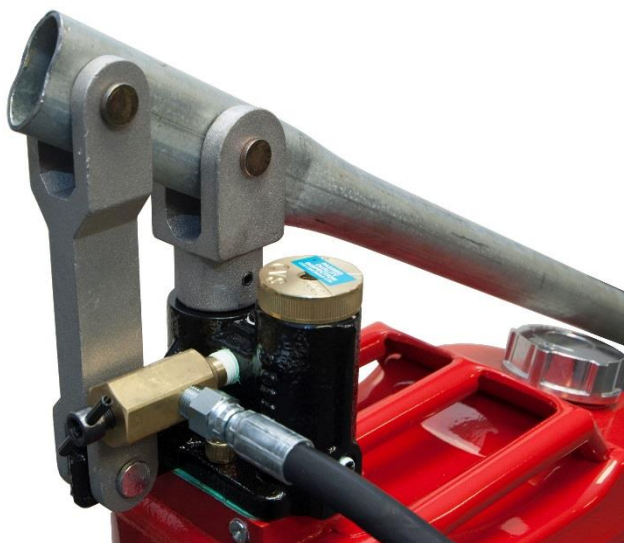




CVS Controls High Pressure Portable Injection Hand Pump

The CVS Controls High Pressure Chemical Injection Hand Pump is a durable, rugged design that allows quick and effective de-icing to valves or lines with just a few strokes.

The High Pressure Chemical Injection Hand Pump features adjustable pressure settings of 1000, 2000, and 3000 psi.



The Hand Pump is mounted on either a 10 litre (2.5 gallon), or a 20 litre (5 gallon) tank. The height of the 10 litre tank makes it ideal for storing and transporting where space is an issue.

The steel braided rubber core discharge line is fitted with 1/4 NPT swivel end, allowing for easy connections. Also included is a pressure bleed valve to assist in priming the pump or relieving discharge line pressure.

Working pressure up to a maximum of 3000 psi.

Discharge stroke volume is .730 cu. In, or 11.96 ml.

CVS Controls – High Pressure Portable Injection Hand Pump – Operation and Maintenance

The following components are shipped loose and must be installed prior to operation of hand pump.

1. “Link Kit”, consists of 2 Clevis Pins (4), 1 Clevis Pin (33), 3 Flat Washers (3), and 1 Handle Link (30), 2 Cotter Pin (5), and 1 R Clip (41)
2. Handle (1)
3. Discharge Hose Assembly (40)

Link Kit and Handle Assembly Installation

1. Install Handle Link (30) by inserting Clevis Pin (33) through Handle Link and Pump Body (28). Install 1 Flat Washer (3) and 1 Cotter Pin (5). Bend back tabs of cotter pin to secure.
2. Install Handle (1), by inserting 2 Clevis Pins (4) through upper Handle Link (30), and Plunger (14). Install 1 Flat Washer (3) on each Clevis Pin and secure upper handle link with Cotter Pin (5) by bending back tabs of cotter pin. Install R Clip (41) on clevis pin securing handle to the plunger to allow for easy removal for priming.
3. Apply thread tape or equivalent to fixed end of Discharge Hose Assembly (40). Thread into Bleed Valve Body (31), and secure.

Operation

1. Remove Tank Cap (37), and fill Tank assembly with alcohol or desired liquid best suited for your application. Replace Tank Cap. Cycle pump two to three full strokes with bleed valve open to Prime. Close bleed valve for normal operation. Should pump not be primed for regular use follow instructions below.

To Prime Pump

- A. Remove Plunger (14), by first removing 1 R-Clip (41) which attaches Handle to Plunger.
- B. Fill with alcohol or equivalent
- C. Replace Plunger
- D. Release excess pressure using the Bleed Valve Screw (32)
- E. Re-attach handle to plunger.

Unit is now primed and ready for use.

***Note: The CVS Controls High Pressure Hand Pump has a working pressure up to a maximum of 3000 psi. Prior to connecting Discharge Hose Assembly ensure working line pressure has been relieved.** CVS Controls has available the CVS-A-0675 Inline Check Valve for installation on the discharge hose assembly to prevent potential back pressure to the tank assembly.

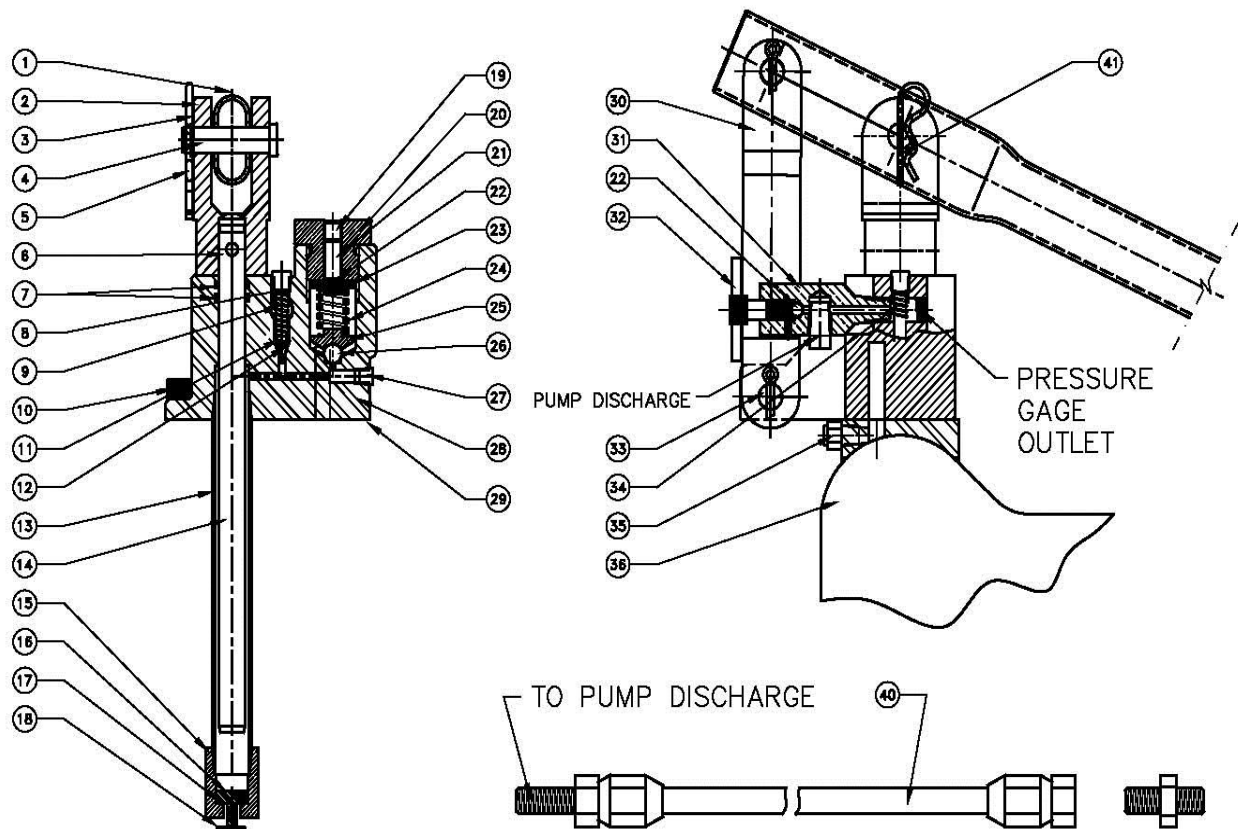
2. Connect discharge line.
3. Pump handle to inject alcohol.

Maintenance and Trouble Shooting

- If unit is not pumping, remove plunger and check Foot Valve o-ring (17), replace as necessary
- Unit does not hold pressure, Discharge Poppet (11) and Discharge Poppet o-ring (12) may be damaged or need replacing.

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| <p>After hand pump use, fill the tank and pump with corrosion inhibitor; pump the inhibitor through the pump head to help prevent premature internal rusting of the tank and head assembly during storage.</p> |
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CVS Controls Ltd. High Pressure Chemical Injection Hand Pump – Assembly



Parts List

| Item | Part No. | Description |
|------|-----------------|---------------------|
| | CVS-HP-1000 | Complete Unit – 20L |
| | CVS-HP-1000-10L | Complete Unit – 10L |
| 1 | CVS-1001 | Handle |
| 2* | CVS-1042 | Plunger Clevis |
| 3 | CVS-1003 | Washer |
| 4 | CVS-1004 | Clevis Pin |
| 5 | CVS-1005 | Cotter Pin |
| 6 | CVS-1006 | Roll Pin |
| 7** | CVS-1007 | O-Ring Plunger |
| 8 | CVS-1008 | Pipe Plug |
| 9** | CVS-1009 | Poppet Spring |
| 10 | CVS-1010 | Cap Screw |
| 11** | CVS-1011 | Discharger Poppet |
| 12** | CVS-1012 | O-Ring Poppet |
| 13 | CVS-1013 | Pump Barrel – 20L |
| | CVSHP1013S | Pump Barrel – 10L |
| 14* | CVS-1042 | Plunger – 20L |
| | CVS-1042ST | Plunger – 10L |
| 15 | CVS-1015 | Foot Valve Cage |
| 16 | CVS-1016 | Foot Valve Poppet |
| 17** | CVS-1017 | O-Ring Foot Valve |
| 18 | CVS-1018 | Cotter Pin |
| 19 | CVS-1019 | Set Screw |

| Item | Part No. | Description |
|------|------------|---------------------------------|
| 20 | CVS-1020 | Pressure Setting Screw |
| 21 | CVS-1021 | Set Screw |
| 22** | CVS-1022 | Stainless Steel Ball |
| 23 | CVS-1023 | Spring Set Plate |
| 24** | CVS-1024 | Spring |
| 25 | CVS-1025 | Spring Base Plate |
| 26** | CVS-1026 | Stainless Steel Ball |
| 27 | CVS-1027 | Pipe Plug |
| 28 | CVS-1028 | Body |
| 29** | CVS-1029 | Gasket |
| 30 | CVS-1030 | Handle Link |
| 31 | CVS-1031 | Bleed Valve Body |
| 32 | CVS-1032 | Bleed Valve Screw |
| 33 | CVS-1033 | Clevis Pin |
| 34 | CVS-1034 | Pipe Plug |
| 35 | CVS-1035 | Vent Check Valve |
| 36 | CVS-1036 | Tank assembly |
| 37 | CVS-1037 | Tank Cap |
| 38 | CVS-1038 | Repair Kit-(Incl. all ** Items) |
| 39 | CVS-1039 | Cap Gasket |
| 40 | CVS-1040 | Hose Assembly |
| 41 | CVS-1005HP | R-Clip |

*Item 14, Plunger and Item 2, Plunger Clevis are sold as an assembly only – Part number CVS-1042

** Repair Kit Items included in Part Number CVS-1038

CVS Controls Ltd. has available a maintenance kit for the High Pressure Hand Pump (CVS-1038). Should maintenance be required, it should only be performed by competent personnel, or a Qualified CVS Controls Technician. Contact a CVS Controls representative for more information.