## **COMMITTED TO QUALITY**

SENZAIR CONTRACTOR OF THE PROPERTY OF THE PROP

As an industry-leading manufacturer of compressed air systems, BENZAIR nationwide service network provides system services at all times.



#### **BENZAIR**

+86 150 2642 2120 / +86 186 6380 0882 Compressors@benzaequipment.com Headquarters: Shanghai City, China Manufacturing plant: Tianjin Province, China

# BENZAIR Industrial Rotary Screw Air Compressors

#### **BENZAIR Series**

0.31-58m<sup>3</sup>/min 2.2-315kw

BENZAIR high quality series of Air compressor Flow rate 0.31-58m<sup>3</sup>/min

Power rate 2.2-315kw

## **High efficiency**

BENZAIR screw air compressors have high efficiency of compressed air with its latest generation and modern updated designs. BENZAIR air compressors are optimized and designed to provide more compressed air with low energy consumption, convenient maintainability and environment friendly

#### A variety of savings

The updated design of the BENZAIR compression system saves energy in many ways, the compressor rotor is further optimized, the entire compression process is controlled and monitored, the controller and the compressor to achieve a perfect match, from the compressor inhalation of natural atmosphere, to the compressor exhaust compressed air, the whole process uses dynamic control to reduce expensive idle running times, improve energy efficiency.

#### **Variable frequency speed motor**

Permanent magnetic synchronous motor with permanent magnets to provide excitation, so that the motor structure is relatively simple, eliminating the problem-prone power distribution ring and brush, improve the reliability of motor operation, but also because there is no excitation current, no excitation loss, improve the efficiency and power density of the motor. The combination of a perfectly matched speed control drive, especially in part of the load range, highlights its good energy-saving properties.

#### Friendly service

The unique and compelling design of these systems is complemented externally by an intelligent component layout for greater energy efficiency: for example, all service and maintenance points are within easy reach of service components. This not only saves time and money, but also maximizes the availability of compressed air systems.

#### A trusted supplier

BENZAIR series screw compressors are a reliable partner for investors. All based on the stable design of the OE unit, when our dealers investors and partners pay attention to the efficiency of the unit seems to dilute the stability of the product itself, based on a stable foundation and then improve efficiency is our design philosophy, BENZAIR series compressor always follow the essence of general industrial products.





## Save energy all the time

When the investor's watch second hand beats, BENZAIR saves you energy and investment costs always.



#### Variable frequency speed control

Compressor unloading consumes approximately 40-50% of energy, matching precision-adjusted and stable inverters, the compressor can achieve maximum energy utilization and efficiency improvement.



#### **Permanent magnet speed-adjusting motor**

The non-stage speed-adjusting permanent magnet motor adapts well to subtle changes in air volume for good drive matching, and the standard IE4 energy-efficient motor makes drive efficiency more efficient.



#### **Intake air regulation**

Sophisticated electronically adjusted intake valves allow every cubic of compressed air drawn in to be converted as much as possible to the compressed air required by the user to save on costly energy costs.



#### **Excellent cooling**

Compressor let the user's most annoying fault is high temperature, to avoid high temperature problem the most direct two solutions are to increase the fan power and sufficient cooler dirt coefficient.



#### **Leading Fe Intelligent Control System (PLC)**



BENZAIR new generation of intelligent controller has an intuitive, high-resolution, large-size color screen, and is equipped with network connection functions to achieve a higher level of communication, connection and control, which greatly improves the actual productivity of the air compressor.

- Remotely access and control compressors anywhere
- The high-intensity light indicator can accurately display the compressor status at a certain distance.
- Without any additional hardware, up to 4 Fe-controlled compressors can be controlled sequentially
- The language interface can be selected from multiple languages.
- Real-time clock setting starts and ends.
- Network communication and control.
- Large buttons and intuitive menus facilitate the control of the compressor.
- Built-in performance analysis graphics and visual trends.
- Use a standard browser to access the automatic detection log.
- Automatic mail error and warning



The new BENZAIR Series tries to do every simple detail, with NO leaks or simple vibration, all is tighten well.



The preferred parts supplier is also guaranteed for each one. The necessary factors for BENZAIR compressor to meet factory standards.

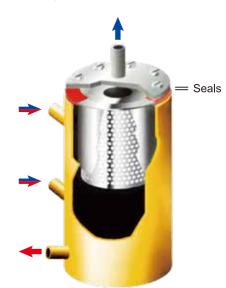


Rigorous component performance testing becomes the necessary before assembly of the new BENZAIR series. In the process of testing, we also obtained core data on key components, which is the best help for our product design.

## **Efficient oil and air separation system**

#### Unique two-stage buffer, three-stage separator

The separator minimizes the oil content of the equipment exhaust and reduces the number of replenishment of coolant. This design also reduces the impact on the oil content of the compressed air when the oil in the separator is too much or too little. Combined with the latest Ultra super coolant of Fu promise air, the separation performance is further improved.

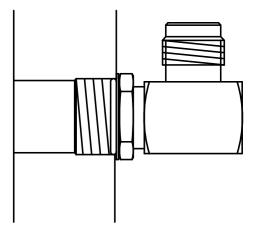


- → 1- Oil saturated compressed air inlet (2inlets available)
- 2-Oil free compressed air MANN depth type oil gas separation core is installed in the pressure storage tank to the oil injection port

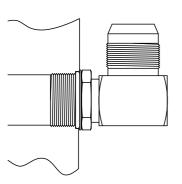
## **Leak-free sealing system**

#### Use ORFS—O-ring face seal

- High corrosion resistance materials, suitable for oil, water, gas and other mixed media
- High wear resistance, with automatic elastic compensation function after the sealing surface is worn
- Good self-lubricating performance, can be used as oil-free lubrication seal
- With self-sealing function, reliable sealing performance



5



#### Leak-free design

SAE standard O-ring seal can completely prevent leakage

#### A new generation of intelligent controller



- High-resolution color display
- Built-in network connection function
- Higher levels of communication, connection and control

#### High-quality optimal electrical system

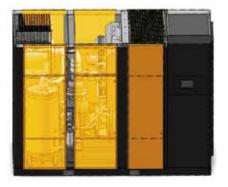


Internationally renowned brand electronic control devices



#### Cooling system designed based on 46°C ambient temperature

- Efficient independent cooling system
- Lower energy consumption and operating noise
- Ensure higher reliability of electrical components
- Can make the downstream air treatment system work more efficiently
- Better performance
  Longer service life, eliminating thermal stress



#### **Top exhaust**



- Design conforms to thermodynamic principles
- Facilitate heat recovery and reuse

#### **Rugged motor**

- 46 degree ambient temperature design
- Class F insulation, Class B temperature rise
- IE4 high efficiency four-stage motor
- Imported international famous brand bearings
- Standard front bearing PT100 over temperature protection
- Standard three-phase stator winding RTD over-temperature protection



#### **High-performance screw airend**

- 20-process high-precision screw rotor
- Ingenious design eliminates a large number of potential leak points
- Mirror processing, anti-reverse compression concave-convex groove designed to produce higher efficiency







Energy-efficient two-stage compression screw airend

7

## **Parameters List**

Model	Maximum working pressure		Free Air Delivery (FAD)	Inverter air volume	Two-stage compression	Motor Power	Noise level	Weight	Outlet Size
	barg	psig	m³/min	m³/min	m³/min	kW	dB	kg	
BZ-7.5	6	87	1.2	0.54-1.2	/	7.5	60	156	G3/4
	8	116	1	0.45-1	/				
	10	145	0.7	0.3-0.7	/				
 	6	87	1.7	0.81-1.8	/	11.0	63	249	1"
BZ-11	8	116	1.52	0.76-1.7	/				
 	10	145	1.38	0.67-1.5	/				
 	6	87	2.4	1.14-2.54	/	15.0	63	249	1"
BZ-15	8	116	2.23	1.03-2.28	/				
 	10	145	2	0.9-2.02	/				
 	6	87	3	1.35-3	/	18.5	64	406	1-1/4″
BZ-18.5	8	116	2.9	1.3-2.9	/				
Г     	10	145	2.85	1.3-2.85	/				
 	6	87	3.6	1.89–4.2	/	22	64	550	G11/4"F
BZ-22	8	116	3.45	1.6–3.6	/				
	10	145	3.43	1.5–3.4	/				
   	6	87	6.28	3.2-7.04	/	37	67	650	G11/4"F
	8	116	6.01	2.9-6.4	/				
BZ-37	10	145	5.7	2.57–5.7	/				
	13	188	/	6.8-2.33	/				
 	6	87	7.6	3.4–7.6	/	45	67	800	G11/4"F
BZ-45	8	116	7.5	3.4–7.5	/				
	10	145	6.8	3–6.8	/				
	6	87	9.3	4.6–10.3	11.36	55	67	850	G2"F
 	8	116	8.95	4–9	11.3				
BZ-55	10	145	8.6	3.6–8	11.26				
 	13	188	6.8	3.2–7	8.95				
	6	87	12	6.5–14.5	15.55	75	66/67	1000	G2"F
BZ-75	8	116	11.88	5.5–12.3	15.47				
	10	145	11.8	5–11	15.2				
-  -    -  -	13	188	8.3	4–9	11.09				

Model	Maximum working pressure		Free Air Delivery (FAD)	Inverter air volume	Two-stage compression	Motor Power	Noise level	Weight	Outlet Size
	barg	psig	m³/min	m³/min	m³/min	kW	dB	kg	1
BZ-90	6	87	15	7.2–16	19.23	90	69/72	1850	G2″F
	8	116	14.8	6.7–14.8	19.13				
	10	145	14	6.3–14	17.33				
	13	188	11.6	5–11.6	14.97				
BZ-110	6	87	21	10.2–22.6	23	110	69/72	2400	DN100
	8	116	20	9–20	21.51				
	10	145	19	7.5–16.7	21.19				
	13	188	14.5	5.9–13	18.12				
BZ-132	6	87	22.5	10.8–24	28.04	132	69/70	2600	DN100
	8	116	22	10–22	27.9				
	10	145	20	9–19	23.99				
	13	188	18.8	7.9–17.5	20.87				
BZ-160	6	87	24.8	13–29	32.49	160	73/74	3500	DN100
	8	116	24	12–26	32.33				
	10	145	23	10.4–23	27.84				
	13	188	20	8.6–19	23.63				
BZ-185	6	87	32.5	13-32.5	36.22		75/80	3600	DN100
	8	116	30.2	12.08-30.2	36.04	185			
	10	145	27.5	11-27.5	32.22				
	13	188	24.5	9.8-24.5	27.48				
BZ-200	6	87	38.9	15.56-38.9	41.41	220	75/80	4300	DN125
	8	116	33.87	13.55-33.87	41.2				
	10	145	30	12-30	35.91				
	13	188	27	10.8-27	35.5				
BZ-250	6	87	42.8	17.12-42.8	50.59	250	78/83	5000	DN150
	8	116	40.8	16.32-40.8	50.34				
	10	145	37.4	14.96-37.4	45.1				
	13	188	33.5	13.4-33.5	40.09				
BZ-315	6	87	56	22.4-56	62.41	315	78/83	5200	DN150
	8	116	50	20-50	62.1				
	10	145	47	18.8-47	54.02				
	13	188	41	16.4-41	49.05				

10