



# SPIRIT™ SAND PLANT

Combination of Cyclone and Dewatering Screen for Sand Production or Fines Recovery



HELIX™ CYCLONE SEPARATES COARSE & FINE

## FEATURES

- » Modular design erects in 2-3 days versus weeks for inflexible, fixed designs
- » Bolt together pipes are pre-plumbed to length which speeds setup
- » Pre-Installed wiring components neatly fed to common terminal
- » Designed to fit and ship in standard sized export container

## APPLICATIONS

- » Fines extraction from water
- » Cut point up to #200 for sands (75µm)
- » Cut point up to #350 for fines recovery (40µm)





### DEWATERING SCREEN

#### **+/- 5° ADJUSTABLE DECK**

Fine tune the stop of the deck for more or less dewatering.

#### **URETHANE SIDEWALLS**

Remove moisture from top and sides of material for drier product.

#### **DEEPER BED**

More depth allows removal of more water and retention of more product.

### HELIX CYCLONE

#### **FEED PIPE**

Square to round transition made of high wear urethane.

#### **GEOMETRICALLY EFFICIENT INLET**

Reduces turbulence to improve classification and lower internal wear.

#### **OVERFLOW PIPE**

Designed with lightweight HDPE material.

#### **VORTEX FINDER**

Prevents short-circuiting (less misplacement of coarse material to the overflow).

#### **URETHANE LINING**

Fines recovery models cast of 100% urethane, while sand production models have a steel case and urethane lining to withstand high pressure.

### SUMP TANK

#### **INTERNAL BAFFLE**

Reduces turbulence for more consistent, uniform flow.

#### **BOTTOM PLATE**

Sloped design allows even material flow to pump.

#### **CLEANOUT FLANGE**

Bolt flange design simplifies access for cleanout.

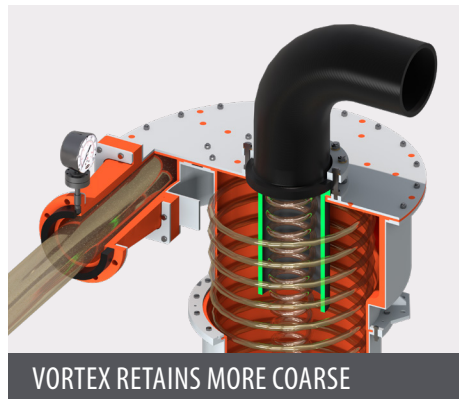
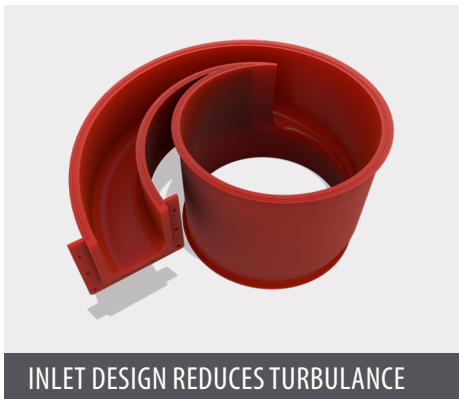
#### **ACCESS PANEL**

Removable for easy access to sump.

## FINES RECOVERY SPECIFICATIONS

	FR600	FR1200	FR1800	FR2700	FR3600	FR4500	FR5400
<b>GENERAL</b>							
Cycle Diameter - inch (mm)	12" (300)	12" (300)	12" (300)	16" (405)	16" (405)	16" (405)	16" (405)
Quantity	1	2	3	3	4	5	6
Fines Recovered	approx. 50%	approx. 50%	approx. 50%	approx. 50%	approx. 50%	approx. 50%	approx. 50%
Total Horsepower (kW)	46 (34)	76 (56)	116 (86)	141 (105)	166 (123)	223 (166)	273 (203)
<b>MODULE FEED</b>							
Percent Solids	0-10%	0-10%	0-10%	0-10%	0-10%	0-10%	0-10%
Feed Volume - USGM	600	1,200	1,800	2,700	3,600	4,500	5,400
<b>OVERFLOW</b>							
Percent Solids	0-5%	0-5%	0-5%	0-5%	0-5%	0-5%	0-5%
Volume - USGM	600	1,200	1,800	2,700	3,600	4,500	5,400
<b>DEWATERING SCREEN</b>							
Size - feet (mm)	3' x 8' (900 x 2,400)	3' x 8' (900 x 2,400)	4' x 8' (1,200 x 2,400)	4' x 8' (1,200 x 2,400)	4' x 8' (1,200 x 2,400)	5' x 10' (1,500 x 3,000)	5' x 10' (1,500 x 3,000)
Screen Motor - HP (kW)	(two) 8 (6)	(two) 8 (6)	(two) 8 (6)	(two) 8 (6)	(two) 8 (6)	(two) 11.4 (8.5)	(two) 11.4 (8.5)
RPMs	1,800	1,800	1,800	1,800	1,800	1,800	1,800
<b>SUMP</b>							
Size - Gallon (m <sup>3</sup> )	750 (2.8)	1,000 (3.7)	1,500 (5.6)	2,000 (7.5)	3,000 (11)	4,000 (15)	5,000 (18)
<b>PUMP</b>							
Size	6" x 4"	6" x 4"	8" x 6"	10" x 8"	12" x 10"	12" x 10"	14" x 12"
Horsepower (kW)	30 (22)	60 (44)	100 (75)	125 (93)	150 (111)	200 (150)	250 (186)

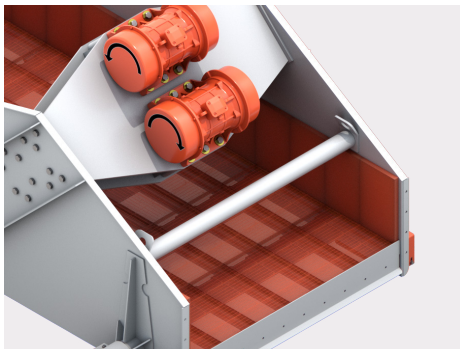
## HELIX™ CYCLONE



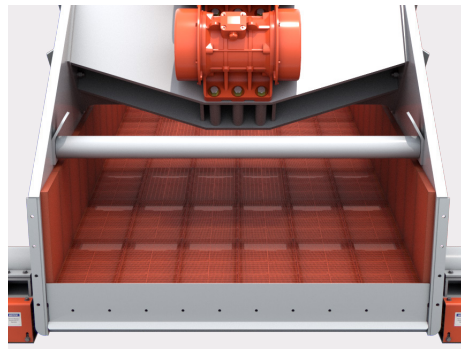
## SAND PRODUCTION SPECIFICATIONS

	SP70	SP100	SP150	SP200	SP300	SP400
<b>GENERAL</b>						
Cycle Diameter - inch (mm)	16" (405)	20" (508)	24" (600)	30" (762)	24" (600)	30" (762)
Quantity	1	1	1	1	2	2
Sand Output - TPH (MTPH)	77 (70)	110 (100)	165 (150)	220 (200)	330 (300)	440 (400)
Total Horsepower (kW)	66 (49)	91 (67)	123 (91)	173 (129)	225 (167)	285 (212)
<b>MODULE FEED</b>						
Percent Solids	30%	30%	30%	30%	30%	30%
Feed Volume - USGM	700	1,000	1,500	2,000	3,000	4,000
<b>OVERFLOW</b>						
Percent Solids	0-3%	0-3%	0-3%	0-3%	0-3%	0-3%
Volume - USGM	700	1,000	1,500	2,000	3,000	4,000
<b>DEWATERING SCREEN</b>						
Percent Solids	88-92%	88-92%	88-92%	88-92%	88-92%	88-92%
Size - feet (mm)	3' x 8' (900 x 2,400)	4' x 8' (1,200 x 2,400)	5' x 10' (1,500 x 3,000)	5' x 10' (1,500 x 3,000)	6' x 12' (1,800 x 3,600)	7' x 12' (2,100 x 3,600)
Screen Motor - HP (kW)	(two) 8 (6)	(two) 8 (6)	(two) 11.4 (8.5)	(two) 11.4 (8.5)	(two) 12.6 (9.3)	(two) 17.5 (13.0)
RPMs	1,800	1,800	1,800	1,800	1,800	1,800
<b>SUMP</b>						
Size - Gallon (m <sup>3</sup> )	750 (2.8)	1,000 (3.7)	1,500 (5.6)	1,500 (5.6)	2,500 (9.4)	3,000 (11.3)
<b>PUMP</b>						
Size	6" x 4"	6" x 4"	8" x 6"	10" x 8"	12" x 10"	14" x 10"
Horsepower (kW)	50 (37)	75 (55)	100 (75)	150 (111)	200 (150)	250 (186)

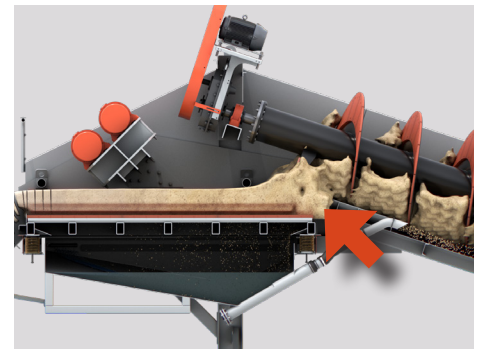
## DEWATERING SCREEN



URETHANE SIDEWALLS REMOVE MOISTURE



DEEP BED REMOVES MORE WATER



SAVE FINES FROM WASTE