

## **BAUER A-SERIES** Argon Solutions Catalog



INDUSTRY



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MADE IN USA



## HIGHEST QUALITY PRODUCTS AND SOLUTIONS FOR HIGH PRESSURE...



#### **MISSION STATEMENT**

Our mission at BAUER COMPRESSORS INC. is to provide the highest quality products and solutions for high pressure air and gas. We are committed to using the latest technology, best materials, most qualified human resources, and the most efficient fabrication techniques. As a result, our equipment solutions offer superior performance along with best value, and are delivered on time, defect-free and are supported to achieve their maximum potential throughout their entire lifecycle.

#### HISTORY TRUSTED INDUSTRY LEADER FOR OVER 70 YEARS

For the past 70 years, BAUER Compressors has stood the test of time for the highest level of performance, quality, safety, and innovation. All BAUER compressors are designed and manufactured in-house with complete control of every step to ensure that BAUER's uncompromising standards for ultimate performance, unmatched reliability, highest durability, and lowest cost of ownership are met. At BAUER, we are well known for our high-tech precision manufacturing and quality process, resulting in products that outperform and outlast any other compressor brand on the market today.

#### INNOVATION ULTIMATE PERFORMANCE AND RELIABILITY

At BAUER, we are committed to providing our customers with the most technologically advanced products in the world. Only the latest CAD and finite element calculation programs are used in the design of each product. To maintain our technological edge, BAUER reinvests a large portion of corporate earnings back into R&D. Simultaneously, we draw on our more-than-a century of machine building heritage to advance our causes for the future. The result: products which are built to attain the highest standards of performance and reliability.

#### QUALITY LOWEST COST OF OWNERSHIP

At BAUER, our world-renowned quality is a result of being vertically integrated. We maintain control of the entire production process, starting from R&D, to engineering & design, and to manufacturing & assembly. Only the highest -grade materials and state of the art precision manufacturing methods are used in the making of each compressor. To ensure consistent quality throughout, our entire manufacturing process, from the compressor to complete system, is ISO9001 certified. Every unit is put through rigorous testing by our QC department before release from our factory for shipping. The result: a highly-reliable product that keeps on performing with minimal cost of ownership.



BAUER's argon line builds on 7-decades as the industry leader for quality compressor systems. We design and build all of our compressor lines to the highest reliability and durability standards in a verticallyintegrated manufacturing process to provide our customers with the lowest lifetime cost of ownership.

#### HIGH-PRESSURE SOLUTIONS

Argon is monoatomic and has a loosely-spaced chemical structure. Not only is it denser than air and capable of displacing it, but it also withstands compression better than air, a quality that makes it worthwhile in many applications. This also means that argon compressors must be durable and handle high pressures.

#### ARGON RECOVERY

At just under 1%, argon is the third most abundant gas in the atmosphere behind nitrogen and oxygen. Despite this abundance, it still sells for a premium because of how useful it is. BAUER manufactures argon compressors that can be utilized in recovery systems that recapture and purify used argon gas so that it can be reused, reducing costs, and reducing the carbon footprint of transporting additional resources.

#### BEST WARRANTY IN THE INDUSTRY

We are so confident in our quality that our argon systems are warranted for two years after the shipment date. This level of support is virtually unmatched in the industry.

#### 24/7 CUSTOMER SUPPORT



### SOME OF THE MOST COMMON USES OF ARGON

#### **INDUSTRIAL MANUFACTURING:**

Argon is perhaps best known for its use as a shielding gas in MIG (metal inert gas) and TIG (tungsten inert gas) welding. Argon prevents contamination of the welding surfaces by displacing air and moisture. It also plays a role in stabilizing and shaping the penetration profile of the arc, which helps to ensure the integrity of the weld, and encourages first-time quality.

Stainless steel requires a carbon content of 1.2% or less. To achieve this, manufacturers employ a process called argon-oxygen decarburization. A mixture of argon and oxygen is injected into liquid steel, and the oxygen removes the carbon by forming carbon monoxide. In contrast, argon gas protects steel from the corrosive effects of oxygen and regulates chromium loss. Chromium makes stainless steel more rigid and more resistant to corrosion.

Inert gas chambers are spaces where atmospheric air is replaced with an inert gas to provide a protective environment. 3D printers often employ inert build chambers and lasers that sinter polymer powder, fine metal dust, or other materials to create inexpensive components. 3D printing, a form of additive manufacturing, consumes fewer resources than traditional manufacturing methods. Once again, argon is the gas of choice when working with metals. It protects the metal powder from moisture and oxygen, whereas other gases could cause the formation of nitrides or other impurities.

Argon can be a blanket gas for growing silicon and germanium crystals. Silicon crystals are commonly found in solar panels and electronics, and germanium crystals are used in fiber optics and light-emitting diodes (LEDs).

#### **HEALTHCARE USES:**

When administered in ventilation, argon has cardioprotective and neuroprotective qualities. It can help treat arrhythmias and even protect the brain after experiencing oxygen deprivation.

Argon lasers are extremely precise. They can remove tumors and other abnormal growths, provide retinal phototherapy, and even repair damaged arteries. They can also be used to treat retinal detachment and retinal phototherapy for those who are diabetic.

#### LIGHTING:

Argon is used to fill fluorescent and incandescent bulbs to protect the filament, prolonging bulb life. Additionally, the inclusion of argon allows light to be generated at much lower voltages.

The noble gases are used to produce varying colors in decorative lighting. While they are all colloquially referred to as "neon lights," neon produces a red-orange color, helium glows yellow or orange, and argon glows with a blue or violet light.

#### **OTHER USES:**

Fully transparent, moisture resistant, and with low thermal conductivity, argon increases the efficiency of double-paned windows. This is very common in Europe, where central air conditioning is less common than in the United States. Windows filled with argon will have two holes along the spacer material. One hole is for pumping argon in, while the other is to allow the displaced air to exit.

Argon can be used as an insulator in scuba drysuits, protecting the wearer from body heat loss. Since argon withstands compression better than atmospheric air, a drysuit utilizing argon can be used at greater depths where more pressure is exerted on the diver.

This is just a handful of some of the most popular uses for argon, whose properties make it so effective that far too many applications employ it to name.

#### BAUER A-SERIES 1 Compact Design for Low-Flow Applications

Air-Cooled – 3-, 4-, and 5-Stage Compressors

BAUER A-Series compressors are available in a wide range of capacities for a multitude of argon applications. The experts at BAUER can assist with selecting the right model and accessories to meet your specific requirements.

#### **OPEN DESIGN SYSTEM FOOTPRINT**

DIMENSIONS L x W x H inches (mm) approx.
54" x 34" x 56" (1372.6 mm x 863.6 mm x 1422.4 mm)
WEIGHT pounds (kg) approx.
800 - 900 lbs (363 - 408.2 kg)

#### ENCLOSED DESIGN SYSTEM FOOTPRINT

DIMENSIONS L x W x H inches (mm) approx. > 55" x 35" x 70" (1397 mm x 889 mm x 1778 mm) WEIGHT pounds (kg) approx. > 800-1400 lbs (363-635 kg)

#### **TECHNICAL DATA**

Model	Max Inlet F	Max Inlet Pressure		ty FGD¹	RPM	Number of Stages	Ма	tor	Drive					
	PSIG	mBAR	SCFM	M <sup>3</sup> /HR			HP	KW						
UP TO 3 190 PSIG OPERATING PRESSURE														
V*CR120	1.5	100	6.4	10.8	1250	3	7.5	5.5	E1 / E3					
V*CR15.2	1.5	100	12.9	22.0	880	4	15	11	E3					
UP TO 4990 PSIG OP	ERATING PRESSU	JRE												
V*CR15.1	< 1	50	10.9	18.6	880	4	15	11	E3					
V*CR18.1	< 1	50	14.5	24.6	1100	5	15	11	E3					

\* E = Open Design A = Enclosed Design <sup>1</sup> Volume flow rate according to ISO 1217. Valid for Argon. Contact BAUER for performance verification. Capacities referenced to atmospheric inlet pressure. Motor power valid for max, inlet and final pressure. Actual performance values may vary depending upon site conditions.



> Open Design



#### BAUER A-SERIES 2

Air-Cooled Compact Design for Low to Medium Flow Applications

#### SYSTEM FOOTPRINT

DIMENSIONS L x W x H inches (mm) approx.\* > 97" x 58" x 85" (2464 mm x 1473 mm x 2159 mm) WEIGHT pounds (kg) approx.

3200-4000 lbs (1066-1814 kg)
 \*Depending upon model and options



• GAR25.9 Frame redesign in progress image is only representative.

#### BAUER A-SERIES 3

Air-Cooled Compact Design for Low to Medium Flow Applications

#### SYSTEM FOOTPRINT (OPEN DESIGN)

DIMENSIONS L x W x H inches (mm) approx.

- 42" x 78" x 74" (1067 mm x 1524 mm x 1905 mm)
   WEIGHT pounds (kg) approx.
- 1200 lbs (544 kg)

#### SYSTEM FOOTPRINT (ENCLOSED DESIGN)

DIMENSIONS L x W x H inches (mm) approx.

- 42" x 60" x 74" (1067 mm x 1524 mm x 1905 mm)
   WEIGHT pounds (kg) approx.
- > 2300 lbs (1043 kg)

#### .

#### TECHNICAL DATA

Model	Max Inlet Pressure		Capaci	ty FGD¹	RPM	Number of Stages	Мс	otor	Drive					
	PSIG	mBAR	SCFM	M <sup>3</sup> /HR			HP	KW						
JP TO 3190 PSIG OPERATING PRESSURE														
GAR25.9	< 1	50	66	112	1180	5	60	45	E3					
UP TO 4900 PSIG OP	ERATING PRESS	JRE												
GAR25.9	< 1	50	62	105	1050	5	60	45	E3					
GAR25.18	< 1	50	74	126	1100	5	75	55	E3					

<sup>1</sup> Volume flow rate according to ISO 1217. Valid for Argon. Contact BAUER for performance verification. Capacities referenced to atmospheric inlet pressure. Motor power valid for max. inlet and final pressure. Actual performance values may vary depending upon site conditions.

#### **TECHNICAL DATA**

Model	Max Inlet F	Pressure	Capaci	ty FGD1	RPM	Number of Stages	Мс	otor	Drive						
	PSIG	mBAR	SCFM	M³/HR			HP	KW							
UP TO 3190 PSIG OP	UP TO 3190 PSIG OPERATING PRESSURE (low inlet pressure)														
GAR220	< 1	50	23	39	1050	4	30	22	E3						
GAR23.1	1.5	100	39	66	1250	4	40	30	E3						

<sup>1</sup> Volume flow rate according to ISO 1217. Valid for Argon. Contact BAUER for performance verification. Capacities referenced to atmospheric inlet pressure. Motor power valid for max. inlet and final pressure. Actual performance values may vary depending upon site conditions.

#### • Enclosed Design System with purpose-built outdoor cabinet enclosure



> Open Design

BAUER COMPRESSORS

BAUER COMPRESSORS



#### **BAUER A-SERIES 4** Water-Cooled Designed for High-Pressure Helium Compression

#### SYSTEM FOOTPRINT

DIMENSIONS L x W x H inches (mm) approx.\*

> 97" x 58" x 85" (2464 mm x 1473 mm x 2159 mm)

#### WEIGHT pounds (kg) approx.

> 3200-4000 lbs (1066-1814 kg) Depending upon model and options

#### **TECHNICAL DATA**

Model	Max Inlet P	ressure	Capaci	ty FGD1	RPM	Number of Stages	Мс	otor	Drive
	PSIG	BAR	SCFM	M³/HR			HP	KW	
UP TO 3190 PSIG OP	ERATING PRESSU	RE							
GAR23.2	atm.	atm.	26	44	1140	4	30	22	E3
GAR23.2	atm.	atm.	32	55	1420	4	40	30	E3
UP TO 4350 PSIG OP	ERATING PRESSU	RE <sup>2</sup>							
GAR23.2	8.7 - 14.5	0.6 - 1	42 - 53	72 - 90	1140	4	50	37	E3
GAR23.2	8.7 - 14.5	0.6 - 1	51-64	87 - 109	1420	4	60	45	E3

<sup>1</sup> Volume flow rate according to ISO 1217. Valid for Helium. Contact BAUER for performance verification for Argon. Actual performance values may vary depending upon site conditions. <sup>2</sup> These models must have the mentioned inlet pressure.



> Enclosed Design System with purpose-built outdoor cabinet enclosure

#### **BAUER A-SERIES 5**

Air-Cooled Designed for High-Flow Applications

#### SYSTEM FOOTPRINT (Enclosed Design)

DIMENSIONS L x W x H inches (mm) approx.

> 133" x 104" x 115" (3378 mm x 2642 mm x 2921 mm)

WEIGHT pounds (kg) approx.

) 10000 lbs (4535 kg)

#### SYSTEM FOOTPRINT (Open Design)

DIMENSIONS L x W x H inches (mm) approx.

- > 138" x 57" x 83" (3505 mm x 1448 mm x 2108 mm)
- WEIGHT pounds (kg) approx.
- > 4500 lbs (2041 kg)

#### **TECHNICAL DATA**

Model	Max Inlet P	ressure²	Capaci	ty FGD <sup>1</sup>	RPM	Number of Stages	Мо	otor	Drive					
	PSIG	BAR	SCFM	M <sup>3</sup> /HR			HP	KW						
P TO 5000 PSIG OPERATING PRESSURE (ELEVATED INLET PRESSURE) <sup>2</sup>														
GAR23.10	29 - 65	2 - 4.5	37 - 69	64 - 117	1140	4	50 - 60	37 - 45	E3					
GAR23.12	65 - 130	4.5 - 9	48 - 85	82 - 144	1140	4	50 - 60	37 - 45	E3					
GAR23.13	116 - 203	8 - 14	59 - 99	101 - 168	1140	4	50 - 60	37 - 45	E3					

<sup>1</sup> Volume flow rate according to ISO 1217. Valid for Helium. Contact BAUER for performance verification for Argon. Motor power is dependent upon inlet and operating pressures. Actual performance values may vary depending on site conditions.

<sup>2</sup> Lower inlet pressure can result in lower operating pressure. Contact BAUER for min./max. Operating pressure relative to inlet pressure.



> Open Design



#### **BAUER A-SERIES 6** Water-Cooled Designed for High-Flow Applications

#### SYSTEM FOOTPRINT

DIMENSIONS L x W x H inches (mm)

> 216"-297.6 L x 87.6-99.6" W x 117" H

(5486.4-7543.8 mm x 2225.04-2529.84 mm x 2971.8 mm) WEIGHT pounds (kg) approx.

> 18000 -22700 lbs (8165 -10297 kg)

#### **TECHNICAL DATA**

Model	Max Inlet Pressure		Capaci	ty FGD1	RPM	Number of Stages	Мс	otor	Drive
	PSIG	BAR	SCFM	M <sup>3</sup> /HR			HP	KW	
UP TO 5000 PSIG OPE	RATING PRESSU	JRE (ELEVAT	ED INLET PRE	SSURE) <sup>2</sup>					
GAR26.10	29 - 65	2 - 4.5	147 - 271	250 - 461	1485	4	177 - 215	132 - 160	E3
GAR26.12	65 - 145	4.5 - 10	152 - 305	259 - 518	1485	4	177 - 215	132 - 160	E3
GAR26.13	145 - 217	10 - 15	220 - 322	374 - 547	1485	4	177 - 215	132 - 160	E3
GAR52.10	29 - 65	2 - 4.5	297 - 543	504 - 922	1485	4	335 - 422	250 - 315	E3
GAR52.12	65 - 145	4.5 - 10	305 - 613	518 - 1042	1485	4	335 - 422	250 - 315	E3
GAR52.13	145 - 217	10 - 15	441 - 644	749 - 1094	1485	4	335 - 442	250 - 315	E3

<sup>1</sup> Volume flow rate according to ISO 1217. Valid for Helium. Contact BAUER for performance verification for Argon. Motor power is dependent upon inlet and operating pressures. Actual performance values may vary depending upon site conditions. <sup>2</sup> Lower inlet pressure can result in lower operating pressure. Contact BAUER for min. / max. operating pressure relative to inlet pressure.





#### **BAUER A-SERIES 7** Water-Cooled Designed for High-Flow Applications

Self-contained transportable argon system configured for plug-and-play operation with easy site setup. Flexible inlet pressure range from 5 to 215 PSIG.

#### **TECHNICAL DATA**

Model	Max Inlet P	Max Inlet Pressure		ty FGD	RPM	Number of Stages	Мс	otor	Drive
	PSIG	BAR	SCFM	M³/HR			HP	KW	
UP TO 5000 PSIG									
GRU & GAR23.12 (XXL)	15	1	92	157	1500	5	85-100	64-75	E3
GRU & GAR26.12 (XXL)	15	1	305	520	1500	5	250-275	187-205	E3
GRU28 & GAR52.12 (XXL)	15	1	612	1044	1500	5	485-535	362-399	E3

#### SYSTEM FOOTPRINT

DIMENSIONS L x W x H feet (mm)

> 40' x 8' x 9.5'

(12192 mm x 2438 mm x 2895 mm)

WEIGHT pounds (kg) approx.

> 22700 lbs (10297 kg)

BAUER COMPRESSORS

BAUER COMPRESSORS



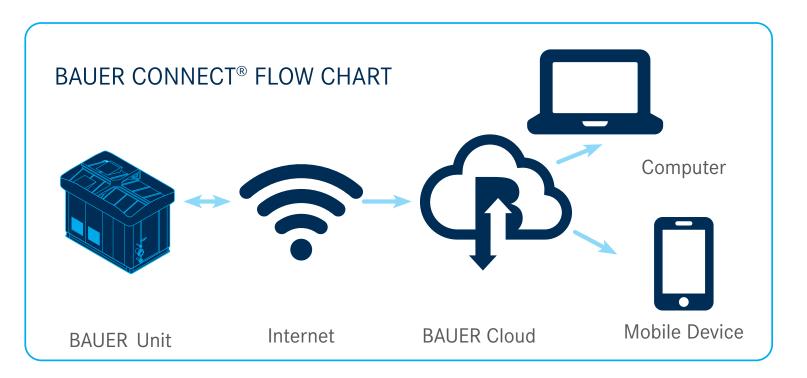
# BAUER CONNECT

## **IOT REMOTE TELEMETRY AND CONTROL**

BAUER CONNECT<sup>®</sup> is an app and internet-based IoT solution which allows BAUER customers to remotely monitor - and control - the performance of the entire BAUER system through any wireless mobile device or computer; anytime, anywhere.

**Key Features:** allow customers to increase efficiency and productivity, save time, do more with fewer resources, enjoy lower operational costs, and have total flexibility with a solution tailored specifically for the end-user.

BAUER CONNECT<sup>®</sup> - Connection that matters.



### BAUER REMOTE HMI

The BAUER Remote HMI function allows factory-trained technical personnel to remotely control the BAUER system via the BAUER CONNECT<sup>®</sup> App with the same functionality as if one were standing in front of the actual unit.



BAUER CONNECT<sup>®</sup> App will also display a real-time graphical display of the entire system (SCADA view). The Mobile Dashboard feature provides information such as compressor system status, error log, critical pressures and temperatures, and volume of air dispensed in storage information, etc.



The BAUER CONNECT<sup>®</sup> Mobile App will send push notifications if certain critical parameters of the BAUER system fall outside of normal operating range or if triggered by a system alert. This assures that essential personnel is notified immediately, thus allowing for pro-active intervention in a situation that could potentially be detrimental to the BAUER system as well as the customer's operation.



The BAUER Reports feature is a function that generates custom reports tailored to the specific needs of the customer. Customers can have access to historical data via a multitude of standard and customized reports.



This feature of BAUER CONNECT<sup>®</sup> provides a new pro-active dimension to perpetually maintaining customers' compressor systems at peak conditions with minimum downtime. BAUER's predictive analytics algorithm uses artificial intelligence to analyze the collected system information on the BAUER Cloud to predict upcoming maintenance requirements and preventative actions to avoid unplanned shutdowns.

## TO LEARN MORE VISIT **bauer-connect.com**

### LIFECYCLE PERFORMANCE

BAUER is committed to the lifecycle performance of its customers

#### PARTS



RAPID DELIVERY

#### QUALITY AND RELIABILITY

Our factory-original replacement parts assure you that when maintenance or repair is performed, you are restoring the unit to its original specifications and performance.

#### PARTS: COMPATIBILITY

We configure our designs with interchangeability and our end user in mind. You can count on parts being available for all BAUER models.

#### PartsSales@BauerComp.com or 1-(844)-500-5822



1. Purification5. Valves2. Gaskets and Seals6. Air Intake Filters3. Lubricants7. All 10,000+ Parts4. Fill Hose and Assemblies



#### SERVICE AND SUPPORT

Our compressors are designed with you in mind. Easy-to-use manuals guide you through clear, mechanically-accessible repairs. Our worldwide distribution network was developed to assist in after-sales support, along with product and maintenance parts assistance.

#### TRAINING



FACTORY TRAINED TECHS

BAUER COMPRESSORS INC. offers a variety of on-site and offsite Training Schools. Our on-site classes are held at our BAUER Training Facility and are taught by the same people who help manufacture, test, and service our products. From electrical systems to hands-on breakdowns, we cover all areas of compressor operation.

#### TRAINING TOPICS

Basic mechanical theory and control system theory (electric and pneumatic), along with troubleshooting for all BAUER systems.

Class schedule and course registration at: www.BauerCustomerTraining.com



#### BAUER HELPDESK



LIFECYCLE PERFORMANCE

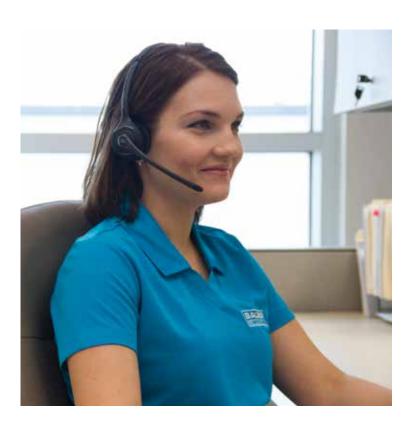
#### TRAINING TOPICS

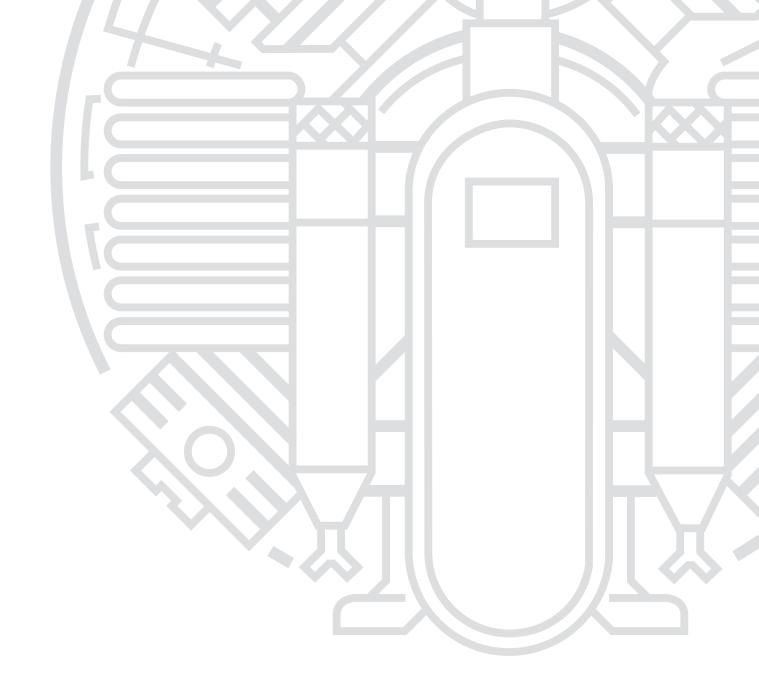
Total customer satisfaction is our top priority. BAUER provides 24-7 phone tech and **troubleshooting** support at our BAUER Helpdesk. Our support continues throughout our warranty period and beyond.

For BAUER Helpdesk please email: CustomerService@BauerComp.com or call at: 1-(844)-500-5822

#### FROM THE SOURCE

BAUER COMPRESSORS INC., is certified with **ISO 9001:2015** quality processes providing you with confidence that cannot be duplicated by sub-standard after-market parts and service.





FOR MORE INFORMATION PLEASE CONTACT:

Helium@BauerComp.com www.BauerComp.com



1176.1.23 Subject to technical changes