CVS Controls Low Pressure Portable Injection Hand Pump

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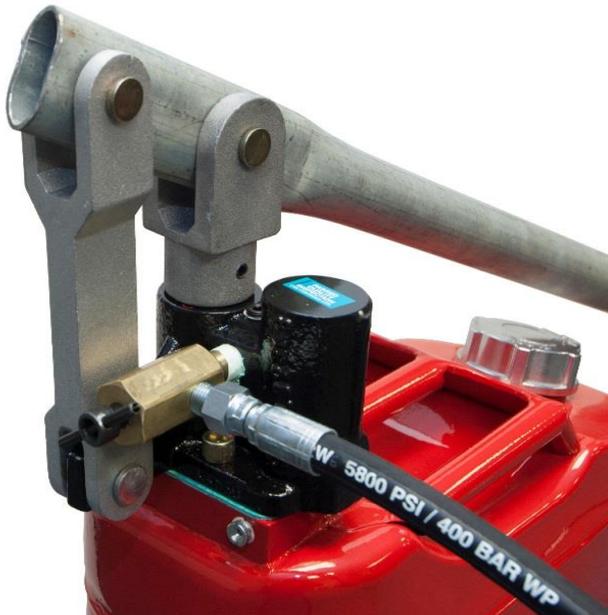
The Hand Pump is mounted on either a 10 litre (2.5 gallon), or a 20 litre (5 gallon) tank. The height of the 10 litre tank makes it ideal for storing and transporting where space is an issue.

The steel braided rubber core discharge line is fitted with 1/4 NPT swivel ends, 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 1000 psi.

Discharge stroke volume is 2.29 cu. In, or 37.5ml.

CVS Controls – Low 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 Pin (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.

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*Note: **The CVS Controls Low Pressure Hand Pump has a working pressure up to a maximum of 1000 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.

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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.

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.

CVS Controls Ltd. Low Pressure Chemical Injection Hand Pump – Assembly
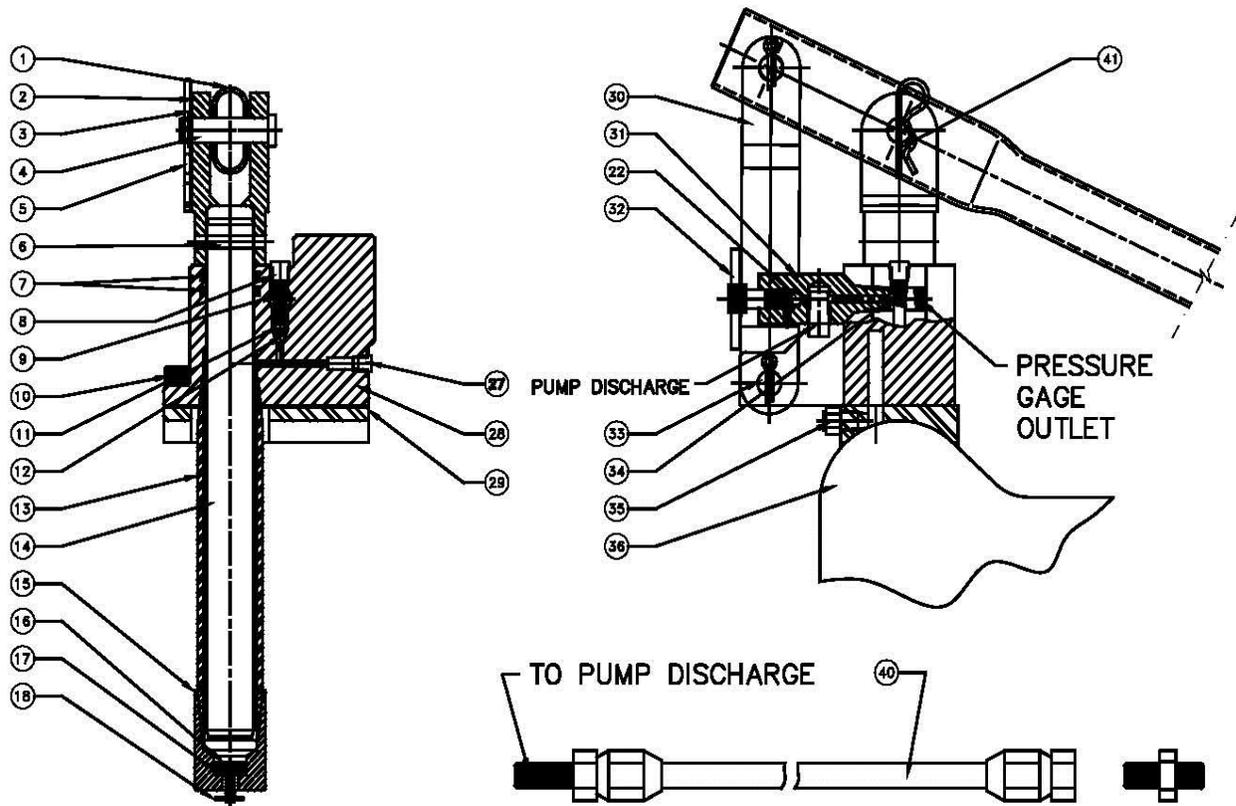
Parts List

Item	Part No.	Description
	CVS-LP-1000	Complete Unit
	CVS-LP-1000-10L	Complete Unit
1	CVS-LP-1001	Handle
2**	CVS-LP-1042	Plunger Clevis
3	CVS-LP-1003	Washer
4	CVS-LP-1004	Clevis Pin
5	CVS-LP-1005	Cotter Pin
6	CVS-LP-1006	Roll Pin
7*	CVS-LP-1007	O-Ring Plunger
8	CVS-LP-1008	Pipe Plug
9*	CVS-LP-1009	Spring
10	CVS-LP-1010	Cap Screw
11*	CVS-LP-1011	Discharger Poppet
12*	CVS-LP-1012	O-Ring Poppet
13	CVS-LP-1013	Pump Barrel – 20L
13	CVSLP1013S	Pump Barrel – 10L
14**	CVS-LP-1042	Plunger Assy 20L
14**	CVS-LP-1042ST	Plunger Assy 10L
15	CVS-LP-1015	Foot Valve Cage
16	CVS-LP-1016	Foot Valve Poppet

Item	Part No.	Description
17*	CVS-LP-1017	O-Ring Foot Valve
18	CVS-LP-1018	Cotter Pin
22*	CVS-LP-1022	Stainless Steel Ball
27	CVS-LP-1027	Pipe Plug
28	CVS-LP-1028	Body
29*	CVS-LP-1029	Gasket
30	CVS-LP-1030	Handle Link
31	CVS-LP-1031	Bleed Valve Body
32	CVS-LP-1032	Bleed Valve Screw
33	CVS-LP-1033	Clevis Pin
34	CVS-LP-1034	Pipe Plug
35	CVS-LP-1035	Vent Check Valve
36	CVS-LP-1036	Tank Assembly 20L
36	CVS-1036-10L	Tank Assembly 10L
37	CVS-LP-1037	Tank Cap
38	CVS-LP-1038	Repair Kit, includes items marked with *
39	CVS-LP-1039	Cap Gasket
40	CVS-LP-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-LP-1042, Plunger Assembly

CVS Controls Ltd. has available a maintenance kit for the Low Pressure Hand Pump (CVS-LP-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.

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