

Separators Operations & Maintenance Manual



This "QUICK START" manual is supplied as a guideline for installation; please visit www.gtpcompany.com for complete instruction manual, assembly drawings and installation drawings.

GENERAL INFORMATION					
MODEL:	_____			SERIAL:	_____
CONNECTION:	<input type="checkbox"/> Threaded	<input type="checkbox"/> Flanged	<input type="checkbox"/> Grooved	<input type="checkbox"/>	_____
FLOW RATE:	GPM			<input type="checkbox"/>	_____
PURGE SIZE:	<input type="checkbox"/> 3/4"	<input type="checkbox"/> 1 1/2"	<input type="checkbox"/> 2"	<input type="checkbox"/>	_____
ACCESSORIES:	<input type="checkbox"/> Clean Out	<input type="checkbox"/> Removable Dome	<input type="checkbox"/>	<input type="checkbox"/>	Extended Purge
	<input type="checkbox"/> Low Profile	<input type="checkbox"/> 316SS	<input type="checkbox"/>	<input type="checkbox"/>	

***** 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 always apply
- 3) Safety glasses or face shields and gloves should be worn
- 4) Do not service without 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 visit www.gtpcompany.com or contact customer service.

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.

4.0 LOCATION AND ENVIROMENT 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 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 any time.** Systems can be hard wired, if need. Have only an experienced electrician hard wire system. Wiring diagrams are provided in section 9.0.

5.1 CONNECTING TO THE SYSTEM Separators can be installed in several applications, these applications can determine how the separator is connected to the system.

Side Stream Applications: 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.

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Full Stream Installations: The separator is installed in the discharge line of the recirculation pump. Separator sizing will at full systems flow. Unlike the side stream, 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 quite 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 servicing should be weekly or even monthly depending on environment and system cleanliness. (Dirty systems will need more frequent purges then systems that are clean, determine frequency by monitoring results)

7.2 PURGE TIMER Automated purge valve cycle timer, purges solids collected in the purge. By opening a full port ball valve, the collected solids are purged and sent either to drain or processing station for dewatering. Please visit www.gtpcompany.com for purge timer instructions or contact customer service.

8.0 PARTS LISTING 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, please visit www.gtpcompany.com or contact customer service.

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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