

Separators & Separator Systems



Building and distributing dependable, quality products for a technologically expanding industry

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Centrifugal separation is a method of removing 98% heavier than water solids, or 1.4 specific gravity 70 micron particles, without the use of filters. As the flow enters the separator (tangentially), larger particles in the rotating fashion are forced against the outside wall, spinning down to the bottom of the separator where they can be removed. Vortex tube and spin trap plate help develop the flow pattern and cleansed liquid exits the separator from the top.

"GTP" Separator options include 3/8" to 3" (4 to 320GPM) threaded, $\frac{1}{2}$ " to 20" (6 to 13,950GPM) flanged and 1" to 20" (22 to 13,950GPM) grooved "Victaulic" end. Other option features include clean-outs, removable dome, removable purge, inlet/outlet pressure gage, auto/manual purge kit, recovery tank, ASME, stainless steel construction and low-profile mounting.

"GTP" offers separators for all applications. When choosing a "GTP" Separator you need to consider the following factors:

		FLOW RATE (GPM)		
LINE	CODE	4PSID	12PSID	
3/8"	0038	4	9	
1/2"	0050	6	12	
3/4"	0075	12	23	
1"	0100	22	38	
1-1/4"	0125	34	54	
1-1/2"	0150	52	86	
2"	0200	76	118	
2-1/2"	0250	118	186	
3"	0300	185	320	
4"	0400	350	610	
5"	0500	550	960	
6"	0600	800	1,390	
8"	0800	1,380	2,400	
10"	1000	2,175	3,780	
12"	1200	2,910	5,050	
14"	1400	3,810	6,600	
16"	1600	5,050	8,760	
18"	1800	6,500	11,200	
20"	2000	8,050	13,950	

Flow Rate: The most curcial factor, the flow rate need to fall between the 4 and 12 PSID rates listed to the right.

Available Pressure: Can your system afford to loose the 4 or 12 PSI? If so full line separation is the best. Only move to side stream when cost or pressure are a factor.

Single or Multiple Passes: If this is a single pass system, you have to run full stream and see all the flow, a multi pass system can use side stream.

Open or Closed Loop: If this is a open system, consider a Separator Systems coupled with Flow Eductors to sweep the solids that collect in the basin or sump.



How to make the most of centrifugal force. As shown below, our unique design allows us to increase centrifugal force and pressure drop with out creating elaborate outer housings.

- 1) Flow enters the separator tangentially and spins around the inside perimeter wall.
- **2)** Centrifugal flow develops in the low velocity acceptance chamber.
- **3)** As the flow drops down the side wall, the Solids Deflection Hood briefly doubles the velocity, increasing fall out.
- **4)** The over sized drop out chamber allows the solids to be removed by the Spin Trap Plate as the Cleansed Water is diverted up.
- **5)** Cleansed water flow is stablized as it exits the vessel.
- **6)** Solids are collected under the Spin Trap Plate and await removal in the extended purge chamber.

"GTP" Separators and Separator Systems can be used in a variety of applications & installations, helping to separate heavier than water solids from liquid. This includes cleaning cooling tower basins to heat exchanger protection to preventing sand damage to submersible pumps and much more. Call "GTP" or your local to determine which of our products might be best for you.











Separators Systems

"GTP" Separator Systems come complete with a separator, pump, pre-strainer, control panel, solids removal tank, plumbing, electrical and alarm service package. Base models include tower cleaning packages (full steam) packages from 40 to 4800GPM (90TDH pump) and side stream packages from 40 to 1800GPM (45TDH pump). Options include motorized purge kits and tower basin eductors.

Separators Systems Sizing

Using the chart provided, find either you

GPM CODE	"TCS" MODEL BASIN SIZE (GALS) MIN MAX		"SPS" MODEL FLOW RATE (GPM) MIN MAX	
0040	144	208	400	600
0065	234	338	650	975
0100	360	520	1,000	1,500
0175	630	910	1,750	2,625
0200	720	1,040	2,000	3,000
0275	990	1,430	2,750	4,125
0325	1,170	1,690	3,250	4,875
0450	1,620	2,340	4,500	6,750
0550	1,980	2,860	5,500	8,250
0850	3,060	4,420	8,500	12,750
1200	4,320	6,240	12,000	18,000
1800	6,480	9,360	18,000	27,000
2500	9,000	13,000		

16,120 24,960 basin volume in gallons (for "TCS" systems) or your circulation rate in gallons per minute (for "SPS" systems). If you need assistance, Please contact your local rep or contact our knowledgeable sales staff.



3100

11,160

17,280