



- 1730 MCPHERSON COURT, #10, PICKERING, ONTARIO L1W 3E6  
PHONE (416) 839-6111 FAX (416) 839-7100
- 4455 ALASKA STREET, BURNABY, B.C. V5C 5T3  
PHONE (604) 298-2933 FAX (604) 294-8131
- MONTRÉAL BUR: (514) 448-1221 FAX (514) 468-4653  
CEL: (514) 592-1661

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# VC-101-0 VACUUM FILLING SYSTEM

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## Operations Manual

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PREPARATION OF PULSE ASSEMBLY

1. Back out the torque adjuster completely counter clockwise.
2. Remove oil filler plug and spacer from pulse assembly.
3. For U Series Acra Pulse rotate anvil manually until driving blade is visible in the oil filler opening, then turn anvil 180 degrees.
4. For UX & UX-T Series rotate anvil manually until one driving blade is visible in the oil filler opening, then turn anvil 45 degrees.
5. Pour fluid into the vacuum canister. The recommended fluid is AIM part #1QTPF. Fill to approximately 50% of full volume of canister.
6. Place the pulse assembly into the pulse unit stand. Insert the hex end of the pulse assembly (rear liner plate side) into the holes in the pulse unit stand so the anvil faces upward.

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7. Place the pulse stand together with the pulse assembly into the canister. Make sure that the oil filler opening of the pulse assembly is one (1) inch below the surface of fluid.

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8. ~~Connect the air hose to the air inlet on the cover. Note; air pressure must be a minimum of 85 psi and not to exceed 100 psi.~~
9. Place the cover onto the canister and turn on the switch. Make sure that the vacuum pressure gauge shows a minimum of 20 hg. and not to exceed 30 hg. Turn off the switch after one minute, wait fifteen seconds and repeat the procedure two additional times.
10. Remove the cover, pull up the pulse stand, and using the eye hooks, lock in position at the top of the canister for drainage.
11. Take the pulse unit out of the canister, and using a 3cc syringe, draw out to specified amount of fluid per specifications for each model. Note: If filling UX-T Series, after rebuilding, you must cycle the pulse unit while full of oil. This will fill the space below the relief valve ball with oil. Now you may draw the recommended amount of fluid out of the pulse unit.

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ASSEMBLY CHART FOR PULSE UNITS

MODEL	FULL VOLUME OF LINER OIL IN PULSE UNIT (APPROX.)	VOLUME TO BE REMOVED FROM FULL VOLUME (APPROX.)	RECOMMENDED TORQUE TO TIGHTEN LINER CASING SETTER (APPROX.)	FT. LBS.	LOAD TO PRESS REAR LINER PLATE (APPROX.)
U-310SD	5.0 cc	0.15 cc	50 ± 5 N.M.	37	
U-350	5.0	0.15	50 ± 5	37	
U-410	8.5	0.35	70 ± 5	52	
UX-450	5.0	0.35 cc	70 ± 5	52	1 T/20 ft.lbs.
UX-500	5.0	0.35	70 ± 5	52	1 /20
ALPHA-50	5.0	0.40	70 ± 5	52	1 /20
UX-612	6.2	0.6	85 ± 5	63	1 /20
UX-622	6.2	0.6	85 ± 5	63	1 /20
ALPHA-60	6.2	0.55	85 ± 5	63	1 /20
UX-700	8.8	0.8	110 ± 5	81	2 /40
UX-T700	8.8	0.7	110 ± 5	81	2 /40
UX-T700L	8.8	0.7	110 ± 5	81	2 /40
ALPHA-70	8.8	0.9	110 ± 5	81	2 /40
UX-800	12.0	0.8	135 ± 5	100	2 /40
UX-T800	12.0	0.8	135 ± 5	100	2 /40
ALPHA-80	12.0	1.10	135 ± 5	100	2 /40
UX-900	14.0	0.95	150 ± 5	110	3 /60
UX-T900	14.0	0.95	150 ± 5	110	3 /60
ALPHA-90	14.0	1.10	150 ± 5	110	3 /60
UX-1000	19.0	1.5	185 ± 10	137	3 /60
UX-T1000	19.0	1.4	185 ± 10	137	3 /60
ALPHA-100	19.0	1.7	185 ± 10	137	3 /60
UX-1300	24.0	1.8	180 ± 10	133	3 /60
UX-T1300	24.0	1.8	180 ± 10	133	3 /60
UX-1400	31.5	2.0	200 ± 10	148	3.5/70
UX-T1400	31.5	2.0	200 ± 10	148	3.5/70
UX-1620	33.5	2.2	200 ± 10	148	4 /80
UX-T1620	33.5	2.1	200 ± 10	148	4 /80
UXR-1820	48.0	3.5	260 ± 10	192	4 /80
UXR-T1820	48.0	3.5	260 ± 10	192	4 /80
UXR-2000	84.0	7.0	280 ± 10	207	4 /80
UXR-T2000	84.0	6.0	280 ± 10	207	4 /80
UXR-2400S	105.0	11.0	650 ± 10	480	5 /90
UXR-3000S	185.0	14.0	700 ± 10	517	5 /90

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**ASSEMBLY FOR PULSE UNIT**

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MODEL	FULL VOLUME IN PULSE UNIT (APPROX.)	VOLUME TO BE REMOVED FROM FULL VOLUME (APPROX.)	RECOMMENDED TIGHTENING TORQUE OF LINER CASING SETTER (APPROX.)	FT/LBS	PRESS LOAD (APPROX.)
U-300SD	5.0 CC	0.15 CC	50 - 70	52	
U-410	8.5	0.35	70 - 90	67	
U-480 U-501	9.0	0.4	70 - 90	67	3 TON
U-610 U-610T	13.0	0.55	70 - 90	67	3
U-700 U-700T	18.0	0.9	70 - 90	67	3
U-800 U-800T	20.0	1.0	90 - 110	81	3
U-900 U-900T	25.0	1.25	100 - 120	90	3
U-1000 U-1000T	32.0	1.7	110 - 130	95	4
U-1301 U-1301T	38.0	2.0	120 - 140	105	4

N.B.

- (1) WHEN REASSEMBLING PULSE UNIT, MAKE THE ABOVE SAID PROCEDURE (TO REMOVE ADEQUATE VOLUME OF LINER OIL OUT OF FULL VOLUME) WITHOUT FAIL.
  - (2) LOOSEN TORQUE ADJUSTER (RELIEF VALVE SPINDLE) UNTIL IT STOPS, PRIOR TO FILLING PULSE UNIT WITH LINER OIL (DEXRON).
  - (3) WHEN DISASSEMBLING LINER CASING SETTER, HIGHER PRESSURE LOAD (ONE/TWO TONS MORE) MAY BE REQUIRED SO AS TO BREAK LOCKTITE.
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