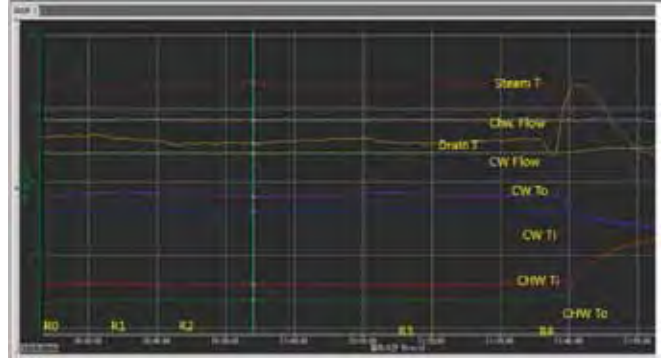


Double Effect Steam Fired Maritime Absorption chiller

**COP
1.21**

World Energy Absorption Chiller is certified for seaworthiness at seagoing condition

Capacity : 50~1,100usRT Service Condition : Chilled water 12/7c Cooling water : 32/37c Driving Heat source : 6bar
Refrigerant : Distilled water, Absorbent : LiBr Solution



Ship Movement Test

- Rolling condition test

Chiller Temperature Variation

- Stabilized Temperature at Rolling and Pitching condition

Performance Data

Model		Unit	SWM60	SWM70	SWM80	SWM100	SWM120	SWM150	SWM180	SWM210	SWM240	SWM280	SWM320	SWM360						
Cooling Capacity		kW	176	211	246	281	352	422	527	633	738	844	985	1,125						
		usRT	50	60	70	80	100	120	150	180	210	240	280	320						
Chilled Water	Inlet/Outlet Temp.	°C	12 / 7																	
	Flow rate	m ³ /h	30	36	42	48	60	73	91	109	127	145	169	194						
	P. Drop	mH ₂ O	2.7	4.7	5.4	3.7	4.2	5.1	5.8	5.7	5.8	4.1	4.2	4.7						
	Connection	mm	80			100			125			150								
Cooling Water	Inlet/Outlet Temp.	°C	32 / 37																	
	Flow rate	m ³ /h	55	66	77	88	110	132	165	198	231	265	309	353						
	P. Drop	mH ₂ O	4.6	8.1	8.2	6.2	6.9	7.3	8.1	8.5	9.2	7.1	7.1	7.4						
	Connection	mm	100			125			150			200								
Steam	Inlet Pressure	MPa	0.6																	
	Flow rate	kg/h	216	259	303	346	432	519	649	778	908	1,038	1,211	1,384						
	Inlet Connection	mm	40			50			65			80								
	Drain Connection	mm	25																	
	Control Valve	mm	32			40			50			65								
Electric	Power source	-	3PH, 440V, 60Hz																	
	Abs. Pumps	kW	0.2			0.3			0.4			0.4								
	Ref. Pump	kW	1.5			1.8			2.4			3.2								
	Purge Pump	kW	0.4																	
	Control Panel	kW	0.2																	
	Total Ampere	kW	2.3			2.7			3.4			4.2								
	Total Current	A	6.9			8.0			10.2			12.3								
Size	Length [L]	mm	2600			2,716			3,680			3,717			4,734			4,872		
	Width [W]	mm	1400																	
	Height [H]	mm	1877			2,166			2,147			2,399								
Weight	Rigging	ton	3.5	3.6	3.7	3.8	3.9	4.9	5.2	5.9	6.4	7.4	7.8	9.6						
	Operation	ton	3.9	4	4.1	4.2	4.4	5.5	5.8	6.7	7.2	8.4	8.9	10.9						
Space for Tube Replacement	mm	1900	2400			2,400			3,400			4,500								

GL Certificate & Patent of Maritime Absorption chiller



Development

- The absorption chiller has been used for many years as an onshore applications. World energy succeeded in developing Maritime absorption chiller which runs safely under seagoing conditions.

Energy saving

- Maritime absorption chiller is recovering surplus heat of the vessel so will save approximately 80% electrical energy compared to conventional electrical chiller.
- Compared to the traditional refrigerant system, use of the absorption system will reduce CO₂ emission up to 800tons/year and also conventional refrigerant Freon gas is substituted by eco-friendly distilled water.

Model		Unit	SWM400	SWM450	SWM500	SWM560	SWM630	SWM700	SWM800	SWM900	SWM1000	SWM1100	SWM1200	
Cooling Capacity		kW	1,266	1,407	1,582	1,758	1,969	2,215	2,461	2,813	3,165	3,516	3,868	
		usRT	360	400	450	500	560	630	700	800	900	1,000	1,100	
Chilled Water	Inlet/Outlet Temp.	°C	12 / 7											
	Flow rate	m ³ /h	218	242	272	302	339	381	423	484	544	605	665	
	P. Drop	mH ₂ O	5.0	4.1	4.5	3.4	4.7	6.4	4.5	6.2	8.4	5.6	7.4	
	Connection	mm	150	200				250			300			
Cooling Water	Inlet/Outlet Temp.	°C	32 / 37											
	Flow rate	m ³ /h	397	441	496	551	617	694	772	882	992	1,102	1,212	
	P. Drop	mH ₂ O	7.5	7.1	7.4	5.8	7.9	10.7	7.2	10.1	13.7	9.8	12.6	
	Connection	mm	200	250		300			350			400		
Steam	Inlet Pressure	MPa	0.6											
	Flow rate	kg/h	1,556	1,729	1,946	2,162	2,421	2,724	3,026	3,459	3,891	4,323	4,756	
	Inlet Connection	mm	80			100			125			150		
	Drain Connection	mm	40			50			65			80		
	Control Valve	mm	65				80				100			
Electric	Power source	-	3PH, 440V, 60Hz											
	Abs. Pumps	kW	0.4				1.5				7.5			
	Ref. Pump	kW	3.2			5.5			7.5			10.0		
	Purge Pump	kW	0.4			0.75			1.0			1.5		
	Control Panel	kW	0.2											
	Total Ampere	kW	4.2			6.5			7.6			10.0		
	Total Current	A	12.3			18.3			20.9			30.7		
Size	Length (L)	mm	4,872	4,876		4,998	5,534	6,038	5,953	6,410	6,650	6,293	6,818	
	Width (W)	mm	1,920	2,138		2,344			2,631			2,829		
	Height (H)	mm	2,399	2,667		2,860			3,176			3,450		
Weight	Rigging	ton	10.1	11.6	12.0	16.1	17.5	18.9	21.1	23.7	26.2	28.7	31.3	
	Operation	ton	11.5	13.3	13.8	18.7	20.3	21.8	24.5	27.4	30.4	33.4	36.4	
Space for Tube Replacement	mm	4,500			5,200		5,700	5,200	5,700	6,200	5,700	6,200		