

WFC SC Single stage hot water absorption chiller

Cooling capacities from 17.6 kW to 175.8 kW

CH K & CH MG Natural gas-fired chiller/heaters

Cooling capacities from 105 kW to 703 kW

Heating capacities from 86 kW to 572 kW



Features WFC SC

WFC SC chillers from **Yazaki** are single stage hot water driven chillers. Compared to electrically driven chillers the **WFC SC** series can dramatically lower system operating costs when using waste heat. Applications particularly well suited to the **Yazaki WFC SC** absorption chiller include waste heat recovery from cogeneration or biomass, waste heat from district power station or industry as well as solar thermal. This makes absorption cooling an environmentally friendly and cost-saving alternative to conventional air-conditioning systems. A low electrical energy consumption results in low CO₂ emissions and provide a relief for electricity grids by replacing conventional cooling demand peaks. All chillers are pre-filled and ready for "plug & chill".

Driving heat source hot water

WFC SC units can operate with entering hot water temperature from 70 to 95°C.

Refrigerant cycle

The **Yazaki WFC SC** high efficiency single-stage absorption refrigeration cycle uses water as the refrigerant and lithium bromide (non-flammable, non-toxic, ecologically benign and ozone-friendly) as the absorbent. It is the strong affinity and ease of separation that these two substances have for each other that makes the cycle work. The entire process occurs in hermetic vessels in a near complete vacuum.

Features CH K & CH MG

Natural gas-fired chiller/heaters **CH K & CH MG** from **Yazaki** work with double effect thermo-cycle and may be used for both cooling or heating distribution. Compared to electrically driven chillers **CH K & CH MG** chillers can dramatically lower system operating costs.

A low electrical energy consumption results in low CO₂ emissions and provide a relief for electricity grids by replacing conventional cooling demand peaks. All chillers are pre-filled and ready for "plug & chill".

Direct fired chiller

Driving energy is provided by natural gas. Typically a COP of 1.0 or above is achievable.

Refrigerant cycle

The **Yazaki CH K & CH MG** high efficiency double-effect absorption refrigeration cycle uses water as the refrigerant and lithium bromide (non-flammable, non-toxic, ecologically benign and ozone-friendly) as the absorbent. It is the strong affinity and ease of separation that these two substances have for each other that makes the cycle work. The entire process occurs in hermetic vessels in a near complete vacuum.



Single stage hot water absorption chiller

WFC SC

Natural gas-fired chiller/heaters

CH K & CH MG



Nominal capacity WFC SC

Model				WFC SC 05	WFC SC 10	WFC SC 20	WFC SC 30	WFC SC 50
Cooling Capacity		kW		17.6	35	70	105	175.8
Sound pressure at 1 m		dB(A)		46	46	49	52	52
Cold water	Temperature	Inlet	°C	12.5	12.5	12.5	12.5	12.5
		Outlet	°C	7	7	7	7	7
Cooling water	Cooling performance		kW	42.7	85.5	171	256	427
	Temperature	Inlet	°C	31	31	31	31	31
		Outlet	°C	35	35	35	35	35
Hot water	Power consumption		kW	25.1	50.2	100.4	150.6	251
	Temperature	Inlet	°C	88	88	88	88	88
		Outlet	°C	83	83	83	83	83

Technical data WFC SC

Model			WFC SC 05	WFC SC 10	WFC SC 20	WFC SC 30	WFC SC 50
Dimensions	Length	mm	594	760	1060	1380	1785
	Width	mm	744	970	1300	1545	1960
	Height (with mounting plate)	mm	1756	1920	2030	2065	2085
Operating weight		kg	420	604	1156	1801	2650

Nominal capacity CH K & CH MG

Model				CHK 30	CHK 40	CHK 50	CHK 60	CHK 80	CHK 100	CHMG 150	CHMG 200	
Cooling Capacity		kW		105	141	176	211	281	352	527	703	
Heating Capacity		kW		86	115	143	172	229	286	429	572	
Chilled water	Temperature	Inlet	°C	12.5	12.5	12.5	12.5	12.5	12.5	12	12	
		Outlet	°C	7	7	7	7	7	7	7	7	
Cooling water	Temperature	Inlet	°C	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	
		Outlet	°C	35.5	35.5	35.5	35.5	35.5	35.5	35.5	34.6	34.6
Hot water	Temperature	Inlet	°C	50.5	50.5	50.5	50.5	50.5	50.5	50.5	56	56
		Outlet	°C	55	55	55	55	55	55	55	60	60

Technical data CH K & CH MG

Model			CHK 30	CHK 40	CHK 50	CHK 60	CHK 80	CHK 100	CHMG 150	CHMG 200
Dimensions	Length	mm	1635	1635	1875	1875	1995	1995	3663	3735
	Width	mm	1460	1460	1780	1780	1840	1840	1951	2051
	Height (with fixed plate and vent cap)	mm	2440	2440	2440	2440	2820	2820	2763	3003
Operating weight		kg	1720	1970	2510	2770	4060	4540	6210	7340



Manufacturer reserves the rights to change specifications without prior notice.

