Process Water Chiller MTG-C

With their compact dimensions, iron-free hydraulic circuit and environmentally friendly refrigerant, MTG chillers are the perfect synergy between performance, sustainability and economy. With the immersion evaporator located in the tank, the result is a robust design for safe continuous operation even under the most varied and difficult conditions. The already well-equipped basic version can be equipped with additional options depending on customer requirements. By means of the available connection fitting kits, the machine can be easily connected to the consumer group.

Features (standard equipment)

- Water temperature (outlet): -5... 15°C (Glycol brine lower than 7°C is required!)
- Stainless steel centrifugal pump, glycol resistant approx. 3,0bar available pressure
- Pressure gauge on the outlet/flow
- Low noise and efficient hermetic scroll compressor
- Refrigerant R513A
- Electronic expansion valve
- Robust finned tube coil evaporator in plastic water tank
- Level indicator tank level
- Low noise, maintenance free axial fan
- Compact housing made of sheet steel powder-coated in RAL7035
- Power supply: 400V/3/PE 50Hz

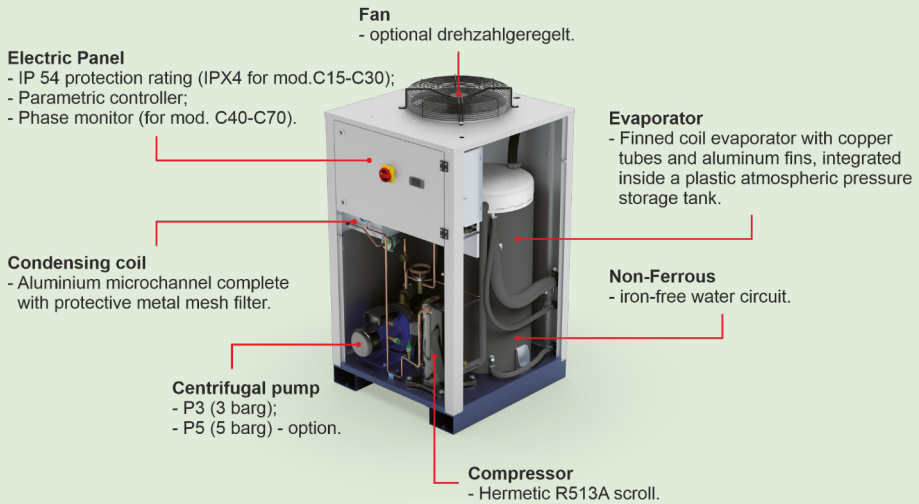
Control:

- Contained in industrial cabinet
- Electronic temperature controller
- Central alarm output (internal potential-free contact)
- Compressor/pump release input (external potential-free contact)
- Phase protection relay MTG-C40 bis MTG-C70

Miscellaneous:

- Emergency stop main switch
- Mechanical protection for condenser fin protection
- Splash-proof IP54; MTG-C15 bis MTG-C30: IPX4
- Options see in the table under „Machine options“

Model	Refrigerating capacity [1)]	For tank volume [18)]	Order no.	Unit price/E
MTG-C15	6,1 kW	31.000 Ltr.	303.6500	
MTG-C20	7,3 kW	37.000 Ltr.	303.6501	
MTG-C30	10,1 kW	51.000 Ltr.	303.6502	
MTG-C40	12,5 kW	63.000 Ltr.	303.6503	
MTG-C50	16,7 kW	85.000 Ltr.	303.6504	
MTG-C55	18,9 kW	96.000 Ltr.	303.6505	
MTG-C70	23,1 kW	117.000 Ltr.	303.6506	



1) 15/20°C water, 25°C air.
2) 7/12°C water, 35°C air.
3) 7/12°C water, 25°C air.
4) Data provided in accordance with the European Regulation (EU) 2016/2281 for high-temperature process refrigeration systems.
5) Sound power: based on measurements according to the ISO 3744.
6) Operating weight (without options).
7) Consisting of stainless steel-coated armoured hoses, stop valves and transition fittings.
8) Ensures the prescribed minimum flow rate, even if all consumers are inactive. Consisting of overflow valve and all necessary fittings.
9) Prevents critical overpressures in the consumer circle. Consisting 1 safety valve.
10) Required if the machine is lower than the highest point in the consumer network; prevents the open tank from overflowing in the machine.
11) Consisting of dirt flap and fitting.
12) Wheels for mobile use of the machine.
13) Remote control.
14) Remote query and remote access via the internet.
15) Minimum/normal concentration 25/35%. Frost protection limit see data sheet propylene glycol.
16) Eurovent certified data.
17) EC fan and cabinet heater.
18) For tank volume at 50% simultaneously in fermentation.

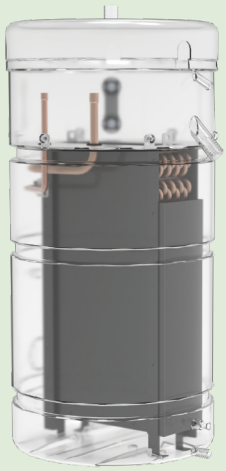
Other models and options available on request.
All information without guarantee.
The manufacturer´s technical data applies.
Subject to change without notice.

IMPORTANT INSTRUCTIONS

- When using pure water (without antifreeze additives), all system parts conveying water must be installed frost-free or completely emptied during the frost period.
- Components installed outdoors, should be protected against UV irradiation, particularly plastic components.
- When installing the components, the flow direction marked with the arrow must be observed.
- To avoid corrosion, so-called inhibitors should be added to the water.
- Pay attention to the prescribed parts of the system. Omitting prescribed system components can lead to damage to the cooling machine and other system components.
- In case of high water hardness, demineralization is recommended. Please note the information on the minimum water quality in the equipment documentation.

Technical data for process water chiller MTG-C								
Model		**MTG-C15**	**MTG-C20**	**MTG-C30**	**MTG-C40**	**MTG-C50**	**MTG-C55**	**MTG-C70**
Order no.		**303.6500**	**303.6501**	**303.6502**	**303.6503**	**303.6504**	**303.6505**	**303.6506**
Nominal refrigerating capacity [1) 16)]	kW	6,1	7,3	10,1	12,5	16,7	18,9	23,1
Total power consumption [1) 16)]	kW	1,3	1,6	2,2	2,8	3,4	4,3	4,9
EER [1) 16)]		4,56	4,53	4,60	4,47	4,88	4,44	4,71
Rated refrigerating capacity [2)]	kW	4,2	5,1	7,0	8,9	11,7	13,3	16,4
Total power consumption [2)]	kW	1,5	1,8	2,4	3,1	3,8	4,4	5,4
EER [2)]		2,86	2,79	2,88	2,84	3,06	3,00	3,01
SEPR HT [4) 16)]		5,02	5,16	5,11	5,10	5,43	5,12	5,00
Power supply	V/Ph/Hz	400 +/- 10% / 3-PE / 50						
Cooling circuits / compressors	no.	1/1	1/1	1/1	1/1	1/1	1/1	1/1
Number of fans	no.	1	1	1	1	1	1	1
Minimum water temperature without / (with glycol) [15)]	°C	7 / (-5)	7 / (-5)	7 / (-5)	7 / (-5)	7 / (-5)	7 / (-5)	7 / (-5)
Maximum water temperature	°C	+30	+30	+30	+30	+30	+30	+30
Minimum / maximum ambient temperature	°C	-20 / +45	-20 / +45	-20 / +45	-20 / +45	-20 / +45	-20 / +45	-20 / +45
Sound pressure level [5)]	db(A)	80,4	80,4	80,6	80,8	80,8	81,1	81,6
Width	mm	738	738	738	836	836	836	836
Depth	mm	752	752	752	836	836	1.006	1.006
Height	mm	1.261	1.261	1.460	1.460	1.670	1.670	1.670
Operating weight [6)]	kg	275	275	300	340	405	455	465
Tank volume	Liter	80	80	105	115	130	160	160
Water connection	inches	3/4	3/4	1	1	1 1/4	1 1/4	1 1/2
Maschine options		**Order no.**						
Option Tank level switch	MTGC-LS	303.6550	303.6550	303.6550	303.6550	303.6550	303.6550	303.6550
Option Low ambient temperature (down to -20°C) [15) 17)]	MTGCxx-LA	--	--	--	303.6600	303.6601	303.6602	303.6603
Option High efficiency EC brushless fan	MTGCxx-EC	--	--	--	303.6650	303.6651	303.6652	303.6653
Option Protective coating for the condensing coil	MTGCxx-PC	303.6700	303.6701	303.6702	303.6703	303.6704	303.6705	303.6706
Option P5-pump (5 bar)	MTGCxx-P5	303.6750	303.6751	303.6752	303.6753	303.6754	303.6755	303.6756
Accessories		**Order no.**						
Kit Refrigorator connection [7)]		304.9191	304.9191	304.9192	304.9192	304.9193	304.9193	304.9194
Kit Adjustable overflow valve [8)]		304.9181	304.9181	304.9182	304.9182	304.9183	304.9183	304.9184
Kit Safety valve [9)]		304.0375	304.0375	304.0375	304.0375	304.0375	304.0375	304.0375
Kit Return flow prevention [10)]		304.9131	304.9131	304.9132	304.9132	304.9133	304.9133	304.9134
Kit Water filter [11)]		304.9140	304.9140	304.9141	303.9141	303.9142	303.9142	303.9143
Kit Wheels [12)]		303.6800	303.6801	303.6802	303.6803	303.6804	303.6805	303.6806
Other accessories		**Order no.**						
Propylen glycol (food save) 11kg canister [15)]		400.0002	400.0002	400.0002	400.0002	400.0002	400.0002	400.0002
Propylen glycol (food save) 21kg canister [15)]		400.0005	400.0005	400.0005	400.0005	400.0005	400.0005	400.0005
Propylen glycol (food save) 31kg canister [15)]		400.0001	400.0001	400.0001	400.0001	400.0001	400.0001	400.0001
Hydrometer for glycol concentration measurement.		400.0003	400.0003	400.0003	400.0003	400.0003	400.0003	400.0003

The data is specified according to UNI EN 14511..



EVAPORATOR IN THE TANK

- Iron-free hydraulic circuit for uncomplicated use.
- Large buffer tank with up to 160 l content in a compact design.
- Extremely robust construction, durable and reliable even under harsh environmental conditions.
- Open hydraulic circuit for use at atmospheric pressure.
- Wide heat exchanger channel: low pressure losses, enables high flow rates.
- Continously cooled water storage: stable temperatures, fast response to demand peaks.
- Large slat spacing: insensitive to contamination, no damage due to freezing.
- Structured construction, all components are optimally accessible for maintenance and repair work.