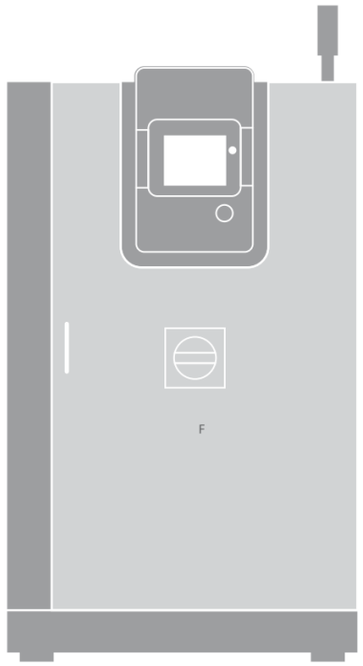
Edition 1

2015

MT℃ YUDO Consilience Technology



YUDO Mold Temperature Control Line-up

Steam Heating & Cooling system

RICHSERIES

Rapid isolation cooling & heating system

RICH

Water purifier

RICH-Boy

RICH-Mini

	Model		RICH-4	RICH-2	RICH-5	RICH-7	RICH-7α	RICH-5R	RICH-7R
RICH	Max pressure ▶		15 bar	15 bar	25 bar	25 bar	25 bar	25 bar	25 bar
	Working pressure ▶		13 bar	13 bar	20 bar	20 bar	20 bar	20 bar	20 bar
	Max temperature ▶		200℃	200℃	225℃	225℃	225℃	225℃	225℃
	Tank capacity ▶		111ℓ	207ℓ	221ℓ	332ℓ	369ℓ	369ℓ	369ℓ
	Electric capacity	Heater ▶	75kW	144kW	180kW	240kW	148.5kW	165kW	231kW
		Feed pump ▶	3.0kW(50Hz) 3.0kW(60Hz)	3.0kW(50Hz) 3.0kW(60Hz)	4.0kW(50Hz) 4.0kW(60Hz)	4.0kW(50Hz) 4.0kW(60Hz)	4.0kW(50Hz) 4.0kW(60Hz)	4.0kW(50Hz) 4.0kW(60Hz)	4.0kW(50Hz) 4.0kW(60Hz)
		Cooling pump ▶	1.5kW(50Hz) 2.2kW(60Hz)	2.2kW(50Hz) 3.0kW(60Hz)	4.0kW(50Hz) 5.5kW(60Hz)	4.0kW(50Hz) 5.5kW(60Hz)	4.0kW(50Hz) 5.5kW(60Hz)	4.0kW(50Hz) 5.5kW(60Hz)	4.0kW(50Hz) 5.5kW(60Hz)
		Water purifier pump ▶						0.8kW(50Hz) 1.24kW(60Hz)	0.8kW(50Hz) 1.24kW(60Hz)
	Power	Power source ▶	AC380V, 3Phase	AC380V, 3Phase	AC380V, 3Phase	AC380V, 3Phase	AC380V, 3Phase	AC380V, 3Phase	AC380V, 3Phase
		Circuit breaker ▶	175A	300A	350A	400A	300A	300A	400A
	Compressed air	Pressure ▶	6~8 bar	6~8 bar	6~8 bar	6~8 bar	6~8 bar	6~8 bar	6~8 bar
		Discharge ▶	1000cc/cycle	1000cc/cycle	1000cc/cycle	1000cc/cycle	1000cc/cycle	1000cc/cycle	1000cc/cycle
	Boiler piping ▶		20A	20A	20A	20A	20A	20A	20A
	Dimension (WxDxH)(mm) ▶		600 x 1300 x 1670	900 x 2030 x 1600	840 x 2100 x 1910	1030 x 2280 x 1910	1030 x 1966 x 1910	1030 x 2140 x 1935	1030 x 2140 x 1935
Auxiliary	Coolant	Pressure ▶	Min. 4 bar				Min. 4 bar	Min. 4 bar	
		Flow rate ▶	200 lpm		250 lpm		250 lpm	250 lpm	
		Piping ▶	Min. 25A(in/out)	Min. 32A(in/out)	Min. 40A(in/out)		Min. 40A(in/out)	Min. 40A(in/out)	
		Water quality ▶	Clean water (Total water hardness 20ppm ↓)				Clean water (20ppm ↓)	Clean water (20ppm ↓)	
	Water supply	Pressure ▶	3~5 bar				3~5 bar	3~5 bar	
		Flow rate ▶	150 lpm				150 lpm	150 lpm	
		Water quality ▶	Clean water (Total water hardness 70ppm ↓, Require water filter -Using water filter 7ppm ↓)				Clean water (70ppm ↓)	Clean water (70ppm ↓)	
	Water filter	Install ▶	Compulsory				Compulsory		
		Dimension (WxDxH)(mm) ▶	600x1200x1600				600x1200x1600		
	Max. power consumption ▶		96kW	171kW	208kW	248kW	161kW	179kW	245kW

	Model		RICH-Boy 80	RICH-Boy 150	RICH-Boy 250	RICH-mini
RICH	Max pressure ▶		15 bar	15 bar	15 bar	15 bar
	Working pressure ▶		10 bar	10 bar	10 bar	10 bar
	Max temperature ▶		200℃	200℃	200℃	200℃
	Tank capacity ▶					45ℓ
	Electric capacity	Heater ▶				48kW
		Feed pump ▶				2.2kW(50Hz) 4.0kW(60Hz)
		Cooling pump ▶	1.5kW(50Hz) 2.2kW(60Hz)	2.2kW(50Hz) 3.0kW(60Hz)	4.0kW(50Hz) 5.5kW(60Hz)	1.1kW(50Hz) 1.1kW(60Hz)
		Water purifier pump ▶				
	Power	Power source ▶	AC380V, 3Phase	AC380V, 3Phase	AC380V, 3Phase	AC380V, 3Phase
		Circuit breaker ▶	20A	20A	20A	100A
	Compressed air	Pressure ▶	6~8 bar	6~8 bar	6~8 bar	6~8 bar
		Discharge ▶	1000cc/cycle	1000cc/cycle	1000cc/cycle	1000cc/cycle
	Boiler piping ▶		25A	25A	25A	20A
	Dimension (WxDxH)(mm) ▶		520x1110x1130	520x1110x1130	520x1110x1130	480x1280x1100
Auxiliary	Coolant	Pressure ▶				Min. 4 bar
		Flow rate ▶				200 lpm
		Piping ▶				Min. 25A(in/out)
		Water quality ▶	Clean water (Total water hardness 20ppm ↓)			Clean water (20ppm ↓)
	Water supply	Pressure ▶				3~5 bar
		Flow rate ▶				150 lpm
		Water quality ▶				Clean water (Total water hardness 70ppm ↓, Require water filter -Using water filter 7ppm ↓)
	Water filter	Install ▶				Compulsory
		Dimension (WxDxH)(mm) ▶				600x1200x1600
	Max. power consumption ▶		3kW	4kW	7kW	55kW

Cooling system : Chiller

SOCUL SERIES

Water cooled chiller

Model (Water cooling type)		SOCUL-103W	SOCUL-105W	SOCUL-107W	SOCUL-110W	SOCUL-115W	SOCUL-120W	SOCUL-130W
Power source ▶		AC220V/380V ±10 50/60Hz, 3Phase						
Temperature control method ▶		ON, OFF (Range of temperature difference setting 0~10℃)						
Temperature control range ▶		5℃ ~ 35℃						
Medium ▶		Clean water, MEG (Mono Ethylene Glycol)						
Refrigerant ▶		R-22 or R-407C						
Compressor ▶		2.7kW(50Hz) / 3.25W(60Hz)	4.43(kW(50Hz) / 5.4kW(60Hz)	5.81kW(50Hz) / 6.95kW(60Hz)	9kW(50Hz) / 10.9kW(60Hz)	11.3kW(50Hz) / 13.9kW(60Hz)	13.6kW(50Hz) / 16.8kW(60Hz)	22kW(50Hz) / 27.1kW(60Hz)
Cooling capacity (kcal/h, 60Hz standard)	5℃	7200kcal/h	12000kcal/h	15700kcal/h	25150kcal/h	36980kcal/h	45150kcal/h	72670kcal/h
	10℃	8650kcal/h	14400kcal/h	18800kcal/h	30250kcal/h	42570kcal/h	52030kcal/h	84280kcal/h
	15℃	10300kcal/h	16850kcal/h	22450kcal/h	35400kcal/h	48590kcal/h	59340kcal/h	96750kcal/h
Pump ▶		0.43kW(50Hz) /0.74kW(60Hz)	0.43kW(50Hz)/0.74kW(60Hz)	0.85kW(50Hz)/1.7kW(60Hz)	1.2kW(50Hz)/2.5kW(60Hz)	1.2kW(50Hz)/2.5kW(60Hz)	2.2kW(50Hz)/4.0kW(60Hz)	2.2kW(50Hz)/4.0kW(60Hz)
Pump max. flow &pressure	50Hz	30LPM / 3.3bar	50LPM / 2.7bar	75LPM / 3.2bar	100LPM / 3.2bar	150LPM / 2.8bar	200LPM / 3.6bar	300LPM / 2.8bar
	60Hz	30LPM / 4.7bar	50LPM / 4.4bar	75LPM / 4.7bar	100LPM / 4.5bar	150LPM / 4.4bar	200LPM / 5.8bar	300LPM / 4.6bar
Cooling type ▶		Water condenser type						
Temperature sensor ▶		PT 100 Ω						
Display ▶		LED display + 7 Segment LED						
Alarm ▶		Anti phase, Low water, Water flow, High/Low pressure, Anti-Freeze, Comp overload alarm						
Cooling water in/out ▶		25A	32A	32A	32A	40A	50A	50A
Condenser in/out ▶		25A	32A	32A	32A	40A	50A	50A
Tank capacity ▶		45ℓ	86ℓ	100ℓ	123ℓ	245ℓ	323ℓ	497ℓ
Water supply ▶		15A (1/2")						
Drain ▶		15A (1/2")						
Overflow ▶		25A (1")						
Manifold (Option) ▶		3/8"x6EA	3/8"x8EA	3/8"x8EA	3/8"x10EA	3/8"x10EA	3/8"x12EA	3/8"x12EA
Max. power consumption ▶		3.9 / 5.0kVA	6.1 / 7.7kVA	8.3 / 10.8kVA	12.8 / 16.8kVA	15.6 / 20.5kVA	19.8 / 26kVA	30.2 / 38.9kVA
Dimension (WxDxH)(mm) ▶		700x1100x1420	700x1100x1420	800x1400x1480	800x1400x1480	900x2050x1830	900x2050x1830	950x2200x1945

Model (Air cooling type)		SOCUL-103A	SOCUL-105A	SOCUL-107A	SOCUL-110A	SOCUL-115A	SOCUL-120A	SOCUL-130A
Power source ▶		AC220V/380V ±10 50/60Hz, 3Phase						
Temperature control method ▶		ON, OFF (Range of temperature difference setting 0~10℃)						
Temperature control range ▶		5℃ ~ 35℃						
Medium ▶		Clean water, MEG (Mono Ethylene Glycol)						
Refrigerant ▶		R-22 or R-407C						
Compressor ▶		2.7kW(50Hz) / 3.25kW(60Hz)	4.43kW(50Hz) / 5.4kW(60Hz)	5.81kW(50Hz) / 6.95kW(60Hz)	9kW(50Hz) / 10.9kW(60Hz)	11.3kW(50Hz) / 13.9kW(60Hz)	13.6kW(50Hz) / 16.8kW(60Hz)	22kW(50Hz) / 27.1kW(60Hz)
Cooling capacity (kcal/h, 60Hz standard)	5℃	7050kcal/h	10850kcal/h	14400kcal/h	22300kcal/h	33700kcal/h	43600kcal/h	67000kcal/h
	10℃	7100kcal/h	13200kcal/h	17400kcal/h	27650kcal/h	40600kcal/h	52700kcal/h	80350kcal/h
	15℃	7200kcal/h	15800kcal/h	20800kcal/h	32400kcal/h	48400kcal/h	62650kcal/h	95500kcal/h
Pump (50Hz/60Hz) ▶		0.43kW(50Hz) / 0.74kW(60Hz)	0.43kW(50Hz) / 0.74kW(60Hz)	0.85kW(50Hz) / 1.7kW(60Hz)	1.2kW(50Hz) / 2.5kW(60Hz)	1.2kW(50Hz) / 2.5kW(60Hz)	2.2kW(50Hz) / 4.0kW(60Hz)	2.2kW(50Hz) / 4.0kW(60Hz)
Pump max. flow &pressure	50Hz	30LPM / 3.3bar	50LPM / 2.7bar	75LPM / 3.2bar	100LPM / 3.2bar	150LPM / 2.8bar	200LPM / 3.6bar	300LPM / 2.8bar
	60Hz	30LPM / 4.7bar	50LPM / 4.4bar	75LPM / 4.7bar	100LPM / 4.5bar	150LPM / 4.4bar	200LPM / 5.8bar	300LPM / 4.6bar
Cooling type ▶		Water condenser type						
Temperature sensor ▶		PT 100 Ω						
Display ▶		LED Display + 7 Segment LED						
Alarm ▶		Anti phase, Low water, Water flow, High/Low pressure, Anti-Freeze, Comp overload alarm						
Condensationfan	Fan (ø) x ea	600ø	600ø	630ø	630ø × 2ea	630ø × 2ea	700ø × 2	700ø × 3ea
	Motor (kW × P)	0.27 / 0.43 x 6	0.27 / 0.43 x 6	0.33 / 0.46 x 6	0.33 / 0.46 x 6 x 2	0.33 / 0.46 x 6 x 2	0.75 / 1.08 x 6 x 2	0.75 / 1.08 x 6 x 3
Tank capacity ▶		45ℓ	86ℓ	100ℓ	123ℓ	245ℓ	323ℓ	497ℓ
Water supply ▶		15A (1/2")						
Drain ▶		15A (1/2")						
Overflow ▶		25A (1")						
Manifold(Option) ▶		3/8"x6EA	3/8"x8EA	3/8"x8EA	3/8"x10EA	3/8"x10EA	3/8"x12EA	3/8"x12EA
Max. power consumption ▶		4.3 / 5.5kVA	6.4 / 8.2kVA	8.7 / 11.4kVA	13.6 / 17.9kVA	16.5 / 21.7kVA	21.6 / 28.7kVA	33 / 42.9kVA
Dimension(WxDxH)(mm) ▶		850x1200x1530	850x1300x1650	900x1500x1700	900x1850x1770	900x1850x1900	1050x2200x2150	1050x2850x2200

SOCUL (Chiller) Standard of Socul series								
	I.M.M range ▶	~250	~300	~450	~600	~850	~1000	~1600
	Cooling performance (60Hz,cooling water degree 5℃ standard) ▶	8376.6kcal/h (7200)	13956kcal/h (12000)	18259.1kcal/h (15700)	29249.5kcal/h (2150)	43205.5kcal/h (37150)	55765.8kcal/h (47950)	85422.4kcal/h (73450)
	Ton of refrigeration ▶	3R/T	5R/T	7.5R/T	10R/T	15R/T	20R/T	30R/T

YUDO

Take-out Robot Line-up

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This catalogue provides a customer with product image and the information. All reference specifications are subjected to change with out prior notice.

Ver. 1.0 Mold Temperature Control Line-up (October 2015)

FOS SERIES

Mold temperature controller

Model	FOS-140ST	FOS-160ST	FOS-180ST	FOS-140CE	FOS-160CE	FOS-180CE	FOS-230ST	FOS-245ST	FOS-290ST	FOS-230CE	FOS-245CE	FOS-290CE	FOS-330ST	FOS-330STM	FOS-345ST	FOS-360STM	FOS-39
Power source ▶	AC220V/380V ±10, 50/60Hz, 3Phase			AC220V/380V ±10, 50/60Hz, 3Phase			AC220V/380V ±10, 50/60Hz, 3Phase			AC220V/380V ±10, 50/60Hz, 3Phase			AC220V/380V ±10, 50/60Hz, 3Phase				
Temperature control method ▶	PID (±0.5℃)			PID (±0.5℃)			PID (±0.5℃)			PID (±0.5℃)			PID (±0.5℃)				
Temperature control range ▶	Water (clean water): water supply temp +20~95℃ SKYTHERM: water supply temp +20~150℃			Water (clean water): water supply temp +20~95℃ SKYTHERM: water supply temp +20~150℃			Water (clean water): water supply temp +10~120℃			Water (clean water): water supply temp +10~120℃			SKYTHERM: water supply temp +20~160℃				
Heating medium ▶	Water (Clean water), SKYTHERM			Water (Clean water), SKYTHERM			Water (Clean water)			Water (Clean water)			SKYTHERM				
Motor ▶	0.5kW	0.5kW	1.5kW	0.5kW	0.5kW	1.5kW	0.5kW	0.75kW	1.5kW	0.5kW	0.75kW	1.5kW	0.5kW	0.5kW (독일 SPECK 마그네틱)	0.75kW	1.5kW (독일 SPECK 마그네틱)	1.5kW
Maximum discharge pressure (Mpa) ▶	0.38(50Hz) 0.38(60Hz)	0.38(50Hz) 0.38(60Hz)	0.70(50Hz) 0.70(60Hz)	0.38(50Hz) 0.38(60Hz)	0.38(50Hz) 0.38(60Hz)	0.70(50Hz) 0.70(60Hz)	0.40(50Hz) 0.54(60Hz)	0.40(50Hz) 0.50(60Hz)	0.60(50Hz) 0.65(60Hz)	0.40(50Hz) 0.54(60Hz)	0.40(50Hz) 0.50(60Hz)	0.60(50Hz) 0.65(60Hz)	0.40(50Hz) 0.54(60Hz)	0.50(50Hz) 0.60(60Hz)	0.40(50Hz) 0.50(60Hz)	0.50(50Hz) 0.65(60Hz)	0.60(50
Maximum discharge volum (1/min) ▶	40(50Hz) 40(60Hz)	60(50Hz) 60(60Hz)	70(50Hz) 70(60Hz)	40(50Hz) 40(60Hz)	60(50Hz) 60(60Hz)	70(50Hz) 70(60Hz)	25(50Hz) 30(60Hz)	40(50Hz) 50(60Hz)	80(50Hz) 90(60Hz)	25(50Hz) 30(60Hz)	40(50Hz) 50(60Hz)	80(50Hz) 90(60Hz)	25(50Hz) 30(60Hz)	30(50Hz) 35(60Hz)	40(50Hz) 50(60Hz)	55(50Hz) 60(60Hz)	80(50 90(60
Heater ▶	3.5kW	5kW	7kW	3.5kW	5kW	7kW	4.5kW	6kW	7kW	4.5kW	6kW	7kW	4.5kW		6kW		
Cooling type ▶	Indirect cooling			Indirect cooling			Direct cooling			Direct cooling			Indirect cooling				
Temperature sensor method ▶	RTD(PT) sensor			RTD(PT) sensor			RTD(PT) sensor			RTD(PT) sensor			RTD(PT) sensor				
Display ▶	7 Segment LED			Graphic LCD			7 Segment LED			Graphic LCD			7 Segment LED				
Alarm display ▶	Overload, Low water level, Phase detection			Overload, Low water level, Phase detection, High/low sensor alram (Temperature, pressure), Over electric current, Broken wire, High/low pressure			Overload, Low water level, Phase detection			Overload, Low water level, Phase detection, High/low sensor alram (Temperature, pressure), Over electric current, Broken wire, High/low pressure			Overload, Low water level, Phase detection				
Coolant inlet / Coolant outlet ▶	10A (3/8") 10A (3/8")			10A (3/8") 10A (3/8")			15A (1/2") 15A (1/2")			15A (1/2") 15A (1/2")			15A (1/2") 15A (1/2")				
Medium inlet / Medium outlet ▶	20A(3/4")			20A(3/4")			15A(1/2")	20A(3/4")	25A(1")	15A(1/2")	20A(3/4")	25A(1")	15A(1/2")		20A(3/4")		
Drain ▶	15A (1/2")			15A (1/2")			15A (1/2")			15A (1/2")							
Safety device ▶	Over heat (circuit breaker trip)			Over heat (circuit breaker trip)			Over heat (circuit breaker trip)			Over heat (circuit breaker trip)			Over heat (circuit breaker trip)				
Weight ▶	62kg	70kg	82kg	62kg	70kg	82kg	60kg	75kg	95kg	60kg	75kg	95kg	110kg		110kg		
Max. power consumption ▶	4.1kW	5.6kW	8.6kW	4.1kW	5.6kW	8.6kW	5.1kW	6.8kW	8.6kW	5.1kW	6.8kW	8.6kW	5.1kW		6.8kW		
Dimension (WxDxH)(mm) ▶	320 x625x540	320 x625x620	320 x625x620	320 x625x540	320 x625x620	320 x625x620	300x775x590	300x775x590	300x775x590	300x775x590	300x775x590	300x775x590	320x759x680		320x759x680		
Pump type ▶	WESCO Type Pump			WESCO Type Pump			WESCO Type Pump			WESCO Type Pump			WESCO Type Pump				
Auto water supply ▶	○			○			○			○							
Temperature control method ▶	P.I.D (7 Segment LED)			P.I.D (Graphic LCD)			P.I.D (7 Segment LED)			P.I.D (Graphic LCD)			P.I.D (7 Segment LED)				
Operational temperature range ▶	Water (clean water): water supply temp +20~95℃ SKYTHERM: water supply temp +20~150℃			Water (clean water): water supply temp +20~95℃ SKYTHERM: water supply temp +20~150℃			Water (clean water): water supply temp +10~120℃			Water (clean water): water supply temp +10~120℃			SKYTHERM: water supply temp +20~160℃				
SSR (Solid State Relay) ▶	×			○			×			○			×				
Communication port ▶	Option			Option			Option			Option			Option				
Run / Stop timer (to run and stop time) ▶	×			○			×			○			×				
Language (Korean / English / Japaness / Chinese) ▶	×			○			×			○			×				
Phase detecting circuit ▶	○			○			○			○			○				
Selecting temperature ▶	○			○			○			○			○				
Max/min temperature alarm (Abnomal temperature) ▶	○			○			○			○			×				
Max/min pressure alarm (Abnomal pressure) ▶	×			×			○			○			○				
Motor pump overload & water level detector ▶	○			○			○			○			○				
Overheat prevention / Block overheat ▶	○			○			○			○			○				
Option ▶	Custom color, Micro filter			Custom color, Micro filter			Custom color, Micro filter			Custom color, Micro filter			Custom color, Micro filter, Separable remote controller, Alarm lamp				

Standard of FOS Series

I.M.M (ton)	Flow rate (ℓ/min)
850~	460 400 350 300 250
650~	240 200 180 160
450~	120 90 80 70
250~	60 50 46 45
150~	40 30 20
50~	10

FOS-140ST	FOS-160ST	FOS-180ST	FOS-140CE	FOS-160CE	FOS-180CE	FOS-230ST	FOS-245ST	FOS-290ST	FOS-230CE	FOS-245CE	FOS-290CE	FOS-330ST	FOS-330STM	FOS-345ST	FOS-360STM	FOS-39
40ℓ/min	60ℓ/min	70ℓ/min	40ℓ/min	60ℓ/min	70ℓ/min	30ℓ/min	50ℓ/min	90ℓ/min	30ℓ/min	50ℓ/min	90ℓ/min	30ℓ/min	35ℓ/min	50ℓ/min	60ℓ/min	90ℓ/m

0ST	FOS-390STM	FOS-330CE	FOS-345CE	FOS-390CE	FOS-2090ST	FOS-2160ST	FOS-2240ST	FOS-2430ST	FOS-2090CE	FOS-2160CE	FOS-2240CE	FOS-2430CE
		AC220V/380V ±10, 50/60Hz, 3Phase			AC220V/380V ±10, 50/60Hz, 3Phase				AC220V/380V ±10, 50/60Hz, 3Phase			
		PID (±0.5℃)			PID (±0.5℃)				PID (±0.5℃)			
		SKYTHERM: water supply temp +20~160℃			Water (clean water): water supply temp +10~120℃				Water (clean water): water supply temp +10~120℃			
		SKYTHERM			Water (Clean water)				Water (Clean water)			
W	2.2kW (독일 SPECK 마그네틱)	0.5kW	0.75kW	1.5kW	0.37kW (50Hz) 0.55kW (60Hz)	0.55kW (50Hz) 1.1kW (60Hz)	1.4kW (50Hz) 2.2kW (60Hz)	2.2kW (50Hz) 3kW (60Hz)	0.37kW (50Hz) 0.55kW (60Hz)	0.55kW (50Hz) 1.1kW (60Hz)	1.4kW (50Hz) 2.2kW (60Hz)	2.2kW (50Hz) 3kW (60Hz)
Hz) Hz)	0.70(50Hz) 0.70(60Hz)	0.40(50Hz) 0.54(60Hz)	0.40(50Hz) 0.50(60Hz)	0.60(50Hz) 0.65(60Hz)	0.26(50Hz) 0.37(60Hz)	0.27(50Hz) 0.38(60Hz)	0.32(50Hz) 0.43(60Hz)	0.28(50Hz) 0.39(60Hz)	0.26(50Hz) 0.37(60Hz)	0.27(50Hz) 0.38(60Hz)	0.32(50Hz) 0.43(60Hz)	0.28(50Hz) 0.39(60Hz)
Hz)	80(50Hz) 90(60Hz)	25(50Hz) 30(60Hz)	40(50Hz) 50(60Hz)	80(50Hz) 90(60Hz)	73(50Hz) 90(60Hz)	138(50Hz) 166(60Hz)	216(50Hz) 250(60Hz)	380(50Hz) 466(60Hz)	73(50Hz) 90(60Hz)	138(50Hz) 166(60Hz)	216(50Hz) 250(60Hz)	380(50Hz) 466(60Hz)
12(6 x 2)kW		4.5kW	6kW	12(6 x 2)kW	9kW	12kW	15kW	20kW	9kW	12kW	15kW	20kW
		Indirect cooling			Direct cooling				Direct cooling			
		RTD(PT) sensor			RTD(PT) sensor				RTD(PT) sensor			
		Graphic LCD			7 Segment LED				Graphic LCD			
		Overload, Low water level, Phase detection, High/low sensor alram (Temperature, pressure), Over electric current, Broken wire, High/low pressure			Overload, Low water level, Phase detection				Overload, Low water level, Phase detection, High/low sensor alram (Temperature, pressure), Over electric current, Broken wire, High/low pressure			
		15A (1/2") 15A (1/2")			15A 15A	15A 15A	20A 20A	20A 20A	15A 15A	15A 15A	20A 20A	20A 20A
25A(1")		15A(1/2")	20A(3/4")	25A(1")	25A(1")	25A(1") 32A(1 1/4")	40A(1/2")	40A(1 1/2") 50A(2")	25A(1")	25A(1") 32A(1 1/4")	40A(1/2")	40A(1 1/2") 50A(2")
					15A (1/2")				15A (1/2")			
		Over heat (circuit breaker trip)			Over heat (circuit breaker trip)				Over heat (circuit breaker trip)			
130kg		110kg	110kg	130kg	130kg	130kg	150kg	150kg	130kg	130kg	150kg	150kg
13.6kW		5.1kW	6.8kW	13.6kW	9.6kW	13.2kW	17.4kW	23.2kW	9.6kW	13.2kW	17.4kW	23.2kW
330x850x900		320x759x680	320x759x680	330x850x900	320x800x870	320x800x870	360x950x1150	360x950x1150	320x800x870	320x800x870	360x950x1150	360x950x1150
		WESCO Type Pump			Volute Type Pump				Volute Type Pump			
					○				○			
		P.I.D (Graphic LCD)			P.I.D (7 Segment LED)				P.I.D (LCD)			
		SKYTHERM: water supply temp +20~160℃			Water (clean water): water supply temp +10~120℃				Water (clean water): water supply temp +10~120℃			
		○			×				○			
		Option			Option				Option			
		○			×				○			
		○			×				○			
		○			○				○			
		○			○				○			
		×			○				○			
		○										
		○			○				○			
		○			○				○			
		Custom color, Micro filter, Separable remote controller, Alarm lamp			Custom color, Micro filter, Separable remote controller, Alarm lamp, 1~4 control zone				Custom color, Micro filter, Separable remote controller, Alarm lamp			
in	90ℓ/min	30ℓ/min	50ℓ/min	90ℓ/min	90ℓ/min	160ℓ/min	250ℓ/min	460ℓ/min	90ℓ/min	160ℓ/min	250ℓ/min	460ℓ/min

Cooling system : Air cooler

ZETCUL SERIES

CPC (Core Pin Cooling) System to reach dead spot in the mold with '-15℃ compressed cold air'

ZETCUL-7(7.5R/T)	Model
AC220V/380V ±10, 50/60Hz, 3Phase	◀ Power source
PLC Controller	◀ Temperature control
-15℃ ~ Ordinary temperature	◀ Temperature control range
Compressed air	◀ Medium
1~8bar	◀ Pressure range
R-404A	◀ Refrigerant
4.33kW(50Hz) / 4.91kW(60Hz)	◀ Compressor
3401kcal/h(50Hz) / 4031kcal/h(60Hz)	◀ Cooling capacity
Air condenser type	◀ Condensing type
Shell & Fin & Tube type	◀ Evaporator type
Evaporator alternating operation (E/H Defrosting)	◀ Defresting type
PT 100Ω	◀ Temperature sensor
Touch Screen	◀ Display
Anti-phase, Low water level, Fluid flow, High/Low pressure, Anti-freeze, Comp overload alarm	◀ Alarm
0.2kW	◀ Heater
ø650	◀ Fan
0.75 x 6	◀ Fan Moter (kW x Pole)
20ℓ	◀ Evaporator capacity
20A (3/4")	◀ Air supply
Auto drain 10A (3/8") x 2EA	◀ Drain
3/8" x 6EA	◀ Manifold
770 x 1526 x 1543	◀ Dimension(WxDxH)(mm)

PURI-Filter

- Eliminating calcium and magnesium components from water
- Scale prevention
- Extend a produce life

SKYTHERM

- Harmless to human
- Odorless
- No chemical scale
- Easy maintenance (water-soluble medium)
- Excellent heat transter
- Long product life (over 6months)