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# Quick Start Guide

## F.A.P. Plus™ ZW System TR-51640

Rev 2.1

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### Assembly / Installation

**Note: Please refer to Figures A & B.**

1. On the rod skimmer, remove the quick connect on the top of the stainless steel 1/8" pipe and remove the top centralizer by loosening the set screw. Replace it in approximately the same location with the high level switch/ top centralizer and secure it to the 1/8" pipe with the set screw provided. Reinstall the quick connect, sealing the thread with Teflon pipe tape.
2. Connect the rod skimmer assembly to the FAP Plus ZW pump using the quick connect fittings attached to each component. Connect the 1/8" O.D. high level sensor tube to the FAP+ZW pump using the 1/8" push-in tube union if the tubing was disconnected during the installation of the high level switch/centralizer. The extra length of 1/8" tubing can be coiled like a spring around the bottom hose of the FAP Plus ZW pump to prevent it from being kinked during installation.
3. Determine the depth the skimmer will be positioned in the well. See Figure B for proper well position.
4. When the skimmer position has been determined, obtain the required length of down well discharge and supply hose ( $L_H$ ). This length will be  $L_H = H_W - L_{FAP}$ . Additional hose and tubing length must be added to each to make connections to the product storage tank and filter/regulator assembly and for adjustments when large water table fluctuations occur. The high level sensor out put gage is supplied with 100 feet of 1/8" O.D. tubing with each FAP Plus ZW pump.
5. Connect discharge hose, airline, and safety cable to the FAP Plus™ ZW pump. Be sure each line is securely fastened.

**Note: The I.D. of the airline must be kept clean and dry prior to connection.**

6. Pass the loose end of each through the bottom side of the Well Clincher, positioning the clincher on the hoses and safety cable to equal the distance determined as HW. Tighten fittings on the top of Well Clincher, and secure the safety cable with cable clamp provided.
7. Place the assembled pump and skimmer on a flat surface near the well head. Refer to OPERATION below before continuing with the in well installation. The FAP Plus ZW pump should be operated with the high level sensor and high level sensor gage connected before installation in the well to ensure proper operation and to familiarize new operators with it's functions.
8. Place filter/regulator-mounting adapter on the well casing. Lower the FAP Plus ZW skimmer and pump into the well. Place the Well Clincher on top of the filter/regulator mount.
9. Mount the filter/regulator assembly on the mounting adapter using the bolts provided. Connect the airline from the pump to the outlet side of the filter/regulator assembly. Connect the discharge hose from the pump to the product storage tank.
10. Mount the pneumatic overfill device on the product storage tank. Connect an airline to the fitting labeled "TO PUMP" and the opposite end will connect to the inlet side of the filter/regulator assemble at the well.
11. Connect another air line to the fitting labeled "AIR IN" on the pneumatic overfill and connect the opposite end to the air compressor or compressed air source. A coalescing filter should be installed at the air compressor and the airline will connect to the outlet side of this filter.

**Note: The air compressor must be located in a non-hazardous area.**

## Operation

12. Be sure all airlines are secure and the fittings are tightened.
13. Be sure the product discharge line is secure to the product storage tank.
14. The FAP Plus™ ZW system must be supplied air from an air compressor that will deliver 1 cfm @ 100 psi constant usage.
15. Do not operate the system in excess of 100 PSI.
16. Check the compressor for proper oil level.
17. Note: Do not use synthetic oil in the compressor, damage can result to pneumatic components.
18. Pressurize the air line from the compressor to the pneumatic overfill device. Air pressure within the range of 80 to 100 PSI is suitable for most applications.
19. Activate the operation of the pneumatic overfill device by depressing the green button and holding down for several seconds. Release the green button and the indicator should remain green indicating the airline is pressurized and the device is in operation.
20. At the well adjust the pressure on the filter/regulator assembly to 60-PSI minimum. With the high level switch not activated by the density float, (float not touching the white ¼" diameter plastic ball of the high-level switch), observe the high level sensor output gage. The gage pressure will rise slowly, and in approximately 30 seconds, will reach 55-60 psi, and the FAP Plus ZW pump will start to operate. While observing the high level sensor gage, move the density skimmer enough to push on the ¼" plastic ball on the high level switch. The pressure reading on the high-level sensor gage should drop to zero and the FAP Plus ZW will stop operating. Repeat this operation and with some practice an operator can determine the approximate product/ water interface just using the high level sensor gage pressure when installing or adjusting the level of the FAP Plus ZW in the recovery well.
21. Check the product storage tank for product. Allow several minutes for product to fill the line before the product begins to discharge into the tank.

22. When the tank fills, the pneumatic overfill device will shut the air off to the FAP Plus ZW system. The tank must be emptied before the device can be reset and skimming resumed.
23. Provide routine maintenance as described in the Upkeep section of the Operator's Manual.

Figure A

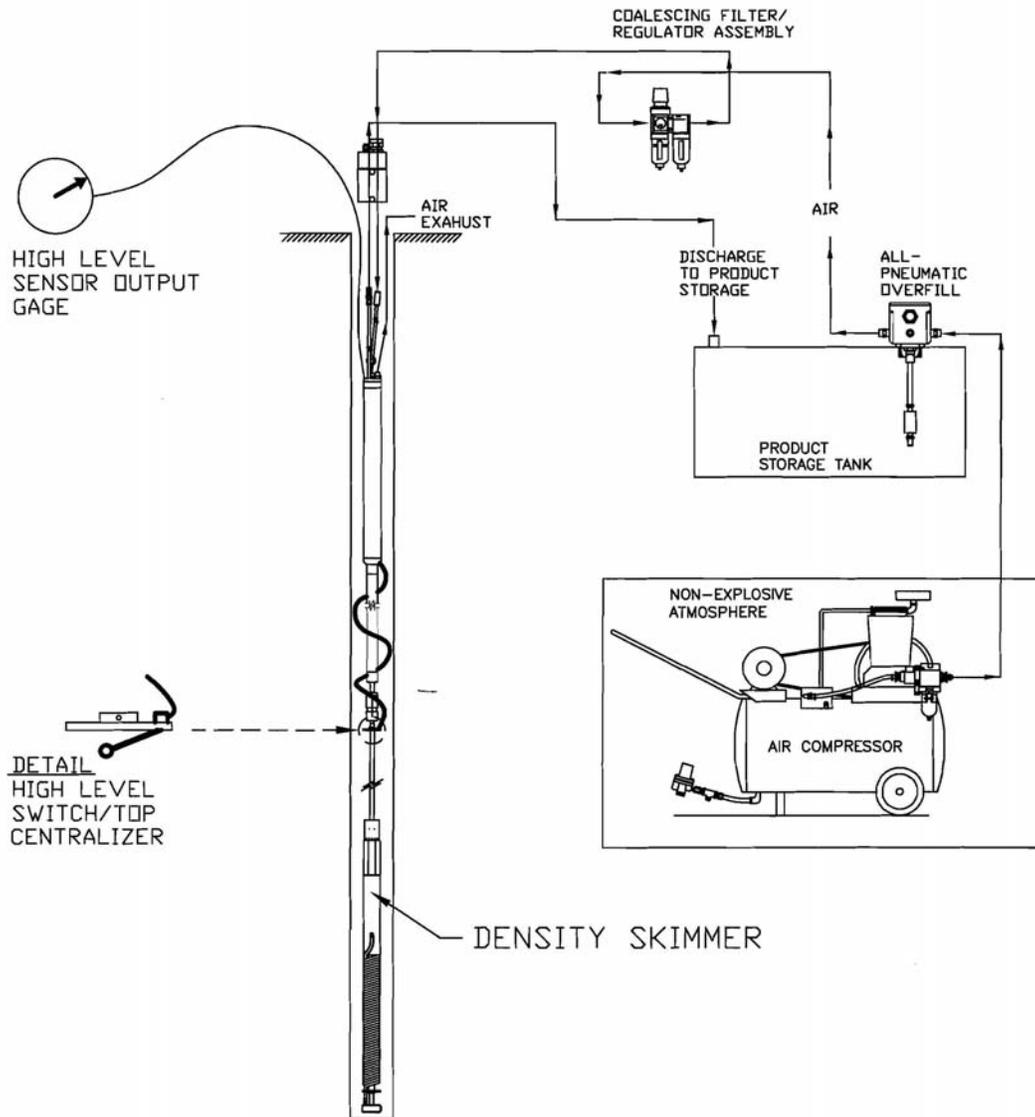


Figure B

