

Simple  friendly

Kawasaki Robot

EUROPE



Y-SERIES

up to 3 kg payload

»Simple and friendly«
INTO THE FUTURE

*Fast Pick & Place Operations
are the domain of the Y-Series.*

»40 years of experience
and state-of-the-art robot
technology«

Maximum speed and precision combined with incredible stiffness, are the key factors of success of these robots.

»Your goal is our task«

It was Kawasaki's intelligence and flexibility which made them build the most powerful robots in their class. Combined with a high-end control system, they reliably meet the demands of the most varied application fields - now and in the near & far future.



THE Y-SERIES

1. Speed

Fast acceleration and speed are the decisive factors to reach a cycle time of up to 200 picks (YS002N: 25mm/305mm/25mm) per minute.

2. Accuracy

High stiffness and precision ensure a position repeatability of 0,04 mm as well as 0,1° (data based on YS002N).

3. Protection

Protection class: IP65

4. Flexibility

An optionally 5th axis (YF003N), 2 Ethernet ports and 2 USB ports ensure the capability to adapt intelligent grippers, vision systems or other peripherals as well.

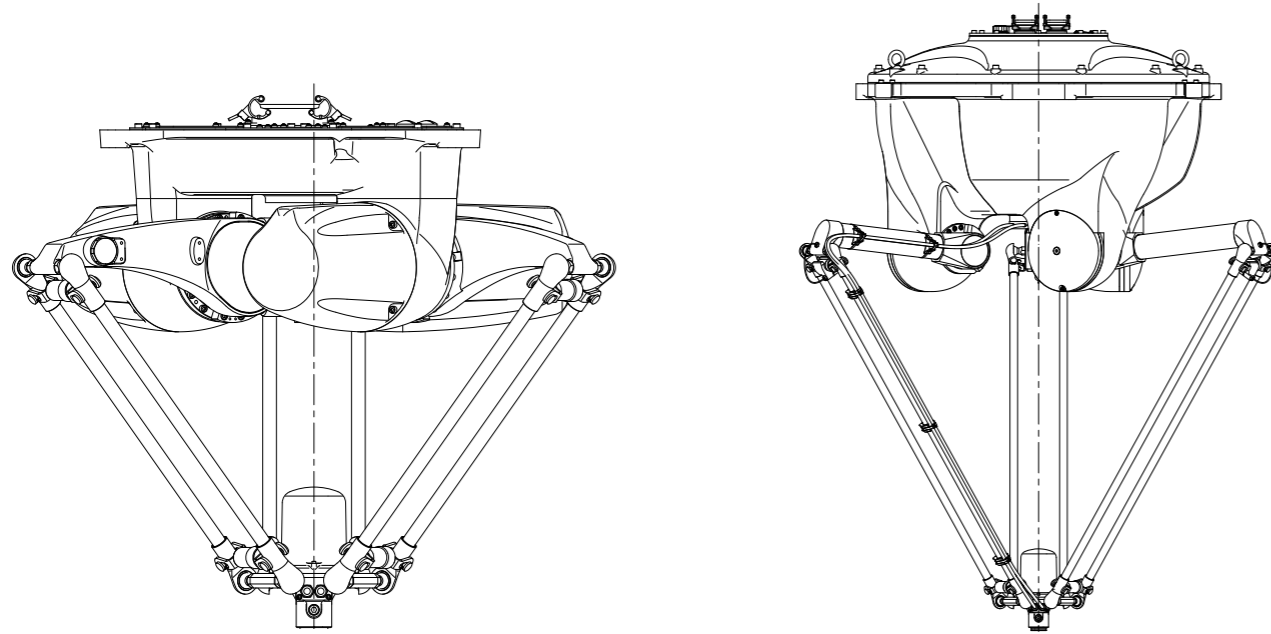
5. Application Area

The Kawasaki YF003N is produced by using lubricants with food specification. Through this, many application areas as well in food industry are possible.

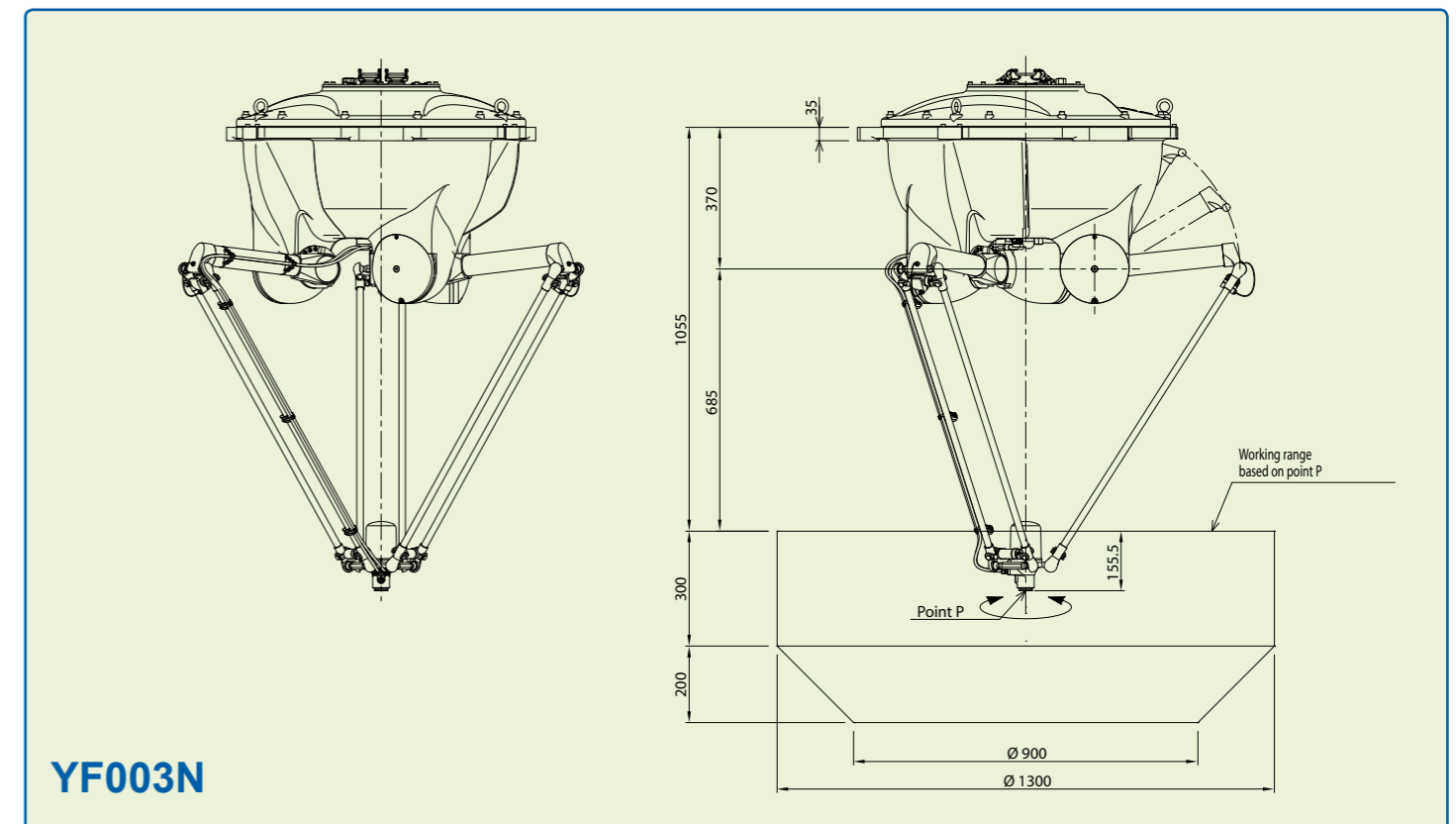
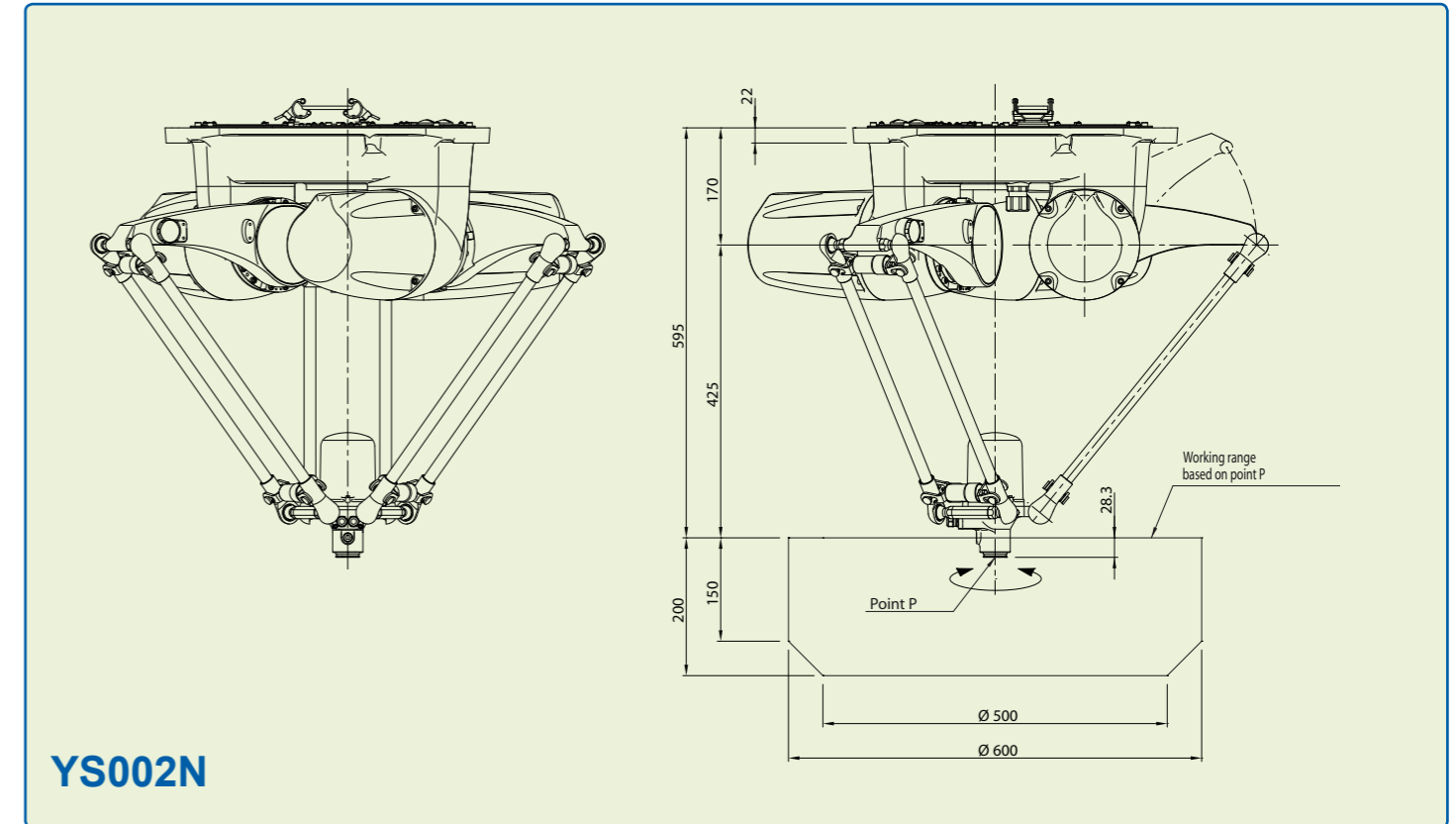


MODEL	YS002N	YF003N	
Degrees of Freedom	4 Axes	4 Axes	
Maximum Reach	600 mm	1300 mm	
Maximum Payload	2 kg	3 kg	
Maximum working range	Axis 1	+77 ° ~ -34,5 °	+95 ° ~ -52,5 °
	Axis 2	+77 ° ~ -34,5 °	+95 ° ~ -52,5 °
	Axis 3	+77 ° ~ -34,5 °	+95 ° ~ -52,5 °
	Axis 4	±360 °	±360 °
Maximum speed	Axis 1	490 °/s	1090,9 °/s
	Axis 2	490 °/s	1090,9 °/s
	Axis 3	490 °/s	1090,9 °/s
	Axis 4	1714,3 °/s	1714,3 °/s
Repeatability (Measure Point: Middle of Flange)	± 0,04 mm / ± 0,1 °	± 0,1 mm / ± 0,1 °	
Weight	60 kg	145 kg	
Max. Picks per Minute (25 mm vertical / 305 mm horizontal)	200 at 0,5 kg Payload	175 at 1 kg Payload	
Controller	E91	E91*	
Color	Munsell 10GY9/1 equivalent	Munsell 10GY9/1 equivalent	
Installation	pendant	pendant	
Ambient Conditions	Temperature	0 ~ 40 °C	0 ~ 45 °C
	Humidity	35 ~ 85 % (no Dew or Frost allowed)	35 ~ 85 % (no Dew or Frost allowed)
	Others	Installation Ambience must be free of: • Inflammable or corrosive Liquid or Gas • Electric Noise Interferences	Installation Ambience must be free of: • Inflammable or corrosive Liquid or Gas • Electric Noise Interferences
Protection Class	IP 65	IP 65 (optional IP67)	

* Optional E40 Controller



Motion Range & Dimensions



Integrated Kawasaki Solutions as an ideal addition to your Automation.

KV Finder is the Kawasaki Vision Software

- Easy operation: teaching of new objects, settings, etc.
- Object analysis: shape, binarisation, color, object counter
- Automatically calibration & rectification compensation
- Shape control: distance check between individual objects to ensure available space for the gripping process
- Sorting of measurement data based on object position within the captured picture
- Optional QR-code & barcode recognition

The E-Controller: technically mature, easy to operate and powerful

Compact, upgradeable and user-friendly

All established bus systems (Interbus, Profibus, Profi-Net...) are supported. The integrated Soft PLC may be edited via Teach Pendant or even more comfortable at the PC (option). Customized user interfaces may be programmed and used for the simplified control of the robot and also peripheral devices.

Motor power ON and program start may be activated directly via the Teach pendant unit. The parallel display of two information screens (e.g. position and signal data) facilitates the process control. The system boot time is below one minute (approximately 25 sec.).

KV Assist is the Kawasaki distribution software for multi robot use

- Overlap control & elimination of double captures objects
- Distribution function for up to 8 robots

Conveyor Tracking – is the Kawasaki conveyor software

- Linear conveyor tracking
- Circular conveyor tracking
- Up to 4 synchronized conveyors per robot controller

System

Ultra-fast execution of programs, loading and storing processes as well as a precise continuous-path control and much more thanks to the up-to-date processor design and powerful components. 8 MB RAM (80,000 steps) and USB interface as standard.

Maintenance

»Simple and friendly« – Due to the optimized modular configuration of the Kawasaki controller, maintenance work is user-friendly. Furthermore, integrated service and diagnostic tools guarantee increased safety in operation. Remote diagnosis via Ethernet is also included in the standard package.

E CONTROLLER

MODEL	E91	
Number of Controlled Axes	4	
Servo Motor	Brushless AC Servomotor	
Position Detector	Absolute Encoder	
Servo System	Full digital servo system	
Programming	Block and AS-Language	
Coordinate Systems	Joint, Base, Tool, external Tool (optional)	
Motion Control	Joint-, Linear- and Circular interpolation	
Signals	External	Motor power, Signal HOLD, etc.
	Input	32 (optional 96)
	Output	32 (optional 96)
	Analogue Input (optional)	8/16
	Analogue Output (optional)	4/8/12
Memory	8 MB (ca. 80.000 steps)	
External Memory	USB	
Data Interfaces	PC, Network, etc.	2 x RS-232C, 2 x Ethernet
	Fieldbus (optional)	DeviceNet®, PROFIBUS®, PROFINET®, INTERBUS-S®, Ethernet/IP®, CC-Link®, CANopen®, Modbus TCP®
Teach Pendant	6,4 Zoll LCD with Touch Panel, Emergency Stop SW, Teach-Lock, Deadman SW, Motor power, Program start, Hold/Run	
Operation Panel	Emergency Stop SW, Control Power, TEACH/REPEAT	
Cable Length (Controller – Arm), (Controller – Teach Pendant)	10 m (Arm: optional up to 40 m), (TP: optional up to 30 m)	
Dimensions (WxDxH mm)	500x580x250	
Weight	40 kg	
Power Requirements	AC 200-230V ± 10 %, 50/60Hz, 1 Phase, max. 4kVA	
Ground	<100Ω, Max. Leakage Current 100mA	
Safety Category	3, Performance Level d (EN ISO13849-1:2008)	
Ambience Temperature / Humidity	0 ~ 40 °C, 35 ~ 85 % (no Dew or Frost allowed)	
Color	Munsell 10GY9/1	

Note: Not all Options can be combined.



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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: All photos 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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