

Oil-free Compressor••

P320/P520

P420/P440



English Operating Manual

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ChemVak

Oil-free Compressors

P320 / P520 / P420 / P440

Congratulations!

You have made an excellent choice.

WIGGENS wants to thank you for the trust you have placed in us.

This operating manual has been designed to help you gain an understanding of the operation and possible applications of our instruments. For optimal utilization of all functions, we recommend that you thoroughly study this manual prior to beginning any operation.

The WIGGENS Quality Management System



ISO 9001

Certificate Registration No. 01 100084841

Unpacking and Inspection

Unpack the instruments and accessories and inspect them for possible transport damage. Damage should be reported to the responsible carrier, railway, or postal authority, and a damage report should be requested. These instructions must be followed fully for us to guarantee our full support of your claim for protecting against loss from concealed damage. The form required for filing such a claim will be provided by the carrier.

Printed in Germany

Changes without prior notification reserved

Important: keep operating manual for future use

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A. Important Notice

This instrument is designed for laboratory usage only.

Before setting up and operating the Compressor, please read these instructions carefully to familiarize with all installation and operation process. Any individual shall be well trained by reading the instructions or by technical people from authorized distributors before operating the instrument.

The instrument shall not be modified or altered in any way. Any modification or alteration will void the warranty, void the regulatory certifications and create potential safety hazard. We are not responsible for any injury or damage caused by using the instrument for any non-intended purpose, or modifying the instrument by any person who is not authorized.

B. Unpacking

When unpacking, notice if the compressor is in good situation. If not, please contact the distributor or contact us by e-mail: info@chemvak.com immediately for assistance.

C. Installation

1. Check voltage specified on name-plate on the bottom. Make sure if it matches the line voltage in your location.
2. Install the instrument in a clean, dust-less and ventilated area under 40°C.

D. Warning

1. The compressor is not corrosion-proof. Please do not operate it in corrosive environment.
2. The filter cartridge is used to absorb moisture and dust. Please replace the cartridge to maintain proper pumping efficiency when it is saturated.
3. This compressor has a thermal switch that automatically shuts-off when it becomes overheated or lack of voltage.
4. Do not touch the compressor during working or just after use as motor is hot.(70~80°C)

5. Do not use any lubricant, which may damage the compressor.
6. Use the compressor in a dry, clean well-ventilated area.
7. Never spray flammable or toxic materials.
8. If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a competent person in order to avoid hazard.

E. Operation



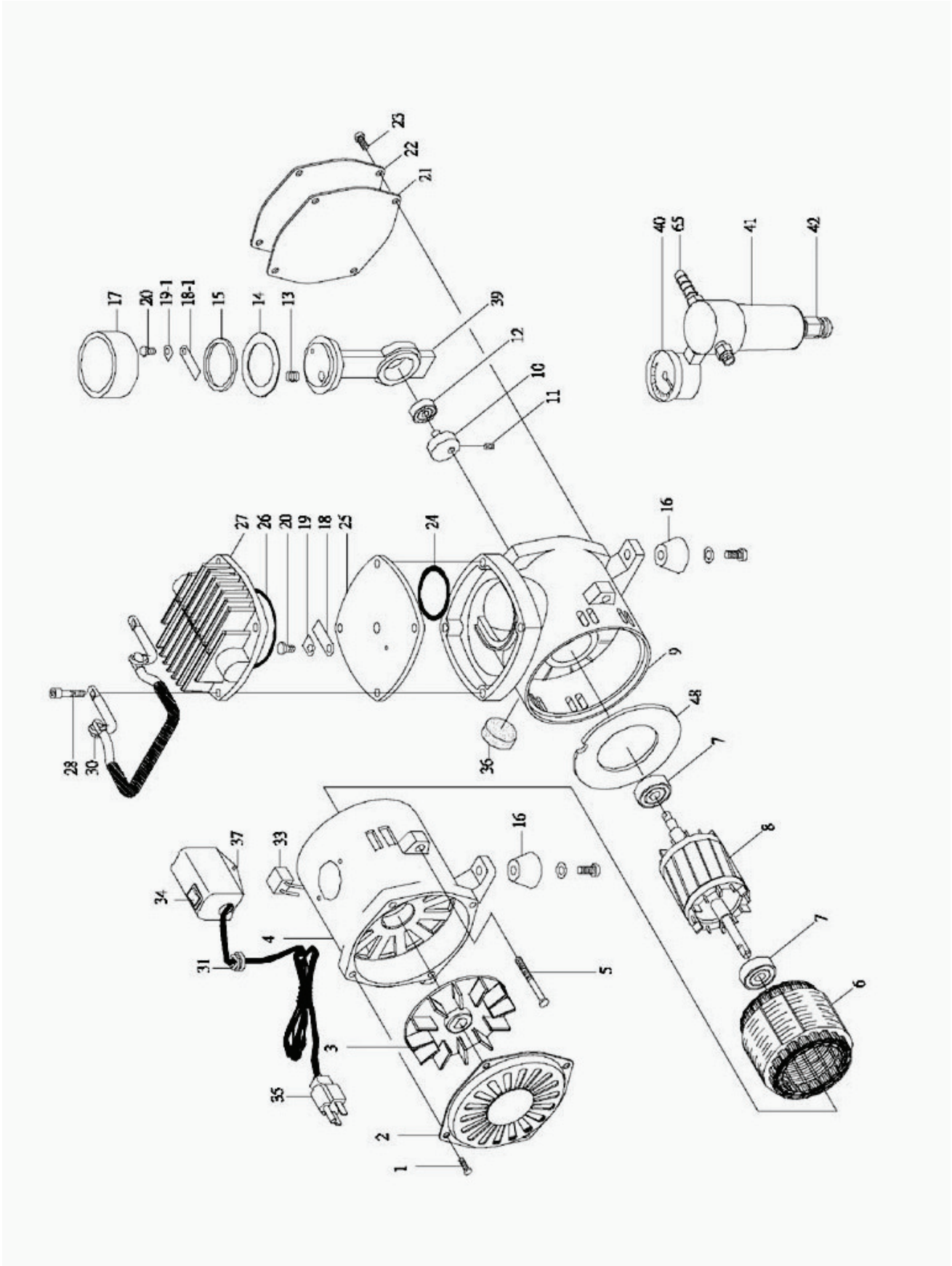
Operating procedure

1. Schematic of the compressor system is shown as above.
2. Once all of tubes have been connected, press on/off ① button to start working.
3. To setup pressure, adjust the regulator ⑤.

How to replace cartridge

1. You are recommended to replace the cartridge when it is exhausted with moisture or particle.
2. First, remove the moisture trap cup ④ by rotating it counterclockwise. Second, remove the cartridge in the same way, then replace a new one.
3. Pour the water out of the moisture trap cup when it is filled with water

F. Parts List



Index	Description	Quan	Index	Description	Quan
1	Setscrew	4	6	Stationary Motor	1
2	Fan Cover	1	7	Bearing	2
3	Cooling Fan	1	8	Rotary Motor	1
4	Rear Body	1	9	Front Body	1
5	Setscrew	2	10	Counterweight	1
11	Setscrew	1	26	O-ring	1
12	Bearing	1	27	Cylinder Head	1
13	Mechanics Spring	1	28	Setscrew	4
14	Compression Ring	1	30	Handle	1
15	Lock Plate	1	31	Cable Protector	1
16	Rubber Stand	4	33	Condenser	1
17	Cylinder	1	34	On/Off Switch	1
18	Valve Plate	1	35	Plug	1
18-1	Valve Plate	1	36	Air Intake Filter	1
19	Valve Plate Lock	1	37	Condenser Cover	1
19-1	Valve Plate Lock	1	39	Connecting Rod	1
20	Set Screw	2	40	Pressure Gauge	1
21	Paper Pad	1	41	Moisture Trap	1
22	Front Body Lid	1	42	Drain Valve	1
23	Setscrew	4	48	Isolation	1
24	O-ring	1	65	Tier Connector	1
25	Cylinder Block	1			

G. Operation

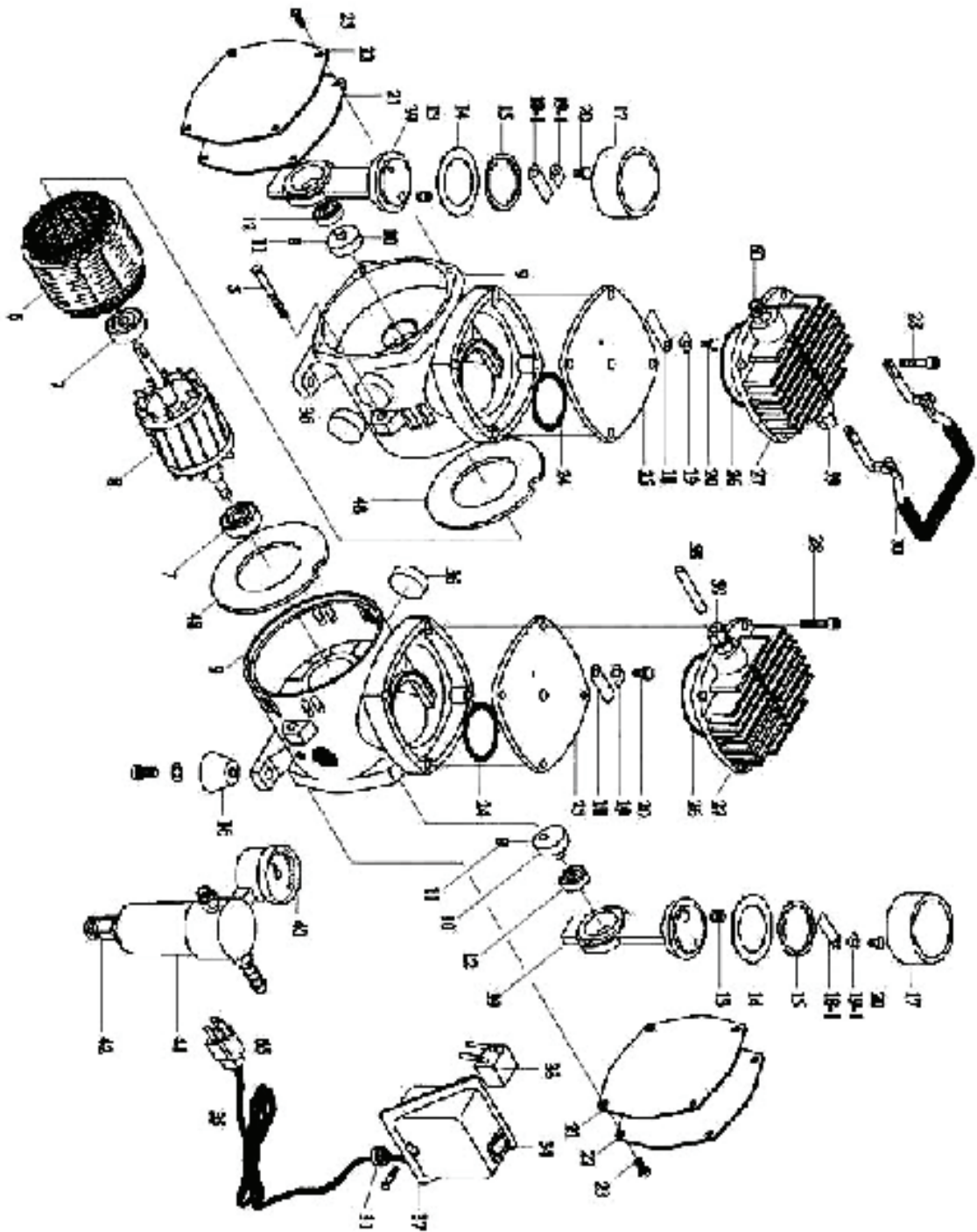
Operating procedure

1. Schematic of the compressor system is shown as above.
2. Once all of tubes have been connected, Press on/off ① button to start working.
3. To setup pressure, adjust the regulator ⑤.

How to replace cartridge

1. First, remove the moisture trap cup ④ by rotating it counterclockwise. Second, remove the cartridge in the same way then replace a new one.
2. Pour the water out of the moisture trap cup when it is filled with water.

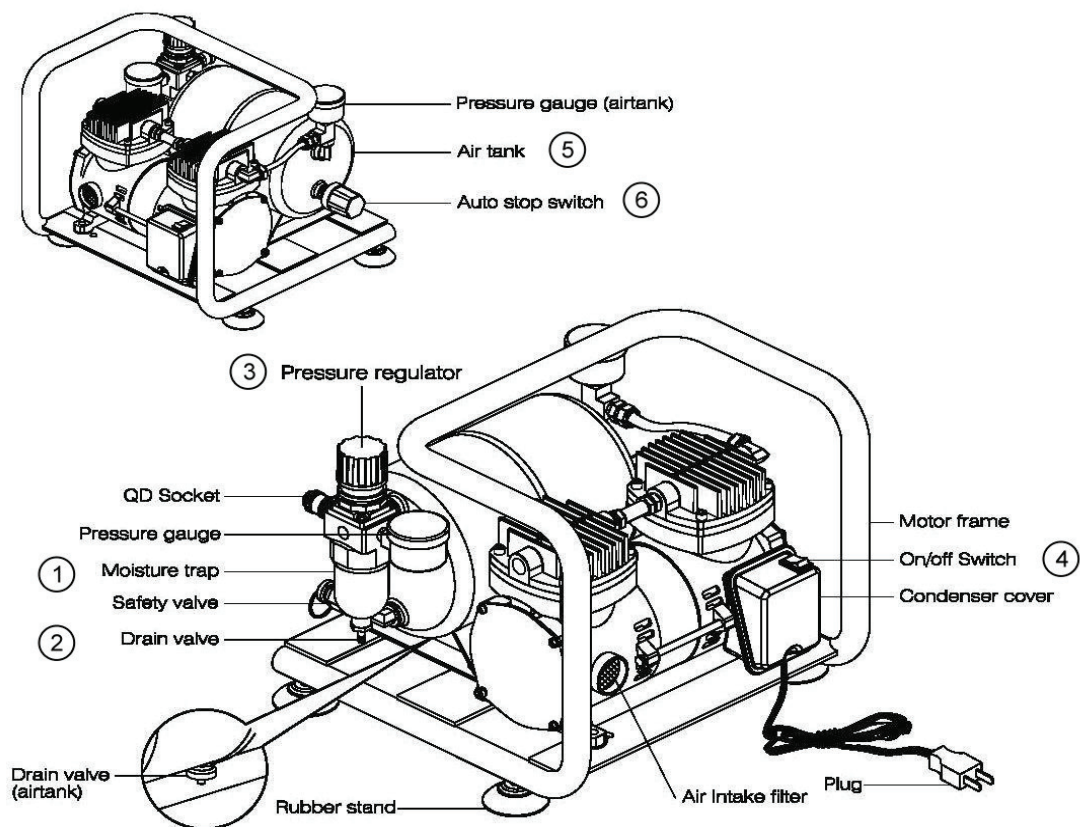
H. Parts List



Index	Description	Q'ty	Index	Description	Q'ty
5	Setscrew	2	10	Counterweight	2
6	Stationary Motor	1	11	Setscrew	2
7	Bearing	2	12	Bearing	2
8	Rotary Motor	1	13	Mechanics Spring	2
9	Front Body	2	14	Compression Ring	2
15	Lock Plate	2	30	Handle	1
16	Rubber Stand	4	31	Cable Protector	1
17	Cylinder	2	33	Condenser	1
18	Valve Plate	2	34	On/Off Switch	1
18-1	Valve Plate		35	Plug	1
19	Valve Plate Lock	2	36	Air Intake Filter	2
19-1	Valve Plate Lock	2	37	Condenser Cover	1
20	Setscrew	4	39	Connecting Rod	2
21	Paper Pad	2	40	Pressure Gauge	1
22	Front Body Lid	2	41	Moisture Trap	1
23	Setscrew	8	42	Drain valve	1
24	O-ring	2	48	Isolation	2
25	Cylinder Block	2	58	Interflow Tube	1
26	O-ring	2	59	Interflow Union	2
27	Cylinder head	2	60	Outlet	1
28	Setscrew	8	65	Tier Connector	1

I. Operation

1. The system consists of a compressor P 420, air tank ⑤ and pressure regulator ③ / moisture trap ①. Air is pumped into air tank by P 420, then goes through pressure regulator / moisture trap. After regulating and filtrating, air goes to where you connect.
2. Stain-less steel air tank possesses a Auto stop switch ⑥. It is set to turn on when pressure is lower than 40psi and off when pressure reaches 60psi.
3. Air tank and moisture trap are built in a drain valve ② . Please open valve to drain the water away when water is accumulated in the air tank and moisture trap.



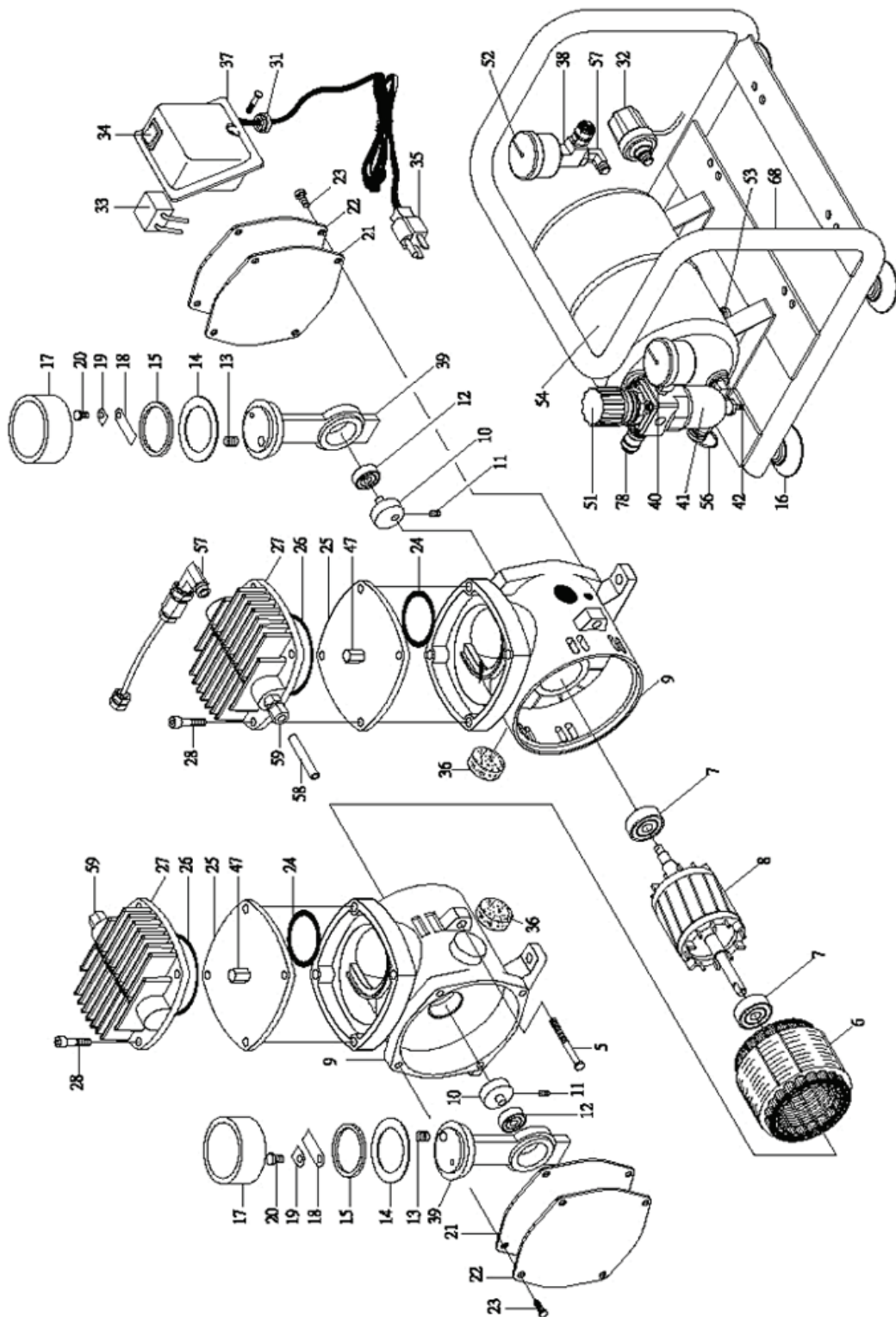
Operating procedure

1. Schematic of the compressor system is shown as above.
2. Once all of tubes have been connected, Press on/off ④ button to start working.
3. To setup pressure, adjust the regulator ③.

How to replace cartridge

1. First, remove the moisture trap cup ① by rotating it counterclockwise. Second, remove the cartridge in the same way then replace a new one.
2. Pour the water out of the moisture trap cup when it is filled with water.

J. Parts List



Index	Description	Q'ty	Index	Description	Q'ty
5	Set screw	2	10	Counterweight	2
6	Stationary Motor	1	11	Set screw	2
7	Bearing	2	12	Bearing	2
8	Rotary Motor	1	13	Mechanics Spring	2
9	Front Body	2	14	Compression Ring	2
15	Lock Plate	2	36	Air Intake Filter	2
16	Rubber Stand	4	37	Condenser Cover	1
17	Cylinder	2	38	3-way Connector	1
18	Valve Plate	2	39	Connecting Rod	2
19	Valve Plate Lock	2	40	Pressure Gauge 1 (airbrush)	1
20	Set screw	2	41	Moisture Trap	1
21	Paper Pad	2	42	Drain Valve	1
22	Front Body Lid	2	47	Check Plate	2
23	Set screw	8	51	Pressure regulator	1
24	O-ring	2	52	Pressure Gauge 2 (air tank)	1
25	Cylinder Block	2	53	Drain Valve	1
26	O-ring	2	54	Air Tank	1
27	Cylinder head	2	56	Safety Valve	1
28	Set screw	8	57	L-connector	3
31	Cable Protector	1	58	Interflow Tube	1
32	Auto Stop Switch	1	59	Interflow Union	2
33	Condenser	1	68	Motor Frame	1
34	On/Off Switch	1	78	QD Socket	1
35	Plug	1			

K. Ordering Information

P320/520

167320-22 P 320 Compressor, AC220V/50Hz

167520-22 P 520 Compressor, AC220V/50Hz

167320-06 Moisture trap

167300-07 Filter cartridge

167320-60 Repair kit of P 320

167520-60 Repair kit of P 520

P420

167420-22 P 420 Compressor, AC220V/50Hz

167320-06 Moisture trap

167300-07 Filter cartridge

167420-60 Repair kit for P 420

P440

167440-22 P440 Air supply system, AC220V/50Hz

167440-07 Filter cartridge

167420-60 Repair kit for P 420

L. Warranty Certificate

We guarantee the perfect functioning of this instrument against defects in material, design, and workmanship, when use under appropriate conditions and in accordance with the instruction manual

For a period of **TWO YEARS** from the date of initial shipment.

This warranty covers all parts and components of the instrument except those normally requiring frequent replacement, such as tubing, gasket, O-rings, etc. We will not be liable for any personal injury, bodily injury, improper maintenance, negligence of accident.

M. Product Liability

Under no circumstances shall Chemvak be liable for indirect, consequential or otherwise special or unrelated damages of any kind.

Chemvak reserves the right to make technical changes without prior notice.

Email: info@chemvak.com

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