

WIDDER® TOOLS



Industrial Manufacturing Solutions

HPIM-10000 MINI Hydrostatic Test Pump



PRODUCT INFORMATION AND OPERATING INSTRUCTIONS

Description: The **WIDDER** Hydrostatic Test Systems® **M Series** is a portable, self-contained, air driven hydrostatic test system. The **M Series** comes standard with a stainless steel, 140 Mesh (100 Micron) input water filter, as well as, full air filtration and lubrication. This meets all pump manufacturer warrantee requirements. **WIDDER** Hydrostatic Test Systems® **M series** are manufactured in USA, from Aluminum and Stainless Steel construction for long term corrosion protection, and assembled for ease of maintenance and parts replacement.

IMPORTANT: FOR YOUR SAFETY BEFORE OPERATING THIS UNIT, READ THIS OPERATOR'S MANUAL CAREFULLY AND COMPLETELY. LEARN THE OPERATION, APPLICATIONS, AND POTENTIAL HAZARDS PECIALIAR TO THIS TOOL.

UNIT SPECIFICATIONS:

Max Output Pressure: 9,700 PSI @ 100 PSI air pressure

Max Water Flow Rate: 1 GPM @ 100 PSI air pressure (no load)

Max Air Consumption: 56 CFM @ 100 PSI

Max Air Input Pressure: 100 PSI

Water Inlet: 1/2 NPT Female

Water Outlet: 1/2 NPT Female

Air Inlet: Universal Hose Coupling

Weight: 70 lbs.

SAFETY PRECAUTIONS:

1. Be sure all pressure on air and water fittings is relieved before dis-connecting any hoses or fittings
2. Wear eye protection
3. Pressurization of any materials is dangerous- follow OSHA procedures for stored energy and any pressurization cautions pertaining to the fluids used
4. This system can develop pressure up to the nameplate pressure- do not over pressure test vessels as damage can occur.
5. Do not run air pump without water input as you can damage the pump
6. Oil lubricator on air input must be filled with standard air tool oil before operating. Operating without oil voids tool warrantee

OPERATING INSTRUCTIONS:

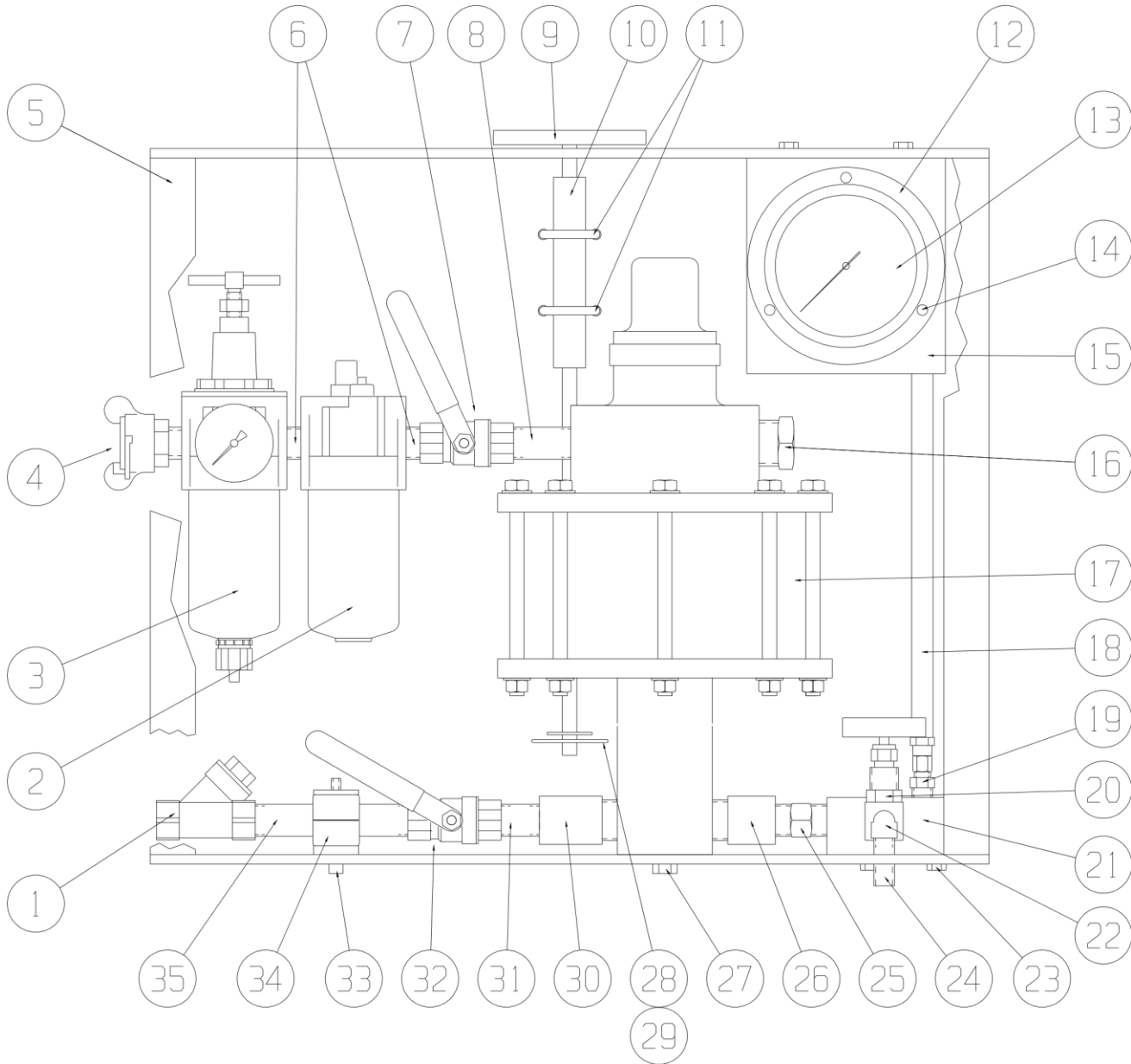
A. Leak Test Only

1. Attach water (Bottom Left of Unit) and air input (Top Left of Unit) with water and air supply turned off.
2. Attach water output to test vessel (pre-fill if necessary for faster fill).
3. Turn on input water supply at street pressure and check for any obvious hook-up leaks.
4. Bleed the system through the needle relief valve until no more air comes out.
5. Close needle valve firmly. **Do not over tighten.**
6. With Regulator opened all the way (counter clock-wise) turn on the air input valve.
7. Slowly close the regulator (clock-wise) causing the system pressure to build. The unit will stroke a few times quickly to build pressure and will slow as the system charges and fills.
8. Observe system output pressure gage carefully. **Do not over pressure test vessel.**
9. As desired pressure is approached, slow air input by backing off regulator. The system will hold this pressure within about 1% and will make-up any drop by recycling the pump.
10. Inspect pressurized system for leaks.
11. Once the leak test inspection is complete, refer to next section to shut down the system.

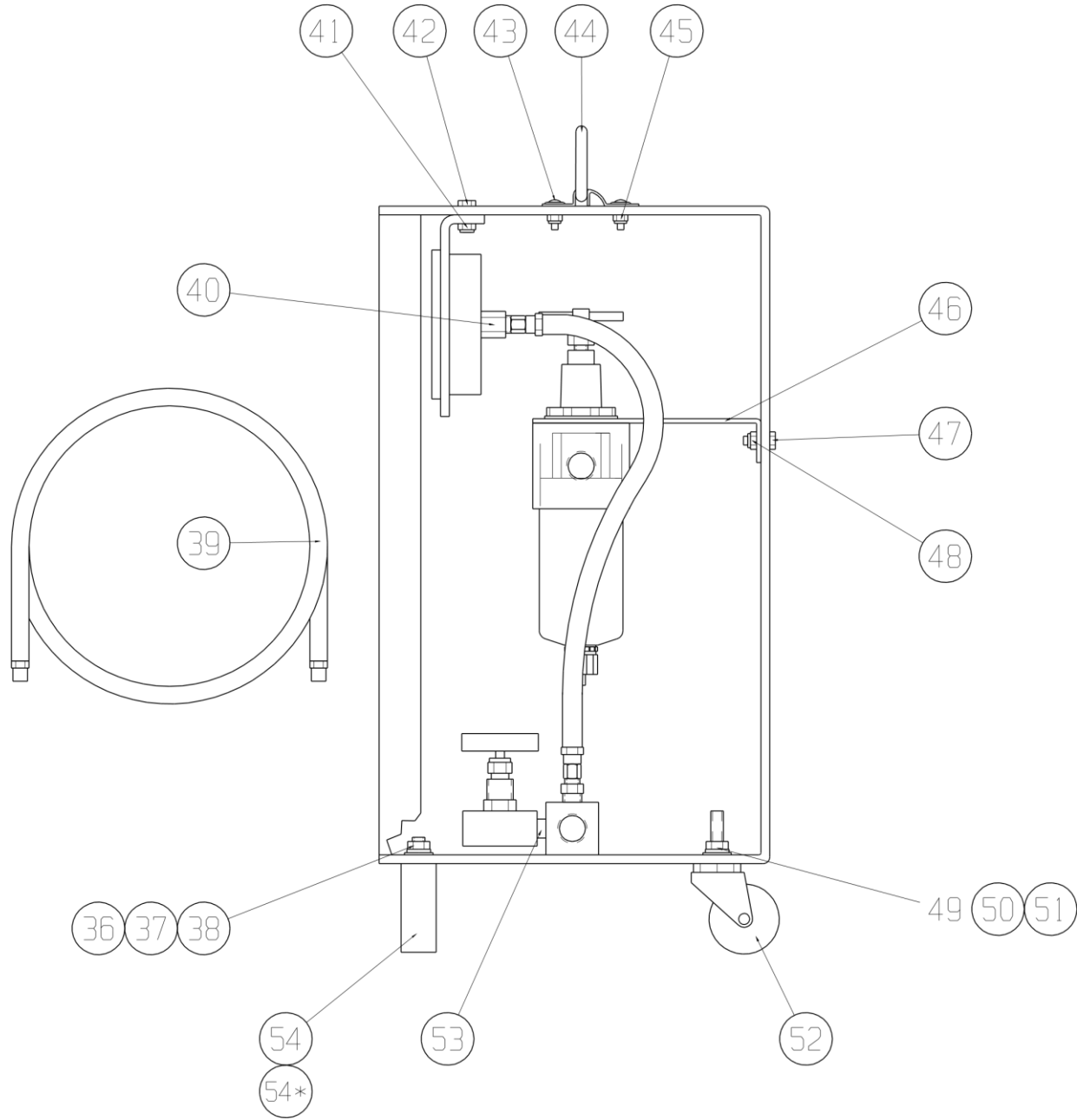
B. System Shut Down and Storage

1. Once tests and inspections are complete, shut down the system by first opening the regulator to relieve air pressure (counter clock-wise) until gage reads “0”.
2. Turn off water and air input.
3. Gently crack the needle bleed valve until output pressure drops to “0”.
4. Once all pressure gages read “0” and inputs are off, drain and disconnect test vessel.
5. To store unit, add a small amount of water displacing oil to the water input and hook-up an airline to the water input.
6. With all valves open, blow air through the water input. Water and air will come out the discharge side of the unit.
7. Blow off until mostly dry.

WIDDER® HPIM Hydrostatic Test Pump Front View



Side View



WIDDER® HPIM Hydrostatic Test Pump

Item #	Description	Part #
1	Strainer	PMI017
2	Lubricator	PI7000-18
3	Filter/Regulator	PMI009
4	Universal Coupling	36-1010
5	Cabinet	PMI001
6	½" x Close Brass Nipple	PMI035
7	Ball Valve	PI7000-14
8	½" x 2-½" Brass Nipple	PMI051
9	Pull Handle	PMI046W
10	Pull Handle Tube	PMI047
11	U-bolt	PMI034-1
12	4" Flange	PI7000-06A
13	4" -15k psi Gage	PI7000-06
14	Gage Mounting Screw	PMI007-1
15	Gage Bracket	PMI005
16	Muffler	PMI016
17	10k psi Pump	PI7000-01
18	¼" HP Hose Assembly	PI7000-91
19	SS Hex Adapter	PMI030
20	Bleed Needle Valve	PMI028
21	Manifold	PMI050
22	¼" x 90° Brass Elbow	PMI048
23	Manifold Mounting Bolt	PMI043
24	¼" x 1-½" Brass Nipple	PMI049
25	½" SS Hex Nipple	PMI026
26	Check Valve, Outlet	PI7000-223
27	Pump Mounting Screw	PMI042

Item #	Description	Part #
28	Cotter Pin	PMI046-3
29	Washer	PMI046-4
30	Check Valve, Inlet	PI7000-222
31	½" x 2-½" Brass Nipple	PMI051
32	Ball Valve	PI7000-14
33	Pipe Clamp Screw	PI7000-50
34	Pipe Clamp	PMI019
35	½" x 5" Brass Nipple	PMI018
36	Washer	PI7000-30
37	Lock Washer	PI7000-34
38	Hex Jam Nut	PI7000-32
39	½" HP Hose Assembly	PI7000-89
40	Hex Adapter	PI7000-95
41	Gage Bracket Mounting Nut	PMI044
42	Gage Bracket Mounting Screw	PMI043
43	Handle Mounting Screw	PMI003-1
44	Handle	PMI002
45	Handle Mounting Nut	PMI003-2
46	Regulator Bracket	PMI008
47	Regulator Bracket Mounting Screw	PMI043
48	Regulator Bracket Mounting Nut	PMI044
49	Washer	PI7000-30
50	Lock Washer	PI7000-34
51	Hex Jam Nut	PI7000-32
52	Castor	PMI036
53	¼" SS Close Nipple	PMI045
54	Foot (Solid New Style)	PMI040
54*	Isolator Foot (Old Style)	PMI037