

High Pressure Industrial Air Systems

BAUER
COMPRESSORS

Compression



Processing



Distribution



Storage

The Complete System

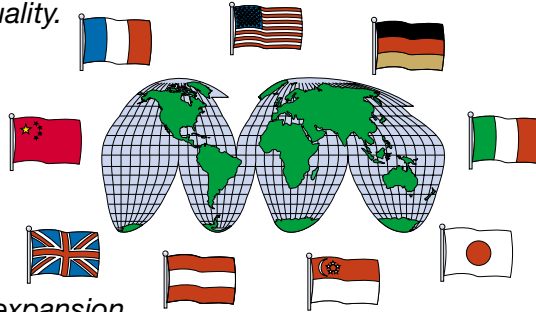
**350 – 7000 PSIG
4 – 240 SCFM**

Dedication to Quality

BAUER has been manufacturing high pressure compressors for nearly 60 years. From our humble beginnings in the BAUER family home in Munich, Germany in 1946 to our current status as an industry leader, BAUER has worked hard to earn a reputation as the world's foremost innovative designer and manufacturer of high pressure compressors of the very highest quality.

Since then BAUER has expanded internationally with offices in Italy, Japan, Singapore, Austria, England, China, France and the United States. The U.S. facility, BAUER COMPRESSORS, INC. of Norfolk, Virginia, was founded in 1976.

Since our founding, BAUER Norfolk has experienced continued growth in sales and expansion of facilities. BAUER Norfolk is headquarters for branch offices in Miami, Los Angeles, San Francisco and Detroit. We are specialists in the markets of high pressure industrial air, plastics technology, natural gas, inert gas and breathing air.



1946 – 1996

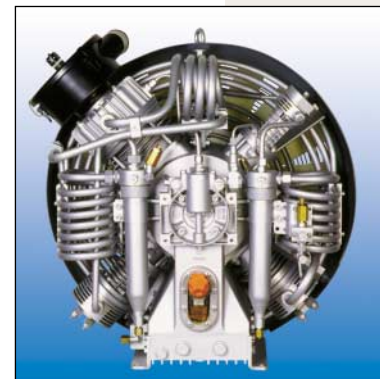


BAUER COMPRESSORS, INC. Norfolk, Virginia USA

BAUER compressors are field proven in a multitude of demanding applications and harsh environments. Our compressors are available with capacities from 4 – 240 SCFM with working pressures from 350 – 7000 PSIG and with power requirements from 5 – 150 HP. This represents the most complete line of industrial high pressure compressors available.

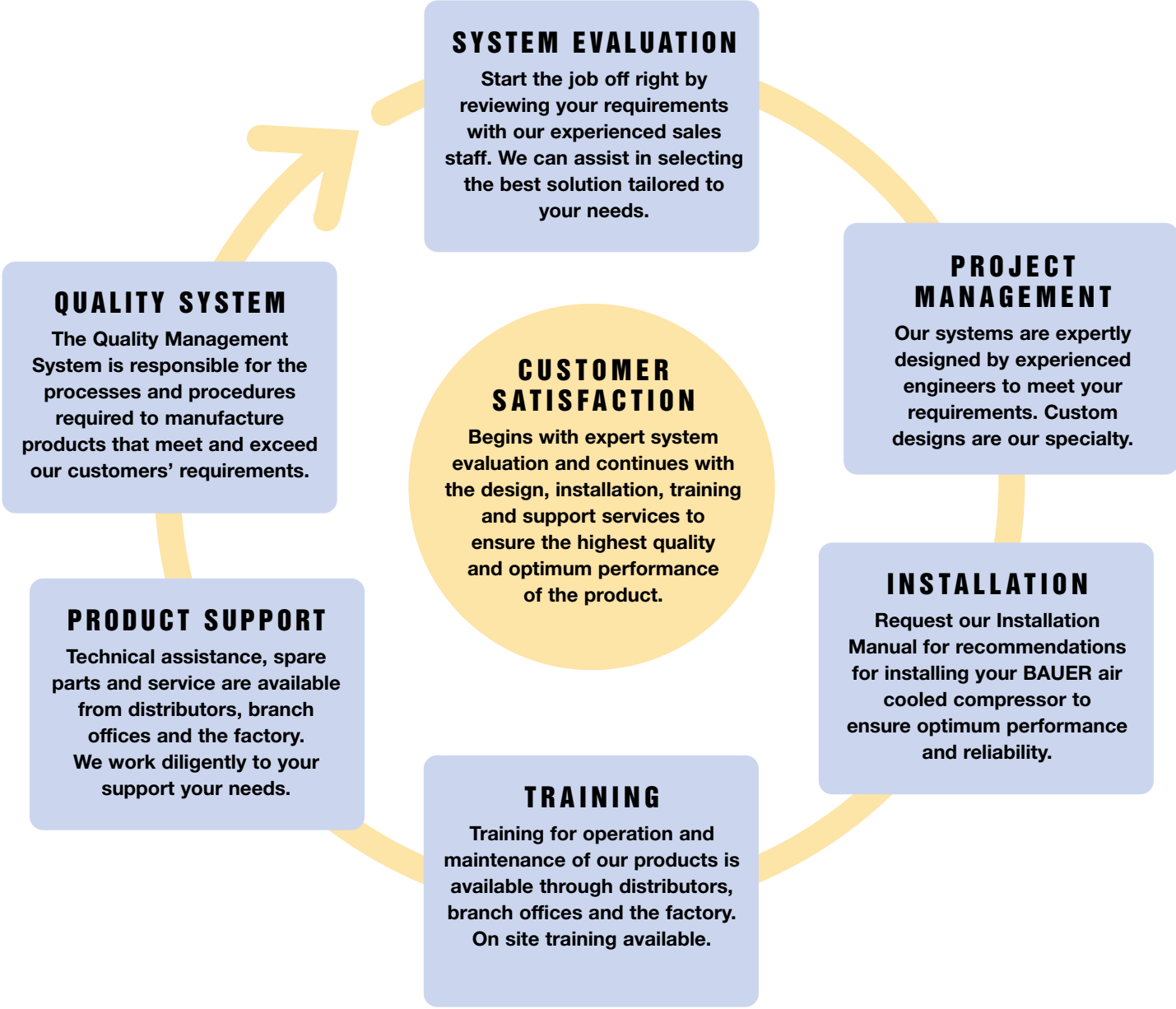
We are pleased to present our products for industrial high pressure air applications. We hope you find this catalog informative and encourage you to contact BAUER for your industrial high pressure air requirements.

Expertise, innovation, diversity, quality, reliability and dedication to our valued customers are reasons why BAUER is recognized as the leader in high pressure compressors.



Dedication to You

Since the founding of our company, we have been committed to a philosophy that customer satisfaction is achieved through a strategy of continuous improvement using in-house research and development, engineering, manufacturing and support services. Our ISO 9001:2000 registered quality management system is testament to our commitment to quality and customer satisfaction.



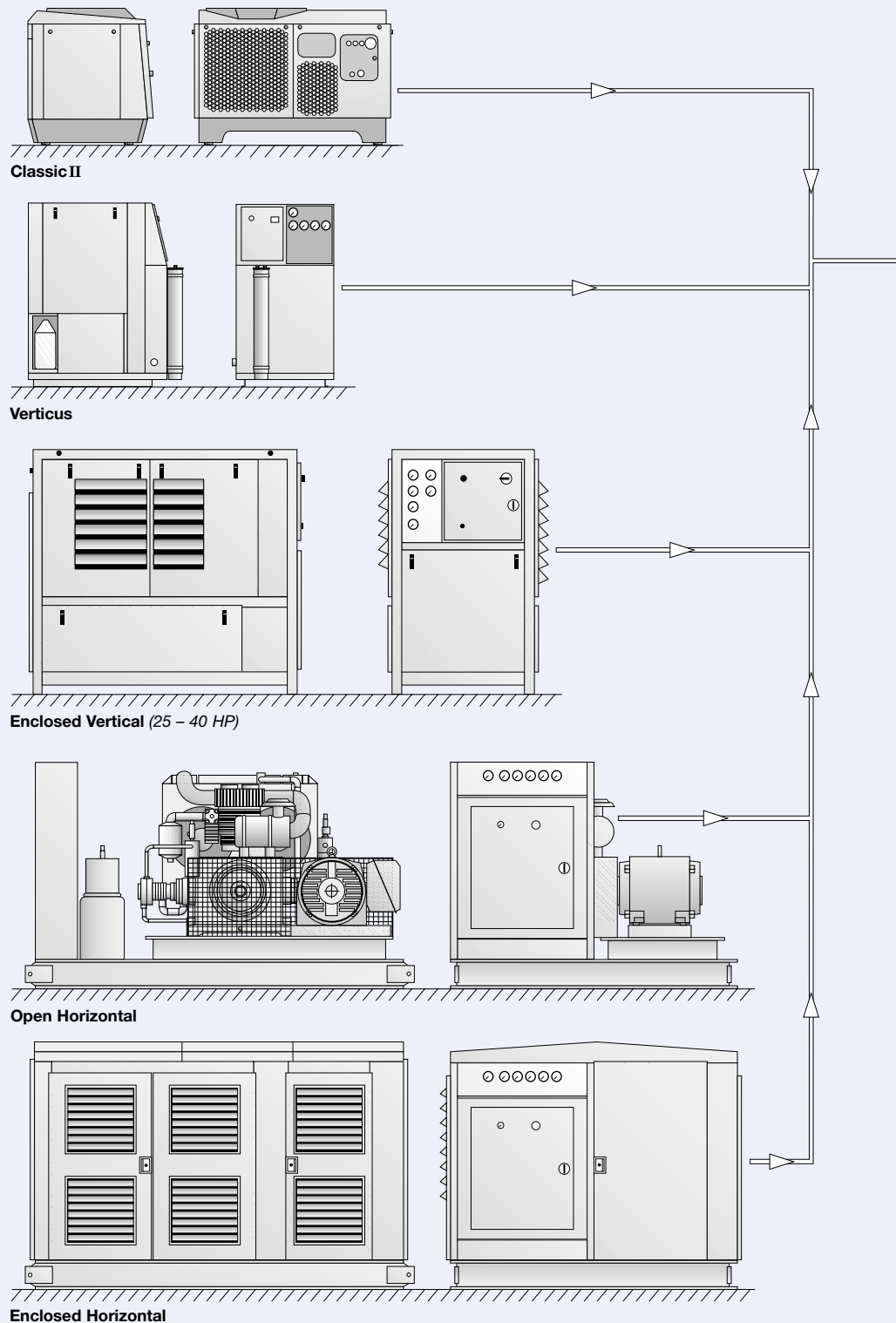
Skilled Design and Engineering Team

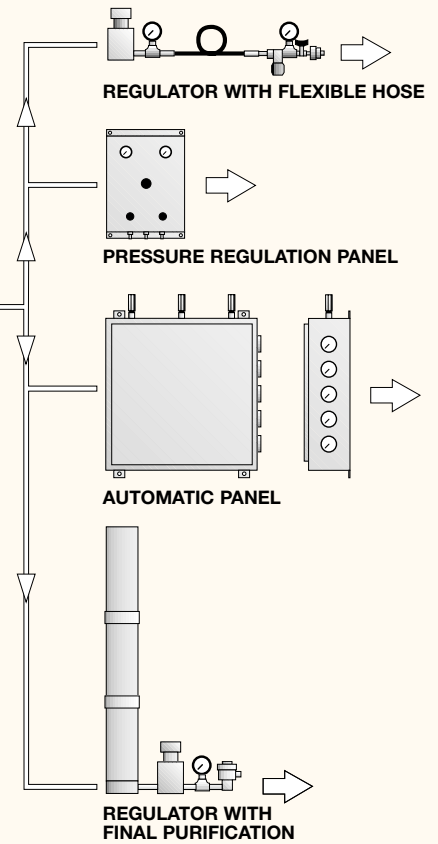
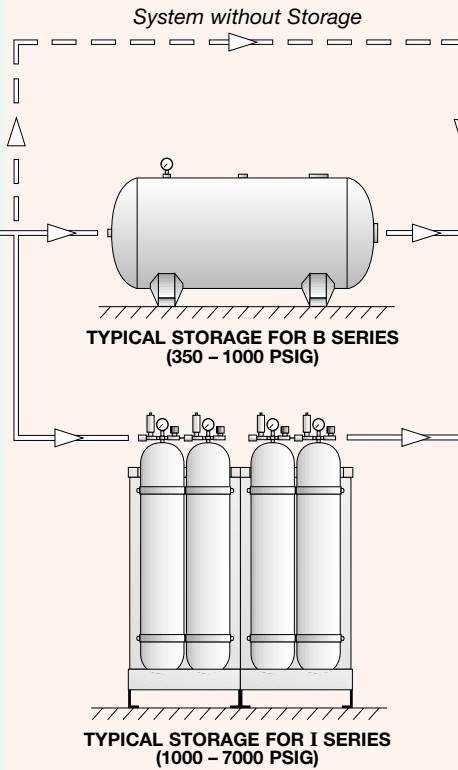
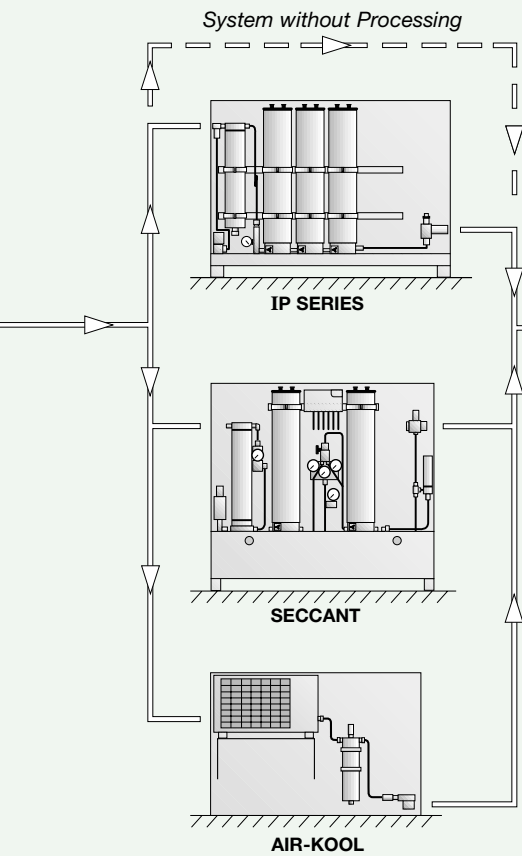
BAUER I and B Series industrial compressors and boosters are available in a variety of standard package configurations to satisfy the requirements of most applications. For special requirements, BAUER can modify a standard package or design a custom package. All models feature a frame for the compressor and motor that is vibration isolated from the package's main frame and include BAUER's proprietary PLC control system, color coded wiring harness and emergency stop push button.

Compressors and boosters through 20 HP are available in the Classic II horizontal design or Verticus vertical design. Both styles are available with or without enclosure. The modern styling of the enclosure for Classic II provides an attractive finished look to the product. The sound attenuated enclosure for the space saving Verticus design makes it perfect for installation on the manufacturing floor in personnel occupied spaces. The smaller mini Verticus is used for all models through 7.5 HP while the slightly larger MAXI Verticus is used for all models 10 through 20 HP.

Compressors 20 through 40 HP are available in horizontal or vertical design with or without enclosure. Compressors 50 HP and larger are standard in a horizontal design with or without enclosure. Standard enclosures for the larger units are available with sound attenuating material or a custom enclosure can be designed for special noise or climate requirements.

See page 12 for full details





Non-Regenerative

The BAUER IP (Industrial Processing) processing systems are the ideal solution for economical drying and purification. These systems do not require electrical power for operation nor a portion of the compressor's flow for regeneration.

Regenerative

The BAUER SECCANT dryers use the pressure swing adsorption (PSA) method for automatic regeneration of the cartridges.

BAUER adsorption dryers offer atmospheric dewpoints to -94°F and use replaceable cartridges.

Refrigerated

The BAUER AIR-KOOL refrigerated air cooler increases the efficiency of the final separator and extends the life of the processing cartridge(s) up to six times.

See pages 13-14 for full details

It is essential that air storage is sized properly for the demands of the system and to prevent short cycling of the compressor and motor.

Storage systems for B Series compressors use ASME code stamped air receivers.

Storage systems for I Series compressors are available with DOT receivers for working pressures to 6000 PSIG and ASME receivers for working pressures to 7000 PSIG.

Air storage systems are available for installation remote from the compressor or packaged with the compressor.

See pages 15-16 for full details

BAUER offers standard and custom designed products for air distribution. Requirements for air distribution can range from a basic pressure regulation panel to a sophisticated distribution system that is controlled by a programmable logic controller.

Air Distribution Systems are available for use with or without storage, with single or multiple regulators and outlets and manual or automatic operation.

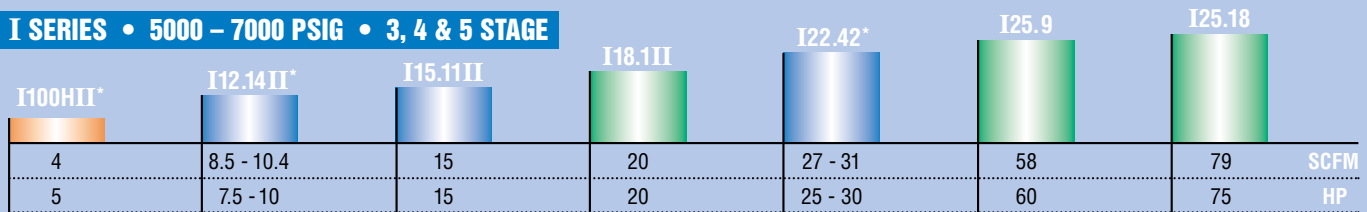
BAUER Air Distribution Systems are well-known for their professional design, reliability and ease of operation.

See pages 17-18 for full details

THE COMPLETE RANGE

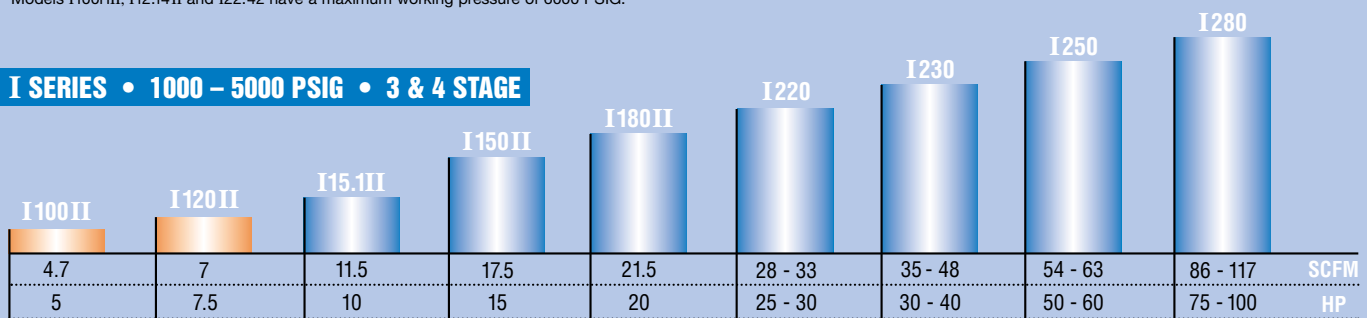


I SERIES • 5000 – 7000 PSIG • 3, 4 & 5 STAGE

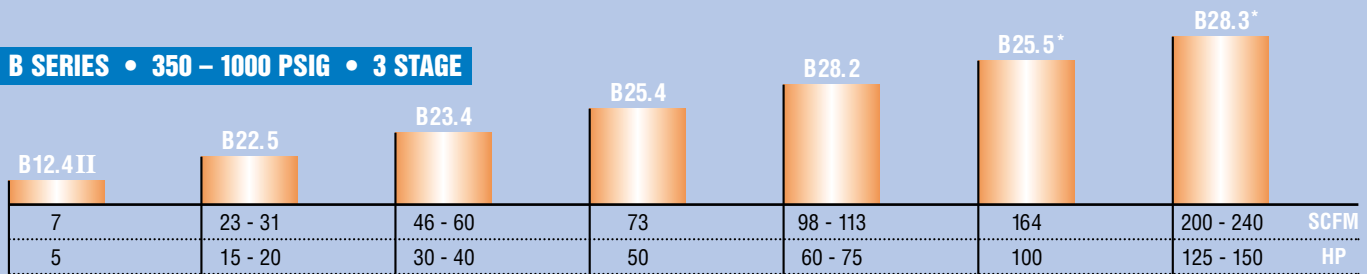


*Models I100HII, I12.14II and I22.42 have a maximum working pressure of 6000 PSIG.

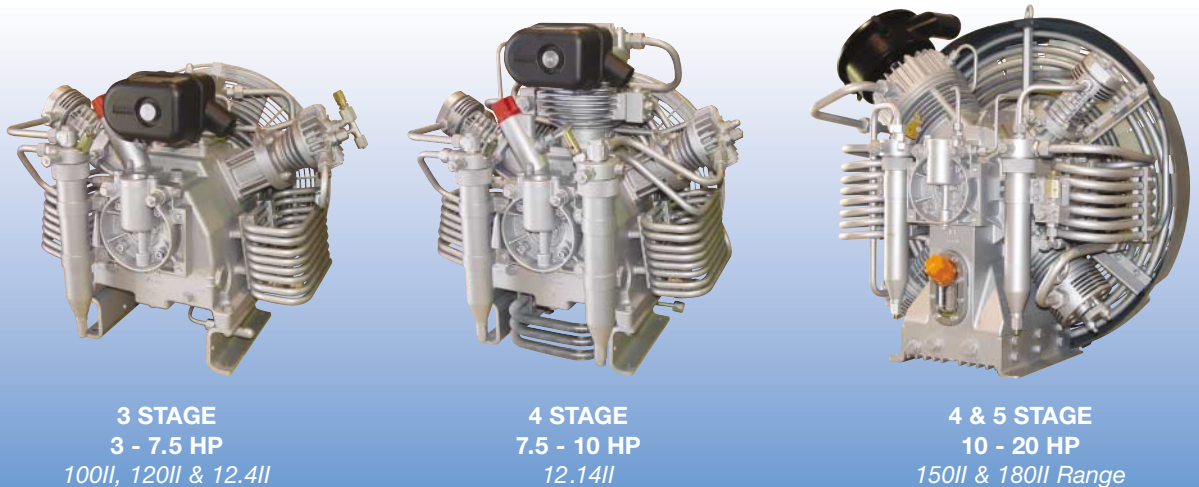
I SERIES • 1000 – 5000 PSIG • 3 & 4 STAGE



B SERIES • 350 – 1000 PSIG • 3 STAGE



*Models B25.5 and B28.3 have a maximum working pressure of 900 PSIG.

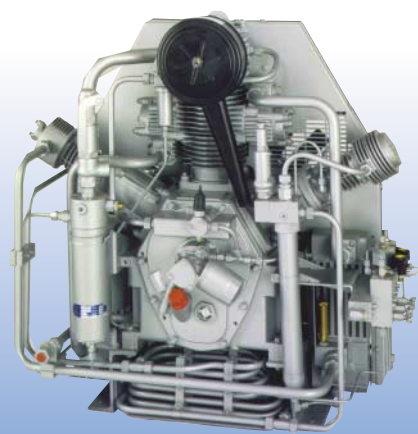


- The Compressor

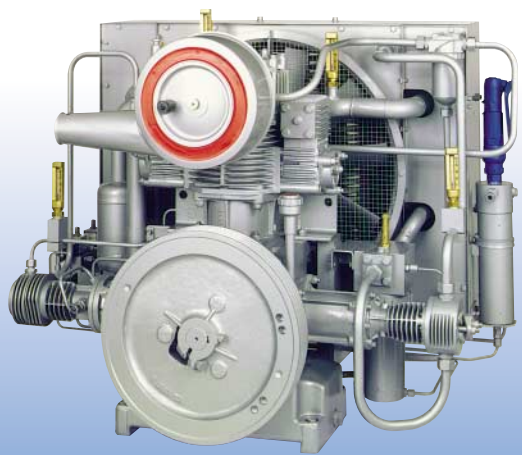
THE BAUER ADVANTAGES...

- Available in a Wide Range of Capacities to Meet Your Requirements
- Proven Air Cooled Design – Economical, Reliable, **Environmentally Friendly**
- Roller and Needle Bearings Used at All Bearing Surfaces for Reduced Friction and Heat, Improved Mechanical Efficiency and Extended Oil Life
- Heavy-Duty Roller Bearings for Strong Support of the Crankshaft and Long Bearing Life
- Counterbalanced Crankshaft for Smooth, Practically Vibration-Free Operation for Extended Life and Requires No Special Foundation
- Corrosion Resistant Materials for All Coolers and Separators
- Large Surface Area and Fine Ribbing on Cylinders for Efficient Heat Dissipation
- Pressurized Lubrication with Oil Filter for Reliable Lubrication of Internal Components
- Readily Accessible Valves – No Major Disassembly Required for Inspection and Maintenance
- Extended Maintenance Intervals Due to Efficient Cooling and Pressure Lubrication
- Affordable Genuine Replacement Parts for Quality Repairs
- Intake Filter for Protection of the Internal Components of the Compressor
- Encapsulated Crankcase to Protect the Environment, **No Oil Laden Mist**
- Automatic Condensate Drain for Automatic Drainage of the Interstage and Final Separators and Unloaded Starting

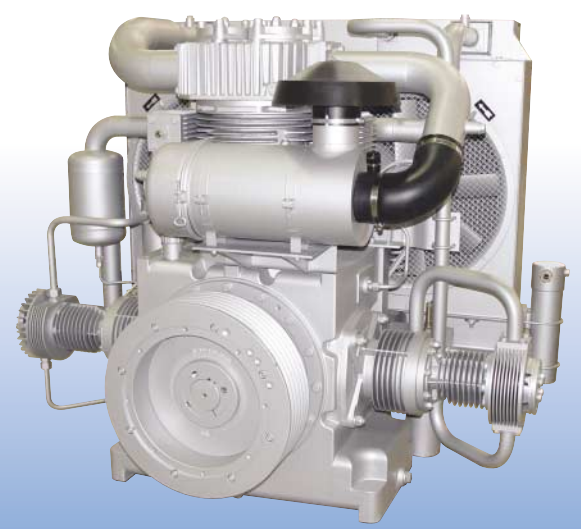
...FOR YOUR BENEFIT



3 & 4 STAGE
25 - 30 HP
22 Range



3 & 4 STAGE
30 - 50 HP
23 Range



3, 4 & 5 STAGE
50 - 150 HP
25 & 28 Range

Intake Filter

Clean, filtered air is essential for proper operation of the compressor. The intake to the compressor is protected by a high performance filter. Additional filtration or treatment of the air may be required for dusty environments or harsh climates.

Safety Valves

A safety valve is installed after each stage of compression to ensure safe operation and to protect the compressor from overpressure.

Separators

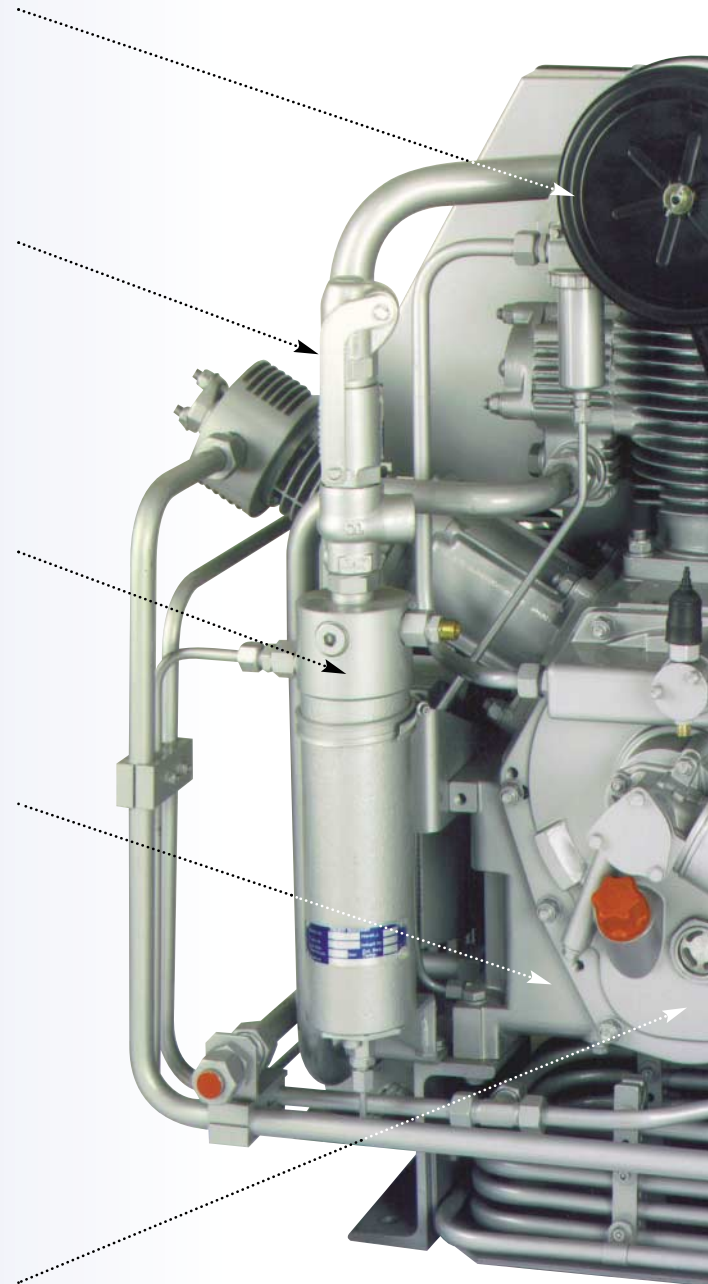
Separators remove oil and water from the compressed air. All separators are made of corrosion resistant materials for long life and to prevent contamination of the compressed air.

Crankcase

The crankcase serves as a strong foundation for the cylinders, sturdy support for the driving gear and provides a large oil reservoir. The crankcase is completely sealed against dirt and moisture for protection of internal components. BAUER uses a sturdy cast aluminum alloy crankcase on compressor frames through the 23 series. A rugged cast iron crankcase is used on the 25 and 28 series compressor frames. The crankcase is fully encapsulated to prevent the release of oil laden air to the environment.

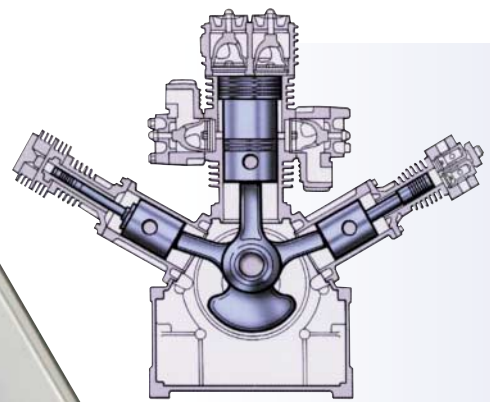
Lubrication

All BAUER compressors are pressure lubricated for reliable lubrication of internal components. A sight glass and replaceable oil filter are standard on all models.



3 & 4 STAGE
25 - 30 HP
22 Range

Compressor Technology



Drive Gear

All bearing surfaces on the driving gear use long life roller or needle bearings for reduced friction and maximum mechanical efficiency. The drive gear is supported in the crankcase with heavy duty ball bearings. The dynamically counter-balanced crankshaft provides smooth, practically vibration-free operation.

Valves

The BAUER design guarantees optimum air flow and efficiency, thus maximizing valve life. All valves are readily accessible for inspection and maintenance. Valve maintenance is inexpensive and easy to complete.

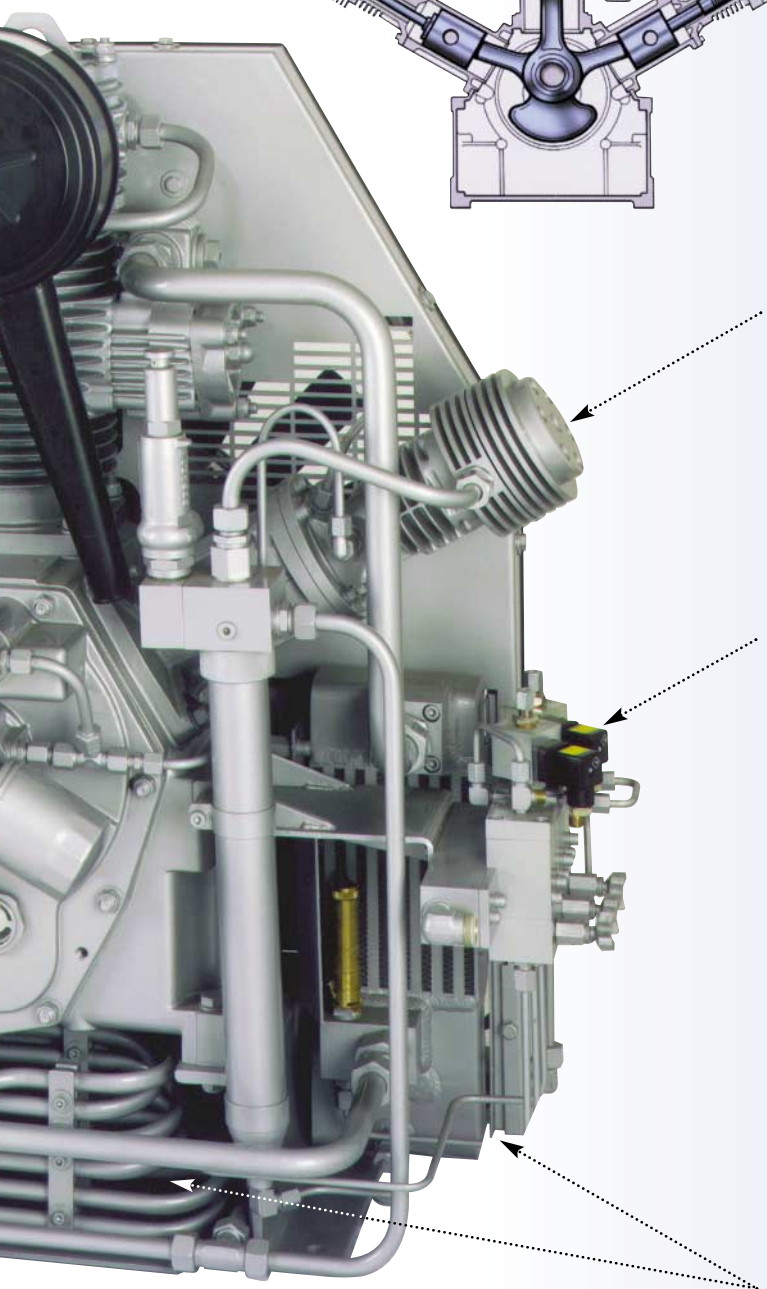
Automatic Condensate Drain (ACD)

The ACD automates the drainage of the interstage and final separators. This device enhances the use of the compressor for industrial applications by eliminating the process of having to drain the separators manually. The ACD also unloads the compressor automatically at restarting. Manual valves are included to override the automatic operation of the ACD for troubleshooting.

Cooling

The BAUER air cooled design is based on more than 50 years experience. All coolers are located in the direct blast of the cooling fan(s) for effective removal of the heat of compression. All cylinders and cylinder heads have large surfaces and fine ribbing for maximum heat dissipation. All coolers are made of corrosion resistant material for long life and non-contaminating service.

The BAUER design provides discharge air temperatures of only 20°F – 40°F above ambient depending upon the model.



Enclosure

A standard or custom designed enclosure adds an attractive finished look to your industrial compressor and improves the cooling of the compressor by allowing only cool air into the enclosure while expelling the hot air out of and away from the enclosure.

Enclosures are designed to permit full accessibility to internal components for inspection and maintenance. Sound attenuation material and special sound attenuating designs are available.



MAXI Verticus
Standard with enclosure

Instrumentation

All compressor packages include instrumentation and monitoring devices for supervising the compressor's performance. Standard features include:

- Gauge Panel (optional on some models)
- Hourmeter
- Off-On Selector Switch
- Emergency Stop Pushbutton
- Warning and Alarm Lights

All instrumentation and control devices are mounted for maximum visibility and easy accessibility for the operator. Each device is identified with a label.

Air Processing

Clean, compressed air is essential for the proper operation of a high pressure compressed air system. BAUER uses a coalescing separator to remove condensed oil and water from the cooled compressed air leaving the aftercooler. The oil and water emulsion collects



Open Vertical
MAXI Verticus without enclosure
Shown with IP5 Air Processing System with Securus

in the bottom of the separator and is drained by the automatic condensate drain. For applications that require additional processing, a refrigerated air cooler can be installed upstream of the final separator or a BAUER high pressure processing system can be installed downstream of the final separator.

See pages 13-14 for full details

System Technology

Compressor Controls

All compressor packages include a factory installed, UL approved, PLC-based electrical control system that includes all of the components and features required to safely operate a high pressure compressor.

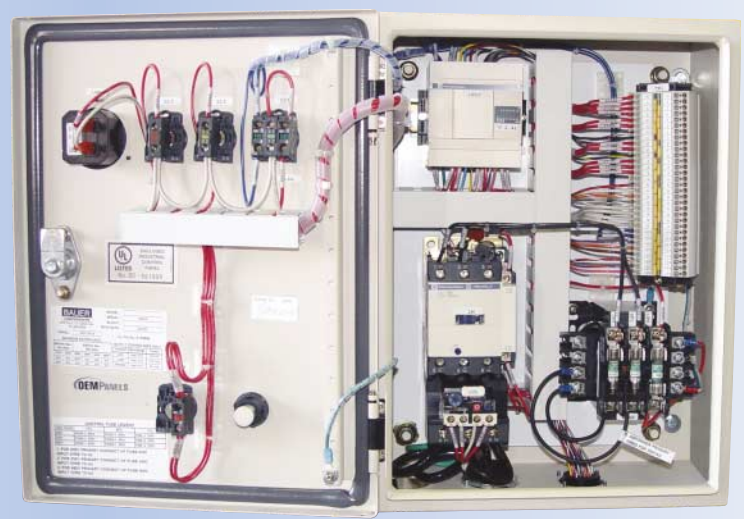
Standard Features

- Full Voltage Motor Starter
- Overload Relay with Manual Reset
- Fused Transformer
- Automatic Condensate Drain
- Pressure Switch for Low Oil Pressure Protection
- Pressure Switch for Automatic Start-Stop Control
- Temperature Switch for High Temperature Protection
- Excessive Run Timer
- Load Cycle Counter
- Emergency Stop Pushbutton
- Off / On Selector Switch
- Warning and Alarm Lights
- Automatic Lamp Test
- Color-coded Wiring Harness
- Battery Back-Up

In addition to the standard features, the controller includes support for the following available features:

- Constant Speed Unloader
- SECURUS® Warning and Alarm
- Audible Alarm
- ACD Test (not available with Constant Speed)
- High Condensate Level (available on select models)

The electrical enclosure is NEMA 4 rated. The enclosures on the pressure switches are rated to IP65. Standard motor is ODP rated. TEFC motor available on request.



Proprietary Compressor Controller



Standard BAUER Compressor Control System shown installed on a compressor unit



Pressure Switch with DIN connector



Wiring Harness Connector

Standard Control Features

Technical Data for Bare Compressors

	3 - Stage Compressor
	4 - Stage Compressor
	5 - Stage Compressor

I SERIES • 5000 – 7000 PSIG • 3, 4 & 5 STAGE

BARE COMPRESSOR MODEL	CAPACITY FAD ¹		BRAKE HORSEPOWER ¹		COMPRESSOR SPEED ² RPM	DIAMETER FIRST STAGE INCHES / MM		STROKE INCHES / MM		WEIGHT OF COMPRESSOR ³	
	SCFM	M ³ /hr	HP	kW		INCHES	MM	INCHES	MM	LBS	KG
I100HII*	4	6.8	3.5	2.6	1115	2.8	70	1.57	40	108	49
I12.14II*	8.5-10.4	14.4-17.7	7.5-9.2	5.6-6.9	1070-1315	4.1	105	1.57	40	130	59
I15.11II	15	25.5	13.5	10	1335	4.3	110	1.97	50	205	93
I18.1II	20	34	18.2	13.6	1295	5.1	130	1.97	50	230	105
I22.42*	27-31	45.9-52.7	23.7-27	17.7-20.1	1085-1245	5.1	130	3.15	80	660	300
I25.9	58	98.6	52.6	39.3	1060	7.3	185	3.54	90	3170	1440
I25.18	79	134.3	71.1	53	1060	8.5	215	3.54	90	3215	1460

*Models I100HII, I12.14II and I22.42 have a maximum working pressure of 6000 PSIG.

I SERIES • 1000 – 5000 PSIG • 3 & 4 STAGE

I100II	4.7	8	4.1	3	1315	2.8	70	1.57	40	85	35
I120II	7	11.9	6.4	4.8	1310	3.5	88	1.57	40	105	45
I15.1II	11.5	19.5	9.9	7.4	1010	4.33	110	1.97	50	205	93
I150II	17.5	29.7	15	11.2	1280	4.7	120	1.97	50	205	93
I180II	21.5	36.5	18.5	13.8	1345	5.1	130	1.97	50	215	98
I220	28-33	47.6-56	24-28.3	17.9-21.1	1125-1325	5.1	130	3.15	80	660	300
I230	35-48	59.5-81.6	29.9-41.7	22.3-31.1	925-1290	6.3	160	3.15	80	970	440
I250	54-63	91.8-107	46.4-54.3	34.6-40.5	955-1120	7.3	185	3.54	90	1985	900
I280	86-117	146.2-198.9	74.1-87.4	55.3-65.2	815-1100	8.5	215	4.92	125	2050	930

B SERIES • 350 – 1000 PSIG • 3 STAGE

B12.4II	7	11.9	4.5	3.4	1275	3.5	88	1.6	40	105	45
B22.5	23-31	39-52.7	14.3-19.5	10.7-14.6	915-1245	5.1	130	3.1	80	490	220
B23.4	46-60	78.1-102	28.9-37.8	21.6-28.2	925-1210	5.1	130	3.1	80	1010	460
B25.4	73	124	45.8	34.2	955	8.5	215	3.5	90	1960	890
B28.2	98-113	166.6-192	61-70.6	45.5-52.7	915-1060	8.5	215	4.9	125	2020	920
B25.5 ⁴	164	278.8	99.9	74.6	1060	8.5	215	3.5	90	2000	910
B28.3 ⁴	200-237	340-402.8	125.9-145	94-108.2	960-1100	8.5	215	4.9	125	2070	940

1. Capacity is referenced to standard inlet conditions and to 80% of the compressors' maximum working pressure and are valid to altitudes of 3,300 feet (1,000 meters). Brake horsepower ratings are valid for the compressors' maximum working pressure. Contact BAUER for deratings for capacity and power at altitudes above 3,300 feet. Tolerance for capacity ratings is +/- 5%.

2. Compressor speeds are nominal and are based on standard sheave sizes.

3. Dry weight for bare compressor. All weights are nominal.

4. Models B25.5 and B28.3 have a maximum working pressure of 900 PSIG.

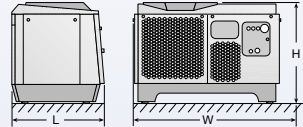
Dimensional Data for Standard Packages

COMPRESSOR MODEL	DIMENSIONS L x W x H		WEIGHT
	INCHES		LB
	MM		KG

Classic II LS *open design available*

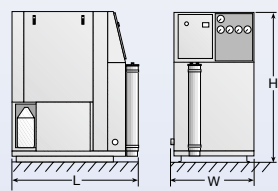
I100II / I120II / I12.14II B12.4 II / BK12.2 II	36 x 56 x 38 914 x 1422 x 965	500 - 700 227 - 318
I15.1II / I150II / I180II I15.11II / I18.1II / BK15.3II	36 x 61 x 40 914 x 1549 x 1016	700 - 950 318 - 432

Dimensions and weights are approximate and for standard models. Custom designs available.



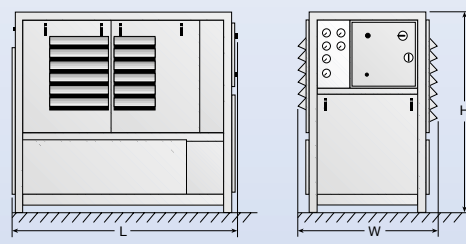
Enclosed Vertical (through 20 HP) *open design available*

mini VT	I100II / I120II B12.4 II / BK12.2 II	42 x 32 x 55 1067 x 813 x 1397	650 - 750 295 - 341
	MAXI VT	I12.14II - I18.1II BK15.3II	64 x 34 x 66 1626 x 864 x 1676



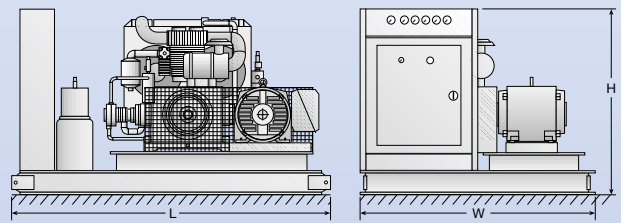
Enclosed Vertical (25 - 40 HP) *open and horizontal designs available*

I220 / I22.42	65 x 44 x 72 1651 x 1118 x 1829	1200 545
	I230	81 x 50 x 72 2057 x 1270 x 1829



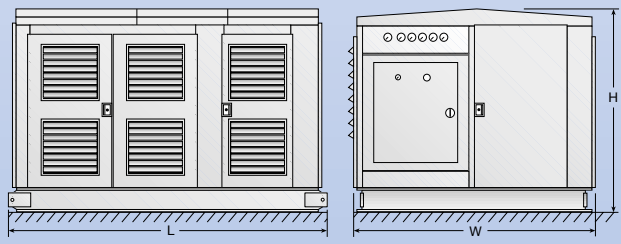
Open Frame Horizontal

B12.4II	55 x 24 x 38 1397 x 610 x 965	700 320
	B22.5	80 x 35 x 48 2032 x 889 x 1219
B23.4	90 x 44 x 60 2286 x 1118 x 1524	2700 1225
	B25.4 / B25.5 / B28.2 / B28.3 I25.9 / I25.18 / I250 / I280	114 x 84 x 66 2896 x 2134 x 1676



Enclosed Horizontal

B12.4II	56 x 36 x 38 1422 x 914 x 965	750 340
	B22.5	81 x 38 x 49 2057 x 965 x 1245
B23.4	92 x 50 x 60 2337 x 1270 x 1524	3000 1360
	B25.4 / B25.5 / B28.2 / B28.3 I25.9 / I25.18 / I250 / I280	114 x 89 x 72 2896 x 2261 x 1829



The Complete Package

Air processing is essential for trouble-free operation of a high pressure compressed air system. The primary objective of processing compressed air is to remove or reduce water and oil to a permissible level. BAUER is an international leader in the field of high pressure air processing systems. We manufacture high pressure non-regenerative and heatless regenerative dryers for our I Series compressors (1000 – 6000 PSIG).

BAUER's air processing systems are easy to use, inexpensive to operate and have a reputation for reliable service.

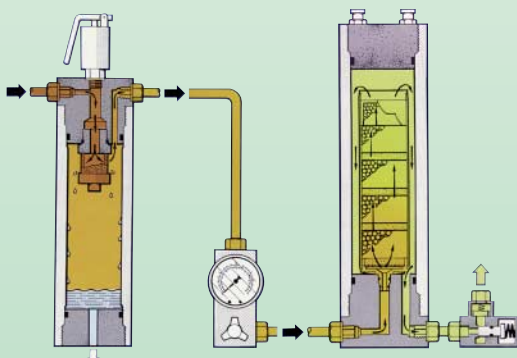
The IP and SECCANT dryers offer atmospheric dewpoints to -94°F. Both types of dryers use replaceable cartridges.

Contact BAUER for your high pressure air processing requirements.

MODEL	AIR PROCESSING CAPACITY*	NUMBER OF FILTER HOUSINGS
NON-REGENERATIVE SYSTEMS WITH 20" CARTRIDGE(S)		
IP41 SECURUS	47,000	1
IP42 SECURUS	107,000	2
IP43 SECURUS	164,000	3
NON-REGENERATIVE SYSTEMS WITH 27" CARTRIDGE(S)		
IP2 SECURUS	67,000	1
IP5 SECURUS	150,000	2
IP10 SECURUS	230,000	3
IP12 SECURUS	420,000	2
IP14 SECURUS	650,000	3
REGENERATIVE SYSTEMS		
SECCANT III <i>Drying Only</i>	3.5 to 53 SCFM	2
SECCANT III / A <i>Drying and Purifying</i>		3
SECCANT IV <i>Drying Only</i>	53 to 125 SCFM	2
SECCANT IV / A <i>Drying and Purifying</i>		3

IP Processing Systems

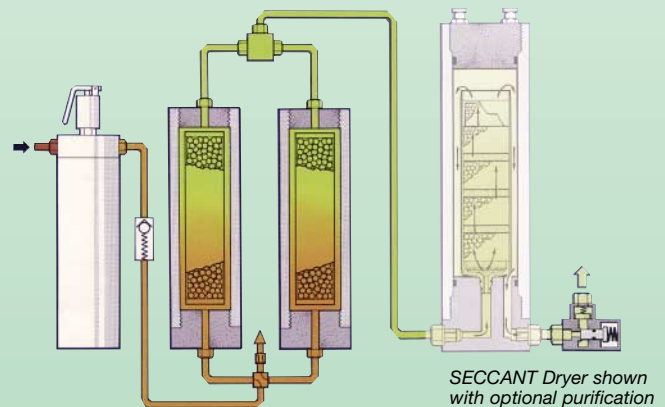
The BAUER IP non-regenerative processing systems are the ideal solution for economical processing of high pressure compressed air. The IP Systems do not require electrical power for operation and there are no system losses for regeneration. The IP Systems are designed for working pressures from 2000 – 6000 PSIG and flow rates to 125 SCFM.



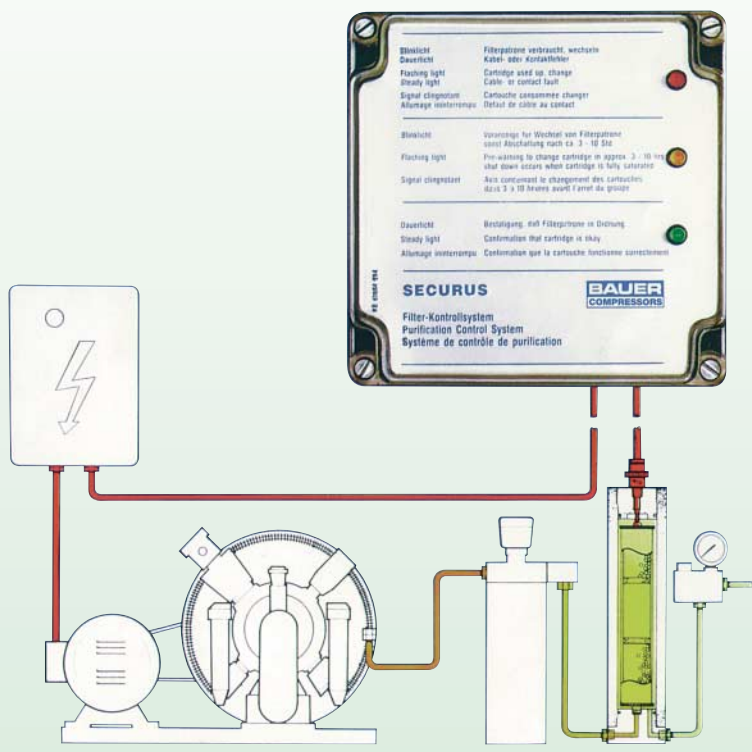
*air processing capacity in standard cubic feet per minute and referenced to 4350 PSIG and 70°F inlet temperature.

SECCANT Regenerative Dryers

BAUER SECCANT heatless regenerative dryers are the ideal solution for cost effective drying of high pressure compressed air for continuous applications. These dryers require a partial stream of the dried air (5% maximum) for regeneration. The SECCANT dryers are standard with an on-board controller which requires 115V electrical power for operation and connection to the compressor's control circuit for cycle control. The SECCANT dryers are designed for working pressures from 2000 – 5000 PSIG and flow rate to 125 SCFM.



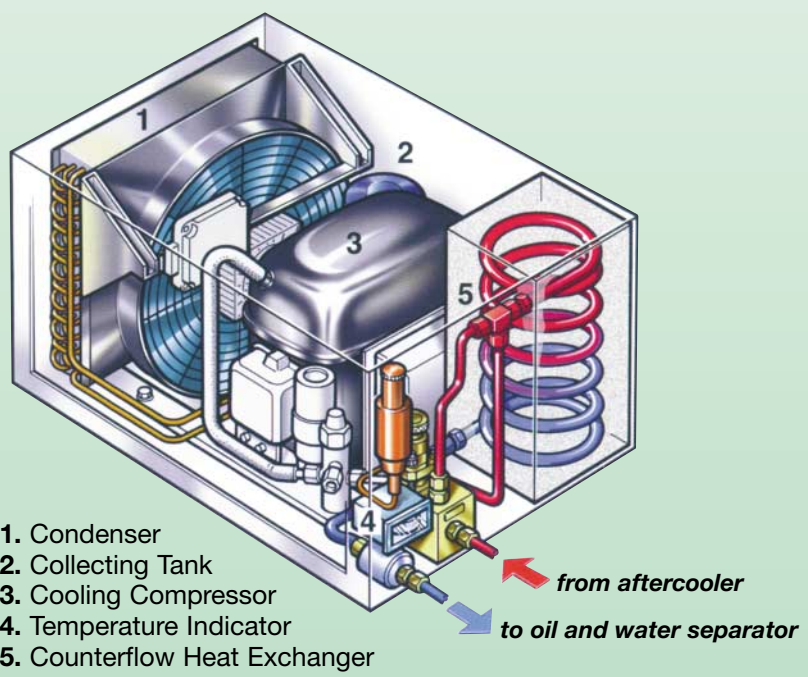
SECCANT Dryer shown with optional purification



SECURUS®
The Patented Moisture Monitoring System

SECURUS® ensures 100% utilization of the air processing cartridges because the moisture sensor is embedded directly in the molecular sieve. The SECURUS cartridge, with its moisture sensor, is the last cartridge in the air processing system. SECURUS requires 115V electrical power for operation and connection to the compressor's control panel or to the SECCANT controller for automatic warning and shutdown when the SECURUS cartridge becomes saturated. The SECURUS status display can be locally mounted to the SECURUS cartridge chamber or to the compressor's instrument panel. SECURUS is available for working pressures from 2000 – 6000 PSIG and flow rates to 125 SCFM. SECURUS is suitable for outdoor use.

© U.S. Patent Number 4,828,589



- 1. Condenser
- 2. Collecting Tank
- 3. Cooling Compressor
- 4. Temperature Indicator
- 5. Counterflow Heat Exchanger

Dimensions: 26" x 15" x 14" (660 mm x 380 mm x 360 mm)
Weight: 105 lbs. (46 kg)

AIR-KOOL
The Refrigerated Air Cooler

AIR-KOOL is the ideal solution for reducing the operating costs of your compressor and air processing system. AIR-KOOL is a refrigerated, counterflow heat exchanger that further cools the compressed air from the compressor's air cooled aftercooler to 36°F – 46°F. This additional cooling causes more water and oil to condense out of the compressed air for removal by the final separator. AIR-KOOL increases the efficiency of the final separator and extends the life of the processing cartridge(s) up to six times.

AIR-KOOL is designed for working pressures to 7000 PSIG and flow rates to 21 SCFM.

AIR-KOOL is available as an option on new BAUER units or as an aftermarket addition to existing BAUER units. AIR-KOOL requires 115V electrical power for operation and is for indoor use only.

High Pressure Air Storage Systems

Should an application require the use of storage, a properly sized air storage system offers many benefits to a high pressure compressed air system. Each high pressure compressed air application must be reviewed carefully to determine the best type and size of storage. By engineering the compressor and storage as a complete system, the cost of equipment and the operational and maintenance costs can be reduced.

The main purpose of a storage system is to serve as an air reservoir to handle constant, sudden or unusually high demands for air which can exceed the compressor's capacity. Storage protects the compressor from the direct demands of the system and prevents short cycling of the compressor and motor. Thus, the compressor works consistently

within a certain pressure range provided the compressor and storage system have been sized correctly for the application. Storage will also dampen or eliminate pressure pulsations from the compressor's discharge line and from the system, thus protecting the compressor and the system from potential damage. Storage can precipitate some of the moisture from the compressed air that may be carried over from the compressor's aftercooler or a defective separator or dryer.

The size of the storage system required for a particular application will depend upon:

- A. Air consumption of the system
- B. Capacity of the compressor
- C. Deadband of the compressor's final pressure switch

BAUER recommends that the compressor does not start more than 4 times per hour. Thus the compressor can operate long enough during each load cycle to allow it to attain normal working temperature. If the compressor is allowed to short cycle, moisture can precipitate out of the compressed air inside of the compressor and emulsify the oil.

Buffer storage can be sized by the following formula:

$$V_R = 58 \times (Q_C / \Delta P)$$

where:

- V_R = Volume of storage in cubic feet water volume
- Q_C = Capacity of compressor in standard cubic feet per minute (scfm)
- ΔP = Deadband of final pressure switch in pounds per square inch (psid)

Multiple receivers can be used for applications that require a large volume of storage.

The chart below summarizes the deadband of the compressor's final pressure switch for the various pressure ranges covered by BAUER Industrial Compressors.

Working Pressure (PSIG)	ΔP (PSID)
500	125
1000	150
5000	500
6000	600

All values are approximate.

Air receivers for storage are available to meet the code requirements of either the American Society of Mechanical Engineers (A.S.M.E.) or the Department of Transportation (D.O.T.)

Consult BAUER for storage with multiple banks.

The chart below lists recommended volumes for buffer storage with respect to compressor capacity, working pressure and the deadband of the final pressure switch.

		COMPRESSOR CAPACITY – SCFM														
		10	20	30	40	50	60	70	80	90	100	150	200	250		
WORKING PRESSURE (PSIG)	FINAL PRESSURE SWITCH DEADBAND	125	Calculated Volume	5	9	14	19	23	28	32	37	42	46	70	93	116
			Receiver No./Volume	1 / 9.8	1 / 9.8	1 / 17.4	1 / 32.1	1 / 32.1	1 / 32.1	1 / 32.1	1 / 53.5	1 / 53.5	1 / 53.5	1 / 86.9	1 / 9.8 1 / 86.9	1 / 32.1 1 / 86.9
		150	Calculated Volume	4	8	12	15	19	23	27	31	35	39	58	77	97
			Receiver No./Volume	1 / 9.8	1 / 9.8	1 / 32.1	1 / 32.1	1 / 32.1	1 / 32.1	1 / 32.1	1 / 32.1	1 / 9.8 1 / 32.1	1 / 9.8 1 / 32.1	2 / 32.1	3 / 32.1	3 / 32.1
		500	Calculated Volume	1	2	3	5	6	7	8	9	10	12	17	—	—
			Receiver No./Volume	1 / 1.5	2 / 1.5	2 / 1.5	4 / 1.5	5 / 1.5	5 / 1.5	6 / 1.5	7 / 1.5	7 / 1.5	8 / 1.5	12 / 1.5	—	—
	6000	Calculated Volume	1	2	3	4	5	6	7	8	9	—	—	—	—	
		Receiver No./Volume	1 / 1.5	2 / 1.5	2 / 1.5	3 / 1.5	4 / 1.5	5 / 1.5	5 / 1.5	6 / 1.5	7 / 1.5	—	—	—	—	

This chart is for reference only. Intermittent periods of high system demand may require additional storage volume. Consult BAUER to confirm your storage volume requirements.

Technical Data for Typical Air Receivers

WORKING PRESSURE PSIG	WATER VOLUME SCF	WATER VOLUME GALLONS	CAPACITY @ MAX. PRESSURE SCF	DIMENSIONS DIAMETER - LENGTH INCH	WEIGHT LBS
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Dimensions and weights are approximate and subject to change. Weight is for empty receiver.

ASME Receivers

500	9.8	73	345	18 - 72	450
500	17.4	130	610	24 - 72	650
500	32.1	240	1130	30 - 84	1250
500	53.5	400	1880	36 - 98	1975
500	86.9	650	3060	42 - 120	3750
1000	9.8	73	680	18 - 72	750
1000	32.1	240	2240	30 - 84	2380

Dimensions are for bare receiver only, excludes legs or skirt and saddle.

ASME Receivers

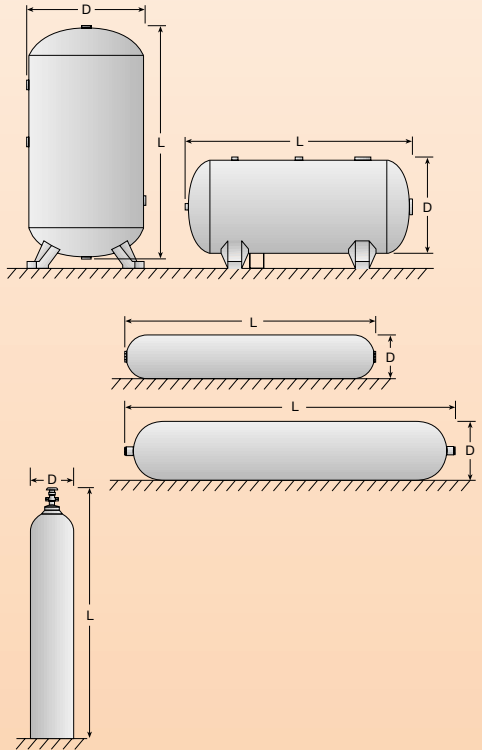
5000	1.5	11	436	9 ⁵ / ₈ - 54	400
6000	1.5	11	491	9 ⁵ / ₈ - 54	400
7000	1.5	11	537	9 ⁵ / ₈ - 54	400

Dimensions are for bare receiver only.

DOT Receivers

4500	1.59	11.9	444	9 ⁵ / ₁₆ - 55	145
5000	1.59	11.9	472	9 ³ / ₈ - 56	160
6000	1.53	11.4	509	9 ⁹ / ₃₂ - 55	190

Dimension includes shutoff valve.



High Pressure Air Distribution Systems

High pressure air is used in a multitude of industrial applications. The design of a safe and efficient distribution system is critical to the successful use of compressed air. BAUER has over 50 years experience in the design and manufacture of distribution systems for high pressure compressed air. We have a reputation for providing safe, reliable and user friendly

air distribution panels and systems. We can supply everything from individual components to basic pressure regulation panels to systems controlled by a Programmable Logic Controller (PLC) for automatic control from the outlet of the compressor to storage, and from storage to the point of use.

Components

BAUER uses only quality components that are designed specifically for high pressure applications. We maintain a complete inventory of high pressure tubing, tube fittings, instrument pipe fittings, full-turn and quarter-turn ball valves, gauges, regulators, manifolds, hose, couplings, reducers, adapters, relief valves and other miscellaneous components. Our design staff carefully reviews each application to provide a distribution system with the fewest possible components. BAUER pays particular attention to safety, so every distribution system designed by BAUER includes a safety relief valve.



Standard Components for High Pressure

Hose and Tubing

BAUER recommends the use of stainless steel tubing for all permanent high pressure connections. For temporary installations or where flexibility is required, high pressure hose can be used with suitable end connections. The use of hose should be limited to clean, noncorrosive environments and where it is possible to inspect the hose regularly for deterioration. BAUER recommends replacing all high pressure hoses annually or as recommended by the hose manufacturer. Hoses must be replaced immediately if wear or deterioration is evident or suspected.

Regulator with Flexible Hose

Some applications require only a simple regulator and a flexible hose to connect to the point of use. BAUER high pressure hose assemblies are complete with a pressure gauge, manual shut off valve and manual vent valve to facilitate venting the hose when not in use. These systems are ideal for cylinder filling applications where cylinders are rotated from the point of use to the refilling area. For example, cylinders for paintball guns can be filled directly from the compressor or from storage.

Pressure Regulation Panels

BAUER can design simple regulation panels or more elaborate regulation panels for use with single or multiple cylinders or banks of storage cylinders. All regulation panels include, as a minimum, pressure gauges for inlet and outlet pressure readings at the regulator, a safety relief valve for the regulated pressure and a manual shut off valve on the outlet to the point of use. Custom panels can include multiple regulators, e.g. a high pressure regulator and a low pressure regulator, with single or multiple outlets for each regulator. Each outlet is supplied with a manual shut off valve. A pressure gauge can be included for each outlet to indicate outlet pressure. Panels are fabricated of steel, aluminum or stainless steel depending upon the application or user preference. Panels are suitable for wall mounting or can be designed to fit a specific mounting requirement.

Automatic Panels

BAUER offers standard and custom designed automatic panels with simple pneumatic devices or PLC controlled systems to automate the distribution, regulation and dispensing of high pressure compressed air. These systems can be used for cylinder filling applications where the cylinder must be completely filled from storage or automatically topped off from the compressor if storage pressure is insufficient to provide a complete fill. PLC controlled systems offer more effective storage management by controlling the distribution of the compressed air from the compressor to the storage system and from the storage system to the point of use by monitoring the status of analog devices for pressure, temperature and flow and, if required, time. Both types of panels have built-in safety features to prevent accidental overpressurization of the system. Automatic panels greatly simplify the process of controlling high pressure compressed air and offer increased safety by eliminating the potential for operator error.

Basic Regulation Panel – Front View



- User Friendly
- Versatile Design

Basic Regulation Panel – Rear View of Alternate Design



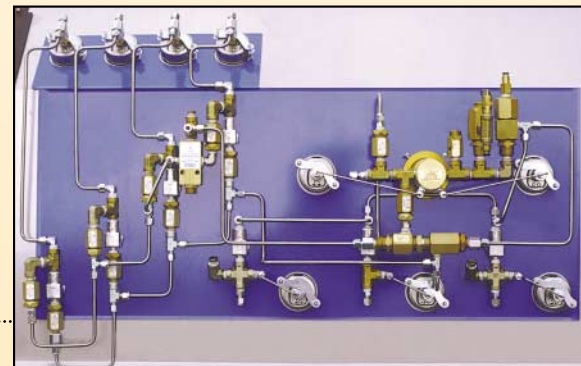
- Quality Craftsmanship
- Built-in Safety
- Minimum Use of Components
- Designed and Built to BAUER's Standards of Quality

Regulation Panel with Multiple Outlets



- Standard and Custom Designs
- All Panel Mounted Devices Identified with Engraved Labels
- Clear, Precise Operating Instructions
- Standard Fitting Sizes for Easy Installation and Compatibility

Regulation Panel for Multiple Banks of Storage – Rear View

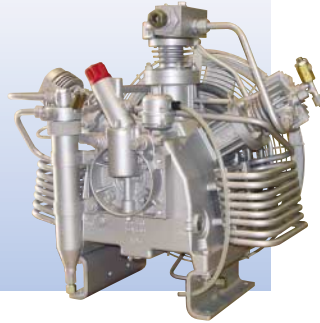


BK SERIES

2-Stage Boosters for Air and Nitrogen



Model ImnBK-E3 - mini Verticus
with BK 12.2II



BK12.2II

- Rated to 2000 - 5000 PSIG
- Air Cooled
- Pressure Lubricated
- Inlet Pressure Range, 72 to 160 PSIG
- Horsepower Range, 5 to 7.5
- Capacity Range, 3 to 16 SCFM
- Continuous-Duty Rated
- Instrument Panel Standard
- Automatic Condensate Drain Standard
- PLC Control for Unattended Automatic Operation
- Open or Enclosed Package Designs Available
- Available Oil Removal Filtration



Model IMXBK-E3 - Maxi Verticus
with BK15.3II



BK15.3II

- Rated to 2000 - 5000 PSIG
- Air Cooled
- Pressure Lubricated
- Inlet Pressure Range, 100 to 145 PSIG
- Horsepower Range, 7.5 to 15
- Capacity Range, 14 to 27 SCFM
- Continuous-Duty Rated
- Instrument Panel Standard
- Automatic Condensate Drain Standard
- PLC Control for Unattended Automatic Operation
- Open or Enclosed Package Designs Available
- Available Oil Removal Filtration

Applications

Component Testing and Calibration

- *Pressure Gauges*
- *Relief Valves*
- *Valves*
- *Tubing*
- *Pipe*
- *Valve Actuators*
- *Transducers*
- *Hose*



Model IE100 - Classic Design
Open Version

Cylinder Refilling

- *Storage*
- *Air Rifle*
- *Paintball*

Research

- *Industry*
- *Educational*
- *Aviation*



Model IL100II – Classic Design
Enclosed Version

Applications



MAXI Verticus
Enclosed Version



MAXI Verticus
Open Version

Plant Air

Food Processing

Chemical Industry

- *Compressors with Explosion Proof Controls*

Automotive Industry

- *Test Sleds*
- *Wind Tunnel*

Offshore Platforms

- *Rig Stabilization*

Shipboard

- *Cable Compensation*
- *Air Guns for Seismographic Exploration*



Model B23.4 – Horizontal Design
Open Version



Model I230 – Vertical Design
Enclosed Version

Electric Power Plants

- *Turbine Starting*
- *Circuit Breaking*

Hydraulics

- *Air-Oil Accumulators*

Pneumatic Control

Aviation

- *Engine Starting*
- *Aircraft Maintenance*

Oil and Gas

- *Pipeline Pressure Testing*



Model I280
with SECCANT IV

Products and Services

from the Air and Gas Experts

- *Medium and High Pressure Air Compressors and Accessories for Industrial Applications*
- *High Pressure Compressors and Accessories for Inert Gases*
- *High Pressure Compressors and Accessories for Plastics Technology*
- *High Pressure Natural Gas Compressors and Accessories for Natural Gas Vehicle Refueling*
- *High Pressure Compressors and Accessories for Breathing Air*
- *Adsorption Dryers*
- *Storage Systems*
- *Distribution Panels*
- *Training, Service, and Genuine BAUER Parts*

The equipment advertised herein is not suitable for breathing air. To be suitable for breathing air a compressor must include, as a minimum, a purification system that is designed specifically to purify compressed air to meet all recognized standards for breathing air and be suitably labeled for such use. In the absence of such a purification system and labeling, the compressor shall be considered unsuitable for breathing air. If a compressor that does not include a breathing air purification system and labeling is used by the Purchaser and/or User for breathing air, the Purchaser/User assumes all liability resulting therefrom without any responsibility or liability assumed by Bauer Compressors, Inc.

The Purchaser/User should include the above statement in their terms of sale for any resale of the compressor.

Disclaimer: Bauer Compressors, Inc. continuously reviews their products' design and performance to better to serve our customer's needs. Therefore, information contained herein is subject to modification without notice or obligation.

Products contained herein are subject to the standard terms and conditions of sale and warranty of Bauer Compressors, Inc. A copy of the standard terms and conditions of sale and warranty are available on request.



BAUER COMPRESSORS, INC.
Norfolk, Virginia is registered to ISO 9001:2000

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