



Operators Manual

Titan

Fluid Recycler

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FOREWORD

1. This manual describes the procedures required to operate the Clarus Titan. Both the three (3) and the six (6) gallon per minute (GPM) models are included in this manual. Every effort has been made by Clarus Technologies, LLC to assure the accuracy and reliability of the information contained in this document. Clarus Technologies, LLC, however, makes no representation, warranty, or guarantee in connection with this manual and hereby expressly disclaims any liability or responsibility for loss or damage resulting from its use or for the violation of any federal, state, provincial or municipal regulation with which this publication may conflict.
2. The electrical components of the Clarus Titan have been designed and assembled with UL-approved equipment where required.



WARNING! The operational techniques used with this equipment are more important than the design of the equipment for the safety of the worker. Therefore, each technician involved in the operation of the Clarus Titan must have the proper hazardous materials training.

3. Clarus is not undertaking to meet the duties of employers to warn and properly train and equip their employees, and others exposed, concerning health and safety risks and precautions, nor undertaking their obligations under local, state, provincial or federal laws.
4. Information concerning safety and health risks and proper precautions with respect to particular materials and conditions should be obtained from the employer, the manufacturer or supplier of that material, or the Material Safety Data Sheet (“MSDS”).
5. As detailed in Section III, the Clarus Titan has a LIMITED WARRANTY, LIMITED REMEDY and CONSEQUENTIAL DAMAGE EXCLUSION

CLARUS TITAN OPERATOR'S MANUAL

I. INTRODUCTION

Congratulations on your purchase of the Clarus Titan! This fluid recycler is a product of Clarus Technologies, LLC engineering and manufacturing division. It is made of the finest materials under a rigid quality control system. With proper care it will give you long and satisfactory service.

To obtain the best use of your Titan, please read this manual carefully. It will help you become familiar with the operation of the equipment. The instructions and specifications contained in this manual were in effect as of February 2012. Due to the policy of Clarus Technologies, LLC to continually improve its products, however, modifications in these specifications may be made at any time. To get the latest information please check our website at <http://www.clarustechnologies.com> and go to the manual section.

This Operators Manual was compiled for your benefit. By reading and following the safety, setup, operation, and trouble-shooting instructions described in the manual, you should receive many years of trouble-free operation. Familiarize yourself with the names of the Titan components, which appear as capitalized terms throughout this manual. ***Read this entire manual before attempting to start and operate the Clarus Titan.***

II. SPECIFICATIONS

SPECIFICATIONS – TITAN

- ✧ Height/width/length (inches) – 24/30/10
- ✧ Weight - 70 lbs
- ✧ Flow rates:
 - TITAN 3: 3 gallons per minute
 - TITAN 6: 6 gallons per minute
- ✧ Pumps – rotary diaphragm
- ✧ Bypass Valve – Set @ 50 psi
- ✧ Filters – 4½”x18” pleated cartridge type
- ✧ Filter Rating – 4 microns
- ✧ Filter Gauge – 0-60 psi
- ✧ Hose Lengths:
 - TITAN 3: 7’ oil/fuel/solvent-resistant ¾” hose
 - TITAN 6: 7’ oil/fuel/solvent-resistant 3/8” hose
- ✧ Power Requirement:
 - 120V AC 5A
 - 24V DC (optional for use with NATO plug)
- ✧ Material - aluminum

III. LIMITED WARRANTY, LIMITED REMEDY, AND CONSEQUENTIAL DAMAGE EXCLUSION

Clarus Technologies, LLC, provides a “Limited Lifetime Warranty” for the life of the unit, and will repair or replace without charge, parts which our examination proves to be defective in material or workmanship. This warranty is valid only if the unit has not been tampered with by unauthorized persons, misused, abused, or improperly installed and has been used in accordance with the instructions and/or ratings supplied.

This Limited Lifetime Parts Warranty is limited to the following components:

- Main chassis
- Filter canister (excluding replacement cartridges/O-Rings)
- Plumbing assemblies (excluding in-line strainers)

Clarus Technologies, LLC, will for the period of 1 year from the date of purchase, repair or replace without charge (including shipping), the items listed below which our examination proves to be defective in material or workmanship. This warranty is valid only if the unit has not been tampered with by unauthorized persons, misused, abused, or improperly installed and has been used in accordance with the instructions and/or ratings supplied.

This 1 year Mechanical/Electric Component Warranty covers the following components:

- Electric control systems
- Pump(s)
- Inlet strainer assemblies

NOTE: Consumable items such as O-Rings, filters and working hoses are excluded from any such warranty.

The foregoing is in lieu of any other warranty or guarantee expressed or implied.

CLARUS TECHNOLOGIES, LLC MAKES NO WARRANTY OF MERCHANTABILITY, OR THAT SUCH PRODUCTS SHALL BE FIT FOR ANY PARTICULAR PURPOSE, NOR IS THERE ANY OTHER WARRANTY EXPRESSED OR IMPLIED EXCEPT AS EXPRESSLY STATED AND NO WARRANTY OR GUARANTEE IS GIVEN AS TO THE EFFECTIVENESS OF THE EQUIPMENT

WE ARE NOT RESPONSIBLE FOR ANY EXPENSE (INCLUDING INSTALLATION AND REMOVAL), INCONVENIENCE, OR CONSEQUENTIAL DAMAGE, INCLUDING INJURY TO ANY PERSON, CAUSED BY ITEMS OR OUR MANUFACTURE OR SALE. IN ANY EVENT, CLARUS TECHNOLOGIES, LLC TOTAL LIABILITY, UNDER ALL CIRCUMSTANCES, SHALL NOT EXCEED THE FULL REPLACEMENT COST OF THIS UNIT.

Some states do not allow certain exclusion or limitations found in this warranty so that they may not apply to you.

IV. SAFETY

To safely operate the Clarus Titan, it is essential to know the proper safety procedures and equipment.

A. Safety Warnings.

The definitions for the safety warnings used throughout this manual are as follows:



Warning: Means that if the safety information is not followed, personnel, equipment or the environment **may** be damaged or hurt.

Material Safety Data Sheets (MSDS)

The MSDS provides technical information regarding use, hazards, precautions and emergency procedures related to specific fluids. The MSDS also contain toll-free phone numbers that may be called to provide further safety and emergency treatment information.

Operators of the Clarus Titan must have on hand an MSDS for the type of solvent, oil and fuel that they will be mixing. The MSDS are available from the fuel and oil supplier. In some localities it is required by law that appropriate MSDS are on hand whenever hazardous or flammable material is being processed.

B. Safety Equipment.

1. Safety Glasses. Operators should wear safety glasses during the operation of the Titan. The major hazard is the possibility of splashing petroleum-based fluids into the eye. If petroleum-based fluid is splashed into the eye, severe damage may occur. First Aid treatment should be initiated immediately. Refer to MSDS.
2. Protective Gloves. Appropriate protective gloves should be worn whenever there is a possibility that the fluids being used may come into contact with the hands. Different types of gloves may be required for differently types of fluids. The local safety supply source can recommend the appropriate protective gloves.
3. Flammable. For the safety of owners and operators **NO SMOKING** around or near this equipment.

V. QUICK START GUIDE

Please read entire Quick Start Guide before beginning, this will avoid possible start up problems.

- Step 1. Unpack and remove Titan from shipping container, including all packing material and tape.
- Step 2. Bring Titan to fluid reservoir to be processed. Ensure area is level, clean and has adequate working space.
- Step 3. Plug Titan into standard 110v/20 amp electrical circuit.
- Step 4. Insert suction hose (indicated by decal on back of unit) into the fluid source reservoir.
- Step 5. Insert discharge hose (indicated by decal on back of unit) into the discharge reservoir (this could be the same reservoir as the fluid source or a separate reservoir).
- Step 6. Start Titan by turning the On/Off switch to the On position.
- Step. 7. To turn the Titan off and store, repeat steps above in reverse order.

VI. PARTS DESCRIPTION & OPERATION

A. Titan.

The Titan unit easily installs to any wall located near fluid source.

B. On/Off Switch.

The unit is equipped with a manual On/Off switch.

C. Filter Change-Out Gauge.

The filter change-out gauge is located next to the On/Off timer and tells the operator the condition of the filter cartridge. When the gauge reads 40 psi, it is time to change the filter.

D. Inline Strainers.

The inline strainers prevent any damaging debris from entering the pumps. The strainers should always be installed when operating the Titan. To clean clogged strainer baskets, simply unscrew the strainer bowl and remove the strainer basket. Clean the strainer basket with a rag, or in a parts washing station. Never hit the basket on a solid object to remove the debris, this will deform the basket rendering it inoperable.

E. Pump.

The pump draws the fluid from the receptacle and delivers it to the particulate filter.

F. High Efficiency Particulate Filter.

The high efficiency particulate filter cleans the fluid so there is no particulate remaining..

G. Inlet and Discharge Hoses.

The two hoses remove fluid from the source reservoir (inlet) and return the fluid to the discharge reservoir.

VII. CARE AND MAINTENANCE



WARNING! ALWAYS WEAR GLOVES AND EYE PROTECTION WHEN HANDLING OIL OR FILTERS.

A. Changing Filters.

The Titan comes equipped with one 5 X 18” filter canister. Inside this canister is a 4.5” X 18” filter cartridge. This filter needs to be changed when a 40-PSI reading is indicated on the pressure gauge mounted on the front of the main chassis. When the gauge indicates a filter change is needed please follow these steps:

1. Turn all power to the system off.
2. Unplug the unit from wall receptacle.
3. Carefully spin off filter canister lid by hand. If the lid is too tight, use a large rag or similar device to gain more leverage. Be careful not to use a hammer-like device to pound on plastic wings as they will easily break off and damage the lid.
4. With the lid off, pull the used filter out of the canister and place in an appropriate container taking care not to drip any waste fluid on the ground.
5. Place a new filter in the canister.
6. Replace lid, screw it down by hand until it seals firm to the top of the filter. Do not over tighten.

B. Canister Lid O-Ring Maintenance

1. Every time the filters are changed, smear a small amount of petroleum jelly or grease around the o-ring to keep it lubricated.



WARNING! When changing filters, make sure to have something underneath the used filter as you move it, such as a bucket or oilsorb, to capture any incidental drips.

VIII. TROUBLE-SHOOTING

Problem	Solution
No suction on hose.	<ol style="list-style-type: none"> 1. Check inline strainer and clean if necessary 2. Check if sludge has plugged drain hole in used fluid source.
Pumps will not run.	<ol style="list-style-type: none"> 1. Check power source. 2. Check fuse, replace if needed.
Slow flow-rate.	<ol style="list-style-type: none"> 1. Check filter gauge when running – change filter if needed. 2. Check inline strainers – clean if needed.

IX. REPLACEMENT PARTS

Part No.	Item	Description
Filters		
WP680SR	Solvent Tank Filters (case)	0.5 micron filters in a case of four.
WP680SR-01	Solvent Tank Filter (each)	0.5 micron filters individually.
Misc. Replacement Parts		
PCS-0004	Pump	Circulation pump
PCS-0012	On/Off Switch	On/Off Switch
PCS-0028	Switch Contact Block	Switch Contact Block
PCS-0015-36	Molded Cord - 36"	Power cord, 36" long
PCS-0015-96	Molded Cord - 96"	Power cord, 96" long
OC-1294	Oil-CAT and Titan Fuse Holder	Round black holder, located on outside of electrical box.
PCS-0026	Fuses	10-amp fuse
PCS-0027	O-Ring, Filter Canister Lid	Filter canister lid o-ring
PCS-0031	Filter pressure Gauge	The pressure gauge
PCS-0032	Relief Valve	Relief valve.
PCS-0041	Filter Housing with Fittings	Red filter housing assembly with o-ring and fittings included.
PCS-0042	Filter Housing and Lid	Red filter housing and lid. Includes O-ring. No fittings are included.
PCS-0055	In-line Strainer	One strainer is located on the inside of the machine.
OC-1294	Fuse Holder (round black)	Fuse holder for older machines. Round black holder, located on outside of electrical box.
\$100 minimum order. MasterCard and VISA accepted.		