

Hydraflow

30/42 GPM Models

3000 psi max



WARNING
DO NOT OPERATE
MACHINERY BEFORE
READING MANUAL FULLY



INSTALLATION, OPERATION, AND MAINTENANCE MANUAL

PRGMAN-10 Version: A January 31, 2024









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





NOTICE



WARNING: Warning Instructions listed on this page must be reviewed by ALL operators.

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

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Introduction

CONGRATULATIONS on your purchase of a new HydraFlow. Please examine the unit for shipping damage, and **if any damage is found**, **report it immediately to the carrier**. If unit is to be installed at a later date make sure it is stored in a clean, dry location.



Warning: Serious injury can result from operating or repairing the unit without reading the service manual and taking adequate safety precautions.

Safety Precautions

For equipment covered specifically or indirectly in this instruction book, it is important that all personnel observe safety precautions to minimize the chances of injury. Among many considerations, the following should be particularly noted:

- · Rotating shafts can be dangerous. You can snag clothes, skin, hair, hands, etc. This can cause serious injury or death.
- · Do not work under the vehicle when the engine is running.
- Do not work on the hydraulic system with the engine running or power take-off engaged.
- Do not engage or disengage driven equipment by hand from under the vehicle when the engine is running.
- PTO and driveshaft should have either a safety loop or guard installed.
- Install a support strap when servicing a drive shaft to prevent personal injury.
- Always use hose rated for hydraulic duty and at the correct pressure.
- · A serious or fatal injury can occur...
 - If you fail to follow warning instructions.
 - If you lack proper training.
 - If you fail to follow proper installation and operating procedures.
 - If you do not use proper tools and safety equipment.
 - If you assemble hydraulic system components improperly.
 - If you use incompatible driveline components.
 - If you use worn out or damaged driveline components.
 - If you use driveline components in a non-approved application.
- This manual contains safety instructions. Read, understand, and follow this manual.
 - Get proper training.
 - Learn and follow safe operating procedures.
 - Use proper tools and safety equipment.
 - Use proper components in good condition.
 - Ensure connections exposed to the weather are sealing properly.

Installation

Power Take-Off and Hydraulic Pump

- A. Mount the PTO as recommended by PTO manufacturer.
- B. If the system contains a direct mounted hydraulic pump, ensure the hydraulic pump is mounted to the PTO as recommended by PTO, hydraulic pump, and transmission manufacturers.
- C. Ensure ALL safety labels are installed per manufacturer guidelines.

Note: The standard filter supplied in the HydraFLOW HE is a 10 micron nominal. Contact Paragon Tank Truck Equipment for other filtration media options.

Please refer to your hydraulic pump installation manual for correct filtration and suction specifications.

Contact the engine manufacturer for the proper engine speed range that will reduce torsional vibration to a minimum and prevent premature hydraulic pump and PTO wear.

Mounting the HydraFLOW HE

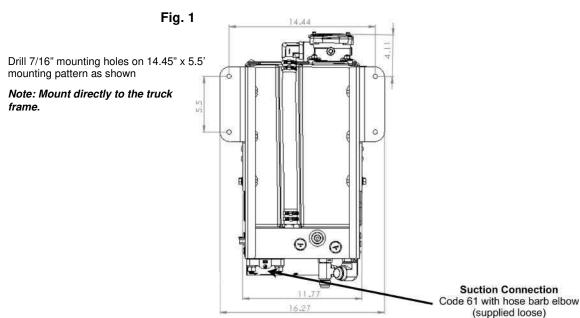
There are three options for mounting the HydraFLOW HE system: Standard Frame Mount (option X), Off-Set Mount (option M), No Drill Mount (option N).



CAUTION: US DOT Regulations states that a grab handle MUST be installed at all behind-the-cab access points. NOTE: The HydraFLOW HE is only considered an access point if the Step option is installed.

Standard Frame Mount (Option X)

- A. Drill 7/16" diameter holes in the appropriate location for mounting the unit (See Fig. 1).
- B. Use the fasteners in the hardware packet supplied by Paragon to mount the HydraFLOW HE.

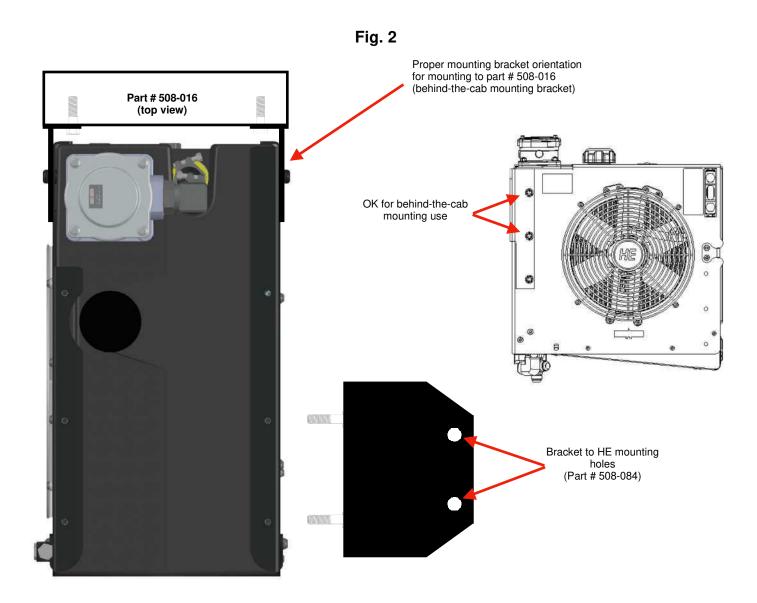


Note:

To avoid premature failure, hydraulic hoses must be supported and not allowed to hang or pull on cooler connections.

Off-Set Mount (Option M, NOT suitable for use with Step options)

- A. The brackets for the Off-Set Mount offer various options. Once a final configuration has been determined, copy the hole pattern to the tractor's frame rail. Ensure that the proposed mounting configuration mounts flush against the larger area.
- B. 21/32" diameter holes are required for offset mounting bolts.
- C. Use the fasteners supplied by Paragon to mount the HydraFLOW HE.
- D. For behind-the-cab mounting, use the 508-016 mounting bracket (sold separately). Specifics show in Fig. 2.



NOTE: For above-the-frame inward facing placement: Use 508-016 behind-the-cab mounting bracket. For above-the frame rail and outward facing placement: A support bracket (508-063) will be required with the 506-016 behind-the-cab mounting bracket.

No-Drill Mount (Option N)

- A. Using the provided mounting hardware, secure the HydraFLOW HE unit to the tractor frame.
- B. It is recommended that an appropriate lifting device be used to install the HydraFLOW HE unit.

Note: Protect the underside of the unit from damage by using wood or cardboard under the unit during installation.

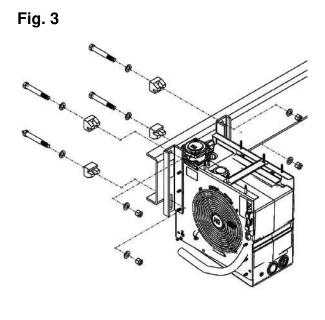
- C. With the HydraFLOW HE unit supported by a lift:
 - a. Push the HydraFLOW HE unit tight against the tractor frame (See Fig. 3).
 - b. Insert the 3/4" bolts through the washers, mounting blocks and top mount holes of the HydraFLOW HE unit's mounting bracket. The frame rail lip fits in the horizontal groove of the mounting block.
 - c. Install the washers and nuts on the opposite side of the HydraFLOW HE mount bracket.
 - d. Repeat the previous step for the mounting slot at the bottom of the mount bracket.

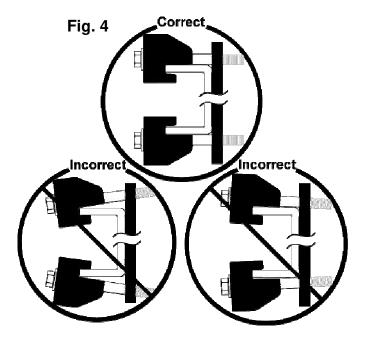
Note: The orientation of the mounting block for the lower mount change.

- e. Adjust the height of the HydraFLOW HE unit so the top and bottom mounting claws and bolts are positioned flush to the frame (see Fig. 4). Remove any excess play but do not torque.
- D. Using a torque wrench, tighten the mounting bolts as follows:
 - a. Torque the mounting bolts to 25 ft-lb. (33.0 N·m) in a cross pattern.

Note: Verify all mounting claws and bolts remain flush to the frame. If they are not, loosen and adjust as necessary, re-torque to 35 ft-lb. (33.0 N·m).

- b. Torque the mount bolts to 50 ft-lb. (67.8 N·m) in a cross pattern.
- c. Torque the mounting bolts 100 ft-lb. (135.6 N·m) in a cross pattern.
- d. Recheck all bolts to confirm they are at 100 ft-lb. (135.6 N·m).





Hydraulic Hoses & Fittings

- Use Loctite 545 or equivalent on any NPT hydraulic connections.
- **DO NOT** use thread tape or pipe dope on any hydraulic connections.
- High pressure hoses must have a minimum pressure rating equal to or higher than the hydraulic system relief valve setting.
- The suction hose must be sized correctly and carry a rating of 100R4 (28" Hg vacuum or higher).
- All hydraulic hoses must be internally swabbed and free of contaminants prior to installation and operation.



CAUTION: It is the installer's responsibility to ensure that the HydraFLOW is mounted in a location providing proper clearance from any heat source(s).

Paragon recommends 12" from any exhaust opening, 6" from any other heat source(s).

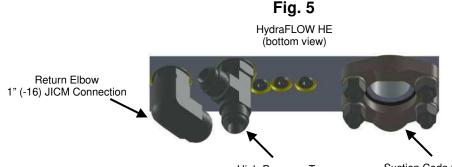


Fig. 6

Suction Connection Specifics
Code 61, 1-1/2"(-24) Port

Flow Rate
(GPM)

0-20

1-1/4"

20-25

1-1/2"

26-42

Recommended
Hose Size

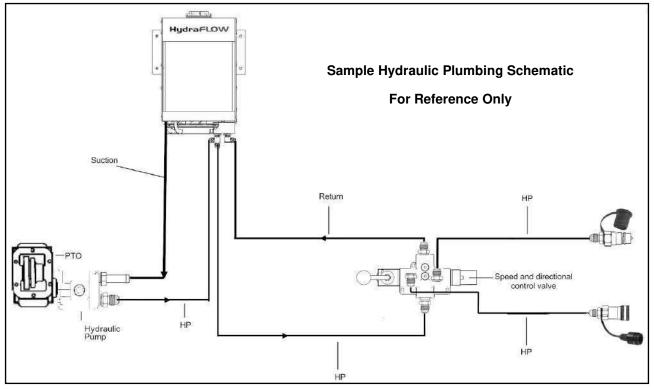
1-1/2"
20-25

2"

Fig. 7

High Pressure Tee
3/4" (-12) JICM Connection

Suction Code 61 -1-1/2"
Connection
Hardware only shown



Electrical

- HydraFLOW HE <u>MUST</u> be connected to a dedicated 12V DC power source that received a minimum of 5 amps power <u>ONLY</u> while the ignition key is in the "Run" position. (See Fig. 8)
- The HydraFLOW HE electrical connection is engineered to be used with the provided Electrical Harness ONLY.
- The ground connection **MUST** be connected to a ground terminal or connected properly to a negative battery terminal connection.
- <u>ALWAYS</u> verify the electrical connection is active with the ignition switch in the proper position before beginning the Initial Start Up Process.

NOTE: The HydraFLOW HE will not operate without a dedicated 12V DC power source and ground connection.



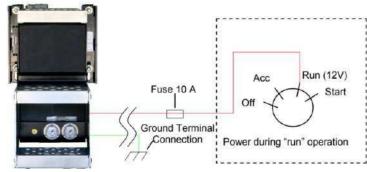
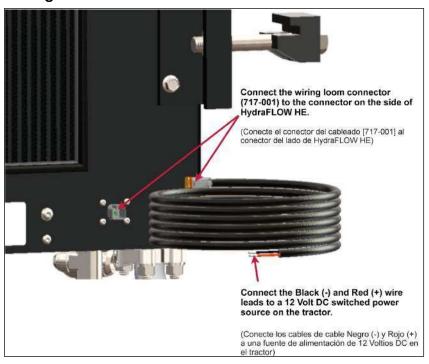
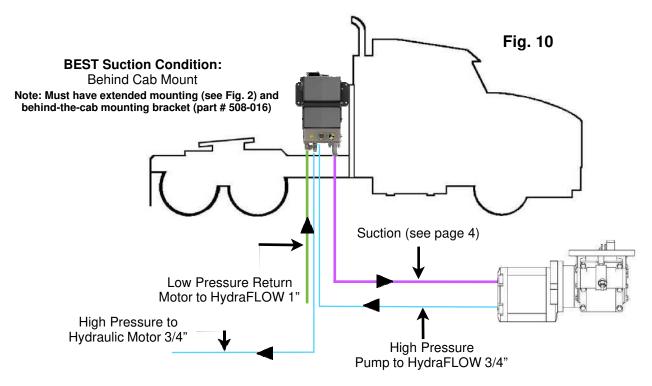


Fig. 9



Preferred behind the cab mount (optimum suction conditions)



Note:

- Review Hose Chart (see Fig. 6) to ensure the correct suction hose sizing.
- For off road applications do not mount HydraFLOW directly to the frame rail. Behind the cab mount is recommended.
- · See system circuit drawing for complete hydraulic plumbing.

Alternate Frame Rail Mount

High Pressure to Hydraulic Motor 3/4"

Fig. 11 Suction (see page 4) Low Pressure Return Motor to HydraFLOW 1"

High Pressure Pump to HydraFLOW 3/4"

Initial Start Up (Two People Required)

- A. Ensure all hoses are connected correctly per the hydraulic circuit drawing.
 - (See Page 7 for a general connection schematic)
- B. Ensure all valves are in the neutral position allowing the hydraulic flow to circulate through the system with no pressure build up.
- C. Removed the cooler black fill cap.
- D. Fill HydraFLOW HE to the center of the sight glass with non-foaming hydraulic oil.

NOTE: Paragon recommends an (ISO) 32 non-foaming hydraulic oil. (Example: Mobil SHC 630 Hydraulic Oil) Use a paint filter as a strainer while filling to prevent foreign contaminants from entering the system.

- E. Replace the black fill cap.
- F. Check all hoses and connections for leaks.
- G. Repair and tighten as needed.
- H. Start the engine and engage the PTO and pump according to manufacturer recommendations.
- I. Run for 3-5 seconds to eliminate air from the system.
- J. Disengage the PTO and fill the unit with oil until it as the appropriate level.
- K. Repeat steps A through F until oil remains at the center of the sight glass and is free of air.
- L. Start the engine and engage the PTO and pump according to manufacturer recommendations.
- M. Operate all hydraulic circuits until the air is purged from the system. Mind the sigh glass, move all controls to a neutral position, wait 5 seconds and refills as necessary.

NOTE: Always watch for leaks during this process, repair as needed.

<u>DO NOT</u> perform repairs with PTO engaged.

- N. Disengage the PTO according to manufacturer recommendations.
- O. Shut off the engine. (Oil level may rise slightly as system pressure equalizes)



CAUTION: If the hydraulic oil rises above 180°F, the system will automatically go into "Bypass" mode and the red LED light on the front of the bottom panel will illuminate. This will redirect the hydraulic oil flow internally alleviating all working pressure until the hydraulic oil temperature has cooled below 180°F. The red LED light will turn off when the HydraFLOW HE resumes normal operation without warning.

DO NOT disconnect any hydraulic connections while the PTO is engaged or the red LED light is illuminated.

Fig. 12

Operation of System

- A. Check oil level in the HydraFLOW HE. (Correct oil level is shown above in Fig. 12)
- B. Verify cooler heat exchanger is clean and free of any obstruction.
- C. Ensure parking brake is applied and control valves are in the neutral position.
- D. Engage PTO per manufacturer's instructions.
 - Note: Oil level will drop in the sight glass when the system is in operation.
- E. Operate any hydraulic control valves in a slow, smooth motion.
- F. For hydraulic system shutdown:
- A. Place all hydraulic control valves in a neutral position.

Fig. 13

Maintenance

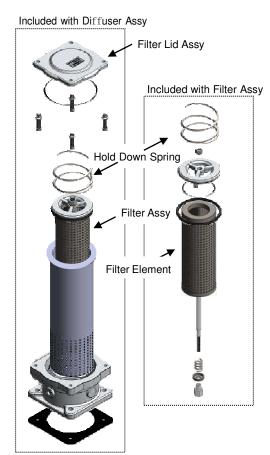
Daily	Check oil level before operating (the system must be off).	
Weekly Visually inspect the system each week. Check hoses, fittings, and mounting.		
	Change filter every 3 months.	
Every 3 Months	Grease PTO / Pump spline every 3 months.	
Every 6 Months	Change oil and filter every 6 months.	

Note: Grease PTO/Pump spline per manufacturer recommendations.

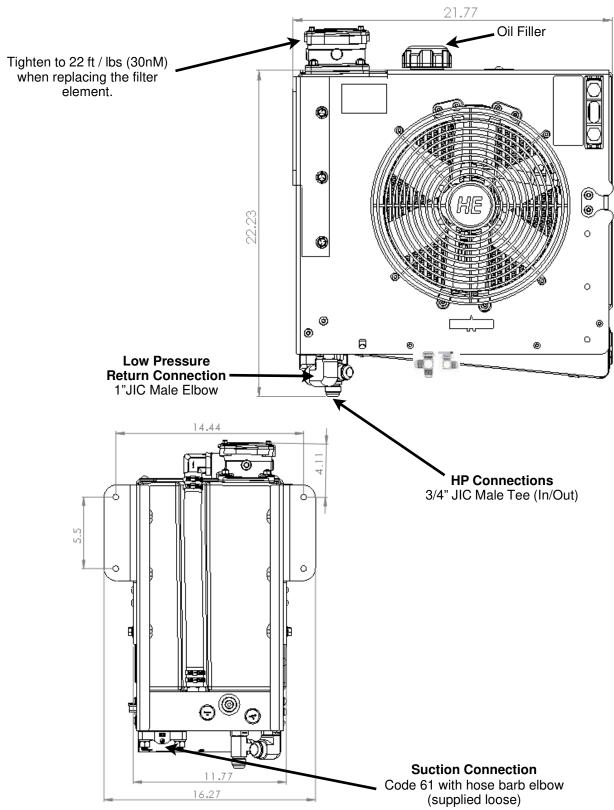
An oil analysis program is recommended to determine an accurate maintenance schedule.



Diffuser Assy:	352-003 (30 GPM) 352-005 (42 GPM) 352-008 (w/ Lip)
Filter Assy:	350-006 (42 GPM)
Filter Assy w/ Spring:	351-004 (30 GPM) 351-003 (42 GPM)
Filter Lid:	351-006 (Square)
Hold Down Spring:	580-001 (Square)
Filter Element:	350-001 (30 GPM) 350-000 (42 GPM)



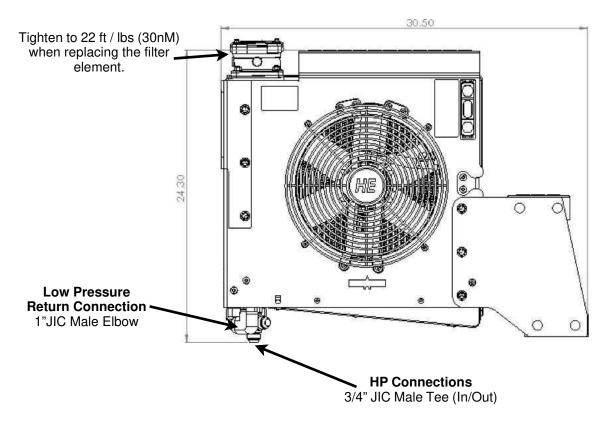
Overall Dimensions

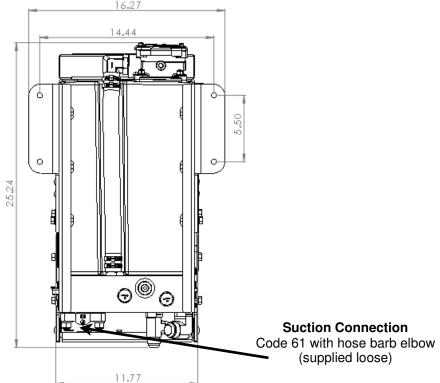


Note:

To avoid premature failure, hydraulic hoses must be supported and not allowed to hang or pull on cooler connections.

Overall Dimensions with Optional Steps





Note:

To avoid premature failure, hydraulic hoses must be supported and not allowed to hang or pull on cooler connections.

Model Number Construction

HE 300 A 4 HydraFLOW HE **Mounting Options (Frame Space Required to Mount)** • Over Temperature Bypass Is • X STD L Brackets - Flanges Outward (16.25" Offset Mounting Brackets ** *** • M No Drill Mounting (17.27" Required) ٠Ν System Pressure Setting 2500 PSI Hydraulic Relief Valve **Suction Line Connection** • 250 • 300 3000 PSI Hydraulic Relief Valve ٠Ν 1-1/2" Code 61 = No Elbow Fitting Supplied • 1 2" Suction x 1-1/2 Code 61 • 3 45 Degree Elbow (1-1/2" Hose Barb) • 4 45 Degree Elbow (1-1/4" Hose Barb) • 8 90 Degree Elbow (1-1/2" Hose Barb) • 9 90 Degree Elbow (1-1/4" Hose Barb) Style

* Note: Requires X or N Mounting Options

Steps* (STD 30 GPM)

Steps* (STD 42 GPM)

Gauges* (STD 42 GPM) Steps* & Gauges (STD 42 GPM)

Gauges* (STD 30 GPM)

Steps* & Gauges (STD 30 GPM)

• A

• B

٠G

• J • K

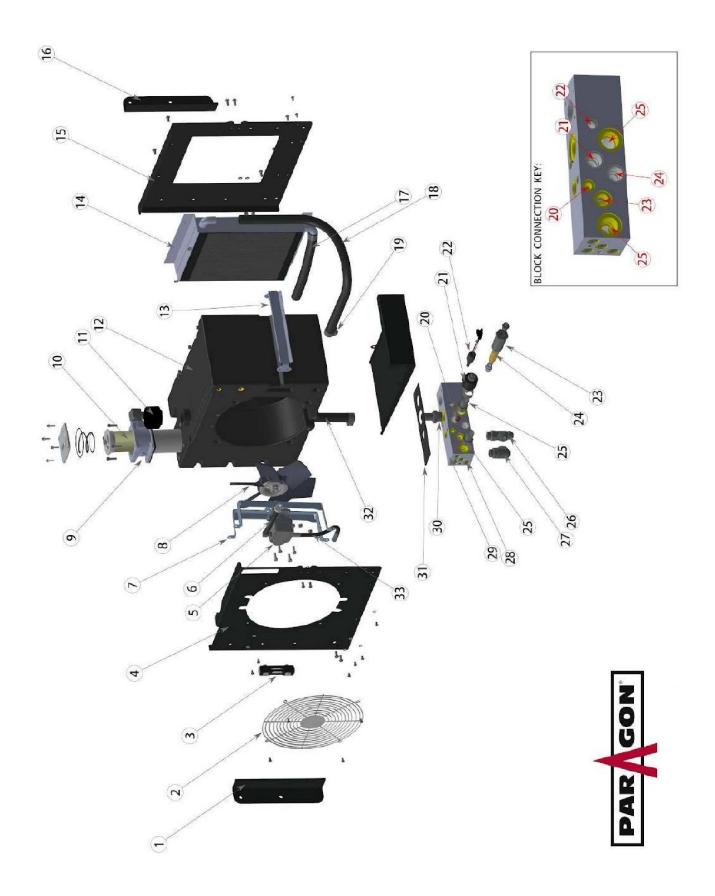
• M

• N

- ** Note: Not Available for use with S, J, K, or N
- *** Note: 508-016 Behind The Cab Bracket M Mounting Option REQUIRED

HE No Options (STD 30 GPM) With Tank HE No Options (STD 42 GPM) With Tank

HydraFLOW HE Cooler Assembly



Item #	Part #	Description	HE300A	HE300G	HE300S	HE300J
1	508-094	Bracket - Mounting Flanges L/H (Std)	1	1	1	1
2	524-006	Guard - HydraFLOW Fan	1	1	1	1
3	355-007	Hyd. Level Gauge, 3" w/ Temp & Mount H/W	1	1	1	1
4	523-023	Cover - L/H Panel	Х	Х	1	1
5	300-007	Hyd. Motor Fan - HE/HD/SL HydraFLOW	1	1	1	1
6	327-007	Hose Barb Straight -8 x -8 NPTM	1	1	1	1
7	508-083	Bracket - Fan Motor Mounting	1	1	1	1
8	507-002	Fan - HE Cooler	1	1	1	1
	352-003	Filter, 4bolt, SAE 16 Port, 30 GPM		4	4	_
9	352-005	Filter, 4 bolt, SAE 16 Port, 42 GPM	1	1	1	1
10	350-001	Filter Element Bare - HF/SL/HC/HE (30 GPM)	1	1	1	1
10	350-000	Filter Element Bare - HF/SL/HC/HE (42 GPM)	1	1	1	1
11	359-009	Breather Cap - HE Cooler	1	1	1	1
12	500-033	Body Mainframe	1	1	1	1
13	508-086	Bracket - Front Brace	1	1	1	1
14	370-004	Hyd. Heat Exchanger	1	1	1	1
15	523-024	Cover - R/H Panel	Х	Х	1	1
16	508-095	Bracket - Mounting Flanges R/H (Std)	1	1	1	1
17	85244	Heer Cyry Datum 1"	4	4	4	4
18	85244	Hose - Gray Return 1"	1	1	1	1
19	85233	Hose Clamp S/S 1.06" to 1.5" Heavy Duty	12	12	12	12
20	361-040	Pressure Hose Nipple (323-011 if no gauge)	1	1	1	1
21	333-003	Solenoid Valve Only -10, NO -12vDC	1	1	1	1
22	736-017	Temp Switch	1	1	1	1
23	352-006	Fan Motor Orifice Filter	1	1	1	1
0.4	85304	Relief Valve HE/300 - 3000psi	4	4	4	4
24	85257	Relief Valve HE/300 - 2500psi	1	1	1	1
25	327-017	Hose Barb Straight -16 x -12 ORBM	2	2	2	2
26	85222	Hyd. Tee 12 SAW x 12 JICM x 12 JICM	Х	1	Х	Х
27	322-012	Hyd. Elbow -12 SAE -16 JICM	1	1	1	1

Item #	Part #	Description	HE300A	HE300G	HE300S	HE300J
28	323-011	Hyd. Plug -4 ORBM	11	11	11	9
29	362-007	Control Block	1	1	1	1
30	327-011	Hose Barb Straight -16 x -16 SAE	1	1	1	1
31	526-028	Gasket, Block to Tank	1	1	1	1
32	85244	Hose - Gray Return 1"	1	1	1	1
33	361-024	Hose Assy, Fan Motor Feed	1	1	1	1
*	313-017	Hyd. "T" Clamp - Heavy Duty -8 Hose	2	2	2	2
*	327-007	Hose Barb Straight -8 x -8 NPTM	1	1	1	1
*	321-079	Adaptor -12 Thru Bolt	1	1	1	1
*	293-001	Washer - Bellville	1	1	1	1
*	295-001	Washer, Sealing 2" OD, 1.04" ID, NR	1	1	1	1
*	268-001	Stud 5/16"-18 x 1-1/2"	4	4	4	4
*	321-086	Adaptor Fan Motor Control	1	1	1	1
*	321-077	Adaptor -8 ORBM x -8 ORBM	1	1	1	1
*	228-032	Bolt, Hex 1/2 - 13 x 1.75 ZP	4	4	4	4
*	322-012	Elbow -12 SAE x -16 JICM	1	1	1	1
*	85222	Hyd. Tee 12 SAE x 12 JICM x 12 JICM	Х	1	Х	Х
*	335-005	Check Valve Cartridge -10 - Buna 30	1	1	1	1
*	335-006	Check Valve Cartridge -10 - Buna 70	1	1	1	1
*	333-003	Solenoid Valve Only -10, NO -12vDC	1	1	1	1
*	323-013	Hyd. Plug -12 ORBM	1	1	1	1
*	580-014	Spring, Control Block	4	4	4	4
*	294-004	Washer, Flat GR5 1/4" Plated	4	4	10	10
*	296-030	Washer, Flat #8-32 Zinc Plated	4	4	4	4
*	296-004	Washer, Flat GR5 5/16" Plated	8	8	8	8
*	294-003	Washer, Lock 1/4" - S/S	6	6	6	6
*	296-031	Washer, Flat #10 Zinc Plated	3	3	3	3

Item #	Part #	Description	HE300A	HE300G	HE300S	HE300J
*	224-007	Capscrew Skt Hd S/S 1/4" -21 x 3"	4	4	4	4
*	85233	Hose Clamp S/S 1.06" to 1.5" Heavy Duty	12	12	12	12
*	284-021	Nut Hex SS #8-32 NyLock	4	4	4	4
*	526-034	Compressed Flange Gasket	1	1	1	1
*	214-002	SBHC Screw 0.163-32x0.625-HX-S	4	4	4	4
*	299-017	Carriage Bolt 3/8"16 x 1-1/4" GR5	6	6	14	14
*	85230	Screw 1/4"-20 x 3/4" Button Head	16	16	16	16
*	214-012	Capscrew Button Head 5/16" x 3/4" - S/S	12	10	12	12
*	294-008	Washer Lock GR5 5/16' Plated	16	16	16	16
*	284-026	Nut Hex 5/16" -18 Nylock Plated	8	8	8	8
*	523-041	Cover - R/H Panel	1	1	Х	Х
*	523-040	Cover - L/H Panel	1	1	Х	Х
*	284-028	Flanged Distorted Thread Locknut 3/8"-16	Х	Х	6	6
*	570-002	Edge Trim	4	1	4	4
*	523-025	Bottom Panel w/o Gauges	1	Х	1	Х
*	742-000	Light - RED Indicator - LED	1	1	1	1
*	735-001	Deutsch 2 Pin Receptacle Wedge	1	1	1	1
*	735-002	Deutsch 2 Pin Receptacle Pin	1	1	1	1
*	735-003	Deutsch Connector Mounting Bracket	3	3	3	3
*	735-000	Deutsch DT04-2P 2 Pin Receptacle	1	1	1	1
*	299-000	Truss Head Screw	3	3	3	3
*	284-032	Nut Hex 10-24 ZP	3	3	3	3
*	717-000	Wiring Loom - Primary	1	1	1	1
*	572-804	Push Mount, 2-Way, 0.19" Max	2	2	2	2
*	Zip Tie	11" 40lb Cable Ties (S-5275)	2	2	2	2
*	352-008	Filter/Diffuser, 4 bolt SAE 16 port	1	1	1	1
*	328-002	Hose Barb Elbow -16SAE x -16 Barb	1	1	1	1
*	85244	Hose - Grey Return 1"	1	1	1	1

Item #	Part #	Description	HE300A	HE300G	HE300S	HE300J
*	85218	Elbow Hose Barb 8 x 8 SAE Plated	1	1	1	1
*	85258	Retaining Ring 1/2" - Fan Motor	2	2	2	2
*	361-024	Hose Assy, Fan Motor Feed	1	1	1	1
*	321-070	Adaptor -6 ORBM x -4 JICM	1	1	1	1
*	525-002	Plug - Air Channel	1	1	1	1
*	85236	Hose Fan Motor Return 1/2"	1	1	1	1
*	228-010	Hex Bolt 5/16" - 18x11x1 Plated	4	4	4	4
*	85246	Sealing Tape (Gasket) 1/4" x 1/2"	3	3	3	3
*	537-048	Label - HE Over Temperature Light	1	1	1	1
*	537-049	Label - He Oil Level	1	1	1	1
*	537-051	Label - HE Filter "NOT A STEP"	1	1	1	1
*	537-040	Label - HydraFLOW HE	1	1	1	1
*	537-038	Label - "Paragon", 2 Color, 3" Cutout	1	1	1	1
*	537-011	Label - Made in the USA	1	1	1	1
*	526-035	Gasket, Fom (EPDM) Bulb Seal Tape	1	1	1	1
*	360-005	Hose, 1" Return	3	3	2	3
*	717-001	Power Supply Harness	1	1	1	1

^{*} Items not shown on HE breakdown

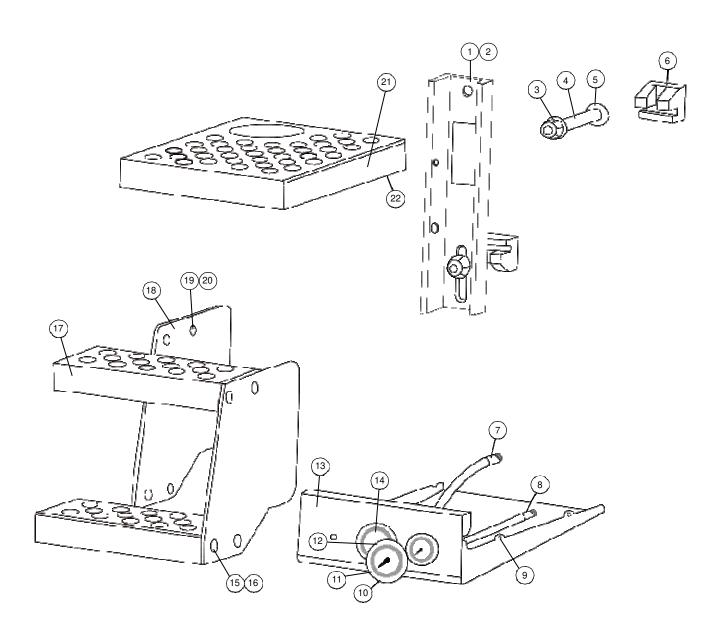
Suction Fittings (Does not include Connection Hardware)

Part #	Description
321-058	1-1/4" Code 61 = No Elbow Fitting Supplied
328-013	2" Suction x 1-1/2 Code 61
329-005	45 Degree Elbow (1-1/2" Hose Barb)
329-000	45 Degree Elbow (1-1/4" Hose Barb)
328-008	90 Degree Elbow (1-1/2" Hose Barb)
85261	90 Degree Elbow (1-1/4" Hose Barb)

Suction Connection Hardware

Part #	Description	Qty
228-071	Capscrew 1/2 x 1-3/4	4
284-015	Nut 5/8"	4
294-010	Lock Washer 1/2"	4
294-011	Lock Washer 5/8"	4
296-014	Washer 5/8"	4
85213	Flange, Split Half	2
85232	Code 61 O-Ring	1

HydraFLOW HE - Options



Note: Components shown are model specific

HydraFLOW HE Spare Parts List (Options)

Item #	Part #	Description	HE300A	HE300G	HE300S	HE300J
1	508-091	Bracket - No Drill Flanges L/H	-	-	-	-
2	508-092	Bracket - No Drill Flanges R/H	-	-	-	-
3	284-001	Nut Hex Gr5 3/4" Nylock	-	-	-	-
4	228-103	Bolt, 3/4"	-	-	-	-
5	284-020	Flat Washer 3/4"	-	-	-	-
6	508-090	Bracket - Frame Rail Clamps	4	Х	Х	Х
7	361-040	Hose Assy, -4 HP, FJIC Str x ORBM Str	Х	1	Х	1
8	361-039	Hose Assy, -4 HP, FJIC Str x ORBM Str 45°	Х	1	Х	1
9	299-017	Carriage bolt 3/8-16 X 1 1/4" Grade 5 Zinc Pl	Х	Х	4	4
10	353-001	Hyd Gauge 60 psi RCM 2" dial SS 1/4"	Х	1	Х	1
11	284-024	Nut Hex 1/4"-20 Nylock S/S	Х	Х	6	Х
12	214-000	Capscrew Button Head Socket #4-40	Х	6	Х	6
13	523-029	Bottom Panel, Gauges	Х	1	Х	1
14	353-000	Hyd Gauge 5000 psi RCM 2" dial SS 1/4f"	Х	1	Х	1
15	228-030	Flange Head Capscrew 3/8" -16 GR5	Х	Х	6	6
16	284-028	Flange Distorted Thread Locknut 3/8" -16	Х	Х	6	6
17	508-088	Bracket - Step Single	Х	Х	2	2
18	508-087	HE Step, Side Panel	Х	Х	2	2
19	284-009	Nut Hex GR5 3/8" -16 Nylock Plated	Х	Х	8	8
20	296-008	Washer Flat 3/8 X .812 ZP	Х	Х	4	4
21	508-089	Bracket - Step Top	Х	Х	1	1
22	214-012	Capscrew Button Head 5/16" X 3/4" - S/S	12	10	12	12
*23	322-041	Elbow -4 ORBM x -4 JICM XL	Х	1	Х	1
*24	85222	Hyd Tee 12 SAE x 12 JICM x 12 JICM	Х	1	Х	Х

⁻ Only used in No-Drill Option (option N)

^{*} Not shown in breakdown

<u>WARRANTY – HydraFLOW</u>

Subject to the terms and conditions hereinafter set forth and set forth in General Terms of Sale, Paragon Tank Truck Equipment LLC (the seller) warrants products and parts of its manufacture, when shipped, will be of good quality and will be free from defects in material and workmanship. This warranty applies only to Seller's equipment, under use and service in accordance with seller's written instructions, recommendations and ratings for installation, operating, maintenance and service of products, for a period as stated in the table below.

THIS WARRANTY EXTENDS ONLY TO BUYER AND/OR ORIGINAL END USER, AND IN NO EVENT SHALL THE SELLER BE LIABLE FOR PROPERTY DAMAGE SUSTAINED BY A PERSON DESIGNATED BY THE LAW OF ANY JURISDICTION AS A THIRD PARTY BENEFICIARY OF THIS WARRANTY OR ANY OTHER WARRANTY HELD TO SURVIVE SELLER'S DISCLAIMER.

Product Type	Warranty Duration
New	18 months from date of shipment, or 12 months after initial startup date, whichever occurs first

All accessories furnished by Seller but manufactured by others bear only that manufacturer's standard warranty.

All claims for defective products, parts, or work under this warranty must be made in writing immediately upon discovery and, in any event within one (1) year from date of shipment of the applicable item and all claims for defective work must be made in writing immediately upon discovery and in any event within one (1) year from date of completion thereof by Seller. Unless done with prior written consent of Seller, any repairs, alterations or disassembly of Seller's equipment shall void warranty. Installation and transportation costs are not included and defective items must be held for Seller's inspection and returned to Seller's Ex-works point upon request.

THERE ARE NO WARRANTIES, EXPRESSED, IMPLIED OR STATUTORY WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF, INCLUDING WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS OF PURPOSE.

After Buyer's submission of a claim as provided above and its approval, Seller shall at its option either repair or replace its product, part, or work at the original Ex-works point of shipment, or refund an equitable portion of the purchase price.

The products and parts sold hereunder are not warranted for operation with erosive or corrosive material or those which may lead to build up of material within the product supplied, nor those which are incompatible with the materials of construction. The Buyer shall have no claim whatsoever and no product or part shall be deemed to be defective by reason of failure to resist erosive or corrosive action nor for problems resulting from build-up of material within the unit nor for problems due to incompatibility with the materials of construction.

Any improper use, operation beyond capacity, substitution of parts not approved by Seller, or any alteration or repair by others in such manner as in Seller's judgment affects the product materially and adversely shall void this warranty.

No employee or representative of Seller other than an Officer of the Company is authorized to change this warranty in any way or grant any other warranty. Any such change by an Officer of the Company must be in writing.

The foregoing is Seller's only obligation and Buyer's only remedy for breach of warranty, and except for gross negligence, willful misconduct and remedies permitted under the General Terms of Sale. In no event shall Buyer be entitled to incidental or consequential damages. Any action for breach of this agreement must commence within one (1) year after the cause of action has occurred.



Paragon Tank Truck Equipment LLC.

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