

# **Gardner Denver**

DESICCANT HEATED PURGE & HEATED BLOWER DRYERS | 150-8,000 SCFM

## **XGHP & XGHB Series**

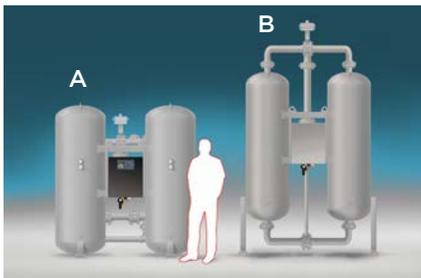


# X Series: NeXt-Generation Gardner Denver Air Treatment

## HEATED DESICCANT AIR DRYERS

### Designed for Reliability

One look tells you that these dryers are like no others—extremely low silhouette, manifolds and valves within an arm's reach of the operator, and readily accessible fill and drain ports are just a few of the differences apparent on the outside. Both externally and internally, each model combines innovative engineering and technically advanced, highly durable components to provide easy installation, operation, maintenance, and simply the most reliable desiccant dryers available.



### Low Profile Design

Our easy access design (A) places key maintenance points at operator level for faster servicing and less downtime than competitive units (B). The low profile design also allows upright shipment and facilitates installation.

### State-of-the-Art Controller

The advanced microprocessor controller maintains dryer performance at optimum levels. It constantly monitors dryer functions and provides an alert when maintenance is required so downtime is minimal.

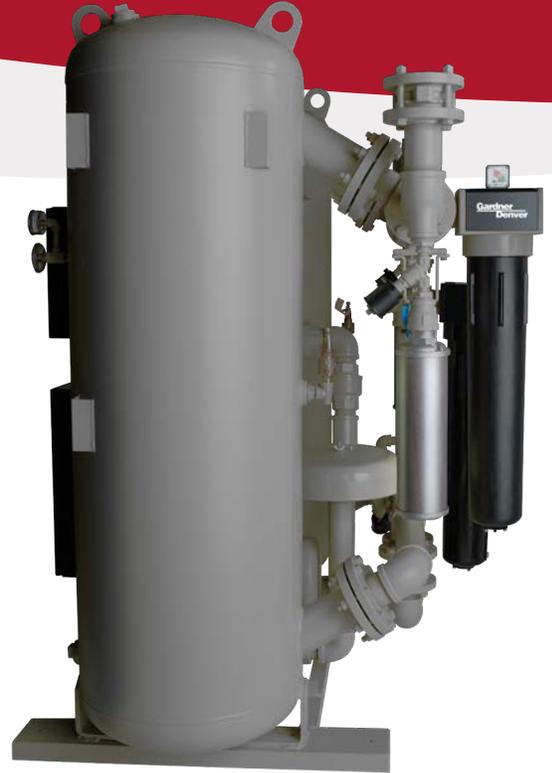
### Easy to Maintain High-Performance Valves

With manifolds angled toward the center at the operator level, the valves are easily accessed for maintenance.

## Benefits of Desiccant Dryers

All of our desiccant dryers are designed with energy efficiency, reliability, productivity and safety in mind:

- Engineered for low pressure drop through valve selection, tower size and filter design.
- Optional Energy Management System (EMS) reduces purge consumption while maintaining a constant dew point, monitors the dew point and extends the dryer cycle to greatly reduce energy costs.
- Large sound attenuating purge mufflers minimize noise and include built-in relief valves to enhance safety.
- **Low profile (A)** places valves at operator's level and provides ready access to fill and drain ports, increasing operator safety and ease of maintenance.
- Pre-filter and **after-filter (B)** protect desiccant and downstream air from oil contamination and particulates to help improve air quality, increasing productivity.
- Easy-to-replace **stainless steel desiccant screens (C)** prevent contamination of the downstream air system and are easily removed for cleaning, keeping downtime to a minimum.
- **High-efficiency heater (D)** and/or blower controlled by outlet regeneration temperature that shuts off to save electrical power once desiccant has been thoroughly regenerated (available with EMS on heated dryers).



A, B



C



D

# Desiccant Dryer Controls

Gardner Denver desiccant dryer models XGHP and XGHB are supplied with a digital electronic multi-function controller as standard equipment. This is the dryer's command center.

The advanced digital controller is programmed to execute all valve switching functions, as well as to completely monitor dryer operations. Further, it is MODBUS compatible permitting connection to MODBUS-capable networks and making some remarkable enhanced dryer operating functions. The controller's full-featured panel includes:



- Backlit LCD display for viewing critical dryer parameters in all lighting conditions
- Integrated keypad, providing user with access to all internal functions and selectable displays
- Schematic depiction of dryer offering visual indication of current operating status
- Remote alarm contact
- Failure code storage
- Multiple displays, from "Dryer On/Off Control" to "Regeneration Sequence Status"



The **XGHP & XGHB Series** provide  
**reliable performance**  
to meet your operation demands.

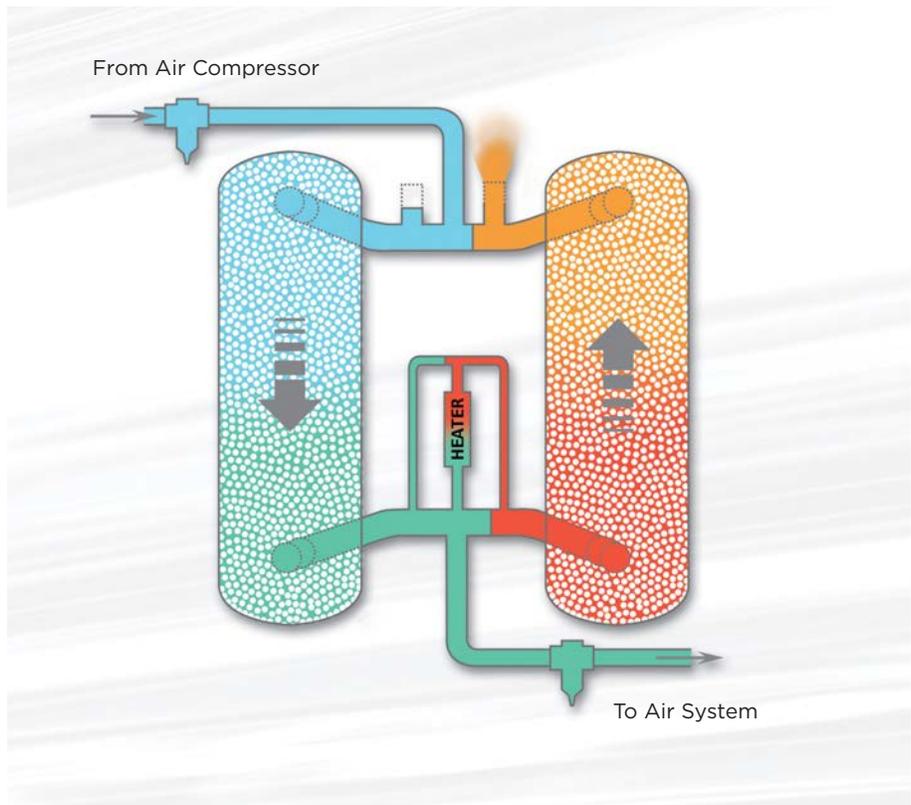
# Selecting a Desiccant Dryer

Each Gardner Denver desiccant dryer incorporates high-strength desiccant and durable, easily maintained valves for **unsurpassed reliability, performance and customer value.**

Heated and heated blower technologies use twin desiccant towers and strategically positioned valves to dry the compressed air. Whether using a heated or heated blower dryer, the compressed air produced is thoroughly dried as it is directed through the on-line desiccant-filled tower of the dryer. As the desiccant in this tower adsorbs moisture from the air, the desiccant in the dryer's off-line tower is purged of moisture and readied for use. The basic difference in the two technologies is the manner in which the moisture is desorbed from the desiccant, also known as regeneration.

## Heated

These dryers operate similarly to heatless dryers, with a big exception. Dried air diverted from the air system is first passed through a high-efficiency external heater before entering the off-line tower to regenerate the desiccant. Since this heated air can hold considerably more moisture than unheated air, only about half the amount of dried compressed air is needed for regeneration. Although the addition of the heater and associated components raises the initial capital investment for a heated dryer, less diverted compressed air means lower operating costs.

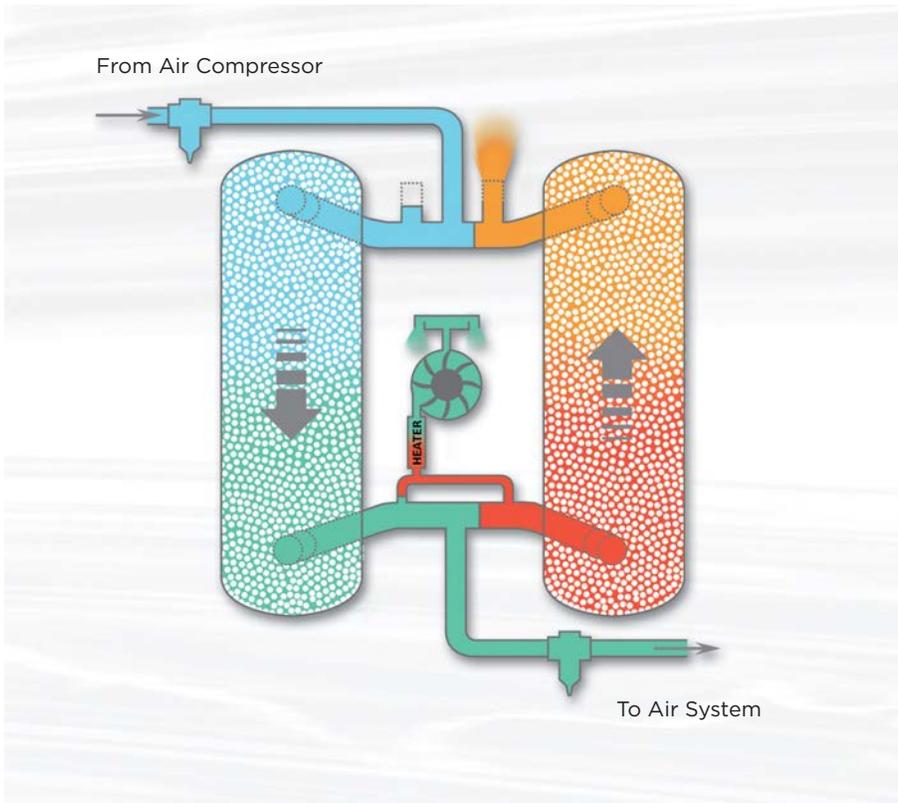


### XGHP Heated Desiccant Dryer

Heated dryers offer a compromise between operating efficiency and capital investment.

*So, how do you select the right desiccant dryer technology?*

*That depends on the variables, such as system demand, compressed air capacity, air quality requirements and applicable life cycle costs that are unique to your compressed air system.*



### Heated Blower

This type of dryer does not divert dried compressed air from the air system to remove moisture from the desiccant in the off-line tower. Rather, it employs its own high performance centrifugal blower to direct ambient air through a heater and then through the off-line tower. There, the stream of heated air regenerates the desiccant. Heated blower technology requires the highest initial capital investment, but with no or little diversion of compressed air from the system for regeneration, it offers significantly lower operating costs than the other two desiccant dryer technologies.

#### **XGHB Heated Blower Desiccant Dryer**

Heated blower dryers offer the lowest operating cost.

# XGHP & XGHB

## Heated Desiccant Dryers

The Gardner Denver XGHP and XGHB dryers use high-performance ball or butterfly valves for switching and purge operations. These non-lubricated valves are designed specifically for high temperature applications and feature stainless steel internals as well as filled PTFE seats and include double-acting pneumatic actuators.

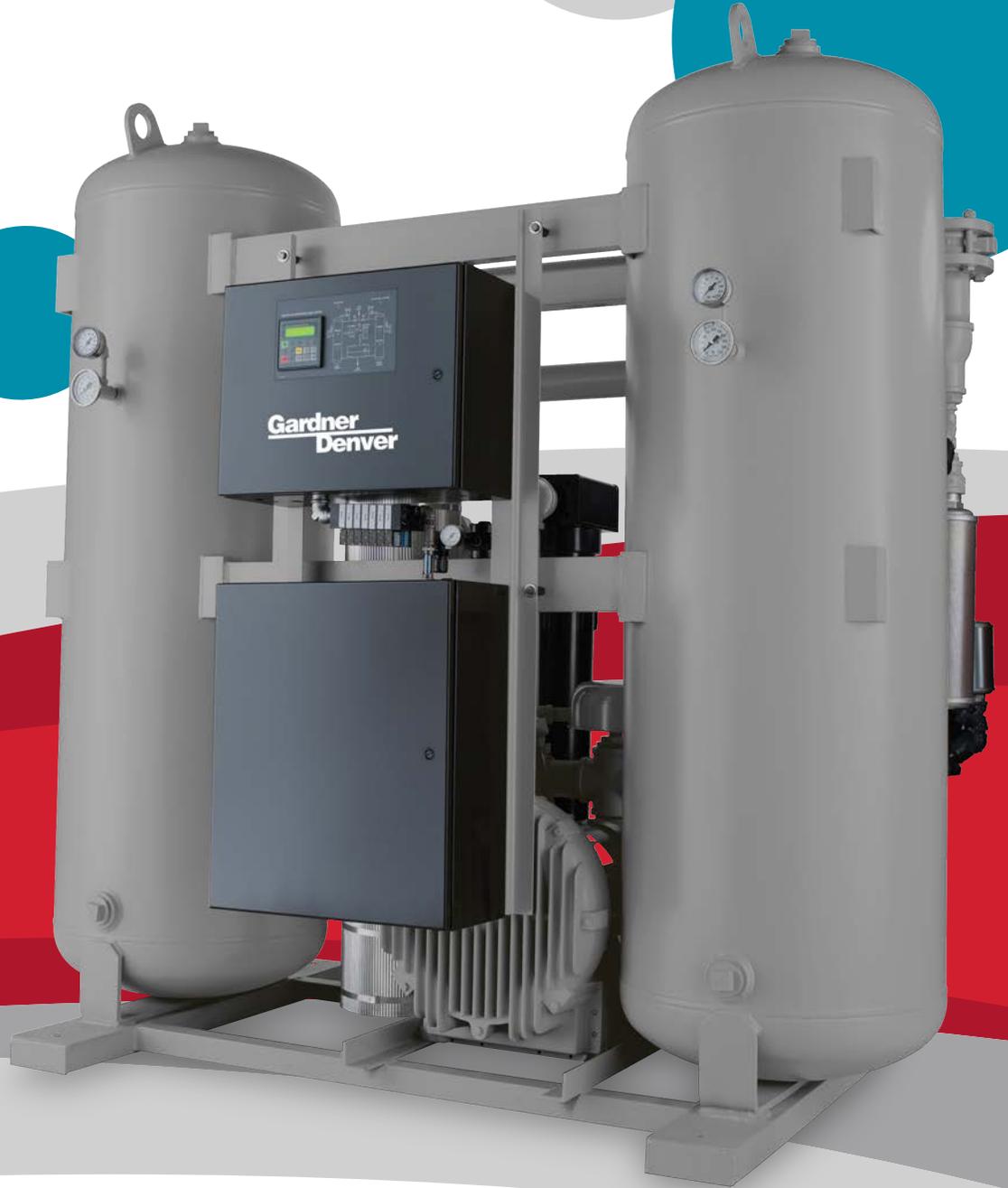
Both XGHP heated and XGHB heated blower models provide the reliability and safety features of heatless dryers, with increased energy efficiency. These features include heatless back-up mode in the event of a heater or blower malfunction and an innovative solid-state relay heater control to extend valve and heater life. NEMA 4 electrical enclosures are standard and include an advanced multi-function digital controller.



### **XGHP HEATED DESICCANT DRYERS**

incorporate an external heater to heat dry purge air. This allows XGHP dryers to divert significantly less dry air from the air system for regenerating desiccant than is required by heatless dryers.

Available in sizes ranging from 150 scfm (4.2 nm<sup>3</sup>/min.) to 8,000 scfm (226.5 nm<sup>3</sup>/min.), XGHP dryers deliver -40°F (-40°C) pressure dew point air for critical applications.



### **XGHB HEATED BLOWER DESICCANT DRYERS**

are equipped with dedicated durable centrifugal blowers to provide purge air for regeneration, eliminating the need to divert dry compressed air from the air system. Instead, the blower directs ambient air through an external heater and then through the off-line tower to regenerate the desiccant. This means more compressed air is available for critical downstream applications.

Available in sizes from 150 scfm (4.2 nm<sup>3</sup>/min.) to 8,000 scfm (226.5 nm<sup>3</sup>/min.), XGHB dryers deliver -40°C (-40°F) pressure dew point air.

# Specifications

## XGHP 150-8,000 SCFM

MODEL	CAPACITY -40°C DEW POINT		HEATER	IN/OUT CONNEC- TION	DIMENSIONS H × W × D		WEIGHT	
	SCFM	NM <sup>3</sup> /MIN			KW	IN	INCHES	MM
XGHP150	150	4.2	2.0	1 NPT	66.0 × 44.5 × 32.0	1,676 × 1,130 × 813	758	344
XGHP200	200	5.7	3.0	1½ NPT	67.0 × 48.5 × 32.0	1,702 × 1,232 × 813	913	414
XGHP250	250	7.1	3.0	1½ NPT	68.0 × 52.5 × 35.0	1,727 × 1,334 × 889	1,119	508
XGHP300	300	8.5	3.0	1½ NPT	68.0 × 52.5 × 35.0	1,727 × 1,334 × 889	1,191	540
XGHP400	400	11.3	4.5	2 NPT	82.0 × 56.5 × 34.0	2,083 × 1,435 × 864	1,539	698
XGHP500	500	14.2	4.5	2 NPT	82.0 × 56.5 × 34.0	2,083 × 1,435 × 864	1,707	774
XGHP600	600	17.0	6.0	3 NPT	86.0 × 64.0 × 47.0	2,184 × 1,626 × 1,194	2,369	1,075
XGHP800	800	22.7	9.0	3 NPT	86.0 × 64.0 × 47.0	2,184 × 1,626 × 1,194	2,681	1,216
XGHP1000	1,000	28.3	9.0	3 NPT	80.0 × 78.5 × 48.0	2,032 × 1,994 × 1,219	3,043	1,380
XGHP1200	1,200	34.0	12.0	3 NPT	80.0 × 78.5 × 48.0	2,032 × 1,994 × 1,219	3,285	1,490
XGHP1500	1,500	42.5	15.0	3 NPT	92.0 × 84.0 × 55.0	2,337 × 2,134 × 1,397	4,480	2,032
XGHP1800	1,800	51.0	18.0	4 FLG	92.0 × 84.0 × 60.0	2,337 × 2,134 × 1,524	4,956	2,248
XGHP2100	2,100	59.5	18.0	4 FLG	92.0 × 84.0 × 60.0	2,337 × 2,134 × 1,524	5,350	2,427
XGHP3000	3,000	84.9	30.0	4 FLG	100.0 × 96.0 × 73.0	2,540 × 2,438 × 1,854	7,750	3,515
XGHP4000	4,000	113.3	36.0	6 FLG	92.0 × 102.0 × 84.0	2,337 × 2,591 × 2,134	10,950	4,965
XGHP5000	5,000	141.6	50.0	6 FLG	97.0 × 120.0 × 91.0	2,464 × 3,048 × 2,311	13,248	6,009
XGHP6000	6,000	169.9	60.0	6 FLG	103.0 × 132.0 × 95.0	2,616 × 3,353 × 2,413	15,696	7,120
XGHP8000	8,000	226.5	75.0	8 FLG	105.0 × 156.0 × 101.0	2,667 × 3,962 × 2,565	17,910	8,122

## XGHB 150-8,000 SCFM

MODEL	CAPACITY -40°C DEW POINT		HEATER	BLOWER		IN/OUT CONNEC- TION	DIMENSIONS H × W × D		WEIGHT	
	SCFM	NM <sup>3</sup> /MIN		KW	HP		KW	IN	INCHES	MM
XGHB150	150	4.2	3.0	1.0	0.75	1 NPT	66.0 × 45.0 × 33.0	1,676 × 1,143 × 840	1,050	476
XGHB200	200	5.7	4.5	1.0	0.75	1½ NPT	67.0 × 49.0 × 37.0	1,702 × 1,245 × 940	1,150	522
XGHB250	250	7.1	6.0	1.5	1.1	1½ NPT	68.0 × 53.0 × 38.0	1,727 × 1,350 × 970	1,400	635
XGHB300	300	8.5	6.0	1.5	1.1	1½ NPT	68.0 × 53.0 × 38.0	1,727 × 1,350 × 970	1,500	680
XGHB400	400	11.3	9.0	2.0	1.5	2 NPT	83.0 × 57.0 × 48.0	2,108 × 1,450 × 1,220	1,900	862
XGHB500	500	14.2	12.0	2.0	1.5	2 NPT	83.0 × 57.0 × 48.0	2,108 × 1,450 × 1,220	2,100	953
XGHB600	600	17.0	12.0	5.0	3.7	3 NPT	88.0 × 64.0 × 59.0	2,235 × 1,620 × 1,500	2,800	1,270
XGHB800	800	22.7	18.0	5.0	3.7	3 NPT	88.0 × 64.0 × 59.0	2,235 × 1,620 × 1,500	3,200	1,452
XGHB1000	1,000	28.3	24.0	7.5	5.6	3 NPT	80.0 × 78.0 × 59.0	2,032 × 1,980 × 1,500	3,767	1,709
XGHB1200	1,200	34.0	24.0	7.5	5.6	3 NPT	80.0 × 78.0 × 59.0	2,032 × 1,980 × 1,500	4,100	1,860
XGHB1500	1,500	42.5	30.0	15.0	11.2	3 NPT	92.0 × 98.0 × 65.0	2,337 × 2,490 × 1,650	5,515	2,502
XGHB1800	1,800	51.0	36.0	15.0	11.2	4 FLG	92.0 × 98.0 × 68.0	2,337 × 2,490 × 1,730	6,113	2,773
XGHB2100	2,100	59.5	45.0	15.0	11.2	4 FLG	92.0 × 98.0 × 67.0	2,337 × 2,490 × 1,700	6,911	3,135
XGHB3000	3,000	84.9	60.0	20.0	14.9	6 FLG	100.0 × 120.0 × 78.0	2,540 × 3,050 × 1,980	9,730	4,413
XGHB4000	4,000	113.3	80.0	25.0	18.7	6 FLG	92.0 × 126.0 × 83.0	2,337 × 3,200 × 2,110	12,167	5,519
XGHB5000	5,000	141.6	100.0	30.0	22.4	6 FLG	97.0 × 138.0 × 87.0	2,464 × 3,500 × 2,210	14,720	6,472
XGHB6000	6,000	169.9	125.0	30.0	22.4	6 FLG	103.0 × 150.0 × 94.0	2,616 × 3,810 × 2,390	17,440	7,911
XGHB8000	8,000	226.5	175.0	40.0	29.8	8 FLG	105.0 × 168.0 × 98.0	2,667 × 4,270 × 2,490	19,900	9,026

Performance data per ISO 7183: Compressed Air Dryers—Specifications and Testing  
 Maximum working pressure is 10.3 bar g (150 psig).  
 Desiccant is factory installed on all models except XGHP 3000-8000 and XGHB 3000-8000.  
 Dimensions and weights are approximate.  
 \*Dryer weight shown does not include desiccant. Desiccant shipped separately.

# Sales & Service **Distributors** Across America

## An Extensive Network

By leveraging the extensive network of Gardner Denver factory-trained authorized local distributors, your sales, service and technical support needs can be handled quickly and easily.



To find a distributor visit:  
[gardnerdenver.com/gdproducts](http://gardnerdenver.com/gdproducts)

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

**Gardner  
Denver**<sup>®</sup>

**Gardner Denver, Inc.**

1800 Gardner Expressway  
Quincy, IL 62305  
866-440-6241  
[www.gardnerdenver.com](http://www.gardnerdenver.com)



©2021 Gardner Denver, Inc. Printed in U.S.A.  
GA-XGHP-XGHB 1st Ed. 4/21

 Please recycle after use.