

MARLEY® WaterGard™

Water Usage Optimizer

Water-saving Membrane Filtration System for Evaporative Cooling Equipment

MARLEY® 

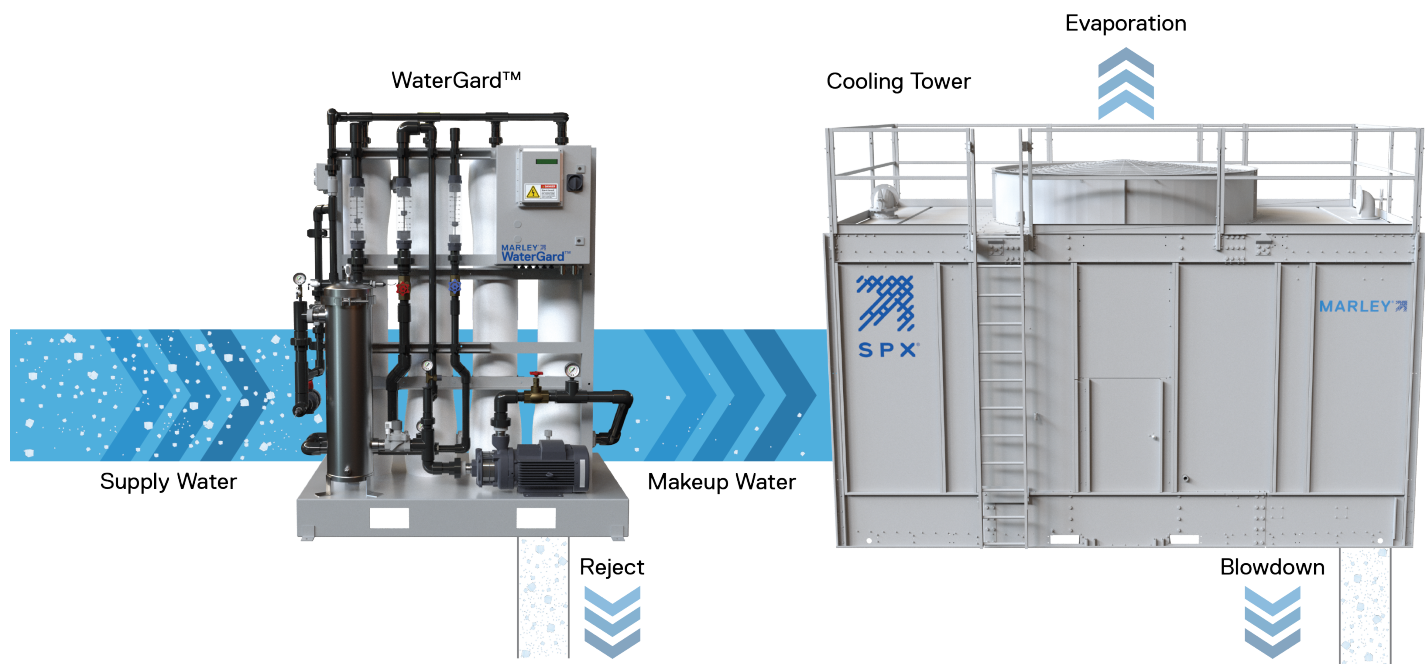


Patent-pending **Marley® WaterGard™** pre-conditions cooling tower makeup water to enable equipment operation at increased Cycles of Concentration (COC) – potentially up to 10 COC or more – **reducing wastewater and overall water usage.**

- ✓ Reduces water usage (withdrawal) up to 59%*
- ✓ Reduces wastewater (discharge) up to 88%*
- ✓ Reduces discharge losses of water treatment chemicals
- ✓ LEED points available
- ✓ Augments existing water treatment

How It Works

Fewer minerals in makeup = Higher safe COC = Less blowdown = Less water usage



*potential benefits vary with source water mineral content

In an evaporative cooling system, mineral content limits determine the appropriate operating COC of the circulating water to minimize corrosion and scale tendencies. **WaterGard** physically blocks and rejects minerals commonly found in municipal water streams (chlorides, calcium carbonate, silica, etc.), reducing makeup water mineral content and enabling higher operating COC, resulting in reduced volume requirements for both blowdown and supply water. Higher mineral content supply water correlates to higher potential water savings with **WaterGard**.

WaterGard™ Potential Savings

	Starting Safe COC (without WaterGard)					
	1.5	2	2.5	3	4	5
Wastewater (discharge)	88%	77%	65%	53%	30%	6%
Water Usage (withdrawal)	59%	38%	26%	18%	7%	1%

Simple to Service

Typical expected consumables replacement:

- ~24 month membrane change
- ~12 month carbon refresh (if equipped)
- ~3 months sediment filter change

Additional System Requirements

Required to achieve expected benefits and service life

- Chlorine removal pre-treatment
- Electronic water level makeup
- Conductivity controlled blowdown

Product Data

WATERGARD MODEL	PEAK MAKEUP FLOW (gpm)	MEMBRANES (QTY x SIZE)	APPROXIMATE DIMENSIONS W x D x H (in.)	PUMP (HP)
WG002	2.2	2 x 4"	26" x 10" x 55"	1
WG004	4.4	4 x 4"	26" x 10" x 55"	1
WG007	7.3	6 x 4"	60" x 21" x 60"	3.4
WG009	9.0	8 x 4"	60" x 21" x 60"	3.4
WG012	12.2	2 x 8"	59" x 38" x 72"	5.4
WG018	18.3	3 x 8"	59" x 38" x 72"	5.4
WG024	24.4	4 x 8"	59" x 38" x 72"	5.4
WG037	36.5	6 x 8"	110" x 36" x 77"	5.4
WG049	48.8	8 x 8"	110" x 36" x 77"	8.5
WG055	54.8	9 x 8"	147" x 36" x 77"	8.5
WG061	60.8	10 x 8"	111" x 36" x 82"	10
WG073	73.0	12 x 8"	147" x 36" x 77"	10
WG091	91.3	15 x 8"	147" x 36" x 77"	10

**Makeup water rates
2 - 91 gpm per unit**

**Includes internal
bypass function**

**Not a replacement
for water treatment**

- Dimensions exclude carbon tank system (standard option) for chlorine removal pre-treatment
- Designed for indoor installation
- Typical municipal source water pressures 45-80 psig
- Integral pump included to offset membrane filter pressure drop

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