



AX Processing Water Chillers



GB **AX**, evolved from the **EF** series, is the new Hi-tech chiller of mid-range capacity for cooling process water. Efficiency, flexibility and high performance are essential features of this new design.

■ STRUCTURE

The epoxy powder painted steel base and frame made of Aluzinc coil, make the unit suitable for external siting. The standard colour is RAL grey 7.001 with RAL blue 5.002 inserts.

■ COMPRESSORS

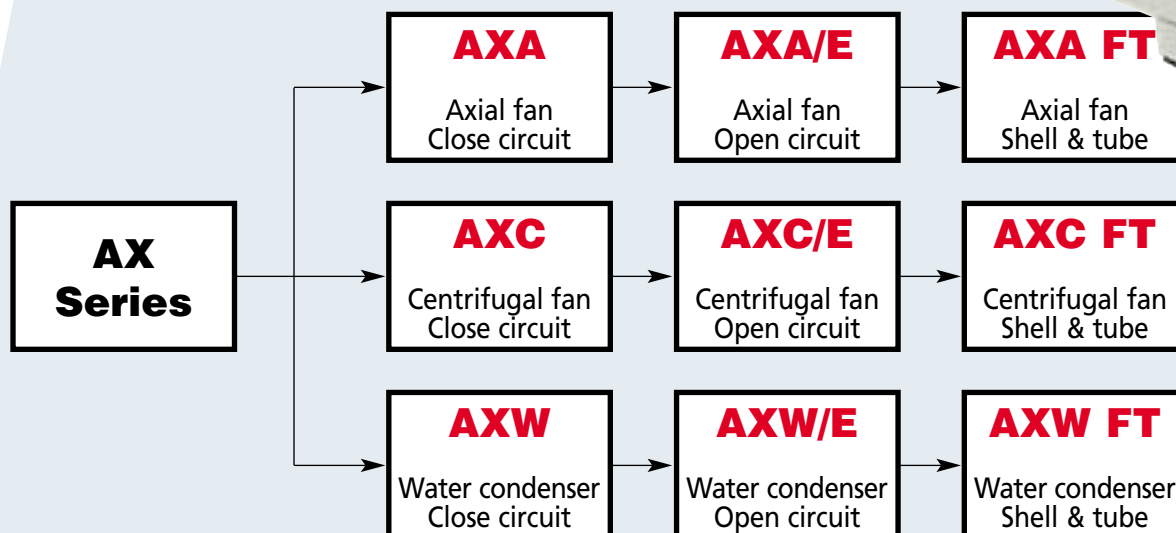
Scroll compressors are used throughout the range to optimise the ratio between consumed energy and output, the output coefficient always being higher than K 5.

■ EVAPORATOR

The evaporator is a shell & tube design and can be opened for inspection. It is housed in an AISI 304 stainless steel tank eliminating the possibility of rust formation in the hydraulic circuit.

■ HYDRAULIC CIRCUIT

Pipework is stainless steel or steel reinforced flexible rubber. Pumps are of stainless steel construction. The hydraulic circuit is complete with automatic water fill and automatic water by pass.



Control panel



The chiller can be used with either a closed or open type circuit.

■ CONDENSER

Sized for operation even in tropical climates thanks to its large surface area, the AX condenser is also equipped with a sub-cooling circuit that boosts its performance optimising the C.O.P. ratio.

■ FANS

The fans for the **AXA** version are axial propeller types with the blade angle set to reduce noise levels and boost performance. The

AXC version is equipped with high air flow centrifugal fans ideal for ducting or recovering the warm exhaust air during winter time and for exhausting the warm air by ducting in summer.

■ ELECTRICAL CONTROLS

The electrical control enclosure is IP 54 rated. The microprocessor monitors provides full function/fault analysis and features an audible alarm. Temperature indication is provided by a three figure digital display and has a touch key operation for scrolling through the function parameters. As an option, the control panel can be supplied for remote mounting.

■ PRODUCTION AND TEST

The company gained ISO 9001 certification in 1997. The production, charging with refrigerant, and testing of the equipment are all monitored by computer which automatically reports any defects during the manufacturing process. The chiller utilises environmentally friendly refrigerant gas.



AX 25-35-45-55

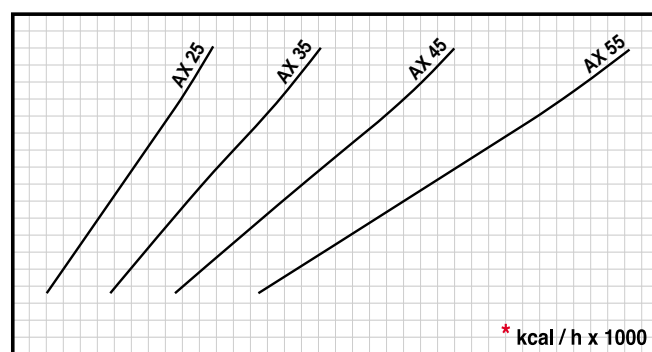
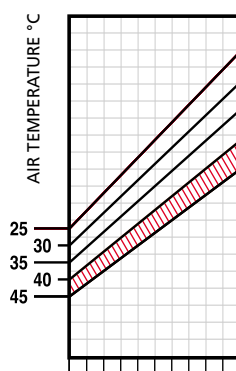


Single Gas Circuit

* 1 kcal / h = 1.163 W
3030 kcal / h = 1 Ton
1 kcal / h = 3.97 Btu / h

Min water temperature = +5°C
(with glycol = -7°C)
Max water temperature = +25°C

 Supertropicalised version



WATER TEMPERATURE °C 5 6 7 8 9 10 11 12 13 14 15 10 12.5 15 17.5 20 22.5 25 27.5 30 32.5 35 37.5 40 42.5 45 47.5 50 52.5 55 57.5

CHILLER		AX 25	AX 35	AX 45	AX 55
Cooling capacity*	kW	29	38	50	64
	Kcal/h	24.700	32.700	43.000	55.300
Compressor	n	1	1	1	1 Twin
Water pump**	kW	1.1	1.1	1.5	1.8
Water flow	m³/h	5.0	7.0	9.0	11.0
Water pressure	bar	3.3	3.0	3.0	3.2
Water tank	l	200	200	200	200
Fans	n x m³/h	1 x 10.000	1 x 10.000	1 x 10.000	1 x 17.000
Axial fan	kW	0.7	0.7	0.7	1.45
Centrifugal fan	kW	2.2	2.2	2.2	4.0
Centrifugal fan pressure	Pa	250	250	250	250
Sound level***	db(A)	59	59	59	62
Maximum installed power	kW(A-C)	10 - 11.5	14 - 15.5	17 - 18.5	24 - 26.5
Absorbed power*	kW	6.7	8.2	10.7	14.4
Total chiller C.O.P.	W/W	4.3	4.6	4.7	4.4
Weight	Kg	565	575	635	775

*Outlet water temperature 15°C - Ambient air temperature 25°C.

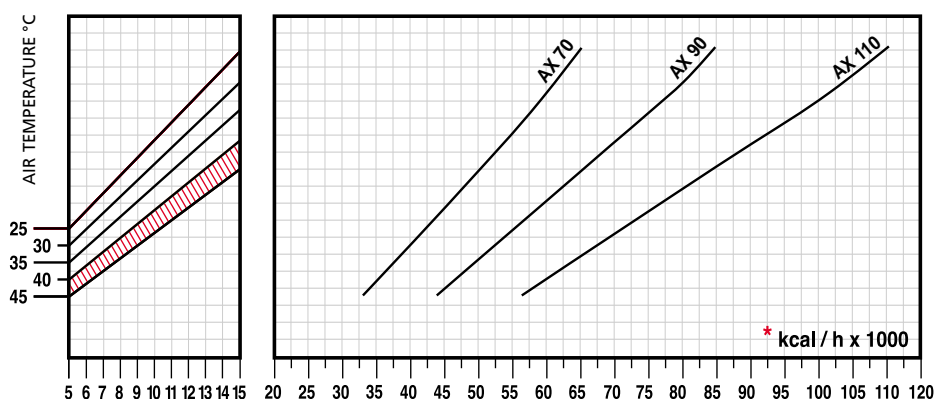
**Special water pumps high pressure/low pressure are available.

***Sound level 10 m. distance, in free field, AXA model.

A = Axial fan - C = Centrifugal fan.



Twin Gas Circuit



CHILLER		AX 70	AX 90	AX 110
Cooling capacity*	kW	76	100	128
	Kcal/h	65.400	86.000	110.800
Compressor	n	2	2	2 Twin
Water pump**	kW	3	3	4
Water flow	m³/h	14	18	22
Water pressure	bar	3.4	3.0	3.4
Water tank	l	400	400	400
Fans	n x m³/h	2 x 10.000	2 x 10.000	2 x 17.000
Axial fan	kW	1.4	1.4	2.9
Centrifugal fan	kW	4.4	4.4	8
Centrifugal fan pressure	Pa	250	250	250
Sound level***	db(A)	62	62	68
Maximum installed power	kW(A-C)	28 - 31	34 - 37	47 - 52
Absorbed power*	kW	17.1	21.4	29.1
Total chiller C.O.P.	W/W	4.4	4.7	4.4
Weight	Kg	1.000	1.100	1.390

*Outlet water temperature 15°C - Ambient air temperature 25°C.

**Special water pumps high pressure/low pressure are available.

***Sound level 10 m. distance, in free field, AXA model.

A = Axial fan - C = Centrifugal fan.

AX 70-90-110

AX 130-160-190

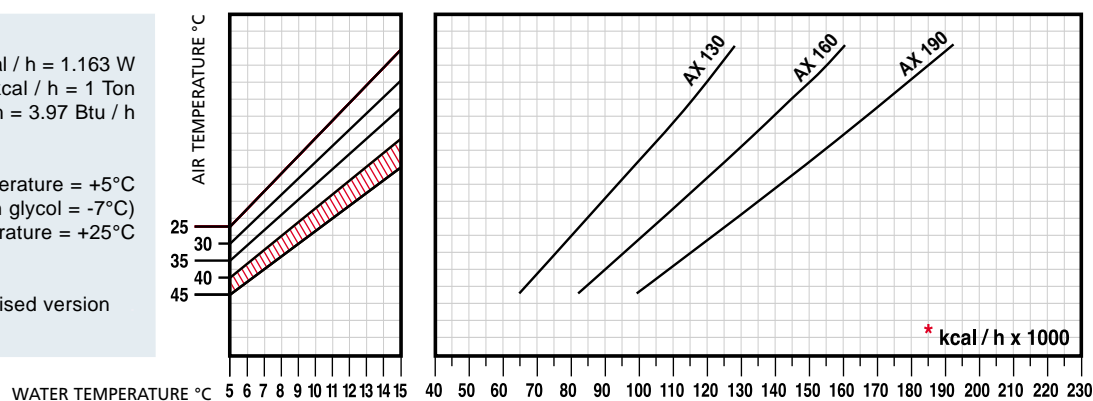


Twin Gas Circuit

* 1 kcal / h = 1.163 W
3030 kcal / h = 1 Ton
1 kcal / h = 3.97 Btu / h

Min water temperature = +5°C
(with glycol = -7°C)
Max water temperature = +25°C

 Supertropicalised version



CHILLER		AX 130	AX 160	AX 190
Cooling capacity*	kW	150	187	225
	Kcal/h	128.700	161.000	193.000
Compressor	n	2 Twin	2 Twin	2 Twin
Water pump**	kW	4	4	5.5
Water flow	m³/h	26	32	38
Water pressure	bar	3.2	3.0	3.4
Water tank	l	600	600	600
Fans	n x m³/h	3 x 18.000	3 x 18.000	3 x 18.000
Axial fan	kW	6	6	6
Centrifugal fan	kW	12	12	12
Centrifugal fan pressure	Pa	250	250	250
Sound level***	db(A)	68	68	68
Maximum installed power	kW(A-C)	57 - 63	68 - 74	81 - 87
Absorbed power*	kW	35.5	42.4	50.9
Total chiller C.O.P.	W/W	4.2	4.4	4.4
Weight	Kg	1.725	1.805	2.025

*Outlet water temperature 15°C - Ambient air temperature 25°C.

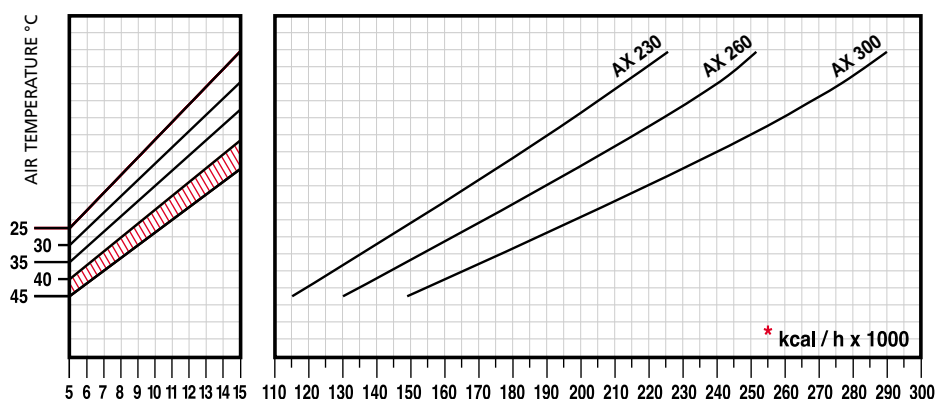
**Special water pumps high pressure/low pressure are available.

***Sound level 10 m. distance, in free field, AXA model.

A = Axial fan - C = Centrifugal fan.



Triple Gas Circuit



CHILLER		AX 230	AX 260	AX 300
Cooling capacity*	kW	263	293	337
	Kcal/h	226.000	252.000	290.000
Compressor	n	3 Twin	3 Twin	3 Twin
Water pump**	kW	7.5	7.5	7.5
Water flow	m³/h	46	52	60
Water pressure	bar	3.6	3.4	3.2
Water tank	l	1.000	1.000	1.000
Fans	n x m³/h	6 x 10.000	6 x 10.000	6 x 17.000
Axial fan	kW	4.2	4.2	8.7
Centrifugal fan	kW	13.2	13.2	24
Centrifugal fan pressure	Pa	250	250	250
Sound level***	db(A)	68	68	69
Maximum installed power	kW(A-C)	93 - 102	99 - 108	120 - 153
Absorbed power*	kW	57.3	62.7	75.3
Total chiller C.O.P.	W/W	4.6	4.7	4.5
Weight	Kg	3.010	3.100	3.260

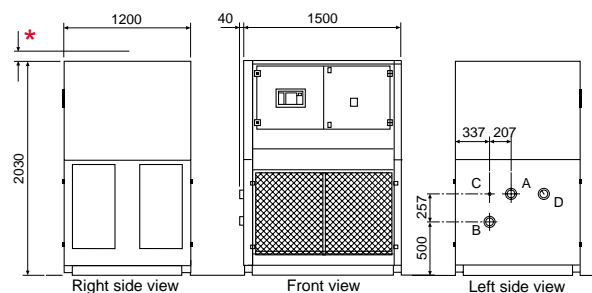
*Outlet water temperature 15°C - Ambient air temperature 25°C.

**Special water pumps high pressure/low pressure are available.

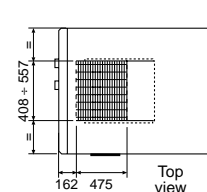
***Sound level 10 m. distance, in free field, AXA model.

A = Axial fan - C = Centrifugal fan.

AX 230-260-300



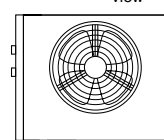
A) -Process water outlet (1" 1/2") B) -Process water inlet (1" 1/2")
C) -Water-fill (1/2") D) -Pressure gauge



AX-C
25-35-45 = 408 mm

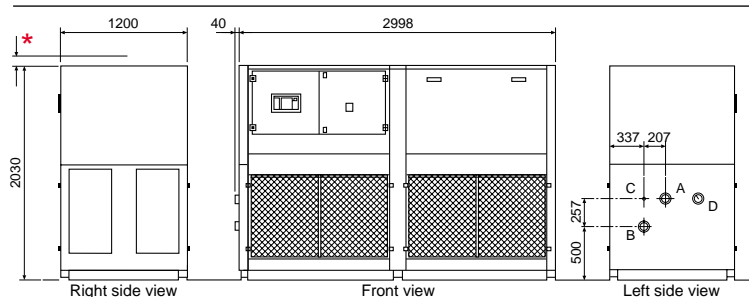
AX-C
55 = 557 mm

* = +10 mm

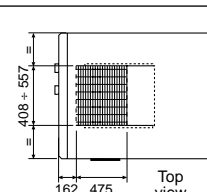


AX-A
25-35-45-55

* = +50 mm



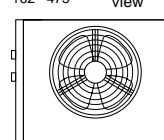
A) -Process water outlet (2" 1/2") B) -Process water inlet (2" 1/2")
C) -Water-fill (1/2") D) -Pressure gauge



AX-C
70-90 = 408 mm

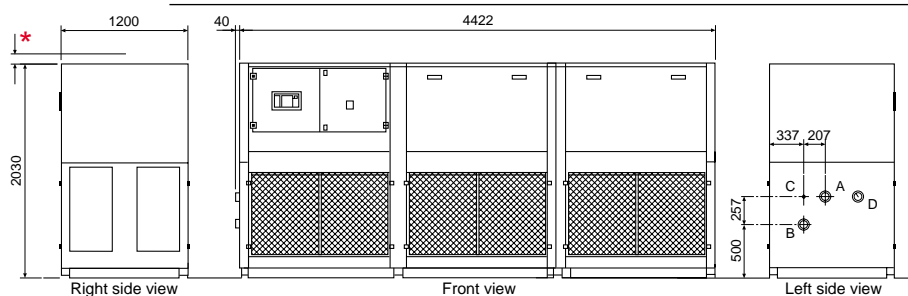
AX-C
110 = 557 mm

* = +10 mm

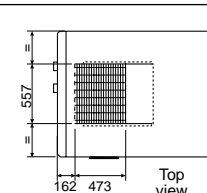


AX-A
70-90-110

* = +50 mm

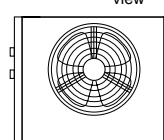


A) -Process water outlet (3") B) -Process water inlet (3")
C) -Water-fill (1/2") D) -Pressure gauge



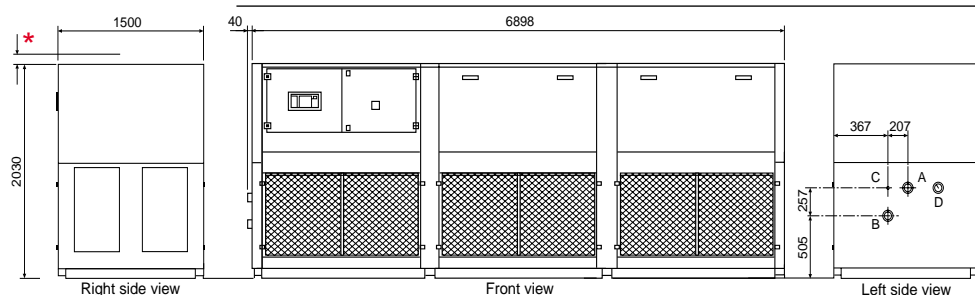
AX-C
130-160-190

* = +10 mm

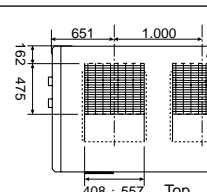


AX-A
130-160-190

* = +50 mm



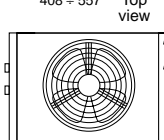
A) -Process water outlet (4") B) -Process water inlet (4")
C) -Water-fill (1/2") D) -Pressure gauge



AX-C
230-260 = 408 mm

AX-C
300 = 557 mm

* = +10 mm



AX-A
230-260-300

* = +50 mm