SWAN
AIR COMPRESSORS

TMV & TS SERIES

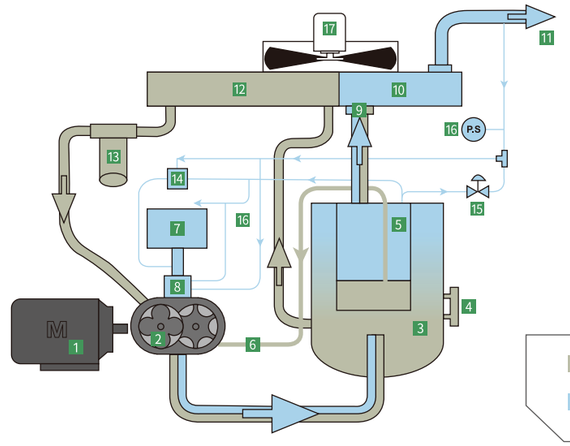
SCREW AIR COMPRESSOR

TS SERIES

If you constantly use air compressors at work, SWAN direct drive models are your best option. Few moving components (no intermediate pulleys or belts), life and reliability are the highest, TS series can withstand constant use in industrial setting. Since the crankshaft is attached directly to the motor, less energy is lost during operation. This energy efficiency makes TS series to be economical choice for heavy industrial uses.

Sound insulation material combined with excellent rigid structure design.

Smart control panel ensures the smooth starting and other multiple function, self-check, service reminder, faults indicator or sequential control, etc. that bring user extremely experience.



Oil

Compressed air

1 Main motor
2 Screw air end
3 Oil separator tank
4 Oil level indicator
5 Oil separator element
6 Oil recovery pipe
7 Suction filter
8 Suction valve
9 Minimum pressure check valve
10 After cooler
11 Compressed air outlet
12 Oil cooler
13 Oil filter
14 Unloading valve
15 Regulator
16 Pressure sensor
17 Cooling fan

PERFECT

PRECISION

TRUST

EFFICIENCY

PROFESSIONAL

◆ TS-AD SERIES

Model		TS-22-AD		TS-37-AD		TS-55-AD	TS-75-AD
Suction Air Conditions		1 Atm, 2~40°C					
Air Discharge Temperature	°C	≦ Ambient Temp +13°C					
Working Pressure	kg/cm²	8	10	8	10	8	8
Free air Delivery(F.A.D)	m³/min	3.5		6.19		9.3	12.619
Motor Rated Horsepower	kW/HP	22/30	25/34	37/50	45/60	55/75	75/100
Noise Level	dB(A)	70		74		78	71
Power Transmitting		Couplings					
Air Discharge Connection	PT	1¼"		1½"		2"	2½"
Outer Dimensions	mm	1460x900x1450		1650x1175x1580		2100x1350x1675	2480x1435x2000
Weight	kg	713		1060		1620	2220

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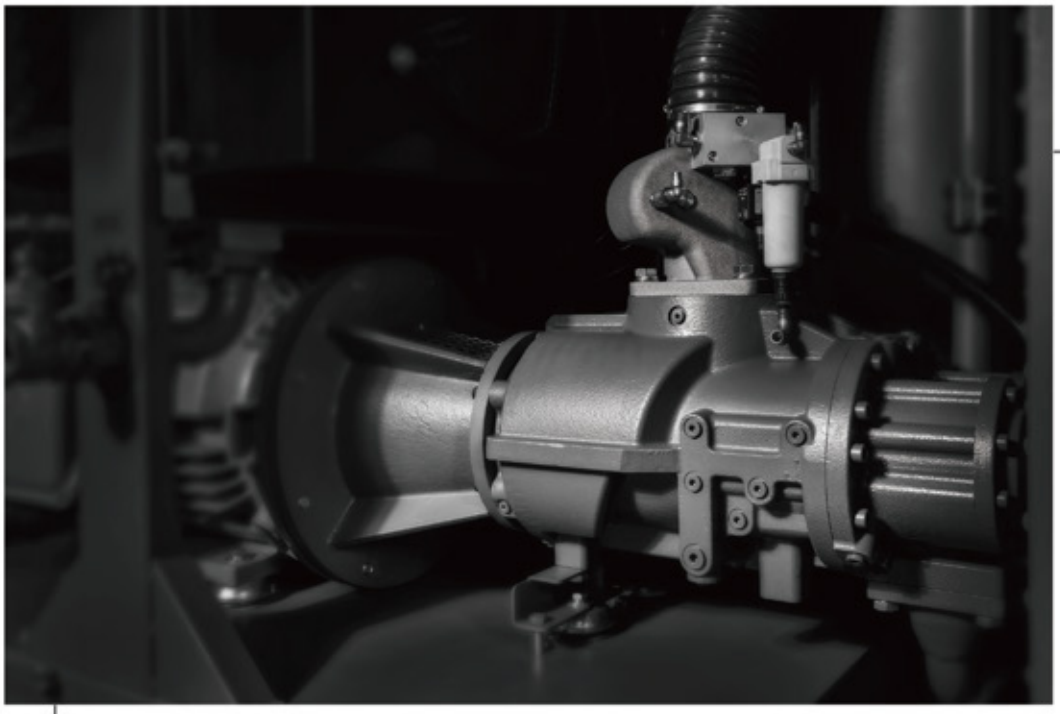
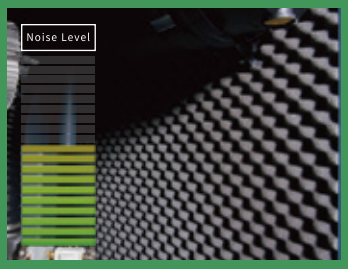
※Other specific requirement about working pressure, horsepower, air delivery, etc. are available upon request.



High Levels Of Distinctive Modular Design

With distinctive modular design and user friendly operating system, the new developed TS series is able to provide reliable operation, quiet running and easy maintenance. Its high efficient air end is dependable under long period of continuous operation.



Powerful and Quiet Running

High rigid structure with special noise-proof material and high air circulation system to ensure low noise and continuous running capability.

Versatile and User Friendly Control System

The machine is equipped with versatile module control, user friendly operation controller, multi-units remote control and overload protection device… etc., which make it easy to operate and maintain.

Easy Maintenance

Easy to access to all related components, which makes trouble-shooting and general maintenance easy.

TMV SERIES

1

Air Intake Filter

Large flow, low pressure loss, double-layer design, low noise.

3

Air Suction Valve

Unique design to ensure large air flow and low differential pressure, optimizes the inlet flow and improve efficiency.

4

Air/Oil Cooler

Vertical design, easy to clean, maintain and drain oil.

2

Intelligent Control Panel

ensures the smooth starting, stable air supply, service reminder, faults indicator and sequential control, etc.

Efficient permanent magnet screw compressor TMV series offer increased energy efficiency compared to conventional asynchronous motors. Direct drive transmission ensures minimal losses, and new generation in-house designed screw elements with improved efficiency TMV series bring users reliable operation and extremely experience.

5

Oil Separator Tank

Remarkable air/oil separation efficiency by cyclonic oil-air pre-separation. The cover of oil separator tank is easy-moving designed to make the replacement of air/oil separator element more easily.

6

Centrifugal Cooling Fan

The inner rotor fan with higher cooling efficiency, lower noise than axial fan. No risk of high temperature damage.

7

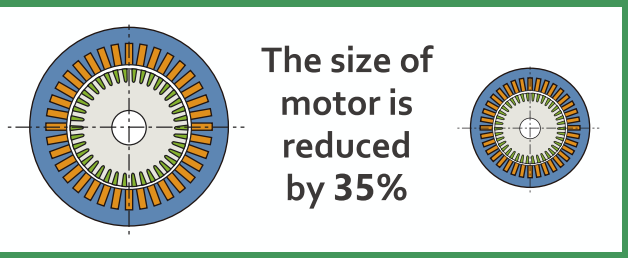
Two-Stage Permanent Magnet Motor and Air End

Horizontal design, reduce vibration and noise, durable single coaxial shaft design with high efficiency and low maintenance.

Higher Efficiency Than IE4 Motors.

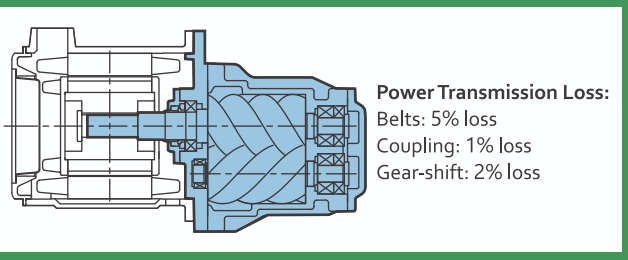
Wider variable frequency range: 30%~100%, which ensures better energy-saving performance at lower running speed. Permanent magnet motor is 35% smaller than ordinary motors, which minimize space occupation.

With F-class insulation and excellent air-cooling system to avoid motor being damaged by high temperature.



Single Coaxial Shaft, Direct-drive Compressors.

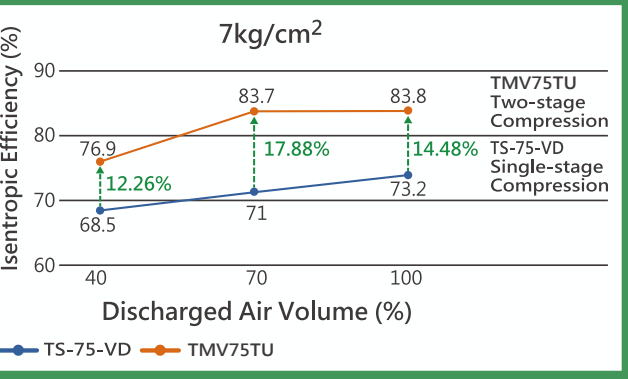
Without belts, gears and coupling, which results in ZERO power transmission loss in running. Reduce the size by 20% and leave more available space inside the machine cabinet.



Single Coaxial Shaft, Double Stages, Two Independent Permanent Magnet Motors.

Isobaric compression lowers down the compressing ratio, which increase the service life of seal gasket and raise its volumetric efficiency.

Injecting oil to cool down the compressed air between the first stage and the second stage, to reach to isothermal compression operation for energy-saving.



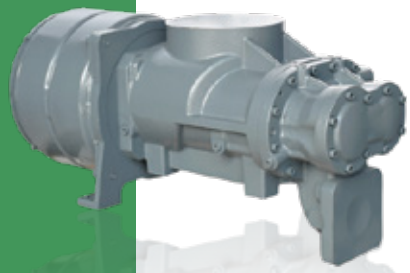
The traditional two-stage gear-shift design only has the best compressing efficiency at its fixed setting-pressure. It's difficult to maintain the best efficiency when the air consumption or pressure is changed.

TMV models overcome the general fixed gear-shift problem. It can automatically adjust the running speed of each motor while the discharged air pressure is changed and always keep the air end in optimal running efficiency.

ENERGY SAVING

The Best Performance: Two Stages Two Permanent Magnet Variable Speed Motor.

Adjust the pressure of each stage inside the air-end independently to achieve best working efficiency.



Single Coaxial Shaft, Single Stage,Direct-drive, Permanent Magnet Variable Speed Motor.

Without gears and coupling, which results in space-saving and zero power transmission loss when running.

TMV SERIES

Model	Working Pressure (kg/cm²)	Free air Delivery (m³/min)	Motor Rated Horsepower (kW/HP)	Noise Level dB(A)	Air Discharge Connection (PT)	Outer Dimensions (mm)	Weight (kg)
TMV11Z	8	1.75	11/15	67	1"	1250x795x1585	387
TMV11TU	8	1.88	11/15	69	1"	1450x795x1390	477
TMV15	8	2.51	15/20	70	1"	1250x795x1585	387
TMV15TU	8	2.65	15/20	69	1"	1450x795x1390	477
TMV22	8	3.80	22/30	70	1¼"	1190x1145x1570	734
TMV22TU	8	3.99	22/30	70	1½"	1190x1145x1570	730
TMV37	8	6.37	37/50	73	1½"	1485x1145x1750	870
TMV37TU	8	6.64	37/50	74	2"	1250x1220x1770	910
TMV75TU	8	15.50	75/100	71	2½"	2335x1600x2140	2630
TMV110TU	8	22.89	110/150	73	3"	2770x1485x1990	3080
TMV160TU	8	32.44	160/215	80	4"	3015x1665x2150	3680

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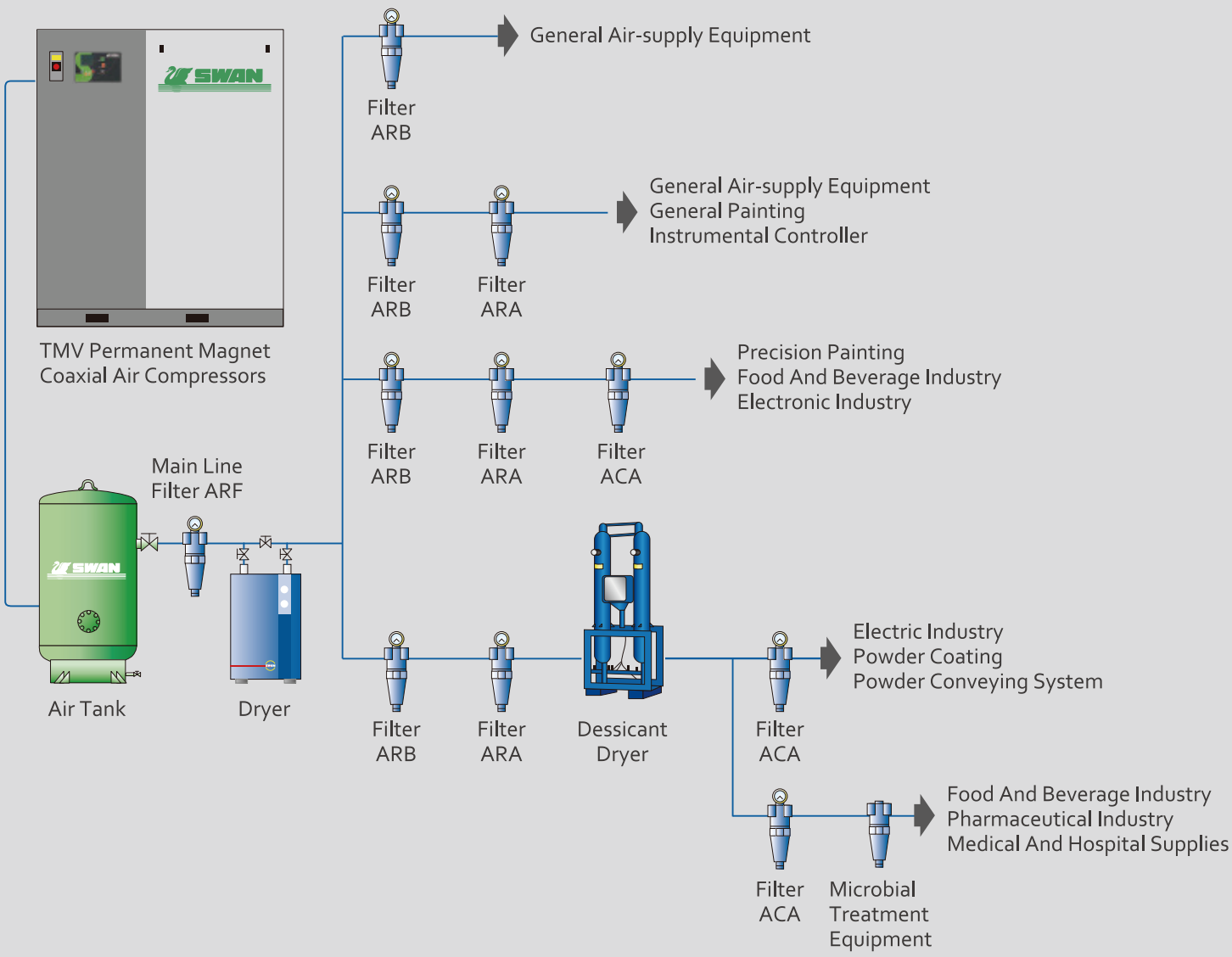
※Other specific requirement about working pressure, horsepower, air delivery, etc. are available upon request.

TMV & TS Series

AIR TANK → MAIN LINE FILTER → AIR DRYER → OIL REMOVAL FILTER → MICRO FILTER → ACTIVE CARBON FILTER

※We supply different grade of air filtrating systems to meet various applications.

• Compressed Air Purifying System



※ Compressed air purifying system is subject to the required quality of compressed air.
If there is any questions on the equipment assembly, please feel free to contact us.

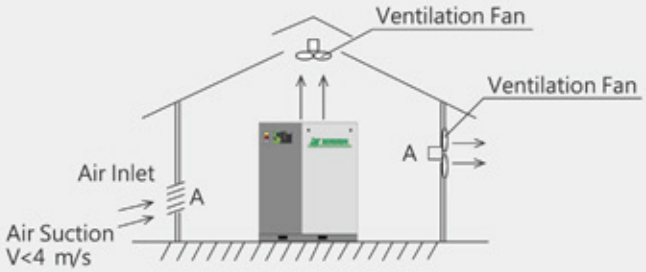
◇ How to install the air compressor properly

Locate the air compressor unit at good ventilation area and avoid exposure to sunlight and rainy environment. The location should be dry and free from dust and corrosive materials. The ambient temperature should be controlled within the allowable range to prevent too high or too low temperature to affect the compressor performance.
If the compressor is installed in a place with lots of dusts and impurities, additional dust filter installation will be needed. Ensure the floor is level and of sufficient strength, to lower the vibration during operation. Keeping a distance of more than 100cm against the wall to help heat dissipation and air circulation surrounding the air compressor unit.

⚠ When the above said conditions cannot be satisfied ...

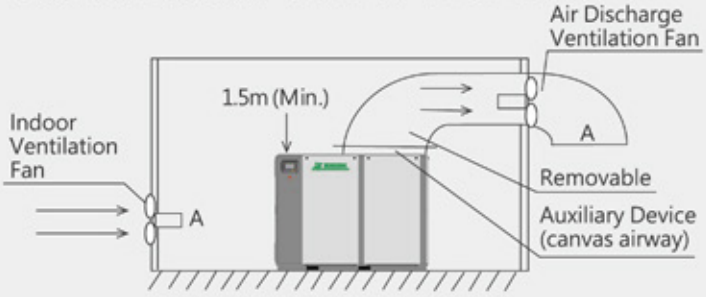
Please confirm there is enough space for air intake and air discharge.
Please use a ventilation fan or air discharge duct to ensure sufficient heat dissipation.

A.Without Air Flow Duct



1 Install the ventilation fan above the air compressor outlet port , and install the air inlet at the lower area.
2 The wind speed at the air inlet area should be lower than 2M/s.

B.With Air Flow Duct



1 An auxiliary device should be installed between the suction port of the air duct and the compressor air outlet port. The distance between them should be kept between 200mm-300mm to ensure the normal fan operation.
2 The wind speed at the air inlet area should be lower than 2M/s.

Required air ventilation volume for screw air compressor (not included air dryer)

Rated power for the whole air compressor unit	kW	11	15	18	22	30	37	45	55	75	90	110
Ventilation air volume (without air duct)	m^3/min	110	150	180	220	300	370	450	550	750	900	1100
Size of the air ventilation port (without air duct)	m^2	0.50	0.69	0.90	1.12	1.37	1.80	2.05	2.50	3.40	4.10	5.00
Ventilation air volume (with air duct)	m^3/min	40	60	80	100	120	135	157	192	262	314	384
Size of the air ventilation port (with air duct)	m^2	0.18	0.26	0.34	0.43	0.52	0.58	0.69	0.84	1.15	1.37	1.68

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