

Kawasaki Robot Lineup



Our Product Philosophy is “Simple and friendly”

With 50 years of 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.



■ 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

Kawasaki began the manufacture and sales of industrial robots in 1968. 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 1,500 kg. For optimum control of the manipulator, our high-performance lineup is supported by our continuous development of control technology to improve function and operation.

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.



■ **Painting robots**
Explosion-proof
K series



■ **Palletizing robots**



■ **Dual-arm SCARA robot**
duAro



■ **Pick & place robots**
Y series



■ **Clean robots**



■ **Medical & pharmaceutical robots**

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

| | RS003N | RS005N/005L *1 | RS007N/007L | RS006L/010N | RS015X | RS010L/020N | RS030N/050N/080N | |
|---------------------------|--------------------|----------------|-------------|-------------|-------------|-------------|------------------|-------------|
| Application | ●●●●●●●● | | ●●●●●●●● | | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | |
| Degrees of freedom (axes) | 6 | | | | | | | |
| Max. payload (kg) | 3 | 5 | 7 | 6/10 | 15 | 10/20 | 30/50/80 | |
| Max. reach (mm) | 620 | 705/903 | 730/930 | 1,650/1,450 | 3,150 | 1,925/1,725 | 2,100 | |
| Repeatability (mm) *2 | ±0.02 | ±0.02/±0.03 | ±0.02/±0.03 | ±0.03 | ±0.06 | ±0.05/±0.04 | ±0.06 | |
| Motion range (°) | Arm rotation (JT1) | ±160 | ±180 | ±180 | ±180 | ±180 | ±180 | |
| | Arm out-in (JT2) | +150 - -60 | +135 - -80 | ±135 | +145 - -105 | +140 - -105 | +155 - -105 | +140 - -105 |
| | Arm up-down (JT3) | +120 - -150 | +118 - -172 | ±155/±157 | +150 - -163 | +135 - -155 | +150 - -163 | +135 - -155 |
| | Wrist swivel (JT4) | ±360 | ±360 | ±200 | ±270 | ±360 | ±270 | ±360 |
| | Wrist bend (JT5) | ±135 | ±145 | ±125 | ±145 | ±145 | ±145 | ±145 |
| | Wrist twist (JT6) | ±360 | ±360 | ±360 | ±360 | ±360 | ±360 | ±360 |
| Max. speed (°/s) | Arm rotation (JT1) | 360 | 360/300 | 470/370 | 250 | 180 | 190 | 180 |
| | Arm out-in (JT2) | 250 | 360/300 | 380/310 | 250 | 180 | 205 | 180 |
| | Arm up-down (JT3) | 225 | 410/300 | 520/410 | 215 | 200 | 210 | 185/185/160 |
| | Wrist swivel (JT4) | 540 | 460 | 550 | 365 | 410 | 400 | 260/260/185 |
| | Wrist bend (JT5) | 225 | 460 | 550 | 380 | 360 | 360 | 260/260/165 |
| | Wrist twist (JT6) | 540 | 740 | 1,000 | 700 | 610 | 610 | 360/360/280 |
| Mass (kg) | 20 | 34/37 | 35/36 | 150 | 545 | 230 | 555 | |
| Installation | Floor, Ceiling | | | | | | | |
| Controller | F60 | | | E01, F60 | E02 | E01 | E02 | |

*1: RC005L clean model available - Meets the ISO Class 5 cleanroom standard - Arm rotation (JT1) ±165

*2: conforms to ISO9283

Application: ● Assembly ● Dispensing ● Machine tending ● Material handling ● Material removal ● Palletizing ● Arc welding

Large payload robots up to 210 kg

CX series

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



CX210L

| | | CX110L | CX165L | CX210L |
|---------------------------|--------------------|-----------|-----------|-----------|
| Application | | | ● ● ● ● | |
| Degrees of freedom (axes) | | 6 | | |
| Max. payload (kg) | | 110 | 165 | 210 |
| Max. reach (mm) | | 2,699 | 2,699 | 2,699 |
| Repeatability (mm) *1 | | ±0.06 | ±0.06 | ±0.06 |
| Motion range (°) | Arm rotation (JT1) | ±160 | ±160 | ±160 |
| | Arm out-in (JT2) | +80 - -60 | +80 - -60 | +80 - -60 |
| | Arm up-down (JT3) | +95 - -75 | +95 - -75 | +95 - -75 |
| | 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 | 125 | 115 |
| | Arm up-down (JT3) | 135 | 125 | 115 |
| | Wrist swivel (JT4) | 200 | 180 | 155 |
| | Wrist bend (JT5) | 200 | 180 | 160 |
| | Wrist twist (JT6) | 300 | 280 | 220 |
| Mass (kg) | | 870 | 870 | 870 |
| 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

| | | ZX130U/130L/165U/200S/300S | ZH100U | ZT130U/165U/200S | ZT165X |
|---------------------------|--------------------|-------------------------------|------------|-------------------|------------|
| Application | | ● ● ● ● | ● ● ● | ● ● ● ● | |
| Degrees of freedom (axes) | | 6 | | | |
| Max. payload (kg) | | 130/130/165/200/300 | 100 | 130/165/200 | 165 |
| Max. reach (mm) | | 2,651/2,951/2,651/2,651/2,501 | 1,634 | 3,230/3,230/3,230 | 2,830 |
| 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) | 110/110/110/105/100 | 140 | 105/105/100 | 120 |
| | Arm out-in (JT2) | 110/110/110/110/85 | 100 | 105/105/100 | 110 |
| | Arm up-down (JT3) | 110/110/115/105/85 | 100 | 105/105/90 | 115 |
| | Wrist swivel (JT4) | 140/140/140/120/90 | 150 | 140/135/120 | 140 |
| | Wrist bend (JT5) | 135/135/155/120/90 | 150 | 135/135/115 | 155 |
| | Wrist twist (JT6) | 230/230/260/200/150 | 250 | 230/210/180 | 260 |
| Mass (kg) | | 1,350/1,400/1,350/1,400/1,400 | 750 | 1,550/1,550/1,600 | 1,650 |
| Installation | | Floor | | Shelf | |
| Controller | America | E02 | | | |
| | Europe | | | | |
| | Japan & Asia | | | | |

*1: Conforms to ISO9283

Application: ● Assembly ● Material handling ● Palletizing ● Spot welding

Extra large payload robots up to 1,500 kg

M series

Achieves high wrist torque and payload capacity without any counterweights for a wide motion range and compact footprint.



MG15HL

| | | MX350L | MX420L | MX500N | MX700N | MT400N | MG10HL | MG15HL | |
|---------------------------|--------------------|------------|------------|------------|------------|------------|------------|------------|--|
| Application | | | | | | | | ● ● | |
| Degrees of freedom (axes) | | | | | | | | 6 | |
| Max. payload (kg) | | 350 | 420 | 500 | 700 | 400 | 1,000 | 1,500 | |
| Max. reach (mm) | | 3,018 | 2,778 | 2,540 | 2,540 | 3,503 | 4,005 | 4,005 | |
| Repeatability (mm) *1 | | ±0.5 | ±0.5 | ±0.5 | ±0.5 | ±0.5 | ±0.1 | ±0.1 | |
| Motion range (°) | Arm rotation (JT1) | ±180 | ±180 | ±180 | ±180 | ±180 | ±150 | ±150 | |
| | Arm out-in (JT2) | +90 - -45 | +90 - -45 | +90 - -45 | +90 - -45 | +15 - -135 | +90 - -40 | +90 - -40 | |
| | Arm up-down (JT3) | +20 - -115 | +20 - -125 | +20 - -130 | +20 - -130 | +106 - -30 | +30 - -110 | +25 - -110 | |
| | Wrist swivel (JT4) | ±360 | ±360 | ±360 | ±360 | ±360 | ±360 | ±360 | |
| | Wrist bend (JT5) | ±110 | ±110 | ±110 | ±110 | ±120 | ±120 | ±120 | |
| | Wrist twist (JT6) | ±360 | ±360 | ±360 | ±360 | ±360 | ±360 | ±360 | |
| Max. speed (°/s) | Arm rotation (JT1) | 80 | 80 | 80 | 65 | 80 | 65 | 65 | |
| | Arm out-in (JT2) | 70 | 70 | 70 | 50 | 70 | 33.5 | 33.5 | |
| | Arm up-down (JT3) | 70 | 70 | 70 | 45 | 70 | 37.5 | 37.5 | |
| | Wrist swivel (JT4) | 80 | 80 | 80 | 50 | 70 | 65 | 36 | |
| | Wrist bend (JT5) | 80 | 80 | 80 | 50 | 70 | 65 | 36 | |
| | Wrist twist (JT6) | 120 | 120 | 120 | 95 | 130 | 80 | 80 | |
| Mass (kg) | | 2,800 | 2,800 | 2,750 | 2,860 | 2,600 | 6,500 | 6,550 | |
| Installation | | Floor | | | | Shelf | Floor | | |
| Controller | America | E04 | | | | E02 | E28 | | |
| | Europe | | | | | | | | |
| | Japan & Asia | | | | | | | | |

*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

| | | BX100S | BX100N | BX100L/165L/200L | BX130X/200X | BX165N | BX250L/300L | BT200L |
|---------------------------|--------------------|------------|------------|------------------|--------------------|-----------|-------------|------------|
| Application | | ● | | | | | | |
| Degrees of freedom (axes) | | 6 | | | | | | |
| Max. payload (kg) | | 100 | 100 | 100/165/200 | 130/200 | 165 | 250/300 | 200 |
| Max. reach (mm) | | 1,634 | 2,200 | 2,597 | 2,991/3,412 | 2,325 | 2,812 | 3,151 |
| Repeatability (mm) *1 | | ±0.06 | ±0.06 | ±0.06 | ±0.06/±0.07 | ±0.06 | ±0.07 | ±0.08 |
| Motion range (°) | Arm rotation (JT1) | ±160 | ±160 | ±160 | ±160/±180 | ±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--110 | +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 | 105/125 | 105 | 125 | 105 |
| | Arm out-in (JT2) | 125 | 110 | 130/110/90 | 90/102 | 130 | 120/102 | 85 |
| | Arm up-down (JT3) | 155 | 140 | 130/130/100 | 130/85 | 130 | 100/85 | 100 |
| | Wrist swivel (JT4) | 200 | 200 | 200/170/120 | 200/105 | 120 | 140/105 | 120 |
| | Wrist bend (JT5) | 160 | 200 | 160/170/120 | 160/120 | 160 | 140/110 | 120 |
| | Wrist twist (JT6) | 300 | 300 | 300/280/200 | 300/200 | 300 | 200/180 | 200 |
| Mass (kg) | | 720 | 740 | 890 | 970/1,450 | 875 | 1,460 | 1,100 |
| Installation | | Floor | | | | | | Shelf |
| Controller | America | E02 | | | | | | |
| | Europe | | | | | | | |
| | Japan & Asia | | | | | | | |

*1: Conforms to ISO9283
Application: ● Spot welding

Arc welding robots

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



BA006N

| | | BA006N | BA006L | RS006L | RS010N | RS010L | RS015X | RS020N |
|---------------------------|--------------------|----------------|------------|-------------|-------------|-------------|-------------|-------------|
| Application | | ● | | | | | | |
| Degrees of freedom (axes) | | 6 | | | | | | |
| Max. payload (kg) | | 6 | 6 | 6 | 10 | 10 | 15 | 20 |
| Max. reach (mm) | | 1,445 | 2,036 | 1,650 | 1,450 | 1,925 | 3,150 | 1,725 |
| Repeatability (mm) *1 | | ±0.06 | ±0.08 | ±0.03 | ±0.03 | ±0.05 | ±0.06 | ±0.04 |
| Motion range (°) | Arm rotation (JT1) | ±165 | ±165 | ±180 | ±180 | ±180 | ±180 | ±180 |
| | Arm out-in (JT2) | +150 - -90 | +150 - -90 | +145 - -105 | +145 - -105 | +155 - -105 | +140 - -105 | +155 - -105 |
| | Arm up-down (JT3) | +90 - -175 | +90 - -175 | +150 - -163 | +150 - -163 | +150 - -163 | +135 - -155 | +150 - -163 |
| | Wrist swivel (JT4) | ±180 | ±180 | ±270 | ±270 | ±270 | ±360 | ±270 |
| | Wrist bend (JT5) | ±135 | ±135 | ±145 | ±145 | ±145 | ±145 | ±145 |
| | Wrist twist (JT6) | ±360 | ±360 | ±360 | ±360 | ±360 | ±360 | ±360 |
| Max. speed (°/s) | Arm rotation (JT1) | 240 | 210 | 250 | 250 | 190 | 180 | 190 |
| | Arm out-in (JT2) | 240 | 210 | 250 | 250 | 205 | 180 | 205 |
| | Arm up-down (JT3) | 220 | 220 | 215 | 215 | 210 | 200 | 210 |
| | Wrist swivel (JT4) | 430 | 430 | 365 | 365 | 400 | 410 | 400 |
| | Wrist bend (JT5) | 430 | 430 | 380 | 380 | 360 | 360 | 360 |
| | Wrist twist (JT6) | 650 | 650 | 700 | 700 | 610 | 610 | 610 |
| Mass (kg) | | 150 | 160 | 150 | 150 | 230 | 545 | 230 |
| Installation | | Floor, Ceiling | | | | | | |
| Controller | America | E01, F60 | | | | E01 | E02 | E01 |
| | 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

| | | KF121 | KJ194 Floor/Shelf/Wall | KJ244 Floor/Shelf/Wall | KJ264 Floor/Shelf/Wall | KJ314 |
|---------------------------|--------------------|---|------------------------|------------------------|------------------------|-------------------|
| Application | | ● | | | | |
| Degrees of freedom (axes) | | 6 | | | | 7 |
| Max. payload (kg) | | 5 | Wrist: 15 Arm: 25 | Wrist: 15 Arm: 25 | Wrist: 15 Arm: 25 | Wrist: 15 Arm: 25 |
| Max. reach (mm) | | 1,240 | 1,940 | 2,490 | 2,640 | 3,100 |
| Repeatability (mm) *1 | | ±0.2 | ±0.5 | ±0.5 | ±0.5 | ±0.5 |
| Motion range (°) | Arm rotation (JT1) | ±160 | ±120/±120/+30 - -120 | ±120/±120/+30 - -120 | ±120/±120/+30 - -120 | ±120 |
| | Arm out-in (JT2) | ±90 | +130 - -80 | +130 - -80 | +130 - -80 | +130 - -80 |
| | Arm up-down (JT3) | ±150 | +90 - -65 | +90 - -65 | +90 - -65 | +90 - -65 |
| | Wrist swivel (JT4) | ±270 | ±720 | ±720 | ±720 | ±720 |
| | Wrist bend (JT5) | ±145 | ±720 | ±720 | ±720 | ±720 |
| | Wrist twist (JT6) | ±360 | ±410 | ±410 | ±410 | ±410 |
| | Arm swing (JT7) | | | | | ±90 |
| Wrist type | | RBR | 3Rø70 | 3Rø70 | 3Rø70 | 3Rø70 |
| Mass (kg) | | 140 | 530/520/520 | 540/530/530 | 540/530/530 | 720 |
| Explosion protection | | Combination of pressurized type and intrinsically safety type (CLI ZN1 AExpxib IIB T4 / AExib IIB T4) | | | | |
| Installation | | Floor, Wall | Floor/Shelf/Wall | | | Wall |
| Controller | America | E37 | | | | E35 |
| | Europe | E47 | | | | E45 |
| | Japan & Asia | E27 | | | | E25 |

*1: Conforms to ISO9283
Application: ● Painting

Palletizing robots

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



CP700L

| | | RD080N | CP180L | CP300L | CP500L | CP700L |
|--------------------------------------|--------------------------|-------------|------------|------------|------------|------------|
| Application | | ● | | | | |
| Degrees of freedom (axes) | | 5 | | | | |
| Max. payload (kg) | | 80 | 180 | 300 | 500 | 700 |
| Max. reach (mm) | | 2,100 | 3,255 | | | |
| Motion range (°) | Arm rotation (JT1) | ±180 | ±160 | ±160 | ±160 | ±160 |
| | Arm out-in (JT2) | +140 - -105 | +95 - -46 | +95 - -46 | +95 - -46 | +95 - -46 |
| | Arm up-down (JT3) | +40 - -205 | +15 - -110 | +15 - -110 | +15 - -110 | +15 - -110 |
| | Wrist swivel (JT4) | ±360 | ±360 | ±360 | ±360 | ±360 |
| | Wrist compensation (JT5) | ±10 *3 | N/A | N/A | N/A | N/A |
| Max. speed (°/s) | Arm rotation (JT1) | 180 | 140 *4 | 115 *5 | 85 | 75 |
| | Arm out-in (JT2) | 180 | 125 *4 | 100 *5 | 80 | 65 |
| | Arm up-down (JT3) | 175 | 130 *4 | 100 *5 | 80 | 65 |
| | Wrist swivel (JT4) | 360 | 400 *4 | 250 *5 | 180 | 170 |
| Working area (mm) | Width | 1,100 | 1,800 | 1,800 | 1,800 | 1,800 |
| | Depth | 1,100 | 1,600 | 1,600 | 1,600 | 1,600 |
| | Height | 2,062.3 | 2,200 | 2,200 | 2,200 | 2,200 |
| Palletizing capacity (cycle/hour) *1 | | 900 | 2,050 *4 | 1,700 *5 | 1,000 | 900 |
| Repeatability (mm) *2 | | ±0.07 | ±0.5 | ±0.5 | ±0.5 | ±0.5 |
| Mass (kg) | | 540 | 1,600 | 1,600 | 1,650 | 1,650 |
| Controller | America | E03 | E03 | | | |
| | Europe | | | | | |
| | Japan & Asia | | | | | |

*1: Motion pattern (400 mm up, 2,000 mm horizontal, 400 mm down in a to-and-fro motion) *2: Conforms to ISO9283 *3: Operating angle of the JT5 is ±10 degrees perpendicular to the ground *4: In case of 130 kg payload and less *5: In case of 250 kg payload and less

Application: ● Palletizing

Dual-arm SCARA robot

duAro

Dual-arm collaborative robot that can safely work with humans. The duAro fits into a single-person space and can be easily deployed without modifications to the manufacturing line.



| | | duAro1 | | duAro2 | |
|---------------------------|------------------|----------------------|----------------------|-------------------|-------------------|
| Application | | ● ● ● ● | | | |
| Degrees of freedom (axes) | | 4 / arm | | | |
| Max. payload (kg) | | 2 / arm (4 kg total) | | 3 / arm | |
| Repeatability (mm) | | ±0.05 | | | |
| Motion range | | Arm 1 (lower arm) | Arm 2 (upper arm) | Arm 1 (lower arm) | Arm 2 (upper arm) |
| | Arm rotation (°) | -170 - +170 (JT1) | -140 - +500 (JT1) | -170 - +170 (JT1) | -140 - +500 (JT1) |
| | Arm rotation (°) | -140 - +140 (JT2) | -140 - +140 (JT2) | -130 - +140 (JT2) | -140 - +130 (JT2) |
| | Arm up-down (mm) | 0 - +150 (JT3) *1 | 0 - +150 (JT3) *1 | 0 - +550 (JT3) | 0 - +550 (JT3) |
| | Wrist swivel (°) | -360 - +360 (JT4) *1 | -360 - +360 (JT4) *1 | -360 - +360 (JT4) | -360 - +360 (JT4) |
| Mass (kg) | | ~ 200 | | | |
| Installation | | Floor | | | |
| Controller | America | F60 | | | |
| | Europe | | | | |
| | Japan & Asia | | | | |

*1: Specification can vary with other options or conversion
 Application: ● Assembly ● Material handling ● Machine tending ● Dispensing

WD002N

Pick & place robots

Y series

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



| | | YF002N | YF003N |
|----------------------------------|--------------------------|-------------------------------------|-----------------------------|
| Application | | ● ● | |
| Type | | Parallel link type | |
| Max. payload (kg) | | 2 | 3 |
| Degrees of freedom (axes) | Standard | 4 | |
| | Option | - | 5 |
| Motion range (mm) | | ø600 × H200 | ø1,300 × H500 |
| Cycle time (payload) *1 | | 0.3 s (0.5 kg) 0.36 s (2 kg) | 0.27 s (1 kg) 0.45 s (3 kg) |
| Positional repeatability (mm) *2 | | ± 0.04 | ± 0.1 |
| Angular repeatability (°) | | ± 0.1 | |
| Mass (kg) | | 60 | 145 |
| Installation | | Ceiling | |
| Environmental conditions | Ambient temperature (°C) | 0 - 40 | 0 - 45 |
| | Relative humidity (%) | 35 - 85 (no dew, nor frost allowed) | |
| Degree of protection | Standard | IP 65 | |
| | Option | - | IP 67 |
| Controller | America | E97 | |
| | Europe | E91 | |
| | Japan & Asia | E94 | |

*1: Motion pattern (25 mm up, 305 mm horizontal, 25 mm down in a to-and-fro motion)

*2: Conforms to ISO9283

Application: ● Assembly ● Material handling

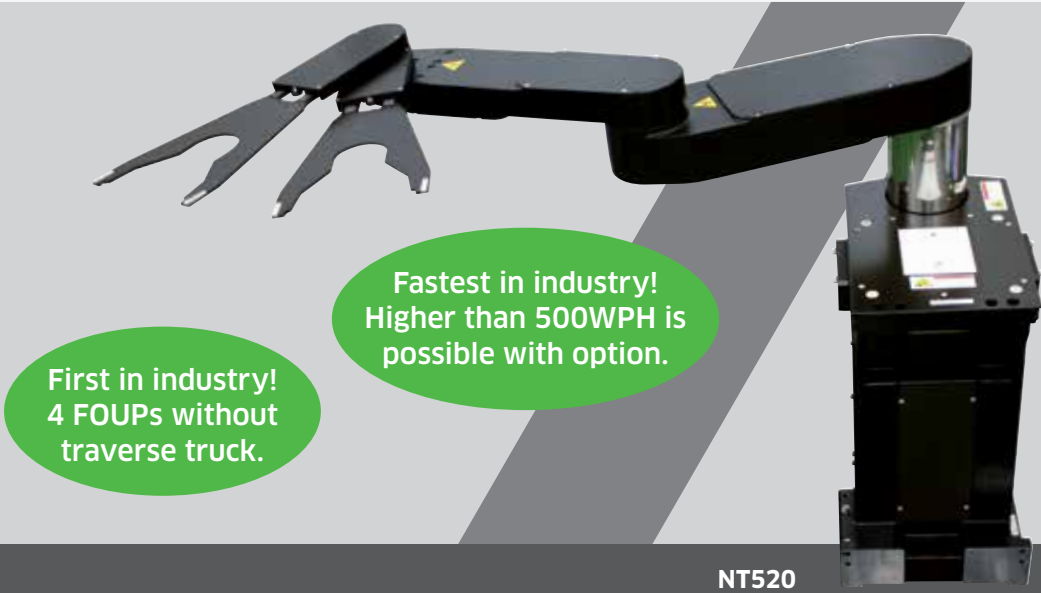
YF003N

Clean robots

NT series

Horizontal articulated type

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



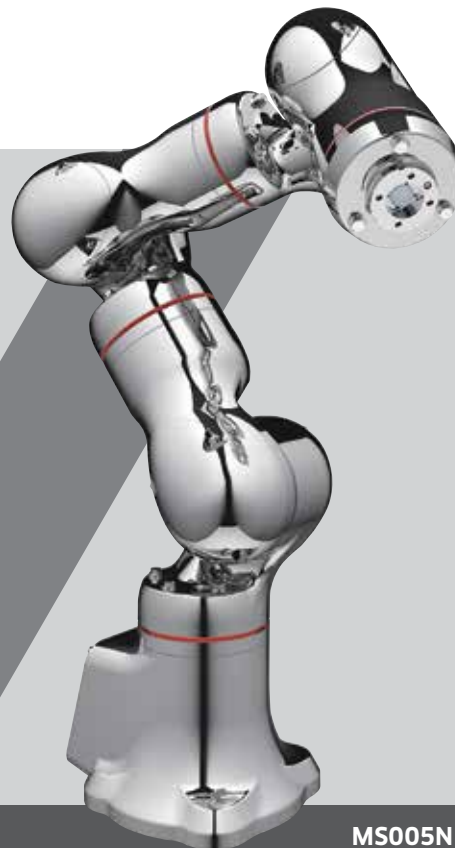
NT520

Medical & pharmaceutical robots

Clean robots that meet the healthcare industry's specifications for processing equipment.

| | | MC004N/004V | MS005N |
|---------------------------|--------------------|----------------|----------------|
| Degrees of freedom (axes) | | 6 | 7 |
| Max. payload (kg) | | 4 | 5 |
| Max. reach (mm) | | 505.8 | 660 |
| Repeatability (mm) *1 | | ±0.05 | ±0.1 |
| Motion range (°) | Arm rotation (JT1) | ±180 | ±180 |
| | Arm out-in (JT2) | +135 - -95 | +135 - -90 |
| | Arm up-down (JT3) | +60 - -155 | ±120 |
| | Wrist swivel (JT4) | ±270 | ±180 |
| | Wrist bend (JT5) | ±120 | ±115 |
| | Wrist twist (JT6) | ±270 | ±180 |
| | Wrist twist (JT7) | - | ±180 |
| Max. speed (°/s) | Arm rotation (JT1) | 200 | 130 |
| | Arm out-in (JT2) | 180 | 130 |
| | Arm up-down (JT3) | 225 | 215 |
| | Wrist swivel (JT4) | 700 | 300 |
| | Wrist bend (JT5) | 500 | 300 |
| | Wrist twist (JT6) | 350 | 480 |
| | Wrist twist (JT7) | - | 215 |
| Mass (kg) | | 25 | 50 |
| Installation | | Floor, Ceiling | Floor, Ceiling |
| Controller | America | F60 | |
| | Europe | | |
| | Japan & Asia | | |

*1: Conforms to ISO9283



MS005N

Controllers

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.



F60



E94



E01/02/03/04

| America | | F60 | E97 | E01/02/03/04 |
|----------------------|--------------------|--|---|--|
| Europe | | | E91 | |
| Japan & Asia | | | E94 | |
| Features | | The F60 is the smallest and lightest controller in its class in the world. It can be carried by one person. The cabinet allows free setup, e.g. horizontal or vertical installation as well as multiple cabinet stacking. While compact in size, the F60 controller offers many options for expansion. | 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. |
| Drive system | | Full digital servo system | Full digital servo system | Full digital servo system |
| Teaching method | | Easy operation teaching or AS language programming | Easy operation teaching or AS language programming | Easy operation teaching or AS language programming |
| Teach pendant | | Color LCD teach pendant | Color LCD teach pendant | Color LCD teach pendant |
| Memory capacity (MB) | | 16 | 8 | 8 |
| I/O signals | External operation | Emergency stop, Hold etc. | Emergency stop, Hold, etc. | Emergency stop, Hold, etc. |
| | Input (channels) | 16 (max. 144) | 32 (max. 96) | 32 (max. 96) |
| | Output (channels) | 16 (max. 144) | 32 (max. 96) | 32 (max. 96) |
| Structure | | Open structure with direct cooling system Option: Enclosed structure | Open structure with direct cooling system Option: Enclosed structure *1 | Enclosed structure with indirect cooling system |
| Mass (kg) | America | 8.3 | 40 | 40/40/45/40 |
| | Europe | | | |
| | Japan & Asia | | | |

*1: Enclosed structure with indirect cooling system in the case of E91 *2: 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 types of information (e.g. positional information and signal information).





E40



E35



E28



D60

| | E30/32/33/34 E40/42/43/44 E10/12/13/14/20/22/23/24 | E35/37 E45/47 E25/27 | E28 | D60/61 |
|--|---|--|--|--|
| | 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 E28 controller supports the ultra-heavy-payload models (MG series). Equipped with a transformer that supports a primary power supply voltage of 210/400/460V, this controller is for world-wide use. | The D60 controller is for a semiconductor robot with a single arm, while the D61 controller is for semiconductor robots with up to two arms and for the duAro. |
| | Full digital servo system | Full digital servo system | Full digital servo system | Full digital servo system |
| | Easy operation teaching or AS language programming | Easy operation teaching or AS language programming | Easy operation teaching or AS language programming | Manual, semi-automatic, full-automatic teaching |
| | Color LCD teach pendant | Explosion-proof teach pendant Color LCD teach pendant | Color LCD teach pendant | Small teach pendant |
| | 8 | 8 | 8 | 4 |
| | Emergency stop, Hold, etc. | Emergency stop, Hold, etc. | Emergency stop, Hold, etc. | Emergency stop, Hold, etc. |
| | 32 (max. 128) | 32 (max. 128) | 32 (max. 128) | 16/16 (max. 32) |
| | 32 (max. 128) | 32 (max. 128) | 32 (max. 128) | 8/8 (max. 16) |
| | Enclosed structure with indirect cooling system | Enclosed structure with indirect cooling system | Enclosed structure with indirect cooling system | Open structure with direct cooling system |
| | 145/180/195/180 *2 | 170 | 280 | 14/20 |
| | 145/180/195/180 *2 | 170 | | |
| | 120/120/135/120 *2/95/95/110/95 *2 | 120 | | |

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.



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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.



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