

DOCUMENT TITLE: **TEST SPECIFICATION AND PROCEDURE, ALLIANCE PUMPTRAY**

SYSTEM/ASSEMBLY NAME: **ALLIANCE PUMPTRAY**

PART NUMBER AFFECTED **279000419, 279000524, 289000526, 700000713, 700001030,
WAT270463, WAT271078**

TEST EQUIPMENT NAME: **ALLIANCE PUMPTRAY TESTER**

TEST EQUIPMENT NUMBER: **TE82526**

TEST SOFTWARE:



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DATE: **April 30, 1998**

REVISED BY: **MIKE COTTER**

DATE: **May 05, 2016**

EQUIPMENT REQUIRED

Quantity	Part Number	Description
1	TE82526	Alliance Pumptray Tester
1	WAT027629	Syringe
1	WAT079700 or 186001273	Waters Inline Degasser Module
1		5/16" Wrench
1		1/2" Wrench
1		5/8" Wrench
A/R		Filtered and Degassed Methanol
1		Waste Container
1		Shop Air Supply (60 PSI min.)

REFERENCE DOCUMENTATION

WAT270645	Performance Spec. 2690 Separations Module
WAT270698	Performance Spec. Pump Mechanics Assy.

SPECIFICATIONS

Pressure Decay:	≤ 150 PSI
%CV	$\leq 20\%$
Pressure Ripple:	$\leq 2.5\%$
Flowrate:	1 ± 0.01 ml/min

Notes:

- I. Before recording a test failure, ensure that the unit under test (UUT) has been thoroughly conditioned by the following methods:
 - i. Introduce fully degassed solvent into the unit.
 - ii. Properly condition UUT before each test and re-run failed tests at least once.
 - iii. Adjust and tighten all critical fittings.
 - iv. Verify set-up parameters and connections.
- II. Sections of this procedure assume that the operator has a basic knowledge of personal computer operation in a Windows environment.
- III. To shut down the computer:
 - i. Close all programs (**File, Close**).
 - ii. Click on **Start, Shut Down**. Select **Shut Down the Computer?**. Click **Yes**.

Failure to follow these instructions may result in test station damage.

1. TESTER SETUP

- 1.1. Plug tester, scale, degasser and computer into AC outlets (scale uses a power adapter).
- 1.2. Connect serial cable from **SERIAL**, on back of tester to **Com port 3** on computer.
- 1.3. Connect serial cable from back of scale to **Com port 2** on computer.
- 1.4. Connect cable from waste pump module to **WASTE PUMP** on back of tester.
- 1.5. Connect 0.020" tubing from top of scale to **BALANCE** on side of tester.
- 1.6. Connect 1/8" tubing from top of scale to **BALANCE** on front of waste pump module.
- 1.7. Connect shop air supply to **SHOP AIR**.
- 1.8. Connect Methanol supply to **SEALWASH IN** on rear of tester.
- 1.9. Connect solvent supply to inlet of vacuum degasser.
- 1.10. Connect outlet of vacuum degasser to **SOLVENT IN** on front of tester.
- 1.11. Run all **WASTE** lines from back of tester to a waste container.
- 1.12. Switch Tester **POWER** on.
- 1.13. Switch computer & CRT power on. Login = tester, password = tester.

Notes:

- I. If the beaker contains >150 ml of solvent, empty it with the **EMPTY BEAKER** switch.
- II. Check the tubes entering the scale and ensure that they do not contact the beaker.

2. CONNECT UUT TO TESTER

- 2.1. Slide pump UUT into compartment in lower left front of tester.
- 2.2. Connect **FAN**, **SERIAL** and **POWER** cables from tester to corresponding UUT connectors.
- 2.3. Connect transducer and encoder cables from pump tray to the corresponding **PRIMARY** and **ACCUMULATOR** connectors on Tester.
- 2.4. Connect the tube from **PUMP IN** on tester to the primary pump check valve.
- 2.5. Connect tube from **PUMP OUT** on tester to inline filter on UUT.
- 2.6. If UUT is equipped with the seal wash option, connect tube labeled SEAL WASH IN to the **SEAL WASH** port on Tester.
- 2.7. Run the UUT's PUMP WASH OUT line to a waste container.

3. TEST

- 3.1. If the test program is closed, open it by double-clicking the TE82526 desktop icon.
- 3.2. Click on the white arrow in the upper left corner of screen to run the test program. See Figure 1.

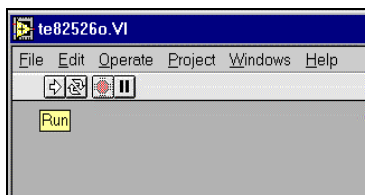


Figure 1

- 3.3. Click on .

- 3.4. Click on **TEST UUT** to begin test. See Figure 2.

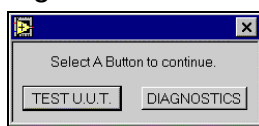


Figure 2

- 3.5. Follow instructions on screen to continue test.
- 3.6. Select **Complete Test** from the Test Menu. See Figure 3.

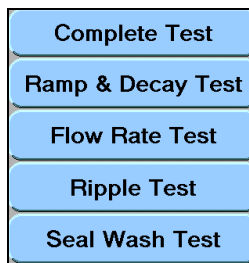


Figure 3

- 3.7. Follow instructions on display.

Notes:

- I. The 3 minute wet prime may be halted at any time by clicking on .
 - II. Tests may be halted at any time by clicking on .
 - III. If any test fails, repeat from step 3.4, but make the appropriate selection from the Test Menu to repeat only the required test(s).
- 3.8. Select button to print Test Record. Enter additional information where required (i.e. notes, serial numbers etc.). **Note:** All entries must be in blue or black ink
 - 3.9. Sign and date the Test Record.