



Centrifugal Separator Operations & Maintenance Manual



**Record Your Model, Serial Number and
Other Information on the back of this document.**

Manufacturing: Bypass & Filter Feeders, Glycol Feed Packages, Separators & Separator Systems, Tanks, Tank Stands, Chemical Batch Mixers, Corrosion Coupon Racks, Packaged Feed Systems and Custom Systems

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General Treatment Products, Brea, CA 92821
O&M Manual INSTSEP Rev. 0115, Page 1 of 5

Contents	Page
1.0 Introduction	2
2.0 Warranty	2
3.0 Unpacking	2
3.1 Order Verification	3
4.0 Location and Environment	3
5.0 Installation	3
5.1 Connecting to system	4
6.0 Pressure and Temperature Limitations	4
7.0 Routine Maintenance	4
7.1 Maintaining Recovery Tank	5
7.1 Setting Optional Purge Timer	5
8.0 Parts Listing	5
9.0 Wiring	5
10.0 Trouble Shooting	5
11.0 Notes	5
12.0 Product Label, Model Number, Serial Number and Pressure Settings	5

***** WARNING – BEFORE YOU GET STARTED *****

- 1) All fasteners & fittings should be inspected and secured before operation as they may be loosened in transit
- 2) Personnel safety practices should apply at all times
- 3) Safety glasses or face shields and gloves should be worn
- 4) Do not service glycol feed package with out disconnecting power
- 5) Close isolation valve and release pressure before servicing any components on the system
- 6) All liquids in system should be drained before servicing

1.0 INTRODUCTION Thank you for choosing General Treatment Products Centrifugal Separators. These industrial centrifugal separators are design to remove heavier than water solids system flow. Utilizing centrifugal force, tangential entry and GTP proprietary features, such as vortex tube stabilizers and solids velocity hood, solids are removed through a series of chambers and eventually collected in an extended purge chamber at bottom of separator. Infrequent purging of the chamber is all that is required for effective solids maintenance. For further information, please contact us at customerservice@gtpcompany.com or call us at the phone number on the cover.

2.0 WARRANTY General Treatment Products Centrifugal Separators are guaranteed for five years from date of shipment against manufacturing defects in material and workmanship that develop in the service for which they are designed. We will repair or replace a defective part of this system when returned to our factory with freight prepaid; providing that the part is found to be defective upon inspection. We assume no liability for labor and/or other expenses in making repairs or adjustments.

3.0 UNPACKING Upon receipt of order, inspect package thoroughly. In the event there was damage incurred in transit you must notify the freight company within **3-5 days of receipt of order**. Once inspected for damage and received in good condition, store indoors until installing.

3.1 ORDER VERIFICATION

Model Numbering	
STX	-0038 /CO2-RD04
Options	
CO__ *	Clean out port added to purge chamber
RD__ *	Removable dome for accessing separator body
RPC__ *	Removable purge chamber for accessing purge
LP22	Low profile mounting, 22.5°
LP45	Low profile mounting, 45°
ASME	Separator welded to ASME code
S316	Separator constructed of 316 stainless steel
Line Size	
0038	3/8" line connections
0050	1/2" line connections
0075	3/4" line connections
0100	1" line connections
0125	1 1/4" line connections
0150	1 1/2" line connections
0200	2" line connections
0250	2 1/2" line connections
0300	3" line connections
0400	4" line connections
0500	5" line connections
0600	6" line connections
0800	8" line connections
1000	10" line connections
1200	12" line connections
1400	14" line connections
1600	16" line connections
1800	18" line connections
2000	20" line connections
Base Model	
STX	Threaded "MNPT" line connections
SVX	Grooved End "Victaulic" line connections
SFX	Flanged 150# line connections

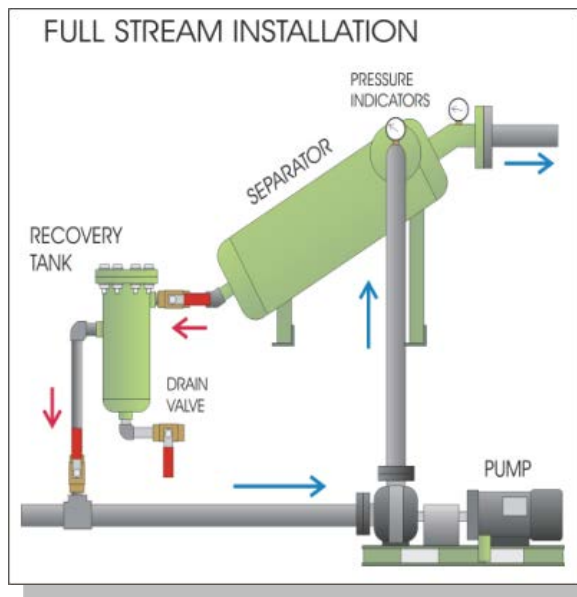
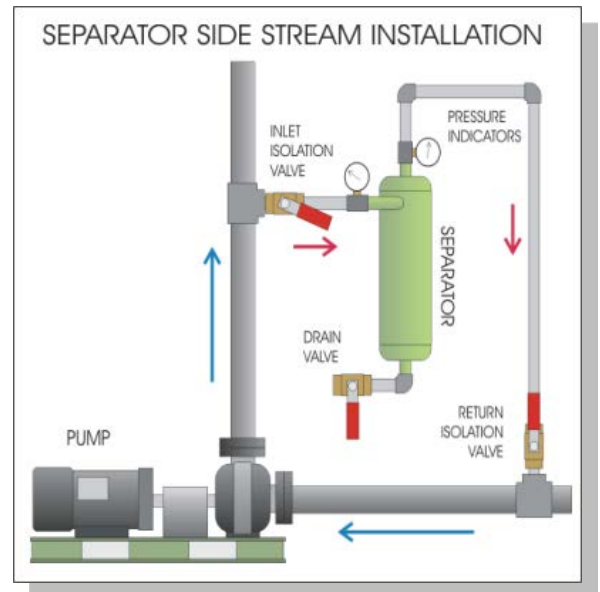
Note: Not all options and sizes available on all separators. See pricing for details.

4.0 LOCATION AND ENVIRONMENT Although there are no power requirements, centrifugal separators should not be exposed to direct elements. Separators when coupled with purging systems can require power. These installations require dry locations to validate warranty. In the case there is no dry location that is convenient to install the centrifugal separators. A shelter, awning or shed should to be installed to extend product life.

5.0 INSTALLATION Once location is decided on, separator needs to be securely mounted to concrete base. **Be sure that mounting pad and anchoring bolts comply with local building codes.** Automated purge packages come standard with an 8FT power cord. Power supply with no less than 10 amps should be within 8FT of package. **Extension cords should not be used at anytime.** Systems can be hardwired, if need. Have only an experienced electrician hardwire system. Wiring diagrams are provided in section 9.0.

5.1 CONNECTING TO THE SYSTEM Separators can be installed in a number of applications, these applications can determine how the separator is connected to the system. See diagrams below, if your installation / application is not listed below, contact factory before proceeding.

Side Stream Applications: The side stream application shown in the diagram, the separator is installed in the discharge line of the recirculation pump. Separator sizing is typically 10% of system flow. Isolation valves will help control amount of flow through separator. This will vary depending on the pump head, design pressure and piping runs. Liquid filled pressure indicators will show pressure drop across the separator with should not exceed 12PSI. By throttling the inlet isolation valve you can adjust the amount of flow. Using a simple calculation, you can determine the exact amount of flow through the separator. By opening the purge valve, solids can be collected or discarded.



Full Stream Installations: The full stream application shown in the diagram, the separator is installed in the discharge line of the recirculation pump. Separator sizing will at full systems flow. Unlike the side stream above, all of the system water is being seen by the separator. This is best when the system is frequently dirty, near an open field or has very critical needs on the solids removal. Separator pressure drop needs to be considered when installing. Making sure there is enough pressure left to keep the system operating properly. A recovery tank being used, will trap all the heavier and water solids from the systems and allow the system to recapture all the vital system fluid. No wasting water or chemicals.

6.0 PRESSURE AND TEMPERATURE LIMITATIONS: Separators maximum operating perimeters are 200PSI @ 200F. Some optional fittings, as noted in descriptions, may change limitations, contact factory for assistance.

MATERIAL	MAXIMUM SHORT TERM TEMPERATURE	MAXIMUM OPERATING TEMPERATURE	MAXIMUM OPERATING PRESSURE
Polyethylene (PE)	160°F/69°C	85°F/36°C	N/A
Polyvinylchloride (PVC)	140°F/60°C	85°F/36°C	100PSI/6.9BAR
Chlorinated Polyvinylchloride (CPVC)	180°F/77°C	120°F/49°C	100PSI/6.9BAR
Polypropylene (PP)	180°F/77°C	100°F/49°C	100PSI/6.9BAR
Carbon Steel (CS)	200°F/93°C	200°F/93°C	150PSI/10.3BAR
Cast Iron (CI)	200°F/93°C	200°F/93°C	150PSI/10.3BAR
Brass (BR)	200°F/93°C	200°F/93°C	150PSI/10.3BAR
Stainless Steel (SS)	200°F/93°C	200°F/93°C	150PSI/10.3BAR

Note: Minimum Fluid Temperature is 50°F/10°C.

7.0 ROUTINE MAINTENANCE Routine maintenance for a centrifugal separator is quit simple. Once installed and started up, all the is need is scheduled inspection for leaks.

7.1 RECOVERY TANK Recovery tanks provided continual purging and reclaim the water that would otherwise be discarded with conventional mechanical purge systems. At start up, the system can be dirty from construction

and needs constant attention, but once the system is cleansed, recovery tank clean up should weekly or even monthly depending on environment and system cleanliness. (Dirty systems will need more frequent purges than systems that are clean, determine frequency by monitoring results)

7.2 SETTING OPTIONAL PURGE TIMER Optional purge cycle timer, automatically opens a motorized valve (based on time) and removes the collected solids from the purge chamber of the separator. During the purge the solids and system water is sent to drain. Set the time indicated by the days and hours on dial. Trip the switches for the days and hours you wish the timer to open the valve. (Dirty systems will need more frequent purges than systems that are clean, determine frequency by monitoring results) Inside the control panel, your duration has been preset for 10 minutes. Open the front cover and change as needed.

8.0 PARTS LISTING Separators do not carry many replacement parts, with the exception of accessories items like pressure gauges and recovery tank filters. Contact factory for help.

9.0 WIRING The only wiring needed is for the purge systems. Very simple diagrams are provided with each purge system. For help, please contact the factory or visit our website www.gtpcompany.com.

10.0 TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSE / ACTION
Low/Excessive Pressure Drop	Improper installation
	Improperly sized
	Installed backwards
No solids removal	Installed backwards
	Improperly sized
	Not enough flow rate

If you are still having trouble, contact us at repairs@gtpcompany.com, or you can call us at the number on the front of the Instruction manual.

11.0 NOTES

12.0 PRODUCT LABEL

Model:

Serial Number:
