

# **Gardner Denver**

INDUSTRIAL PROCESS COOLING | INDUSTRIAL CHILLERS ½ TON-200 TON

## **XGCH Series**



# X Series: NeXt-Generation Gardner Denver Air Treatment

## Why a Chiller?

The real cost of water includes both its acquisition and disposal. If your manufacturing process utilizes cooling water, you will recognize savings immediately with a closed loop chiller. Using a closed loop unit eliminates costs associated with increasingly stringent local and federal water regulations. Chillers completely eliminate the need for discharge water monitoring and annual permits.

## How Much Are You Spending on Water?

In the past, plants often connected process equipment to their incoming city water supply and never gave it a second thought. However, since the days of plentiful and cheap water are gone, and sewer charges are often substantial, self-contained water recirculators and chillers have become a popular option.



USAGE GPM	ANNUAL WATER & SEWAGE COST		
	\$2.00/ 1,000 GAL	\$5.00/ 1,000 GAL	\$8.00/ 1,000 GAL
1	\$240	\$600	\$960
5	\$1,200	\$3,000	\$4,800
10	\$2,400	\$6,000	\$9,600
25	\$6,000	\$15,000	\$24,000
50	\$12,000	\$30,000	\$48,000
100	\$24,000	\$60,000	\$96,000

Based on 52 weeks @ 40 hours/week



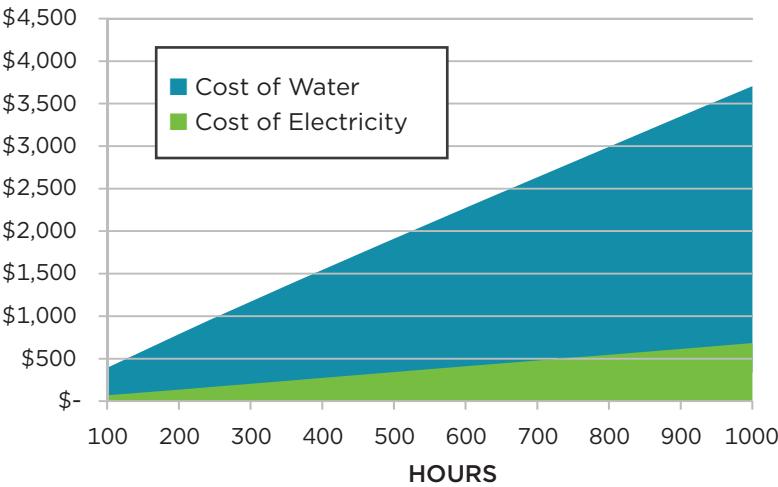
### Conserve Water & Cash

With an immediate reduction in water usage and a consistent cooling water temperature, chillers offer a significant improvement to the process and fast ROI.

- Wide variety of units in stock for immediate shipment
- Competitive pricing
- Excellent customer service
- Service & support available
- Replacement parts

### COST COMPARISON: WATER VS. ELECTRICITY

Typical 5.6 Ton Chiller — 460/3 @20 GPM



Water calculations based on 20 gpm @ \$0.003/gallon (blue).  
 Electricity calculations based on continual operation of 6 kW/hr @ \$0.10 kW/hr (green).

### Savings Explained

This graph explains the cost savings if you were to use city water to cool, draining it over and over continuously for your application, versus using a chiller with cost of electricity. If a customer has a rate for water at \$0.003 per gallon, the cost of water for 1000 hours per year is estimated to be \$3,600. If that same customer used a Gardner Denver X Series Chiller, their cost of electrically cooling the same application at 1000 hours per year at \$0.10 per KWH, the estimated cost would be \$600. This provides an estimated \$3,000 in cost savings using the X Series Chiller over the city water cooling technology.

# Benefits & Advantages

Industrial water chillers offer protection to your valuable process equipment—such as spot welders, injection molding equipment, and various other industrial applications. A chiller provides solid protection of your investment twenty-four hours a day, seven day a week during the chiller's lifetime.

## Improved Productivity

Experience reduced production cycle times and fewer interruptions. With precise water temperature control, industrial chillers reduce production cost by eliminating waste.

## Closed Circuit Operation

Extremely precise water temperature control ensures steady operating conditions and a quick response to any sudden load changes.

## Built for Industry

Gardner Denver perfectly matches the needs of a diverse range of industries—from machinery to pharmaceutical, and food and beverage to plastics and rubber.

## Personalized for Your Needs

An extensive range of accessories and upgrades are available making your chiller flexible and fully customizable.

Gardner Denver offers various-sized compact water and oil chillers to fit industrial applications.

We serve all types of industrial applications, such as:

- Welding Equipment
- Molding Equipment
- Induction Heating Equipment
- Bakery
- Chemical Operations
- Food Processing
- Machine Tools
- Boiler Feed Sampling
- Cement Mixing
- Lasers
- Packaging Machinery
- Computers
- Plasma Cutting
- Film Processing
- Electric Generators





### Mini Chillers

- Refrigerant R134A
- Scroll compressors
- High-efficiency coaxial tube in tube evaporators
- Non ferrous water circuit
- Single phase and three-phase models
- Advanced digital controller with diagnostic & storage alarms

SIZES	MODELS	CAPACITY
<b>3</b>	<b>7</b>	<b>0.5-5 tons</b>



### Pro Chillers

- Refrigerant R410A
- Scroll compressors
- High-efficiency shell & tube evaporators
- 460V/3ph/60Hz
- Free-cooling version available

SIZES	MODELS	CAPACITY
<b>4</b>	<b>12</b>	<b>6-45 tons</b>



### Pro MAX Chillers

- Refrigerant R410A
- Precise temperature control for any industrial application
- Electronic expansion thermostatic valve
- Separated compressor compartment with removable panels
- Refrigerant high and low pressure gauges

SIZES	MODELS	CAPACITY
<b>3</b>	<b>5</b>	<b>50-200 tons</b>

# Specifications

MODEL	SERIES	COOLING CAPACITY		FLUID CONNECTIONS	FLOW, NOMINAL	HEAD PRESSURE, NOMINAL	RESERVOIR CAPACITY	VOLTAGE	FLA	DIMENSIONS (IN)			WEIGHT (LBS)	
		TONS	BTU/HR		GAL/MIN	PSI	GAL	V		L	W	H	INSTALLED	DRY
XGCH0.5	Mini	0.5	7,019	½" NPT	1.5	65	5.25	230/1/60	9.9	31	23	18	212	169
XGCH1.0	Mini	1.0	11,786	½" NPT	2.5	65	5.25	230/1/60	14.7	31	23	18	220	176
XGCH1.5	Mini	1.5	18,287	¾" NPT	3.5	75	14.5	460/3/60	7.4	29	26	44	436	315
XGCH2.3	Mini	2.3	27,640	¾" NPT	5.5	75	14.5	460/3/60	8.6	29	26	44	447	326
XGCH2.9	Mini	2.9	34,416	¾" NPT	7	75	14.5	460/3/60	11.5	29	26	44	447	326
XGCH3.4	Mini	3.4	40,587	1" NPT	8	70	21	460/3/60	12.0	39	30	51	682	507
XGCH6.1	Mini	6.1	72,756	1" NPT	15	65	21	460/3/60	16.6	39	30	51	704	529
XGCH6.2	Pro	6.2	74,552	1½" NPT	16	60	32	460/3/60	20.2	56	30	63	995	727
XGCH7.6	Pro	7.6	90,707	1½" NPT	18	70	58	460/3/60	25.0	74	31	65	1454	970
XGCH9.2	Pro	9.2	110,890	1½" NPT	22	70	58	460/3/60	26.9	74	31	65	1459	975
XGCH11.7	Pro	11.7	140,638	1½" NPT	28	70	58	460/3/60	31.8	74	31	65	1498	1014
XGCH14.1	Pro	14.1	168,777	1½" NPT	34	70	58	460/3/60	38.2	74	31	65	1498	1014
XGCH17.8	Pro	17.8	214,057	2" NPT	42	70	92	460/3/60	46.3	97	36	78	2355	1587
XGCH20.1	Pro	20.1	240,955	2" NPT	48	65	92	460/3/60	51.6	97	36	78	2420	1653
XGCH22.9	Pro	22.9	275,155	2" NPT	55	65	92	460/3/60	61.1	97	36	78	2420	1653
XGCH28.2	Pro	28.2	338,397	2" NPT	68	65	92	460/3/60	79.4	97	36	78	2490	1725
XGCH35.3	Pro	35.3	424,050	2½" NPT	85	65	132	460/3/60	93.2	137	48	78	3150	2050
XGCH39.5	Pro	39.5	474,037	2½" NPT	95	65	132	460/3/60	101.5	137	48	78	3275	2175
XGCH45.0	Pro	45.0	540,173	2½" NPT	110	65	132	460/3/60	147.0	137	48	78	3400	2300
XGCH53.2	Pro MAX	53.2	638,070	3" M Vic	128	40	132	460/3/60	196.0	124	87	95	6846	5747
XGCH59.8	Pro MAX	59.8	717,480	3" M Vic	143	40	132	460/3/60	227.0	124	87	95	6941	5908
XGCH75.6	Pro MAX	75.6	907,629	3" M Vic	182	40	132	460/3/60	257.0	124	87	95	7061	6029
XGCH94.6	Pro MAX	94.6	1,135,901	4" M Vic	227	40	200	460/3/60	315.0	175	87	95	9293	7835
XGCH106.0	Pro MAX	106.0	1,272,728	4" M Vic	255	40	200	460/3/60	365.0	175	87	95	9393	7935

NOTE: For chiller needs above 106 tons, contact customer service for a special quote.

CAPACITY RATINGS	SERIES		
	MINI	PRO	PRO MAX
Fluid out/in	60F/70F	45F/55F	45F/55F
Ambient	95F	95F	95F
Min fluid outlet	41F	41F	32F
Max fluid inlet	86F	86F	68F
Min ambient	50F	32F	14F
Max ambient	113F	113F	113F

CORRECTION FACTORS (PRO & PRO MAX ONLY)							
Water Outlet Temp (F)	30	35	40	45	50	55	60
Correction Factor	0.68	0.79	0.91	1	1.06	1.12	1.16
Ambient Temp (F)	75	80	85	90	95	100	105
Correction Factor	1.15	1.11	1.08	1.04	1	0.93	0.91
Ethylene Glycol (%)	0	10	20	30	40	45	50
Correction Factor	1	0.99	0.98	0.97	0.96	0.95	0.94

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