



Minor Repair Kit installation - using kit #1-18973

Hyplex Prime Minor Repair Kit replacement. 1-18973 KIT:HYPLEX PRM MIN

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INTRODUCTION

This is a how-to guide for replacement of 1-18973 Hyplex Prime Minor Repair Kit from Accustream.



TOOLS:

- [Pressure-loading tool](#) (1)
- [9/16" socket](#) (1)
- [Check valve clamp tool](#) (1)



PARTS:

- [1-18973](#) (1)

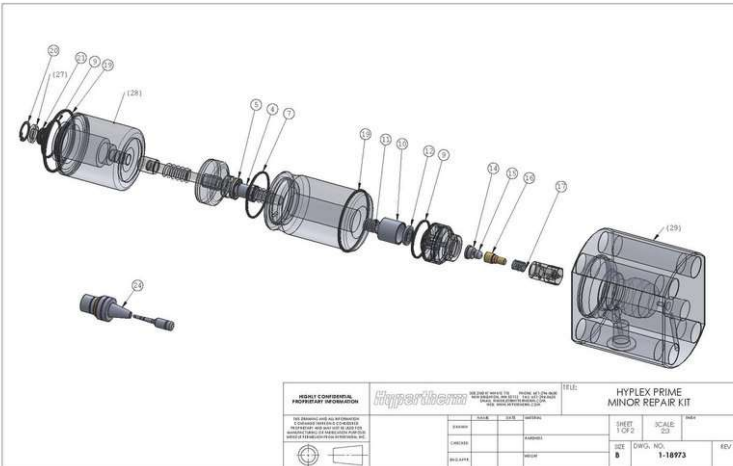
Step 1 — Safety Precautions



Follow Lockout/Tagout procedures and remove all stored energy prior to performing any maintenance

- Refer to original equipment manufacturer's safety and maintenance instructions. Failure to do so could result in injury or death.
- **Always remove all stored energy and lock out equipment before beginning any work.**

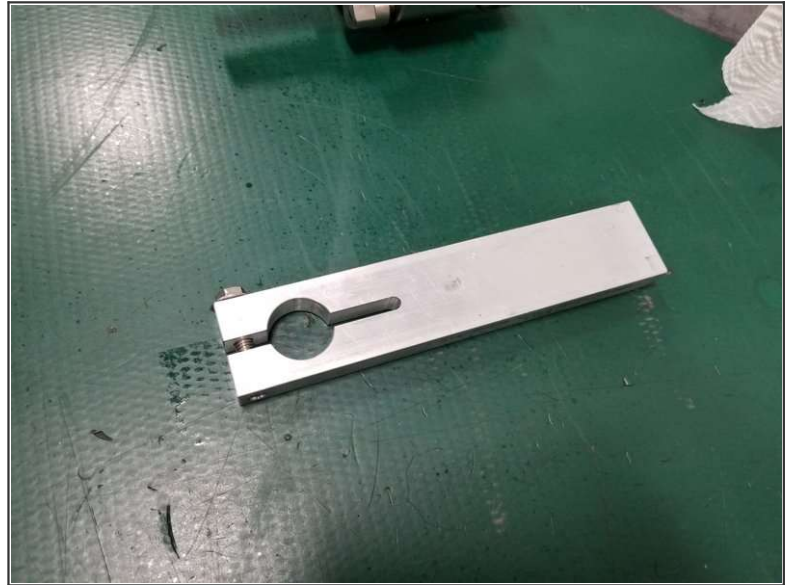
Step 2 — BOM



ITEM NO.	PART NUMBER	DESCRIPTION	QTY	PLUM #	WPT #
4	1-18962	SEAL-O-RING	3	011051-1	72185177
5	1-18748	ROD SEAL/STROKING 005-033	3	A-06421-33	72185128
7	1-1478-029	O-RING/170 DURO BUNA -029	3	A-0275-029	1122207
9	1-1478-003	O-RING/170 DURO BUNA -003	3	A-0275-003	10074383
10	1-18864	FLA. TORQ-RELV	3	011350-1	72185149
13	1-18747	SPR/COMPRESSOR 352 ID	3	A-12218	72185141
13	1-18860	PTFE LIN	3	011041-1	72185133
14	1-18807	OUT PFT/SEAT	3	011041-1	72185192
15	1-18869	PFT/OUTLET	3	011030-1	72185185
16	1-18868	INP PFT/ONE	3	011041-1	72185167
17	1-18750	SPR/COMPRESSOR 323 OD	3	A-0253	72185206
19	1-1478-033	O-RING/170 DURO BUNA -033	6	A-0275-033	104334083
20	1-18745	RTNG RING/178 IN	3	A-0240-082	72185226
21	1-11393	O OIP SEAL	3	A-00710-43	72185008
22	1-11447	OR15 G HIGH VAC	1	A-4889	10087385
23	1-18750	INTE-REILLET O	2	A-30306-1	4362139
24	1-18862	PFT/ADPT	1	002143-2	72185059, 72185258, & 72185276
26	1-11310-30	PAPER/10 MICRON LAPPING GRD BRIT	1	A-1903	10149029
26	04970-1	FLANGES INT			-FOR REFERENCE-
27	01108-1	SEAL SPACER			-FOR REFERENCE-
28	04950-1	SUBPLATE ADAPTER			-FOR REFERENCE-
29	04990-1	END CAP			-FOR REFERENCE-

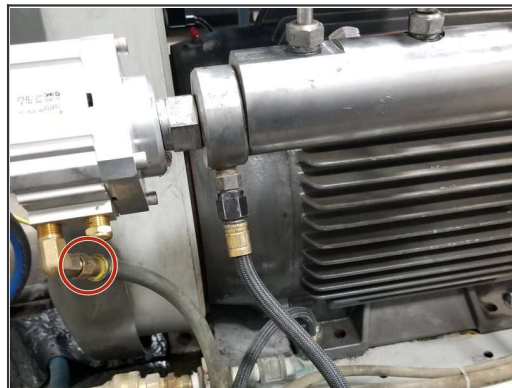
- Insert wisdom here.

Step 3 — Special tools (OEM)



- Pressure Loading tool
- Check valve clamp tool

Step 4 — Remove hoses



- Remove inlet water hoses from the bottom of the end cap
- Disconnect air line from actuator
- Disconnect PCV drain line

Step 5 — Remove high-pressure lines



- Remove high-pressure tube from manifold using a 13/16" open end wrench
- Remove high-pressure inlets from all end caps using 13/16" open end wrench while supporting the manifold

Step 6 — Check pressure loading tool



- Ensure oil is full. Open the 3/16" hex screw located on the contact face to check/fill using ATF fluid
- Ensure pressure loading tool screw is fully retracted
- Ensure piston is fully retracted

Step 7 — Pressure loading tool



- Keep screw lubricated with MOLYKOTE® BR-2 Plus or similar
- Wipe stud threads clean and apply Loctite 8150 anti-seize (#1-18750)

Step 8 — Attach pressure loading tool



- Attach pressure loading tool to each set of studs, rotating each tool stud by hand until tight
- Once snug, back out the tool studs 1/4 turn. Place a radial line with a permanent marker to make this easier to see
- Use a 3/4" (19mm) ratcheting socket to pressurize the tool by rotating screw clockwise. Pressurize per manufacturers recommended gauge pressure

Step 9 — Remove pressure loading tool



- While tool is pressurized, loosen the four nuts a few turns by hand
- Turn the 3/4" socket counter-clockwise to reduce the pressure in the tool
- Back off each of the four tool studs and remove the pressure loading tool

Step 10 — Remove end cap



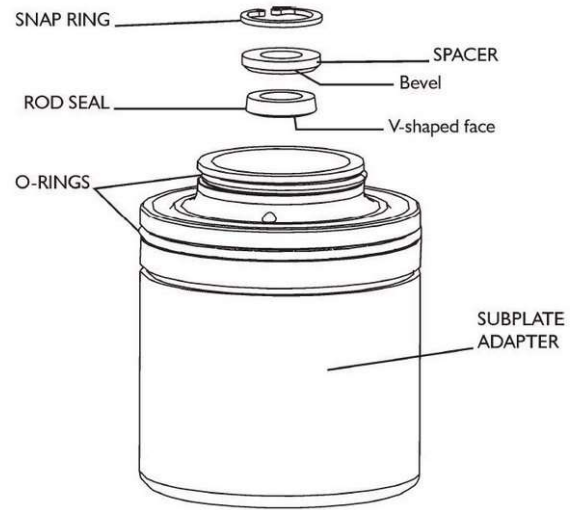
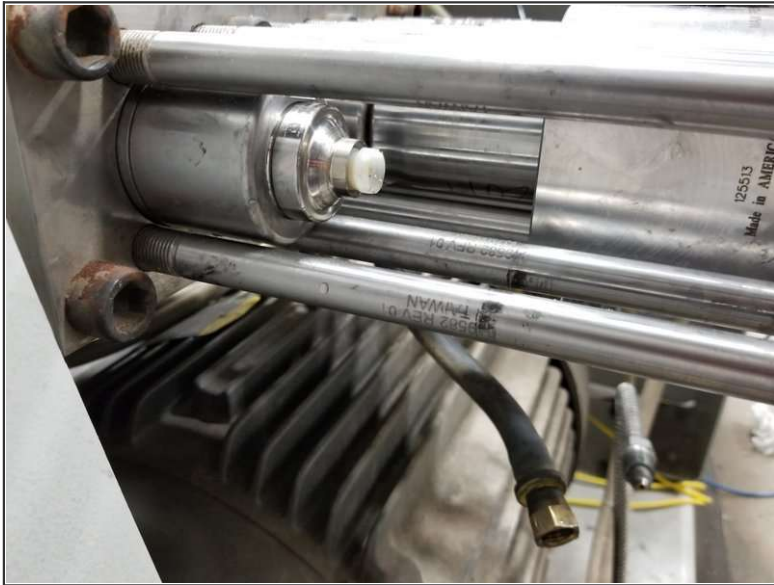
- Remove the four nuts and washers
- Carefully slide the end cap off, being careful not to lose any of the high-pressure components

Step 11 — Remove HP cylinder, filler tube, inlet poppet



- HP cylinder and filler tube may come out with end cap
- Use a screwdriver to remove seal carrier, if necessary

Step 12 — Remove subplate adapter



- Remove subplate adapter (gently pry groove if necessary)
- Remove snap ring and rod seal, install new rod seal (1-11993) and snap ring (1-18745). Inspect and replace spacer with bevel down

Step 13 — Remove check valve assembly from end cap



- Carefully lift the check valve assembly using two flathead screwdrivers in the groove on the check valve body

Step 14 — Check valve



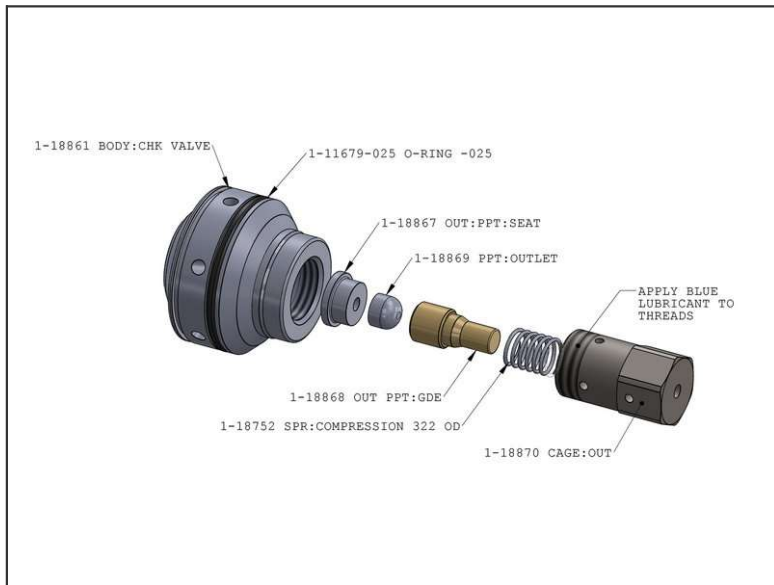
- Insert check valve body clamp tool into bench vise
- Use a 9/16" socket to tighten the clamp onto the check valve body
- Remove the Outlet Cage using the 9/16" socket - be careful not to lose the internal components
- Inspect check valve body and outlet cage for excessive wear or failure

Step 15 — Lap check valve components



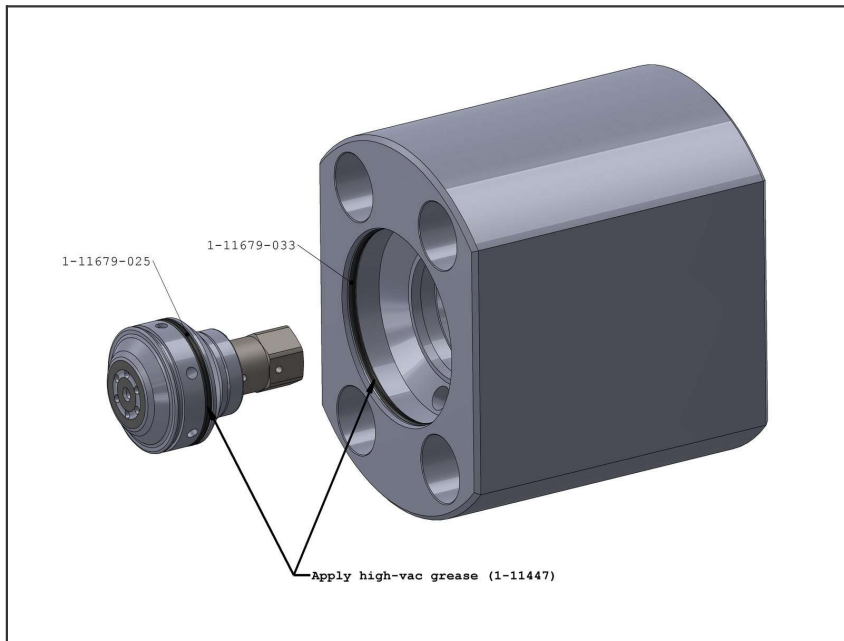
- Secure lapping paper to a hard, flat surface such as the glass plate that came with your system, or a granite surface plate
- [1-13281 Granite Surface plate, 9" x 12" x 2"](#)
- Wet paper and lap the check valve body on the inlet face poppet face using a figure 8 pattern.
- After 10-12 cycles, rotate check valve body by 45 degrees and repeat process until face is smooth and free from defects.

Step 16 — Check Valve Assembly



- Re-use check valve body and cage, assuming they are in acceptable condition. Replace the following:
 - 1-11679-025 O-ring
 - 1-18867
 - 1-18868
 - 1-18869
 - 1-18752
- Maintain alignment of internal components while hand-tightening the Outlet Cage. Torque outlet cage to 30 ft-lb (41 N-m) while clamped in the Outlet Cage Clamp tool

Step 17 — Check valve continued



- Install new End Cap o-ring
- Apply high-vac grease (1-11447) to both o-rings
- Insert check valve assembly into end cap

Step 18 — PCV Replacement



- With manifold removed from pump, place manifold in a heavy bench vise
- Remove the PCV body using a 1-1/4" (32 mm) wrench

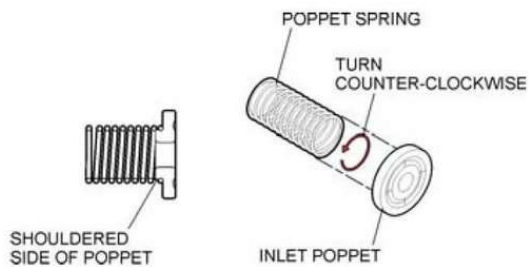
Step 19 — PCV Replacement



- Apply blue lubricant to threads and both faces of the PCV adapter
- Install new PCV Ring onto new PCV Seat, and insert PCV Poppet into seat. Insert PCV assembly into PCV body
- Thread manifold onto PCV Adapter. Torque to 190 ft-lb (258 N-m)

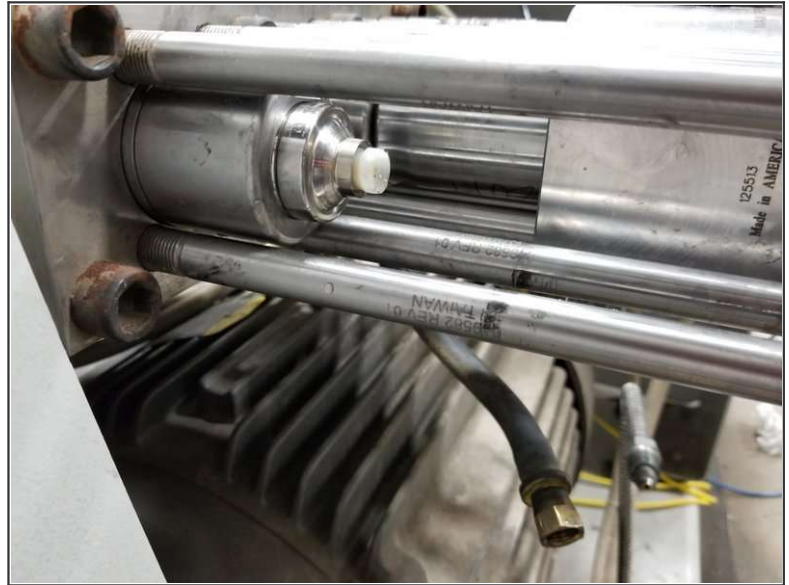
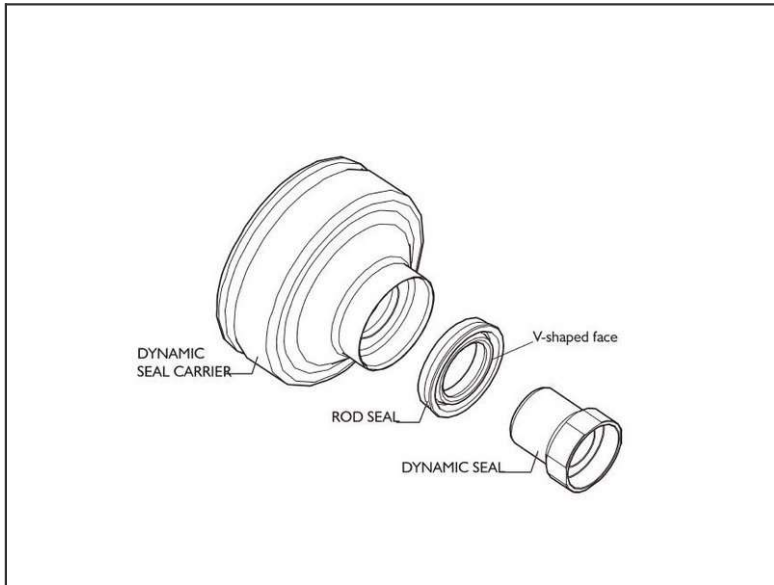
Step 20 — Assemble Inlet Poppets

Assemble the inlet poppet



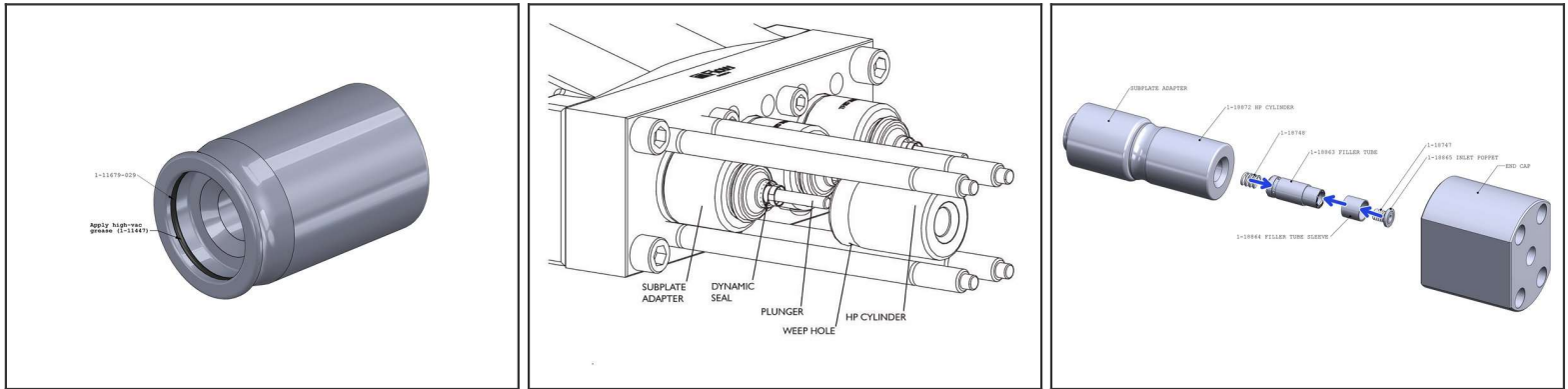
- Attach 1-18747 spring to 1-18865 Inlet Poppet

Step 21 — Replace HP seals



- Insert dynamic seal and rod seal into new seal carrier (slight pressure is required to seat dynamic seal)
- Install rebuilt subplate adapter
- Slide seal assembly over plunger up to subplate adapter

Step 22 — Install HP Cylinder, filler tube



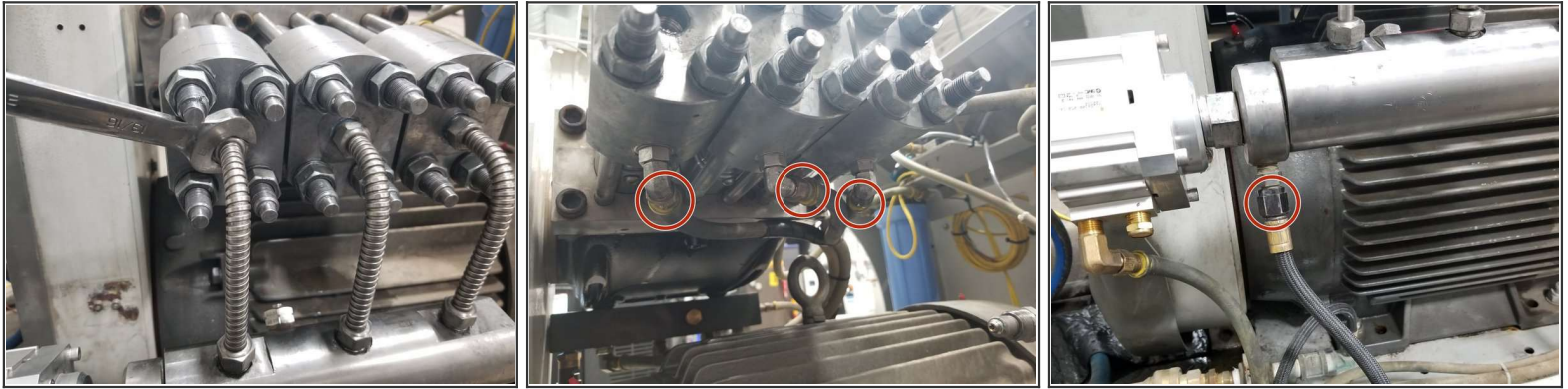
- Insert new o-ring into HP Cylinder. Apply a small amount of high-vac grease to o-ring
- Carefully slide HP cylinder over the seal carrier, keeping the weep hole facing down
- Insert 1-18748 spring into Filler Tube. Slide filler tube sleeve onto filler tube, insert poppet assembly into filler tube
- Insert assembly into HP Cylinder

Step 23 — Attach end caps



- Slide End Cap onto tie rods and align with HP Cylinder
- Place washers and nuts on tie rods, hand tighten until snug
- Attach and pressurize the pressure loading tool. Tighten nuts by hand until they are snug against the end cap
- Remove pressure from pressure loading tool
- Repeat for all three lines

Step 24 — Install manifold



- Apply blue lubricant to high-pressure fittings
- Torque high-pressure glands to: 40 ft-lbs (54 N-m)
- Attach manifold/high-pressure glands, air line, PCV drain line, and inlet lines

Step 25 — Other considerations



- Check oil level and quality. Change oil per the recommendation of your specific system
- Check belt quality and tension
- Replace water filters as necessary
 - [1-11390](#) - 1 micron
 - [1-11402](#) - .45 micron

Step 26 — Energize the system



- When complete, unlock system and restore energy
- Start pump and check for any leaks