

KATAOKA

# NC Cubic Series

## High Precision CNC Washing Machine

The 5-axes motion control feature offers high precision washing covering all directions.



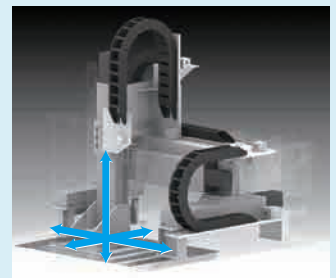
- High performance motion control system not only offers high precision washing with pinpoint accuracy but targeting deep holes too
- Nozzle positioning function with high precision washes complex configuration as well as inside holes
- High precision washing covering all directions is made possible by using 5-axes motion control: X-, Y- and Z-axes + nozzle rotation + workpiece rotation
- Workpiece size: 500 (W) × 200 (L) × 200
- Compact design makes installation possible in small or narrow spaces
- Submerged cleaning is available, thereby removing chips or swarf stuck inside (HFW-S Type)
- Simple program editing to support multiple workpieces, offering more versatility
- Index table reduces loading and unloading time (HFW-i Type)
- Burrs can be removed with high pressure (50 MPa) cleaning (HFW-500 Type)
- Equipped with air blowing function
- Fully automatic line integration possible

## NC Cubic HFW-100S

- Shuttle type
- Submerged cleaning is available



### 5-axis motion control



X-, Y- and Z-axes

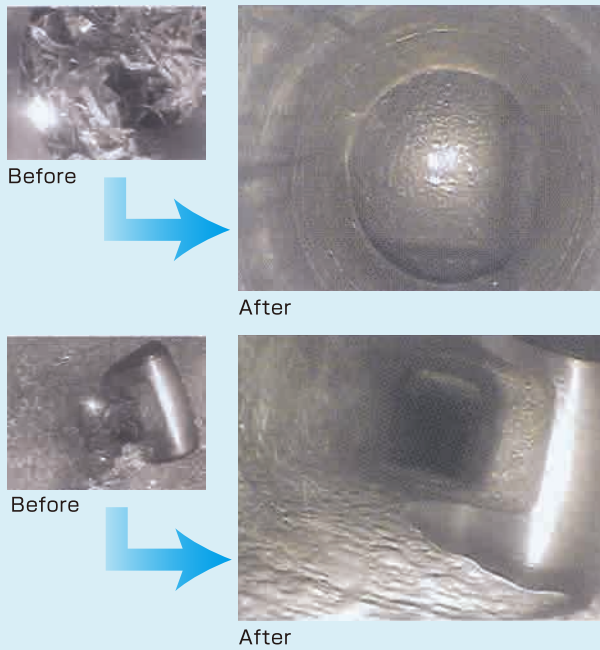


Nozzle rotation



Workpiece rotation

Our motion control system now offers high precision washing that covers every nook and cranny.

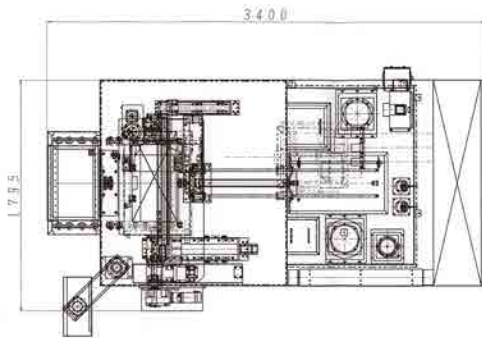


# NC Cubic HFW-100i

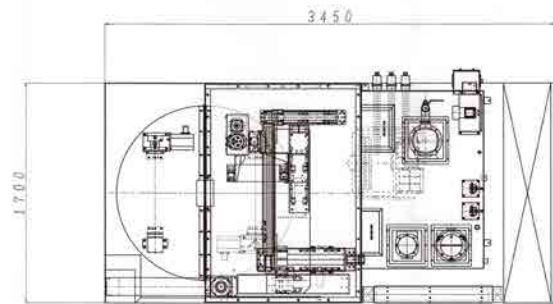
■ Rotating Jig table



■ Dimensional drawing (HFW-100S)



■ Dimensional drawing (HFW-100i)



■ Machine specifications

Model	HFW-10S	HFW-100S	HFW-500S	HFW-10i	HFW-100i	HFW-500i
Machine dimensions	1795 (W) × 3400 (L) × 3100 (H)		2500 (W) × 3400 (L) × 3100 (H)	1700 (W) × 3450 (L) × 3100 (H)		2500 (W) × 3400 (L) × 3100 (H)
Material	For liquid contact	SUS304		SUS304		
	Rack	SS coating		SS coating		
	Pipes and nozzles	SUS		SUS		
Voltage	200 V, 60/50 Hz, operation voltage 100 V			200 V, 60/50 Hz, operation voltage 100 V		
Workpiece setup	Manual (*Automatic available)			Manual (*Automatic available)		
Operation method	Auto/All individual			Auto/All individual		
Nozzle stroke	X-axis: 700 mm Y-axis: 350 mm Z-axis: 400 mm			X-axis: 700 mm Y-axis: 350 mm Z-axis: 400 mm		
Travel speed	X-axis: 500 mm/sec Y-axis: 500 mm/sec Z-axis: 250 mm/sec			X-axis: 500 mm/sec Y-axis: 500 mm/sec Z-axis: 250 mm/sec		
Nozzle speed	W-axis: 50 rpm			W-axis: 50 rpm		
Workpiece rotation	R-axis: 180°			R-axis: 180°		
Controller	Mitsubishi (i MOTION CONTROLLER)			Mitsubishi (i MOTION CONTROLLER)		
Sequencer	Mitsubishi Q-Series			Mitsubishi Q-Series		
Washing pressure	1 MPa, 50 L/min	10 MPa, 20 L/min	50 MPa, 20 L/min	1 MPa, 50 L/min	10 MPa, 20 L/min	50 MPa, 20 L/min
Workpiece size	500 (W) × 200 (L) × 200 (H) *Other sizes available			500 (W) × 200 (L) × 200 (H) *Other sizes available		
High pressure pump	Grundfos	Arimitsu RG-713VV	Arimitsu C042H20	Grundfos	Arimitsu RG-713VV	Arimitsu C042H20
Circulating/Low pressure pump	Grundfos			Grundfos		
Bag filter	EBF-0204 (FMK)			EBF-0204 (FMK)		
Primary filter	SUS M60 mesh filter			SUS M60 mesh filter		
Protective strainer	OS-50 (FMK)			OS-50 (FMK)		
Oil catcher	Float type			Float type		
Water level detector	D/T300L+C/T240L	D/T400L+C/T270L		D/T300L+C/T240L	D/T400L+C/T270L	
Heating method	Electrical heater (FMK) 10 kW × 3 = 30 kW			Electrical heater (FMK) 10 kW × 3 = 30 kW		
Exhaust system	SC-200 (FMK)			SC-200 (FMK)		

\*Asterisk mark indicates that it is available as an option. Specification is subject to change in order to improve performance.