

JUN-AIR[®]

A BRAND OF **GAST**[®]

Basic Systems

106R-25B, 106R-25BQ2,
2x106R-40B



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SAFETY

Important - read this first!

Please read the following information and operating instructions included with this product before use. This information is for your safety and it is important that you follow these instructions. It will also help prevent damage to the product. Failure to operate the unit in accordance with the instructions or using JUN-AIR unauthorized spare parts can cause damage to the unit and could cause serious injury.

CAUTION: To reduce risk of electric shock

- Only authorized service agents should carry out service. Removing parts or attempting repairs can create an electric shock. Refer all servicing to qualified service agents.
- If this unit is supplied with a three-pin plug, connect with a properly grounded outlet only.

WARNING: To reduce risk of electrocution

- Do not use this unit with electrical voltages other than stated on the rating plate.
- Always unplug this unit immediately after use and store in a dry place.
- Do not use this product in or near liquid or where it can fall or be pulled into water or other liquids.
- Do not reach for this product if it has fallen into liquid. Unplug immediately.
- This unit is not weatherproof. Never operate outdoors in the rain or in a wet area.

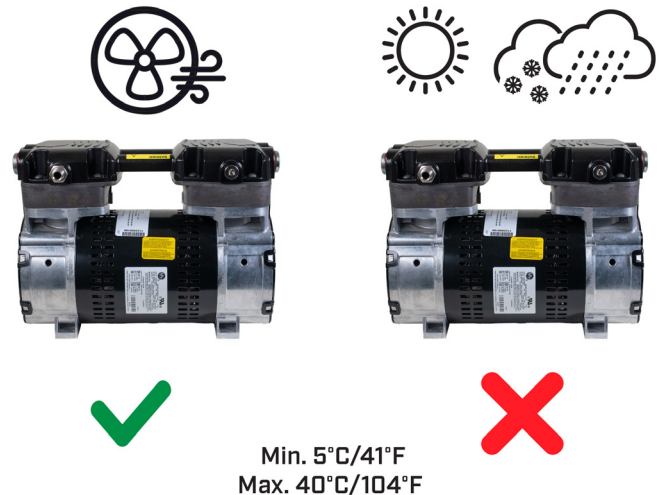
DANGER: To reduce risk of explosion or fire

- During spraying with combustible liquids, risk of explosion may arise, particularly in closed rooms.
- Do not use this product in or near explosive atmospheres or where aerosol products are being used.
- Do not pump any other gases other than atmospheric air.
- Do not pump combustible liquids or vapors with this product; do not use it in or near areas with combustible or explosive liquids or vapors.
- Do not use this unit near open flames.

CAUTION: To prevent injury

- Compressed air can be dangerous; do not direct airflow at a person's head or body.
- Always keep the system out of reach of children.
- Never operate this product if it has a damaged power lead or plug, if it has been dropped or damaged, or if it has fallen into water. Return the product to a service center for examination and repair.
- Keep the electrical cable away from hot surfaces.
- Ensure all openings are kept free of restriction and never restart when the unit cools and the overload resets. Never place the system on a soft surface where the openings may be blocked. Keep all openings free from dust, dirt and other particles.
- Never leave this product unattended when plugged in.
- Never insert fingers or any other objects into fans.
- This unit is thermally protected and can automatically restart when the overload resets.
- Wear safety glasses, when servicing this product.
- Use only in well ventilated areas.
- This product may only be connected to units or tools with a max. pressure rating higher or equal to that of the compressor.
- The surface of the compressor can get hot. Do not touch compressor motor during operation.

Failure to observe the safety precautions could result in severe bodily injury, including death in extreme cases.

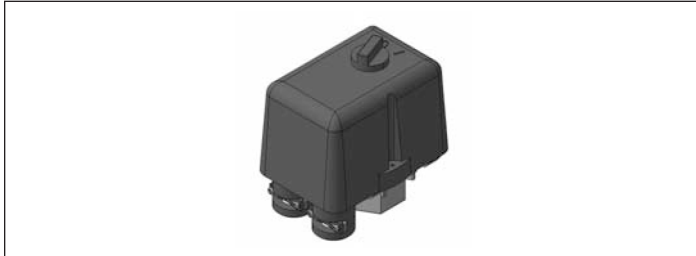


IMPORTANT: General directions for use

- Protect compressor against rain, moisture, frost and dust.
- The compressor is constructed and approved for a max. pressure as stated under Technical Specifications.
- Do not operate the compressor at ambient temperatures exceeding 40°C/104°F or falling below 0°C/32°F.
- If the supply power lead on the compressor is defective, an authorized **Jun-Air** distributor or other qualified personnel must carry out the repair.

OPERATION

- If the compressor has been stored at an extremely low temperature, allow it to heat to room temperature before switching it on.
- If the compressor is supplied with a receiver, connect equipment and open the filter regulator on the receiver.
- Turn on the compressor on the pressure switch.



- The compressor will automatically stop when the preset cut-out pressure is reached.
- If the compressor does not start, there might be pressure in the receiver. The compressor will automatically start when the pressure drops.
- The cut-in and cut-out pressure is preset from the factory and it is normally not necessary to change this. However, if it is necessary to change the preset settings, the instructions of this manual shall be followed carefully.
- All AC compressors are designed for 100% duty but 50% operation is recommendable to prolong the lifetime.
- Do not remove the protection covers during operation as it may cause electric shock or other personal injury.
- Do not lubricate the oil-less motor with oil, as it will destroy important components.

MAINTENANCE

To ensure a long lifetime of the compressor, it is important that inspection and maintenance is carried out regularly as described in the following.

Preventive maintenance

	Activity	Weekly	Monthly	One a year, or every 2000 hours
a	Drain condensate	•		
b	Check filter regulator	•		
c	Check for leaks		•	
d	Clean the unit		•	
e	Check safety valve			•
f	Check inlet filter			•
g	Check non-return valve			•

a) Drain condensate

Drain condensate by opening the drain cock on the receiver.

If mounted with auto drain, condensate will be drained automatically. If drain bottle is installed, empty when necessary.

b) Check filter regulator

If a filter regulator is installed, check weekly and drain for condensate by pressing the button at the bottom.

If auto drain is installed, the filter will be emptied automatically.

Check and change the filter and filter element in accordance with the instructions in "Installation and maintenance instructions" for the filter in question.

c) Check for leaks

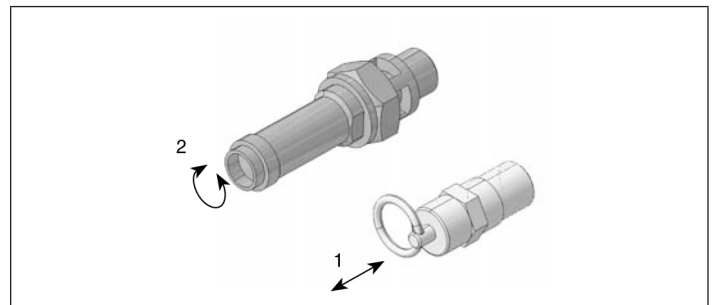
Check motor, hoses and equipment for leaks.

Check the pumping time.

d) Clean the unit

Clean the unit when needed with a soft, damp cloth. If necessary, use paraffin to remove adhesions. Dust and dirt prevent cooling.

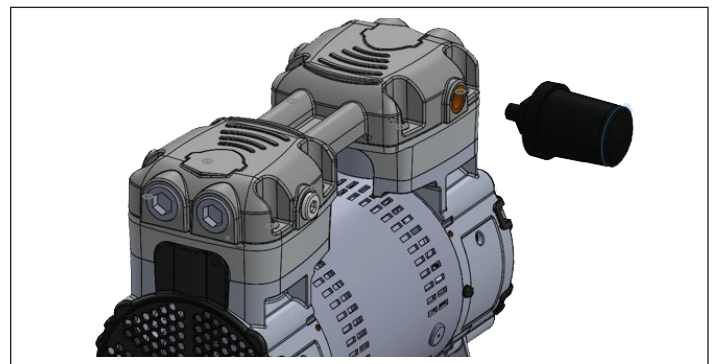
e) Check safety valve



Check the safety valve with pressure in the receiver. The safety valve is operated by pulling the ring (1) or turning the screw (2) depending on the valve type.

f) Check intake filter

Check the intake filter and change it if necessary.



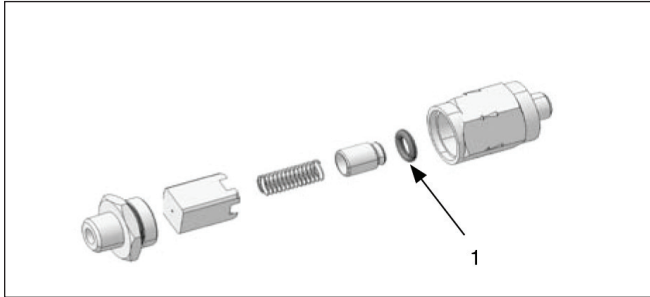
Remove the filter and replace.

g) Check the non-return valve

Turn off the compressor on the mains switch and pull out the plug.

Empty the receiver for compressed air by operating the safety valve. When the receiver is empty, the reading of the pressure gauge is 0 bar.

Dismount the non-return valve from the receiver.



Disassemble the non-return valve and remove the O-ring [1] from the piston.

Clean the non-return valve.

Mount a new O-ring and re-assemble the non-return valve.

Re-install the non-return valve.

Please note that all service must be carried out by a qualified person.

Adjustment of pressure switch

The working pressure has been preset from the factory, and it is normally not necessary to change this.

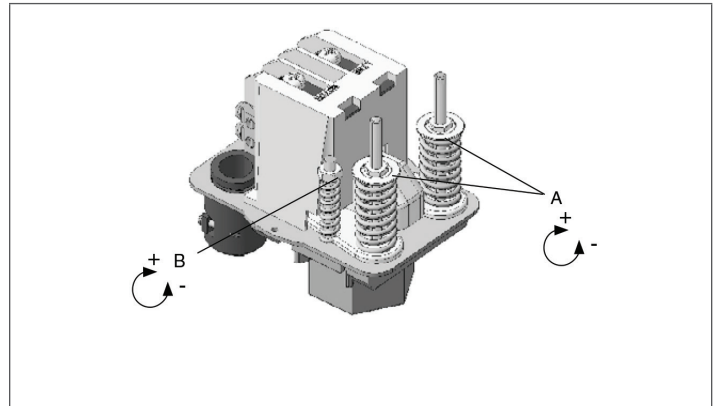
However, if it is necessary to change the preset settings, the instructions mentioned below should be followed carefully.

Warning

The compressor is constructed and approved for a max. pressure as stated under Technical Specifications - do not adjust to a higher pressure.

Higher working pressure will reduce the lifetime of the compressor.

The compressor will stop at max. pressure (stop pressure) and start again at min. pressure (start pressure). The difference between max. and min. pressure is the differens pressure.



Unscrew the lid of the pressure switch. Adjust max. pressure adjusting the two springs marked A (clockwise: higher pressure). Adjust the two springs identically.

Adjust the differens pressure adjusting the spring marked B (clockwise: higher differens pressure, start pressure maintained).

Test of pumping time

The pumping time indicates the condition of the compressor.

1. Check that there are no leaks in the system.
2. Empty the air receiver of compressed air so that the pressure gauge shows 0 bar.
3. Close the filter regulator and check that the drain valve is closed.
4. Start the compressor and note the time it takes until it is turned off again by the pressure switch. Check that the pumping time agrees with the technical specifications for the actual compressor system.

Please note that the pumping time in this manual is given for 0 to max pressure.

Important

Always test the pumping time when cold. If the compressor is warm, the pumping time will be considerably longer.

FAULT FINDING AND REPAIR

Important

Switch off and isolate from electrical supply before removing any parts from the pump. Empty air receiver of air before performing any operation on the compressors' pressure system.

1. Compressor does not start

- The air receiver is pressurized. The motor will start when the pressure has dropped to the preset start pressure. Empty the receiver.
- Check that the mains supply agrees with the motor label.
- No power from mains. Check fuses and plug.
- Bad connection or broken cable.
- The motor is overheated and the thermal protection has switched it off. When cooled the motor will turn on automatically. Go to section 5.
- The compressor has not been unloaded and there is back pressure on the piston. Ensure that the compressor is unloaded each time it stops.
- The motor is blocked.
- Defective capacitor.

2. The compressor makes a buzzing sound but does not start

- Leaky non-return valve. Dismount the pressure pipe and check if air leaks from the non-return valve. Clean and replace.
- The motor is blocked.

3. The compressor runs but the pressure does not increase

- Intake filter clogged. Replace.
- Non-return valve is clogged. Clean or replace.
- Leaks in fittings, tubes or pneumatic equipment. Check with soapy water or by letting unit stay over night disconnected from mains. Pressure drop should not exceed 1 bar.
- Check the piston gaskets. Replace if necessary.
- Defective valve plate. Contact your JUN-AIR distributor.

4. The motor gets very hot

- The ambient temperature is too high. If the motor is installed in a cabinet sufficient ventilation must be ensured.
- Leaks in fittings, tubes or pneumatic equipment. Check with soapy water or by letting unit stay over night disconnected from mains. Pressure drop should not exceed 1 bar.
- The compressor is overloaded.

5. The compressor runs even if no air is tapped

- Leaks in fittings, tubes or pneumatic equipment. Check with soapy water or by letting unit stay over night disconnected from mains. Pressure drop should not exceed 1 bar.

6. The compressor does not start at min pressure or does not stop at max pressure.

- Defective pressure switch. Replace.

PRESSURE VESSEL

Pressure tested at	14-25 litre 24 bar
	4-50 litre 18.3 bar

Directions for use

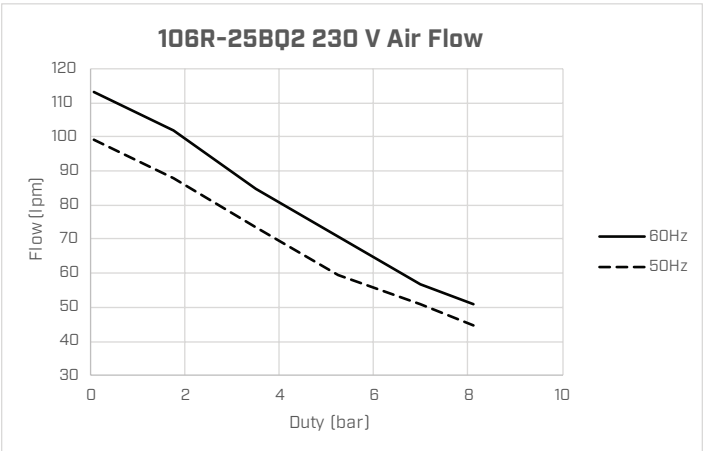
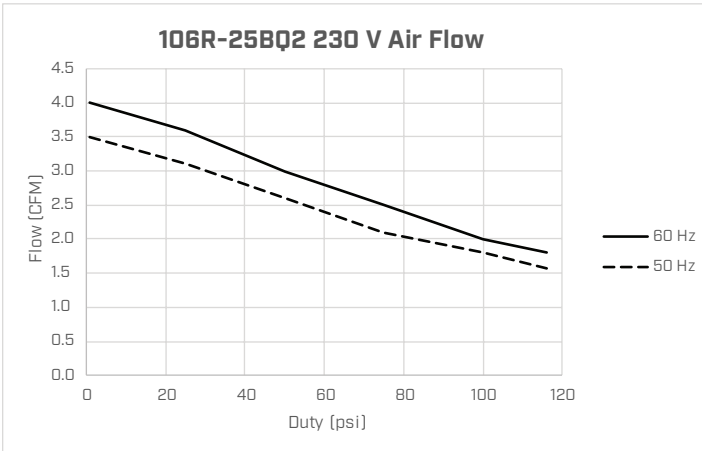
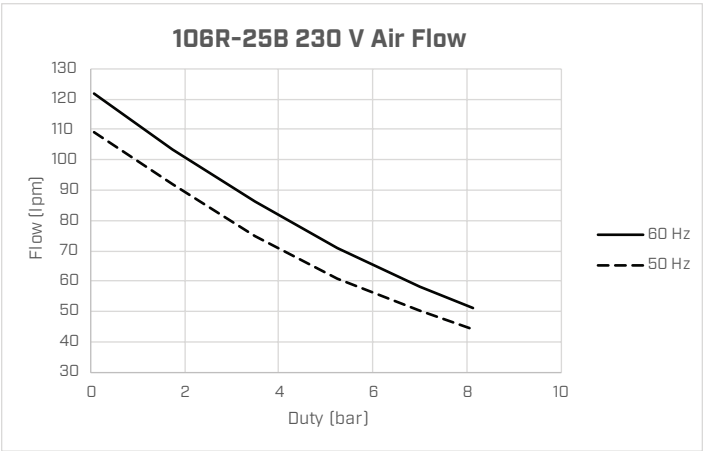
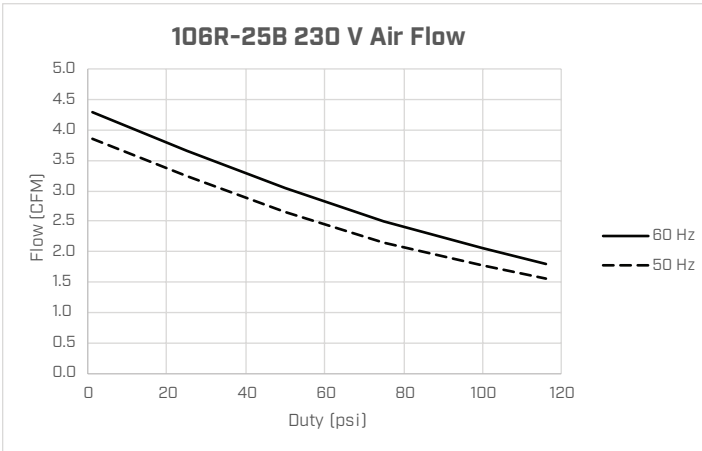
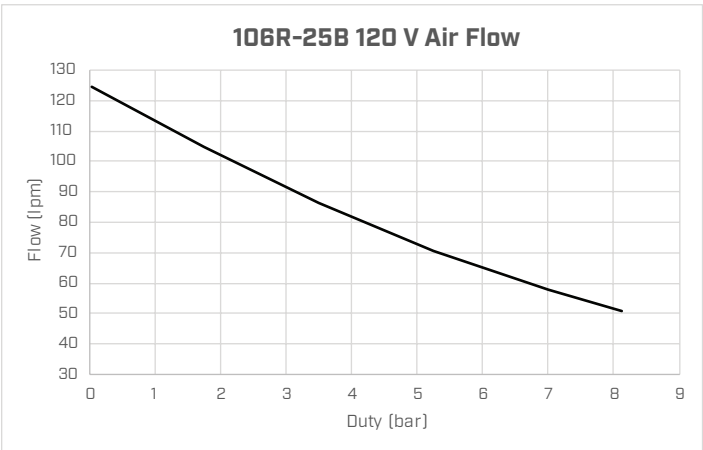
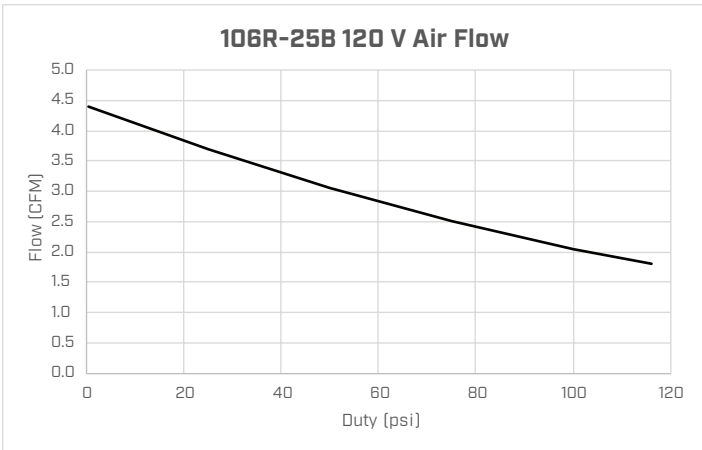
Application	Receiver for compressed air
Receiver specifications	See name plate
Installation	Tubes, etc. must be installed with suitable materials
	Observe the working temperature of the receiver
Placement	Ensure sufficient room for inspection and maintenance
	The receiver must be kept in a horizontal position
	The surface treatment must be maintained as required
Corrosion protection	Internal inspection at least every five years
	Drain condensate at least once a week
Alternation/repair	No welding must be made on pressurized parts
	Ensures that PS will not be exceeded
	Never adjust to a higher pressure than PS
Safety valve	The capacity of the valve must be calculated in accordance with the volume of air supplied by the compressor
	PS - Maximum working pressure of the receiver

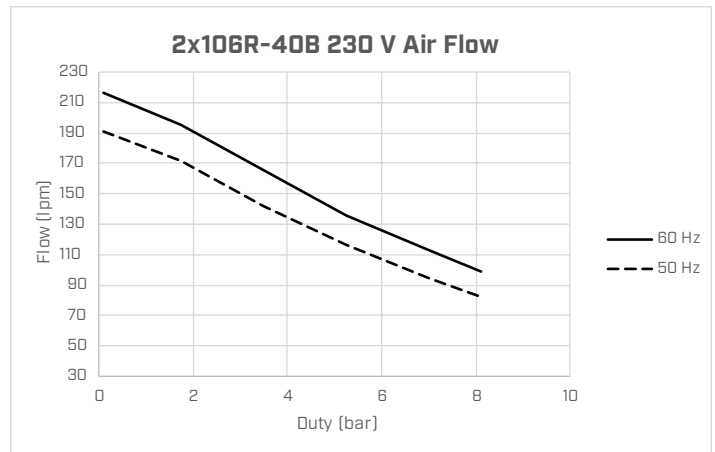
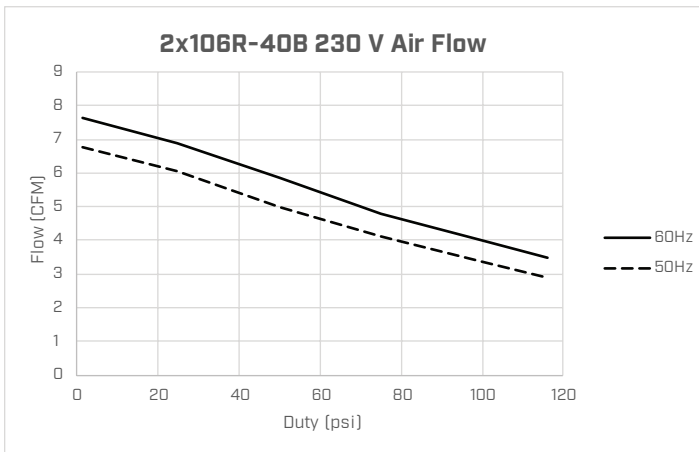
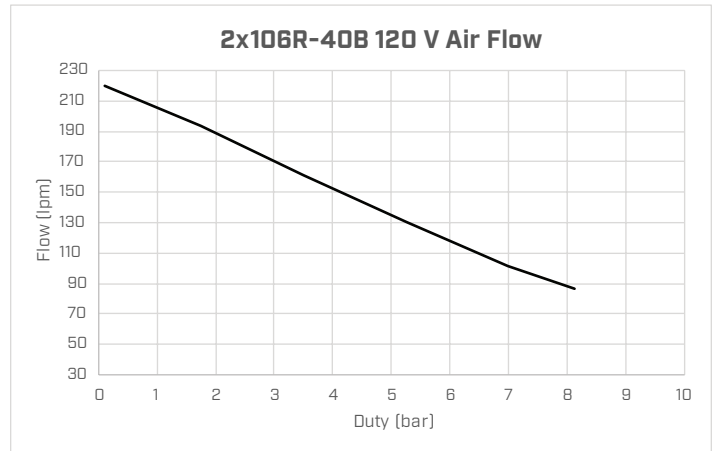
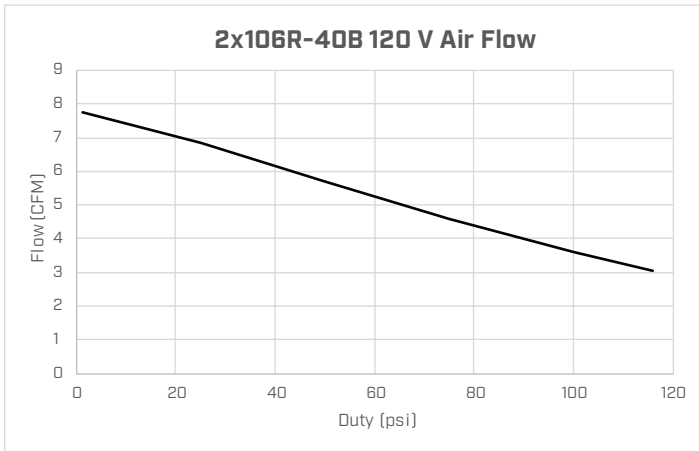
Technical Data & Specifications

Specifications		106R-25B		106R-25BQ2	2x106R-40B	
		120 V	230 V	230 V	120 V	230 V
Electrical rating	volts	120 V	230 V	230 V	120 V	230 V
Tank size	liter	25			40	
	U.S. gallon	6.6			10.6	
Weight	kg	36		48	52	51
	lbs	80		105	115	113
Dimensions (w x h x d)	Cm	38.0 × 66.5 × 38.0		56.6 × 64 × 52	55.5 × 63.1 × 52.8	
	in	15.0 × 26.2 × 15.0		22.3 × 25.2 × 20.5	21.9 × 24.8 × 20.8	
Continuous System Output Flow @ Max. Operating Pressure	LPM	51	44.2 @ 50 Hz 51.0 @ 60 Hz	44.7 @ 50 Hz 51.0 @ 60 Hz	86.4	92.1 @ 50 Hz 99.1 @ 60 Hz
	CFM	1.8	1.6 @ 50 Hz 1.8 @ 60 Hz	1.6 @ 50 Hz 1.8 @ 60 Hz	3.1	2.9 @ 50 Hz 3.5 @ 60 Hz
Cut-in Pressure	bar	6				
	psi	87				
Cut-out Pressure	bar	8				
	psi	116				
Air Filtration	µm	5				
Safety Relief Valve Pressure	bar	11				
	psi	160				
Sound Level	dB(A)	68	69.6 @ 50 Hz 68.0 @ 60 Hz	69.6 @ 50 Hz 68.0 @ 60 Hz	72.3	68.9 @ 50 Hz 70.9 @ 60 Hz
Operating Temperature	°C	5 to 40				
	°F	41 to 104				
Operating Relative Humidity	%	20 to 80				
Pump Up Time (0 to cut out) at operating temperature	mm:ss	02:02	02:38 @ 50 Hz 02:14 @ 60 Hz	03:08 @ 50 Hz 02:38 @ 60 Hz	1:50	02:12 @ 50 Hz 01:50 @ 60 Hz

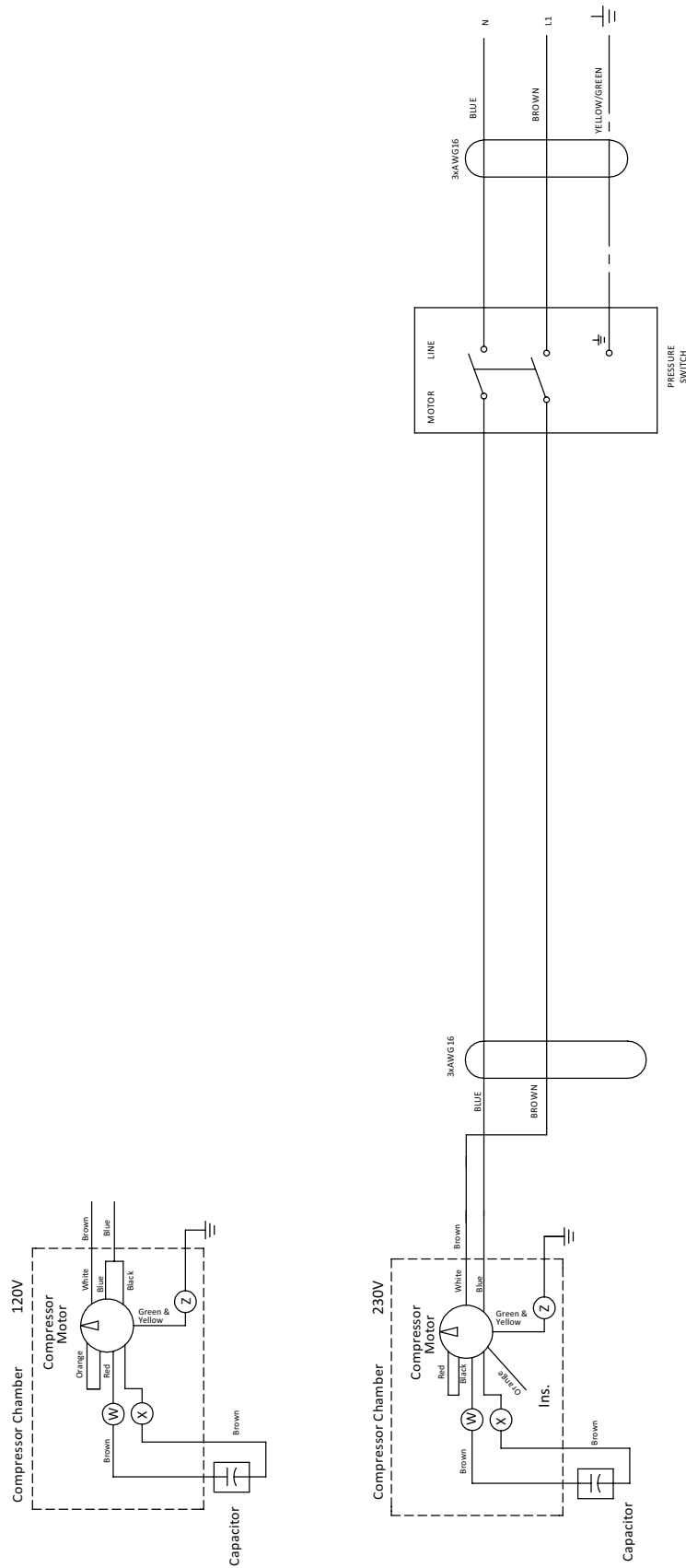
Technical modifications reserved.

Performance Curves

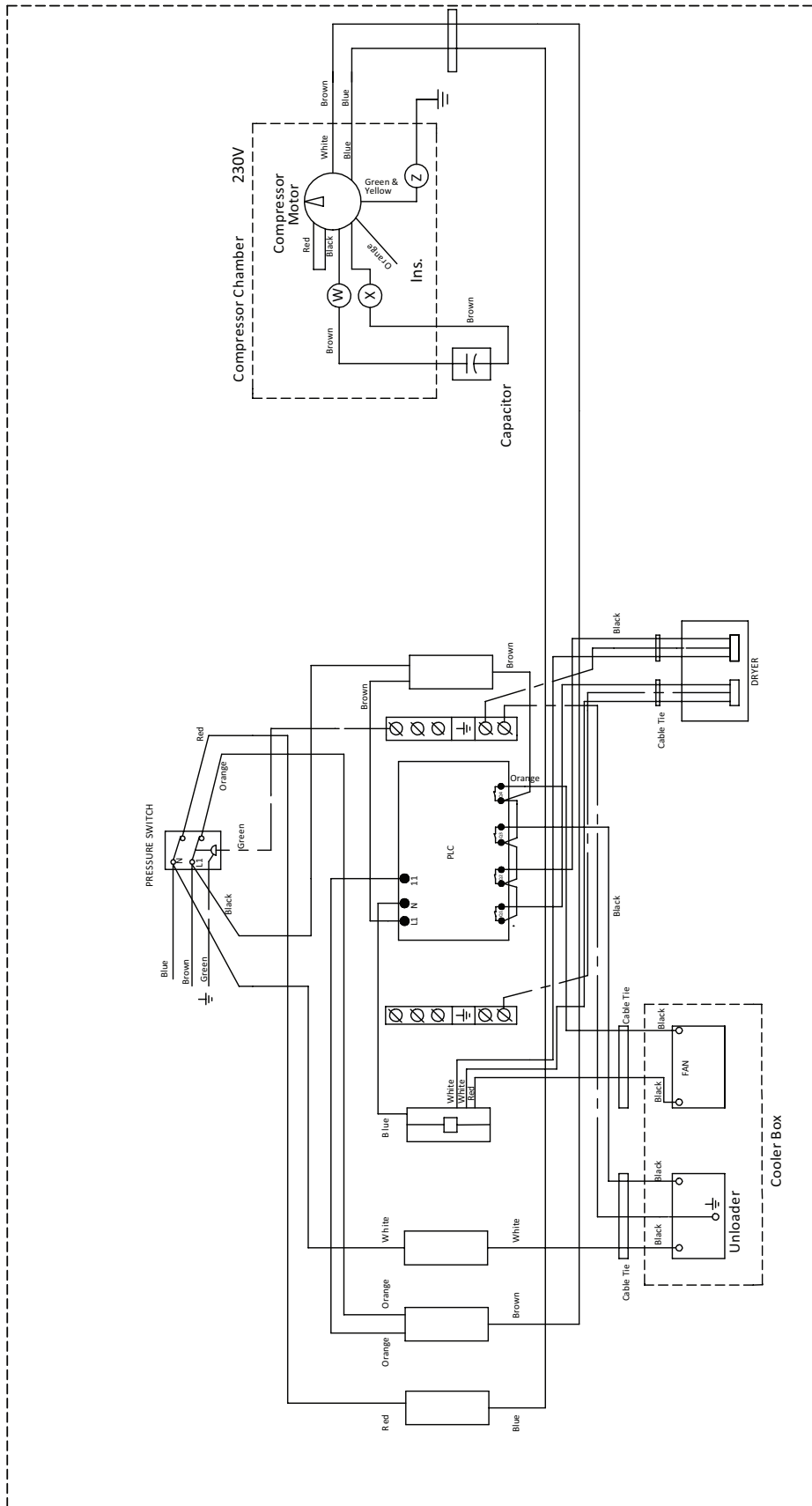




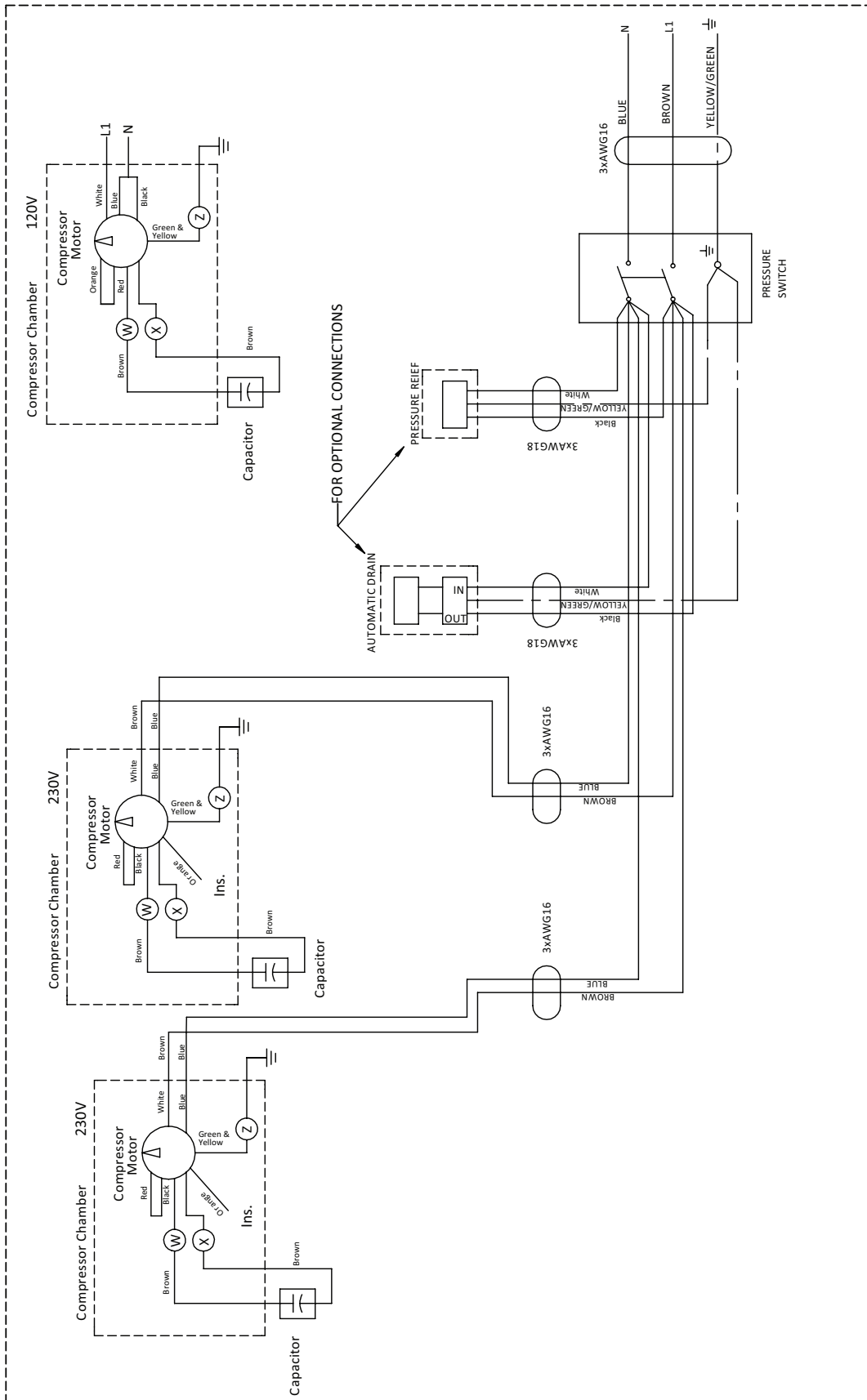
Electrical Drawing Model 106R-25B



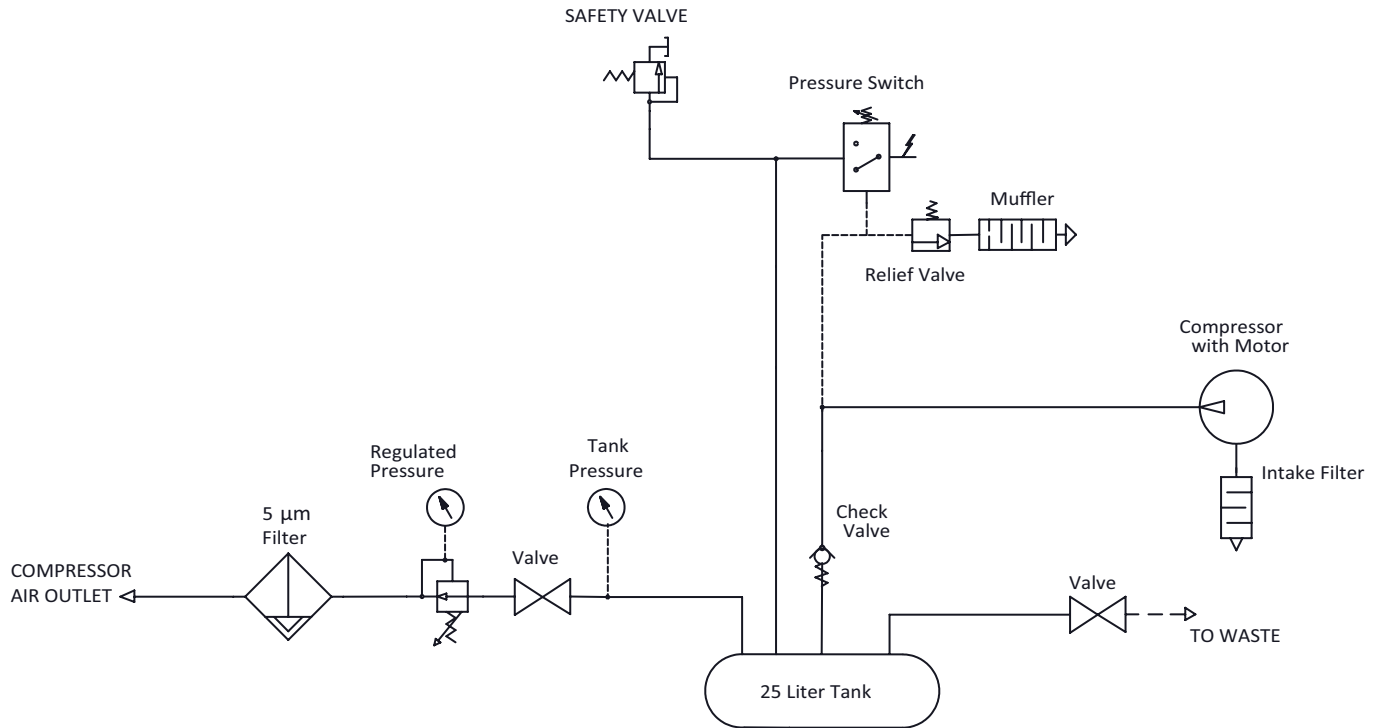
Electrical Drawing Model 106R-25BQ2



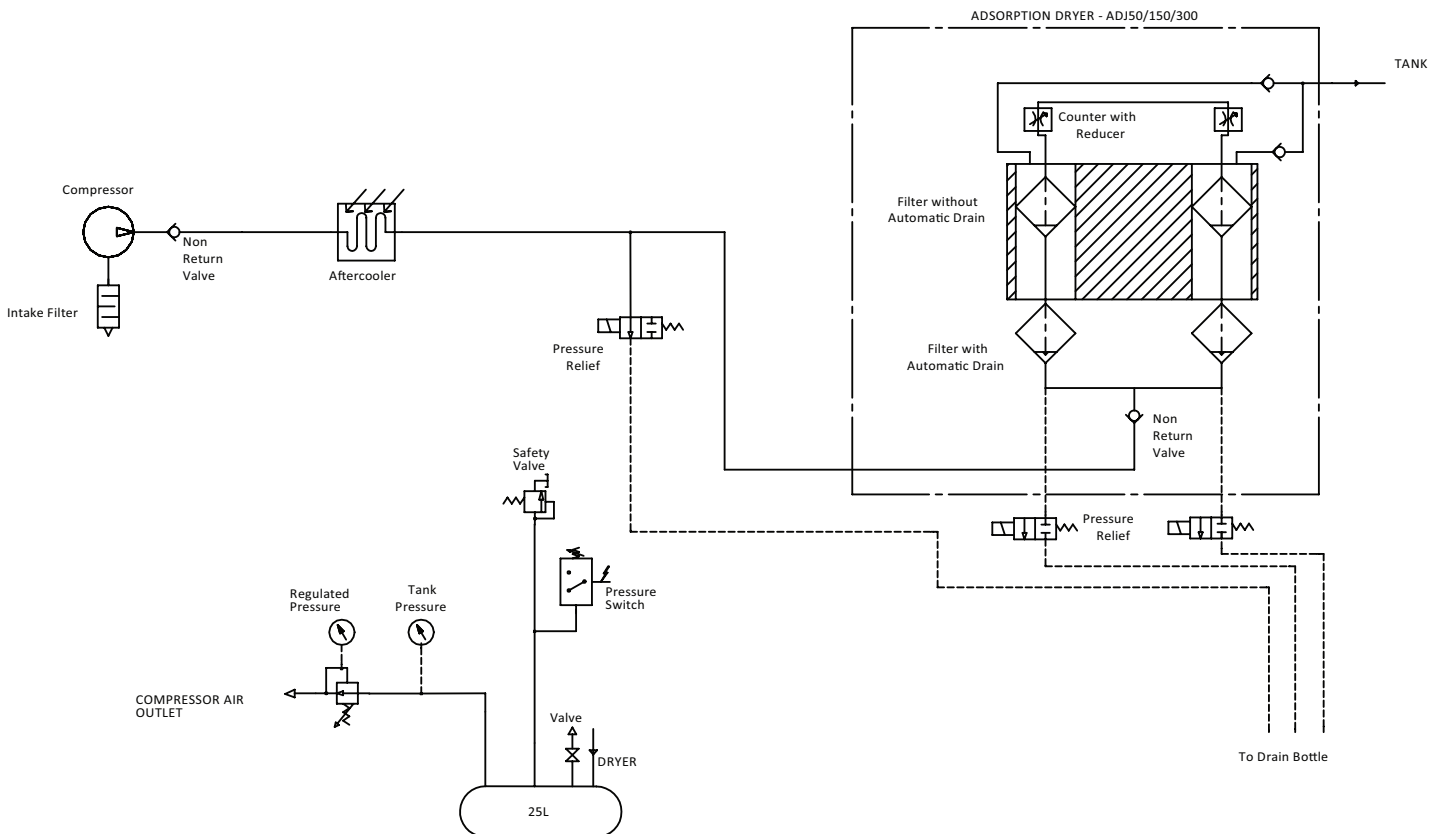
Electrical Drawing Model 2x106R-40B



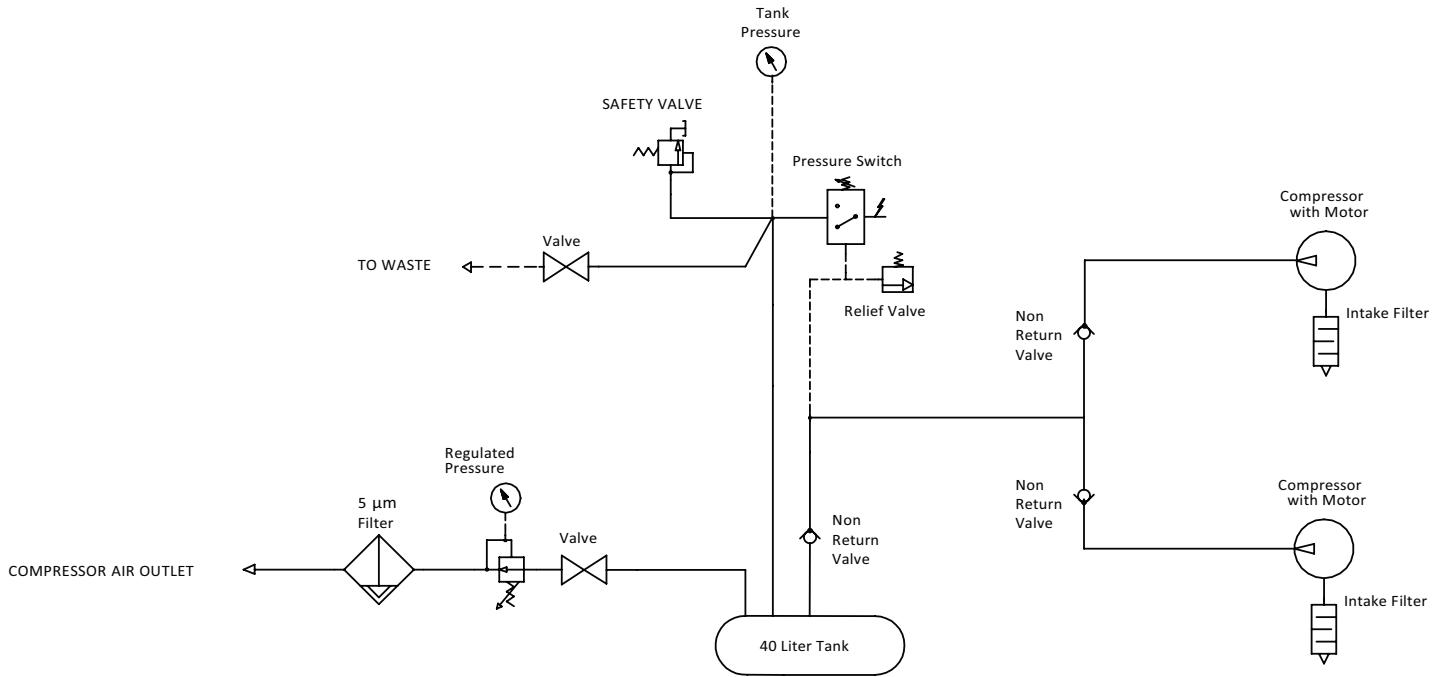
Pneumatic Diagram Model 106R-25B



Pneumatic Diagram Model 106R-25BQ2



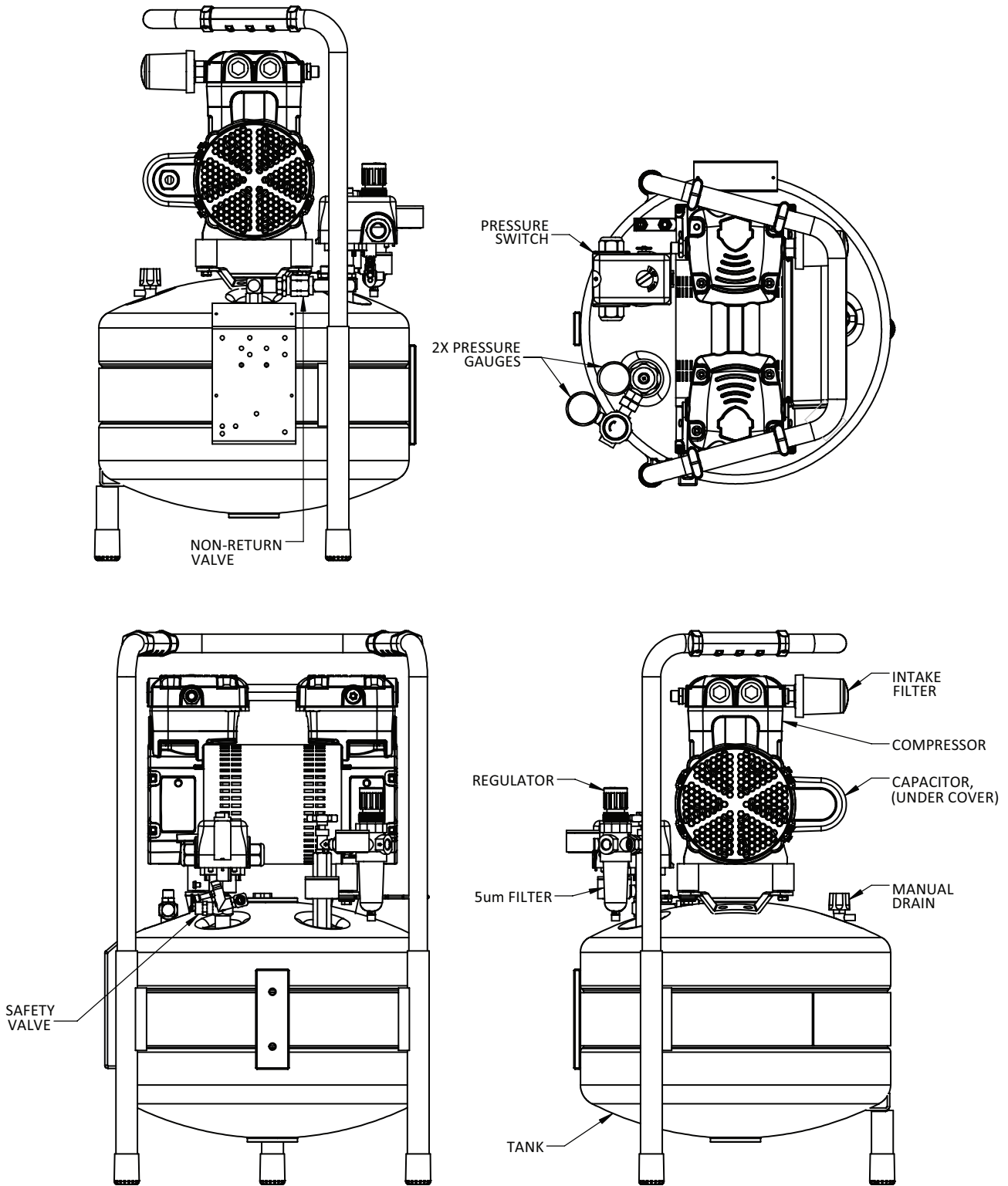
Pneumatic Diagram Model 2x106R-40B



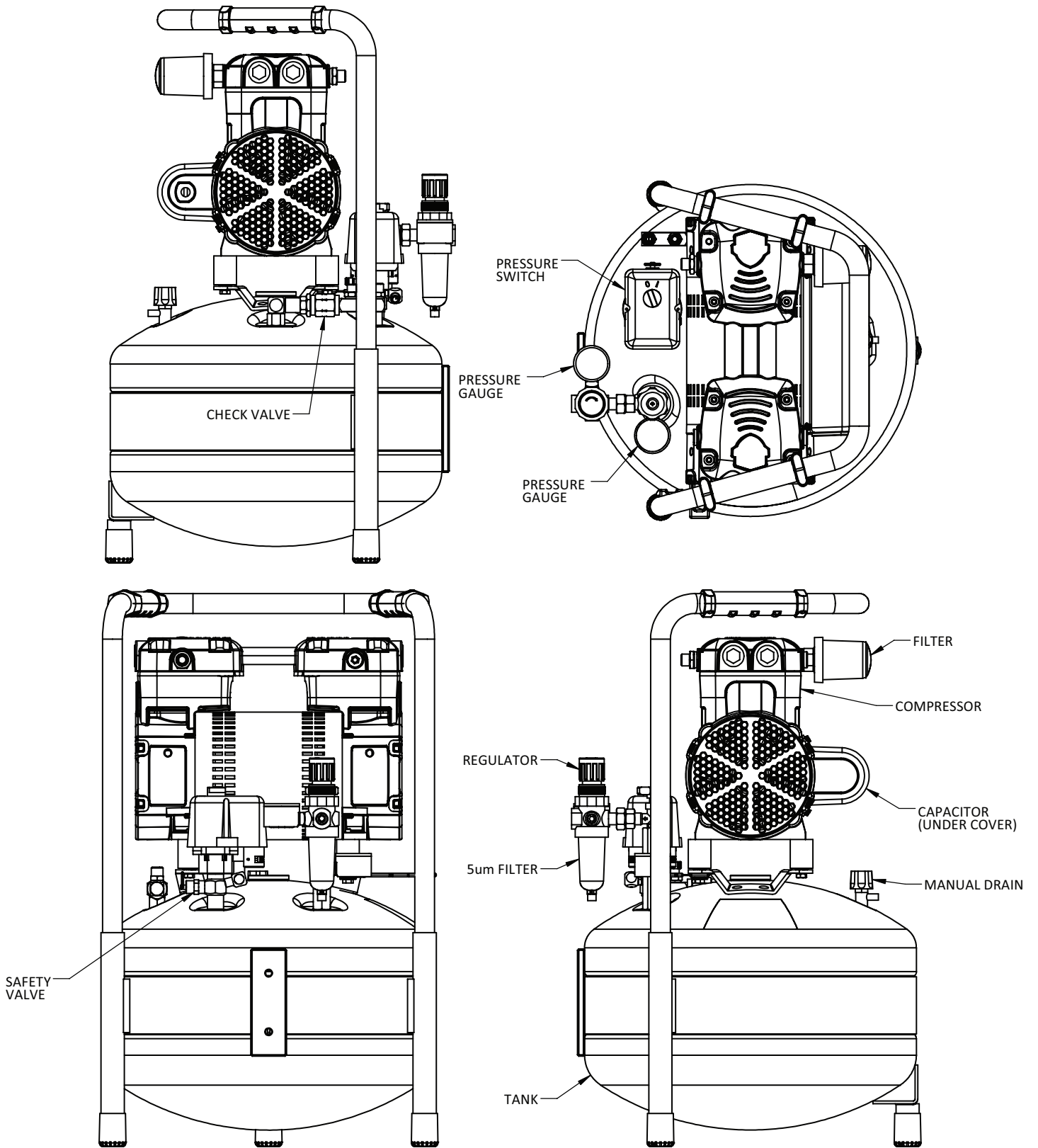
Basic System Kits

Description	Kit Number	Service Interval
106R Preventative Maintenance Kit	K1038	1000 hours or one year
106R6 Service Kit - Low Pressure	K1039	6000 hours or five years
106R5 Service Kit - High Pressure	K1040	6000 hours or five years
106R Capacitor Replacement Kit	K1041	Five years
106R Capacitor Cover	K1042	As needed
106R Spare Parts	K1043	As needed
106R Retrofit Parts for DF302/DF312	K1044	As needed
Basic B System Outlet Hose Kit	K1048	As needed
Basic BQ System Outlet Hose Kit	K1049	As needed
Regulator Filter Kit	4071311	2000 hours or one year
Regulator Filter Bowl Manual Drain Kit	4071330	As needed
Regulator Filter Bowl Automatic Drain Kit	4071340	As needed
4071321 PARKER Reg Kit	4071321	As needed

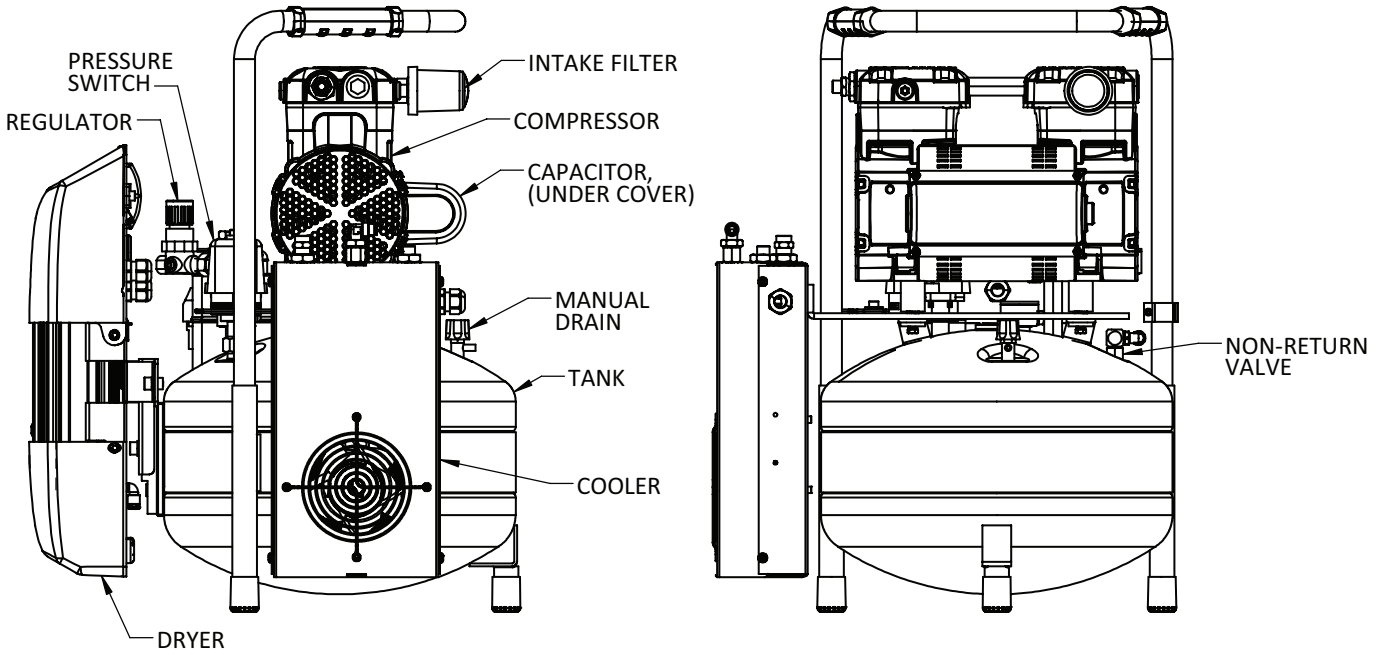
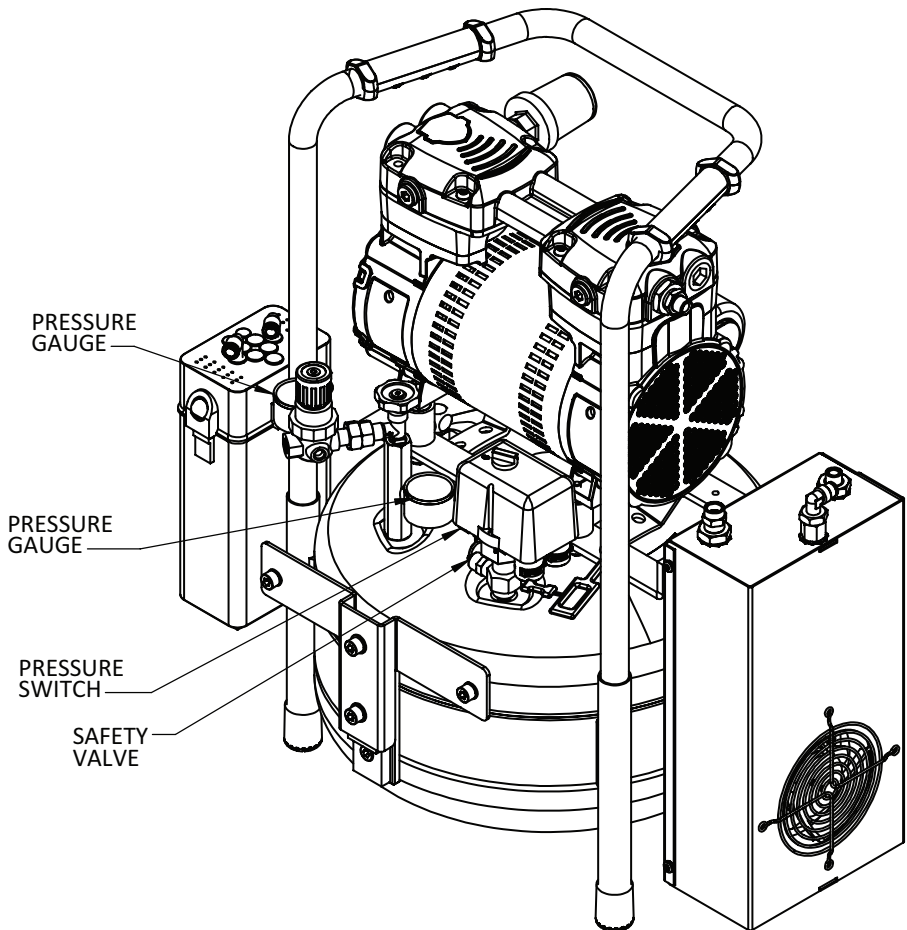
Basic Systems 106R-25B 120 V Feature Diagram



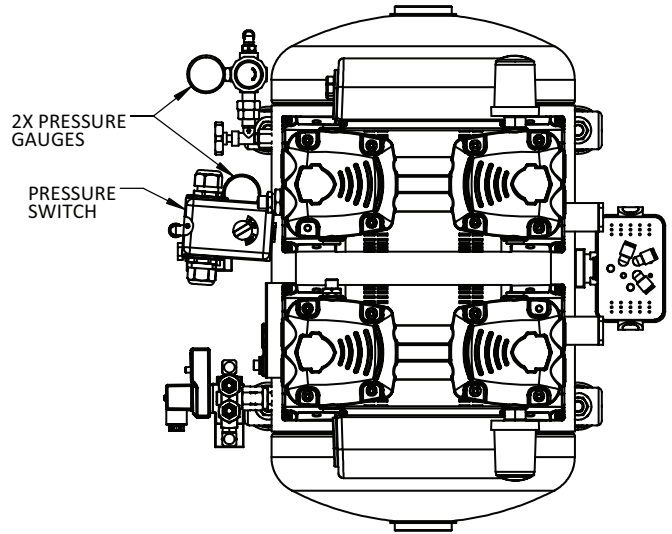
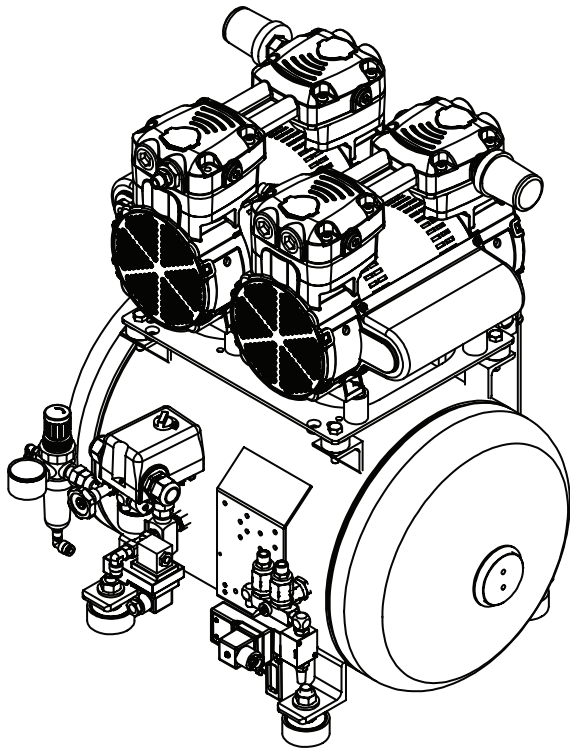
Basic Systems 106R-25B 230 V Feature Diagram



Basic Systems 106R-25BQ2 Feature Diagram

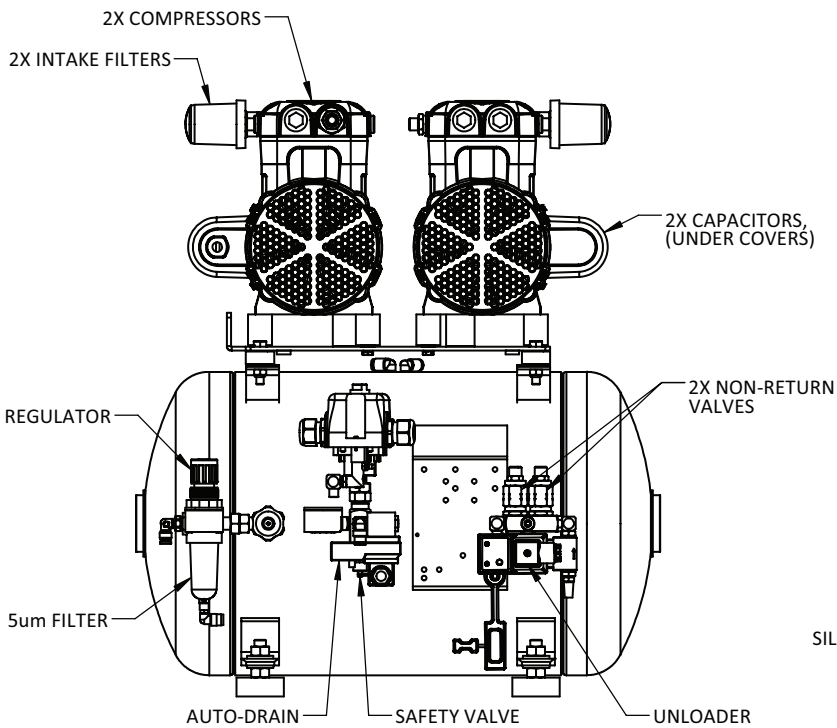


Basic Systems 2x106R-40B 120 V Feature Diagram



2X PRESSURE GAUGES

PRESSURE SWITCH



2X COMPRESSORS

2X INTAKE FILTERS

2X CAPACITORS (UNDER COVERS)

REGULATOR

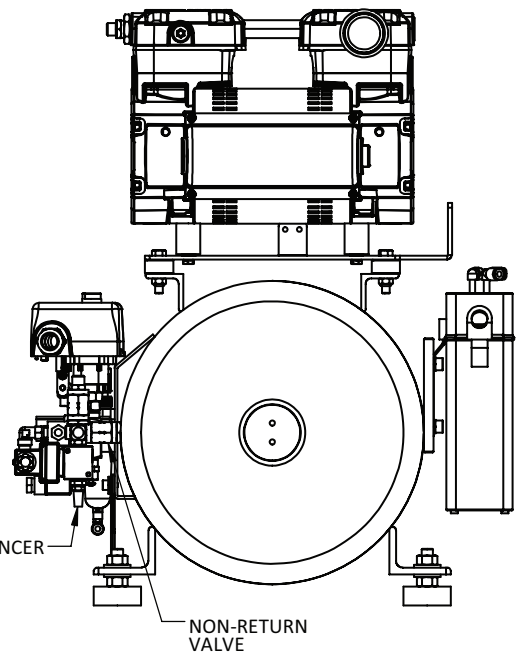
2X NON-RETURN VALVES

5um FILTER

AUTO-DRAIN

SAFETY VALVE

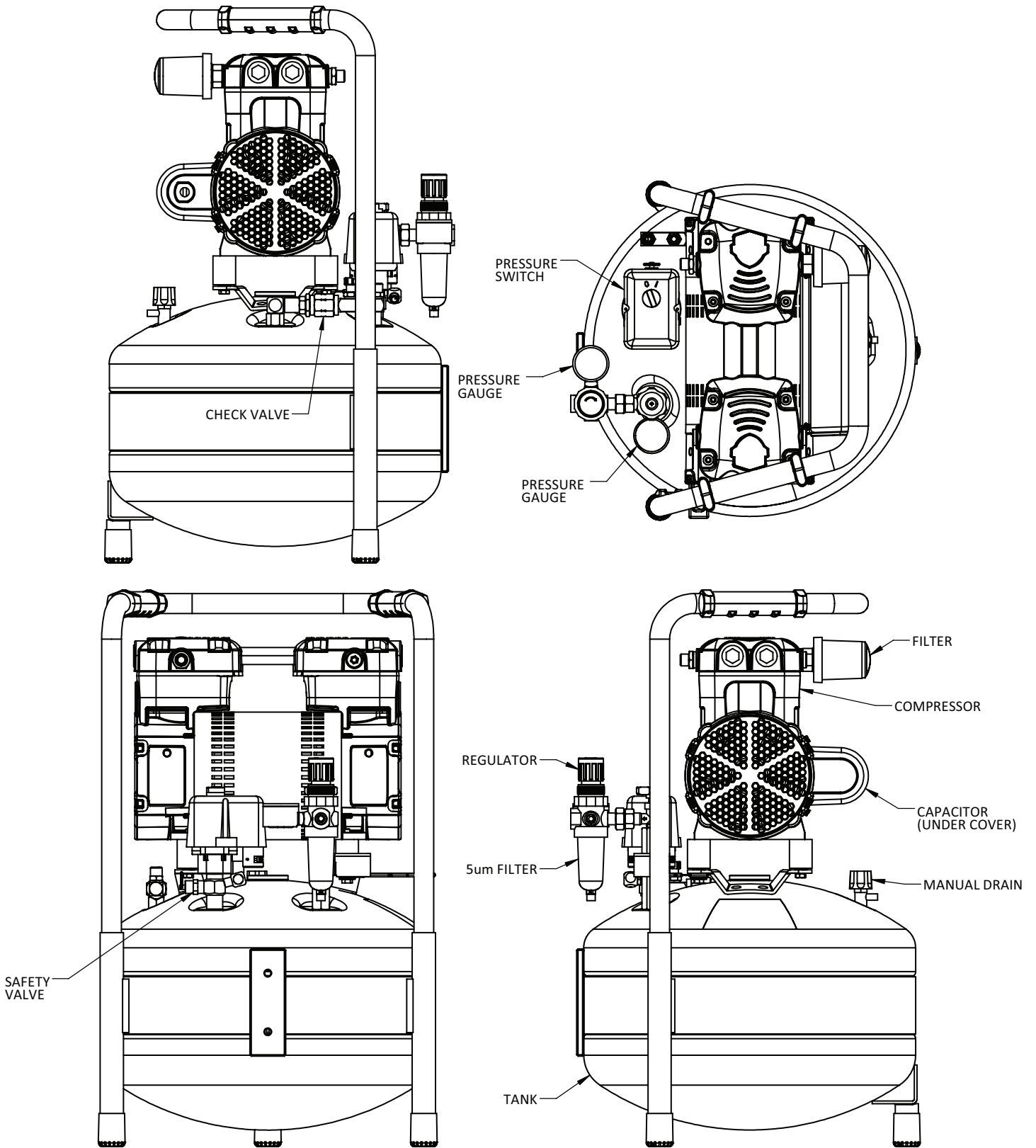
UNLOADER



SILENCER





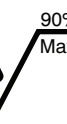




NON-RETURN VALVE

Basic Systems 2x106R-40B 230 V Feature Diagram



Symbols

The symbols found on the product and packing are explained below.

Symbol	English/ Description
	Caution! Please refer to enclosed documentation
	Warning! Hot surfaces. Risk of burns. Do not touch the compressor head.
	Keep dry. Do not expose to rain.
	Transport and storage: Temperature: -25°C to 55°C / -13°F to 131°F
	Transport and storage: Relative humidity: max. 90%
	This side up.
	This side up.
	Fragile. Handle with care.
	Disposal in accordance with existing regulations for electric and electronic equipment.

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