



SPIRIT™ SAND PLANT

Sand Production / Fines Recovery

- Includes cyclone, dewatering screen, sump and pump to classify and product saleable sand. ■
- Quick setup with a small footprint. ■
- Limited operator intervention needed to get proper cut points for sand de-silting. ■
- Stop loss of quality fines to pond or thickener tank. ■

HIGHLIGHTS

1/ MAINTENANCE HATCH

- » Convenient inspection
- » Avoid removal of vortex finder or piping

2/ CYCLONE

- » 12" and 16" available
- » 100% cast urethane
- » Urethane lined on larger diameters

3/ HDPE PIPING

- » Longer lasting than steel
- » Light and easy to handle

4/ DEWATERING SCREEN

- » Deep bed depth dries product to 8%
- » Urethane lined sides for longer wear life

5/ SLURRY PUMP

- » Schurco brand pumps
- » Cast iron cover

6/ SUMP TANK

- » Baffle reduces turbulence
- » Sloped plate for even flow

■ Accurate cut points for sand de-silting

- ↳ Up to #200 for sands (75µm)
- ↳ Up to #350 for fines recovery (40µm)



DEWATERING SCREEN FEATURES

- 1/ DUAL ELECTRICAL VIBRATORS
- 2/ SCREEN DECK
- 3/ STEEL COMPRESSION SPRINGS
- 4/ SCREEN URETHANE SIDEWALLS
- 5/ STATIONARY FRAME

- Dewatering Screen helps you achieve 8% moisture content
- Deep bed design removes more moisture giving you the highest possible percentage of salable product.
- Side liners with screen openings allows for larger surface for drainage
- The urethane sidewalls are lined with screen openings, creating a larger surface area for drainage.
- Screen attributes include:
 - ↳ Rigid ½ inch A36 steel welded frame
 - ↳ Recycle water line



8% MOISTURE CONTENT



SCREEN URETHANE SIDE WALLS

CYCLONE FEATURES

1/ OVERFLOW

2/ FEED

3/ CYCLONE HEAD

4/ UPPER CONE SECTION

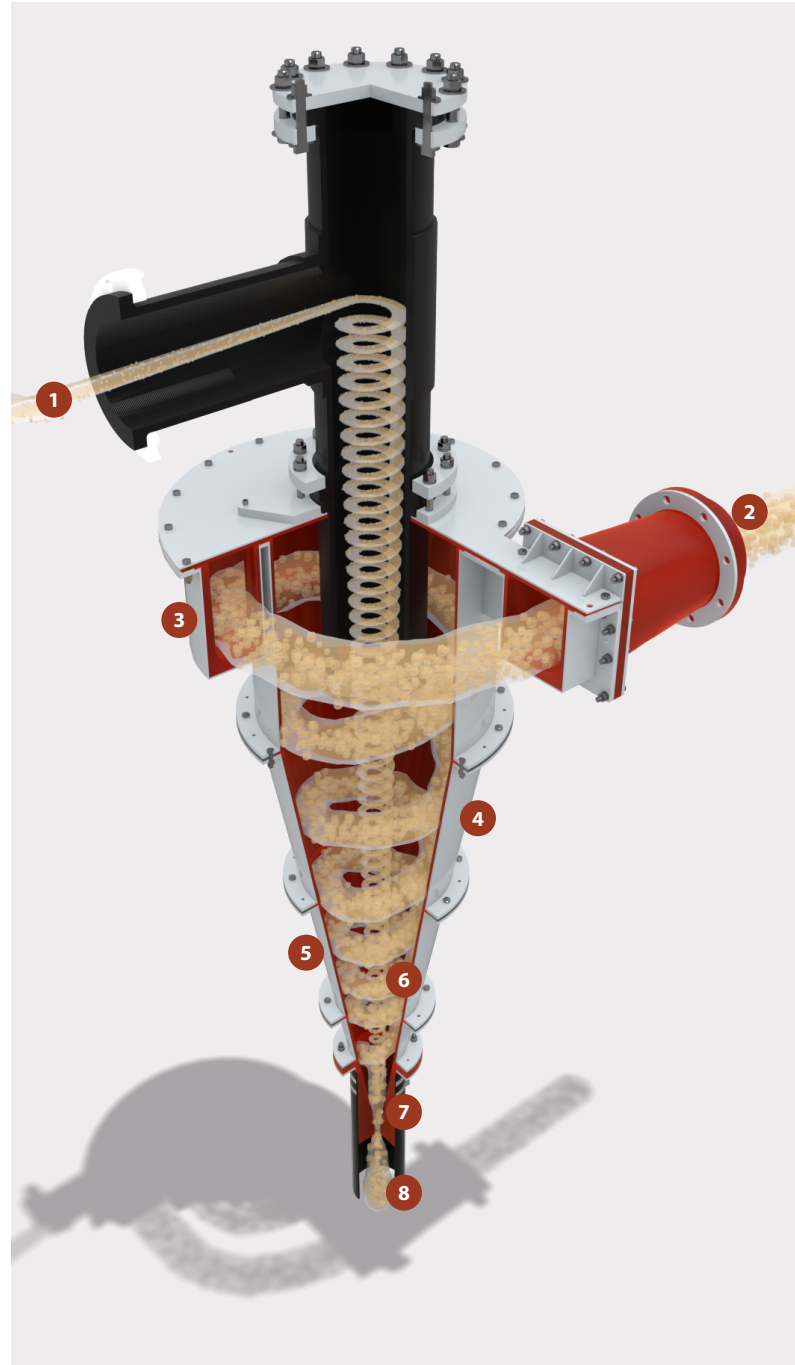
5/ LOWER CONE SECTION

6/ URETHANE LINING

7/ APEX

8/ UNDERFLOW

- Offset feed design eliminates turbulence by providing efficient slurry flow enabling:
 - ↳ More precise classification
 - ↳ Reduces component wear
- Easier maintenance by better access to feed components
- Safer design allows operators to avoid removing the vortex finder or discharge piping.



FINES RECOVERY SPECIFICATIONS

	FR900	FR1800	FR2700	FR3600	FR4500	FR5600	FR7000
General							
Cycle Diameter - inch (mm)	12" (300)	12" (300)	12" (300)	12" (300)	12" (300)	12" (300)	12" (300)
Quantity	1	2	3	4	5	4	5
Minimum Module Feed							
Percent Solids	10%	10%	10%	10%	10%	10%	10%
Dry - TPH (MTPH)	22 (20.0)	44 (39.9)	66 (59.9)	88 (79.8)	110 (99.8)	142 (128.8)	177.5 (161.0)
Water - TPH (MTPH)	824 (187)	1,648 (374)	2,472 (561)	3,296 (748)	4,120 (935)	5,401 (1,226)	6,752 (1,533)
Maximum Module Feed							
Dry - TPH (MTPH)	25.7 (23.3)	51.4 (46.6)	77.1 (69.9)	102.8 (93.2)	128.5 (116.5)	160 (145.1)	200 (181.4)
Water - TPH (MTPH)	963 (218)	1,925 (437)	2,888 (655)	3,850 (874)	4,813 (1,092)	5,993 (1,360)	7,492 (1,701)
Overflow							
Percent Solids	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%
TPH (MTPH)	11.2 (10.2)	22.4 (20.3)	33.6 (30.5)	44.8 (40.6)	56 (50.8)	69.6 (63.1)	87 (78.9)
GPH	932.6	1,865.2	2,797.8	3,730.4	4,663	5,807.6	7,259.5
Screen							
Dry - TPH (MTPH)	14.5 (13.2)	29.0 (26.3)	43.5 (39.5)	58.0 (52.6)	72.5 (65.8)	90.4 (82.0)	113.0 (102.5)
Size - feet (mm)	3' x 8' (900 x 2,400)	3' x 8' (900 x 2,400)	4' x 8' (1200 x 2,400)	4' x 8' (1200 x 2,400)	4' x 8' (1200 x 2,400)	5' x 10' (1,500 x 3,000)	5' x 10' (1,500 x 3,000)
Sump							
Actual Size - Gallon (m ³)	1,200 (5.3)	2,500 (11.0)	3,800 (16.7)	5,000 (22.0)	6,400 (28.2)	8,000 (35.2)	10,000 (44.0)
Motor							
Size	6x4	8x6	10x8	12x8	14x12	14x12	14x12
Horsepower (kW)	50 (37)	100 (75)	150 (112)	200 (149)	250 (187)	300 (224)	350 (261)

SAND PRODUCTION SPECIFICATIONS

	SP70	SP100	SP150	SP200	SP300
General					
Cycle Diameter - inch (mm)	16" (400)	20" (500)	24" (600)	20" (500)	24" (600)
Quantity	1	1	1	2	2
Minimum Module Feed					
Percent Solids	25-35%	25-35%	25-35%	25-35%	25-35%
Dry - TPH (MTPH)	80 (72.6)	115 (104.3)	173 (156.9)	229 (207.7)	347 (314.7)
Water - TPH (MTPH)	594 (135)	853 (194)	1,283 (291)	1,699 (386)	2,574 (584)
Maximum Module Feed					
Water - TPH (MTPH)	959 (218)	1,378 (313)	2,334 (530)	2,744 (623)	4,158 (944)
Overflow					
Percent Solids	1.6%	1.6%	1.6%	1.6%	1.6%
TPH (MTPH)	3.3 (3.0)	5 (4.5)	8 (7.3)	9 (8.2)	16 (14.5)
GPH	922 (209)	1,324 (301)	1,995 (453)	2,637 (599)	4,002 (908)
Screen					
Percent Solids	88-92%	88-92%	88-92%	88-92%	88-92%
Dry - TPH (MTPH)	77 (69.8)	110 (99.8)	165 (149.7)	220 (199.5)	330 (299.3)
Size - feet (mm)	3' x 8' (900 x 2,400)	4' x 8' (1,200 x 2,400)	6' x 12' (1,800 x 3,600)	6' x 12' (1,800 x 3,600)	7' x 12' (2,100 x 3,600)
Sump					
Actual Size - Gallon (m³)	1,200 (5.3)	1,800 (7.9)	2,500 (11.0)	3,500 (15.4)	5,000 (22.0)
Motor					
Size	6x4	8x6	8x6	12x8 10x8	12x10
Horsepower (kW)	30 (22)	100 (75) 50 (37)	75 (56)	100 (75)	150 (112)