

t-max

**THERMOREGULATOR
UNITS**

www.t-max.com.tr

t-max Dualmax Series Heating-Cooling together

New Product

With its new Dualmax series, T-MAX has accomplished the heating or cooling process in the mold through a single data and device.



FLEXIBLE USE IN PLASTICS PROCESSES;

Single or dual zone heating and cooling combined units are water-cooled units with Condensers equipped with integrated standard, high pressure, or booster pumps. T-MAX contributes to the optimum reduction of cycle times in processes with new series devices, occupies less space next to them and takes place in the business as a part of the machine. High pressure and flow pumps ensure stable mold temperatures with high control precision thanks to the heating system. Thanks to the "Free Cooling Valve" offered as an option, it works as much as it needs and economically.

With its wide product range, it offers a suitable model and capacity range. With the touch screen control panel, you can see every movement and temperature of the device on the instant screen. It provides the opportunity to continuously monitor the set and instantaneous values and makes a great contribution to keeping the cycle time to a minimum.

Maxikbul series offer a range of options with two different pump pressures and flow rates, up to 6-48 kW heating power and 195 kW cooling capacity.

SP = Standard pressure and high flow
 HP = High pressure and high flow pumps

The use of high-quality and first-class components that make up the device, together with the testing of the Maxikil series under the most demanding conditions, ensures that it performs with the highest efficiency for many years, even under the toughest operating conditions



ITS ADVANTAGES:

- » Synchronized operation and adaptation with the machine and process to be used
- » Contribute to reducing cycle times by up to 50%
- » Smart energy use
- » Energy-saving with Free Cooling valve integration
- » Mold drain kit
- » Visualization and communication interface software
- » On-screen display of heat, flow and pressures on the inlet and outlet points.



MOLD TEMPERATURE CONTROL

- » Mold temperatures have a direct impact on cycle time and product quality. Temperature control is extremely important and requires precision.

OPTIMUM MANUFACTURING PROCESS

- » Increasing production capacity, eliminating waste and wait times.
- » Better product quality, surface appearance and tensile strength.
- » Reducing production costs, low waste and energy costs



Technical Products and Spare Parts



Automotive and Sub-Industry



Packaging Production



Medical Products and Parts

PROCESS GAINS

- » High efficiency and excellent repetition
- » Providing the best cooling conditions and stability
- » Set values independent of operating conditions
- » Pressure-flow and temperature control of two separate processes (optional)
- » High sensitivity in process temperatures
- » Continuous and controlled cooling values
- » Continuous and efficient cooling process with minimum temperature difference in mold temperatures
- » Reliable quality and device structure
- » Permanent solutions to known and usual cooling problems (sweating, surface and visual disturbances size problems).
- » Strong integration between machine, operator and device.

USER GAINS

- » Low energy consumption and fast commissioning
- » Pumps with high efficiency and low energy consumption
- » Low heat losses
- » Quick mold change by eliminating mold preheating and wait times
- » Low maintenance cost
- » Minimal environmental impact, 80% lower cooling gas content than a central chiller.
- » High energy savings thanks to the independent Free Cooling valve in each device.



Home Appliances and Sub-Industry



Dual Zone Units

STANDARD FEATURES:

- » "7" color display control panel
- » Multi-language option
- » Help menu, usage and troubleshooting instructions
- » Graphical indications of symptoms of main study variables
- » Complete view of all water and cooling parameters for easy comprehension of working principles
- » % readings and screen reflections of compressor usages
- » Reading the output temperature values for each zone
- » Reading the flow and return pressure values for each zone separately
- » Flow indicator separately for each zone (Optional)
- » Calculation of pressure and flow differences (Optional)
- » Metric or imperial value selection in the standard user panel.
- » Automatic Free Cooling mode (Optional)
- » Remote start-stop function (Optional)
- » High / low pressure differential protection
- » Protection in sensor connections (against cut-off and short-circuit)
- » Frost protection
- » Deviation curve at set values
- » Long-term signal of setpoint deviation
- » Up to 1000 records with SD card in 50 alarm control panels
- » Automatic air purge and water filling
- » Motorized cooling control for each zone
- » Process pump specific to each region
- » High-efficiency circulation pump
- » Filter in the water inlet
- » Filter at return process water inlet
- » By-pass valve suitable for standard pressure settings
- » Audible alarm
- » Heavy-duty transport wheels



OPTIONS AND ACCESSORIES

Serial connection: Transport to the central control panel with interface protocols and different serial connections.

Audible alarm: In addition to the additional audible alarm, it can also be integrated with an illuminated alarm if requested.

Separate and independent operation: A customer-specific device model is designed to work completely independently, suitable for some special applications and processes. For this, please contact our sales department.

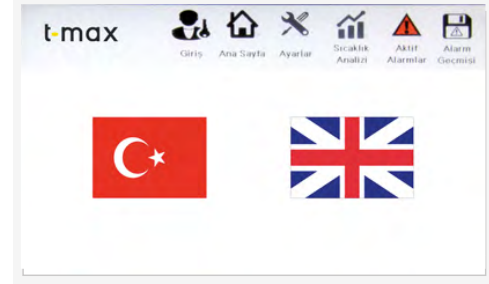
Tower kit: If the device will be fed from an open tower or cooling unit, we can offer a tower kit to prevent pollution that may occur in the condenser and to eliminate the risk of contamination.

Flow meter and ambient temperature indicators Insulation kit, if lower temperatures are required

DIGITAL CONTROL, SAMPLE SCREEN IMAGES

HOME USER PAGE

- » Variable values of all units are displayed on the screen, including water regime and cooling regime temperatures and pressures.
- » Active or deactivated function indicators of compressors, heated pumps, free cooling valves and 3-way valves inside or outside the performance set values with easy-to-understand display colors colored indicators.



"CHILLER COOLING SECTION" PAGE ON THE MAIN USER SCREEN

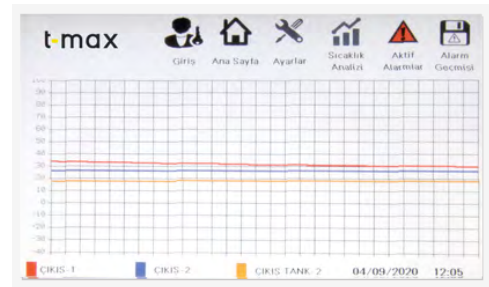
- » Indicators including all cooling temperatures and pressures. Besides this, side cooling and superfast heating value page.

MAIN USER ZONE 1 AND ZONE 2 SELECTION PAGE

- » All pump values indicators, flow and return pressures, P calculated flow values (instant and set values, optionally including flow values) and pump and heating kW values.
- » Graphical indicators including pump performances and temperatures

CHILLER PERFORMANCE PAGE

- » A graphical representation of Chiller performance related to setpoint over a 60-minute time frame is displayed.
- » Graphical display of compressor loads
- » Screen reflections of cooling capacity, power consumption and COP values as indicators



	Tarih	Saat
Aktif Şişip.	04/09/2020	10:55:38
1 Döner Yükleli Basm.	04/09/2020	10:04:37
Aktif Şişip.	04/09/2020	10:11:52
1 Döner Yükleli Basm.	04/09/2020	10:25:29
Aktif Şişip.	04/09/2020	10:35:23
1 Döner Yükleli Basm.	04/09/2020	10:54:08
1 Döner Yükleli Basm.	04/09/2020	10:56:37
Aktif Şişip.	04/09/2020	11:01:15
Aktif Şişip.	04/09/2020	11:07:21
Aktif Şişip.	04/09/2020	11:09:15
Aktif Şişip.	04/09/2020	11:11:45

PAST RELATED ALARM MEMORY

- » Extra information indicators for each alarm or late preference
- » All alarm definitions, All alarm list descriptions and troubleshooting suggestions by user language

GENERAL FEATURES:



COOLING COMPONENTS

- » Scroll compressors with high efficiency and very low noise level.
- » With the Shell & Tube Evaporator, the classic problems of clogging or heat exchanger leaks do not occur.
- » Condenser pressure control, continuously controlled working pressure with pressure valve.
- » Dual alarm, bilateral high gas pressure control on mechanical and software
- » Ecological refrigerant complies with European standards and directives.

INTERNAL CONNECTIONS AND THEIR COMPONENTS

- » It is designed to provide constant pressure and flow to both the process and the evaporator.
- » It is designed to provide constant pressure and flow to both the process and the evaporator.
- » Use of one or two process pumps, specially designed, high flow and durable and leakproof sealing kits.
- » Wide product range pump flow 20-450 m3/h
- » It provides a constant water regime to the evaporator with the circulation pump.
- » Efficiently working heating elements.
- » Safety thermostat.
- » Proportional modulation valve for each zone for precise temperature control.
- » Stainless steel installation and connections inside the device.
- » Insulated stainless steel balance tank.

MKM Series	Unit	SINGLE SECTION (HEATING / COOLING)							
		MKM 5/3	MKM 9/6	MKM 12/6	MKM 22/6	MKM 25/12	MKM 40/12	MKM 52/12	MKM 70/24
t-max Code		260. MKM0503	260. MKM0906	260. MKM1206	260. MKM2206	260. MKM2512	260. MKM4012	260. MKM5212	260. MKM7024
Cooling Capacity (*)	kW	5	9	12	22	25	40	52	70
	kcal/h	4300	7740	10320	18920	21500	34400	44720	60200
Heating Capacity	kW	3	6	6	6	12	12	12	24
Compressor Power (max)	Adet	1	1	1	1	1	1	1	1
	kW	0,7	1,31	1,74	3,21	3,62	5,71	7,54	10,22
	HP	3,5	3,5	4	6	7	12	15	20
Pump (SB**)	HP	1	1	1	1,5	2	3	3	5,5
	lt / min	36	65	86	150	180	285	370	500
	bar	3	2,9	2,6	2,6	2,8	2,9	2,5	3,1
Internal Pump	HP	0,5	0,5	0,5	0,5	1	1	2	3
Nominal Power	kW	5,2	8,8	9,24	11,45	17,9	20	36	46
Total Power	kW	7,1	10,1	12,85	16,6	20,5	24,7	41,8	40
Sound Level	db (A)	38	38	39	40	40	40	40	40
Capacity	lt	20	20	20	20	30	30	30	40
Net Weight	kg	175	190	205	225	310	360	560	625
Connection Diameters	Ø	1/2"	1"	1"	1" 1/4	1" 1/4	1" 1/2	1" 1/2	2"
Dimensions Width-W	mm	500	500	500	500	550	550	550	1000
Length - L	mm	1000	1000	1000	1000	1200	1200	1200	1800
Height-H	mm	1200	1200	1200	1200	1360	1360	1360	1400
High Pressure	Bar	5,6	5,1	4,8	5,1	5,3	5,4	5,3	4,9
	M3/h	9	9	9	16	16	28	28	28
	power	2 HP	2 HP	2 HP	3 HP	5,5 HP	10 HP	10 HP	10 HP

ELECTRICAL AND CONTROLLING EQUIPMENT

- » Electrical control panel, safety key with lock
- » Electrical circuit protection for compressors and pumps
- » Microprocessor control
- » 7-inch Touchscreen color screen
- » Visualization with the possibility of communication with the known interface software with central control or process machines (optional)
- » Control of cooling and water cycle completely from the screen with pressure and temperature sensors
- » Visual functions showing other parameters such as selected language alarm, fault, and so on.
- » Selection of Language on the screen, appropriate solution suggestions for malfunctions and alarms, description of intervention steps.
- » Working with +10 C sensitivity and alarm feature with proportional integrated intelligent control
- » Mold water filling and discharging procedures
- » Standard audible alarm
- » Port for visual alarm mounting



CHASIS;

- » Epoxy painted main body
- » Easy intervention with removable side panels
- » Compact design and solid wheels

MKM Series	Unit	DOUBLE SECTION (HEATING/COOLING)							
		MKD 5/3+3	MKD 9/6+6	MKD 12/6+6	MKD 22/6+6	MKD 25/12+12	MKD 40/12+12	MKD 52/24+24	MKD 70/24+24
t-max Code		260. MKD0503	260. MKD0906	260. MKD1206	260. MKD2206	260. MKD2512	260. MKD4012	260. MKD5224	260. MKD7024
Cooling Capacity(*)	kW kcal/h	5 4300	9 7740	12 10320	22 18920	25 21500	40 34400	52 44720	70 60200
Heating Capacity	kW	3+3	6+6	6+6	6+6	12+12	12+12	24+24	24+24
Compressor Power (max)	Adet	1	1	1	1	1	1	1	1
	kW	0,72	1,31	1,75	3,21	3,62	5,8	7,65	10,22
	HP	3,5	3,5	4	6	7	12	15	20
Pump (SB**)	HP	1/1	1/1	1/1	1,5 / 1,5	2/2	3/3	3/3	5,5/5,5
	lt / min	36	65	86	150	180	285	370	500
	Pump	3	2,9	2,6	2,6	2,8	2,9	2,5	3,1
Internal Pump	HP	0,5	0,5	0,5	0,5	1	1	2	3
Nominal Power	kW	9	15,5	16	17,5	29,9	33	62	64,75
Total Power	kW	10,9	16,8	18	19,7	32,5	38	68	72,6
Sound Level	db (A)	38	38	39	40	40	40	40	40
Capacity	lt	20	20	20	20	30	30	30	40
Net Weight	kg	260	265	260	265	365	460	625	695
Connection Diameters	Ø	2 X 1/2"	2 X 1"	2 X 1"	2 X 1"	2 X 1"	2 X 1 1/4"	2 X 1 1/4"	2 X 1 1/2"
Dimensions Width-W	mm	500	500	500	500	550	550	550	1000
Length - L	mm	1000	1000	1000	1000	1200	1200	1200	1800
Height-H	mm	1200	1200	1200	1200	1360	1360	1360	1400
High Pressure	bar	5,6	5,1	4,8	5,1	5,3	5,4	5,3	4,9
	max. flow	9	9	9	16	16	28	28	28
	m3/h power	2 HP	2 HP	2 HP	3 HP	5,5 HP	10 HP	10 HP	10 HP

MKM Series	Unit	WATER COOLED CHILLERS							
		MKW/5	MKW/9	MKW/12	MKW/22	MKW/25	MKW/40	MKW/52	MKW/70
t-max Code		260. MKW0005	260. MKW0009	260. MKW0012	260. MKW0022	260. MKW0025	260. MKW0040	260. MKW0052	260. MKW0070
Cooling Capacity	kW kcal/h	5 4300	9 7740	12 10320	21 18060	25 21500	40 34400	52 44720	70 60200
Compressor Power	Piece	1	1	1	1	1	1	1	1
	kW	0,7	1,31	1,74	3,21	3,62	5,71	7,54	10,22
	HP	3,5	3,5	4	6	7	12	15	20
Pump	HP	0,5	0,7	1	1	1	1,5	2	2
	lt / min	15	25	33	60	72	113	150	200
	bar	2,9	3,1	3,2	2,9	2,8	2,8	3,1	2,6
Nominal Power	kW	1,4	2	2,5	4,21	4,62	7,92	9,75	12,42
Total Power	kW	1,9	2,73	3,42	5,76	6,32	10,85	13,35	17,01
Sound level	db (A)	38	38	39	40	40	40	40	40
Capacity	lt	20	20	20	20	30	30	30	40
Net Weight	kg	175	190	205	225	310	360	560	625
Connection Diameters	Ø	1/2"	1"	1"	1" 1/4	1" 1/4	1" 1/2	1" 1/2	2"
Dimensions, Width - W	mm	500	500	500	500	550	550	550	1000
Length - L	mm	1000	1000	1000	1000	1200	1200	1200	1800
Height - H	mm	1200	1200	1200	1200	1360	1360	1360	1400
High Pressure	BAR	5,6	4,6	5	5,2	5,1	5,6	5,6	5,1
	Max. flox m3/h	9	9	9	16	16	28	28	28
	power	1	1	1,5	3	3	5,5	5,5	5,5



t-max

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