

# SEPARATOR SYSTEM SPECIFICATIONS

(40 – 1200 GPM)

WSS050400.B 02/21



## DESCRIPTION

1.0) **SEPARATOR SYSTEM:** Shall be designed for side stream or basin cleaning applications. System shall be completely factory assembled with solids separator, centrifugal pump, NEMA 4x control panel, carbon steel skid and a motorized purge. Standard and optional features shall be as listed below. Use table below to determine separator model:

<input type="checkbox"/> 40 GPM @ 40TDH	Use CT-0040-40-MPK	<input type="checkbox"/> 40 GPM @ 80TDH	Use CT-0040-80-MPK
<input type="checkbox"/> 65 GPM @ 40TDH	Use CT-0065-40-MPK	<input type="checkbox"/> 65 GPM @ 80TDH	Use CT-0065-80-MPK
<input type="checkbox"/> 100 GPM @ 40TDH	Use CT-0100-40-MPK	<input type="checkbox"/> 100 GPM @ 80TDH	Use CT-0100-80-MPK
<input type="checkbox"/> 160 GPM @ 40TDH	Use CT-0160-40-MPK	<input type="checkbox"/> 160 GPM @ 80TDH	Use CT-0160-80-MPK
<input type="checkbox"/> 220 GPM @ 40TDH	Use CT-0220-40-MPK	<input type="checkbox"/> 220 GPM @ 80TDH	Use CT-0220-80-MPK
<input type="checkbox"/> 300 GPM @ 40TDH	Use CT-0300-40-MPK	<input type="checkbox"/> 300 GPM @ 80TDH	Use CT-0300-80-MPK
<input type="checkbox"/> 450 GPM @ 40TDH	Use CT-0450-40-MPK	<input type="checkbox"/> 450 GPM @ 80TDH	Use CT-0450-80-MPK
<input type="checkbox"/> 600 GPM @ 40TDH	Use CT-0600-40-MPK	<input type="checkbox"/> 600 GPM @ 80TDH	Use CT-0600-80-MPK
<input type="checkbox"/> 850 GPM @ 40TDH	Use CT-0850-40-MPK	<input type="checkbox"/> 850 GPM @ 80TDH	Use CT-0850-80-MPK
<input type="checkbox"/> 1,200 GPM @ 40TDH	Use CT-1200-40-MPK	<input type="checkbox"/> 1,200 GPM @ 80TDH	Use CT-1200-80-MPK

## MATERIALS

2.0) **BODY:** Separator body shall be sized according to connection fittings:

- 1" separators will be supplied with Schedule 40 pipe bodies. (CT-0040-[ ]-[ ])
- 1 1/2" to 3" separators will be supplied with .104 thick bodies (CT-0065-[ ]-[ ] through CT-0300-[ ]-[ ])
- 4" to 6" separator shall have a body that is a minimum of 3/16" thick. (CT-0600-[ ]-[ ] through CT-1200-[ ]-[ ])

2.1) **HEADS:** All heads supplied will be ASME code semi-elliptical heads and be sized according to connection fittings:

- 1" separators will be supplied with four 6" diameter SA414G .105" thick SE heads. (CT-0040-[ ]-[ ])
- 1 1/2" separators will be supplied with two 6" diameter SA414G .105" thick SE heads. (CT-0065-[ ]-[ ], CT-0100-[ ]-[ ])
- 2 1/2" separators will be supplied with two 10" diameter SA414G .105" thick SE heads and one 6" diameter SA414G .105" thick SE Head. (CT-0160)
- 3" separators will be supplied with two 10" diameter SA414G .105" SE heads. (CT-0220-[ ]-[ ], CT-0300-[ ]-[ ])
- 4" to 6" separator shall have two SE heads that are a minimum of 3/16" thick. (CT-0450-[ ]-[ ] through CT-1200-[ ]-[ ])

2.2) **FEATURES:**

- 1" separators shall incorporate center inlet with internal vortex creator, inlet flow acceptance chamber, reduced diameter vortex accelerator chamber, solid collection chamber and spin trap plate with schedule 40 vortex locator. (CT-0040-[ ]-[ ])
- 1 1/2" separators shall incorporate center inlet with internal vortex creator, vortex chamber, and solid collection chamber and spin trap plate with schedule 40 vortex locator. (CT-0065-[ ]-[ ], CT-0100-[ ]-[ ])
- 2 1/2" separators shall incorporate center inlet with internal vortex creator, inlet flow acceptance chamber, reduced diameter vortex accelerator chamber, solid collection chamber and spin trap plate with schedule 40 vortex locator. (CT-0160-[ ]-[ ])
- 3" and larger separators shall incorporate tangential inlet with internal vortex accelerator, vortex chamber, and solid collection chamber and spin trap plate with schedule 40 vortex locator. (CT-0220-[ ]-[ ] through CT-1200-[ ]-[ ])

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- 2.3) **PURGE PACKAGES:** Shall be supplied complete with purge package as recommended by manufacturer: (check one)
- STANDARD** MOTORIZED PURGE KIT (MPK): Shall be complete with adjustable repeat cycle timer, brass full port motorized purge valve, brass full port isolation ball valve, black iron street elbow, and extension nipple.
  - OPTIONAL** CONTINUAL PURGE PACKAGE (RT): Shall be complete with 304SS solids removal vessel with inlet and outlet isolation valves, 5 GPM brass flow control valve, adjustable differential pressure controller with pressure transducers, 25 micron filter bag and 304 stainless steel perforated support basket. Lid shall have 1/4" FNPT air release valve.
  - OPTIONAL** SEDIMENT DETECTION PURGE KIT (SED): Shall be complete with sediment detection sensor installed in the separator, a logic controller, brass full port motorized purge valve, brass full port isolation ball valve, black iron street elbow, and extension nipple.
- 2.4) **PUMP:** Centrifugal pump shall come with TEFC premium efficient motor, 230/460 volts, 3 phase, 60 hertz. Pump and motor shall be close coupled. Pump head shall be cast iron with cast iron impeller\* with carbon, ceramic, and Buna-N seals. The mechanical seal shall be John Crane Type 21.  
\*CT-0040-[ ]-[ ] to CT-0065-[ ]-[ ] have a 316SS head and impeller. CT-0850-40-[ ] has a bronze impeller.
- 2.5) **CONTROL PANEL:** NEMA 4x control panel shall be factory complete with 120 volt panel transformer, motor starter and overload, main power disconnect switch with LED indicator, pump hand-off-auto switch and LED indicator, Purge hand-off-auto switch and LED indicator (MPK units only), and red alarm indicator light. All components shall be CSA approved and UL listed. Standard supply voltage shall be 460VAC, 3 phase, 60 hertz (other voltages available upon request). All models to have remote pump start input terminals.
- 2.6) **SKID:** Carbon steel fabricated skid shall be complete with standard channel and angle frame, and control panel support frame. Skid to be primed with a zinc rich primer and two part epoxy top coat.
- 2.7) **PLUMBING:** Plumbing shall be complete and not limited to, separator inlet and outlet liquid filled pressure gauges, Sch. 40 steel pipe pump inlet manifold, Sch 80 pvc piping between the pump and separator.
- 2.8) **SEPARATOR INSTALLATION:** Shall be the following installation: (check one)
- FULL STREAM APPLICATION: Separator shall operate to maximum flow rate of the recirculation system.
  - SIDE STREAM APPLICATION: Separator shall operate at 10 – 20% of the flow rate of the recirculation system.
- 2.9) **OPTIONS:** Separator system shall be supplied with the following optional items to complete installation: (Check all that apply)
- AIR RELEASE (AR): 1/4" NPT air release valve located on the top dome of the separator.
  - BASKET STRAINER (BS): Separator system shall be supplied with a basket strainer installed before the pump. The strainer shall be cast iron with a stainless steel basket.
  - CLEAN OUT (C): Separator shall be supplied with clean out port located at or near the separator spin trap plate. Clean out port will be accessed when cleaning solids collection chamber.
  - SUCTION DIFFUSER (SD): Separator system shall be supplied with a suction diffuser in place of a basket strainer, installed before the pump. The suction diffuser shall be cast iron with a stainless steel basket.
- 3.0) **WARRANTY:** Wingert Separator Systems 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 defective material when returned to our factory with transportation prepaid: providing that the material 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.