BAC
COMPRESSOR
SINCE 1980

Over 35 Years of Engineering Excellence

SCREW COMPRESSORS

COMPANY PROFILE

BAC Compressors is one of the Leading air compressor manufacturers in India and have always remained a loyal brand to its customers for over three decades.

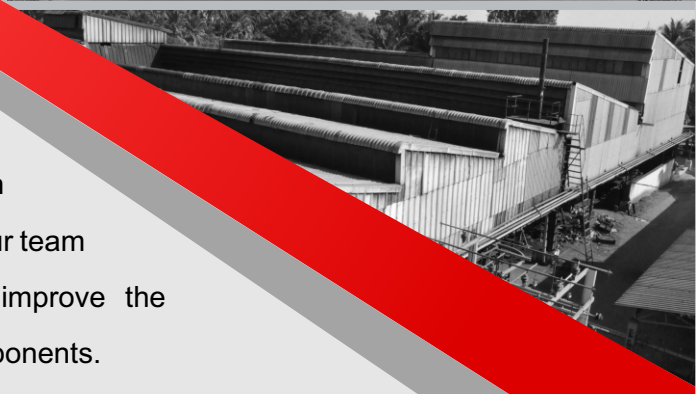
"Every Industry deserves to be equipped with the best compressed air solutions in the world" to efficiently improve their productivity. BAC compressors used that opportunity and have come a long way by accomplishing the customer's needs. All our customers tag BAC Compressors as trusted brand to satisfy their Compressed air needs.

BAC compressors was entrenched in the year 1979 by the duo Mr. Radhakrishnan & Mr. Sudhakaran, with a focused mission to offer Reciprocating Air & Borewell Compressors for industrial & agricultural purposes. Consistently with lots of efforts and challenges, today BAC compressors has a strong presence with a formidable portfolio in both reciprocating and rotary screw compressors.

Our happy customers are widespread and have a strong patronage over our Products; BAC Compressors have empowered various industries and have also touched people's lives as compressed air solution providers. Be it the tyres of your vehicles or the paint you see on aesthetic products or be it in the medicines you carry, somewhere or the other BAC compressors have run to wholly fulfill the Industrial needs.

BAC compressors have worked effectively under non-standard pressure and extreme ambient conditions. Our market is wide spread across India and Srilanka through distributors and dealer network who work tirelessly in providing the best customer satisfaction experience.

"Today BAC has a strong presence across India & Srilanka with a formidable portfolio in both Reciprocating and Rotary screw compressors..."



OUR INFRASTRUCTURE

We started off with a production capacity of 300 compressors per annum in the year 1980. Today BAC compressor has attained stratospheric heights with a production capacity of 8000 compressors per annum. Our asset lies in our team of skilled professionals who work constantly in R&D to improve the compressors energy efficiency and increase the life time of components.

BAC compressors are manufactured in its own Foundry Division and Machining Division which contains High pressure molding, Spectrometer, CNC machining and turning centers, CNC cmm and finish testers. All the testing is done in a controlled environment. Both the divisions are ISO 9001 & 14001 certified from TUV Rheinland, Germany. Our Assembly division carefully inspects all the incoming, in-process and final inspection and is equipped with line assemblies, nozzle flow testing and endurance testing. For flow testing we follow IS 10431:1994 and ISO 1217:2009. We work closely with some of the government accredited flow control institutes for improving our cfm/hp.

With such an infrastructure and in-house capabilities we carefully examine the end to end manufacturing process to bring the best reliable and energy efficient compressors to our customers.

Our
SUPERIOR COMPRESSION
of air along with
LEGENDARY RELIABILITY
leads to
PROVEN PRODUCTIVITY

1

AIR END

Male Rotor profile on one end and rotor stampings on other end. This eliminates the use of belts, couplings, gears and Motor bearings. When compared with belt drive it is 5% more efficient and when compared with a coupling or a gear drive it has lower components and this translates to lower maintenance cost.

LOWER RUNNING SPEED

All BAC compressors run <3000rpm which is much lower compared to our competitors. Large air-ends with lower running speed are more efficient than smaller air ends with higher running speeds because they supply more air for the same drive power. This results in higher bearing life, lower energy cost and reduces wear & tear on all the components.

2

3

RIGID PIPING

BAC compressors use only seamless rigid pipes allowing a smooth flow of air and oil. This also reduces the air leakages which in turn increases the compressor efficiency.

COOLER

Bigger cooling surface area enhances the cooling of air and oil even at an ambient temperature of 55 °C. Smart programming allows cooling fan to start and stop at adjustable temperatures to minimize the energy cost of the motor. All BAC compressor coolers are positioned on top for natural flow of hot air.

4

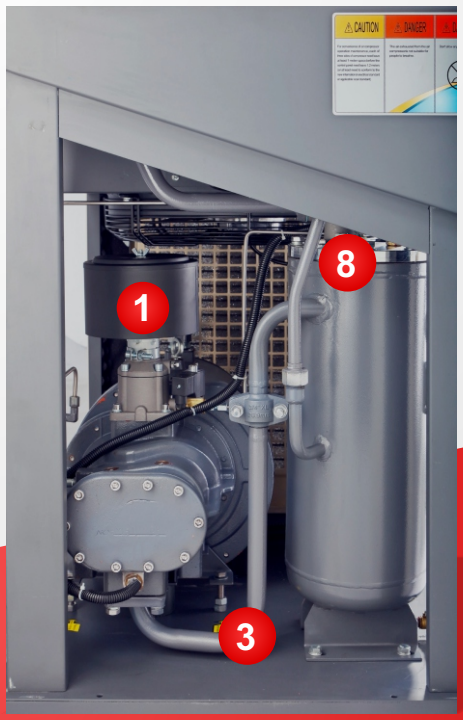
5

PRE FILTERS

BAC compressors are equipped with pre-filter elements which prevents dust entry inside the canopy. This increases the suction filter element life and maintains the cleanliness inside the canopy.

OUR DESIGN ADVANTAGES

BAC SD SERIES



BAC SD SERIES

6

LOWER NOISE

Canopy doors are lined up with high grade foam to keep the compressors as quiet as possible.

CONTROL PANEL

7

Our control system ensures reliable operation and protects your investment by continually monitoring the operational parameters. Some of the features include,

- *Discharge pressure and temperature.*
- *Total run hours and load hours.*
- *Service due for all consumables.*
- *Safety features like high temperature cut-off, Low/high voltage cut-off, Direction control cut-off, High ampere cut-off, two phase protection.*
- *Accurate fault log monitor. (history of faults and current fault)*
- *Cooler fan start/stop temperature setting.*
- *Continuous unload shut-down timer.*

8

LOWER OIL CARRY OVER

(Less than 2ppm)

Oil separation is done by an efficiently designed tank through oil separation by impact and centrifugal force (OSBIC). This design allows lower pressure drop and increased life of separator element.

CANOPY

9

Our ergonomically designed canopy and layout allows quick and easy access to service personal with magnetic doors that can be removed in seconds.

BAC direct driven compressor has been designed for heavy duty applications and features low speed air end operation, higher lifetime of components, rigid piping and higher cfm/hp.

The air end consist of a single piece shaft which has male rotor profile on one end and rotor stamping on the other end. This eliminates the need for a belt, coupling, gears and motor bearings. Due to this it is 5% more efficient than a belt drive and lower component used than a coupling or gear drive which in turn reduces your maintenance cost.

HIGH EFFICIENCY
ENERGY SAVING
LOW MAINTANCE

PERFORMANCE CHART

MODEL	POWER		PRESSURE	DISPLACEMENT		STARTING MODE	OUTLET PIPE DIA	NOISE	WEIGHT	DIMENSIONS		
	KW	HP	Bar	cfm	m3/min		Inches	dBA	Kg	L	B	H
BAC-SD-7.5	5.5	7.5	7	31.8	0.9	DIRECT	3/4	60±2	185	840	600	880
BAC-SD-7.5	5.5	7.5	8	28.2	0.8	DIRECT	3/4	60±2	185	840	600	880
BAC-SD-7.5	5.5	7.5	10	24.4	0.69	DIRECT	3/4	60±2	185	840	600	880
BAC-SD-10	7.5	10	7	42.4	1.2	Y-Δ	3/4	60±2	205	840	600	880
BAC-SD-10	7.5	10	8	38.8	1.1	Y-Δ	3/4	60±2	205	840	600	880
BAC-SD-10	7.5	10	10	33.5	0.95	Y-Δ	3/4	60±2	205	840	600	880
BAC-SD-15	11	15	7	58.3	1.65	Y-Δ	3/4	60±2	245	910	700	1000
BAC-SD-15	11	15	8	54.0	1.53	Y-Δ	3/4	60±2	245	910	700	1000
BAC-SD-15	11	15	10	46.6	1.32	Y-Δ	3/4	60±2	245	910	700	1000
BAC-SD-20	15	20	7	90.0	2.55	Y-Δ	3/4	60±2	255	910	700	1000
BAC-SD-20	15	20	8	79.4	2.25	Y-Δ	3/4	60±2	255	910	700	1000
BAC-SD-20	15	20	10	64.3	1.82	Y-Δ	3/4	60±2	255	910	700	1000
BAC-SD-25	18.5	25	7	113.7	3.22	Y-Δ	11/4	62±2	370	1000	750	1000
BAC-SD-25	18.5	25	8	106.3	3.01	Y-Δ	11/4	62±2	370	1000	750	1000
BAC-SD-25	18.5	25	10	89.0	2.52	Y-Δ	11/4	62±2	370	1000	750	1000
BAC-SD-30	22	30	7	127.1	3.6	Y-Δ	11/4	62±2	390	1000	750	1000
BAC-SD-30	22	30	8	125.7	3.56	Y-Δ	11/4	62±2	390	1000	750	1000
BAC-SD-30	22	30	10	108.4	3.07	Y-Δ	11/4	62±2	390	1000	750	1000
BAC-SD-40	30	40	7	183.6	5.2	Y-Δ	11/4	62±2	395	1000	750	1000
BAC-SD-40	30	40	8	178.7	5.06	Y-Δ	11/4	62±2	395	1000	750	1000
BAC-SD-40	30	40	10	160.0	4.53	Y-Δ	11/4	62±2	395	1000	750	1000
BAC-SD-50	37	50	7	232.4	6.58	Y-Δ	11/2	62±2	630	1150	950	1090
BAC-SD-50	37	50	8	221.1	6.26	Y-Δ	11/2	62±2	630	1150	950	1090
BAC-SD-50	37	50	10	204.8	5.8	Y-Δ	11/2	62±2	630	1150	950	1090
BAC-SD-60	45	60	7	259.9	7.36	Y-Δ	11/2	62±2	630	1150	950	1090
BAC-SD-60	45	60	8	250.7	7.1	Y-Δ	11/2	62±2	630	1150	950	1090
BAC-SD-60	45	60	10	228.5	6.47	Y-Δ	11/2	62±2	630	1150	950	1090

NOTE:
- Free air delivery is tested as per ISO 1217:2009 or IS 10431:1994.
- All models are direct drive and air-cooled.
- Due to continuous improvements, the specifications are subjected to change without prior notice.
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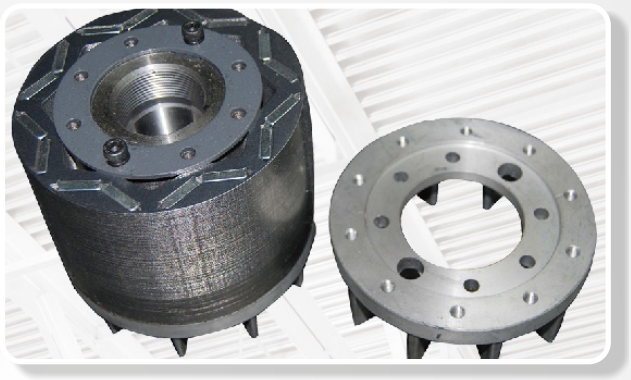
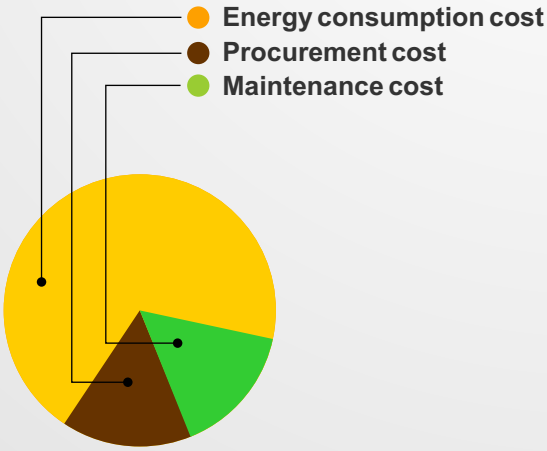
PERMANENT MAGNET MOTOR

SAVING MORE
COST FOR YOU

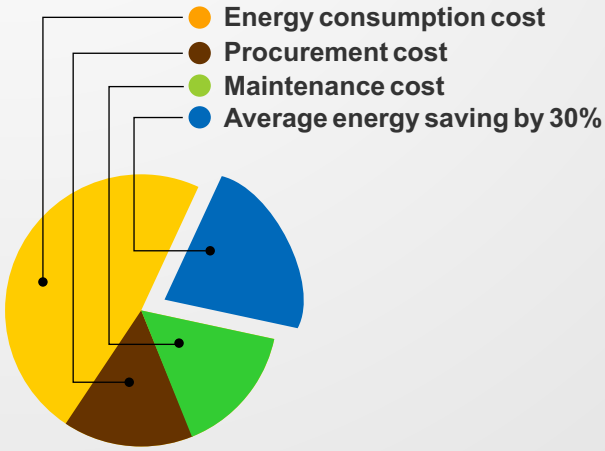


REDUCING TOTAL OPERATIONAL COST OF AIR COMPRESSOR

The total cost consist of procurement, maintenance and energy cost in the life cycle of air compressor. The energy cost accounts for a considerable proportion. Energy consumption can be lowered by frequency conversion control system, thereby significantly reducing total cost of air compressor.



10 year used cost structure diagram of standard models



10 year used cost structure diagram of frequency conversion models

OTHER ADVANTAGES OF FREQUENCY CONVERSION CONTROL SYSTEM

Stable air pressure: Since stepless speed regulation characteristics of frequency converter are utilized in frequency conversion screw air compressor. Pressure can be quickly adjusted and controlled through controller or PID regulator in inverter. Air pressure stability can be improved exponentially compared with upper and lower limit switch control of power frequency operation.

No impact on startup: Since inverter itself is a soft start device, maximum start current is about twice of rated current and the startup impact is small compared with power frequency startup which is generally several times higher than the rated current. The impact can gradually reduce impact on the power grid and the whole mechanical system.

Low noise and low wear: Since operation frequency during stable operation is smaller than power frequency, mechanical noise is lower and mechanical wear is low.

VFD SCREW AIR COMPRESSOR

- Highly efficient permanent magnet asynchronous motor with soft start design. (similar to IE3 efficiency)
- High temperature resistance rare earth permanent magnet is adopted to ensure no demagnetization.
- The motor has higher torque, higher power factor and lower power dissipation. Due to this it 5-8% more efficient than an ordinary motor.
- The motor load can vary from 25% to 100% of the original load which is wide and motor efficiency is almost constant under different loads.

SOFT START DESIGN
LOW NOISE
ENERGY EFFICIENT

PERFORMANCE CHART

MODEL	POWER		PRESSURE	DISPLACEMENT		STARTING MODE	OUTLET PIPE DIA	NOISE	WEIGHT	DIMENSIONS		
	KW	HP	Bar	cfm	m3/min		Inches	dBA	Kg	L	B	H
BAC-SVFD-7.5	5.5	7.5	7	32.5	0.92	FREQUENCY	3/4	60±2	195	840	600	880
BAC-SVFD-7.5	5.5	7.5	8	28.9	0.82	FREQUENCY	3/4	60±2	195	840	600	880
BAC-SVFD-7.5	5.5	7.5	10	25.1	0.71	FREQUENCY	3/4	60±2	195	840	600	880
BAC-SVFD-10	7.5	10	7	45.9	1.3	FREQUENCY	3/4	60±2	215	840	600	880
BAC-SVFD-10	7.5	10	8	42.4	1.2	FREQUENCY	3/4	60±2	215	840	600	880
BAC-SVFD-10	7.5	10	10	34.2	0.97	FREQUENCY	3/4	60±2	215	840	600	880
BAC-SVFD-15	11	15	7	60.0	1.7	FREQUENCY	3/4	60±2	260	910	700	1000
BAC-SVFD-15	11	15	8	55.8	1.58	FREQUENCY	3/4	60±2	260	910	700	1000
BAC-SVFD-15	11	15	10	48.0	1.36	FREQUENCY	3/4	60±2	260	910	700	1000
BAC-SVFD-20	15	20	7	91.8	2.6	FREQUENCY	3/4	60±2	270	910	700	1000
BAC-SVFD-20	15	20	8	81.2	2.3	FREQUENCY	3/4	60±2	270	910	700	1000
BAC-SVFD-20	15	20	10	65.7	1.86	FREQUENCY	3/4	60±2	270	910	700	1000
BAC-SVFD-25	18.5	25	7	116.5	3.3	FREQUENCY	3/4	62±2	385	1000	750	1090
BAC-SVFD-25	18.5	25	8	108.4	3.07	FREQUENCY	11/4	62±2	385	1000	750	1090
BAC-SVFD-25	18.5	25	10	91.8	2.6	FREQUENCY	11/4	62±2	385	1000	750	1090
BAC-SVFD-30	22	30	7	130.7	3.7	FREQUENCY	11/4	62±2	405	1000	750	1090
BAC-SVFD-30	22	30	8	128.5	3.64	FREQUENCY	11/4	62±2	405	1000	750	1090
BAC-SVFD-30	22	30	10	111.2	3.15	FREQUENCY	11/4	62±2	405	1000	750	1090
BAC-SVFD-40	30	40	7	187.2	5.3	FREQUENCY	11/4	62±2	410	1000	750	1090
BAC-SVFD-40	30	40	8	183.6	5.2	FREQUENCY	11/4	62±2	410	1000	750	1090
BAC-SVFD-40	30	40	10	163.5	4.63	FREQUENCY	11/4	62±2	410	1000	750	1090
BAC-SVFD-50	37	50	7	236.6	6.7	FREQUENCY	11/4	62±2	650	1150	950	1350
BAC-SVFD-50	37	50	8	225.3	6.38	FREQUENCY	11/2	62±2	650	1150	950	1350
BAC-SVFD-50	37	50	10	209.0	5.92	FREQUENCY	11/2	62±2	650	1150	950	1350
BAC-SVFD-60	45	60	7	264.8	7.5	FREQUENCY	11/2	62±2	670	1150	950	1350
BAC-SVFD-60	45	60	8	256.0	7.25	FREQUENCY	11/2	62±2	670	1150	950	1350
BAC-SVFD-60	45	60	10	233.0	6.6	FREQUENCY	11/2	62±2	670	1150	950	1350

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