

SPAXCO

Primo series

Intelligent, Reliable, Cost-Efficient, Low Noise

35%
Energy-saving



7.5kW~160kW, 10 ~ 215Hp
1 ~27 m³/min, 35~953 cfm
7 ~16 bar, 100 ~ 232 psig

Energy Efficient & Super-Silent Compressor, The Primo Series

If you are looking for an intelligent, reliable, energy-saving screw air compressor, the new SPAXCO Primo series is your perfect choice. The Primo series of compressors are designed to be energy-efficient, super silent, low maintenance cost, etc. These top of the line features enable SPAXCO compressors to outshine the competition in terms of innovation and cost savings.

NUMEROUS ADVANTAGES IN DETAILS



HIGHEST RELIABILITY AIR END

- ✓ Highly reliable performance air end
- ✓ Advanced 5:6 asymmetrical screw air end
- ✓ Large rotor profile
- ✓ Low rotation speed ensures astonishing performance
- ✓ Trouble-free and with low maintenance characteristics



ENERGY-SAVING

- ✓ Direct drive permanent magnet variable speed controlled motor
- ✓ Average energy saving of over 35%



QUIET OPERATION

- ✓ 58~72dB(A)
- ✓ Newly-designed centrifugal cooling fan and low rotation speed air end make the SPAXCO Primo series quieter than ever
- ✓ Ingenious air flow channeling and massive sound insulation result in ultra low vibration and lesser noise



HIGHLY-EFFICIENT IP65 PERMANENT MAGNETIC MOTOR

- ✓ Direct drive interior permanent magnet (iPM) motor IP65
- ✓ Oil-cooled and pressure-tight design
- ✓ No gears, belts nor shaft seal.
- ✓ Significantly Improved motor efficiency
- ✓ Maintenance free
- ✓ IE4 standard, premium efficiency



OPTIMISED COOLING SYSTEM

- ✓ Oversized aftercooler ensures an optimal cooling and lower discharge temperature
- ✓ Thermostatically-controlled centrifugal-cooling fan reduce power consumption by up to 50% compared to axial fan
- ✓ Frequency-controlled centrifugal fan is available as optional package



VARIABLE-SPEED DRIVE CONTROLLED

- ✓ Compressor efficiently and reliably handles varying air demand by using variable speed application
- ✓ Significant energy-saving and stable air supply
- ✓ Soft-Starts ensure starting impact is reduced and eliminate peak electricity demand.
- ✓ Save more money and maximizes plant productivity



LOW MAINTAINANCE

- ✓ Designed for simple configuration of compressor flow circuit
- ✓ Minimum number of components and moving parts ensure low maintenance costs.
- ✓ Cost-effective maintenance program (optional)



STAINLESS STEEL AIR/OIL PIPES

- ✓ High temperature-resistant stainless steel pipes
- ✓ Leak-free and maintenance-free compared to typical rubber-hosed pipes
- ✓ Lower down-time



SPAXCO PROTECT 2

- ✓ Exceeds industry standard warranty
- ✓ 2-year extended warranty - Protect 2 is our total commitment to quality and worry-free ownership



TOUCH SCREEN CONTROLLER

- ✓ User-friendly high-resolution touch screen multi-language controller
- ✓ Intuitively-visual function keys
- ✓ Navigation includes warning indicator, maintenance scheduling etc.
- ✓ Programmable daily or weekly operating pattern and sequencing up to 4 compressors



CLOUD MANAGEMENT PLATFORM (CMP)

- ✓ Professional cloud management platform (CMP) for compressors
- ✓ Parameters include remote monitoring of operating temperature, pressure, current, voltage etc.
- ✓ Real-time monitoring of compressors to prevent unnecessary breakdowns resulting in significant cost savings
- ✓ Data stored in cloud and available anywhere, 24/7



HIGHLY EFFICIENT FILTERING SYSTEM

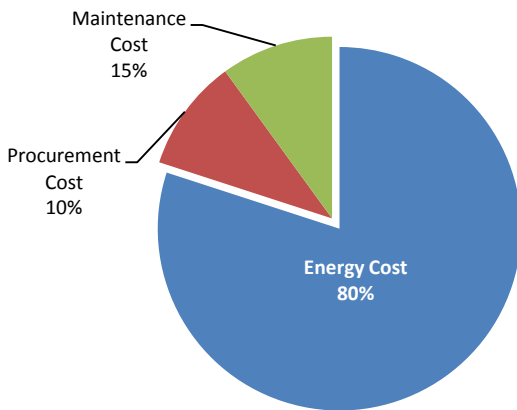
- ✓ Heavy-duty oil and air filters with excellent purification capability ensure a clean and safe oil and air system
- ✓ Efficient separation system reduces pressure drop and energy cost
- ✓ 3-stage air-oil separation system (centrifugal, gravity and filter) ensures oil content < 3ppm.
- ✓ Perfect-fit filters for maximum performance and best efficiency.



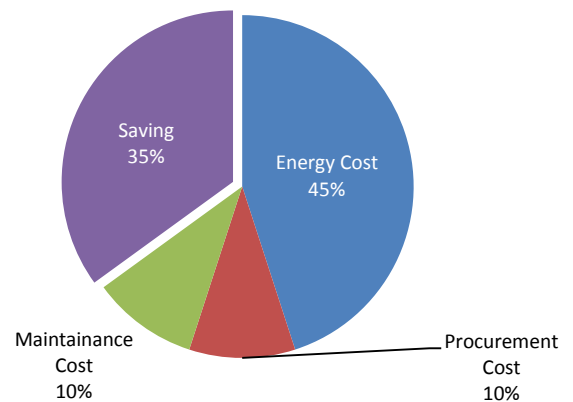
REDUCE ENERGY COSTS

When energy consumption reaches 75% of the life cycle cost of standard compressors (LCC), optimizing energy consumption becomes essential. In fact, power consumption of the compressed air system consumes up to 35% of the total power consumption the plant. As a result, compressed air system optimization can significantly enhance your profitability. Our SPAXCO Primo series, using permanent magnet frequency controlled technology, will lower your energy consumption, resulting in significant cost savings.

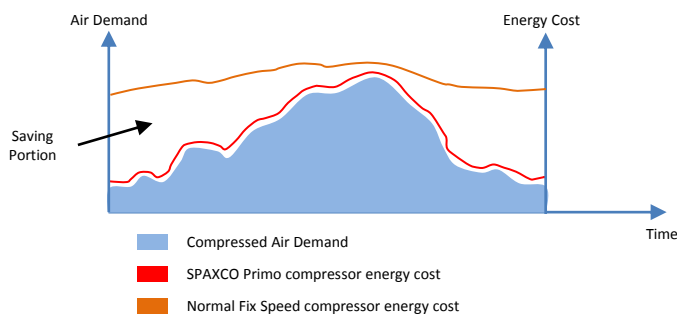
LCC of Fix Speed Compressor for 10 years



LCC of SPAXCO Primo PMVSD Compressor for 10 years



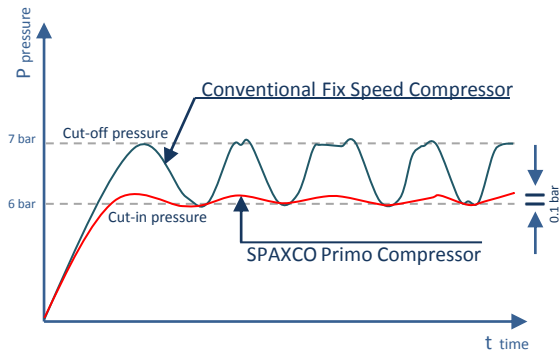
Typically, the total cost of air compressors consists of procurement, maintenance and energy costs. The above figures are based on an estimated energy cost of RM0.30/kWH. The actual energy rate may be considerably higher than RM0.30/kWH, increasing the energy costs over a 10-year period. You could gain quicker returns on investment by selecting the SPAXCO Primo series of compressors.



Conventional fixed-speed compressors are operated by two pressure set points which are "full load" and "no load". Compressors will turn into no load when the pressure reaches the maximum setting. When air demand is low, the compressor goes into "no load" mode but continue to consume 30~40% of full-load energy resulting in wastage of energy.

The SPAXCO Primo series of compressors can eliminate unnecessary wastage of up to 35% of energy costs. Savings from energy costs can be recovered within a short span of 1 to 2 years.

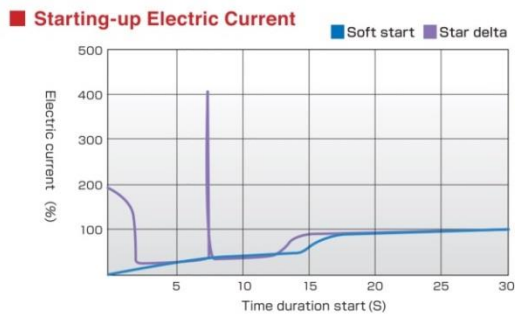
CONSTANT SUPPLY PRESSURE



Conventional fixed-speed compressors with load/no load control require a minimum of 1bar differential pressure (6-7bar loading range) to maintain the system's optimal pressure. Increasing the pressure by 1 bar will incur additional energy cost by 7%.

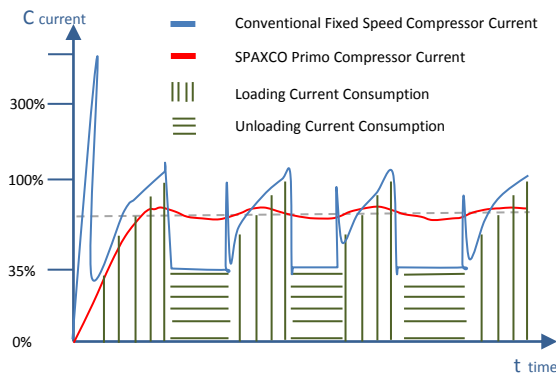
The Primo series intelligent controller constantly tracks the changes in compressed air demand from the plant and automatically adjusts the rotors' speed precisely to match the air demand and keep the system pressure stable ($\pm 0.1\text{bar}$) by the PID (Proportional, Integral, Differential) method.

LOW STARTING CURRENT



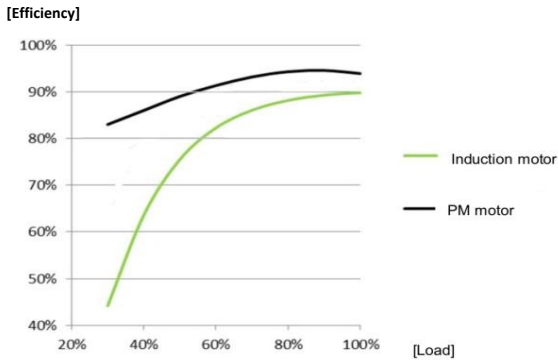
Conventional fixed-speed compressors do not allow for soft starting. This could cause energy peaks, resulting in financial penalties by your utility company. The converter in the SPAXCO VSD system performs "soft" start/stop operations by automatically controlling both acceleration and deceleration levels, thus eliminating amperage peaks. Eliminating peaks also protects electrical and mechanical components from the stresses that can shorten the life of air compressors.

AVOID EXCESSIVE IDLING CURRENT CONSUMPTION



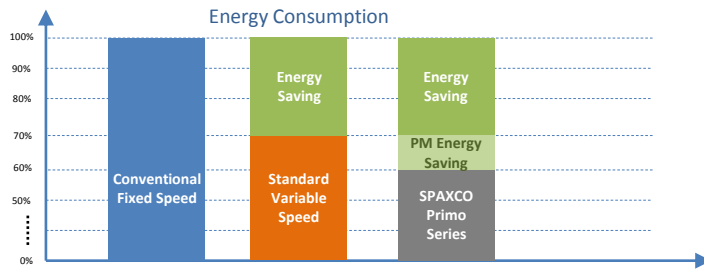
Fixed-speed load/no-load control compressors will consume 30-40% of full load current during idling. For example, one unit of 37kW compressor with an unloading ratio of 30% and running at 70% will waste about 13kW per hour when idling. The SPAXCO compressors installed with variable speed controllers eliminate wasteful energy consumption, resulting in significant cost saving.

MOTOR EFFICIENCY



A conventional motor runs at 92% efficiency. On the other hand, the SPAXCO permanent magnet synchronous motor can achieve efficiency of up to 97% and saving energy by up to 5%. When the compressor runs at a low speed, the permanent magnet synchronous motor efficiency of the SPAXCO compressor won't be changed significantly, but the normal asynchronous motor efficiency of a fixed-speed compressor will drop significantly.

CONCLUSION



Energy costs, already on the rise in recent years, have garnered additional attention of late as facility managers are continually charged with finding new ways to cut energy costs. Many corporations have instituted “green” policies with aggressive annual energy reduction targets.

The SPAXCO Primo series of compressors provide substantial energy savings of up to 40% compared to traditional fixed-speed air compressors and more than 10% when compared to standard variable speed compressors. When compared to traditional compressors, the advantages of these advanced new compressors may be summed up as follows:

- ✓ Elimination of the electricity absorption peaks at start-up time
- ✓ Constant air pressure supply eliminates wasteful energy
- ✓ Improved motor efficiency due to a reduction in energy losses within the rotor
- ✓ Optimization of the compressor energy consumption
- ✓ Elimination of wastage of compressed air during load/no-load regulations
- ✓ Reduced wear and tear of the mechanical parts, rotor bearings and motor, thus reducing maintenance costs

TECHNICAL DATA

SPAXCO Primo Model	Max Pressure Bar/psig	Effective FAD* M ³ /min/cfm	Motor Power kW/hp	Dimensions (L x W x H) mm	Outlet Conn. in	Weight kg	Noise Level** dB(A) ±2
PM7.5A	8/115	1.0 / 35.32	7.5 / 10	1000 x 600 x 1000	3/4	280	58
	10/150	0.8 / 28.25					
PM11A	8/115	1.8 / 63.57	11 / 15	1300 x 860 x 1030	1	380	60
	10/150	1.6 / 56.50					
PM15A	8/115	2.2 / 77.70	15 / 20	1300 x 860 x 1030	1	480	61
	10/150	1.8 / 63.57					
PM22A	8/115	3.6 / 134.20	22 / 30	1380 x 850 x 1450	1 ¼	620	63
	10/150	3.0 / 105.95					
PM30A	8/115	5.0 / 176.56	30 / 40	1380 x 850 x 1450	1 ¾	680	65
	10/150	4.4 / 155.39					
PM37A	8/115	6.4 / 218.95	37 / 50	1600 x 1000 x 1610	1 ½	850	65
	10/150	5.4 / 190.70					
PM45A	8/115	8.0 / 282.52	45 / 60	1600 x 1000 x 1610	1 ½	880	65
	10/150	6.8 / 240.14					
PM55A	8/115	9.7 / 342.56	55 / 75	1800 x 1270 x 1850	2	1350	66
	10/150	8.5 / 300.18					
PM75A	8/115	13.2 / 466.16	75 / 100	2050 x 1270 x 1850	2	1950	67
	10/150	11.6 / 409.65					
PM90A	8/115	16 / 565.04	90 / 125	2150 x 1270 x 1850	2	2250	67
	10/150	14 / 494.41					

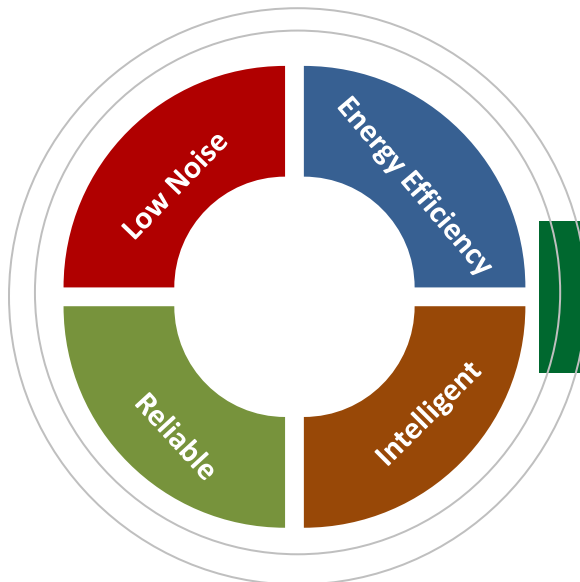
*The data and performances were recorded in accordance with standard ISO 1217.
The sound level was measured in accordance with PNEUROP/CAGI standards.
13~16 bar working pressure compressor is available.*

TECHNICAL DATA (Continue)

SPAXCO Primo Model	Max Pressure Bar/psig	Effective FAD M ³ /min/cfm	Motor Power kW/hp	Dimensions (L x W x H) mm	Outlet Conn. in	Weight kg	Noise Level dB(A) ±2
PM110A	8/115	20.5 / 723.96	110 / 150	2550 x 1650 x 2150	DN65	2600	68
	10/150	17.3 / 610.95					
PM132A	8/115	22 / 776.93	132 / 180	2550 x 1650 x 2150	DN65	2880	70
	10/150	20.1 / 709.83					
PM160A	8/115	27 / 953.50	160 / 215	2950 x 1800 x 2150	DN80	3200	72
	10/150	24.5 / 865.22					

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Innovation For Higher Productivity Innovation For A Better Work Environment Factory



SPAXCO Primo
High Efficiency Excellent Quality

