



VW Series Scroll Air Compressor Introduction

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compressor introduction

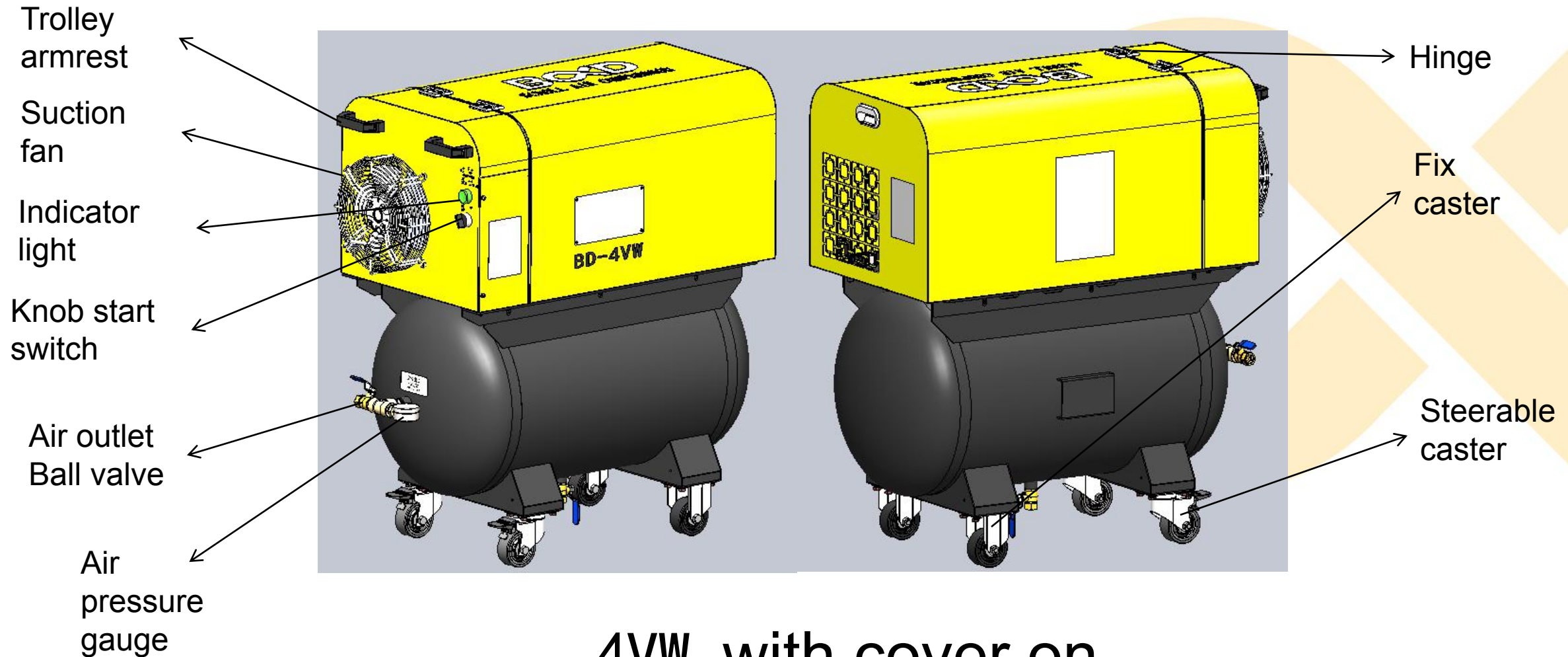
INDEX

- I. Specification of VW Series Scroll Air Compressor**
- II. Appearance and General Introduction**
- III. Product design features**
- IV. Advantages and selling points**
- V. Operation and Instruction**
- VI. Instruction Manual**

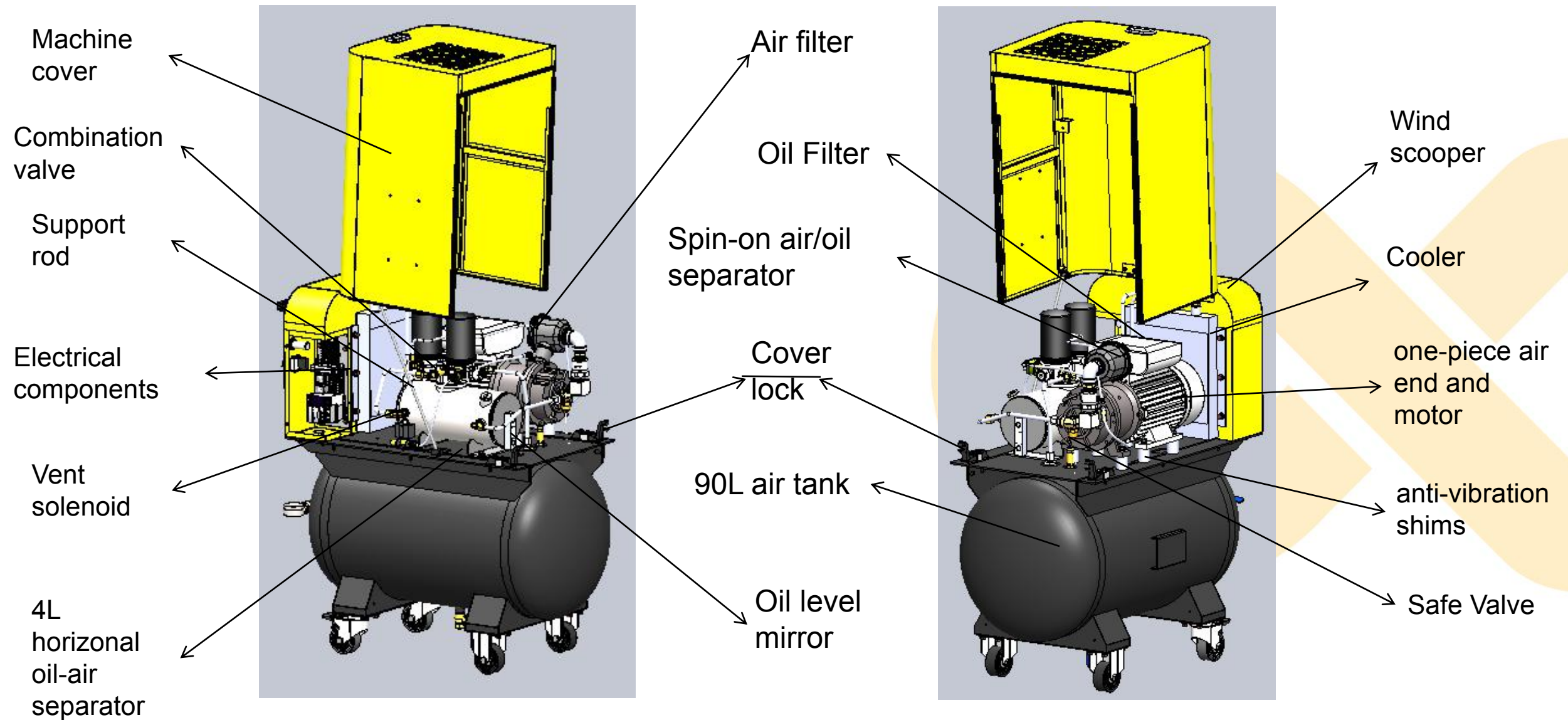
I .Specification of VW Series Scroll Air Compressor

MODEL	AIR PRESSURE (PSI)	FREE AIR DELIVERY VOLUME (CFM)	VOLTAGE/ FREQUENCY/ PHASE	POWER (KW/HP)	NOMINATED ROTATING SPEED rpm	WEIGHT (kg)	NOISE dB(A)	MEASUREME NT L*W*H, mm
4VW	116	11.30	220V/50Hz/1	2.2/3	2850	150	65	890*440*940
		11.30	380V/50Hz/3	2.2/3	2850		65	
		12	220V/60Hz/1	2.5/3.4	3400		66	
6VW	116	20.50	380V/50Hz/3	4.5/6.12	2900	220	67	1018*580*1095
		22.25	220/380V/60Hz/3	5.1/6.94	3480		68	
	145	19.77	380V/50Hz/3	4.5/6.12	2900		67	
10VW	116	37.08	380V/50Hz/3	7.5/10.20	2940	250	68	
		38.84	220/380V/60Hz/3	8.5/11.56	3540		69	
	145	32.85	380V/50Hz/3	7.5/10.20	2940		68	

II .Appearance and General Introduction



4VW with cover on



4VW with cover open

Electronic
timer

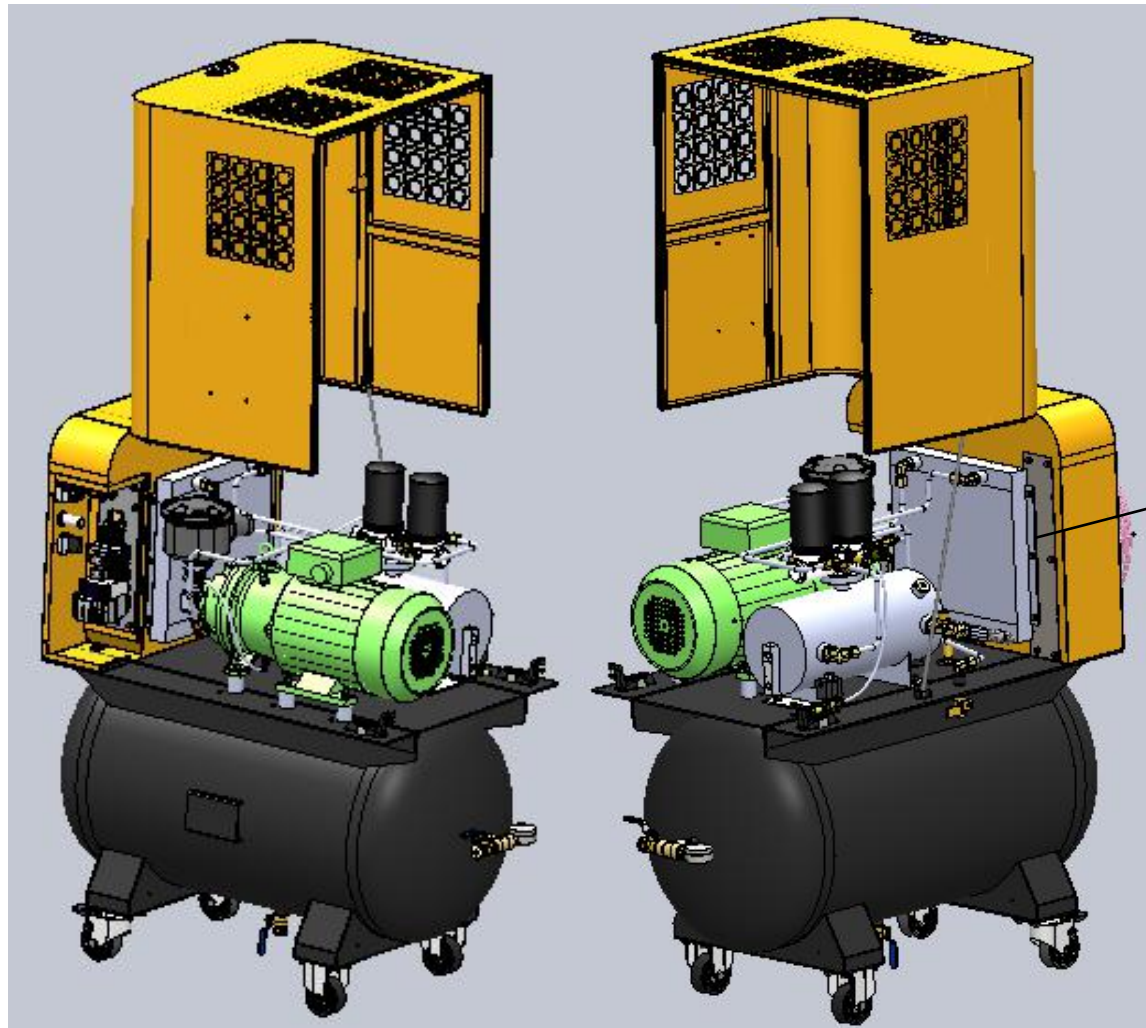
Cooling
fan(dia
350mm)



Drainage
valve

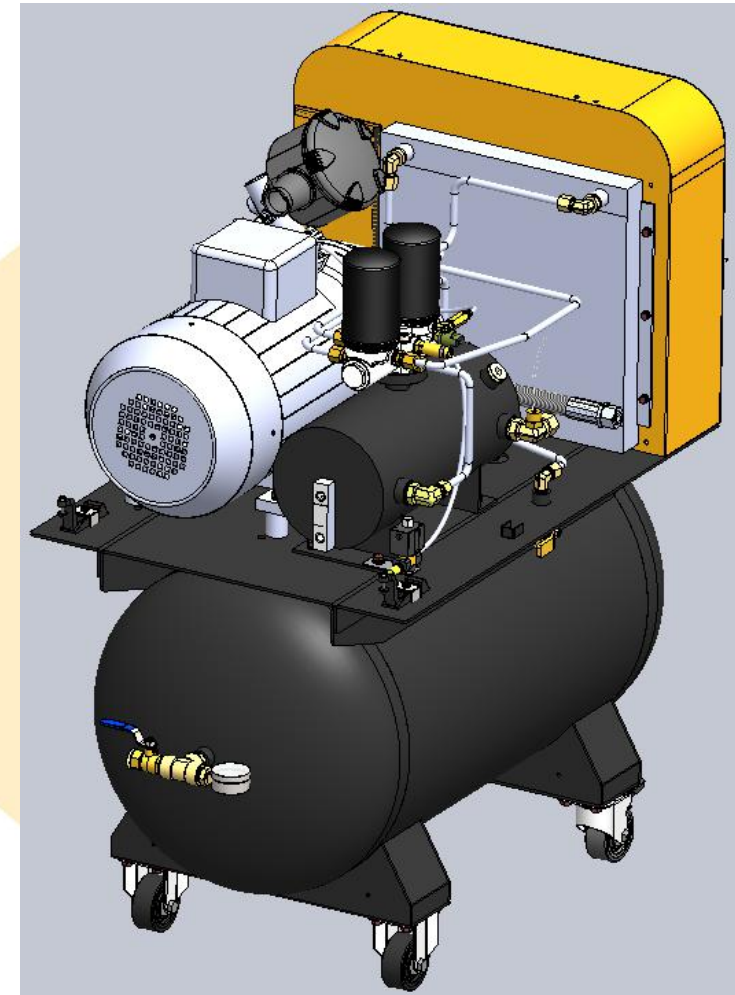
132L
Air tank

6VW&10VW with cover on



6VW with cover open

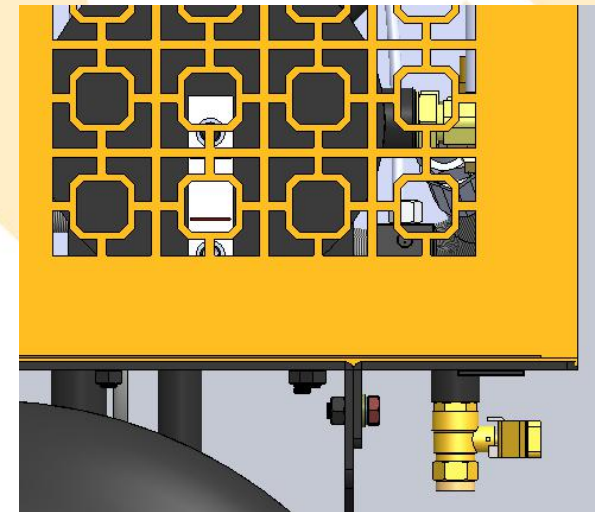
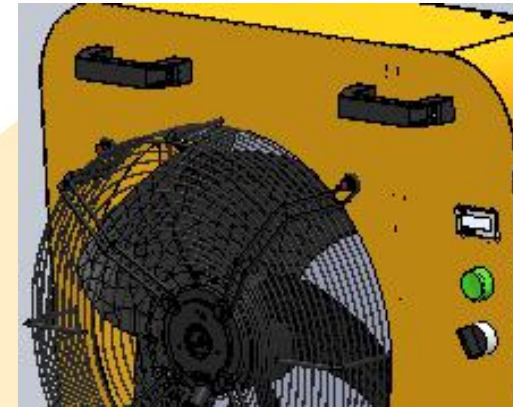
Cooler
mounting
transition
plate



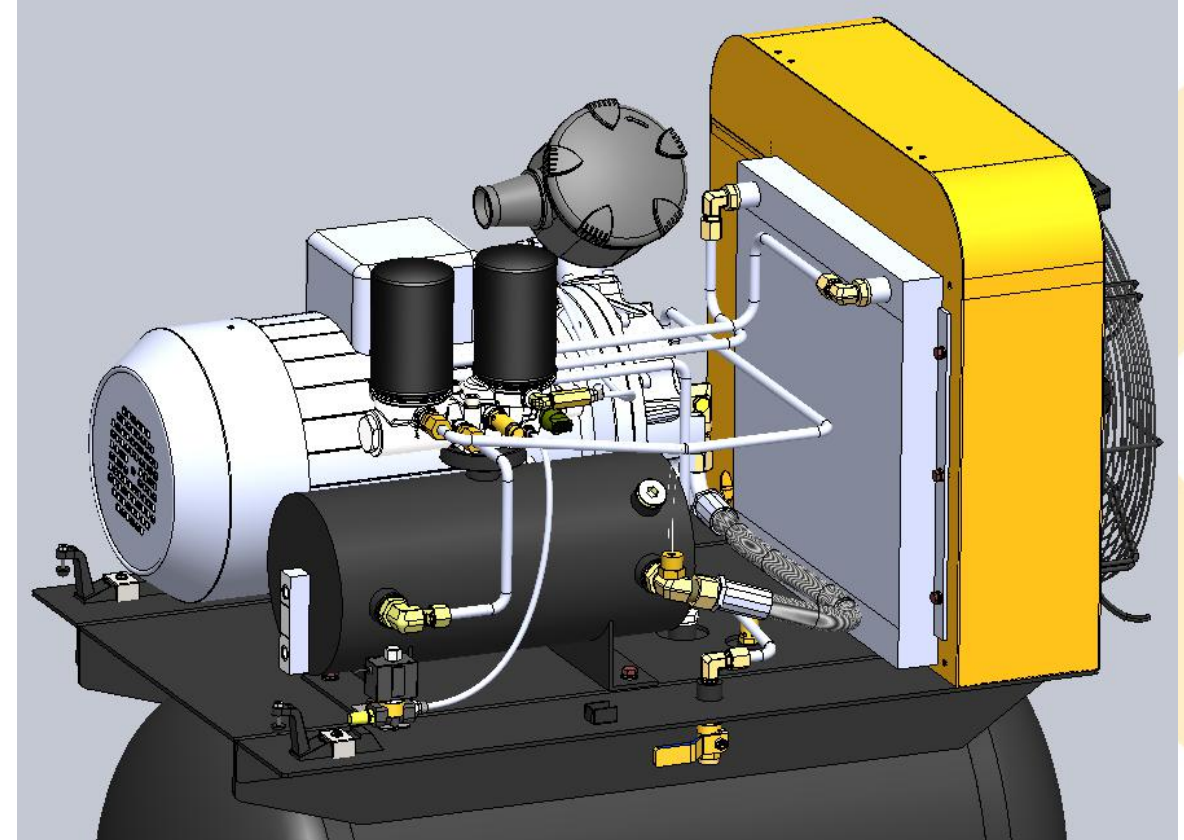
10VW with cover
open

III. Product design features

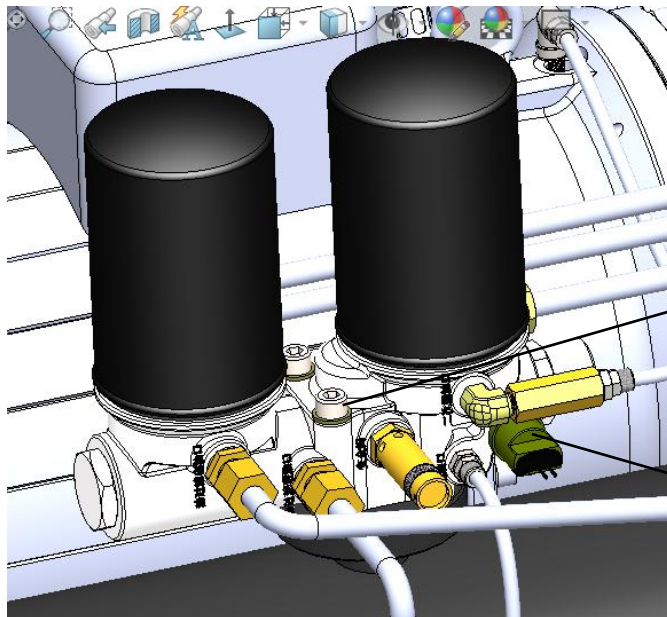
- **ON/OFF knob start switch for start/stop machine**, only one button makes all simple and in convenience;
- **Indicator light** in double color, red for overheat or phase sequence failure, green for normal operation;
- **Electronic timer** for maintenance reminder;
- **Directly observe** oil situation by oil level mirror, no need to remove cover;
- **External drainage valves** of oil-air separator for 6VW and 10VW, clean the condensate and impurities on buttom without removing cover.



- Components design in high consistency, which reduce the material purchasing catalogs, then will cut down relevant cost;
- Temperature protection switch and alerts indicator light for showing faults to protect machines from over heat
- Low temperature protection switch work cooperately with vent solenoid valve, to make sure the oil won't emulsificated for low temperature.
- External drainage valves for 6VW and 10VW, which enable them draining the condensate and impurities on buttom without removing cover.



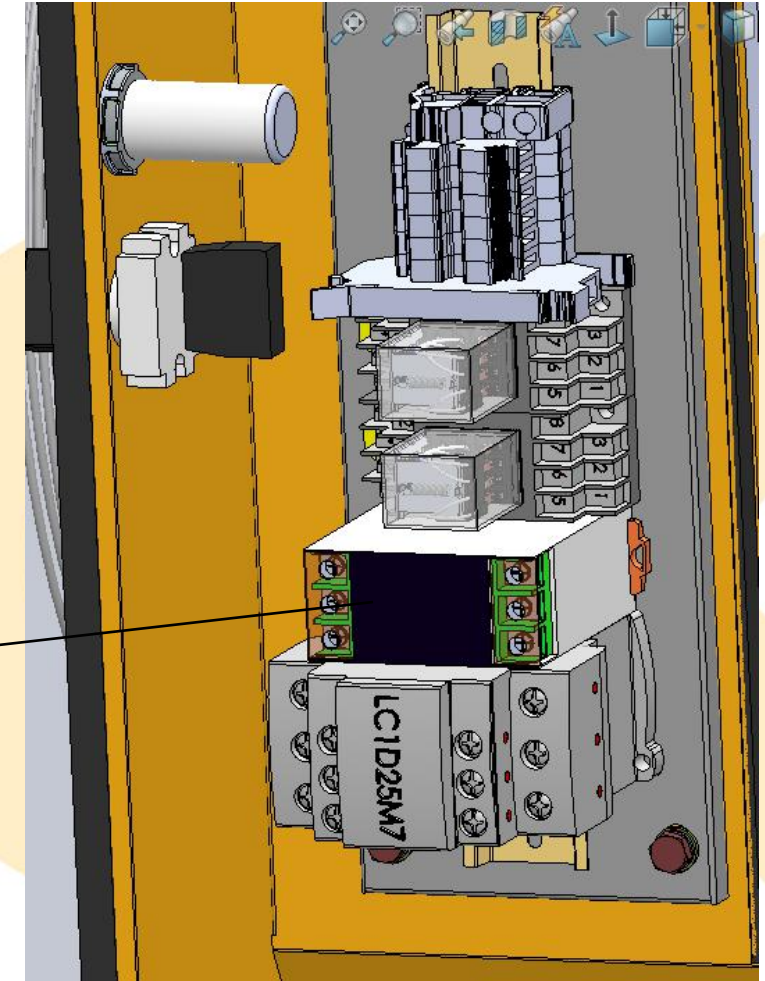
- **Highly integration**--combined oil-filter base and integreted temperature-monitoring valve; and **conveniency in maintenance**--external/spin-on oil seperator and min.pressure valve;
- **Phase sequence protector** for detacting phase invesion and missing by indicator lights showing faults to protect motors of 3P/380V machines;
- **Electric box with 2 surface open design**, enlarge the maintenance space;
- **Pressure gauge can start and stop according to client's air application situation**;
- **Spin-on air/oil separator**, convenient for changing a new one.



Phase sequence protector

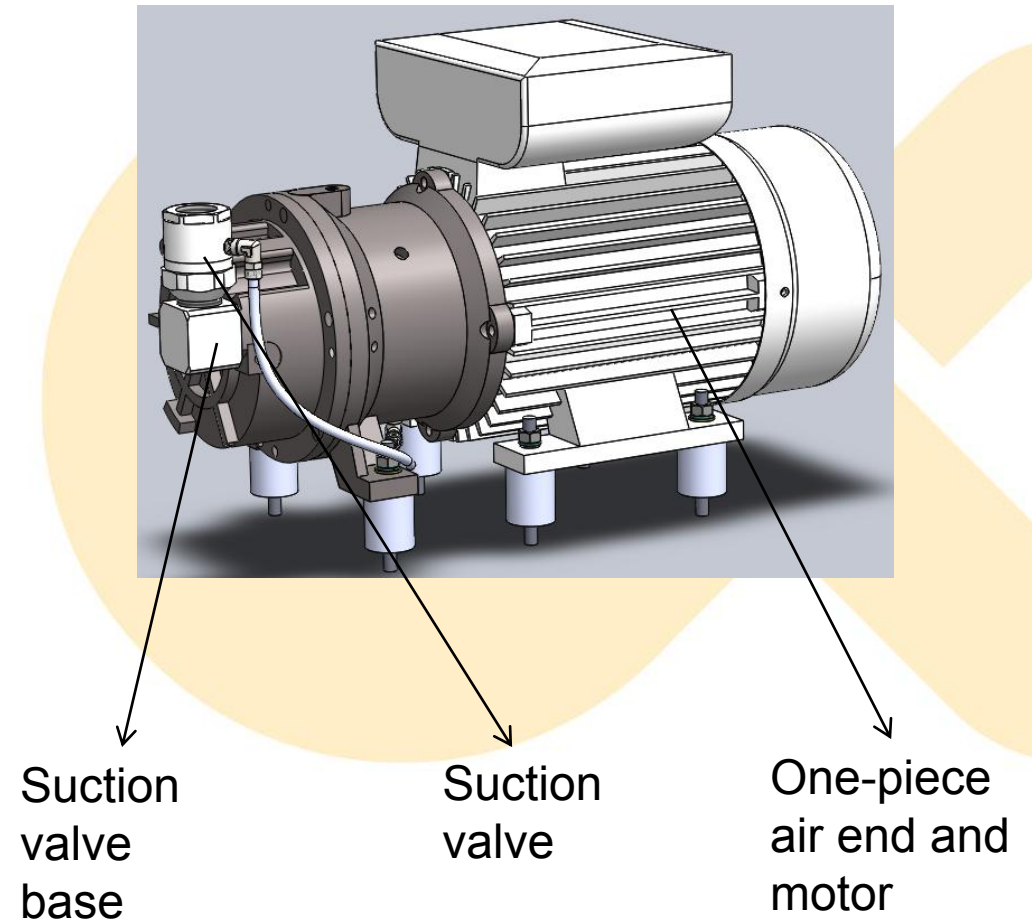
Combilation valve

Pressure gauge



IV. Advantages and selling points

- **High reliability and low maintenance cost:** one-piece air end and motor has less components and less wear and tear, slow line speed and small abrasion;
- **Low noise:** high concentricity and small turning radius, helps to stay in a steady air inlet and outlet, as well to minor change in air pulsation;
- **Low energy consumption and long work-life expectancy:** Without friction and wear to motion units, the scroll air compressor is in high mechanical efficiency as low pressure difference between nearby compressing chambers, also little leakage, it gains a volume efficiency up to 98%;
- **Continuous and steady air supply, no pressure pulsation**



- Compact structure, small volume and low weight;
- Self-equipped horizontal air tank with Steerable casters on the bottom for easy and flexible movement;
- Clamshell design features, easily maintaining by setting off top cover and fixed with support rod;
- Top cover with conceal lock, no screw fixings need, fast-setting up;
- Accessible air filter/oil filter/oil separator, convenient for maintenance.

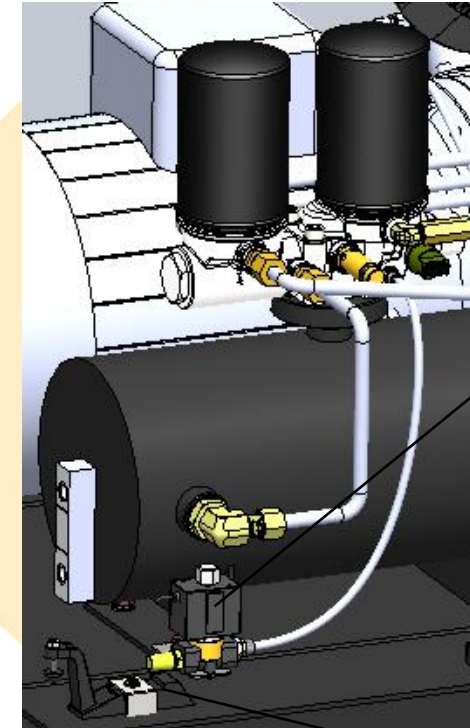


- Easy and convenient operation, high automation level with only one button for start/stop;
- Indicator lights for alerts and operation, promptly and directly gain a operation time record;
- Two trolley armrests cooperate with casters for convenient movement of machine;
- BD-4VW with 220V/1p and 380V/3p design, nominated air pressure 0.8MPa, to meet the requirements of different power application;
- BD-6VW and BD-10VW with 380V/3p, 50Hz/60Hz, nominated air pressure 0.8/1.0MPa, to meet the requirements of different power application;



V. Operation and Instruction

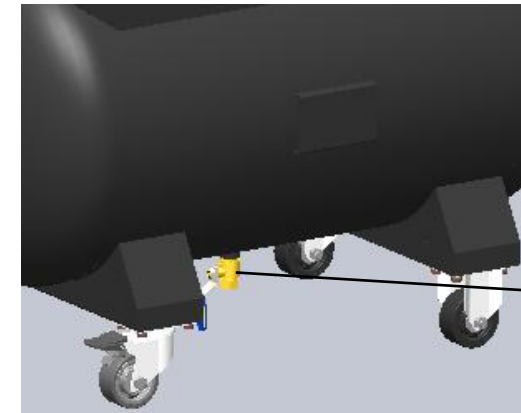
- When we turn Knob start switch to “ON” position at the first operation of machine, the **indicator light show in red** for phase sequence fault. It needs to adjust power line of machine;
- When we turn Knob start switch to “ON” position at the first operation of machine, the **indicator light show in green** for normal operation status. Main motor begins to operate, vent solenoid will in air outletting status, while fan motor stop working, and barometer of air tank will show a rising data.
- E.g. Temperature around 24°C for BD-4VW, it takes about 5 minutes from first operation of machine to the stop of vent solenoid, while it is 2min30s for BD-6VW& BD-10VW in same environment. This happen for a purpose of preventing over low temperature in nominated air delivering, thus to avoid water-precipitation from compressed air, which will lead to oil emulsification;
- **Notice: The stop of fan motor are always happen with air deflating from vent solenoid.**



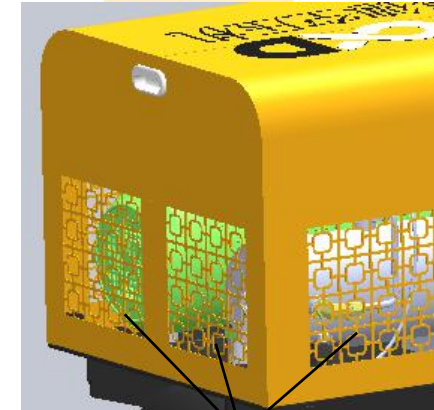
Vent
solenoid

Pointed
muffler

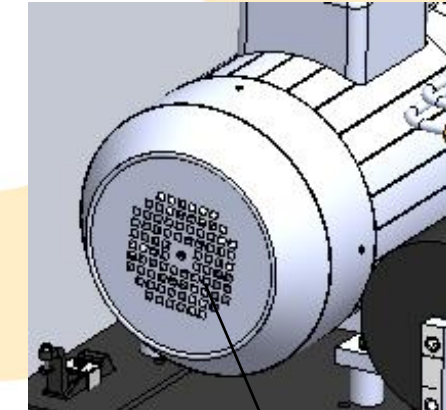
- A recommendation for start the drainage valve at the bottom of air tank for draining stagnant water everyday before machine operation;
- No blockage on the air-inlet are allowed when machine is in operation, or it will lead to overheating;
- Please notice if any blockage to the air-inlet from the rear of motor, clean it in-time if so.



Drainage valve

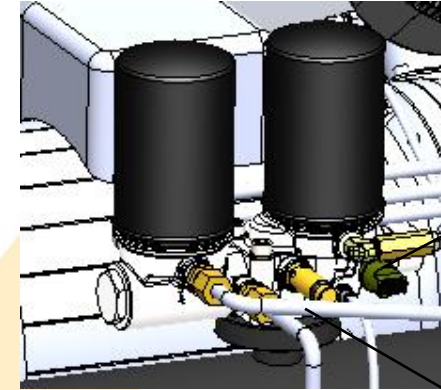


Air-inlet

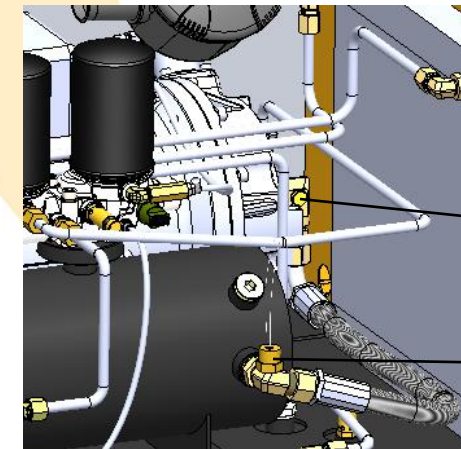


Air-inlet at the rear of motor

- Pressure guage install on the combilation valve, lay behind the mininum pressure valve, which can check the pressure ranger of air tank. For machines in nominated pressure 1.0Mpa, the pressure range is 0.8Mpa to 1.0Mpa. It range from 0.6Mpa to 0.8Mpa for machines in nominated pressure 0.8Mpa;
- When air pressure in air tank reach the nominated pressure, air pressure guage will cut and main motor stop operating, and fan stop also, the solenoid valve will open and discharge the air pressure. Air pressure keeps going down till min. limit as customer using air, then the air guage will trigger and main motor begin operation and loading air;
- Temperature switch(High) is normally close type, install on the bent outside the air outlet of main motor at the protect value of 105 °C. Temperature switch(Low) is normally open type, with a protect value of 78°C, install on the bent outside of the air outlet of main motor from BD-4VW or the bent outside of the air inlet of air/oil seperator tank from BD-6VW/BD-10VW. It works when the temperature lower than 78 °C, to stop the fan untill the solenoid discharging air up to or surpass 78 °C.



Pressure gauge



Safe Valve





Temperature switch(High)

Temperature switch(Low)

Loading time of VW Series Scroll Air Compressor

MODEL	AIR PRESSURE (PSI)	FREE AIR DELIVERY VOLUME (CFM)	VOLTAGE/ FREQUENCY/ PHASE	AIR TANK CAPACITY (L/GAL)	LOADING TIME (FROM ZERO TO NOMINATED)	LOADING TIME (FROM START TO NOMINATED)
4VW	116	11	220V/50Hz/1	90L/23gal	0:2:40	0:0:32
		11	380V/50Hz/3		0:2:40	0:0:32
		12	220V/60Hz/1		0:2:30	0:0:30
6VW	116	18	380V/50Hz/3	132L/35gal	0:1:42	0:0:20
		22	220/380V/60Hz/3		0:1:28	0:0:19
	145	20	380V/50Hz/3		0:2:16	0:0:26
10VW	116	39	380V/50Hz/3		0:0:56	0:0:12
		39	220/380V/60Hz/3		0:0:51	0:0:09
	145	33	380V/50Hz/3		0:1:15	0:0:14

VI.Instruction Manual

	1.95.007.0001 VW涡旋式系列操作使用操作说明书
	1.95.007.0001 VW涡旋式系列操作使用操作说明书
	1.95.007.0003 VW涡旋式系列操作使用操作说明书(英文版)
	1.95.007.0003 VW涡旋式系列操作使用操作说明书(英文版)



1.95.007.00
01 VW涡旋式



1.95.007.00
03 VW涡旋式

Thank You!

