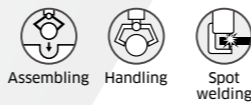
Small-to-Medium Robots up to 80kg payload P03

RS series



Large Robots up to 300kg payload P04

BXP/BTP series
BX series ZX series



Extra Large Robots up to 1,500kg payload P05

MXP series MG series



Explosion-Proof Painting Robots P05-06

K series



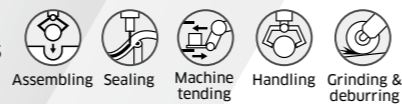
Sealing Robots P06

BU series



Collaborative Robots P06

duAro series



Arc Welding Robots P07

BA series RA series



Palletizing Robots P07

CP series RD series



Medical & Pharmaceutical Robots P08

MC series



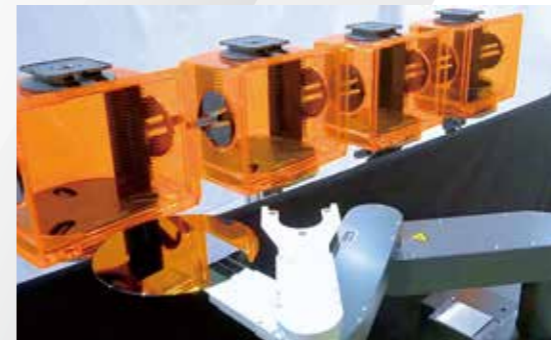
Picking Robots P08

YF series



Wafer Transfer Robots P08

NTJ series TTJ series NTH series
NX series NV series



Solution P09

Visual Inspection Robot System



Depalletizing Solution

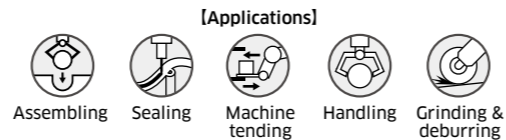


Controllers / Teach Pendant P09

Option / Software P10

Small-to-Medium Robots up to 80kg payload

RS series



- Wide range of lineup for every application.
- Industry-leading operation speed.
- Compact, yet wide work range.



		RS series				
		RS003N	RS007N	RS007L	RS010L	RS013N
Degree of freedom (axes)		6				
Payload (kg)		7				
Max.reach(mm)		620	730	930	1,925	1,460
Position repeatability*1 (mm)		±0.02	±0.02	±0.03	±0.05	±0.03
Motion range (°)	Arm rotation (JT1)	±180				
	Arm out-in (JT2)	+150 - -60	±135		±155 - -105	+138 - -105
	Arm up-down (JT3)	+120 - -150	±155	±157	+150 - -163	+135 - -159
	Wrist swivel (JT4)	±360	±200		±270	±200
	Wrist bend (JT5)	±135	±125		±145	±125
	Wrist twist (JT6)	±360				
Max. speed (°/s)	Arm rotation (JT1)	360	470	370	190	265
	Arm out-in (JT2)	250	380	310	205	250
	Arm up-down (JT3)	225	520	410	210	265
	Wrist swivel (JT4)	540	550		400	475
	Wrist bend (JT5)	225	550		360	475
Wrist twist (JT6)	540	1,000		610	730	
Mass(kg)	20	35	36	230	170	
Mounting		Floor, Ceiling				
Degrees of protection		All axes: IP54	Wrist: IP67 or equivalent	Base axes: IP65 or equivalent		All axes: IP67
Cleanliness		Class 6 equivalent *Not a guaranteed value				
Controller/Power requirements		F60/2.0kVA	F60/2.0kVA, F01/5.6kVA		F01/5.6kVA	F60/2.0kVA, F01/5.6kVA

*1: Conforms to ISO9283.

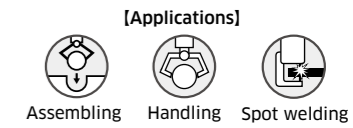


		RS series					
		RS015X	RS025S	RS025N	RS030N	RS050N	RS080N
Degree of freedom (axes)		6					
Payload (kg)		15	25	30		50	80
Max.reach(mm)		3,150	1,325	1,885	2,100		
Position repeatability*1 (mm)		±0.06	±0.04		±0.06		
Motion range (°)	Arm rotation (JT1)	±180					
	Arm out-in (JT2)	+140 - -105	+131 - -100		+140 - -105		
	Arm up-down (JT3)	+135 - -155	+145 - -155	+145 - -161	+135 - -155		
	Wrist swivel (JT4)	±360	±270		±360		
	Wrist bend (JT5)	±145					
	Wrist twist (JT6)	±360					
Max. speed (°/s)	Arm rotation (JT1)	180	215		180		
	Arm out-in (JT2)	180	215		180		
	Arm up-down (JT3)	200	270		185	160	
	Wrist swivel (JT4)	410	290	420	260	185	
	Wrist bend (JT5)	360	410	420	260	165	
Wrist twist (JT6)	610	730	780	360	280		
Mass(kg)	545	265	270	555			
Mounting		Floor, Ceiling	Floor		Floor, Ceiling		
Degrees of protection		Wrist: IP67 or equivalent Base axes: IP65 or equivalent	All axes: IP67		Wrist: IP67 or equivalent	Base axes: IP65 or equivalent	
Cleanliness		Class 6 equivalent *Not a guaranteed value					
Controller/Power requirements		F02/7.5kVA					

*1: Conforms to ISO9283.

Large Robots up to 300kg payload

BXP/BTP series



- Higher speed thanks to new F series controller.
- Built-in cables and hoses.
- Lighter and more compact.



		BXP series						BTP series	
		BXP110S	BXP110L	BXP135X	BXP165N	BXP165L	BXP210L	BTP165L	BTP210L
Degree of freedom (axes)		6						6	
Payload (kg)		110						165	210
Max.reach(mm)		1,634	2,597	2,991	2,325	2,597		3,151	
Position repeatability*1 (mm)		±0.06						±0.08	
Motion range (°)	Arm rotation (JT1)	±160						±160	
	Arm out-in (JT2)	+120 - -65	+76 - -60				+80 - -130		
	Arm up-down (JT3)	+90 - -81	+90 - -75				+90 - -75		
	Wrist swivel (JT4)	±210						±210	
	Wrist bend (JT5)	±125						±125	
	Wrist twist (JT6)	±210						±210	
Max. speed (°/s)	Arm rotation (JT1)	140						125	115
	Arm out-in (JT2)	130	105	130	115	105	115	90	
	Arm up-down (JT3)	170	135	140	135	130	115	130	
	Wrist swivel (JT4)	220		190		140	140	140	
	Wrist bend (JT5)	185	200		180	135	180	135	
Wrist twist (JT6)	300		300		290	240	290	240	
Mass(kg)	700	870	880	855	870		1,030		
Mounting		Floor						Shelf	
Degrees of protection		Wrist: IP67 or equivalent				Base axes: IP54 or equivalent		Wrist: IP67 or equivalent Base axes: IP54 or equivalent	
Controller/Power requirements		F02/7.5kVA						F02/7.5kVA	

*1: Conforms to ISO9283.

BX series

- Built-in cables and hoses.
- Slim design and small footprint for high-density installations.



		BX series			
		BX100N	BX200X	BX250L	BX300L
Degree of freedom (axes)		6			
Payload (kg)		100	200	250	300
Max.reach(mm)		2,200	3,412	2,812	
Position repeatability*1 (mm)		±0.06	±0.07		
Motion range (°)	Arm rotation (JT1)	±180			
	Arm out-in (JT2)	+120 - -65	+76 - -60		
	Arm up-down (JT3)	+90 - -77	+90 - -110	+90 - -120	
	Wrist swivel (JT4)	±210			
	Wrist bend (JT5)	±125			
	Wrist twist (JT6)	±210			
Max. speed (°/s)	Arm rotation (JT1)	135	125		
	Arm out-in (JT2)	110	102	120	102
	Arm up-down (JT3)	140	85	100	85
	Wrist swivel (JT4)	200	105	140	105
	Wrist bend (JT5)	200	120	140	110
	Wrist twist (JT6)	300	200		180
Mass(kg)	740	1,450	1,460		
Mounting		Floor			
Degrees of protection		Wrist: IP67 or equivalent		Base axes: IP54 or equivalent	
Controller/Power requirements		F02/7.5kVA			

*1: Conforms to ISO9283.

ZX series

- Wide range of applications for every industry.
- Suitable for harsh environment thanks to wrist motors located at the shoulder.
- Wide motion range of 360°.

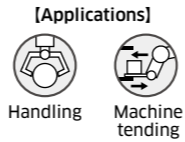


		ZX series				
		ZX130S	ZX130L	ZX165U	ZX200S	ZX300S
Degree of freedom (axes)		6				
Payload (kg)		130		165	200	300
Max.reach(mm)		2,651	2,951	2,651		2,501
Position repeatability*1 (mm)		±0.3				
Motion range (°)	Arm rotation (JT1)	±180				
	Arm out-in (JT2)	+75 - -60				
	Arm up-down (JT3)	+250 - -120				
	Wrist swivel (JT4)	±360				
	Wrist bend (JT5)	±130				
	Wrist twist (JT6)	±360				
Max. speed (°/s)	Arm rotation (JT1)	130	110		105	100
	Arm out-in (JT2)	130	110			85
	Arm up-down (JT3)	130	110	115	105	85
	Wrist swivel (JT4)	180	140		120	90
	Wrist bend (JT5)	180	135	155	120	90
	Wrist twist (JT6)	280	230	260	200	150
Mass(kg)	1,350	1,400	1,350	1,400		
Mounting		Floor				
Degrees of protection		-				
Controller/Power requirements		E02/7.5kVA				

*1: Conforms to ISO9283.

Extra Large Robots up to 1,500kg payload

MXP/MG series



- Max. payload of 1,500kg suitable for heavy workpieces, e.g. cast iron.
- Dynamic, yet accurate operations due to high positioning repeatability.
- The MG series has a slim body without a counter weight, allowing for a wide motion range and high rigidity.



	MXP series			MG series
	MXP360L	MXP410X	MXP710L	MG15HL
Degree of freedom (axes)	6			6
Payload (kg)	360	410	710	1,500
Max.reach(mm)	3,234	3,763	2,930	4,005
Position repeatability*1 (mm)	±0.08	±0.12	±0.08	±0.1
Motion range (°)	Arm rotation (JT1)	±160 (±185)	±160 (±180)	
	Arm out-in (JT2)	+90 - -75	+90 - -64	
	Arm up-down (JT3)	+50 - -120	+40 - -120	
	Wrist swivel (JT4)	±360		
	Wrist bend (JT5)	±125	±122	
	Wrist twist (JT6)	±360		
Max. speed (°/s)	Arm rotation (JT1)	100	82	65**
	Arm out-in (JT2)	86	70	33.5**
	Arm up-down (JT3)	86	70	37.5**
	Wrist swivel (JT4)	105	110	90
	Wrist bend (JT5)	105	110	90
	Wrist twist (JT6)	165	160	90
Mass(kg)	1,550	2,800	2,750	6,550
Mounting	Floor			Floor
Controller/Power requirements	F02/7.5kVA		F04/12kVA	E58/15kVA

*1: Conforms to ISO9283.
*2: Max. working range varies depending on the load mass and load torque.
*3: The values in the table are maximum values and vary depending on conditions such as load and motion range.

Sealing Robots

BU series



- Built-in hoses.
- Reduced interferences thanks to the symmetric arm design.
- Suitable for complex tasks because of its long reach and the 7-axis construction (UB015X).

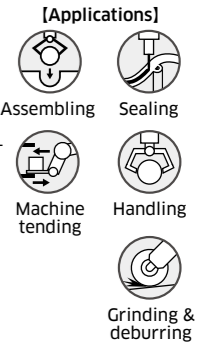


	BU series	
	BU015N	BU015X
Degree of freedom (axes)	6	7
Payload (kg)	15	
Max.reach(mm)	1,550	2,887.5
Position repeatability*1 (mm)	±0.04	±0.06
Motion range (°)	Arm rotation (JT1)	±180
	Arm out-in (JT2)	+140 - -105
	Arm up-down (JT3)	+155 - -120 +30 - -170
	Wrist swivel (JT4)	±210
	Wrist bend 1 (JT7)	- +110 - -130
	Wrist bend 2 (JT5)	±120
	Wrist twist (JT6)	±360
Max. speed (°/s)	Arm rotation (JT1)	250
	Arm out-in (JT2)	250
	Arm up-down (JT3)	215
	Wrist swivel (JT4)	280
	Wrist bend 1 (JT7)	- 170
	Wrist bend 2 (JT5)	280
	Wrist twist (JT6)	360
Mass(kg)	160	590
Mounting	Floor	
Controller/Power requirements	E51/5.6kVA	E52/10kVA

*1: Conforms to ISO9283.

Collaborative Robots

Dual-arm duAro series



- Space-saving without safety fences.*
- With its two arms, duAro can perform as efficient tasks as human workers.
- Easy programming using a tablet and the direct teaching function.

*: Users are required to carry out a safety risk assessment before use.

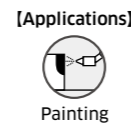


	duAro series				
	duAro1		duAro2		
Degree of freedom (axes)	4x2 arms				
Payload (kg)	2x2 arms		3x2 arms		
Max.reach(mm)	760		785		
Position repeatability*1 (mm)	±0.05				
Motion range (°)	Arm rotation (JT1)	Arm 1 (lower arm)	Arm 2 (upper arm)	Arm 1 (lower arm)	Arm 2 (upper arm)
		±170 (JT1)	-140 - +500 (JT1)	±170 (JT1)	-140 - +500 (JT1)
	Arm up-down*1 (mm)	±140 (JT2)		-130 - +140 (JT2)	
		0 - +150 (JT3)		0 - +550 (JT3)	
Wrist swivel*1 (°)	±360 (JT4)				
Mass (kg)*2	about 210		about 220		
Mounting	Floor				
Controller/Power requirements	F61/2.0kVA				

*1: Specification varies in case of other options or conversion.
*2: Without options.

Explosion-Proof Painting Robots

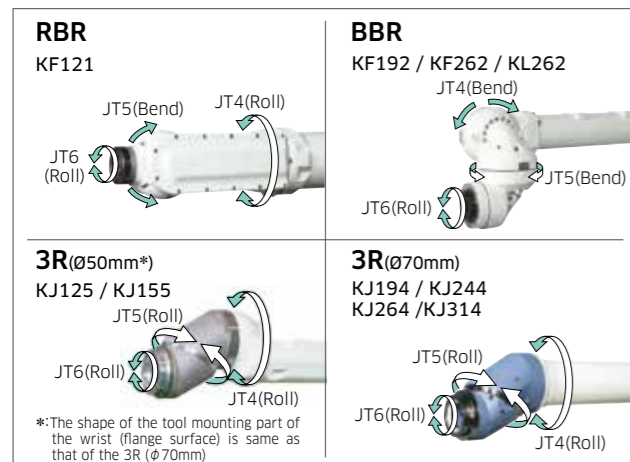
K series



- Extensive product range for painting small parts to large automobile bodies.
- Hollow wrist to prevent painting defects due to paint mist.
- Packaged painting systems for an easy and quick installation and start up.



[Variation of Wrists]



*: The shape of the tool mounting part of the wrist (flange surface) is same as that of the 3R (ø70mm)

	K series			K series							
	KF121	KF192		KF262	KF262	KJ155	KJ194(Floor)	KJ244(Floor)	KJ264(Floor)	KJ314(Wall)	KL262(Floor)
Degree of freedom (axes)	6			6							
Payload (kg)	5	Wrist:12 Arm:20		Wrist:12 Arm:20	Wrist:8 Arm:5	Wrist:8 Arm:5	Wrist:15 Arm:25				Wrist:45
Max.reach*1 (mm)	1,240	1,973		2,665	1,299	1,545	1,940	2,490	2,640	3,100	2,640
Position repeatability*2 (mm)	±0.2	±0.5		±0.5							
Motion range (°)	Arm rotation (JT1)	±160/±60(Shelf)	±150	±150	±160		±120				
	Arm out-in (JT2)	±90	+110 - -60	+110 - -60	+130 - -80	+130 - -80					
	Arm up-down (JT3)	±150	+90 - -80	+90 - -80	+90 - -75		+90 - -65				
	Wrist swivel (JT4)	±270	±360	±360	±720						
	Wrist bend (JT5)	±145	±360	±360	±720						
	Wrist twist (JT6)	±360	±360	±360	±410						
	Arm swing (JT7)	-	-	-	±90						
Painting speed (m/s)	1.5	2		2	1.5		1.5				1.6
Mass(kg)	140	690		720	190	195	530	540	540	720	600
Mounting	Floor, Ceiling, Shelf*3			Floor, Shelf	Floor, Ceiling, Shelf		Floor, Shelf, Wall			Wall	Floor, Shelf
Power requirements*4 (kVA)	1.5	5		5	3		5				
Controller	North America	E37, F35		-	E35, F35		E35, F35				
	Europe	E47, F45	E45, F45				E45, F45				
	Japan & Asia	E27, F25	E25, F25				E25, F25			E25, F25(Japan only)	

*1: RBR : Distance between centers of JT1 and JT5. 3R : Distance from JT1 center to the intersection of JT4 and JT5 rotation axes. BBR : Distance from JT1 center to the intersection of JT4 rotation axes. *2: Conforms to ISO9283. *3: Floor and wall mount for North America. *4: Depends on the payload and motion patterns.

Arc Welding Robots

BA/RA series

[Applications]



- Full lineup for a wide range of workpieces with various sizes.
- Easy one-cable connection between the robot and welding equipment.
- Built-in welding cables.



	BA series				RA series					
	BA006N	BA006L	BA013N	BA013L	RA005L	RA010N	RA010L	RA020N		
Degree of freedom (axes)	6				6					
Payload (kg)	6				5	10			20	
Max.reach(mm)	1,445	2,036	1,492	2,093	903	1,450	1,925	1,725		
Position repeatability*1 (mm)	±0.06	±0.08	±0.04	±0.06	±0.03		±0.05	±0.04		
Motion range (°)	Arm rotation (JT1)	±165			±180					
	Arm out-in (JT2)	+150 - -90		+150 - -95		+135 - -80			+145 - -105	+155 - -105
	Arm up-down (JT3)	+90 - -175		+90 - -185		+118 - -172			+150 - -163	
	Wrist swivel (JT4)	±180		±200		±360			±270	
	Wrist bend (JT5)	±135				±145				
	Wrist twist (JT6)	±360				±360				
Max. speed (°/s)	Arm rotation (JT1)	240	210	265	215	300	250	190		
	Arm out-in (JT2)	240	210	250	215	300	250	205		
	Arm up-down (JT3)	220		265	270	300	215	210		
	Wrist swivel (JT4)	430		470	440	460	365	400		
	Wrist bend (JT5)	430		475	475	460	380	360		
	Wrist twist (JT6)	650		730	730	740	700	610		
Mass(kg)	150	160	265	280	37	150	230			
Mounting	Floor, Ceiling				Floor, Ceiling					
Controller/Power requirements	F60/2.0kVA, F01/5.6kVA		F01/5.6kVA	F02/7.5kVA	F60/2.0kVA	F60/2.0kVA, F01/5.6kVA		F01/5.6kVA		

*1: Conforms to ISO9283.

Palletizing Robots

CP/RD series

[Applications]



- Products suitable for a wide range of applications and payloads.
- High throughput and efficient palletizing thanks to speed.
- Monitoring function for safe operations and space-saving operations (optional).



	CP series					RD series	
	CP110L	CP180L	CP300L	CP500L	CP700L	RD080N	
Degree of freedom (axes)	4					5	
Payload (kg)	110	180	300	500	700	80	
Max.reach(mm)	2,505	3,255			2,100		
Position repeatability*1 (mm)	±0.05	±0.5			±0.07		
Motion range (°)	Arm rotation (JT1)	±180				±160	
	Arm out-in (JT2)	+100 - -40		+95 - -46		+140 - -105	
	Arm up-down (JT3)	+13 - -112		+15 - -110		+40 - -205	
	Wrist swivel (JT4)	±360				±360	
	Wrist compensation (JT5)	-					±10*2
	Max. speed (°/s)	Arm rotation (JT1)	145	130	100	85	75
Arm out-in (JT2)		140	125	90	80	65	
Arm up-down (JT3)		170	125	90	80	65	
Wrist swivel (JT4)		420	330	220	180	170	
Mass(kg)	820	1,600		1,650		540	
Mounting	Floor					Floor	
Controller/Power requirements	F03/12kVA					F03/12kVA	

*1: Conforms to ISO9283. *2: Operating angle of the JT5 is ±10 degrees perpendicular to the ground.

Medical & Pharmaceutical Robots

MC series

[Applications]



- Built-in cables and hoses.
- Meets ISO class 5 (Fed-class 100) without vacuum piping.
- Special sealing material enables VHP sterilization (MC004V).



	MC series	
	MC004N/MC004V	MC006V
Degree of freedom (axes)	6	
Payload (kg)	4	6
Max.reach(mm)	505.8	610
Position repeatability*1 (mm)	±0.028	±0.03
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	44
Mounting	Floor, Ceiling	Floor, Shelf, Wall
Degrees of protection	Wrist: IP67 or equivalentBase axes: IP65 or equivalent*2	IP67 or equivalentBase (CNB section: IP65)
Controller/Power requirements	F60/2.0kVA	

*1: Conforms to ISO9283.
*2: The flange must be closed in case of using the built-in piping.
*3: Special sealing material that enables sterilization by VHP (MC004V/MC006V).

Picking Robots

YF series

[Applications]



- Compact YF002N and wide motion range YF003N to cover wide range of applications and industries.
- Wide range of applications thanks to wash-down with acid or alkaline cleanser (for YF003N). Grease and oil for food processing machinery (both models).



	YF series	
	YF002N	YF003N
Degree of freedom (axes)	4	
Payload (kg)	2	3
Position repeatability*1 (mm)	±0.04	±0.1
Motion range (mm)	φ600 × H200	φ1,300 × H500
Cycle Time*2 (Payload)	0.3s(0.5kg)	0.27s(1kg)
	0.36s(2kg)	0.45s(3kg)
Mass (kg)	60	140
Mounting	Ceiling	
Degrees of protection	IP65 or equivalent	
Controller/Power requirements	F01/5.6kVA	

*1: Conforms to ISO9283.
*2: Motion Pattern (25mm up,305mm horizontal,25mm down in a to-and-fro motion).

Wafer Transfer Robots

NTJ series T TJ series NTH series NX series NV series

[Applications]



- Original drive mechanism provides highly accurate and smooth operations.
- High-speed transfer in high and low pass-lines, thanks to a unique high-rigidity telescopic mechanism.
- The long arm that is offset from the center of the base can access 4FOUP without a track.
- Installation in a small space is possible, thanks to its compact arm construction.
- High-vacuum compatible wafer transfer robot with a wide range of motion.



	NTJ series			T TJ series		NTH series	NX series		NV series
	NTJ10	NTJ20	NTJ11	T TJ10	T TJ20	NTH20	NX420	NX411	NV121
Degree of freedom (axes)	4	5		5		5	5		4
Max. reach (mm)	1,067.2 (for 350mm hand length)			1,067.2 (for 350mm hand length)		1,226.6 (for 350mm hand length)	736 (for 320mm hand length)		1,050
Position repeatability*1 (mm)	±0.05			±0.05		±0.05	±0.05		±0.1
Motion range (°)	θ1axis (rotation JT2)(°)	±170		±170		±170	+313 - -323		±360
	Zaxis (up-down JT3)(mm)	470		740		470	330		50
	θ2axis (rotation JT4)(°)	±170		±170		±170	+180 - -150		830
	Faxis (rotation JT5)(°)	-	±∞		-	-	-	±∞	830
Vacuum level(Pa)	-			-		-	-		1.0 × 10 ⁻⁵ ~ 1.1 × 10 ⁵
	-			-		-	-		-
	-			-		-	-		-
Mounting	Floor			Floor		Floor	Floor		-
Controller/Power requirements	F60/0.5kVA			F60/0.5kVA		F60/0.5kVA	F60/0.5kVA		F60/1.5kVA

*1: The result is based on the measurement conditions set by Kawasaki using the wafer center position of Kawasaki standard end effector (in compliance with ISO 9283: 1998/ JIS B 8432: 1999).

*1: Conforms to ISO9283.

Controllers / Teach Pendant

Kawasaki offers technologically advanced product controllers, built on decades of robotics experience, with features such as reduced size and energy consumption, integrated technology, and global usability.



F60

F Controllers

- Universal controller has common specifications to be used worldwide.
- Drastic downsizing has achieved very compact dimensions and light weight (8.3kg). It is easy for a person to carry the controller.

	F60
Dimensions (mm)	W300 × D320 × H130
Mass (kg)	8.3
Degrees of protection	IP20 or equivalent



F01/02/03/04

- Dimensions and weight have been reduced from its previous E-controller.
- This universal controller has common specifications that can be used globally. (An optional transformer unit is necessary in the region where the power supply and safety standard differ.)

	F01	F02	F03	F04
Dimensions (mm)	W420 × D530 × H278			
Mass (kg)	20	25	30	25
Degrees of protection	IP54 or equivalent			



Gen II

Teach Pendant

- Industry-leading lightweight teaching pendant (690g).
- USB memory support, extended cable options, and detachable connectors deliver enhanced performance, usability, and ease of maintenance.

	Teach Pendant Gen II
Dimensions (mm)	L323 × W162 × D58
Mass (kg)	0.69
Degrees of protection	F60, F01, F02, F03, F04 controllers

Explosion-proof F Controllers

- Compared to the conventional E-series controller, its volume has been reduced by over 50%, and its weight significantly lightened.
- Furthermore, since the air panel can be mounted directly on top of the controller, installation space can be efficiently utilized.



F25/F35/F45

	F25	F35	F45
Dimensions (mm)	W560 × D415 × H790		
Mass (kg)	70	95	100

New Solution Areas Kawasaki Is Addressing

Visual Inspection Robot System



Kawasaki's visual inspection robot system utilizes the "Tool Tip Displacement Output Function", enabling motion along curved surfaces and maximizing the performance of high-resolution line scan cameras.

Depalletizing Solution



Automated depalletizing of cases using a 3D AI vision system that recognizes cases without master data, handling both single-load and mixed-load configurations.

Option / Software

Standard

AS language

Robot Programming Language

Kawasaki's original AS language is a versatile, multi-functional robot programming language that supports monitor instructions, programming commands and functions. It enables programming with high-level operation and sequence controls. The AS language is equipped standard with all the Kawasaki robots.

Programming Tools



Robot Programming Support Software "neoROSET"

neoROSET is a programming tool that allows for robot programming and accurate simulation on a PC. By conducting offline verification in advance, it reduces the risks associated with the introduction of robot systems.



Simultaneous simulation of multiple robots is possible.

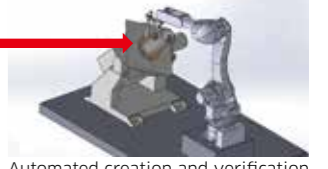


Automated Robot Programming Software "KCONG"

Programming cost can be reduced by creating robot programs from 3D CAD data of the workpiece. Small-volume in great-variety production is possible without programming and operation skills.



Read-in of the workpiece



Automated creation and verification of the robot operation program.

Vision system



2D Vision system "K-VFinder"

It is possible to recognize both regular objects (e.g. PCB holes) and irregular objects (e.g. food materials). Without using a complicated indexing device, object's precise position can accurately be identified.



Compensation of the gripping position by fixed or hand cameras.

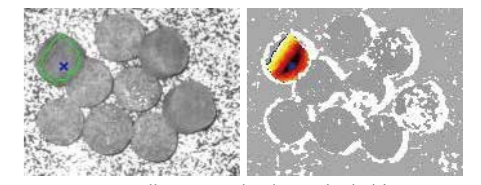


Detection of the present object position in synchronizing with a conveyor.



3D Vision system "K-VStereo"

It can recognize randomly stacked irregular objects. In a palletizing and de-palletizing process, objects can be identified automatically without prior registration of objects' data.



It can discern randomly stacked objects.



AI Vision system

AI vision enables higher perception by combining AI with images acquired by 2D and 3D cameras. It can flexibly respond to workpieces with irregular shapes and arrangements, which were difficult in the previous vision, as well as new products that have not been registered.



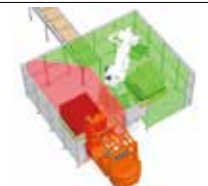
There is no need to register varieties and stacking patterns in advance, and it can handle unknown workpieces and random placements.

Safety Monitoring Option



Robot monitoring function for safety

Putting a limit on the robot motion range and monitoring the speed, force and collision assures operators' safety. Limits on the motion range provides the robot system with safer operation and space-saving. Compliant with ISO 10218-1, 13849-1 (PLd/Category 3) and IEC61508 (SIL2).



Limiting the motion range according to operator's working area.

Operation / Maintenance Monitoring Tool



Full-service service package with state-of-art technology

Overall support of the robot system over the life cycle time is provided for safety on production. All-time monitoring and collection of operation data enables preventive maintenance. K-COMMIT for life cycle support is targeted to achieve no down-time.

