

CVS

Controls Ltd.

INSTRUCTION MANUAL

CVS Controls XHP 10000

High Pressure Portable Chemical Injection Hand Pump

X HP

The CVS Controls XHP 10000, is a portable chemical injection hand pump capable of injection pressure to a maximum of 10000 psi.

The portable injection hand pump is used to introduce methanol to effectively thaw frozen lines. Other applications may include hydro testing.

The CVS XHP 10000 utilizes a 10000 psi line check to maintain the pump pressure in the process installation. A supplied needle valve is incorporated to relieve the line pressure in the hose.

Discharge stroke volume is 4ml or .244 cubic in per stroke.

The hand pump is mounted on a durable 5 gallon (20 L) tank. The 7 foot long injection hose utilizes a swivel fitting to easily install to most applications. The CVS XHP 10000 is field serviceable, and additional support and repair kits are readily available. Contact a CVS Controls Ltd. representative for more information.



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CVS XHP 10000 Portable Injection Hand Pump – Operation and Maintenance

The following components are shipped within the box separately and must be installed prior to operation of hand pump.

1. "Link Kit", consists of 2 Clevis Pins (20), 1 Clevis Pin (6), 3 Flat Washers (23), 1 Handle Link (2), 2 Cotter Pin (22), 1 R-Clip (24)
2. Handle (21)
3. Discharge Hose Assembly (26)
4. Line Check and Bleed valve assembly (pre-assembled, install on plunger head assembly)

Link Kit and Handle Assembly Installation

1. Install Handle Link (2) by inserting Clevis Pin (6) through Handle Link and Pump Body. Install 1 Flat Washer (23) and 1 Cotter Pin (22). Bend back tabs of cotter pin to secure.
2. Install Handle (21), by inserting 2 Clevis Pin (20) through upper Handle Link (2), and Plunger (1). Install 1 Flat Washer (23) on each Clevis Pin and secure upper handle link with Cotter Pin (22) by bending back tabs of cotter pin. Install R Clip (24) 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 (26). Thread into Tee Fitting (17), and secure.

Operation

1. Remove Tank Cap, 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 drain valve open to Prime. Close drain valve for normal operation. Should pump not be primed for regular use follow instructions below.

To Prime Pump

- A. Remove Plunger (1), by first removing 1 Clevis Pin (20) which attaches Handle to Plunger.
- B. Fill with alcohol or equivalent
- C. Replace Plunger
- D. Release excess pressure using the Bleed Valve (16)
- E. Re-attach handle to plunger.

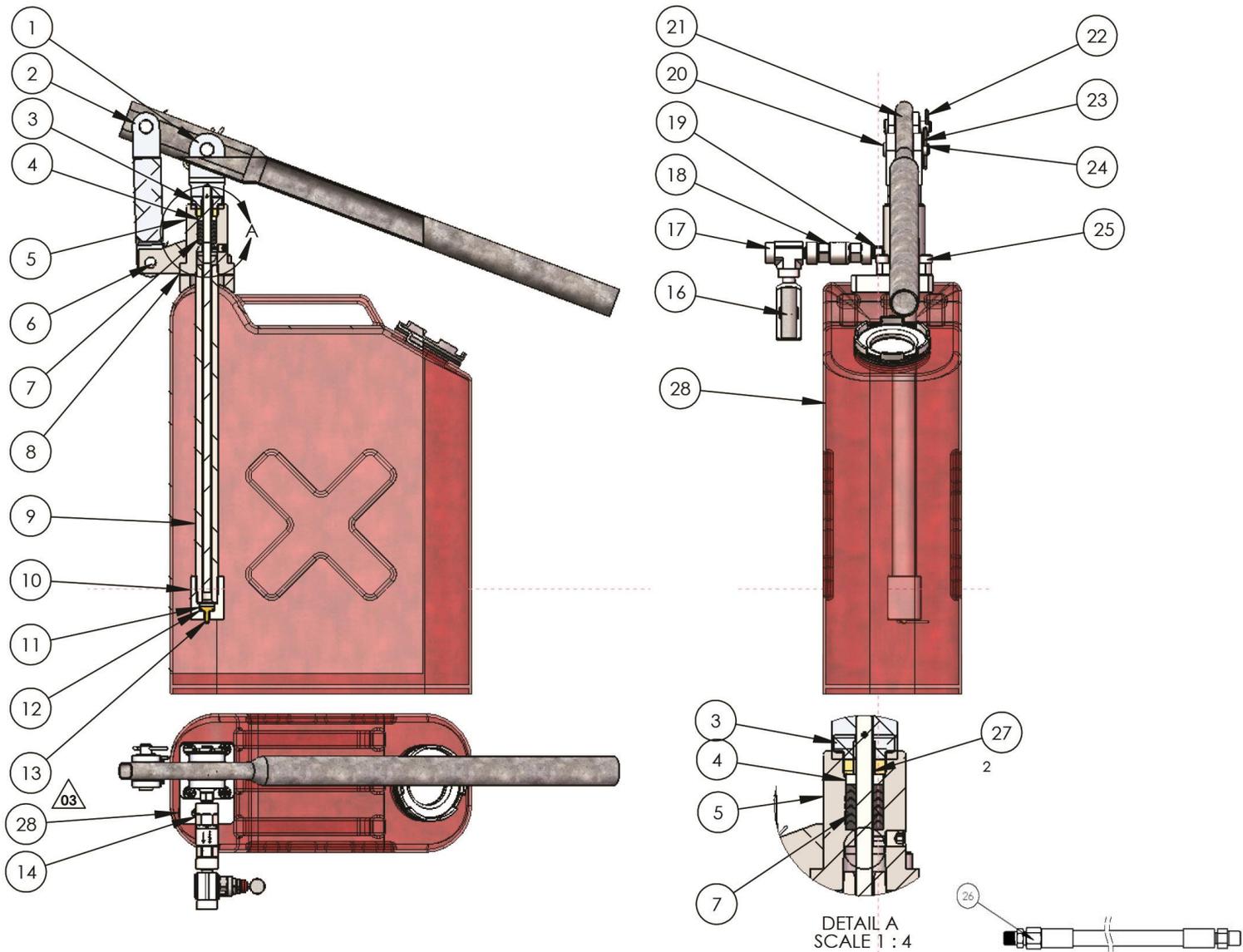
Unit is now primed and ready for use.

***Note: The CVS Controls High Pressure Hand Pump has a working pressure up to a maximum of 10000 psi. Prior to connecting Discharge Hose Assembly ensure working line pressure has been relieved.** CVS Controls has included the CVS-B-0025 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.

Packing Gland Adjustment : Slight adjustments may be required to prevent or stop minor leakage though the packing set. Adjustment may require tightening of the Packing Gland Nut (3). Relieve line pressure prior to making any adjustments. Tighten Packing Nut in half turn increments and test for leaks. Repeat procedure if additional adjustments are required.

CVS XHP 10000 Assembly



Item	Part Number	Description	QTY	Item	Part Number	Description	QTY
1	CVS XHP-1042	Plunger Assembly	1	15	CVS XHP-1036	Tank Assembly	1
2	CVS HP1030	Handle Link	1	16	CVS XHP-011	1/4" NPT MAXF Needle Valve	1
3	CVS XHP-009	Packing Nut	1	17	CVS XHP-015	Tee Fitting, 10000 psi	1
4	CVS XHP-008	Packing Gland	1	18	CVS-B-0025	Check Valve Assembly 10000 psi	1
5	CVS XHP-001	Pump Head	1	19	CVS XHP-013	Check Valve Nipple	1
6	CVS HP1033	1/2" Clevis Pin, 1.36" Long	1	20	CVS HP1004	1/2" Clevis Pin 2.00" Long	2
7*	CVS-A-1875	3/8" Packing Set, Hard	1	21	CVS HP1001	Handle	1
8*	CVS XHP-005	Pump Head Gasket	1	22	CVS HP1005	1/8" Cotter Pin	2
9	CVS XHP-003	Pump Barrel	1	23	CVS HP1003	Washer	3
10	CVS XHP-007	Foot Valve Cage	1	24	CVS HP1041	R-Clip	1
11*	CVS HP1016	Foot Valve Poppet	1	25	CVS HP1010	3/8-16, RH Screw 1.00" Long	4
12*	CVS HP1017	O-Ring #110	1	26	CVS XHP1040	Hose Assembly 10000 psi	1
13	CVS HP1018	3/64" Clevis Pin Cotter Pin	1	27	CVS ECP-008	Sleeve Bushing	1
14	CVS HP1008	1/8" NPT Plug	2	28	CVS HP1035	Vent Check Valve	1
				*	CVS-XHP-1038	XHP 10000 Repair Kit	

*CVS XHP-1038 Repair Kit also includes Spring, O-Ring and SST Ball for Line Check Valve

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