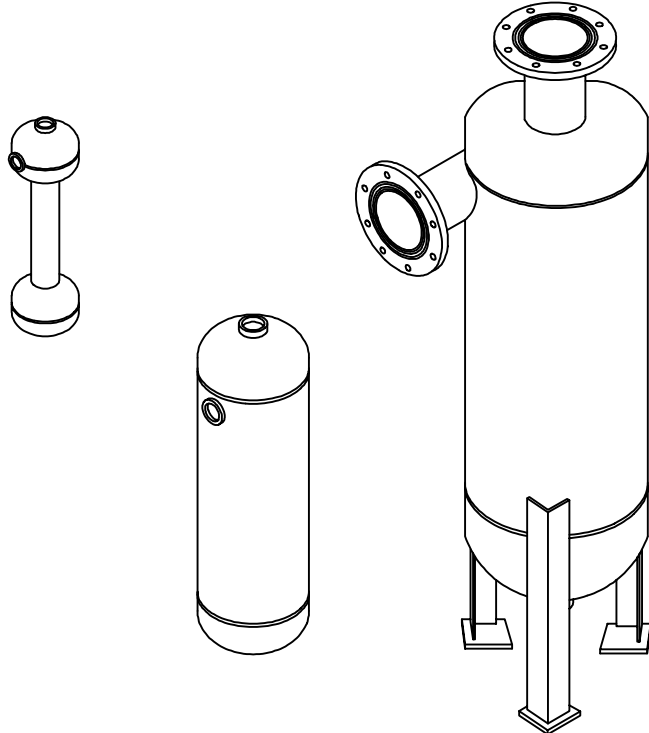




# SEPARATOR

## OPERATION & MAINTENANCE MANUAL



**PLEASE RECORD THE FOLLOWING DATA**

(Information is located on the product label or packing slip)

**Model Number:** \_\_\_\_\_

**Date Code:** \_\_\_\_\_

**Installation Date:** \_\_\_\_\_

**Installation Location / Application:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

The above information will help when ordering replacement parts and accessories for your Wingert Separator.

**MANUFACTURING:** Mixers, Bypass Feeders, Filter Feeders, Bromine Feeders, Sample Coolers, Sludge Traps, Separators, Separator Systems, Tank Stands, Tank Package Systems, Glycol Feed Systems, Coupon Racks, Control Stations, NEMA Enclosures, Custom Packaged Systems and Specialty Welding

P.O. Box 6207 • Garden Grove, CA 92846-6207 / 11800 Monarch St. • Garden Grove, CA 92841-2113 • Phone (714) 379-5519 • Fax (714) 379-5549  
30998 Huntwood Ave. Unit 105 • Hayward, CA 94544-7033 • Phone (510) 487-5310 • Fax (510) 487-5137 ■ Southwest Region • (602) 470-1015  
On the Internet: [http:// www.jlwingert.com](http://www.jlwingert.com) • Email: [customerservice@jlwingert.com](mailto:customerservice@jlwingert.com)

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### 1.0 INTRODUCTION

*Known for reliability and maintenance-free operation, Wingert Separators are an economical solution for the removal of solids from streams, such as sand, dirt, metal chips and sludge. Wingert Separators are ideal for wells, water recycling and other liquid stream applications. Their maintenance-free design utilizes no filter media or moving parts. Wingert Separators and Separator Systems are available from 8-13,953 GPM, with a variety of optional features.*

### 2.0 WARRANTY

*Wingert Separators are guaranteed for one year from the date of shipment against manufacturing defects in material and workmanship which develop in the service for which they are designed. We will repair or replace a defective separator when returned to our factory with transportation prepaid: providing that the separator is found to be defective upon inspection. We assume no liability for labor and/or other expenses in making repairs or adjustments. All replacements will be F.O.B. factory.*

### 3.0 UNPACKING

*Wingert Separators are fully assembled and ready for installation. They may be packed in a carton or shipped secured to a shipping pallet, depending on size. Unpack and inspect the separator for physical damage. If the separator is damaged and not noted with the freight carrier, contact the factory immediately for assistance. NOTE: You only have 3-5 days after receipt of goods to file a freight claim.*

*Verify that what you ordered is what you have received. Use the table on the next page and your packing slip to identify the contents.*

### 3.0 UNPACKING (CONTINUED)

<b>RTE</b>	<b>-0050</b>	<b>/C</b>																																							
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## 4.0 LOCATION AND ENVIRONMENT

*Wingert Separators require no maintenance or upkeep, however, infrequent inspection is recommended. When installed on a side stream or full stream application, the separator should be accessible from all directions. Removable dome and purge chambers will require special clearances.*

*Remote installations should be installed with either an automatic or continual purge system. All electrical connections should be done by a qualified electrician to meet local building codes.*

## 5.0 INSTALLATION

*All Wingert Separators need to be installed between 22 and 90 degrees for maximum efficiency. This provides optimum gravitational force to separate solids from liquid stream downward into the solid handling chamber. Less than 22 degree installation may result in solids being pulled back into the now cleansed liquid stream.*

### 5.1 MOUNTING

*Prior to piping the separator, inspect the inlet, outlet and purge openings for any obstructions that may have entered during shipping or storage.*

*Some 1/2" to 3" models do not come with bracket mounts or freestanding legs. These models must be properly mounted to support the separator and connections when full of liquid.*

**FULL STREAM:** *For this installation the separator will see full flow all of the time. For best results a minimum four pound pressure drop is required. This type of installation is best described as a single pass flow application, as used in irrigation, car washes or municipal well pumps. Full stream installations are very effective for removing solids.*

**SIDE STREAM:** *This installation requires a minimum four pound pressure drop. The discharge of the separator may be returned to the suction side of the recirculation pump or to the sump basin. To return the separator discharge to the system flow, the separator must be equipped with a booster pump to attain the required pressure differential (see Model 100). This application is best described as a closed loop system where the water is being continually pumped through the system, such as cooling towers, evaporative condenser systems and industrial water processing facilities.*

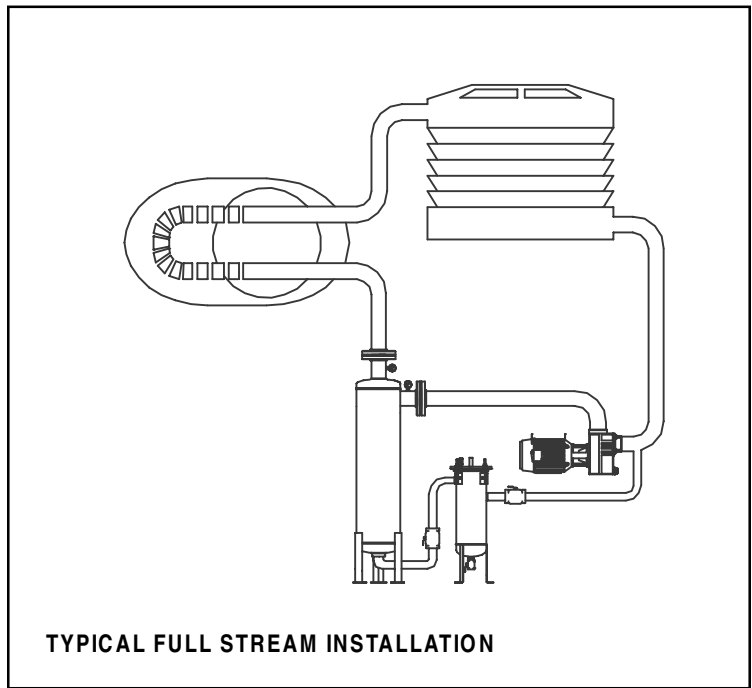
**SELF-CONTAINED SYSTEMS:** *These self supporting systems require no outside recirculating flow system to separate solids. The "SPV" and "Model 100" come complete with separator, pump and interconnecting pipes. Simply plumb the inlet and outlet to the supply basin or water source. The "Model 100" can also be installed as a side stream booster system to create the minimum four pound pressure drop.*

**-SEE DIAGRAMS ON FOLLOWING PAGE-**

## 5.2 INSTALLATION DIAGRAMS

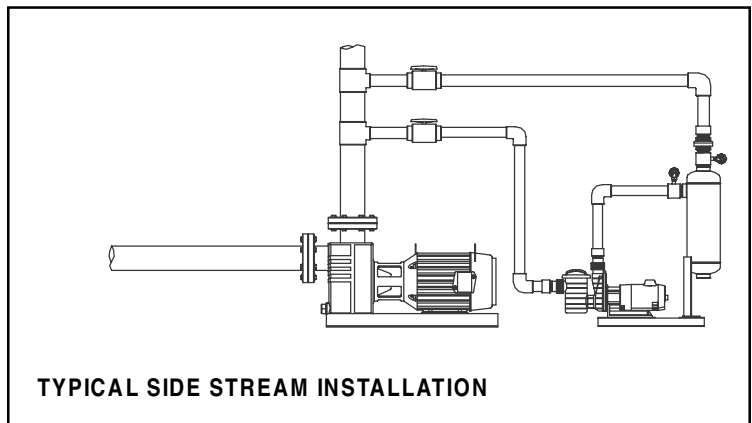
### DIAGRAM #1: FULL STREAM

Full stream installations see full system flow all the time. As shown in the diagram to the right, the full stream separator is installed before a condenser circulation system. Full stream applications are the most effective in removing system solids.



### DIAGRAM #2: SIDE STREAM

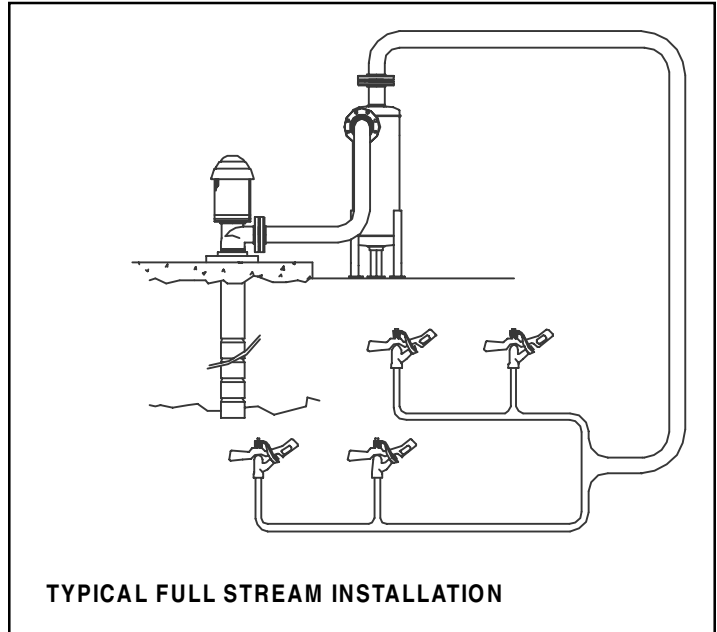
Side stream applications are used when installation costs are a factor or when systems have low solids content. These systems are typically sized at 10% of system flow rates. As shown in the diagram to the right, the side stream separator and booster pump are installed to attain the four pound pressure drop so the effluent may be returned to the system flow. When no booster pump is used, the side stream discharge must be plumbed to the pump suction, or a system throttle valve must be installed in-between the inlet and outlet of the side stream system.



## 5.2 INSTALLATION DIAGRAMS (CONTINUED)

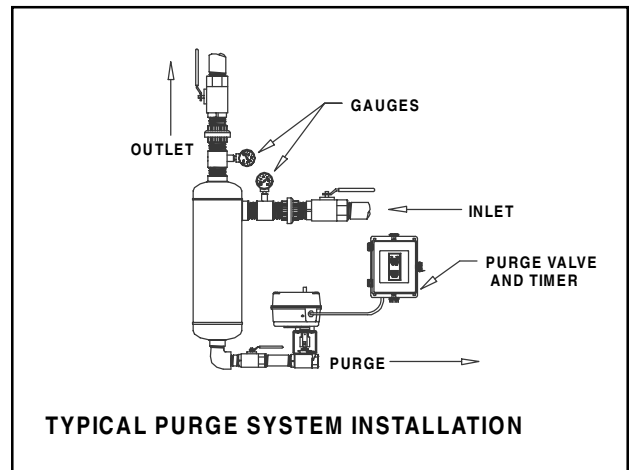
### DIAGRAM 3: FULL STREAM (ONE PASS)

Full stream installations see full system flow all the time. In this installation the fluid runs through the separator so sand and other particles can be removed before it damages irrigation nozzles.



### DIAGRAM #4: PURGE SYSTEMS

All separators need a purge system - whether it's an automatic purge valve and timer as shown in the diagram, a continual purge system, or just a manual purge valve. Purge frequency is determined by the application and volume of solids purged. Since each application is different, purge frequently until you determine your own purge cycle.



## 6.0 DETERMINE PURGE CYCLES

*Separators must be purged regularly, otherwise accumulated solids could overflow the solids collection chamber and eventually adversely affect its performance.*

*For best results when using a pre-selected purge system (manual, automatic or continual), purge while the system is in full operation. To determine the required frequency, purge often at first; then calculate the rate with regard to the actual volume of separated solids.*

## 7.0 MAINTENANCE

*Purging of the solids collection chamber is the only maintenance that a Wingert Separator requires.*

*Infrequent inspection of upper chamber for abrasion is recommended depending on solids type and volume.*

## 8.0 TROUBLE SHOOTING

SYMPTOM	CAUSE
1. No solids removed	A. Determine if the solids being missed can be separated. Take a system sample in a small 6" glass jar, put a lid on and shake the sample. What notably settles out in 30 seconds can be removed by a separator on the first pass. What settles in 60 seconds can be separated on a second pass. The particles that do not settle, will not be caught by a separator.
	B. Check pressure differential. A minimum of four pound pressure drop is required to achieve proper solid/liquid separation. Less than four pounds may provide inadequate separation.
	C. Verify that purge chamber is not clogged.
2. Leaking	A. Check fittings for tightness or solids that may be on threads. Threads should be clean and teflon taped to seal. Flanges need proper bolts with an elastomer gasket material.

