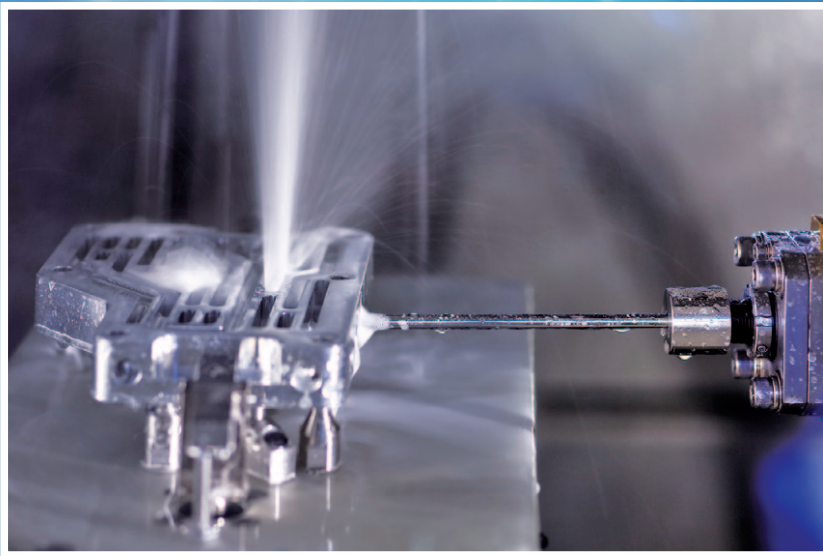




**KAN MANUFACTORY**

A world Leader in CNC Parts  
Washing and Deburring for  
40 years

## CNC High-Pressure Parts Washing & Deburring **KAN KR-1/KR-2 series**



**MARUKA**

[www.marukausa.com](http://www.marukausa.com)



# The Pioneer of CNC washing machines in Japan

KAN MANUFACTORY CO., LTD.  
KAN is offered exclusively in the

is a Division of Maruka Machinery Company, established in 1946 in Osaka Japan.  
United States by Maruka U.S.A. and our authorized dealers.

## KAN MANUFACTORY Customers are the "Who's Who" of top companies

- TOYOTA
- DAIHATSU MOTOR
- NISSAN MOTOR
- HONDA MOTOR
- SUBARU
- HINO MOTOR
- ISUZU MOTOR
- MITSUBISHI MOTOR
- YAMAHA MOTOR
- HITACHI AMS
- HONDA ALABAMA
- SHOWA
- AISIN TENNESSEE
- HITACHI AMERICA
- OTICS
- SMT FLORIDA

- Aircraft
- Agriculture
- Automotive
- Energy
- Medical devices
- Specialty applications
- Full Turn-Key and Automation Integration

**Over 500 companies depend on Kan Parts Washing and Deburring Machines**



**MARUKA Machinery Company**



**INDUSTRIAL TOOL, INC**  
Complete Machining Solutions

### Automation Division

Integration  
Custom Machine Building  
Established 1974  
[www.industrial-tool.com](http://www.industrial-tool.com)

**MARUKA U.S.A. INC**

### Machine Tool Divisions

Metal Cutting  
Plastic Injection Molding  
Tube Bending  
Japanese Transplant  
Established 1968



**KAN MANUFACTORY**

CNC Parts De-Burring  
Parts Washing Systems  
Established 1977

### History of KAN MANUFACTORY CO., LTD.

- Nov. / 1977 Founded as a manufacturer of Special purpose custom machines
- Sep. / 1982 Incorporated as KAN MANUFACTORY CO., LTD.
- Sep. / 1986 Developed and started to sell own Machining Centers
- Apr. / 1992 Developed and started to sell CNC Turret Washing Machine (KH-6) to become the first Japanese company to develop and sell CNC Washing Machine
- Nov. / 1997 Developed and started to sell CNC High Pressure Washing Machine (KR-1)
- Jun. / 2000 Developed and started to sell Shower-type Washing Machine (KPW-1)
- Oct. / 2006 Expanded manufacturing capacity
- Apr. / 2016 Became a wholly-owned subsidiary of Maruka Machinery Co., Ltd. to pursue business expansion



**INDUSTRIAL TOOL, INC**  
Complete Machining Solutions



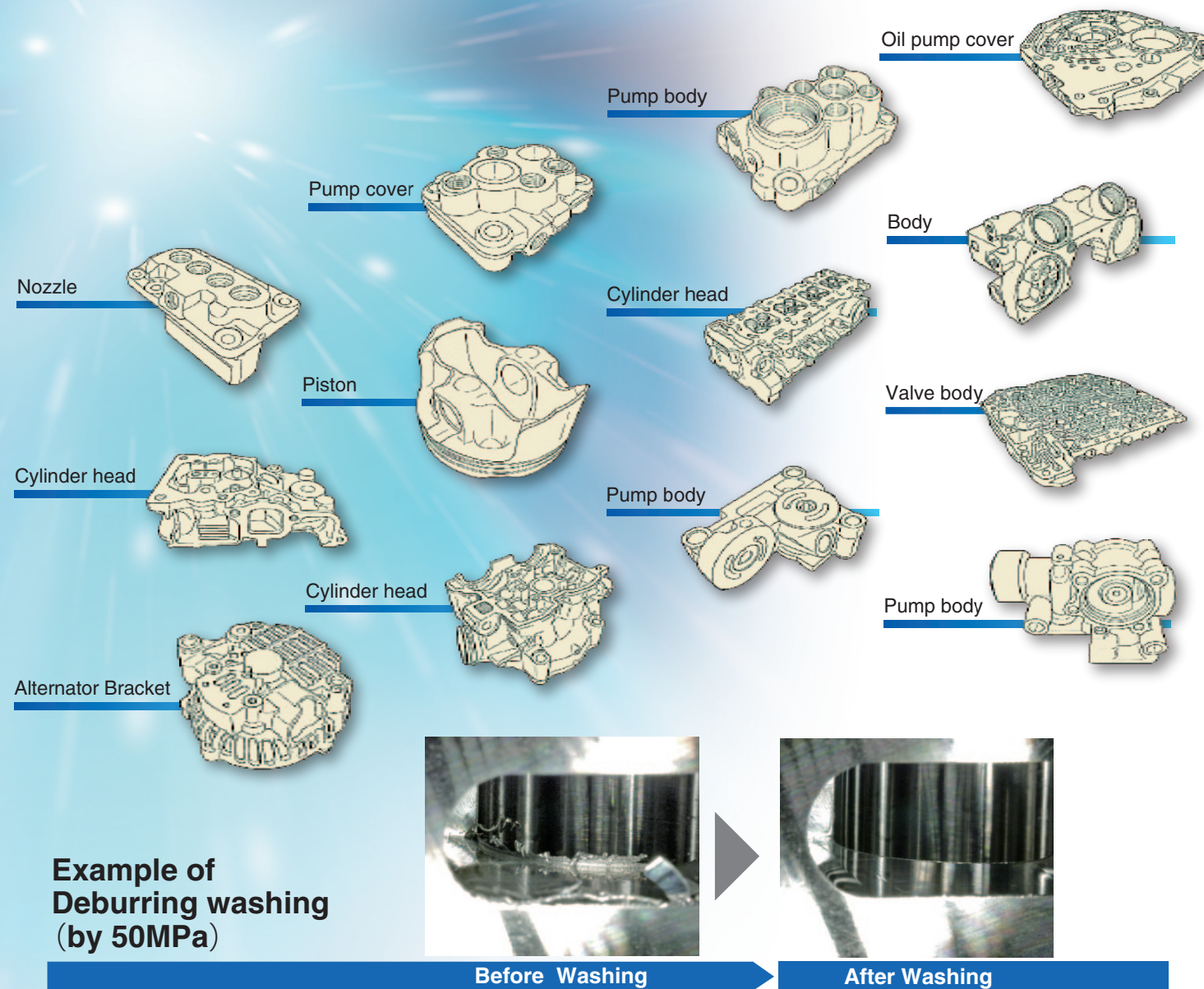
## One-stop Integration for your company

Our Minnesota based company **Industrial Tool** can fully automate / integrate a KAN Machine to fit your process and application. KAN machines can also be integrated into an existing line or cell.

[www.industrial-tool.com](http://www.industrial-tool.com)



# The examples of washing parts



## Nozzle available for various and different workpieces



**Direct Jet Nozzle**

To remove chips from blind holes and tapped holes, and deburr the surface with high-pressure water



**Rotating Nozzle**

Nozzle has a horizontal hole at the tip, rotating and discharging high-pressure water to cross holes and ring grooves to remove chips and burrs



**Big Shot Nozzle**

Utilizing the cavitation occurred by a large amount of low-pressure water discharging around the direct jet nozzle effectively removes chips in oil holes and water jackets

# Features

## KR-1/-2

- High Accuracy & Secure Target Washing controlled by CNC
- High Pressure (Max.50Mpa) Washing & Deburring removal of Chips and Burrs in blind holes, cross holes, tapped holes, etc.
- Easy to Operate, same as the operation of Machining Center using FANUC CNC Controller
- Available for various different workpieces by combination of Jigs and NC programs
- 6 Face Washing by combination of high-speed 4 divided indexing table and reversal Jig
- 6 Face hole washing & deburring by B axis Table allows for complex shape workpiece. Our machine is horizontal and can insert rotation nozzle into holes in 6 faces of the workpieces. (KAN Only)



## KR-2

- Built-in 2 ST Turn Table as standard equipment  
Loading-Unloading workpieces during washing can shorten cycle time and raise efficiency of operation drastically
- Easy setting up with automatic device (gantry loader, robot, etc.)





# Product specifications

## Machine Specifications

KR SERIES: KR-1/KR-2

Stroke X	Max. 750mm (29.5 inch)
Stroke Y	Max. 750mm (29.5 inch)
Stroke Z	Max. 750mm (29.5 inch)
Table Size	350×350mm (13.8 x 13.8 inch)
Table Max.Load	150kg (330 lbs)
Table Indexing	4Divided.(STD) Random by CNC(OPT)
Rapid Feed Speed X	30m/min (1,200 ipm)
Rapid Feed Speed Y	30m/min (1,200 ipm)
Rapid Feed Speed Z	30m/min (1,200 ipm)
Rapid Feed Speed B	NC(OPT)
Washing Pressure	10(STD)Max.50(OPT)MPa
Flow Volume	15L/min
Washing Pump	Plunger Pump
Filtration Primary	Net Basket
Secondary	Bag Filter or Line Filter(OPT)
No.of Tools	MAX 3
Rotation Nozzle	◎(OPT)
Motor X axis	1.2kw
Motor Y axis	1.8kw
Motor Z axis	0.75kw
Motor B axis	3.0kw
Power	AC200V 3ph 50/60Hz
Air Supply	0.4 to 0.6MPa
Machine Weight	4,000kg (8,830 lbs)

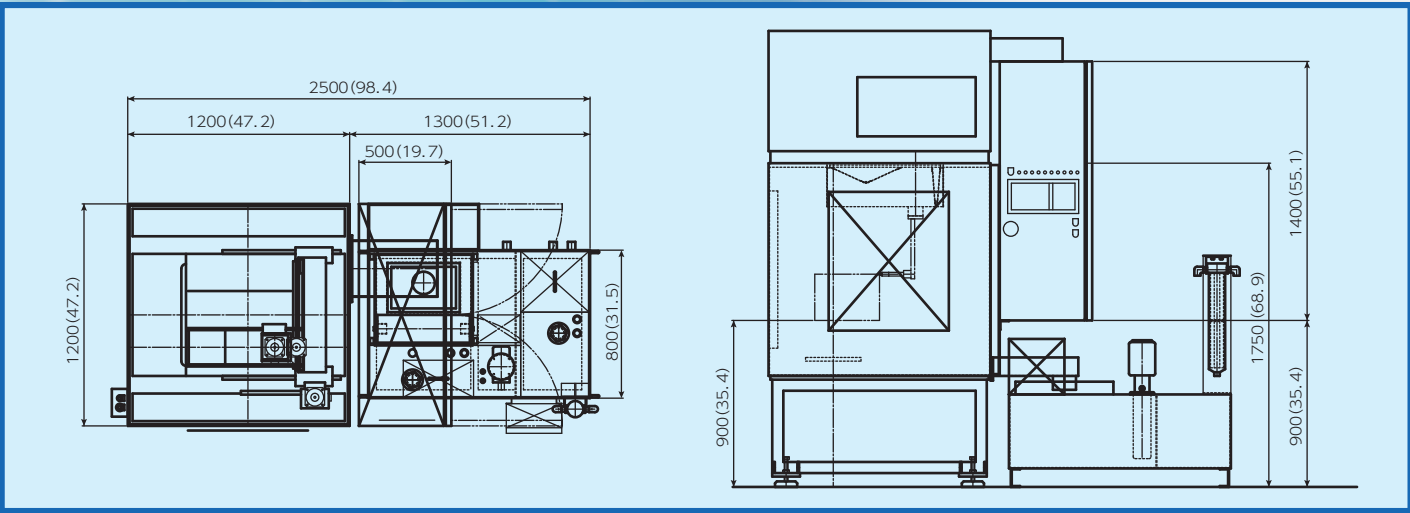
## CNC Controller Specifications Controller: FANUC Series Oi-MODEL F

No. of Axis	3axis (OPT 4axis)
No. of Axis Simultaneous	Max.4axis
Operation Pannel	8.4" color LCD/MDI
Handle Feed	Manual Pulse
Program Memory	512Kbyte
No. of Program registered	400
Data Input	Reader, Puncher Interface, Memory Card, USB
Auto Power off	OPT

# Machine measurements

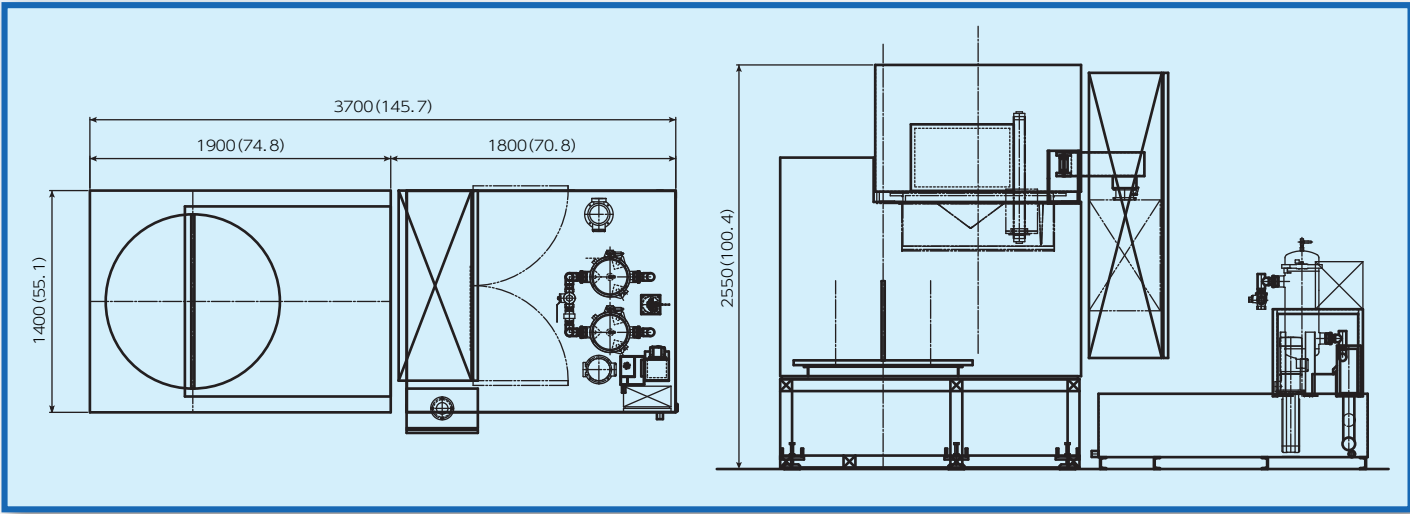
## KR-1

One station machine



## KR-2

Two station machine built-in turn table





# WASHING MACHINE

**KRF-1**  
6Axis Robot Type



For greater reliability and satisfaction  
**KAN MANUFACTORY CO.,LTD.**



# ①Flexible and Fast

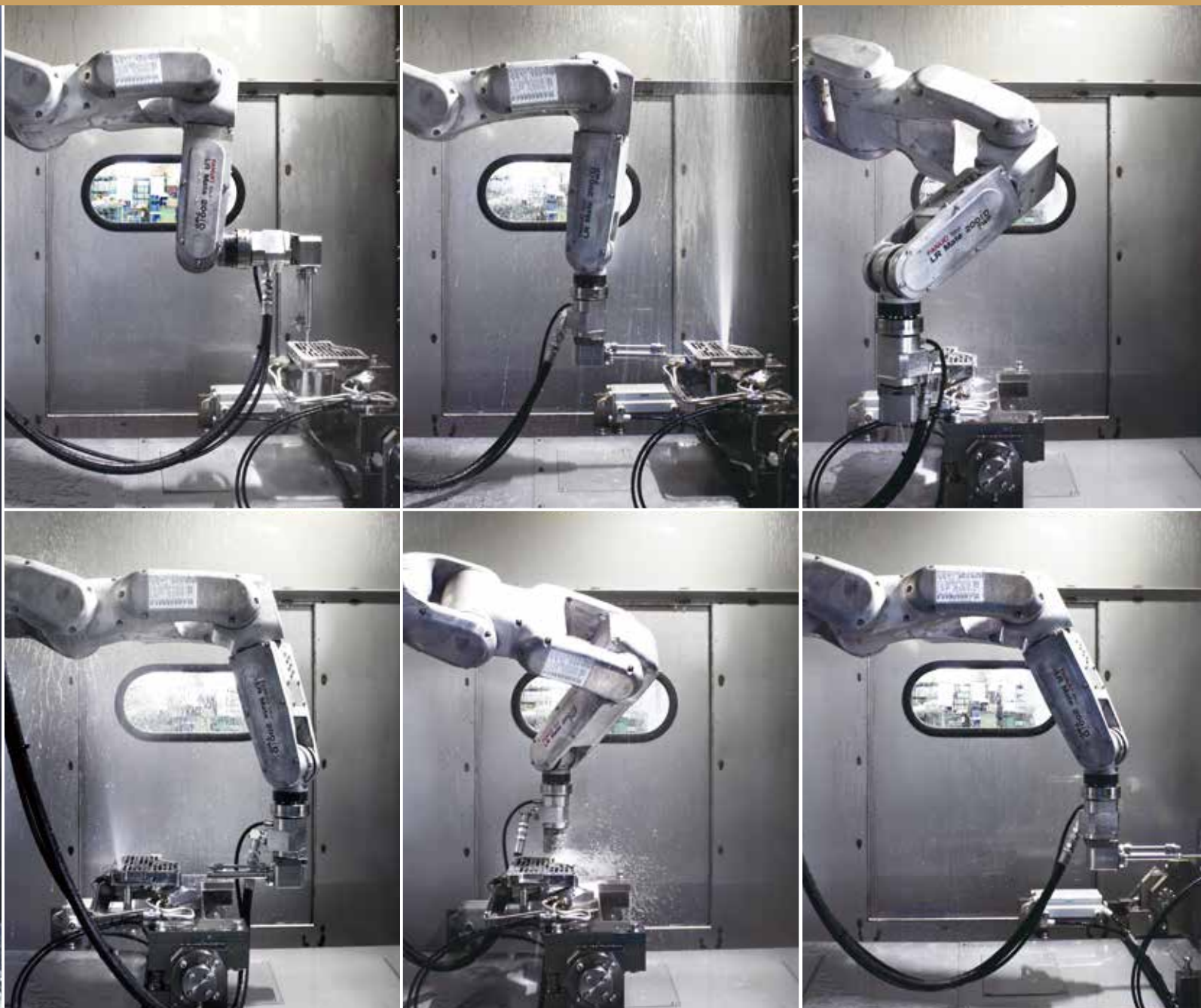
A 6-axis control articulated robot performs targeted washing from all angles. This machine can wash any intricately shaped workpieces that you want. Can also handle workpieces with short cycle times by effectively utilizing high-speed running of the robot.

# ②Adaptive Programming

Programming allows handling of workpieces of various shapes. Allows handling of multiple kinds of workpieces. Also contributes to cost reductions required for setup change.

# ③Compact Design

Realizes space-savings at an equipment width of 1,100 mm. Simplifies line lay out and replacement of existing machines.



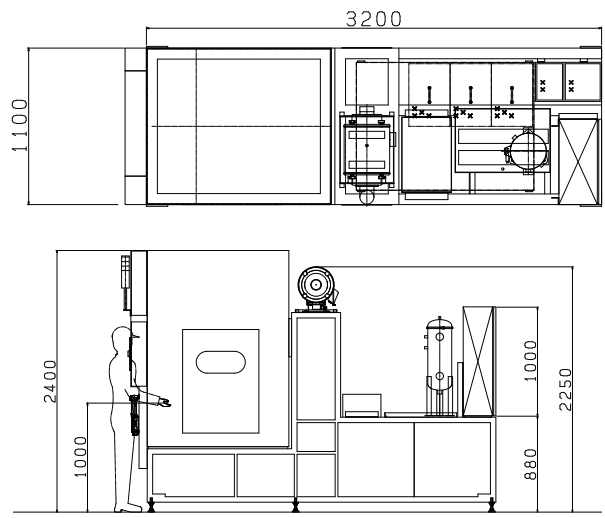
## KRF-1

6Axis Robot  
high-pressure  
washing machine

Features

This machine handles workpieces with short cycle times by effectively utilizing high-speed running of the robot. Allows target-washing from any angle with programming (by a teaching pendant). Also allows for registration of multiple programs to handle various kinds of workpieces. Also contributes to reduce changeover costs.

Measurements



Applicable workpiece size	250mm×250mm×250mm
Maximum workpiece weight	15kg
Washing pump	10MPa×17L/min
Filtration device (Primary)	Net basket filter
Filtration device (Secondary)	Bag filter
Washing nozzle	Direct injection
Air blow nozzle	1 piece
Maximum number of nozzles	Max. 2 pieces
Required power source (Electric power)	200V AC, 3-phase, 50/60Hz
Supply air pressure	0.4~0.6MPa
Number of controllable axes	6 axes





# +Future

KAN MANUFACTORY CO.,LTD.

## Contacts

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**Maruka U.S.A. Inc.**

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Web site : [www.marukausa.com](http://www.marukausa.com)

### Outside North America Customer

 +Future

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