



CYCLING REFRIGERATED DRYER | 10-800 CFM

XGCYA Series



X Series: NeXt-Generation Gardner Denver Air Treatment

XGCYA SERIES | CYCLING REFRIGERATED DRYERS

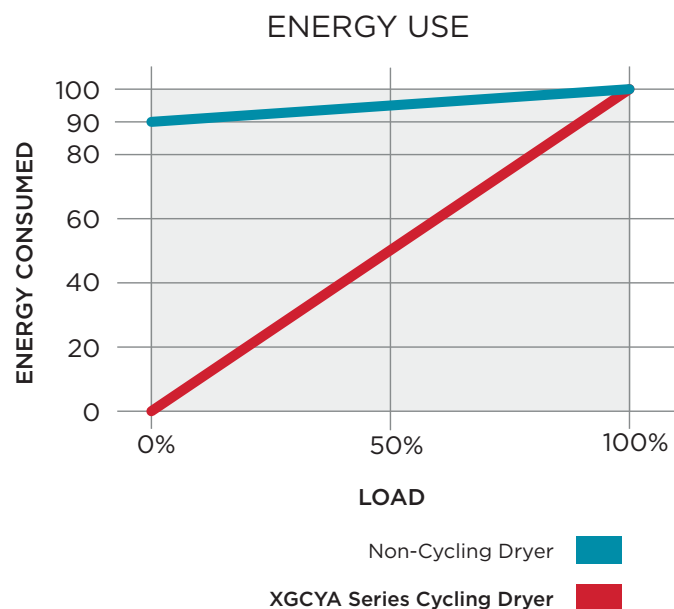
The XGCYA Series is more than just a dryer—it's a commitment to performance, protection, and energy savings. Engineered for industrial reliability, it ensures your compressed air system stays clean & dry under all operating conditions. With a patented heat exchanger and advanced cycling technology, the XGCYA Series delivers consistent results while dramatically reducing energy consumption. It's the smart choice for operations that demand both uptime and sustainability.

Why Thermal Mass Works

The XGCYA Series uses a thermal mass to store cold energy. This allows the refrigeration system to cycle off during low demand—saving energy without sacrificing performance. Even when the compressor isn't running, the dryer continues to remove moisture and maintain a steady dew point by circulating the thermal mass through the exchanger. Combined with a centrifugal separator and smart system design, this approach ensures constant dew point control, even under partial loads.

Key Features

- **TRUE CYCLING OPERATION:** Runs only when needed—no wasted energy.
- **PATENTED HEAT EXCHANGER:** High heat transfer, low pressure drop, and self-cleaning design.
- **THERMAL MASS EFFICIENCY:** Circulates cold energy for continued drying during off cycles.
- **CONSISTENT DEW POINT:** Centrifugal separator ensures reliable moisture removal.
- **CERTIFIED SAFE & SUSTAINABLE:** UL 60335-1 & UL 60335-2-40 compliant. Uses R513A refrigerant with 85% lower GWP (GWP < 700).



High Heat Transfer at Work

The superior performance of the XGCYA Series dryer can be attributed to the effective heat transfer capabilities of the exchanger design utilized throughout the compressed air circuit. The dryer design includes a pre-cooling system with heat exchangers to properly condition the air for drying. A re-heater section of the dryer's air side also uses these high performance heat exchangers to prepare the dried compressed air for re-entry into the air system. This prevents pipe sweating and readies the compressed air for use in process applications.

1 100% CORROSION-RESISTANT CONSTRUCTION permits optimal heat transfer, resulting in a consistent pressure dew point.

2 XGCYA SERIES DRYER'S AIR CIRCUIT HEAT EXCHANGERS combine a high heat transfer coefficient with unmatched low pressure drop.

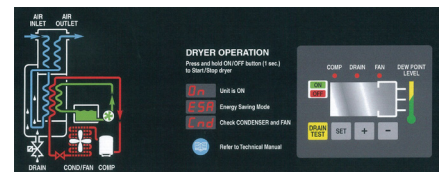
3 CORROSION-RESISTANT MATERIAL is used in all the XGCYA Series dryer's air circuit heat exchangers, providing durability in environments unsuitable for copper or other metals.



Advanced Microprocessor Controllers

The easy-to-use controller automatically manages dryer operation for optimum air treatment and for maximum energy efficiency.

- Simple and easily read interface
- Digital display of chiller temperature available at a glance to ensure optimal dryer performance
- Maintenance reminders to help keep particulate filters working optimally. (Pressure drop monitoring optional) 300-800 cfm
- Automatic dryer restart in the event of a sudden loss of power
- Microprocessor control constantly monitors dryer functions including thermal mass temperature and provides alarms to minimize dryer downtime
- Optional inlet/outlet pressure and temperature monitoring on 300-800 cfm models



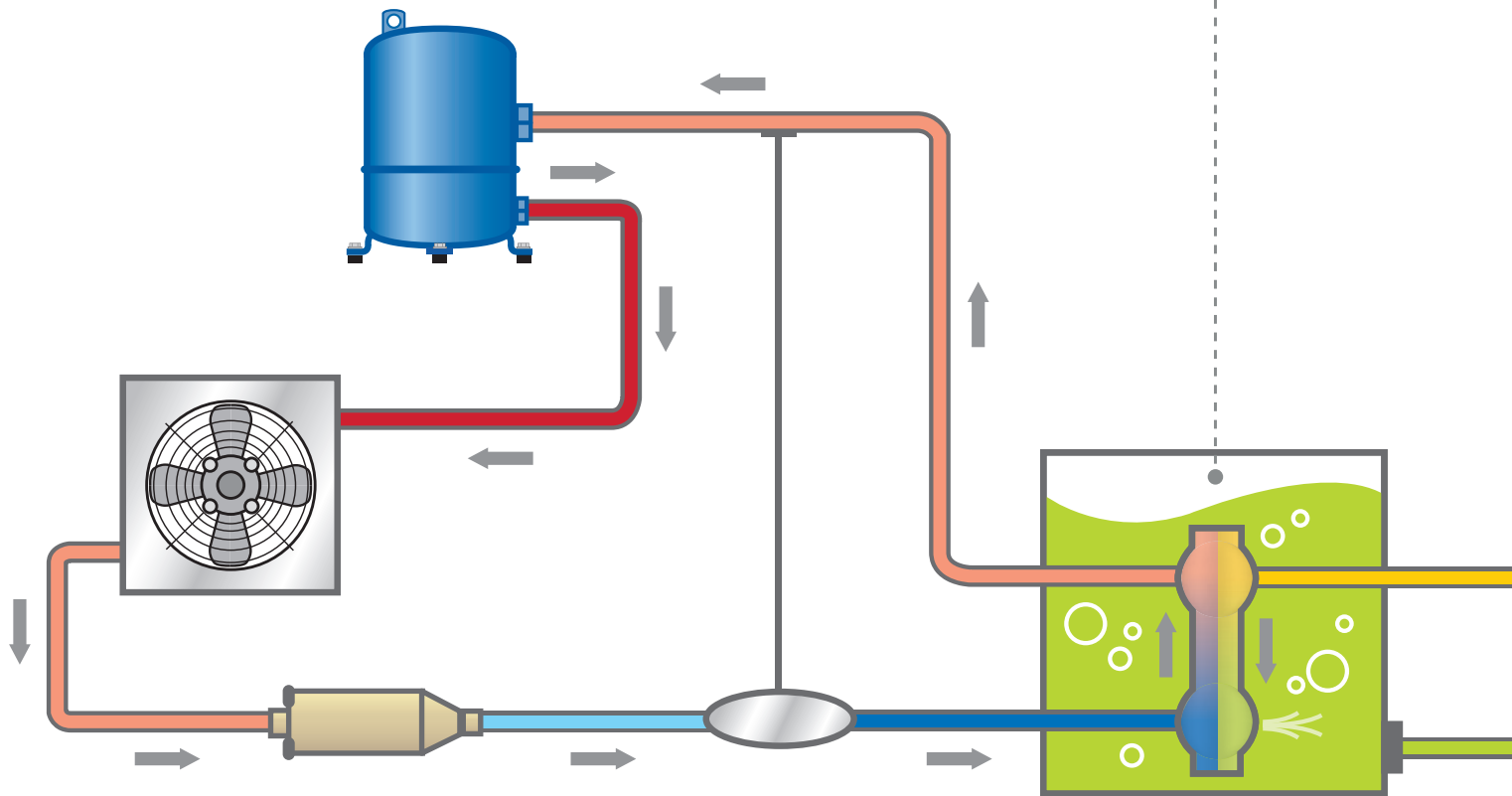
10-250 cfm



300-800 cfm

Inside the Cycle

SUBMERGED EVAPORATOR THERMAL MASS STORAGE TANK is fully insulated to maintain a consistently cold propylene glycol-water mixture for continuous pressure dew point control. The thermal tank temperature is monitored by the controller permitting the refrigerant compressor to cycle off during low heat loads resulting in energy savings.



REFRIGERATION SYSTEM

employs a reliable, time-proven hermetic reciprocating compressor.

THERMAL MASS COOLING SYSTEM

circulates the thermal mass fluid to provide a continuous cold medium for heat transfer.

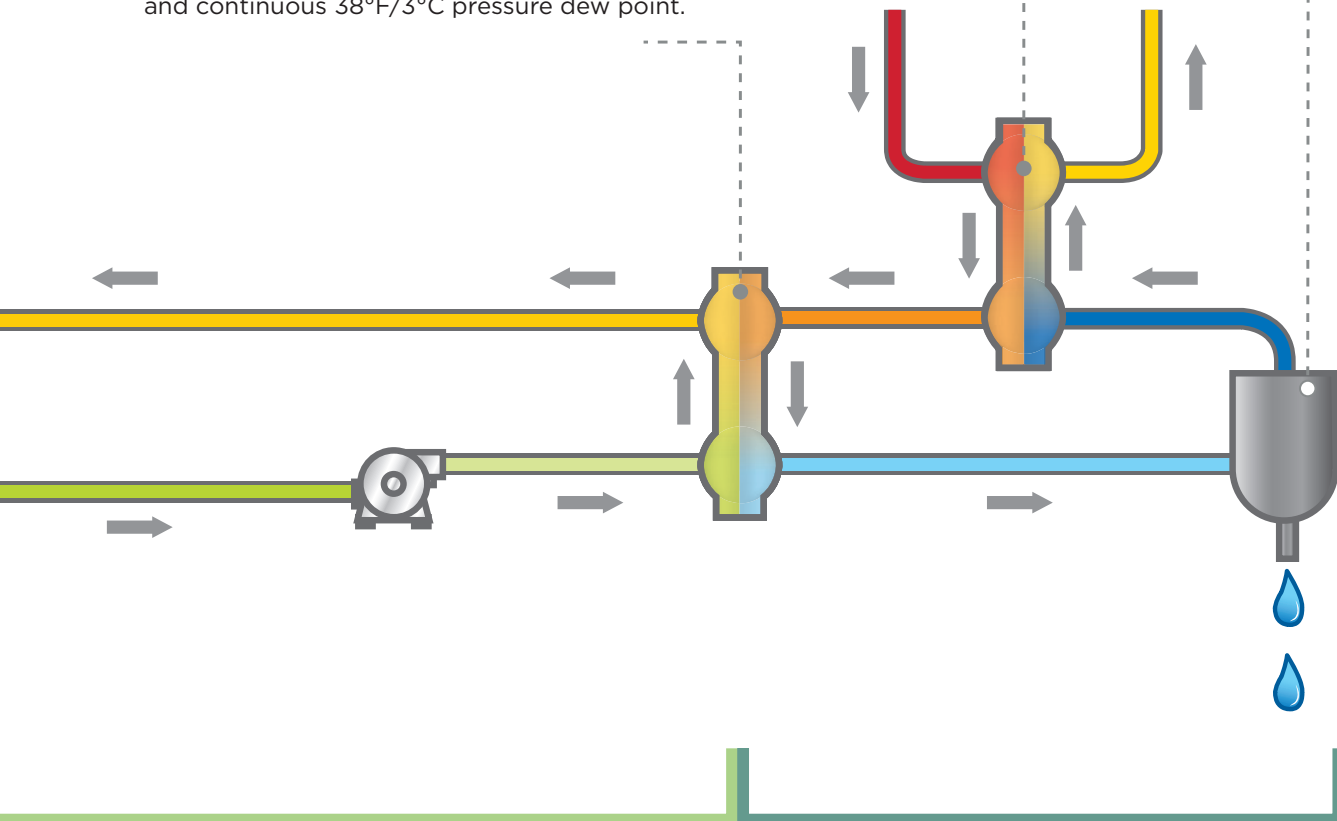
CENTRIFUGAL AIR/MOISTURE SEPARATOR

efficiently and effectively removes moisture for all applications even under partial load conditions.

PRE-COOLER/RE-HEATER

assures that compressed air is properly conditioned for cooling while simultaneously reducing the energy costs of removing the initial heat load. Clean, dry air leaving the dryer is reheated to maintain low relative humidity in the process air, further protecting the compressed air system.

AIR CHILLER uses corrosion-resistant corrugated heat exchangers to provide efficient heat transfer between the compressed air and the dryer's cooling thermal mass, assuring a consistent and continuous 38°F/3°C pressure dew point.



COMPRESSED AIR SIDE SYSTEM

pre-cools the inlet air, chills the air to 38°F/3°C, removes moisture through the centrifugal separator and is re-heated for process use.

International Air Quality Class Standards

ISO 8573-1 Air Quality Standard

ISO 8573-1, the international standard for compressed air quality, defines the amount of contamination permissible in compressed air.

According to ISO standards, compressed air systems face three primary contaminants: solid particles, water, and oil. The XGCYA Series addresses all three with pre- and post-filtration, enhancing overall air quality and protecting downstream manufacturing tools and equipment.

XGCYA Series refrigerated air dryers offer the perfect balance between technology and simplicity to dry compressed air systems to ISO 8573-1 Air Quality Class 4-5 pressure dew points.



10-250 cfm including ship loose
XG Series pre & post filters.



Integrated filtration from 300-800 CFM

Included Pre-Filtration

XG Series GP grade filtration (included as standard) removes solid and oil contaminants from the air stream before entering the dryer.

Grade GP | General Purpose Protection

Particle removal down to 0.1 micron including coalesced liquid, water and oil, providing a maximum remaining oil aerosol content of 0.1 ppm (0.1 mg/m³) @ 69°F (21°C).

Included After-Filtration

XG Series HE grade filtration (included as standard) provides high efficiency oil removal protecting downstream equipment.

Grade HE | High Efficiency Oil Removal Filtration

Particle removal down to 0.01 micron including water and oil aerosols, providing a maximum remaining oil aerosol content of 0.01 ppm (0.01 mg/m³) @ 69°F (21°C).

XGCYA SERIES | CYCLING REFRIGERATED DRYER SPECIFICATIONS

MODEL*	INLET FLOW		PRESSURE DROP	VOLTAGE**	IN/OUT CONNECTIONS	POWER CONSUMPTION	REFRIG-ERANT	DIMENSIONS H x W x D		WEIGHT	
	SCFM	NM ³ /H	PSI			KW		INCHES	MM	LBS	KG
XGCYA10	10	17	0.46	115/1/60	½" FNPT	0.35	R-513A	26.5 x 15.2 x 19.7	673 x 386 x 500	130	59
XGCYA18	18	31	0.8	115/1/60	½" FNPT	0.43	R-513A	26.5 x 15.2 x 19.7	673 x 386 x 500	130	59
XGCYA25	25	42	1.22	115/1/60	½" FNPT	0.45	R-513A	26.5 x 15.2 x 19.7	673 x 386 x 500	135	61
XGCYA35	35	60	2.1	115/1/60	½" FNPT	0.53	R-513A	26.5 x 15.2 x 19.7	673 x 386 x 500	140	65
XGCYA50	50	85	0.77	115/1/60	¾" FNPT	0.68	R-513A	26.5 x 15.2 x 19.7	673 x 386 x 500	145	66
XGCYA75	75	128	1.38	115/1/60	1" FNPT	0.94	R-513A	30.4 x 16.6 x 22.4	772 x 422 x 569	175	80
XGCYA100	100	170	2.36	115/1/60	1" FNPT	0.98	R-513A	30.4 x 16.6 x 22.4	772 x 422 x 569	180	82
XGCYA125	125	213	3.56	115/1/60	1" FNPT	1.1	R-513A	30.4 x 16.6 x 22.4	772 x 422 x 569	185	84
XGCYA150	150	255	1.8	115/1/60	1½" FNPT	1.25	R-513A	37.5 x 19.66 x 30.25	953 x 499 x 768	263	119
XGCYA200	200	340	1.9	460/3/60	1½" MNPT	1.9	R-513A	49.25 x 22.91 x 32.52	1251 x 582 x 826	490	222
XGCYA250	250	425	2.1	460/3/60	1½" MNPT	2.1	R-513A	49.25 x 22.91 x 32.52	1251 x 582 x 826	490	222
XGCYA300A XGCYA300W	300	510	1.9	460/3/60	2" MNPT	2.4	R-513A	34.0 x 49.2 x 55.6 34.0 x 49.2 x 48.1	864 x 1250 x 1413 864 x 1250 x 1222	875 815	397 370
XGCYA400A XGCYA400W	400	680	2.7	460/3/60	2" MNPT	3 1.9	R-513A	34.0 x 49.2 x 55.6 34.0 x 49.2 x 48.1	864 x 1250 x 1414 864 x 1250 x 1222	895 840	406 381
XGCYA500A XGCYA500W	500	850	1	460/3/60	3" MNPT	2.7 2.2	R-513A	41.4 x 57.5 x 59.8 41.4 x 57.5 x 53.4	1052 x 1461 x 1519 1052 x 1461 x 1357	1341 1299	608 589
XGCYA600A XGCYA600W	600	1020	1.1	460/3/60	3" MNPT	2.9 2.6	R-513A	41.4 x 57.5 x 59.8 41.4 x 57.5 x 53.4	1052 x 1461 x 1520 1052 x 1461 x 1357	1366 1325	620 601
XGCYA700A XGCYA700W	700	1190	1.7	460/3/60	3" MNPT 3" MNPT	4.4 1.7	R-513A	41.4 x 57.5 x 59.8 41.4 x 57.5 x 53.4	1052 x 1461 x 1519 1052 x 1461 x 1357	1391 1349	631 612
XGCYA800A XGCYA800W	800	1360	2.2	460/3/60	3" MNPT	4.8 2.2	R-513A	41.4 x 57.5 x 59.8 41.4 x 57.5 x 53.4	1052 x 1461 x 1519 1052 x 1461 x 1357	1416 1376	643 625

Performance data presented in accordance with ISO 7183 (Option A2) conditions: 100°F inlet temperature, 100°F ambient temperature and 100 psig conditions.

Overall dimensions include base, threaded conn., elec enclosure protrusions.

*"A" at the end of the model number denotes air-cooled and "W" denotes water-cooled models.

**See price book for available voltages.



Premium Warranty[†]

1 Year—Standard

4 Years—Extended

5 Years—Total

[†]Parts and labor included. Contact your local distributor for more details.

The leader in every market we serve
by continuously improving all business processes
with a focus on innovation and velocity

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