

OIL FREE SCROLL COMPRESSOR

VD
-VERDES-
COMPRESSOR



OIL FREE SCROLL AIR COMPRESSOR

1.5 – 55kW





APPLICATION AREAS

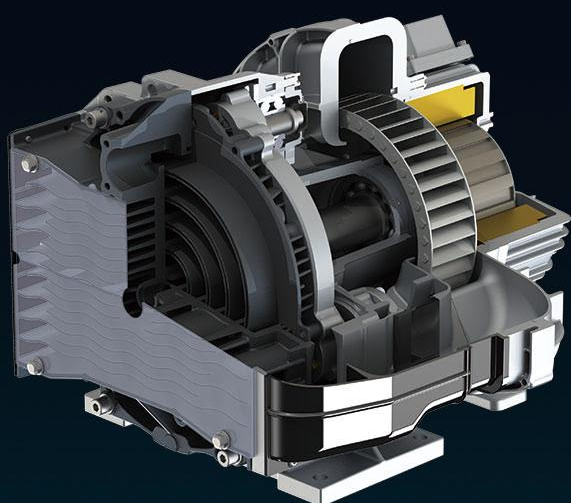
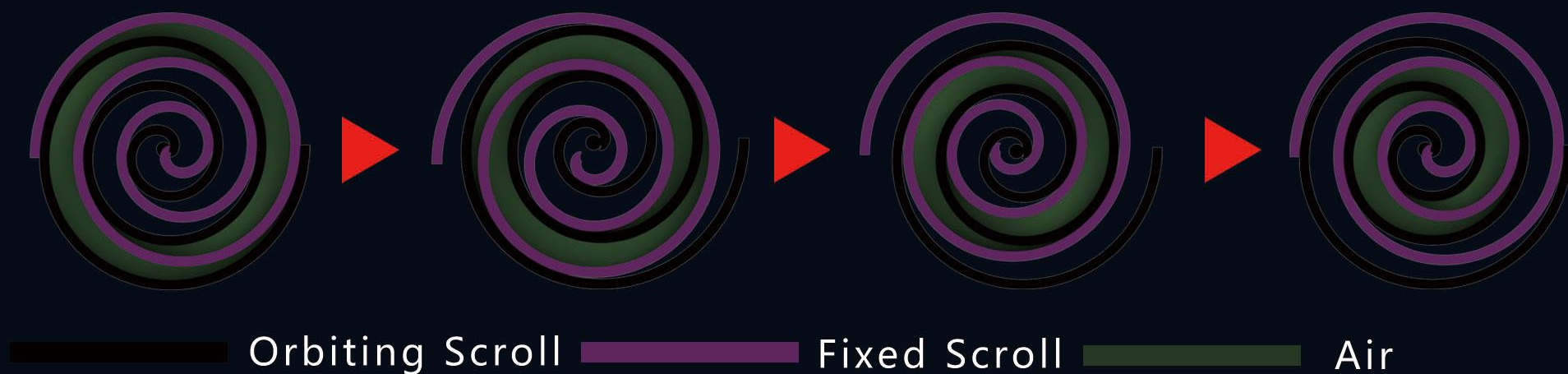
Oil free scroll application market in future will be wider and wider



SCHEMATIC DIAGRAM OF SCROLL COMPRESSOR

WORKING PRINCIPLE

- 1、 The orbiting scroll rotates in the order shown in figure 1-2-3-4
- 2、 Air is compressed and discharged from air outlet at the center of the fixed scroll plant
- 3、 The volume of crescent-shaped compression chamber gradually decreases
- 4、 The air is recirculated and compressed



Air End

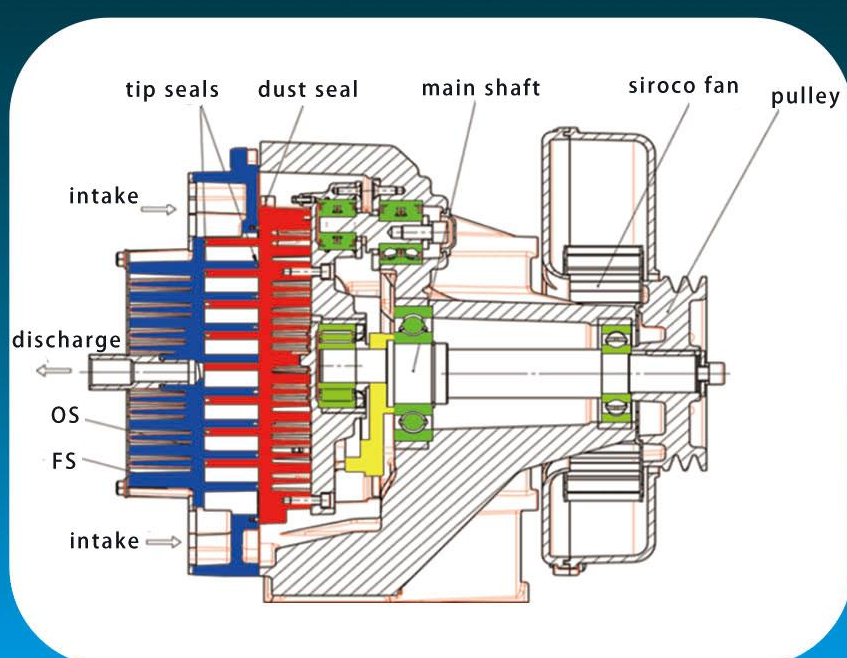


Fixed Scroll

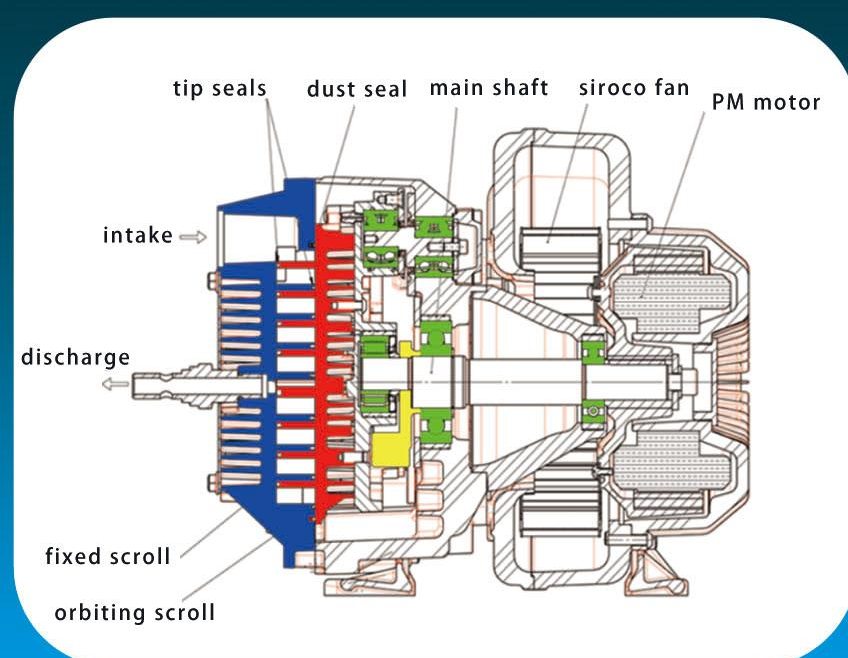


Orbiting Scroll

STRUCTURE DIAGRAM OF SCROLL COMPRESSOR



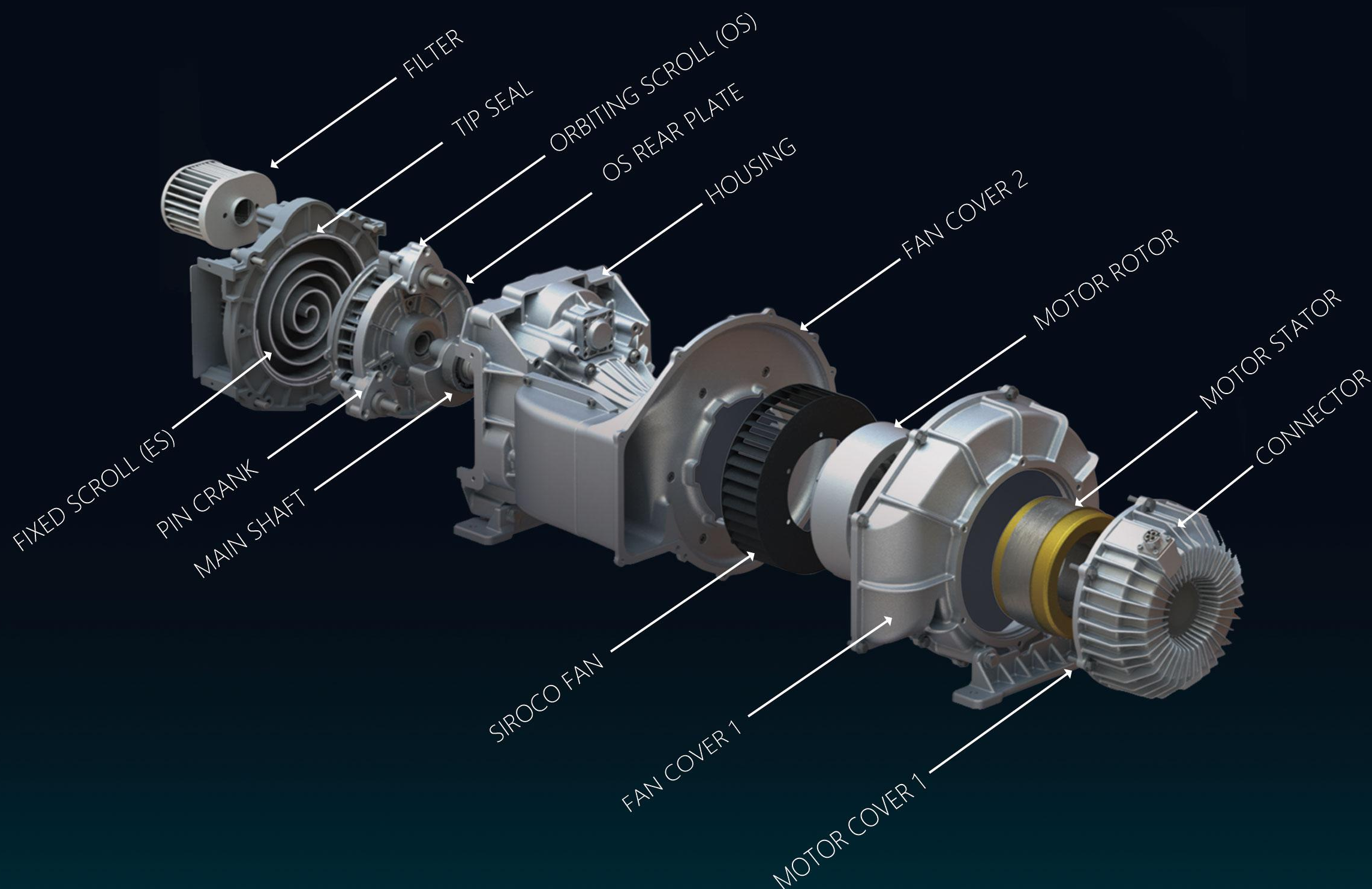
T Series Belt Compressor



ZP Series PM Motor Compressor

ADVANCED TECHNOLOGY

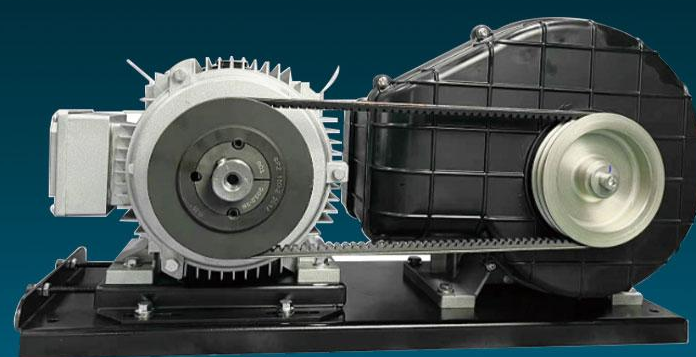
ACHIEVE HIGH QUALITY CLEAN AIR



ZY Power Frequency
Air End Series



ZP PM Motor
Air End Series



TY Belt Drive
Air End Series

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With more than 17 years of technical accumulation, our high-end technical team have been successfully developed a new all-in-one air compressor with motor, which can run steadily for 24 hours continuously.

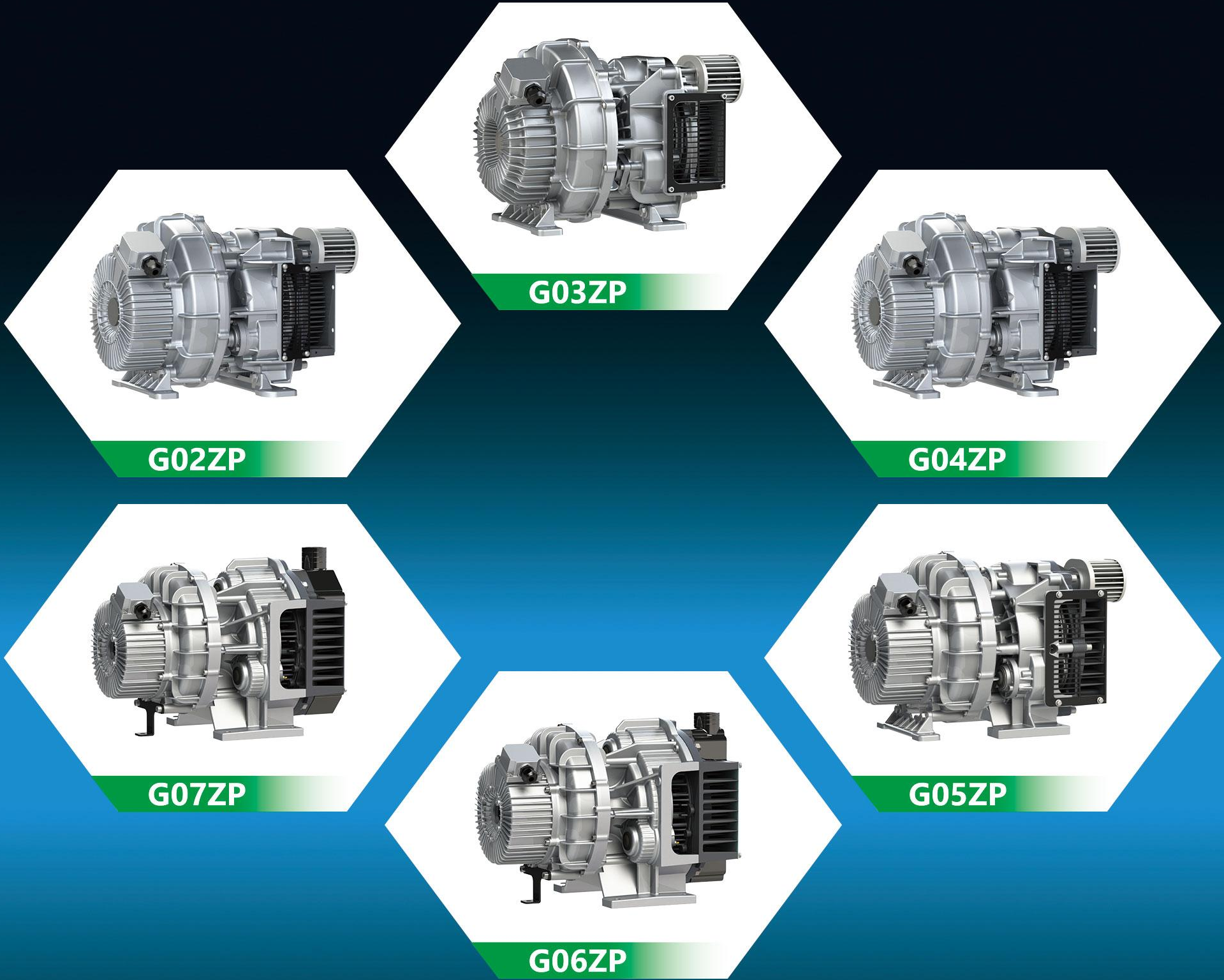
OIL FREE SCROLL BELT COMPRESSOR AIR END



PERFORMANCE PARAMETER TABLE T SERIES (BELT POWER FREQUENCY AIR END)

MODEL NO.	RATED POWER kW (HP)	RATED PRESSURE (MPa)	RATED SPEED (rpm)	CAPACITY (L/min)	AIR OUTLET	DIMENSION (L*W*H) (mm)	WEIGHT (kg)
G02T	3(4)	0.8	3000	300	Rp3/8	408*330*292	16
		1.0	2700	260			
G03T	2.2(3)	0.8	2700	240	Rp3/8	414*325*293	15
		1.0	2400	200			
G04T	3(4)	0.4	2850	440	Rp3/8	345*289*263	16
G05T	3.7(5)	0.8	3000	400	Rp3/8	446*341*311	23
		1.0	2800	350			
G06T	5.5(7.5)	0.8	3150	600	G1/2	445*406*354	29
		1.0	2800	505			
G07T	5.5(7.5)	0.4	2800	1000	G3/4	434*406*365	30
G08T	7.5(10)	0.8	3450	800	G1/2	434*406*365	30.5
		1.0	3000	700			

OIL FREE SCROLL PERMANENT MAGNET COMPRESSOR AIR END



PERFORMANCE PARAMETER TABLE
ZP SERIES (PM SYNCHRONOUS MOTOR AIR END)

MODEL NO.	RATED POWER kW (HP)	RATED PRESSURE (MPa)	RATED SPEED (rpm)	CAPACITY (L/min)	AIR OUTLET	DIMENSION (L*W*H) (mm)	WEIGHT (kg)
G02ZP	3(4)	0.8	3000	300	Rp3/8	449*325*292	25
		1.0	2700	260			
G03ZP	2.2(3)	0.8	2700	240	Rp3/8	434*325*287	22
		1.0	2400	200			
G04ZP	3(4)	0.4	2850	440	Rp3/8	345*289*263	25
G05ZP	3.7(5)	0.8	3000	400	Rp3/8	500*355*312	36
		1.0	2800	350			
G06ZP	5.5(7.5)	0.8	3150	600	G1/2	500*387*343	42
		1.0	2800	505			
G07ZP	5.5(7.5)	0.4	2800	1000	G3/4	484*389*365	43



LOW VIBRATION, LOW NOISE, HIGH EFFICIENCY

ARE REALIZED THROUGH THE OPTIMIZED DESIGN
OF SCROLL COMPRESSOR BOX

Verdes has developed fixed and orbiting scroll waveform technology which can solve the problem of high temperature thermal change very well to ensure the reliability of scroll compressor!



ULTRA QUIET POWER FREQUENCY SCROLL BELT DRIVE COMPRESSOR
(WITH AIR RECEIVER TANK)

MODEL NO.	POWER kW(HP)	PRESSURE (MPa)	CAPACITY (m ³ /min)	AIR OUTLET	AIR RECEIVER TANK (L)	DIMENSION (L*W*H) (mm)	WEIGHT (Kg)	NOISE dB(A)
VS03T-Y22-8N	2.2(3)	0.8-1.0	0.24-0.2	G1/2 FEMALE THREAD	18	710*670*920	110	63
VS02T-Y30-8N	3 (4)		0.3-0.26				120	
VS05T-Y37-8N	3.7(5)		0.4-0.35				157	

ALL IN ONE AIR COMPRESSOR

COMBINE WITH OIL FREE SCROLL AIR END, FROZEN DRYER AND AIR RECEIVER TANK



ALL IN ONE AIR COMPRESSOR PARAMETERS TABLE

MODEL NO.	MOTOR POWER (KW)	POWER (HP)	VOLTAGE	CONTROL MODE	RATED PRESSURE (MPa)	CAPACITY (m³/min)	OUTLET DEW POINT °C	AIR RECEIVER TANK L	AIR OUTLET B	DIMENSION (L*W*H) mm	WEIGHT (kg)	NOISE dB(A)
VS03Z-P22-8LR	2.2	3	3N AC 380V 50Hz	PRESSURE	0.8	0.22	-15	200	G 3/4	1320*550*1550	225	62
VS05Z-P37-8LR	3.7	5				0.38	-15	200	G 3/4	1320*550*1550	240	63
VS06Z-P55-8LR	5.5	7.5				0.57	-15	200	G 3/4	1320*550*1550	245	65
VS05Z-P75-8LR	3.7*2	10				0.76	-15	300	G 1	1630*700*1800	371	65
VS06Z-P110-8LR	5.5*2	15				1.14	-15	300	G 1	1630*700*1800	414	65
VS03T-Y22-8LR	2.2	3	3N AC 380V 50Hz	SENSITIVE	0.8	0.22	-15	200	G 3/4	1390*630*1445	245	65
VS05T-Y37-8LR	3.7	5				0.38	-15	200	G 3/4	1320*640*1620	260	65
VS06T-Y55-8LR	5.5	7.5				0.57	-15	200	G 3/4	1320*640*1620	264	65
VS05T-Y75-8LR	3.7*2	10				0.76	-15	300	G 1	1780*760*1920	468	68
VS06T-Y110-8LR	5.5*2	15				1.14	-15	300	G 1	1780*760*1920	475	68
VS06T-Y165-8LR	5.5*3	22.5				1.71	-15	300	G 1	1520*760*2380	680	69

Note: 1. The above models can be customized to 1.0MPa pressure, and equipped with automatic electronic drain valve.
2. LR refers to the compressor will be equipped with frozen dryer, LD refers to the compressor will be equipped with adsorption type dryer.
3. Z-P refers to the model is permanent magnet synchronous motor compressor, T-Y refers to the model is power frequency belt drive compressor.



COMPACT INTERNAL STRUCTURE

ACHIEVE SPACE SAVING

Equipping with 2-10 air end in one air compressor box to meet various working conditions.



※Remark:

1. The capacity refers to the value which at the highest pressure air discharge converts into the suction state (atmospheric pressure);
2. When the ambient temperature is lower than 0°C, the condensate in the pipeline needs to be discharged in time to prevent freezing;
3. The dimension represents the outer size of the machine;
4. The above models can be customized to 1.0MPa pressure, the power is unchanged, and the flow rate is reduced by 15%.



INTELLIGENT CONTROL BOX TYPE MACHINE

SPECIFICATION TABLE

MODEL NO.	MOTOR POWER (KW)	POWER (HP)	VOLTAGE	CONTROL MODE	RATED PRESSURE (MPa)	CAPACITY m ³ /min	AIR OUTLET	DIMENSION (L*W*H) mm	WEIGHT kg	NOISE dB(A)
VS03Z-P22-8	2.2	3	3N AC380V 50Hz	P R E S S U R E S E N S I T I V E	0.8	0.24	G 1/2	800*550*880	103	62
VS03T-Y22-8	2.2	3				0.24	G 1/2	600*560*800	125	63
VS05Z-P37-8	3.7	5				0.4	G 1/2	800*550*880	140	63
VS05Z-P75-8	7.5(3.7×2)	10				0.8	G 1	1100*700*1130	243	63
VS05Z-P110-8	11(3.7×3)	15				1.2	G 1	1080*700*1500	430	64
VS05Z-P150-8	15(3.7×4)	20				1.6	G 1	1420*1010*1130	416	66
VS05T-Y37-8	3.7	5				0.4	G 1/2	680*640*960	134	63
VS05T-Y75-8	7.5(3.7×2)	10				0.8	G 1	1180*760*1250	280	63
VS05T-Y110-8	11(3.7×3)	15				1.2	G 1	1180*760*1690	496	64
VS05T-Y150-8	15(3.7×4)	20				1.6	G 1	1500*1180*1250	554	64
VS05T-Y185-8	18.5(3.7×5)	25				2.0	G 1 1/4	1420*1010*1510	808	65
VS05T-Y220-8	22(3.7×6)	30				2.4	G 1 1/2	1420*1010*1510	878	65
VS05T-Y260-8	26(3.7×7)	35				2.8	G 1 1/2	1650*1550*1950	1041	65
VS05T-Y300-8	30(3.7×8)	40				3.2	G 1. 1/2	1650*1550*1950	1110	68
VS05T-Y333-8	33(3.7×9)	45				3.6	G 1 1/2	1650*1550*1950	1200	68
VS05T-Y370-8	37(3.7×10)	50				4.0	G 1 1/2	1650*1550*1950	1350	68
VS06Z-P55-8	5.5	7.5				0.6	G 1/2	800*560*880	135	63
VS06Z-P110-8	11(5.5×2)	15				1.2	G 1	1100*700*1130	258	64
VS06Z-P165-8	16.5(5.5×3)	22.5				1.8	G 1	1100*700*1500	322	66
VS06Z-P220-8	22(5.5×4)	30				2.4	G 1	1300*830*1260	470	66
VS06Z-P275-8	27.5(5.5×5)	37.5				3.0	G1	1500*1180*1700	860	67
VS06Z-P330-8	33(5.5×6)	45				3.6	G 1	1420*1010*1510	890	67
VS06Z-P385-8	38.5(5.5×7)	52.5				4.2	G1	1650*1550*1950	1160	67
VS06Z-P440-8	44(5.5×8)	60				4.8	G1	1650*1550*1950	1220	68
VS06Z-P495-8	49.5(5.5×9)	67.5				5.4	G1	1650*1550*1950	1250	68
VS06Z-P550-8	55(5.5×10)	75				6	G1	1650*1550*1950	1350	68
VS06T-Y55-8	5.5	7.5				0.6	G 1/2	680*640*960	151	63
VS06T-Y110-8	11(5.5×2)	15				1.2	G 1	1180*760*1250	350	64
VS06T-Y165-8	16.5(5.5×3)	22.5				1.8	G 1	1180*760*1690	556	64
VS06T-Y220-8	22(5.5×4)	30				2.4	G 1 1/4	1500*1180*1250	643	65
VS06T-Y275-8	27.5(5.5×5)	37.5				3.0	G 1 1/2	1500*1180*1690	785	65
VS06T-Y330-8	33(5.5×6)	45				3.6	G 1 1/2	1500*1180*1690	870	66
VS06T-Y385-8	38.5(5.5×7)	52.5				4.2	G 1 1/2	1650*1550*1500	1201	68
VS06T-Y440-8	44(5.5×8)	60				4.8	G 1 1/2	1650*1550*1500	1413	68
VS06T-Y495-8	49.5(5.5×9)	67.5				5.4	G 1 1/2	1650*1550*1950	1330	68
VS06T-Y550-8	55(5.5×10)	75				6.0	G 1 1/2	1650*1550*1950	1420	68

Note: 1. T-Y refers to the model is power frequency belt drive compressor, Z-P refers to the model is permanent magnet synchronous motor compressor.
2. 220V permanent magnet compressor can be customized;
3. The above models can be customized to 1.0MPa pressure, the power is unchanged, and the flow rate is reduced by 15%.

■ ■ SMALL AND QUIET, ECONOMICAL AND SIMPLE
CLEAN AIR, REST ASSURED USE

Three types of air compressor to meet various working conditions.



■ ■ POWER FREQUENCY BELT TYPE COMPRESSOR SINGLE UNIT
SPECIFICAITON TABLE

MODEL NO.	POWER KW (HP)	VOLTAGE	PRESSURE MPa	CAPACITY m³/min	AIR OUTLET	DIMENSION (L*W*H)mm	WEIGHT Kg	NOISE dB(A)
VS03T-Y22-8X	2.2(3)	AC 220V/380V 50Hz	0.8	0.24	G1/2 FEMALE THREAD	600*560*800	100	65
VS02T-Y30-8X	3(4)			0.3			103	
VS05T-Y37-8X	3.7(5)			0.4			112	

CLEAN AIR, HIGH ENERGY

HIGH EFFICIENCY, HIGH QUALITY



POWER FREQUENCY BELT TYPE COMPRESSOR (WITH AIR RECEIVER TANK)

SPECIFICAITON TABLE

MODEL NO.	POWER KW(HP)	VOLTAGE	PRESSURE MPa	CAPACITY m ³ /min	AIR RECEIVER TANK L	AIR OUTLET	DIMENSION (L*W*H)mm	WEIGHT Kg	NOISE dB(A)
VS03T-Y22-8XC	2.2(3)	AC 220V/380V 50Hz	0.8	0.24	120/200	G1/2 FEMALE THREAD	800*600*1365 (120L) 1100*600*1550 (200L)	160	65
VS02T-Y30-8XC	3(4)			0.3				163	
VS05T-Y37-8XC	3.7(5)			0.4				172	

OIL FREE AND WATER FREE SCROLL AIR COMPRESSOR

SMALL SIZE, LIGHT WEIGHT, READY TO USE

Using stable performance of polymeric air dryer membrane !



PM SCROLL AIR COMPRESSOR WITH MEMBRANE DRYER

SPECIFICATION TABLE

MODEL NO.	POWER kW(HP)	VOLTAGE	CONTROL MODE	PRESSURE MPa	CAPACITY m ³ /min	AIR RECEIVER TANK L	AIR OUTLET	DIMENSION (L*W*H) mm	WEIGHT Kg	NOISE dB(A)
VS03Z-P22-8SM	2.2(3)	AC 220V/380V 50Hz	PRESSURE SENSITIVE	0.8	0.21	5	G1/2 FEMALE THREAD	680*510*830	100	62
VS05Z-P40-8SM	4(5.5)				0.37			680*510*830	117	65
VS03Z-P22-10SM	2.2(3)			1.0	0.18			680*510*830	100	62
VS05Z-P40-10SM	4(5.5)				0.32			680*510*830	117	65

PERMANENT MAGNET SCROLL

QUICK AIR DISCHARGE CONTINUOUS RUN



PM SYNCHRONOUS SCROLL AIR COMPRESSOR (WITH AIR RECEIVER TANK)

SPECIFICATION TABLE

MODEL NO.	POWER kW(HP)	VOLTAGE	CONTROL MODE	PRESSURE MPa	CAPACITY m³ /min	AIR RECEIVER TANK L	AIR OUTLET	DIMENSION (L*W*H) mm	WEIGHT Kg	NOISE dB(A)	
0.8MPa											
VS03Z-P22-8S	2.2(3)	AC 220V/380V 50Hz	PRESSURE SENSITIVE	0.8	0.24	5	G1/2 FEMALE THREAD	800*600*1440	100	62	
VS05Z-P40-8S	4(5.5)				0.4				117	65	
0.8MPa											
VS03Z-P22-8SC	2.2(3)	AC 220V/380V 50Hz		0.8	0.24	120	G1/2 FEMALE THREAD	800*600*1390	143	62	
VS05Z-P40-8SC	4(5.5)				0.4				174	65	
1.0MPa											
VS03Z-P22-10SC	2.2(3)	220V/380V 50Hz		1.0	0.2	120	G1/2 FEMALE THREAD	800*600*1390	143	62	
VS05Z-P40-10SC	4(5.5)				0.35				174	65	

Remark: The above models can be customized to 1.0MPa pressure, and equipped with automatic electronic drain valve;

S: Refers to PM direct connection compressor does not equip with air tank,

SC: Refers to PM direct connection compressor equip with air tank.

SAFETY TIPS

1. Ambient temperature: -40°C-55°C
2. Relative humidity: ≤80%
3. Please avoid direct sunlight.
4. Flammable and explosive gases and organic solvents are not allowed nearby the machine.
5. Please avoid places with rain, dust and floccule.
6. Ensure that there is enough maintenance space around the air compressor.

MAINTENANCE

It is very necessary to do daily maintenance on oil-free scroll air compressor. Correct operating and maintaining can not only make the air compressor meet the requirements of use, but also extend its service life. All of our products have been tested and their functions have been verified before leaving the factory . Daily maintenance should be carried out according to the below sheet:

INSPECTION AND MAINTENANCE SHEET

To prolong the service life of oil free scroll air compressor in safety, daily maintenance is very important. Please check and maintain the machine according to the below specified run time cycle.

PROJECT	METHOD	M A I N T E N A N C E C Y C L E				REMARK
		2500h or 1 year	5000h or 2 year	7500h or 3 year	10000h or 4 year	
Bearing grease	replace, add		●	●	●	buy from supplier
Tip seal set	replace		●	●	●	buy from supplier
Check valve	check, replace	●	●	●	●	replace if abnormal
Safety valve	check, replace	●	●	●	●	replace if abnormal
Siroco fan	check, replace		●	●	●	replace if abnormal
Exhaust tube	check, replace	●	●	●	●	replace if abnormal
Air Filter	check, replace	●	●	●	●	replace if abnormal
Air end	replace		●	●	●	buy from supplier
Rubber isolator	check, replace		●	●	●	replace if abnormal
Motor	replace		●	●	●	buy from supplier

- Refers to replace the components if there is any abnormal condition during the regular inspection.
- Refers to the replacement period of parts.-

SAFETY PRECAUTIONS

1. Before use, you must read the instructions carefully and learn to use the air compressor correctly.
2. If there are particles,dust and so on in the exhausted air, which is non-clean compressed air.
3. When maintaining the air compressor, it is necessary to cut off the power of the air compressor, release all the high pressure gas and take effective measures to prevent other people to turn on the machine due to negligence or accident.
4. Do not use flammable solvent to clean the air compressor, and it is strictly forbidden to put any flammable and explosive dangerous goods around the air compressor.
5. When the air compressor is running or just after shutdown, the air end and motor are in a high temperature state. Do not touch and be careful of burns.



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