

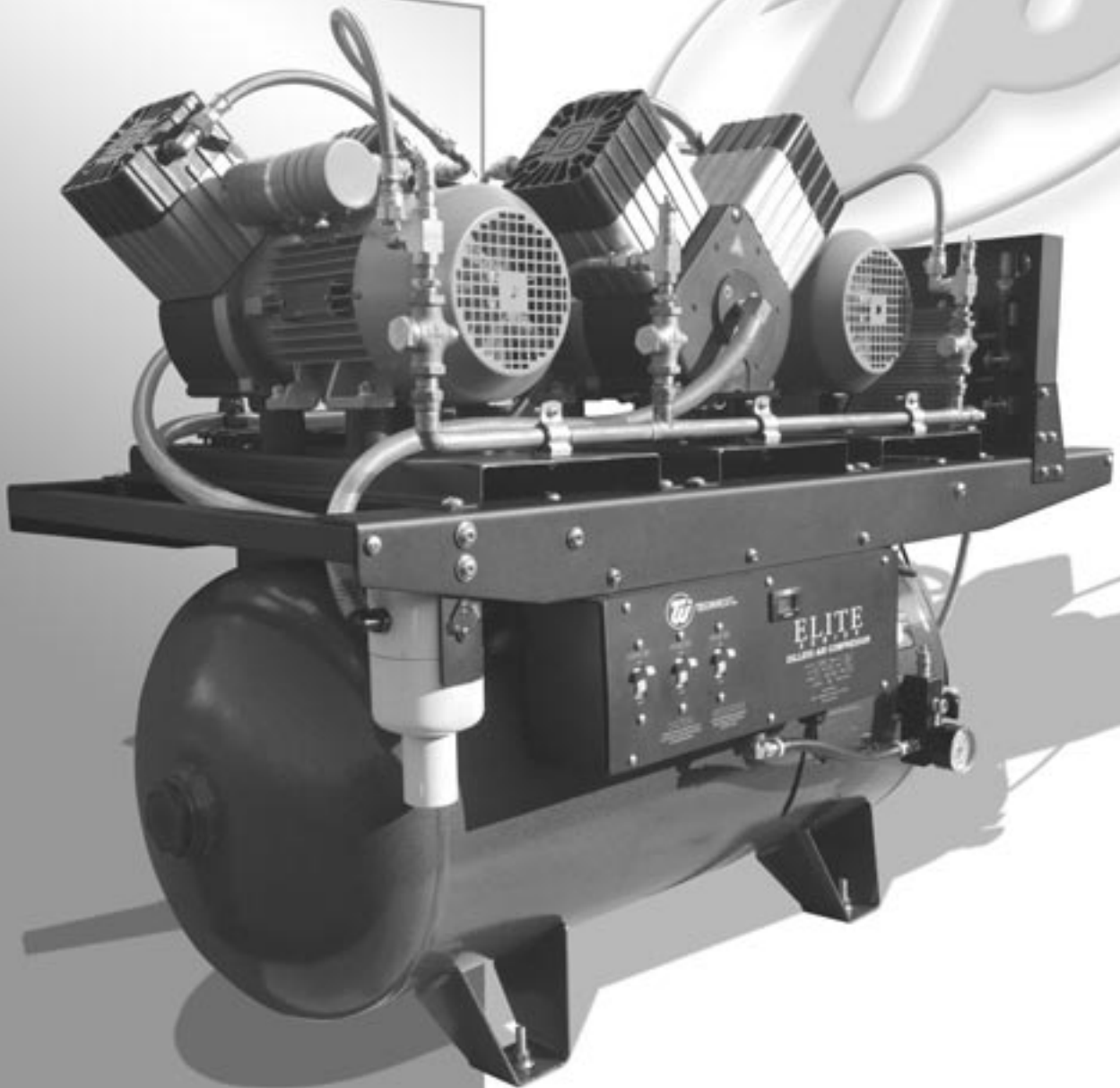


TW **TECH WEST INC.**

Manufacturers of Dental Vacuum
and Air Systems

2625 N. Argyle Ave. • Fresno, CA 93727
(559) 291-1650 • (800) 428-7139 • FAX (559) 348-9677

ELITE SERIES OILLESS AIR COMPRESSOR



INSTALLATION AND SERVICE MANUAL

Revised 4-18

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This manual is for the installation and service of Tech West's Elite Series Oilless Air Compressors.

CONTENTS

Installation	
Location Requirements	2
Figure 1: Wire and Breaker Sizes	2
Elite Series Oilless Air Compressor Installation Steps	3
Elite Series Oilless Air Compressor Connections	4
Elite Series Oilless Air Compressor Start Up	5
Elite Series Oilless Air Compressor Maintenance	6
Gauge and Cut-Off Asssembly	7
Rear View Assembly and Parts List	8
Desiccant Dryer Parts Breakdown	9
Coalescing Filter Parts Breakdown	10
Elite Serier Oilless Air Compressor Dual Wiring Diagram	11
Elite Serier Oilless Air Compressor Triple Wiring Diagram	12
Dual Elite Series Oilless Air Compressor Assembly	13
Triple Elite Series Oilless Air Compressor Assembly	14

TROUBLE SHOOTING

Dual Elite Series Oilless Air Compressor Trouble Shooting	15
Triple Elite Series Oilless Air Compressor Trouble Shooting	16
Notes Sheet	17

ELITE SERIES OILLESS AIR COMPRESSOR INSTALLATION

1. ELITE SERIES OILLESS AIR COMPRESSOR LOCATION REQUIREMENTS

The Elite Series Oilless Air Compressor location should be level, accessible and well ventilated.

If the Elite Series Oilless Air Compressor will be located in a confined space, provide adequate ventilation.

Electrical

- (1) Line voltage must be within the limits of Figure 1 below. (Install a “buck-boost transformer” if line voltage is not between these values.) Provide a separate line for each motor. Circuit breaker switches must be 20 - 40 amp depending on model and voltage necessary.
- (2) Local code may require you to provide one quick disconnect (safety switch) for each compressor motor.
- (3) See Figure 1 below for breaker size and line voltage.

CAUTION - Voltage must be 208/240 V or motor damage may occur.

Figure 1: Recommended Wire and Breaker Size

Model	Voltage	Amperage	Wire Size (Gauge)	Recommended Breaker Size
Dual Head Compressors				
ACO4D2	208/230	16	10	30
Triple Head Compressors				
ACO6T2	208/230	25.5	8	40

* Previous Installations with existing 20 amp circuit breaker and 12 gauge wire is sufficient for installing the ACO4D2.

* New installations will require a 30 amp circuit breaker and 10 gauge wire.

ELITE SERIES OILLESS AIR COMPRESSOR INSTALLATION

2. INSTALLATION STEPS

This dental compressor should only be installed by qualified personnel. Should any questions arise during the installation, call Tech West Technical Support between the hours of 7:00 a.m. to 4:00 p.m. (Pacific Standard Time).

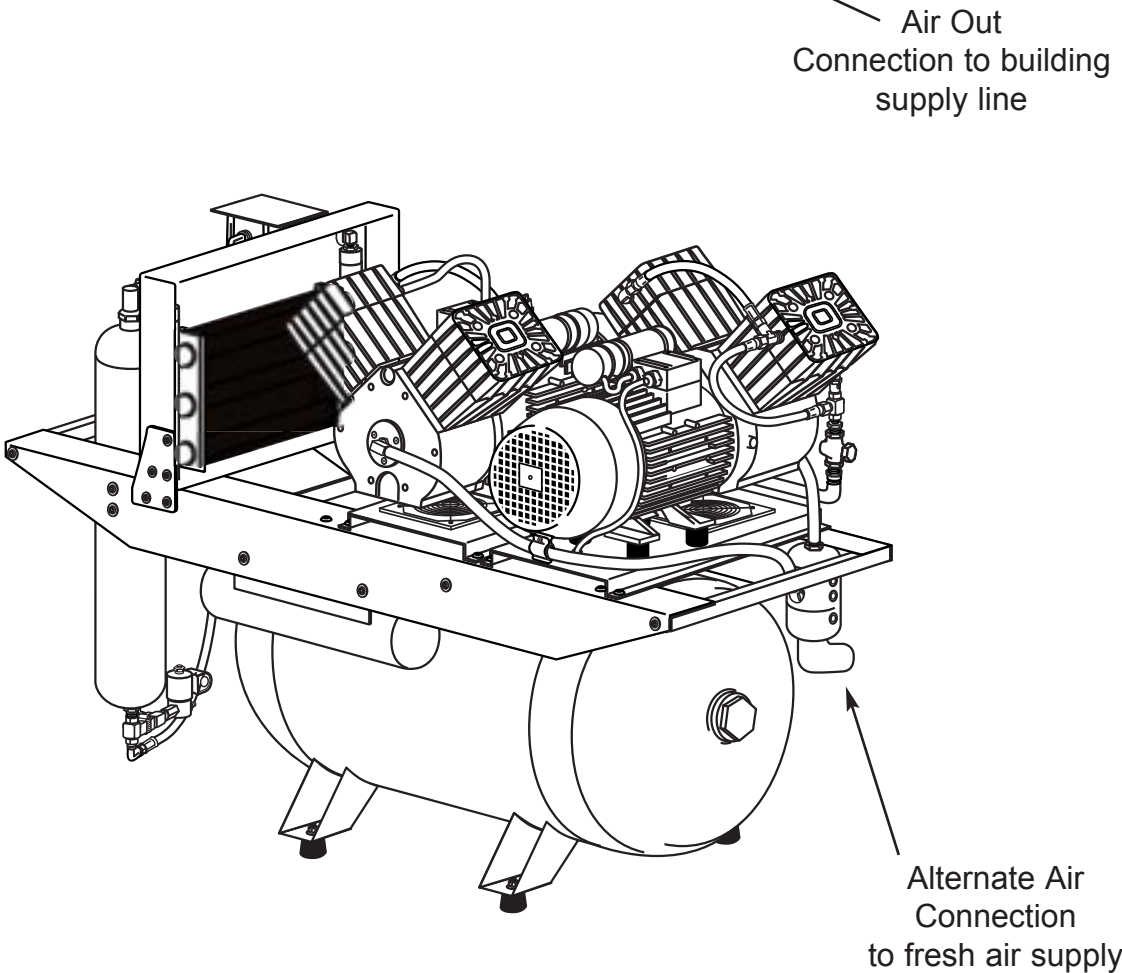
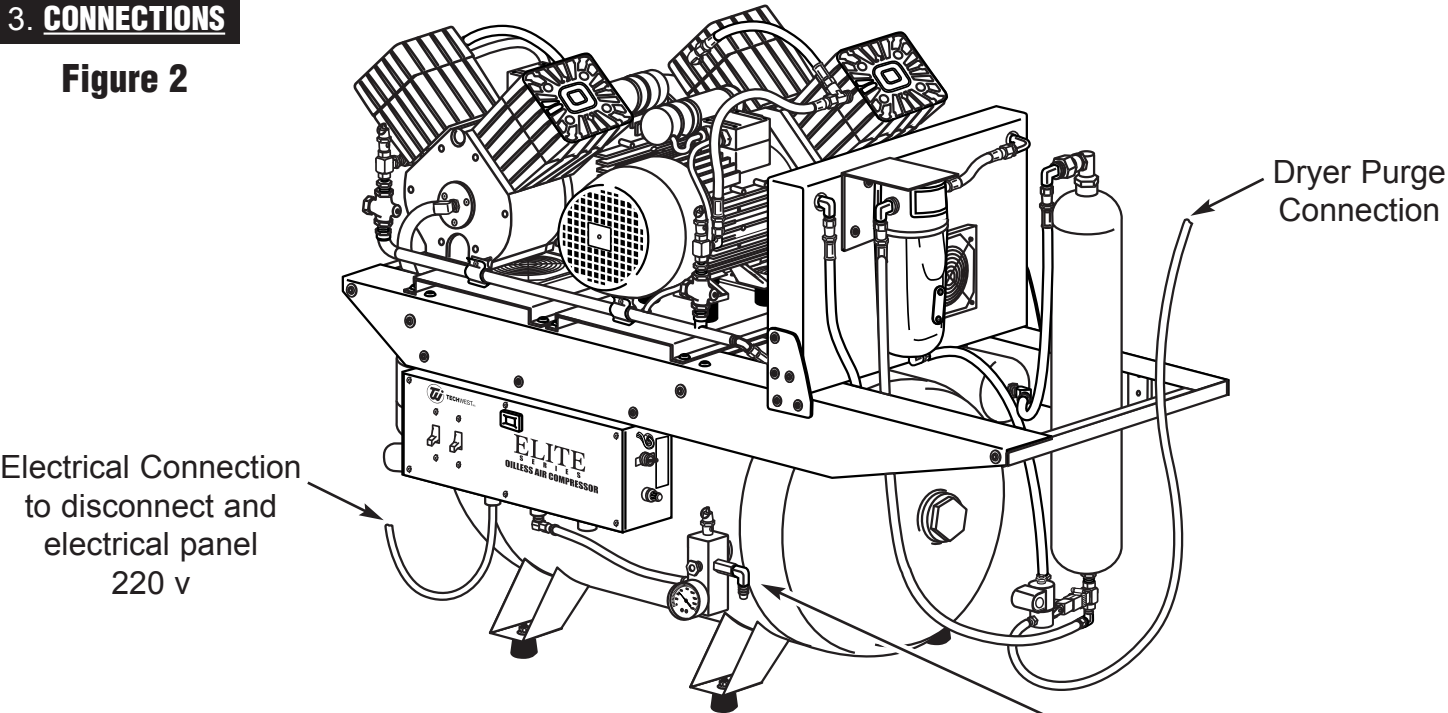
Place the compressor in a clean, dry, well ventilated area, on a solid, level surface. Consider sound level and insulate as needed. Be sure that adequate ventilation is available as the compressor is air cooled. Ambient temperature in the equipment room should be within the temperature range of 40 degrees Fahrenheit minimum to 100 degrees Fahrenheit maximum.

- (a) Check the shipping carton for damage. This could detect damage to the unit which might otherwise be overlooked. Remove cardboard shipping carton.
- (b) Remove the Oilless Compressor from its shipping skid. Inspect the unit for damage. Oilless Compressors are shipped bolted to a pallet. This pallet is intended for shipping only and should be discarded.
- (c) Remove installation kit attached to pallet. It should contain the following:
 - (4) Isolation Feet
 - (1) Alternate Air Hookup Hose
 - (1) 5' Flexible Air Hose
- (d) Install isolation feet on tank legs.
- (e) Wiring instructions:
 - (1) Have all electrical connections made by qualified personnel only. All connections should be in accordance with local codes.
 - (2) Use the chart on page 1 to help determine the proper line and breaker size for the unit that is being installed.
- (f) Install the air line from the compressor tank to the building supply.
- (g) Install the 1" flex alternate air hose from the compressor to a fresh air supply.

ELITE SERIES OILLESS AIR COMPRESSOR INSTALLATION

3. CONNECTIONS

Figure 2



ELITE SERIES OILLESS AIR COMPRESSOR INSTALLATION

4. SAFETY PRECAUTIONS

- Keep fingers, foreign objects and clothing free from rotating parts and do not touch hot surfaces.
- Never attempt to service an operating unit.
- Isolate unit from system pressure and relieve backpressure before servicing.
- Disconnect all power before servicing. The thermal protector in single phase motors automatically starts motor when device resets.

USE OF THIS PRODUCT IN OR NEAR EXPLOSIVE ATMOSPHERES, OR FOR PUMPING MIXTURES OTHER THAN ATMOSPHERIC AIR MAY CAUSE AN EXPLOSION OR FIRE, RESULTING IN PERSONAL INJURY OR DEATH.

5. START-UP STEPS

- (a) Make sure the shut-off valve from the compressor tank is closed.
- (b) Turn the breaker from the panel to the "ON" position.
- (c) Turn power "ON" from the toggle switch on the compressor. Compressor should run quietly and vibration free. The storage tank should start to build pressure.
- (d) The compressor will run until the pressure gauge reads 110 psi. The compressor then will automatically shut off and the dryer will purge with a quick blast of air.
- (e) Using soapy water, check the compressor plumbing hook ups for leaks. Repair leaks if needed.
- (f) Pressure test the entire plumbing system for leaks. Use the storage tank pressure gauge to monitor a pressure drop. After the plumbing system has been pressurized for 30 minutes, re-check the gauge for pressure drop. If there is a drop in pressure, find and repair all leaks in the office plumbing.
- (g) Complete and mail in the warranty card for the compressor within ten days of installation.

AIR LEAKS ARE THE MAIN CAUSE OF COMPRESSOR FAILURES.

ELITE SERIES OILLESS AIR COMPRESSOR INSTALLATION

6. GENERAL SERVICE INFORMATION

For parts and service on the Elite series compressor contact the nearest authorized Tech West distributor. To expedite appropriate service, be prepared to provide the unit model number, identification number, and serial number found on the nameplate located on the front of the unit motor.

Component life operating at continuous duty & maximum pressure

Life of the rings and skirts is difficult to predict due to many conditions which directly influence wear. Some of these conditions may include ambient air temperature, air cleanliness, operating pressure, piston stroke on the particular model being utilized, duty cycle, maintenance of filters, etc.

Because of these various factors it is appropriate to generalize on component wear life and choose some conservative estimates for most standard applications.

7. PERIODIC SERVICING

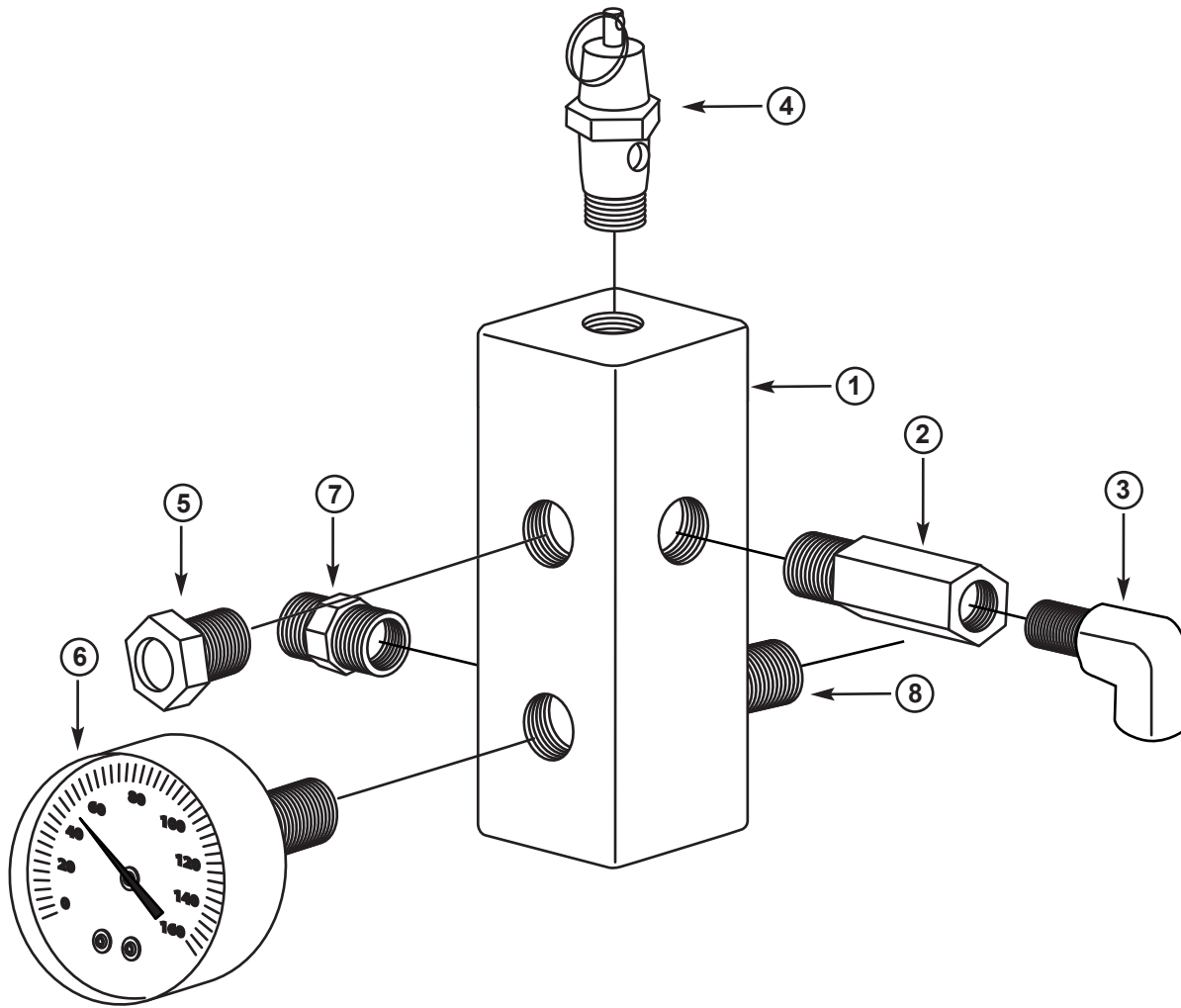
MONTHLY SERVICING

- (a) Remove the purge bucket and empty as needed
- (b) Crack the drain petcock on the bottom of the storage tank to check for water and drain if needed.
- (c) Check moisture indicator to see that it is still "BLUE". If it is pink, it is time to service the air dryer.
- (d) Check intake air supply filters. Replace filters as needed.

YEARLY SERVICING

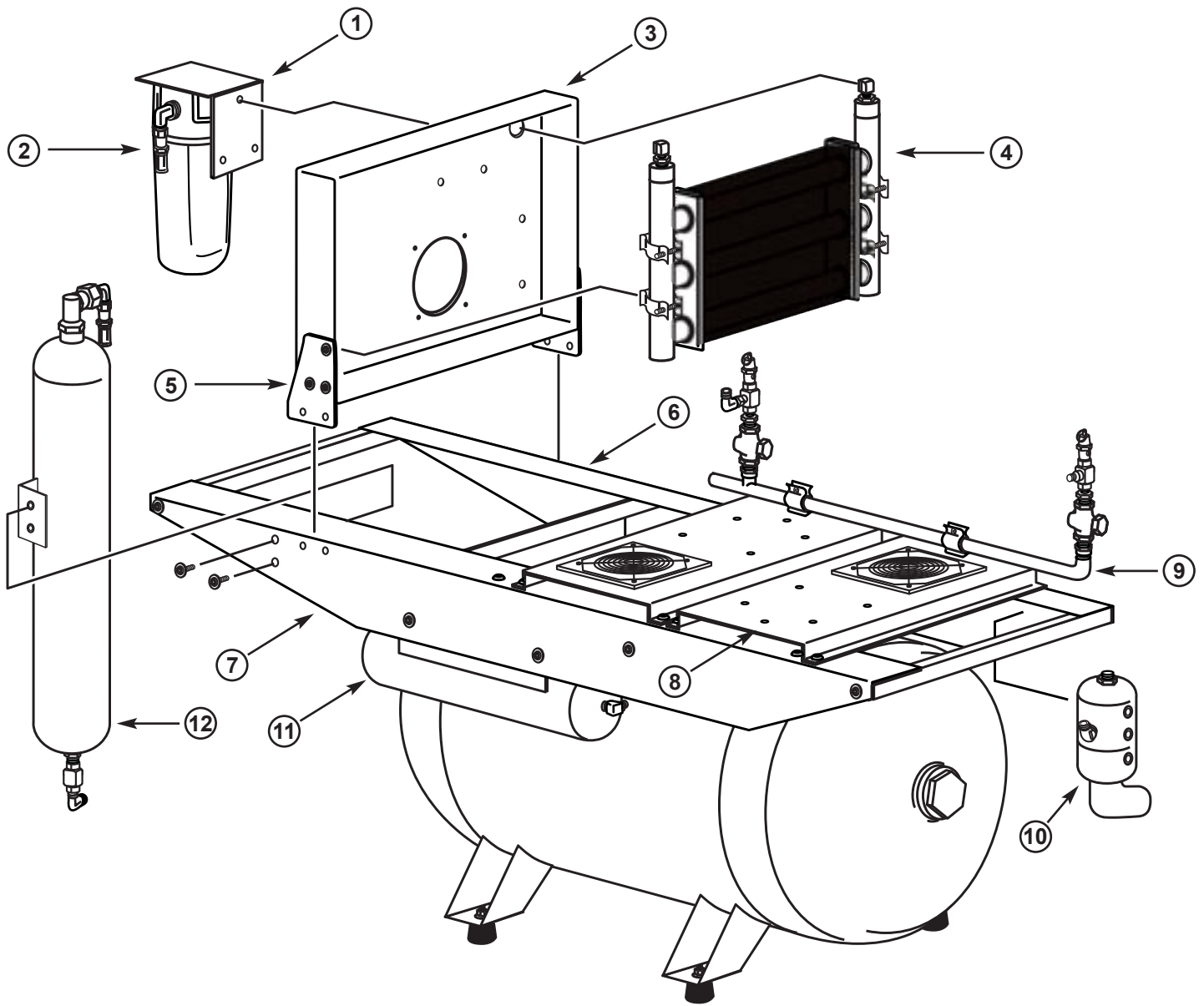
- (a) Repeat all of the monthly servicing.
- (b) Replace the alternate air filter. (Part #: TIF-100 for the ACO4D2)
(Part #: TIF-200 for the ACO6T2)
- (c) Check the coalescing filter and change if needed. (Part #: CFEO-375)

DUAL AND TRIPLE ELITE SERIES OILLESS AIR COMPRESSOR CONFIGURATION



GAUGE AND CUT-OFF ASSEMBLY

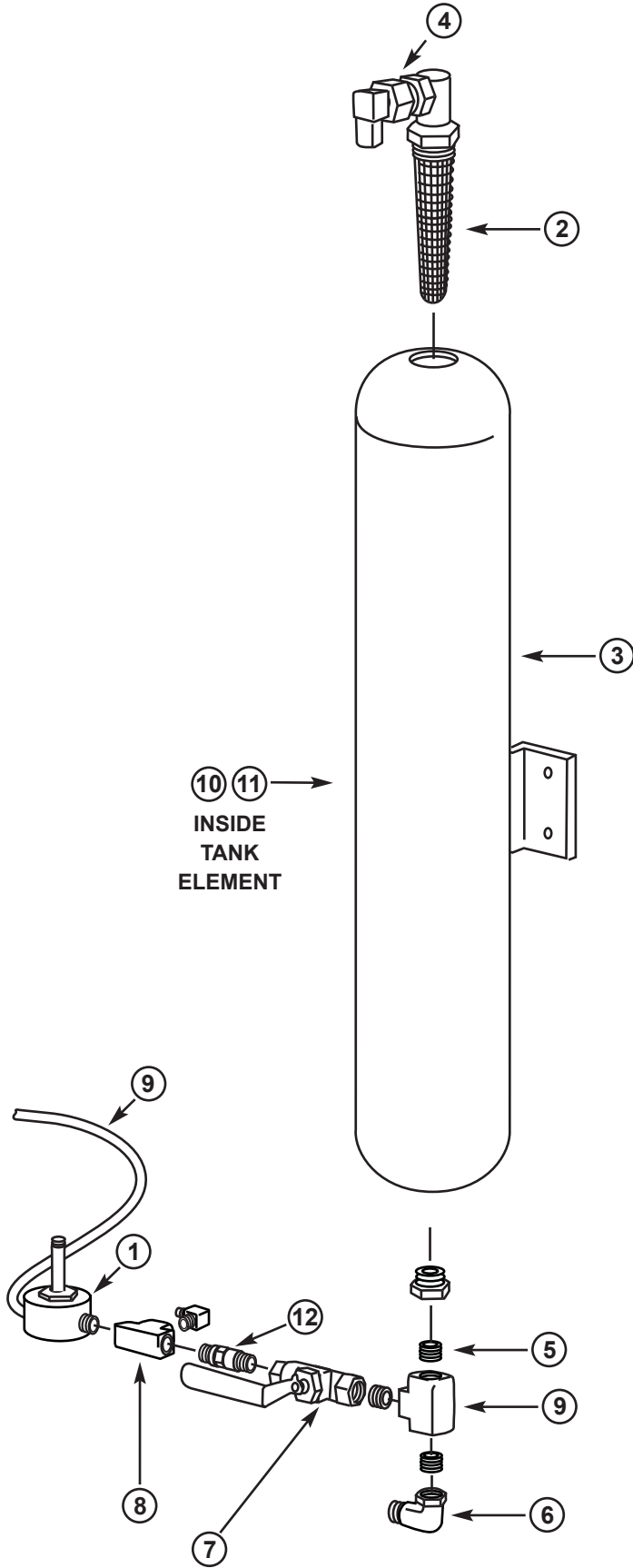
KEY	PART NO.	DESCRIPTION	UNIT
1	ATM	ALUMINUM TANK MANIFOLD	1
2	BV-250-FM	BALL VALVE 1/4" FEMALE TO MALE	1
3	FE-4-4	BRASS FLARE ELBOW 1/4" X 1/4"	1
4	POVA-100	POP OFF VALVE 125 PSI ASME	1
5	MI-100	MOISTURE INDICATOR	1
6	CPG-250	COMPRESSOR PRESSURE GAUGE	1
7	FA-4-4	BRASS FLARE ADAPTOR 1/4" X 1/4"	1
8	SSN-375-CL	STAINLESS STEEL NIPPLE 3/8" CLOSED	1



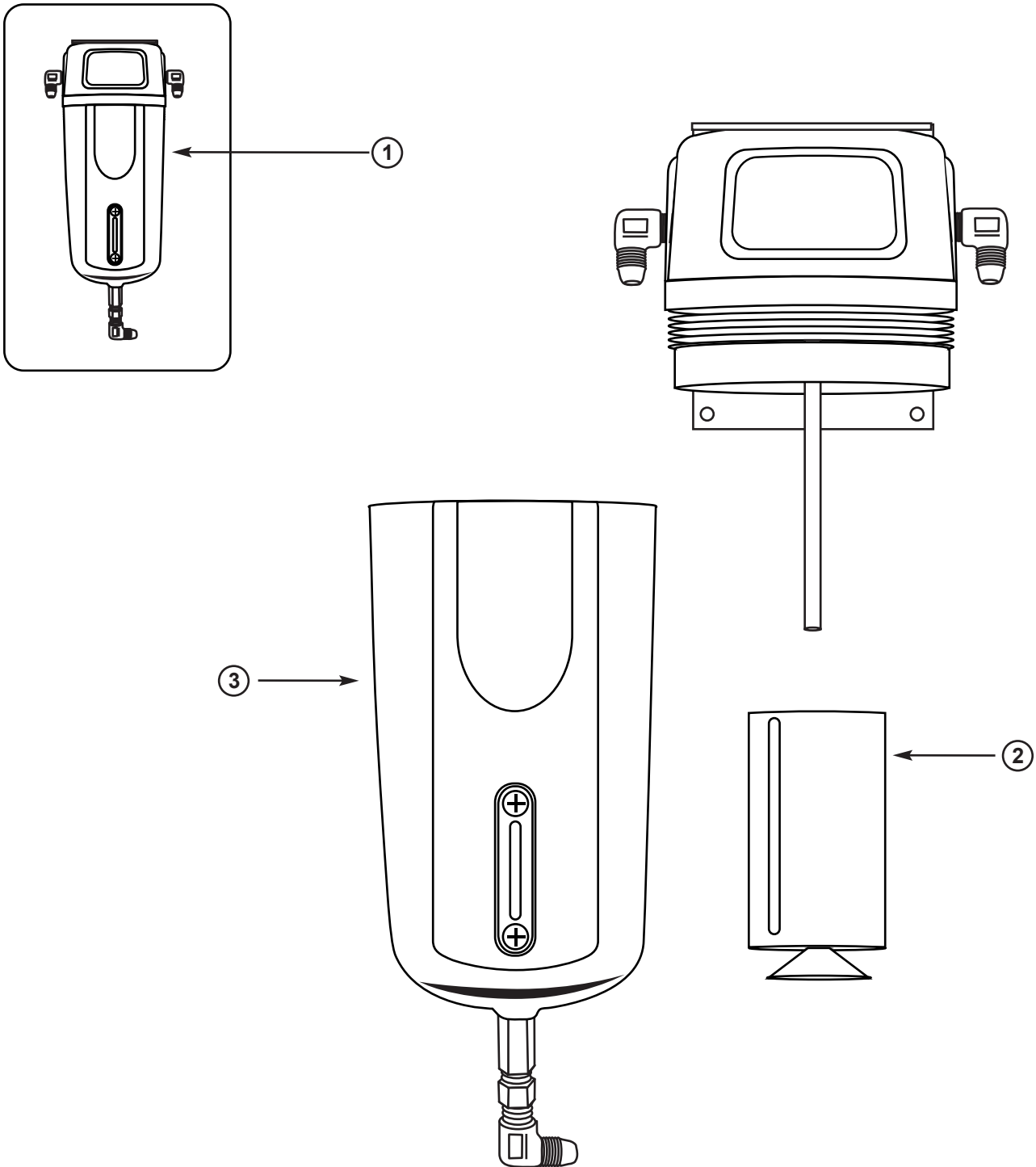
REAR VIEW ASSEMBLY AND PARTS LIST

KEY	PART NO.	DESCRIPTION	UNIT
1	CFB-P	COALESCING FILTER BRACKET	1
2	CFAO-375-100	COALESCING FILTER ASSEMBLY	1
3	EPCM	ELITE PRECOOLER MOUNT	1
4	DPC-2E	DRYER PRECOOLER - DUAL ELITE	1
5	EPCB	ELITE PRECOOLER BRACKET	2
6	ETA-2F	ELITE TANK CROSS ANGLE DUAL - FRONT	1
7	ETA-2R	ELITE TANK CROSS ANGLE DUAL - REAR	1
8	EMM	ELITE MOTOR MOUNT	2
9	ECMD	ELITE COPPER MANIFOLD DUAL	1
10	EAAD	ELITE ALTERNATE AIR DUAL	1
11	EPT	ELITE PURGE TANK	1
12	EDT	ELITE DISICCANT TANK	1

NEW DESICCANT AIR DRYER ASSEMBLY



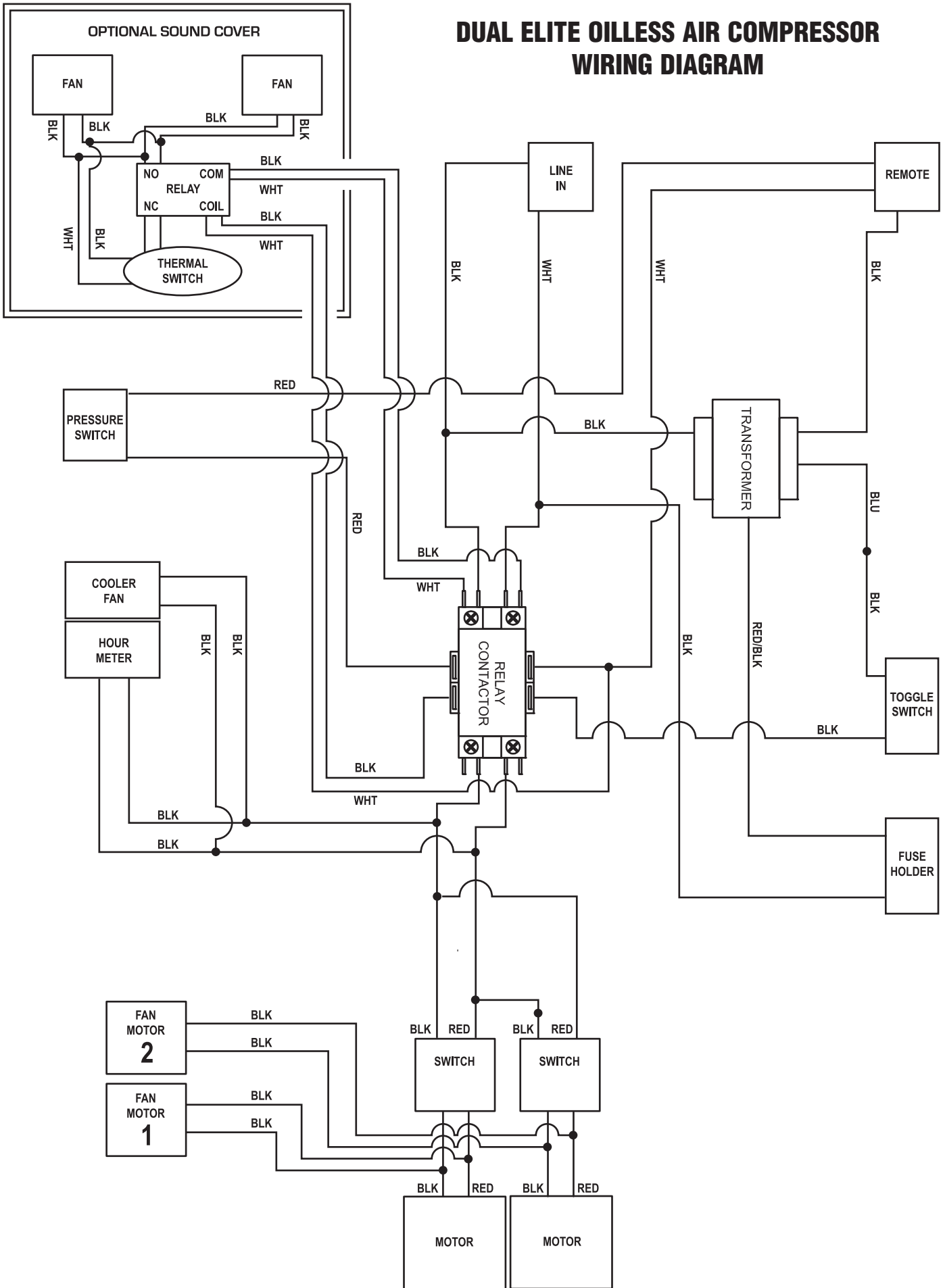
KEY	PART NO.	DESCRIPTION	UNIT
1	DSV-230	230V PURGE SOLENOID VALVE	1
2	AS-500	1/2 FILTER ASSY	1
3	EDT-100	REPLACEMENT DESSICANT TANK	1
4	MV-250	METERING VALVE	1
5	SN-250-CL	STAINLESS STEEL NIPPLE 1/4	3
6	FE-4-6	FLAIR FITTING 1/4 X 3/8	1
7	BV-250-FM	BALL VALVE 1/4	1
8	BT-250	BRASS TEE 1/4	2
9	PFH-375	CLEAR DRAIN HOSE	PER FOOT
10	MSD-100	MOLECULAR-SIEVE 1 LB	2LBS
11	MSD-200	ACTIVATED ALUMINA 1 LB	2LBS
12	CV-250D	1/4 CHECK VALVE	1



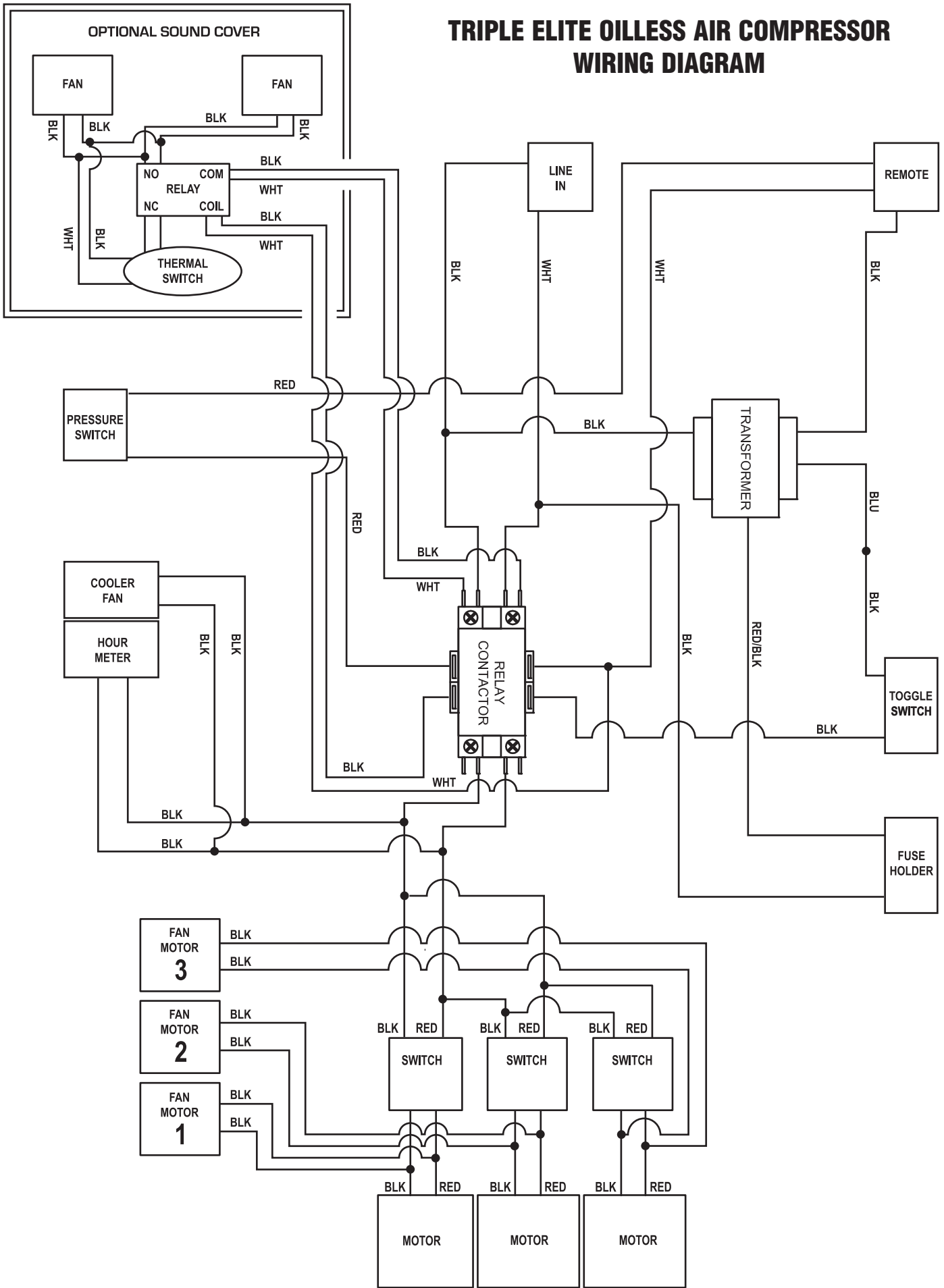
COALESCING FILTER ASSEMBLY

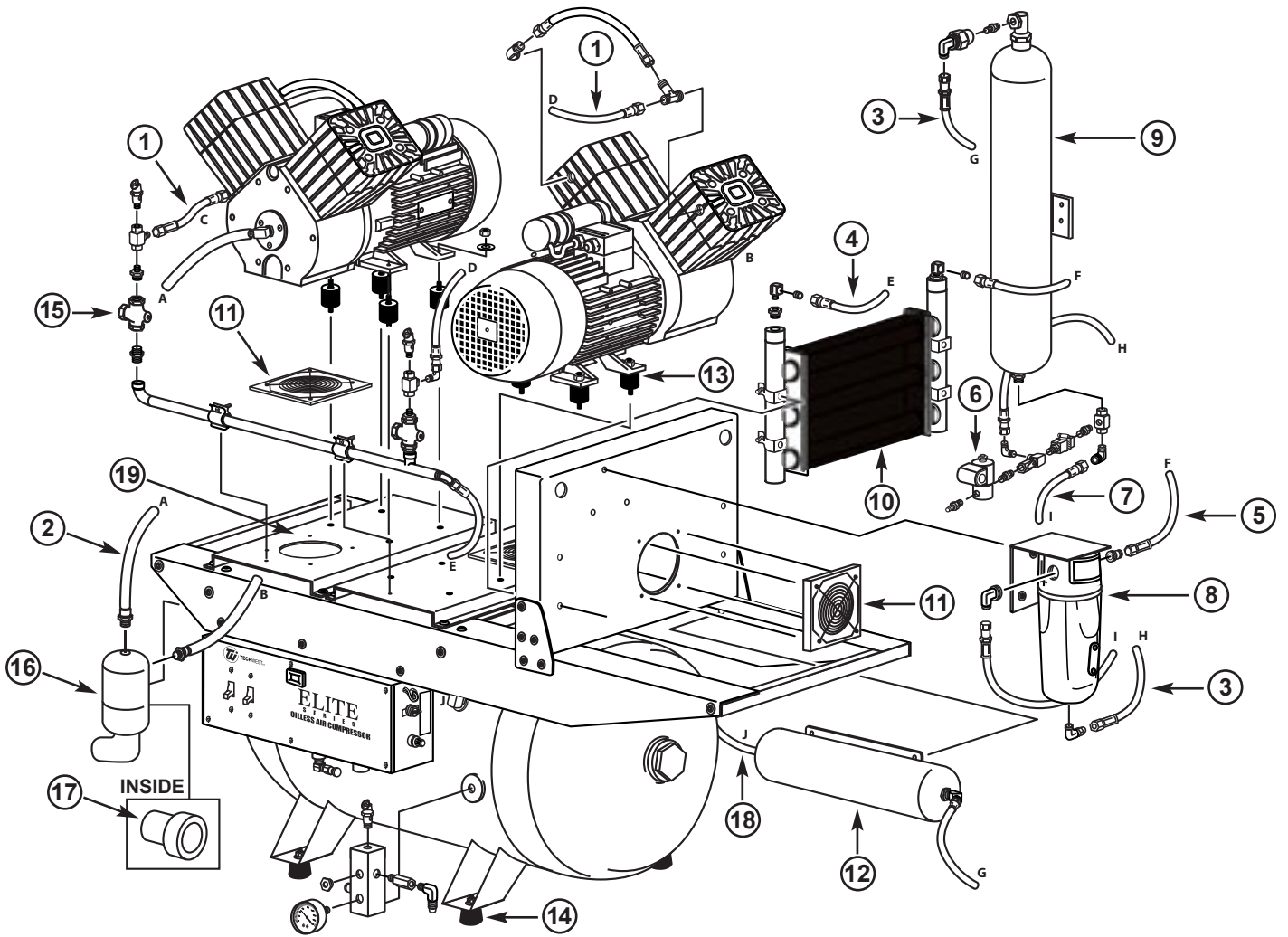
KEY	PART NO.	DESCRIPTION	UNIT
1	CFAO-375	COALESCING FILTER ASSEMBLY 3/8	1
2	CFEO-375	COALESCING FILTER ELEMENT 3/8	1
3	CFBP-375	COALESCING FILTER BOWL	1

DUAL ELITE OILLESS AIR COMPRESSOR WIRING DIAGRAM



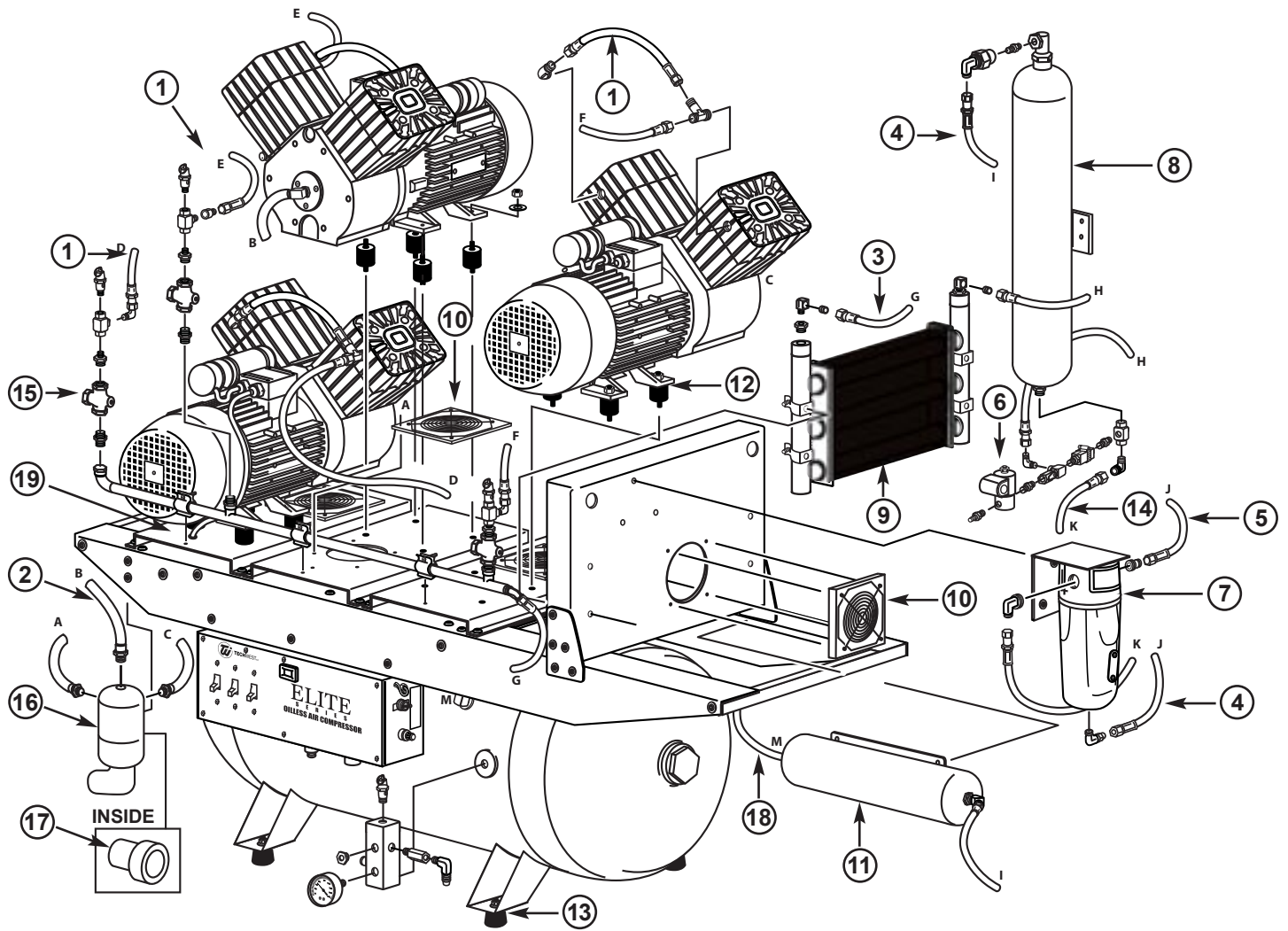
TRIPLE ELITE OILLESS AIR COMPRESSOR WIRING DIAGRAM





DUAL ELITE OILLESS AIR COMPRESSOR

KEY	PART NO.	DESCRIPTION	UNIT
1	SBHA-13-375J	STEEL BRAIDED HOSE ASSEMBLY 13"	1
2	FPH-500R	FLEX PVC HOSE REINFORCED 1/2"	FT
3	HA-17-250	HOSE ASSEMBLY 17"	1
4	SBHA-17-375	STEEL BRAIDED HOSE ASSEMBLY 17"	1
5	SBHA-10.5-375	STEEL BRAIDED HOSE ASSEMBLY 10.5"	1
6	DSV-230	DRYER SOLENOID VALVE 230V	1
7	SBHA-28-375	STEEL BRAIDED HOSE ASSEMBLY 28"	1
8	CFA0-375	COALESCING FILTER ASSEMBLY 3/8" ONLY	1
9	EDT-100	REPLACEMENT DESICCANT CARTRIDGE	1
10	DPC-2-E	DRYER PRECOOLER	1
11	CF-115-230-E	COOLING FAN 115-230 VOLT	3
12	EPT-100	ELITE PURGE TANK	1
13	RFEM-100	RUBBER FEET EKOM MOTOR	8
14	RFV-100	RUBBER MOUNTING FEET	4
15	CV-375D-100	CHECK VALVE 3/8"	2
16	EAAD	ELITE ALTERNATE AIR INTAKE - DUAL	1
17	TF-100	AIR INTAKE ELEMENT - DUAL	1
18	HA-24-250	HOSE ASSEMBLY 24"	1
19	EMM	ELITE MOTOR MOUNT	2

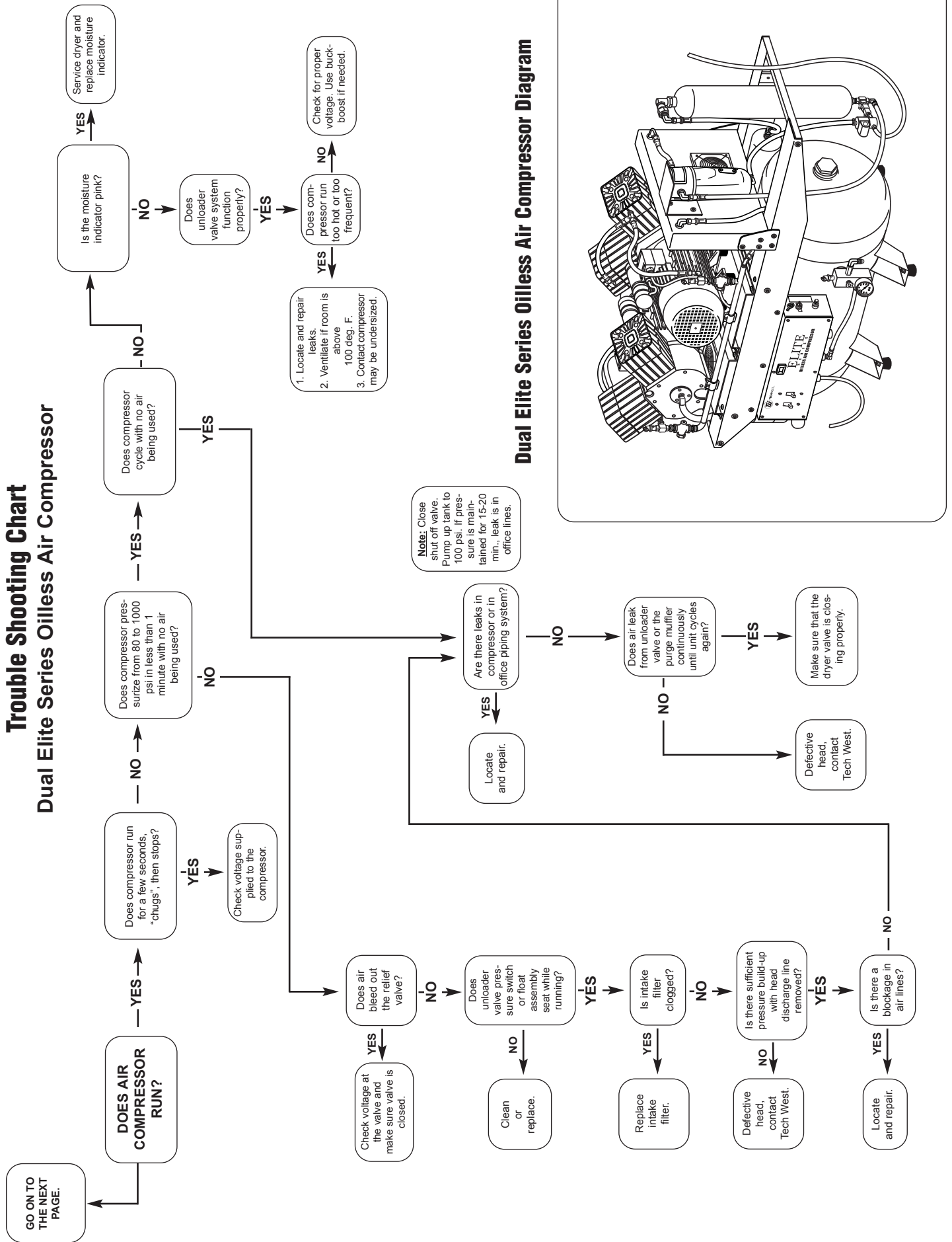


TRIPLE ELITE OILLESS AIR COMPRESSOR

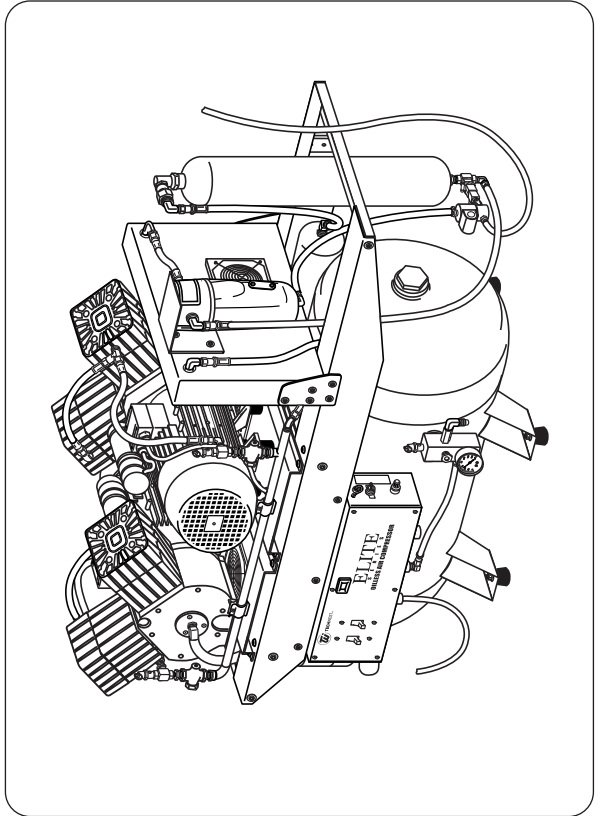
KEY	PART NO.	DESCRIPTION	UNIT
1	SBHA-13-375J	STEEL BRAIDED HOSE ASSEMBLY 13"	1
2	FPH-500R	FLEX PVC HOSE REINFORCED 1/2"	FT
3	SBHA-17-375	STEEL BRAIDED HOSE ASSEMBLY 17"	1
4	HA-17-250	1/4" HOSE ASSEMBLY 17"	1
5	SBHA-10.5-375	STEEL BRAIDED HOSE ASSEMBLY 10.5"	1
6	DSV-230	DRYER SOLENOID VALVE 230V	1
7	CFAO-375	COALESCING FILTER ASSEMBLY 3/8" ONLY	1
8	EDT-100	REPLACEMENT DESICCANT CARTRIDGE	1
9	DPC-2-E	DRYER PRECOOLER	1
10	CF-115-230-E	COOLING FAN 115-230 VOLT	4
11	EPT-100	ELITE PURGE TANK	1
12	RFEM-100	RUBBER FEET EKOM MOTOR	12
13	RFV-100	RUBBER MOUNTING FEET	4
14	SBHA-28-375	STEEL BRAIDED HOSE ASSEMBLY 28"	2
15	CV-375-100	CHECK VALVE 3/8"	1
16	EAAT	ELITE ALTERNATE AIR INTAKE - TRIPLE	1
17	TIF-200	AIR INTAKE ELEMENT - TRIPLE	1
18	HA-24-250	1/4" HOSE ASSEMBLY 24"	1
19	EMM	ELITE MOTOR MOUNT	3

Trouble Shooting Chart

Dual Elite Series Oilless Air Compressor

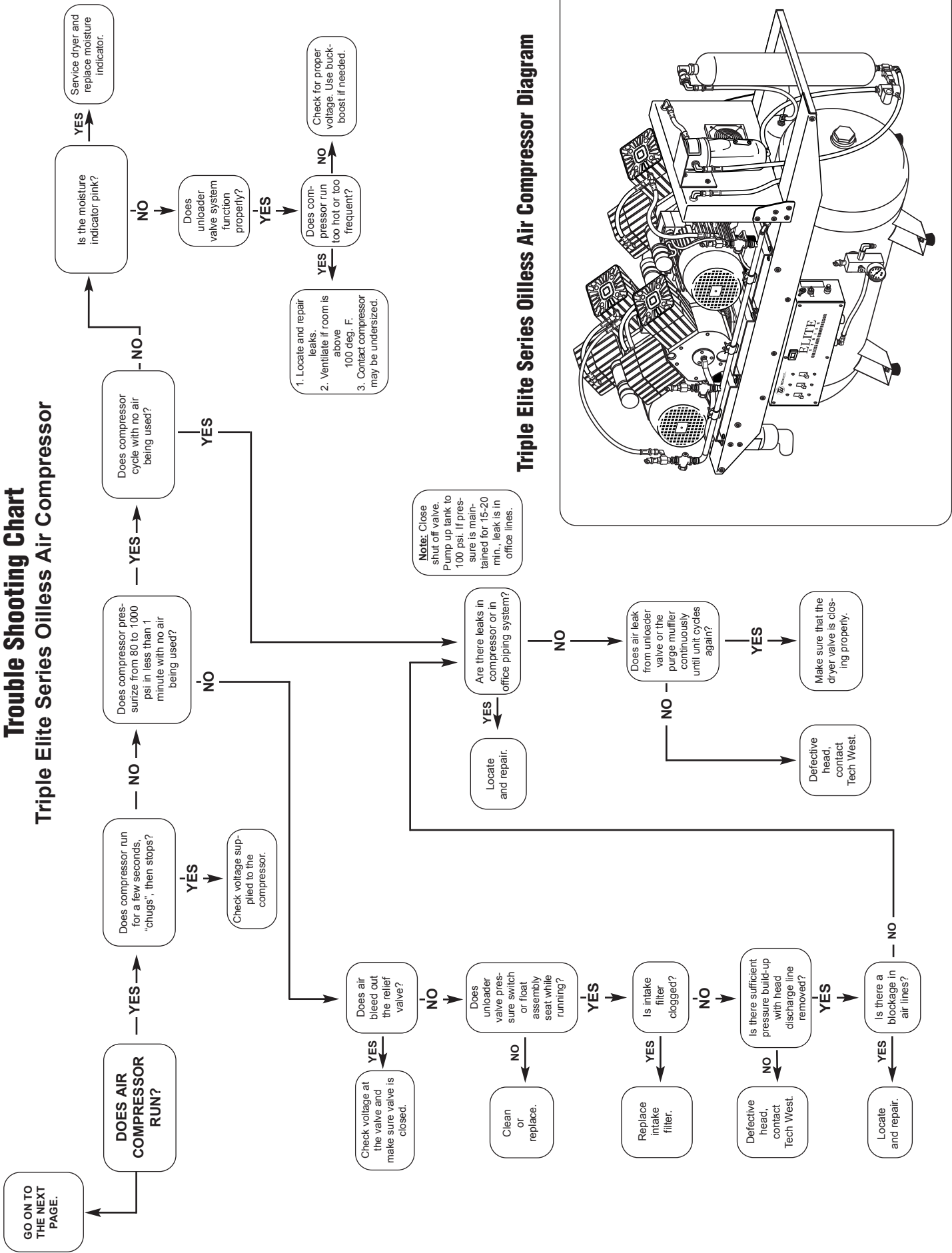


Dual Elite Series Oilless Air Compressor Diagram



Trouble Shooting Chart

Triple Elite Series Oilless Air Compressor



Triple Elite Series Oilless Air Compressor Diagram

