Reciprocating Air Compressor
Oil Free Piston Aor
Compressor Range 2 HP to 30 HP

Refrigerated Air Dryer
Desiccant Air Dryer
Range 20 cfm to 2000 cfm

CE ISO 9001: 2015 CERTIFIED

Regional Office :

E-mail :- info@aoneint.co.in
Web :- www.aoneint.co.in

Quality | Efficiency | Reliability

Quality Meets Excellence

Industrial Series
Energy Saving Air Compressors

PRODUCT CATALOGUE
2021-2022

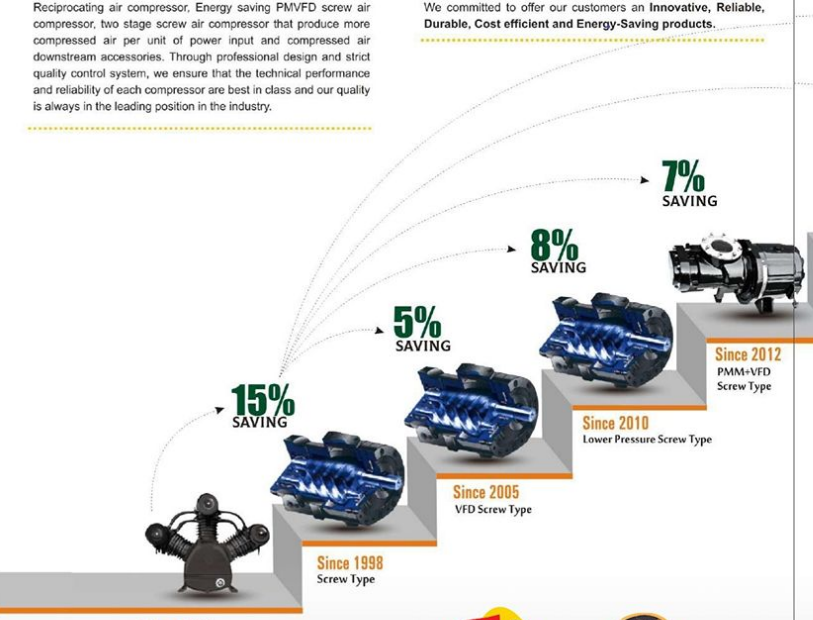
INTRODUCTION

A-ONE INTERNATIONAL is an Asian listed enterprise, which was established in Gujarat in **2017**, focusing on air compressor energy saving technology. **A-ONE INTERNATIONAL** provides products, services and complete packages for compressed air. We have a fundamental belief in environmental Sustainability providing machinery with the highest energy efficiency that will meet the needs of industry now and in to the future helping to preserve our precious energy reserves.

Our products are designed for 24x7 hours running and suitable for high temperature, dusty environment, widely used in all kind of industry. Our products range includes Screw air compressor, Reciprocating air compressor, Energy saving PMVFD screw air compressor, two stage screw air compressor that produce more compressed air per unit of power input and compressed air downstream accessories. Through professional design and strict quality control system, we ensure that the technical performance and reliability of each compressor are best in class and our quality is always in the leading position in the industry.

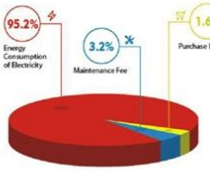
MAKE FIRST,
PERFECTION AND
ENERGY SAVING.
MARUTI PNEUMATICS
YOUR BEST PARTNER OF
COMPRESSED AIR SYSTEM
SOLUTIONS.

A-ONE INTERNATIONAL mission is to be a world-renowned high-end brand, with sustainable development, constantly improving its own value and sharing with our customers and staff. We committed to offer our customers an **Innovative, Reliable, Durable, Cost efficient and Energy-Saving products.**



DEVELOPMENT OF AIR COMPRESSOR

ANALYSIS OF COMPRESSORS' LIFE-CYCLE (10 YEARS) COST



Suppose a 75kw normal air compressor running for 10 years
* Purchase cost: USD10,000
* 10-year year maintenance cost: USD1000*2*10= USD20,000
* 10-year electricity cost: 75*8000*10*USD0.1= USD600,000
* 10-year total cost: 10,000+20,000+USD600,000= USD630,000
** Purchase cost covers 1.6% of total cost
** Maintenance cost covers 3.2% of total cost
** Electricity cost covers 95.2% of total cost

What is the most important issue to be considered before you selecting an air compressor ?

It must be energy-saving !

INSTALLATION REFERANCE

Digital Control Panel

- Moniters & Control Key Compressor Functions
- Protects compressor in the event of a fault
- Provides service required alert
- External monitoring via RS485 interface
- Sequencing of upto 12 Compressors
- Wye-delta starter is standard on all models

Axial Cooling Fan

- Increased Cooling Efficiency
- Higher static pressure allows for heat recovery ducting
- Even air flow across the cooler face
- VSD cooling fan (PM models upto 100hp) provides energy savings as cooling airflow is reduced
- during periods of light load or low temperature

Industrial Grade Electrical Components

- Increased reliability / lower servicing cost
- Outstanding reliability
- Excellent component life
- Industry recognized brands with local support

Stainless Steel Control Piping

- Long tubing life / Reduced downtime
- No cheap rubber hoses
- Stainless lines increase reliability due to corrosion free material
- Reduce nuisance breakdowns

3 Stage Tangential Oil Separation

- Lower Pressure drop / Lower absorbed power
- Optimized mechanical pre-separation / reduced direct oil impingement onto separator element
- Lower particle contact resulting in lower pressure drop / longer element life / lower energy consumption
- Residual oil carryover limited to <3ppm

High Efficiency Electric Motor

- Long operating life / Lower power consumption
- Energy saving high efficiency motors, which comply with
- all international standards
- Motors are standard TEFC to protect from dust & moisture
- Class F insulation
- Super Premium efficiency upto 96% with IE4 PM motor

SSD SERIES

High Efficiency Air Intake Filters

- Increased Filtration Efficiency
- Full airflow, Low restriction
- Deep bad media ensures excellent dust filtration
- Increased free air delivery for further savings in energy and running cost

Safety And The Environment

- Reduced OSHA risk and injury
- The entire SD range of compressors included full safety features such as guarded rotating
- components and shrouded electrical components.

Air And Oil Cooler

- Long life / Easily accessible
- Low cooling air velocity reduces dust build up
- Cooler oversized for suitable upto 48'C (118' F) ambient temperature
- Minimize thermal stress

Advanced Inlet Valve

- Minimum pressure drop / Increased Output
- Advanced air flow control system
- Lower pressure drop through the intake, increasing output and saving energy
- Direct Drive - 1:1 Drive Ratio - No Gear Box

Single Stage Airend

- Maximum Output with Less Energy usage
- Asymmetric 5/6 rotor profile with 100% precious high speed bearings
- Tighter clearances, closer tolerance significantly reduce back-flow
- Flanged motor adopter ensures perfect coupling alignment

Single Stage Screw Air Compressor Fix Speed Series

Model	Power		Flow CFM				Sound	Dimensions	Output
	HP	KW	7 Bar	8 Bar	10 Bar	13 Bar	dBA	L x W x H	Connection
SDD-8	10	7.5	45	39	33	28	62+-2	900 x 650 x 920	1 ¼"
SSD-11	15	11	67	61	54	47	62 +-2	940 x 705 x 1120	1 ¼"
SSD-15	20	15	86	80	75	57	62+-2	980 x 710 x 1030	1 ¼"
SSD-18	25	18.5	113	108	93	75	68+-2	1300 x 785 x 1185	1 ¼"
SSD-22	30	22	134	128	114	99	68+-2	1300 x 785 x 1185	1 ¼"
SSD-30	40	30	186	178	159	134	72+-2	1570 x 895 x 1295	1 ½"
SSD-37	50	37	238	224	198	175	72+-2	1570 x 895 x 1295	1 ½"
SSD-45	60	45	284	272	252	205	72+-2	1620 x 940 x 1355	1 ½"
SSD-55	75	55	372	360	318	300	75+-2	1850 x 1080 x 1635	2"
SSD-75	100	75	480	459	410	354	75+-2	2045 x 1250 x 1705	2"
SSD-90	125	90	584	548	516	435	75+-2	2340 x 1480 x 1820	DN 50
SSD-110	150	110	760	724	618	575	78+-2	2568 x 1620 x 1985	DN 65
SSD-132	175	132	928	884	778	725	78+-2	2568 x 1620 x 1985	DN 65
SSD-160	200	160	1024	985	869	762	79+-2	2720 x 1750 x 2125	DN 65

*Free air delivery for the complete package in accordance with ISO 1217, at 20'C ambient temperature and 1 bar absolute pressure

*Emitted sound pressure values from 64dB(A) according to DIN EN ISO 2151:2009

*The company on product improvement and right of design improvement, parameters are subjected to change without prior notice.

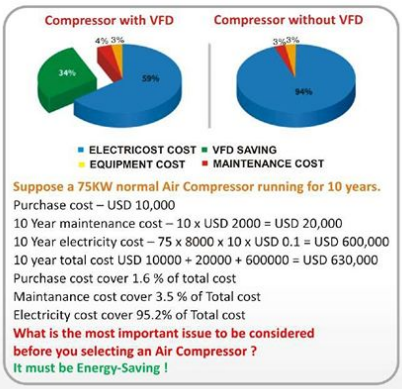
SINGLE STAGE SCREW AIR COMPRESSOR WITH PERMANENT MAGNET MOTOR + VFD

Model	Power		Flow CFM				Sound	Dimensions	Output
	HP	KW	7 Bar	8 Bar	10 Bar	13 Bar	dBA	L x W x H	Connection
SPV-8	10	7.5	45	39	33	28	62+-2	900 x 650 x 920	1 ¼"
SPV-11	15	11	67	61	54	47	62 +-2	940 x 705 x 1120	1 ¼"
SPV-15	20	15	86	80	75	57	62+-2	980 x 710 x 1030	1 ¼"
SPV-18	25	18.5	113	108	93	75	68+-2	1300 x 785 x 1185	1 ¼"
SPV-22	30	22	134	128	114	99	68+-2	1300 x 785 x 1185	1 ¼"
SPV-30	40	30	186	178	159	134	72+-2	1570 x 895 x 1295	1 ½"
SPV-37	50	37	238	224	198	175	72+-2	1570 x 895 x 1295	1 ½"
SPV-45	60	45	284	272	252	205	72+-2	1620 x 940 x 1355	1 ½"
SPV-55	75	55	372	360	318	300	75+-2	1850 x 1080 x 1635	2"
SPV-75	100	75	480	459	410	354	75+-2	2045 x 1250 x 1705	2"
SPV-90	125	90	584	548	516	435	75+-2	2340 x 1480 x 1820	DN 50
SPV-110	150	110	760	724	618	575	78+-2	2568 x 1620 x 1985	DN 65
SPV-132	175	132	928	884	778	725	78+-2	2568 x 1620 x 1985	DN 65
SPV-160	200	160	1024	985	869	762	79+-2	2720 x 1750 x 2125	DN 65

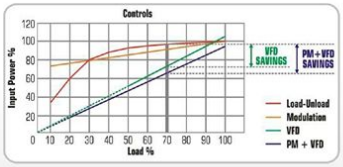
*Free air delivery for the complete package in accordance with ISO 1217, at 20°C ambient temperature and 1 bar absolute pressure
*Emitted sound pressure values from 64dB(A) according to DIN EN ISO 2151:2009
*The company on product improvement and right of design improvement, parameters are subjected to change without prior notice.

Benefits of a VFD

A VFD Reduces Motor Speed To Lower The Flow And Match Tthe Actual Air Demand Resultion In Lower Power Consumption Whereas A Fixed Speed Machine Would Unload In The Same Conditions Resulting In Huge Energy Consumption.



Suppose a 75KW normal Air Compressor running for 10 years.
Purchase cost – USD 10,000
10 Year maintenance cost – 10 x USD 2000 = USD 20,000
10 Year electricity cost – 75 x 8000 x 10 x USD 0.1 = USD 600,000
10 year total cost USD 10000 + 20000 + 600000 = USD 630,000
Purchase cost cover 1.6 % of total cost
Maintanance cost cover 3.5 % of Total cost
Electricity cost cover 95.2% of Total cost
What is the most important issue to be considered before you selecting an Air Compressor ?
It must be Energy-Saving !



Advantages : Mechanical – Minimum maintenance, Smooth Start, Smooth Control
Electrical – Lower Starting Current, Improve Power Factor, Reduce Maximum Demand.

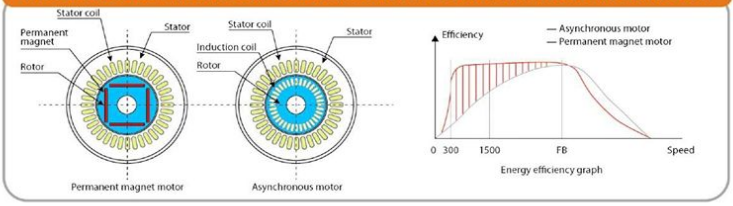
TWO STAGE SCREW AIR COMPRESSOR WITH PERMANENT MAGNET MOTOR + VFD

TWO STAGE AIREND | PM MOTOR | VFD

Model	Power		Flow CFM				Sound	Dimensions	Output
	HP	KW	5 Bar	7 Bar	8 Bar	10 Bar	dBA	L x W x H	Connection
TPV-22	30	22	215	158	151	120	68+-2	1300 x 785 x 1185	1 ¼"
TPV-30	40	30	272	238	218	165	72+-2	1570 x 895 x 1295	1 ½"
TPV-37	50	37	335	264	261	211	72+-2	1620 x 940 x 1355	1 ½"
TPV-45	60	45	406	353	303	225	72+-2	1620 x 940 x 1355	1 ½"
TPV-55	75	55	511	462	434	356	75+-2	2045 x 1250 x 1705	2"
TPV-75	100	75	670	586	547	480	75+-2	2045 x 1250 x 1705	DN 65
TPV-90	125	90	833	727	706	575	75+-2	2340 x 1480 x 1820	DN 80
TPV-110	150	110	995	864	811	709	78+-2	2568 x 1620 x 1985	DN 100
TPV-132	175	132	1235	1059	988	850	78+-2	2568 x 1620 x 1985	DN 100
TPV-160	200	160	1482	1235	1164	1059	79+-2	3300 x 2050 x 2150	DN 125

*Free air delivery for the complete package in accordance with ISO 1217, at 20°C ambient temperature and 1 bar absolute pressure
*Emitted sound pressure values from 64dB(A) according to DIN EN ISO 2151:2009
*The company on product improvement and right of design improvement, parameters are subjected to change without prior notice.

DIFFERENCE BETWEEN PERMANENT MAGNET MOTOR & ASYNCHRONOUS MOTOR



Benefits of Permanent Magnet Motor

- The Permanent Megnet Field-excited Motors Over Electromagnetically-excited Motors Include:
- Higher Efficiency Since No Electrical Energy Is Used Or Losses Incurred For Developing Or Maintaining The Motor's Magnetic Field.
- On average up to 35% energy saving.
- Higher Torque And Power Density, & Reduce Idle time of Compressor.
- Better Dynamic Performance Due To Higher Magnetic Flux Density In Air Gap.
- Better Power Factor Compare To Induction Motor.

Aone INTERNATIONAL

REFRIGERATED AIR DRYER (20 TO 3000 CFM)

WHY DRY YOUR COMPRESSED AIR ?

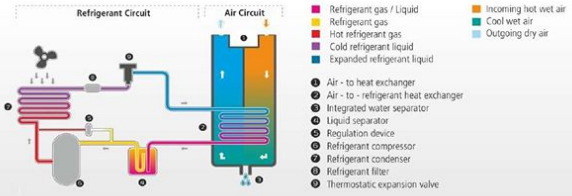
When atmospheric air cools down, as happens following a compressor compression process, water vapour precipitates as condensate. This is the form of water that is naturally present in the air we breathe. So, Compressed air contains oil, solid particles and water vapors. This untreated compressed air poses a substantial risk to your air system and end products. Its moisture content alone can cause corrosion in pipe work, premature failure of pneumatic equipment, product spoilage and more. An air dryer is therefore essential to protect your systems and processes

Refrigerant dryers by A-ONE INTERNATIONAL

A-ONE INTERNATIONAL refrigerant dryers provide the clean, dry air you need to expand the life of your equipment and ensure the quality of your products. Our dryers meet or exceed the international standards for compressed air purity and are tested according to ISO 7183:2007.

REFRIGERATION COMPRESSOR	Low noise, Lasts longer thanks to limited vibrations, minimal moving parts and reduced risk of leakage. Industry recognized brand compressor with local support.
Digital display	Provides peace of mind through presize monitoring of pressure dew point
Hot Gas Bypass Valve	Ensures stable pressure dew point and prevents freezing at lower loads.
High Efficiency Heat Exchanger	Non corrosive heat exchanger, Design to have lower pressure drop & higher efficiency contains inbuilt moisture separator, Having dead zone to avoid carry over of condensate.
Integrated water separator	Low velocity with high separation efficiency even in low flow condition.
Condenser	High efficient copper tube & PUF insulated aluminum finned condenser.
Fan Switch	Reduces energy consumption and optimizes the pressure dew point at very low temperature
Refrigerant Filter	Refrigerant filter insures the humidity that ensures the refrigerant system during refrigerant replacement does not clog the system
Zero Air Loss Condensate Drain (Optional)	The electric level control ensures proper draining of condensate and avoids unnecessary compressed air loss and ensure energy saving with noise free operation. Compressed air condenses moisture in dryers, after-coolers and air receivers. This condensate needs to be removed frequently. This process is done by the drain valves. In ordinary drains, there is always loss of compressed air. Most of the condensate drains have a 4 mm orifice. This 4 mm orifice bleeds about 34 cfm, which is the equivalent of 6.5 kw of power. This valve drains work on the principle of zero air loss and do not bleed your compressed air, consequently saving energy.

Refrigeration Air Dryer Schematic Diagram



REFRIGERATED AIR DRYER

Model	Inlet Flow Capacity	Max. working Pressure	Power Supply	Nominal Power Consumption	Air Connection Size (In/Out)	Cooling Media
	Scfm	Bar	V / Ph / Hz	KW		Air
RP 02	20	16	230/1/50	0.15	½" BSP-F	Air
RP 04	40	16	230/1/50	0.20	½" BSP-F	Air
RP 06	60	16	230/1/50	0.39	¾" BSP-F	Air
RP 08	80	16	230/1/50	0.40	1" BSP-F	Air
RP 10	100	16	230/1/50	0.50	1" BSP-F	Air
RP 12	125	16	230/1/50	0.65	1" BSP-F	Air
RP 15	150	16	230/1/50	0.70	1" BSP-F	Air
RP 20	200	16	230/1/50	0.80	1 ½" BSP-F	Air
RP 25	250	16	230/1/50	0.90	1 ½" BSP-F	Air
RP 30	300	16	450/3/50	1.00	1 ½" BSP-F	Air
RP 40	400	16	450/3/50	1.40	2" BSP-F	Air
RP 50	500	16	450/3/50	1.50	2" BSP-F	Air
RP 60	600	14	450/3/50	2.05	DN80-PN16	Air
RP 70	700	14	450/3/50	2.20	DN80-PN16	Air
RP 80	800	14	450/3/50	2.80	DN80-PN16	Air
RP 100	1000	14	450/3/50	3.00	DN80-PN16	Air
RP 125	1250	14	450/3/50	4.20	DN80-PN16	Air
RP 150	1500	14	450/3/50	4.50	DN100-PN16	Air
RP 175	1750	14	450/3/50	5.20	DN100-PN16	Air
RP 200	2000	14	450/3/50	5.70	DN100-PN16	Air
RP 300	3000	14	450/3/50	6.60	DN100-PN16	Air

*The company on product improvement and right of design improvement, parameters are subjected to change without prior notice
*Above model available with optional zero air loss drain valve

Reference condition for Inlet flow capacity: Ambient temperature 25°C, Inlet compressed air temperature 35°C, Inlet Pressure - 7 bar g

All data mentioned above is for Air cooled versions according to ISO 7183, with standard voltage, at 3-5°C pressure dew point.

Water cooled versions, high pressure dryers and high ambient temperature dryers are available on request.

Correction Factor

Inlet Air Pressure	Barg	4	5	6	7	8	10	12	14
Factor F1		0.77	0.86	0.93	1.00	1.05	1.14	1.21	1.27

Ambient Temperature	°C	<=25	30	35	40	45
Factor F2		1.25	1.10	1	0.95	0.86

Inlet Air Temperature	°C	<=30	35	40	45	50	55	60
Factor F3		1.15	1.00	0.95	0.90	0.65	0.59	0.53

How to calculate dryer minimum nominal capacity to meet rated condition : $\frac{\text{Actual rated capacity}}{F1 \times F2 \times F3}$

Dryer nominal capacity be higher than " Actual required capacity" (exceeding dryer's nominal capacity, water carry-over could occur)

OZONE Friendly Refrigerant

We thinks long run to make the earth and the environment a safer and a better place to live. As per international protocol, We uses ozone-friendly R 134A gas as the refrigerant which has zero **ozone-depletion potential.**