

# WINGERT SEPARATORS

*IT'S YOUR REPUTATION*

*SPECIFY THE BEST*

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## **Engineered for Performance**

The powerful technology of centrifugal force has been harnessed by man and utilized in the field of solid-liquid separation for over a century. Designed to take full advantage of this technology, Wingert Separators are a highly efficient solid-liquid separation tool. Our pride in producing high quality process equipment for water and wastewater treatment applications is inherent in the entire line of Wingert Separators.

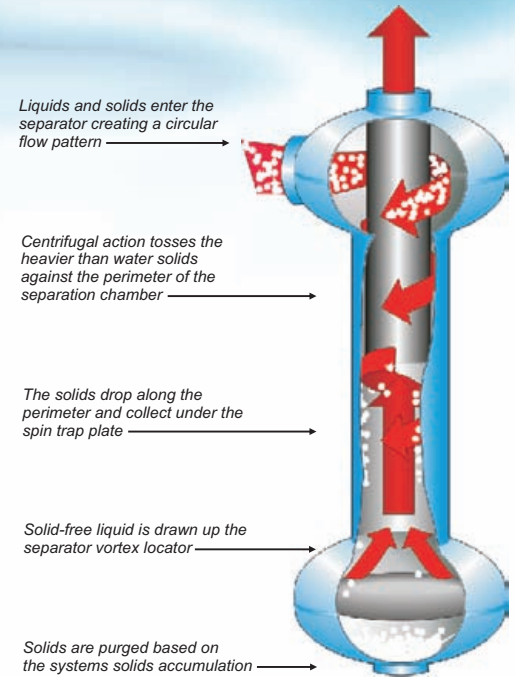


**J.L. WINGERT CO.**

# HOW DO THEY WORK?

Systems influent passes through the Wingert Separator in a high velocity circular motion. Centrifugal force slings the particulates, sand, debris, and sludge outward to the separator wall and downward in a spiral motion. Gravitational force pulls the separated solid particles downward past the spin trap plate into the solids holding chamber. Cleansed effluent then rises through the vortex locator and returns back to the system.

The Wingert Separator has no screens, slotted baffles, moving parts or filter media to cause unnecessary pressure loss or use of large volumes of backwash water. No maintenance is required, however periodic opening of the purge valve is necessary to dispose of unwanted solids. Purging can be done manually or automatically through the use of a Wingert Purge Package.



## FEATURES

**Pressure / Temperature:** 150 psi at 200° F max (1055 kPa at 93° C), higher ratings available

**Inlet / Outlet Connections:** 150 lb. ANSI RF/SO flanged or National Pipe Thread, others available upon request

**Materials of Construction:** Carbon steel or stainless steel, consult factory for other requirements

**Maintenance:** No routine maintenance or parts replacement, simple periodic solids purging only

**Space Requirement:** Up to 80% less space required than conventional filtration equipment

**Technical Support:** Selection and sizing, custom designs and systems, installation guidance

**Options:** Space saving designs

High temperature and pressure

A.S.M.E. code construction

Special coatings

Low profile (4" - 20" models)

Wall mounting brackets (½" - 3" models)

Removable legs (½" - 3" models)

Clean-out (4" x 6" door / 2" FNPT plug)

Internal inspection access

Removable purge chamber

Automatic, manual & continuous purge packages



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# PERFORMANCE

Wingert Separators can remove up to 98% of the particles which are 40 microns and 1.8 specific gravity or greater. Particles less than 40 microns may be removed with greater effectiveness from liquids with a specific gravity less than water.

## Solid/Liquid Criteria Range

**Particle Size:** > 40 micron up to 1 3/4", consult factory for other requirements

**Pressure Drop:** Minimum 4 psi with little to no fluctuations

**Flow Range:** 8 gpm to 13,953 gpm - higher & variable flow rates possible through manifolding

**Fluid Loss:** Minimal fluid loss achieved with continuous recovery system

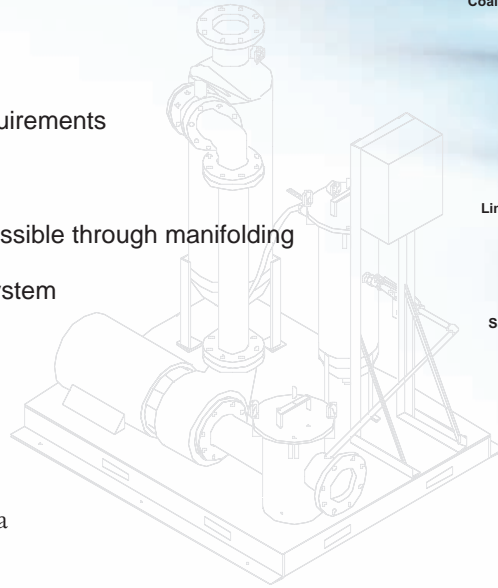
| PARTICLE SIZE EQUIVALENT |              |        |
|--------------------------|--------------|--------|
| MICRONS                  | US STD. MESH | INCHES |
| 15                       | 800          | .0006  |
| 37                       | 400          | .0015  |
| 40                       | 363          | .0016  |
| 44                       | 325          | .0017  |
| 53                       | 270          | .0021  |
| 62                       | 230          | .0024  |
| 74                       | 200          | .0029  |
| 88                       | 170          | .0035  |
| 105                      | 140          | .0041  |
| 125                      | 120          | .0049  |

NOTE: Lower limit for naked eye = 40 microns

## SOLIDS TYPICALLY REMOVABLE

### SPECIFIC GRAVITY REFERENCE

- Aluminum (2.7)
- Antimony (6.6)
- Barium (3.7)
- Bismuth (9.7)
- Boron (2.5)
- Brass (9.0)
- Cadmium (8.6)
- Carbon, Amorphous (1.8 - 1.9)
- Coal, Anthracite (1.3 - 1.9)
- Copper (8.9)
- Glass, Crystal (3.0)
- Gold (19.3)
- Granite (2.5 - 3.0)
- Graphite (2.3)
- Gypsum (2.4)
- Iron (7.9)
- Lead (11.4)
- Limestone, CaCO<sub>3</sub> (2.8)
- Manganese (7.3)
- Molybdenum (10.2)
- Nickel (8.9)
- Platinum (21.4)
- Sand, Quartz (2.6 - 2.8)
- Sandstone (2.3)
- Silver (10.5)
- Soapstone (2.7)
- Steel (7.8)
- Tantalum (16.6)
- Tellurium (6.25)
- Tin Ore (7.1)
- Titanium (4.5)
- Tungsten (19.1)
- Vanadium (5.8)
- Zinc (7.1)



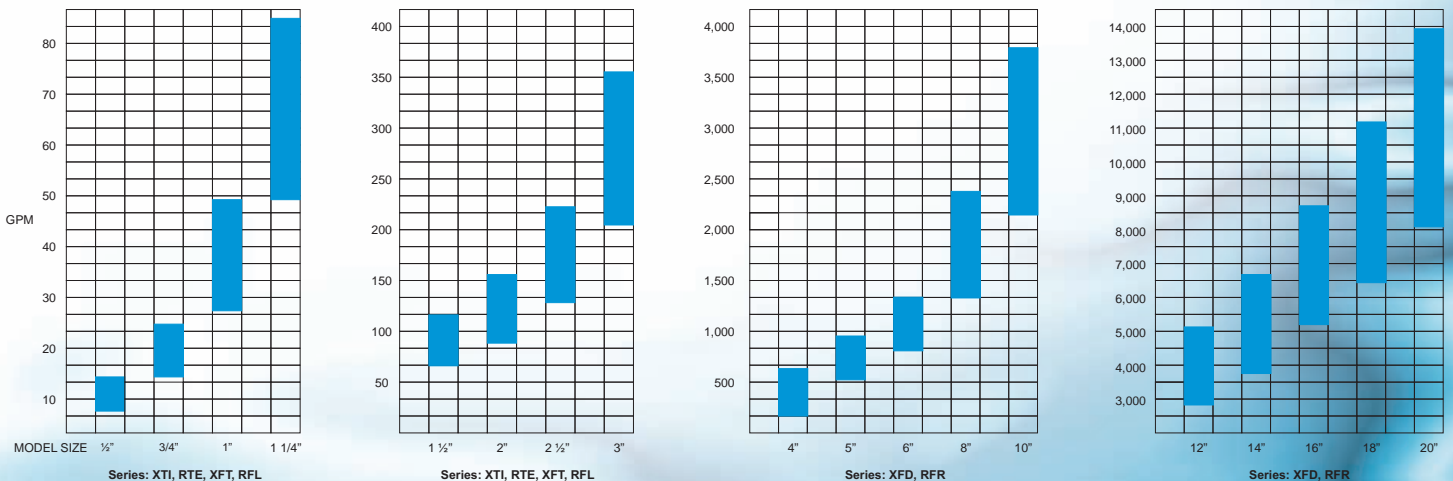
# MODEL SELECTION GUIDE

Solid-liquid separation efficiency depends on velocity. When sizing a Wingert Separator, be sure to use the application flow rate chart.

| Model Series | Particle Size                           |   |  | Solid Concentration |        |      | Flow Rate      |                     |
|--------------|---|---|--|---------------------|--------|------|----------------|---------------------|
|              | Fine<br>40 microns - 15/16"<br>material | Irregular<br>Sinuous, stringy,<br>long material | Large<br>40 microns - 1 3/4"<br>material | Low                 | Medium | High | 8 - 355<br>GPM | 352 - 13,953<br>GPM |
| XTI, XFT     | Yes                                     | No  | No                                       | Yes                 | No     | No   | Yes            | No                  |
| RTE, RFL     | Yes                                     | Yes   | No                                       | Yes                 | Yes    | No   | Yes            | No                  |
| XFD          | Yes                                     | No  | No                                       | No                  | Yes    | Yes  | No             | Yes                 |
| RFR          | No                                      | Yes   | Yes                                      | No                  | Yes    | No   | No             | Yes                 |

- Solids concentration capacity can be increased with the use of a continuous purge package
- For processes with larger particle sizes, consult factory

Flow rates data developed at an independent testing facility on a gravimetric flow stand, traceable to The National Institute of Standards and Technology (N.I.S.T.), USA.



# PURGING, SOLIDS HANDLING & LIQUID RECOVERY

To complete the basic separator operation, the separator collection chamber will periodically need to be purged of solids. This simple operation, when done on a regular basis, will ensure that your Wingert Separator will perform trouble-free. Three kinds of purge packages are available - manual, automatic or continual.

## Manual

- Best suited for smaller units that require infrequent purging
- Full port ball valve easily opens with a simple quarter turn
- Purging can be done without noticeable performance loss

## Automatic

- Push button programming provides exact on/off time settings
- Heavy duty motorized ball valve
- Nema 4X water tight housing for extreme environments or standard drip proof enclosures available

## Continual

- Ideal for collection and handling of purged solids while recovering the liquid and returning it to the system
- Minimal water and chemical loss
- Polyester felt filter bag captures solids
- Optional audible or visual alarm package available



## APPLICATIONS

*Commercial / Industrial Wastewater  
Coolant Loops  
Cooling Tower Basins  
Cooling Tower Loops  
Flume Water  
Fruit / Vegetable Wash Circuits  
Ground Water Systems  
Paint Spray Booths  
Parts Washing Tanks  
Quench Pits  
Salt Water Conversion Systems  
Sumps  
Tanks  
Wet Scrubbers*



## INDUSTRIES

*Agricultural  
Car Wash  
Chemical Process (CPI)  
Domestic  
HVAC  
Industrial  
Laundries  
Logging  
Mining  
Municipal  
Power Plant*



## PROTECTS

*Cutting & Cooling Fluid  
Filtration Equipment  
Heat Exchanger  
Impellers  
Pressure Tanks*

*Probes  
Pumps & Seals  
Spray Nozzles  
Small Orifices  
Valves*