



Water Temperature Control Unit

DTU152/1531/1540

High precision water temperature control for stabilizing precision and product quality

The DTU152, 1531 and 1540 are water supply units for dicing saws and grinders that provide a stable supply of spindle cooling water or dicing water at a constant temperature and a suitable pressure.

Stable high precision processing

Due to optimizations in the design of the unit, changes in temperature when changing the flow rate of dicing water can be kept to under 1°C. Changes in dicing saws, grinder spindles, chuck tables, workpiece areas around the process point due to changes in temperature can be minimized to help improve processing precision.

Guarantee water supply pressure

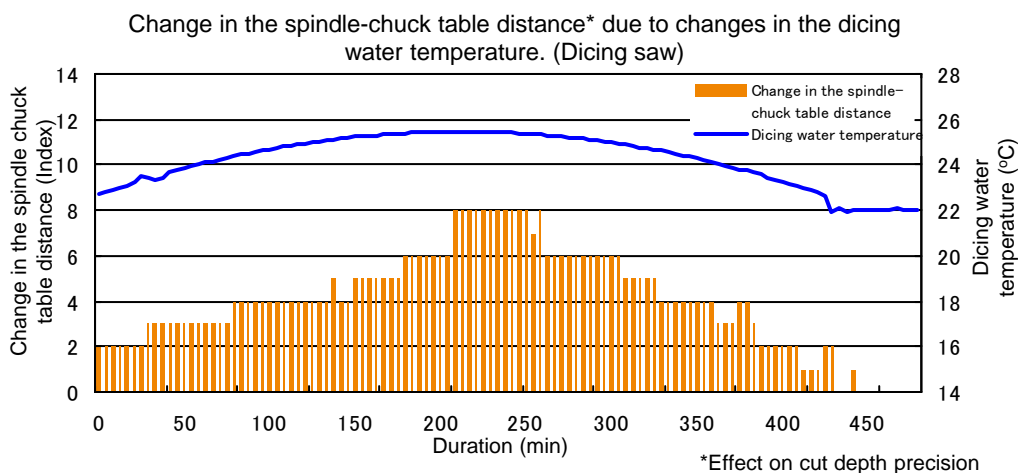
Even if the pressure of the water supply from the facility infrastructure is low, the unit will increase the water pressure to the necessary levels for dicing saws and grinders.



DTU1540

Importance of water temperature management




Management of the changes in the areas of the workpiece due to temperature near the process point with water with a stable temperature is critical for high precision processing.



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DTU152/1531/1540 Specifications

		DTU152 Basic Model	DTU1531 Cooling water centric model	DTU1540 Energy conservation model
		Supports many different equipment types	Supports high output grinders and spindles	Uses a highly efficient temperature unit for energy conservation
				
Cutting water system	Cooling capacity	kW	6.3	
	Heating capacity	kW	12.5	
	Pumping capacity	L/min	25	
Spindle coolant system	Cooling capacity	kW	1.16	1.5
	Pumping capacity	L/min	6	15
Temperature setting range	Cutting water	°C	15~30	
	Spindle coolant water	°C	15~30	
Temperature fluctuation range*	Cutting water	°C	Within ±1.0	
	Spindle coolant water	°C	Within ±1.0	
Utilities	Power supply	V	AC200V±10% 3-phase	
<small>For other than the above voltages, a transformer is necessary.</small>				
Power consumption	When heater is at max. capacity	kW	14.1	15.2
	Max. power	kVA	14.4	15.4
Refrigerated cooling water	Feed water pressure	MPa	0.15 - 0.5	0.2 - 0.5
	Required flow rate	L/min	8 or higher (when water temperature is 15 °C)**	
Machine dimensions (W x D x H)		mm	450 x 1,296 x 1,235	330 x 1,550 x 875
Machine weight	when dry	kg	Approx. 310	Approx. 280
	when running with full tank	kg	Approx. 360	Approx. 310
				500 x 780 x 1,650
			Approx. 270 (for reference)	Approx. 355 (for reference)

* When both cutting water and spindle coolant are 20 - 25 °C

** The required flow rate will vary by temperature.

*** When the change in flow rate is between 2-30 L/min (reference value)

**** When feed spindle coolant water flow rate is 0 L/min.

■ Environmental conditions

- Keep room temperature fluctuations within ±1 °C of the set value. (Set value should be between 20 - 25 °C).
- The machines should be used in an environment, free from external vibration. Do not install machine near a ventilation opening, heat generation equipment or oil mist generating parts.
- This machine uses water.
In case of water leakage, please install the machine on the floor with sufficient waterproofing and drainage treatments.

* All the pressures are described using a gauge pressure.

* The above specifications may change due to technical modifications. Please confirm when placing your order.

* For further information please contact your local sales representatives