

## 23 64 Packaged Water Chillers

### 23 64 23 – Scroll Water Chillers

23 64 23.10 Scroll Water Chillers		Crew	Daily Output	Labor-Hours	Unit	Material	2022 Bare Costs		Total	Total Incl O&P
							Labor	Equipment		
0962	75 ton cooling	Q-7	.23	139	Ea.	56,500	9,325		65,825	76,000
0964	85 ton cooling		.23	139		58,000	9,325		67,325	78,000
0970	100 ton cooling		.18	178		64,000	11,900		75,900	88,500
0980	115 ton cooling		.17	188		56,500	12,600		69,100	81,000
0990	125 ton cooling		.16	200		59,000	13,400		72,400	85,000
0995	145 ton cooling	↓	.16	200	↓	91,500	13,400		104,900	120,500

### 23 64 26 – Rotary-Screw Water Chillers

#### 23 64 26.10 Rotary-Screw Type Water Chillers

0010	ROTARY-SCREW TYPE WATER CHILLERS, With standard controls									
0110	Screw, liquid chiller, air cooled, insulated evaporator									
0120	130 ton	Q-7	.14	229	Ea.	104,500	15,300		119,800	138,000
0124	160 ton		.13	246		135,000	16,500		151,500	172,500
0128	180 ton		.13	250		151,500	16,700		168,200	192,000
0132	210 ton		.12	258		156,000	17,300		173,300	198,000
0136	270 ton		.12	267		191,000	17,900		208,900	236,500
0140	320 ton	↓	.12	276	↓	213,000	18,500		231,500	261,500
0200	Packaged unit, water cooled, not incl. tower									
0210	80 ton	Q-7	.14	224	Ea.	55,000	15,000		70,000	83,000
0240	200 ton		.13	252		87,500	16,900		104,400	121,000
0270	350 ton	↓	.12	276	↓	168,500	18,500		187,000	213,000
1450	Water cooled, tower not included									
1580	150 ton cooling, screw compressors	Q-7	.13	241	Ea.	80,500	16,100		96,600	113,000
1620	200 ton cooling, screw compressors		.13	250		111,500	16,700		128,200	147,500
1660	291 ton cooling, screw compressors	↓	.12	260	↓	116,500	17,400		133,900	154,000

## 23 65 Cooling Towers

### 23 65 13 – Forced-Draft Cooling Towers

#### 23 65 13.10 Forced-Draft Type Cooling Towers

0010	FORCED-DRAFT TYPE COOLING TOWERS, Packaged units									
0070	Galvanized steel									
0080	Induced draft, crossflow									
0100	Vertical, belt drive, 61 tons	Q-6	90	.267	TonAC	218	17.50		235.50	266
0150	100 ton		100	.240		210	15.75		225.75	256
0200	115 ton		109	.220		183	14.45		197.45	223
0250	131 ton		120	.200		220	13.15		233.15	262
0260	162 ton	↓	132	.182	↓	178	11.95		189.95	214
1000	For higher capacities, use multiples									
1500	Induced air, double flow									
1900	Vertical, gear drive, 167 ton	Q-6	126	.190	TonAC	172	12.50		184.50	209
2000	297 ton		129	.186		106	12.20		118.20	135
2100	582 ton		132	.182		59	11.95		70.95	83
2150	849 ton		142	.169		79.50	11.10		90.60	104
2200	1,016 ton	↓	150	.160	↓	80.50	10.50		91	104
3000	For higher capacities, use multiples									
3500	For pumps and piping, add	Q-6	38	.632	TonAC	109	41.50		150.50	182
4000	For absorption systems, add				"	75%	75%			
4100	Cooling water chemical feeder	Q-5	3	5.333	Ea.	460	340		800	1,000
5000	Fiberglass tower on galvanized steel support structure									
5010	Draw thru									
5100	100 ton	Q-6	1.40	17.143	Ea.	14,600	1,125		15,725	17,700