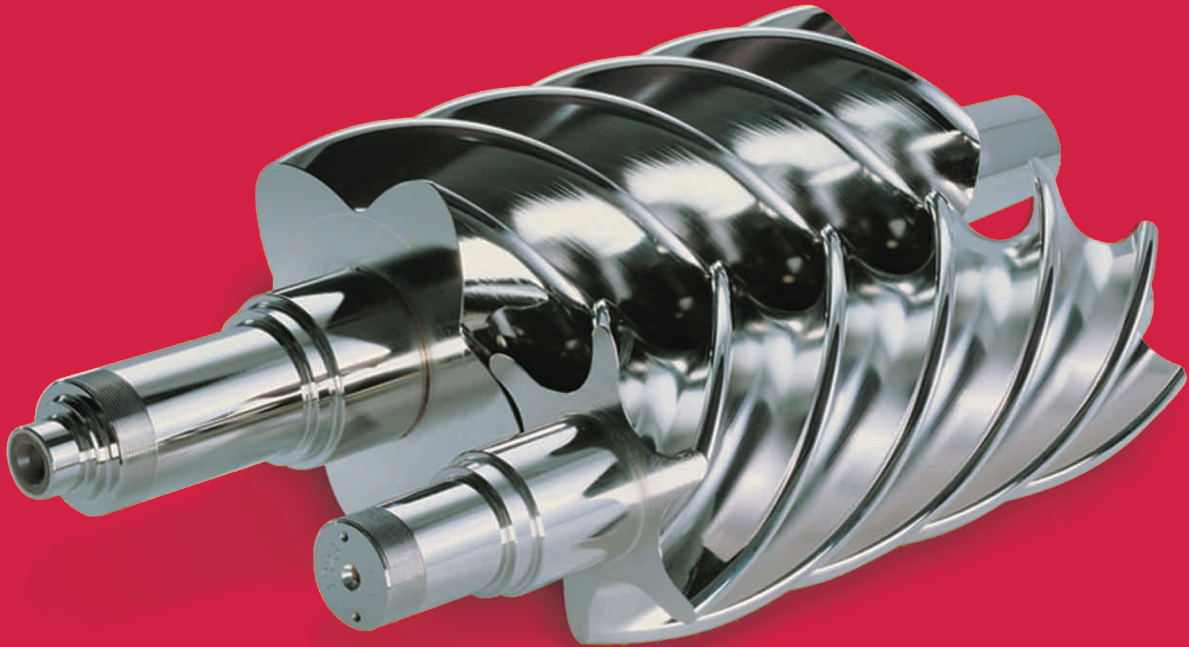


Efficient - Reliable - Affordable
SCREW AIR COMPRESSOR SERIES



ProbeAir[®]
compressors



www.probegroup.co.za | www.probeindustrial.co.za



Probe® Air, a division of Probe Corporation, is a professional distribution centre. We specialise in the supply and technical support of compressed air solutions. Our main products include screw air compressors, reciprocating compressors, air dryers, air vessels and filtration.

Probe® Air screw air compressor adopts advanced technology from Europe, using German origin air ends, SKF bearings, Siemens/Schneider electrical components and other leading brands in its main spare parts configuration, which ensure its good stability, high efficiency, low noise and long life. These compressors are widely used in industries including power generation, ship building, food, packaging, electronic, cement, textiles, paper-making and gas.

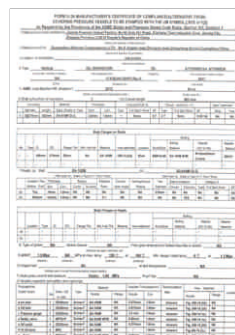
Probe® Air screw air compressors are ISO, CE and SME certificate approved.



ISO Certificate



ASME Certificate



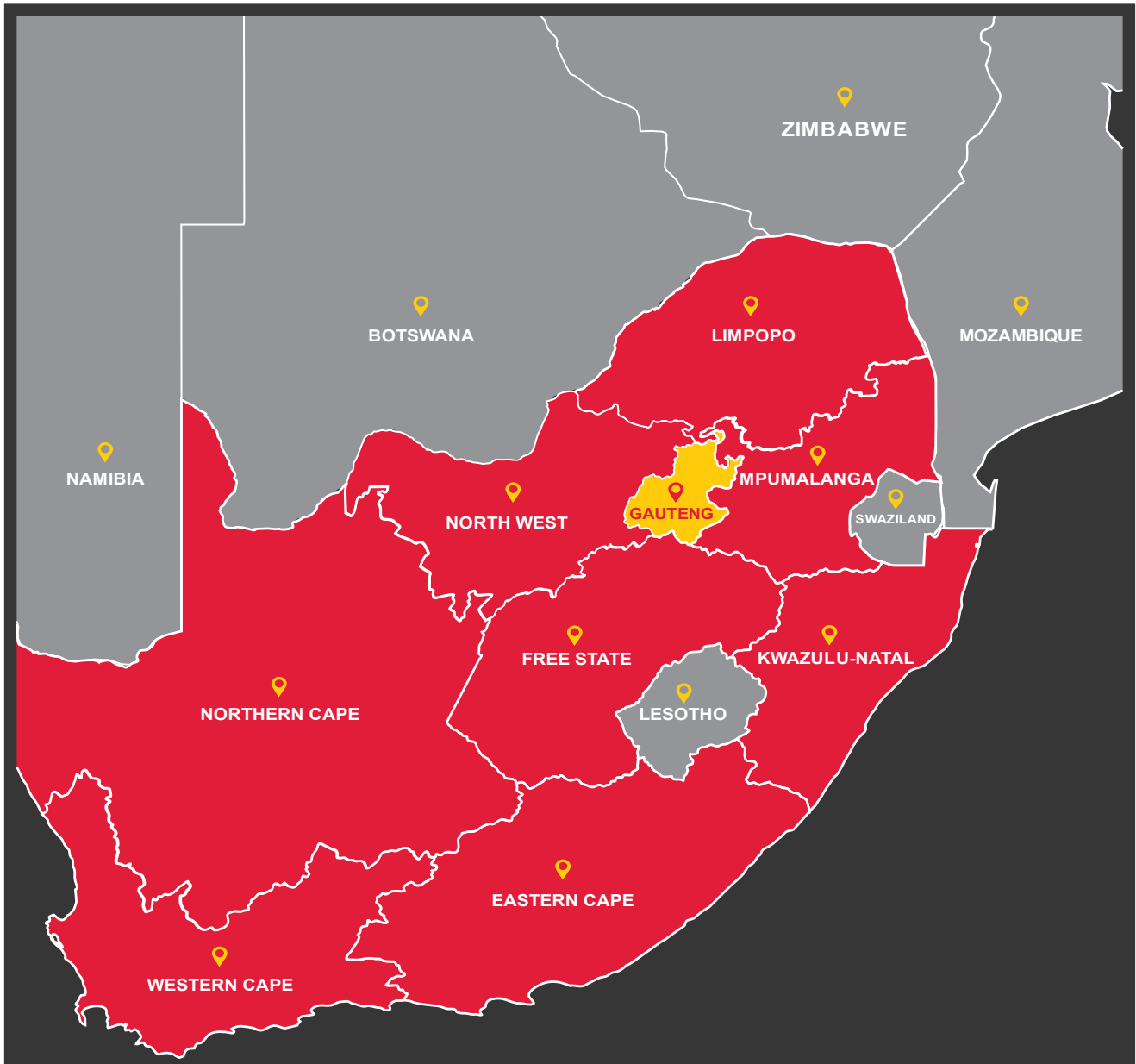
Refrigerated Air Dryer
CE Certificate



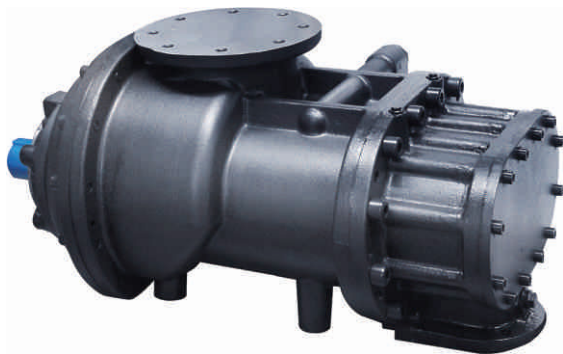
Screw Air Compressor
CE Certificate

Probe offers comprehensive aftermarket support via a nationwide footprint, including full workshop facilities for electrical repairs, technical sales support and training, and assistance with preventative maintenance programs.

Our national footprint is important for accessibility and service, offering same-day delivery from our branches, with deliveries twice a day in main centres.

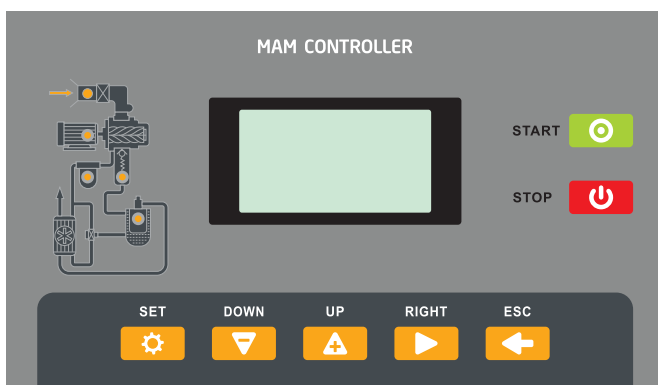


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AIR END (GERMAN TECHNOLOGY)

Featuring a famous brand air end with SKF bearing, the powerful heart decides the high performance of the whole machine. The result is larger air capacity, higher efficiency, a high precision process rotor and extended lifespan of the moving parts.



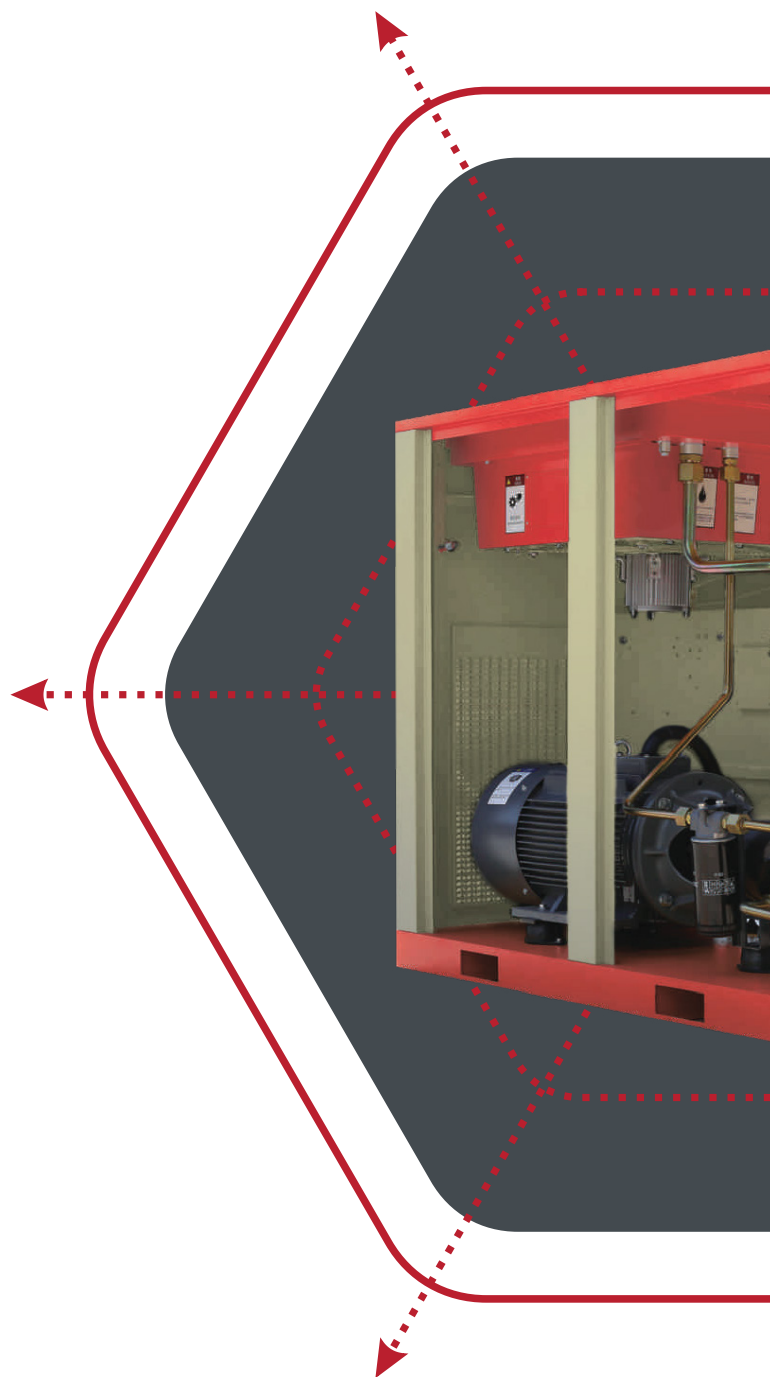
CONTROL PANEL (CHINESE, ENGLISH, RUSSIAN, SPANISH AVAILABLE)

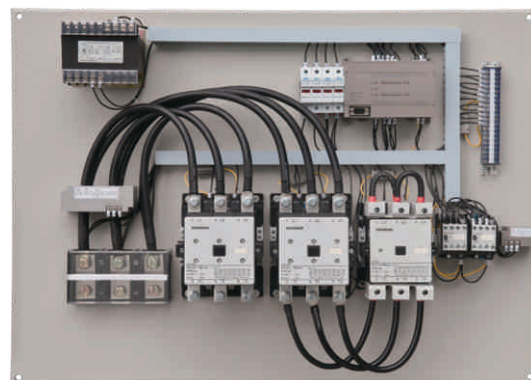
ProbeAir control panels provide the most cost-effective maintenance program, to ensure trouble-free operation. It's almost like having a built-in service technician!



COOLING SYSTEM

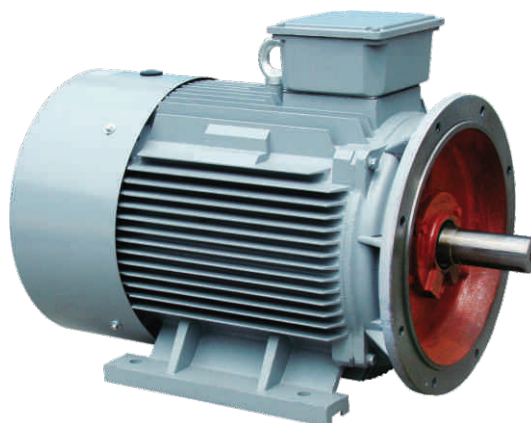
The design feature of a large heat exchange area effectively avoids high temperatures and allows adaptation to challenging working conditions, ensuring longer life.





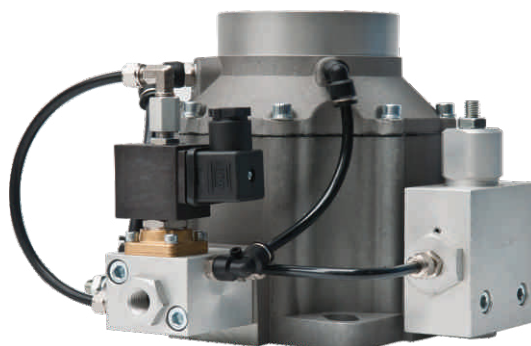
ELECTRICAL BOARD (SIEMENS/SCHNEIDER)

Main electrical components use the world famous brands Schneider, Siemens and others. This means professional wire input design, strong functions to diagnose faults and automatic protection.



MOTOR

Using a well-known high performance brand motor, protection class Ip54, F class insulation, and SKF load bearing means 3% - 5% higher efficiency than similar products.



INTAKE VALVE

Automatically adjusts based on gas consumption, low maintenance, good stability, large air inlet.



ProbeAir screw air compressors with V-belt drive use a German technique which delivers high quality air, low noise and high efficiency. They are elegant and easy to install, with simple operation and maintenance.



(5HP-100HP)



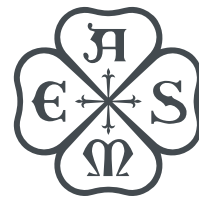
TECHNICAL SPECIFICATIONS (BELT DRIVEN)

MODEL	PAHB-5A	PAHB-7A	PAHB-10A	PAHB-15A	PAHB-20A	PAHB-25A	PAHB-30A	PAHB-40A	PAHB-50A	PAHB-60A	PAHB-75A	PAHB-100A
Free air deliver / Discharge pressure (m³/min/Mpa)	0.55/0.8	0.85/0.7 0.75/0.8	1.2/0.7	1.6/0.7	2.5/0.7	3.2/0.7	3.8/0.7	5.2/0.7	6.8/0.7	7.3/0.7	10.0/0.7	13.5/0.7
			1.1/0.8	1.5/0.8	2.3/0.8	2.9/0.8	3.6/0.8	5.0/0.8	6.2/0.8	7.0/0.8	9.1/0.8	12.6/0.8
			0.9/1.0	1.3/1.0	2.1/1.0	2.6/1.0	3.2/1.0	4.5/1.0	5.6/1.0	6.0/1.0	8.5/1.0	11.2/1.0
			0.7/1.2	1.1/1.2	1.9/1.2	2.2/1.2	2.8/1.2	3.8/1.2	4.9/1.2	5.6/1.2	7.6/1.2	10.0/1.2
Free air deliver / Discharge pressure (CFM/PSI)	20/116	30/102 27/116	42/102	57/102	88/102	113/102	134/102	184/102	240/102	258/102	353/102	477/102
			39116	53/116	81/116	102/116	127/116	177/116	219/116	247/116	322/116	445/116
			32/145	46/145	74/145	92/145	113/145	159/145	198/145	212/145	300/145	396/145
			25/174	39/174	67/174	78/174	99/174	134/174	173/174	198/174	269/174	353/174
Compression Stage	Single Stage											
Ambient temperature	-5~+45°C											
Cooling mode	Air Cooling											
Discharge temperature (°C)	Ambient temperature+15°C											
Lubricant (L)	3	3.7	3.7	10	10	14.5	14.5	15	20	20	45	45
Noise level (Db)	62±2			64±2		65±2			66±2		68±2	
Drive method	Belt Driven											
Electricity (V/ph/Hz)	380/3/50											
Motor power (KW/HP)	4/5.5	5.5/7.5	7.5/10	11/15	15/20	18.5/25	22/30	30/40	37/50	45/60	55/75	75/100
Starting method	Direct Starting			Y-ΔStarter (Star Delta Starting)								
Dimension L*W*H (mm)	920*600*695	860*730*960	860*730*960	940*800*1075		1200*950*1150		1400*930*1280	1500*990*1420		1730*1050*1550	1730*1070*1650
Net weight (kg)	135	210	223	315	325	455	491	566	695	745	1090	1240
Air outlet diameter (inch/mm)	3/4"					1"			1 ½"		2"	



SCREW AIR COMPRESSOR (DIRECT DRIVEN)

ProbeAir screw air compressors with direct drive provide high-quality air you can rely on to avoid costly downtime and production delays. The robust design ensures your processes will function continuously even in the harshest conditions, including temperatures up to 55°C. Furthermore, ProbeAir air compressors are easy to install and use, require minimal on-site installation work and are simple to operate and maintain.



(20HP-350HP)



TECHNICAL SPECIFICATIONS (DIRECT DRIVEN)

MODEL	PAHD-30A	PAHD-50A	PAHD-75A	PAHD-100A	PAHD-120A	PAHD-150A	PAHD-175A	PAHD-220A	PAHD-250A	PAHD-300A	PAHD-350A
Free air deliver / Discharge pressure (m³/min/Mpa)	3.8/0.7	6.8/0.7	10.0/0.7	13.5/0.7	16.1/0.7	21.0/0.7	25.2/0.7	28.7/0.7	32.0/0.7	36.7/0.7	42.0/0.7
	3.6/0.8	6.2/0.8	9.1/0.8	12.6/0.8	15.0/0.8	19.8/0.8	24.0/0.8	27.6/0.8	30.5/0.8	34.5/0.8	40.5/0.8
	3.2/1.0	5.6/1.0	8.5/1.0	11.2/1.0	13.8/1.0	17.0/1.0	21.0/1.0	24.6/1.0	27.5/1.0	30.2/1.0	38.1/1.0
	2.8/1.2	4.9/1.2	7.6/1.2	10.0/1.2	12.3/1.2	15.3/1.2	18.3/1.2	21.5/1.2	24.8/1.2	27.8/1.2	34.6/1.2
Free air deliver / Discharge pressure (CFM/PSI)	134/102	240/102	353/102	477/102	569/102	742/102	890/102	1014/102	1131/102	1297/102	1484/102
	127/116	219/116	322/116	445/116	530/116	700/116	848/116	975/116	1078/116	1219/116	1431/116
	113/145	198/145	300/145	396/145	488/145	601/145	742/145	869/145	972/145	1067/145	1346/145
	99/174	173/174	269/174	353/174	435/174	541/174	647/174	760/174	876/174	982/174	1223/174
Compression Stage	Single Stage										
Ambient temperature	-5~+45℃										
Cooling mode	Air Cooling										
Discharge temperature (℃)	Ambient Temperature+15℃										
Lubricant (L)	14.5	20	45	45	75	75	85	85	120	210	220
Noise level (Db)	68±2		72±2			75±2			76±2		
Drive method	Direct Driven										
Electricity (V/ph/Hz)	380/3/50										
Motor power (KW/HP)	22/30	37/50	55/75	75/100	90/120	110/150	132/175	160/220	185/250	220/300	250/350
Starting method	Y-△Starter (Star Delta Starting)										
Dimension L*W*H (mm)	1200*900*1150	1560*1000*1365	1800*1070*1490	1800*1070*1490	2100*1400*1780	2500*1450*1800	2700*1550*1800	2700*1550*1800	2800*1800*1950	2800*1800*1950	3250*2100*2300
Net weight (kg)	510	740	1100	1270	1450	2150	2750	3150	3450	3850	4250
Air outlet diameter (inch/mm)	1"	1 ½"	2"			2 ½"			DN80		



All parts of the ProbeAir Variable Speed Drive screw air compressor are assembled before shipment, removing the need for complex electrical installation and programming. Simply connect the power supply and it will work immediately.

The powerful intelligent controller continuously monitors the pressure of the air system and accurately adjusts the speed and airflow of the air compressor to the demands of the user's system. The reaction rate of the intelligent controller is calculated in milliseconds and speed corrections can be made within 3 milliseconds, controlling outlet air pressure.

INTELLIDRIVE FEATURES

High-efficiency induction motor; Integrated Variable Speed Driven (VSD) with speed control; leading control and protection; soft start eliminates drive stress.

ECONOMY OF USE

Lower operating and maintenance costs mean continuous savings year after year.

BEST EFFICIENCY AT PART-LOAD

When operating at part-load, the performance is top in its class. The variable speed IntelliDrive avoids load cycling and maintains a steady state of operation, reducing operating and maintenance costs.



SOFT START LOWERS YOUR OPERATING COST

The gentle start cycle of the IntelliDrive increases the service life. Frequent stop and restart cycles are permitted, without the risk of overheating.

MULTIPLE MACHINE OPERATION

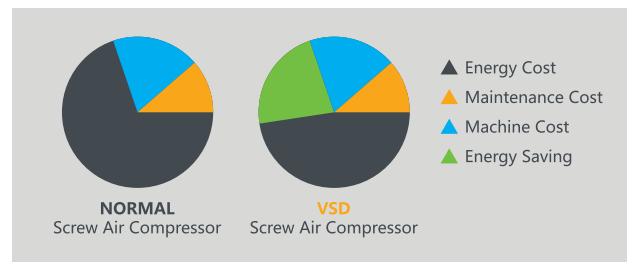
When operating as a pressure trim machine, the power savings achieved by a single compressor are multiplied by additional savings achieved over the full installation.

HIGH FULL-LOAD OPERATING EFFICIENCY

Class-leading performance is achieved through a state-of-the-art air end design and manufacturing process. Combined with the reduction of internal losses, air end full-load performance is increased.

INTELLIDRIVE FEATURES

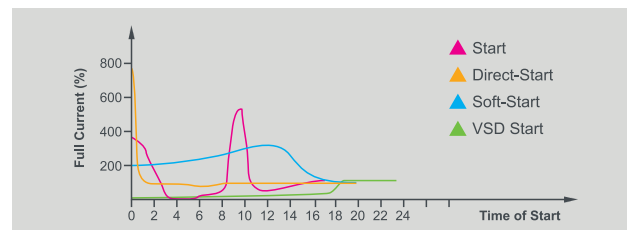
The ProbeAir VSD screw air compressor can change the motor RPM precisely according to the air consumption under stable discharge pressure. The compressor only delivers the required air, and only consumes the energy necessary for compressed air. That's how the VSD type screw air compressor saves energy during the whole set machine operation. The energy costs saved are much higher than the cost of machine itself.



START AND OPERATION

The VSD screw air compressor is ideal for use in areas lacking electricity.

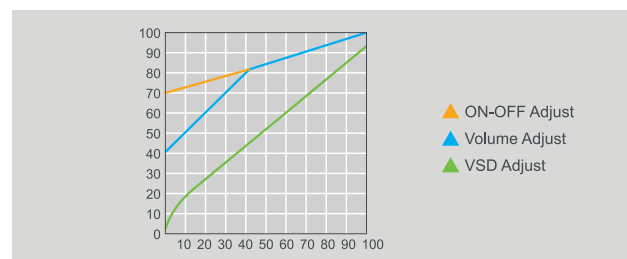
The figure shows a comparison of several types of air compressor start-up. The VSD air compressor accelerates slowly, offering more stability than the soft-start compressor.



ELECTRICITY SAVING RESULT

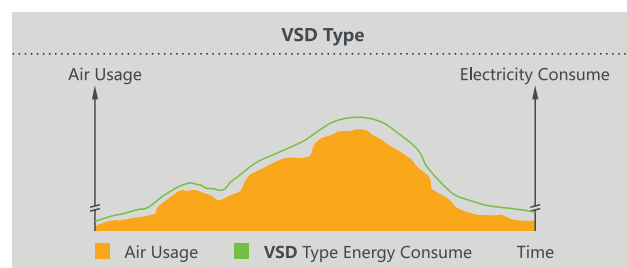
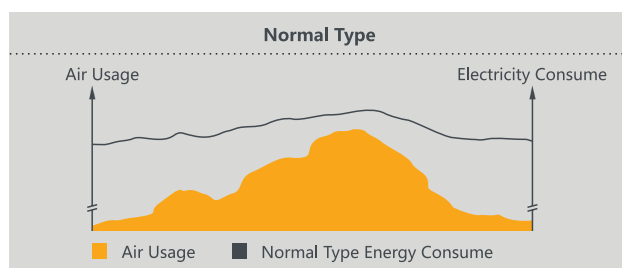
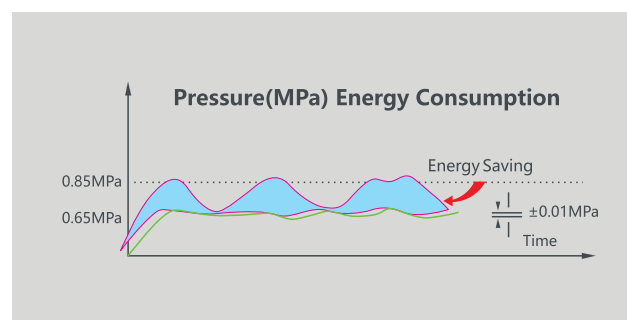
Research comparing the performance of a VSD screw air compressor and a normal screw air compressor indicates the cost of the VSD can be recouped within two years. For a 55KW screw air compressor, with 70% air delivery in a year, the VSD type can save about 80 000 Kwh energy.

The two fields display the result of energy saving, the loss of no-loading and loss of fluctuating pressure.



CONSTANT PRESSURE AIR SUPPLY, WITH THE BALANCE OF PRODUCTION

The figure shows the energy consumption comparison between the general air compressor and VSD air compressor. Through avoiding frequent loading and unloading, the VSD machine saves over 35% energy compared to the normal compressor. The VSD screw air compressor changes the rotating speed according to air consumption and balance of the air supply and air usage. Stable pressure delivery controlled the pressure zone at 0.01 Mpa - 0.02 Mpa, avoiding the energy loss under high pressure found in a general type air compressor.





HOW CAN A COMPRESSED AIR SYSTEM HELP YOU INCREASE PROFITABILITY?

The answer is simple: by ensuring that you achieve the highest productivity in your workshop, while reducing the total cost of ownership to the absolute lowest levels.

✓ ULTIMATE RELIABILITY

ProbeAir is so confident in the performance of these compressors, that we offer a choice of extended warranty packages designed to provide you with maximum operating security. Smart integration eliminates leaks and pressure drops, ensuring maximum reliability.

✓ ULTIMATE EFFICIENCY

Delivers more air for less horsepower, saving thousands of Rands per year on energy. Eliminates wasteful unloaded running by cycling the compressor on/off.

✓ ULTIMATE FLEXIBILITY

Trouble-free operation is provided through a simplified, easy to maintain structure and long life components. Compact machine design requires minimum workspace.

✓ A REVOLUTIONARY ADVANCEMENT

Smart integration eliminates vulnerable interconnecting piping, minimising pressure losses and drops, and integrates the compressor, dryer and filter into an energy-reducing optimised system. This means the entire supply-side system is integrated into one whisper-quiet package, enabling installation virtually anywhere. The design provides generous space to promote cooling and to allow unobstructed service.

✓ DRY AND CLEAN COMPRESSED AIR

All Total Air System packages come fully equipped with an integral, energy-saving air treatment centre, including a high-performance air dryer and filtration pack to remove water, oil and particles from the air stream. All components are perfectly matched to deliver the right air quality and to increase air-powered tool and system equipment life.

✓ HIGH-EFFICIENCY COMPONENTS

Setting the standard in system design, the Total Air System incorporates only the highest quality components to ensure that both system efficiency and productivity are maximised for a high-efficiency compressor room, without the hassle, complexity and costs of a traditional compressor room.

Total Air System packages come fully equipped with the following:

- High-efficiency rotary screw air compressor
- Energy-saving cycling refrigerated air dryer
- High-efficiency coalescing filter
- High-efficiency particle filter
- Integral air receiver storage tank
- Integrated compressor and dryer controls
- Low pressure drop piping.

✓ BENEFITS ARE VIRTUALLY ENDLESS

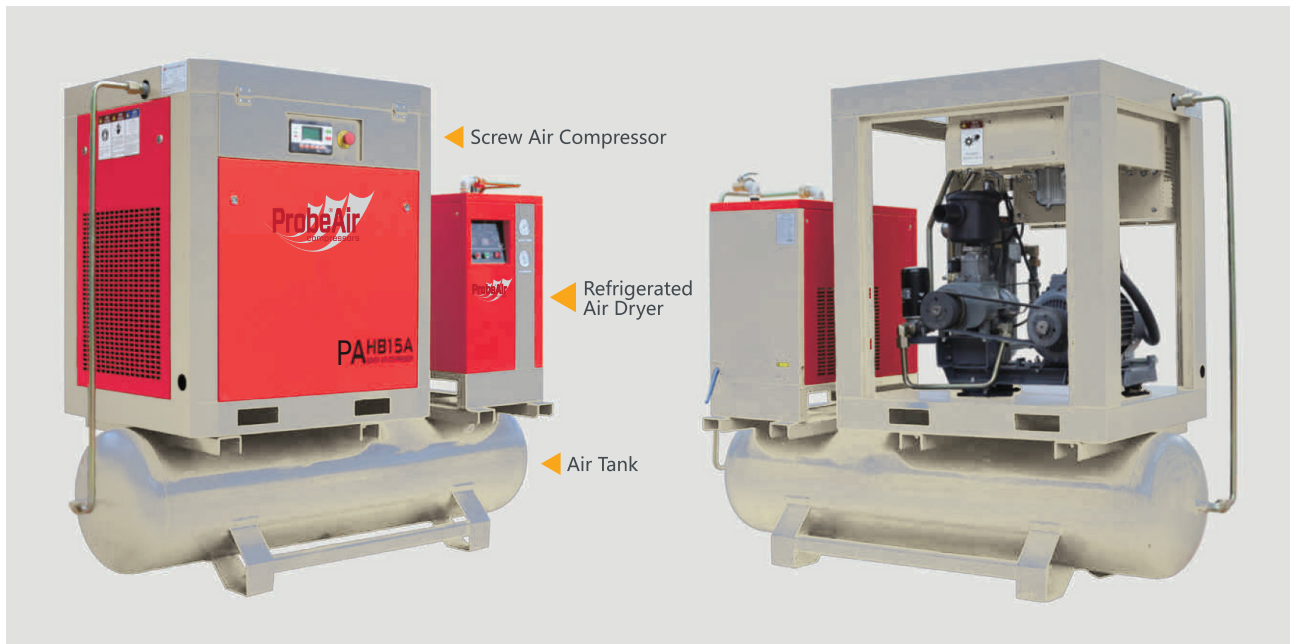
Plug-and-play simplicity eliminates the leading cause of failure in air systems - incorrect sizing and installation. Integral packaging saves valuable floor space for other uses. Water and corrosion is eliminated, resulting in extended tool and equipment life. Benefit from lifetime power savings through highly efficient components, and increased productivity through better air quality.

TANK MOUNTED SCREW AIR COMPRESSOR (2-IN-1)

Model	Motor Power		Free Air Deliver	Free Air Deliver	Discharge Pressure	Tank Volume	Electricity	Weight	Size
	(KW)	(HP)	(m ³ /min)	(CFM)	(MPA)	(L)	(V/ph/Hz)	(KG)	(mm)
PAHB-7A	5.5	7.5	0.75	27	0.8	300	380/3/50	370	1600*600*1300
PAHB-10A	7.5	10	1.1	39	0.8	300	380/3/50	380	1600*730*1550
PAHB-15A	11	15	1.5	53	0.8	300	380/3/50	420	1600*800*1670
PAHB-20A	15	20	2.3	81	0.8	500	380/3/50	490	1650*800*1780

TANK & DRYER MOUNTED SCREW AIR COMPRESSOR (3-IN-1)

Model	Motor Power		Free Air Deliver	Free Air Deliver	Discharge Pressure	Tank Volume	Electricity	Weight	Size
	(KW)	(HP)	(m ³ /min)	(CFM)	(MPA)	(L)	(V/ph/Hz)	(KG)	(mm)
PAHB-7A	5.5	7.5	0.75	27	0.8	300	380/3/50	410	1900*700*1300
PAHB-10A	7.5	10	1.1	39	0.8	300	380/3/50	425	1900*730*1520
PAHB-15A	11	15	1.5	53	0.8	300	380/3/50	475	1900*700*1630
PAHB-20A	15	20	2.3	81	0.8	500	380/3/50	540	2000*800*1800





REFRIGERATED AIR DRYER

The ProbeAir refrigerated air dryer is divided into three systems: Heat exchange, refrigeration and electric control system.

Compressed air enters the air-air or air-water pre-cooler to remove heat content, then it enters the air or air-heat exchanger to be cooled down to a lower temperature. After it enters the evaporator, the air to refrigerant heat reduces the air temperature down to 2 - 50°C (dew point temperature). The moisture will be condensed into liquid, which will be separated by a separator and drained off by the solenoid drain valve. In the meantime, low temperature air passes through the air to air-heat exchanger, then goes to the application after reaching the desired temperature.

REFRIGERATED AIR DRYER TECHNICAL PARAMETER LIST

MODEL	PAH-7.5SG	PAH-10SG	PAH-15SG	PAH-20SG	PAH-30SG	PAH-50G	PAH-60G	PAH-75G	PAH-100G	PAH-120G	PAH-150GF	PAH-200GF	PAH-250GF	PAH-300GF	PAH-400GF	
Ambient temperature	≤35℃															
Air inlet temperature	≤60℃															
Cooling mode	Air cooling															
Air flow (m³/min)	1.0	1.5	2.0	2.5	3.8	6.5	7.5	10.5	13.8	16.0	20.0	28.0	30.0	35.0	45.0	
Compressor power (kW)	0.32	0.43	0.51	0.73	0.92	1.38	1.38	1.78	2.57	2.57	2.94	4.4	4.8	5.5	7.35	
Air inlet pressure (MPa)	0.4-1.0															
Pressure loss (MPa)	≤0.02															
Dew point (℃)	2-5															
Max. pressure	13KG															
Pipe diameter	R1"			R1½"							R3"		PN1.0DN80	PN1.0DN100		
Electricity (V/ph/Hz)	220/1/50										380/3/50					
Size (mm)	L	640	640	700	730	760	900	1020	1200	1200	1200	1400	1400	1580	1730	1980
	W	380	380	390	420	450	500	610	600	600	600	730	730	900	995	995
	H	710	710	730	760	970	1120	990	1120	1270	1270	1350	1350	1760	1840	2025
Net weight (kg)	40	40	50	60	80	110	123	175	202	225	315	421	508	633	860	

PIPELINE AIR FILTER

Function: The pipeline filter filters out impurities such as dirt, oil and water. Through the three-stage precision filtration of compressed air filter A, B, and C from coarse to fine, it can effectively remove 99.9% of impurities.

Grade A filter	Filtration impurities 3 micron, oil filtering 5PPM
Grade B filter	Filtration impurities 1 micron, oil filtering 0.5PPM
Grade C filter	Filtration impurities 0.01 micron, oil filtering 0.001PPM

PIPELINE AIR FILTER TECHNICAL PARAMETER LIST

MODEL	AH-007	AH-015	AH-024	AH-035	AH-060	AH-090	AH-120	AH-150	AH-240	AH-300	AH-360
Air flow (m ³ /min)	1.0	1.5	2.4	3.5	6.0	9.0	12.0	15.0	24.0	30.0	36.0
Connecting size	G ³ / ₄ " ~ 1"	G ³ / ₄ " ~ 1"	G1" ~ 1½"	G1" ~ 1½"	G1" ~ 1½"	G2" ~ 2½"	G2" ~ 2½"	G2" ~ 2½"	PN16DN110	PN16DN110	PN16DN150
Max. pressure	16bar	16bar	16bar	16bar	16bar	16bar	16bar	16bar	12bar	12bar	12bar

ONE-STOP SHOPPING, A COMPLETE SET OF SERVICES



ProbeAir strives to provide efficient and cost-effective compressor stations for customers, providing clean compressed air, high productivity and reduced cost of ownership through expert pre-sale consultation, complete machine sales, on-site maintenance, and spare parts supply with high quality and timely service.



AIR COMPRESSOR MAINTENANCE

We provide selective maintenance services through authorised distributors, customised for customer equipment. Customers can choose to maintain equipment as required, or select a preventative maintenance contract and long-term parts supply option to enjoy regular service and updated parts at competitive prices. We further offer energy saving solutions to greatly reduce production costs, such as energy recovery frequency conversion and energy saving optimisation systems.



Only use genuine Probe® Air parts and services to ensure the optimal operation and lifespan of your compressor.



5 years/60 month warranty on rotary screw air compressor units only, subject to standard terms and conditions.



For more details on various branches please visit:

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STATEMENT: Probe® Air reserves the right to change the product design and specifications at any time. The final interpretation of the product belongs to this company. If there is any change, it will be subject to change without notice. Please refer to the actual product.