

# Installation and Operation Manual

P40
Piston
Compressor

# Congratulations on your new Paragon purchase

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# Safety Notice

This manual is designed to be read to its entirety prior to installation or operation of this product.

Do NOT install or operate prior to reading this manual completely - injury or property damage can occur.

Use adequate protection and safety equipment while performing the steps indicated in this manual.

Protect against hazards involved during the installation and operation of this equipment.

Failure to read this manual completely or heed these warnings could result in serious bodily injury or loss of life.

For equipment covered specifically or indirectly in this operation manual, it is important that all personnel observe the appropriate safety precautions to minimize the changes of injury.

#### DO NOT....

- Attempt to install equipment with the truck engine running
- Allow the truck engine to be started while personnel are under the vehicle or working on any
  equipment
- Place any body part over any pneumatic (or hydraulic) leak or outlet while the equipment is in operation
- Engage or disengage driven equipment by hand from under the vehicle while the engine is running
- Use tools or equipment that are in poor or non-working condition
- Remove, obscure, cover, or paint over any warning labels

#### DO....

- Read and understand all the original equipment manufacturers manuals before installation or operation of any equipment installed in the Stainless Vane Pump
- Follow all safety rules and regulations as they apply to the equipment provided
- Immobilize truck wheels with suitable chocks before working under the truck
- Block any raised equipment before working on or under the equipment
- Obtain proper training on tools and equipment that are required
- Ensure all tools and components are in good working condition
- Use all tools and equipment for its intended purpose only
- Repair any leaks promptly
- Remain a safe distance away from any moving components during operation



#### **SAFETY INSTRUCTIONS**

- Do not operate before reading the enclosed instruction manuals.
- Use adequate protection, warning and safety equipment necessary to protect against hazards involved in installation and operation of this equipment











# **NOTICE**

- Safety instruction tags and labels were attached to your unit prior to shipment. **DO NOT** remove, obscure, or cover in any manner
- Failure to heed these warnings could result in serious bodily injury to personnel operating or maintaining this equipment.

# P40 Compressor



## **Performance Data**

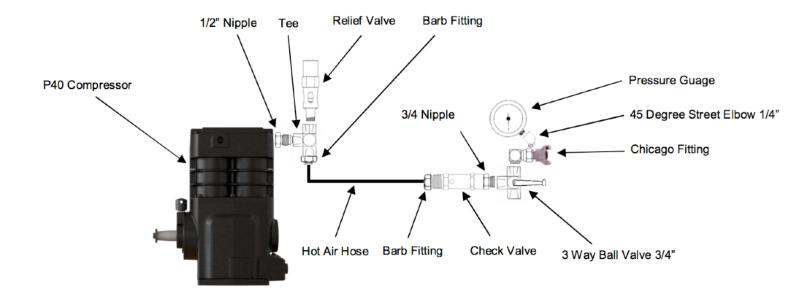
Recommended Performance							
PSI	Rated Speed (RPM)	Potential Liquid Flow (GPM)	HP	CFM			
25	1350RPM	105	4.9	35			
36	1350RPM	67	4.8	29			

Note: It is recommended that the P40 be operated at 1350 rpm.

# **Maximum Operating Limits**

		25	PSI	30 PSI		36 PSI			40 PSI (MAX)			
Speed	CFM	НР	Potential Liquid Flow (GPM)	CFM	НР	Potential Liquid Flow (GPM)	CFM	НР	Potential Liquid Flow (GPM)	CFM	НР	Potential Liquid Flow (GPM)
500 RPM	11.9	1.4	38	11.7	1.5	32	11.5	1.6	25	11.3	1.6	18
800 RPM	18.6	2.6	61	18.3	2.6	55	18.0	2.7	40	17.8	2.8	33
1000 RPM	22.9	3.3	79	22.6	3.4	73	22.2	3.5	50	22.0	3.6	43
1200 RPM	27.4	4.1	95	27.0	4.2	89	26.6	4.3	59	26.3	4.4	52
1350 RPM	30.6	4.6	105	30.3	4.7	99	29.8	4.9	67	29.5	5.0	60
1500 RPM	34.8	5.2	125	33.5	5.3	119	33.3	5.5	75	32.7	5.6	68

# **Typical Circuit**



## **P40 Compressor**

**Relief Valve:** Sized to protect compressor. A suitable trailer relief should be

provided to protect the trailer.

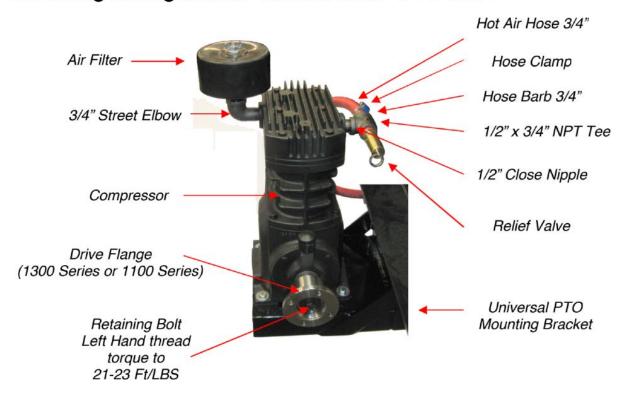
**Check Valve:** Prevents backflow into the compressor.

3 Way Ball Valve: Used to either supply air to the trailer or vent compressor delivery

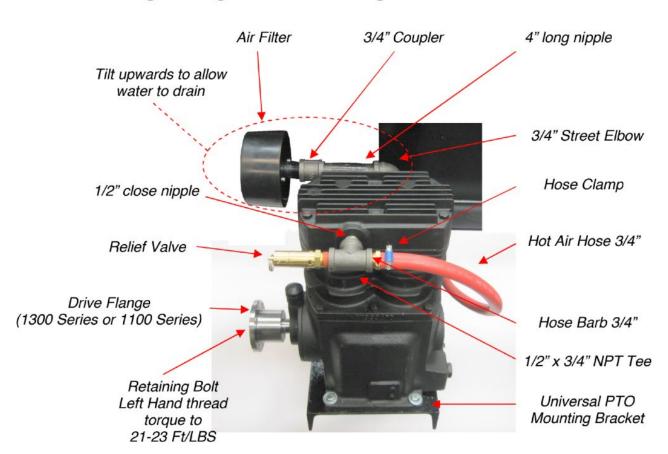
air. Never install a two way ball valve in the line as this will dead head

the compressor causing damage.

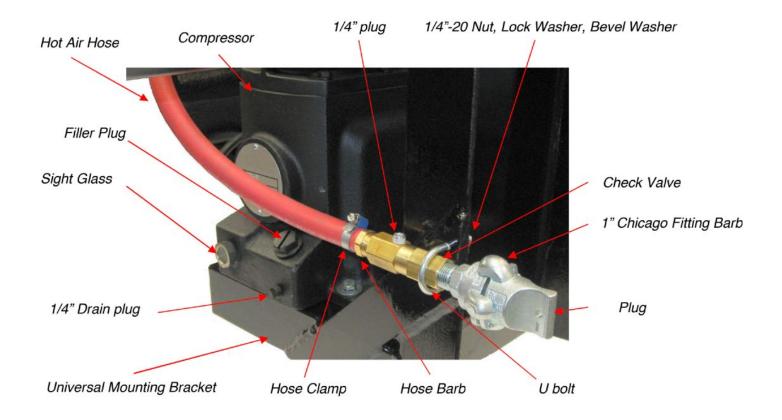
## Mounting Configuration - Drivers Side - PTO Drive



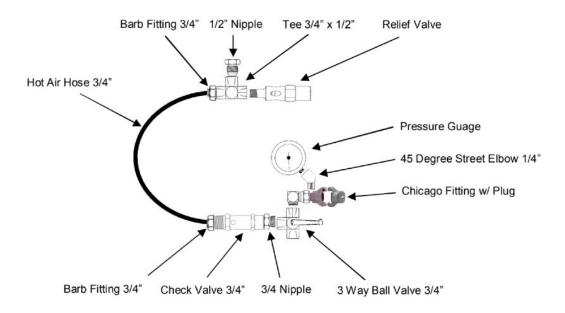
## **Mounting Configuration Passenger Side - PTO Drive**



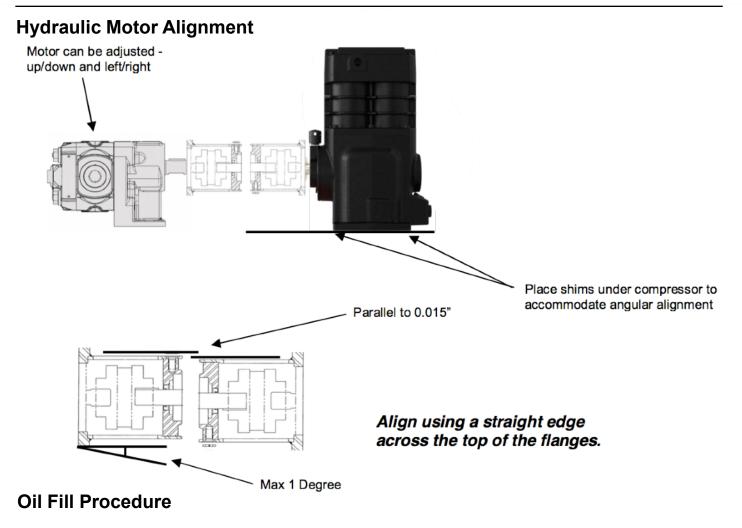
# **Delivery Pipework (no gauge)**



# Delivery Pipework with Gauge and 3 Way Ball Valve



## **Initial Installation**



# **▲**CAUTION

Do not operate without lubricant or with inadequate lubricant.

- 1. Unscrew and remove the oil fill plug.
- 2. Slowly fill the crankcase until the lubricant reaches the top thread of the oil fill opening and the top of the sight glass.
- 3. Replace the oil fill plug HAND TIGHT ONLY

  Note: Crankcase Capacity is 1 liter (34 fl ounces)

#### **Recommended Lubricants**

• Paragon 1 Liter synthetic lubricant - Part# 409-003



If you use a petroleum-based compressor lubricant at start-up and decide to convert to Ingersoll Rand synthetic compressor lubricant, the com9pressor valves must be decarbonized and the crankcase flushed before conversion.

## Initial Installation/ Continued

## **Mounting**

To ensure correct mounting follow the recommendations below:

#### **Power Take Off**

- Horsepower and torque should be adequate for compressor rpm and pressure.
- Select a ratio that will provide desired compressor speed and engine rpm.
- Choose either 6 or 8-bolt side of transmission to provide adequate space for installation.

#### **Constant Engine Speed**

 To protect compressor against over speed and to provide an efficient offload the selected engine speed must remain constant through the compressor discharge cycle.

#### **Relief Valve**

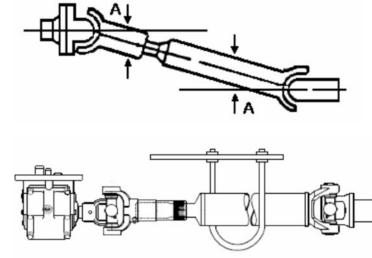
- If not using the Paragon mounting kit, size the relief valve for correct CFM and pressure.
- Install at the compressor prior to the check valve.

#### **Check Valve**

- Must be suitable for reciprocating compressors and sized for maximum CFM of machine (see chart).
- The Paragon check valve has a 1/4" port that can be used for a pressure gauge. Ensure the plug is tight if not using a pressure gauge.

#### **Driveshaft**

- The P40 is supplied with a 1310 series or 1100 series drive flange.
- The compressor drive flange should be tapped lightly onto the shaft and then secured using the bolt supplied.
- The drive flange securing bolt is a LEFT HAND THREAD and should be torqued to 21-23 ft/ lbs.
- The Maximum compound driveline angle is 11 degrees.
- The compressor driveshaft and the PTO driveshaft should be parallel within 2 degrees (A)
- The drive shaft should have a "U" bolt hanger installed for safety.



# Maintenance & Overall Dimensions

# Mounting

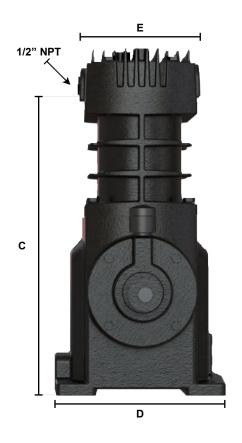
## Note:

• If the unit has a high duty cycle an oil analysis program is recommended

Daily	Check oil level before operating the compressor. Correct level is to the top of the sight glass when not operating					
Weekly	ally inspect the system each week. Check hoses, fittings and mounting.					
6 Months	Change oil and air filter element every 6 months.					
18 Months	Replace relief valve					

# **Overall Dimensions**





Model		Α	В	С	D	E	Port Size	Approx. Weight ( No Flanges, Steel Shaft or Filter )
P40 Compressor	in.	17.46	4.93	14.96	8.22	6.60	3/4"	76 Lbs (Dry Weight)
	mm	443.49	125.23	379.98	208.79	167.64	19.05	34.47 Kg (Dry Weight)

# **Parts List**

	P40 Compressor							
Item	Part Number	Qty	Description					
2	600-000	1	P40 Compressor					
2	625-004	1	Air Filer (Complete)					
3	575-001	1	Air Filter Element					
5	409-003	1	Paragon Petroleum Based Oil (quart)					
5	587-006	ft	Hose - Hot Air 3/4" (per foot)					
6	587-004	ft	Hose - Hot Air 1/2" (per foot)					
7	299-009	2	U Bolt 1/4"					
8	92354-0253	2	1/4" lock washers					
9	293-000	2	1/4" Bevel washers					
10	85228	2	1/4" Nut					
11	327-004	1	Hyd Hose Barb 1/2" Straight -8 x -8 NPTM - Brass					
12	328-003	1	Hyd Hose Barb 3/4" 90 degree elbow -12 x -12 NPTM					
13	612-014	1	Check Valve 3/4" NPT					
14	534-000	1	Chicago fitting 1/2" MNPT (no gauge port)					
15	534-001	1	Chicago Fitting 3/4" MNPT (gauge port)					
16	534-002	1	Dust plug					
17	532-000	1	Tee-1/2"x1/2"x1/2"					
18	532-002	1	Tee-1/2"x1/2"x3/4"					
19	535-020	1	Close nipple 1/2"					
20	535-021	1	Nipple 3/4" x 4" long (passenger mount)					
21	530-005	1	Coupler 3/4"					
22	533-026	2	Elbow - 3/4" street galvanized pipe					
23	610-007	1	Relief Valve					
24	85237	2	Clamp, Hose 1/2" Heavy Duty					
25	508-002	1	Mounting Bracket - PTO Drive					
26	228-062	4	Setscrew 7/16" x 1-3/4"					
27	294-012	4	Lock washer 7/16"					
28	284-007	4	Nylock Nut 7/16"					
29	562-022	1	Hydraulic Coupler, L110 Taper - Compressor end					
30	562-024	1	Hydraulic Coupler Spider L110 Buna					
31	562-021	1	Hydraulic Coupler Flange L110 7/8" w/ 1/4"key					
32	535-004	1	Nipple - 3/4" NPT close black pipe					
33	825-400	1	Elbow 1/4" fnpt x 1/4" mnpt 45 deg - street					
34	816-004	1	Ball Valve - 3/4" FNPT Brass 3 way					
35	85233	1	Clamp, Hose 3/4" Heavy Duty					
36	508-033	1	Hydraulic Mounting Bracket (90 deg)					

#### **Warranty Statement**

#### **GENERAL PROVISIONS AND LIMITATIONS**

PGWAR-1-100 Date Issued: 05/01/2025

Paragon Tank Truck Equipment LLC (the "Company") warrants to each original retail purchaser ("Purchaser") of its products from the Company or its authorized distributor that such products are, at the time of delivery to the Purchaser, made with good material and workmanship. No warranty is made with respect to:

- 1. Any product which has been repaired or altered in such a way, in the Company's judgment, as to affect the product adversely.
- 2. Any product which has, in the Company's judgment, been subject to negligence, accident, improper storage, or improper installation or application.
- 3. Any product which has not been operated or maintained in accordance with the recommendations of the Company.
- 4. Components or accessories manufactured, warranted and serviced by others.
- 5. Any reconditioned or prior owned product.

Claims for items described in (4) above should be submitted directly to the manufacturer.

#### WARRANTY PERIOD

The Company's obligation under this warranty is limited to repairing or, at its option, replacing, during normal business hours at an authorized service facility of the Company, any part which in its judgment proved not to be as warranted within the applicable Warranty Period as follows.

Product Type	Warranty Duration
New	18 months from date of shipment, or 12 months after initial startup date, whichever occurs first.
Remanufactured	12 months from date of shipment, or 12 months after initial startup date, whichever occurs first.
Repair	12 months from date of shipment, or remaining warranty period, whichever is greater.

All product furnished by seller but manufactured by others bear only that manufacturer's standard warranty. Replacement parts not specifically called out in an above table are warranted for 90 days from shipment. Any disassembly or partial disassembly of any of the package components, or failure to return these "unopened" per Company instructions, will be cause for denial of warranty.

The Company reserves the right to withdraw the Warranty where evidence indicates application outside the stated performance area, or where there is evidence of abuse.

#### LABOR TRANSPORTATION AND INSPECTION

The Company will provide labor, by Company representative or authorized service personnel, for repair or replacement of any product or part thereof which in the Company's judgment is proved not to be as warranted. Labor shall be limited to the amount specified in the Company's labor rate schedule and would expressly exclude labor for the removal and reinstallation of the Paragon product from the customer's equipment.

Labor costs in excess of the Company rate schedules caused by, but not limited to, location or inaccessibility of equipment, or labor provided by unauthorized service personnel is not provided by this warranty.

All costs of transportation of product, labor or parts claimed not to be as warranted and, of repaired or replacement parts to or from such service facilities shall be borne by the Purchaser. The Company may require the return of any part claimed not to be as warranted to one of its facilities as designated by the Company, transportation prepaid by Purchaser, to establish a claim under this warranty.

If a warrantable complaint occurs within 90 days from shipment:

- 1. Freight will be reimbursed for both the replacement item and the returned suspect part (if Requested by Paragon). This allowance will cover only transportation via Paragon selected most economical method within the continental United States, Canada and Mexico. Premium transportation and/or handling charges will not be covered or pro-rated.
- 2. Concerning distributors in Canada & Mexico, reimbursement for duty and brokerage fees at actual cost that cannot be recovered from Customs Officials, but not to exceed 20% of the distributor net price, will be allowed for warrantable complaints within 90 days.
- 3. Copies of relative invoices must be provided with the submission of the claim to be considered.

Replacement materials provided under the terms of the warranty are warranted for the remainder of the Warranty Period of the product upon which installed to the same extent as if such parts were original components.

#### **DISCLAIMER**

THE FOREGOING WARRANTY IS EXCLUSIVE AND IT IS EXPRESSLY AGREED THAT, EXCEPT AS TO TITLE, THE COMPANY MAKES NO OTHER WARRANTIES, EXPRESSED, IMPLIED OR STATUTORY, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY.

THE REMEDY PROVIDED UNDER THIS WARRANTY SHALL BE THE SOLE, EXCLUSIVE AND ONLY REMEDY AVAILABLE TO THE PURCHASER AND IN NO CASE SHALL THE COMPANY BE SUBJECT TO ANY OTHER OBLIGATIONS OR LIABILITIES. UNDER NO CIRCUMSTANCES SHALL THE COMPANY BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, EXPENSES, LOSSES OR DELAYS HOWSOEVER CAUSED.

No statement, representation, agreement, or understanding, oral or written, made by any agent, distributor, representative, or employee of the Company which is not contained in this Warranty will be binding upon the Company unless made in writing and executed by an officer of the Company.

This warranty shall not be effective as to any claim which is not presented within 30 days after the date upon which the product is claimed not to have been as warranted. Any action for breach of this warranty must be commenced within one year after the date upon which the cause of the action occurred.

Any adjustment made pursuant to this warranty shall not be construed as an admission by the Company that any product was not as warranted.



#### **Paragon Tank Truck Equipment**

www.paragondirect.com



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