



# SPIRIT® SAND PLANT

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



## 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.

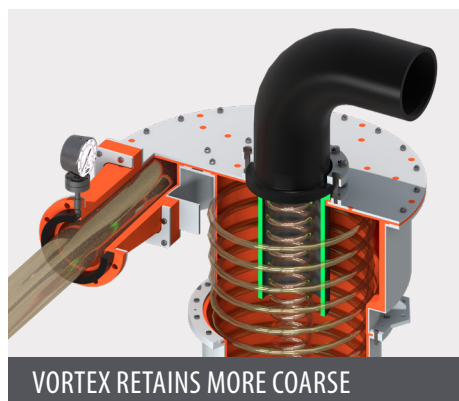
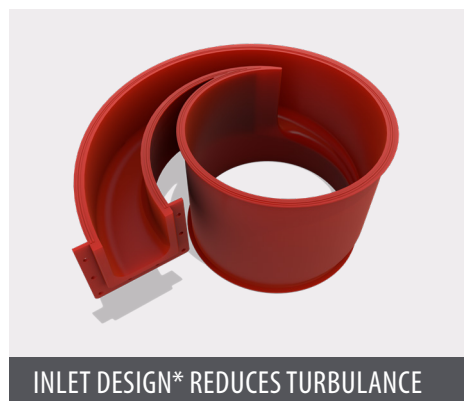
#### **ACCESS PANEL**

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 (m³)         | 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 (mm)                  | 6" x 4" (152 x 101)   | 6" x 4" (152 x 101)   | 8" x 6" (203 x 152)     | 10" x 8" (254 x 203)    | 12" x 10" (304 x 254)   | 14" x 10" (355 x 254)    | 14" x 10" (355 x 254)    |
| Horsepower (kW)            | 30 (22)               | 60 (44)               | 100 (75)                | 125 (93)                | 150 (111)               | 200 (150)                | 250 (186)                |

## HELIX® CYCLONE

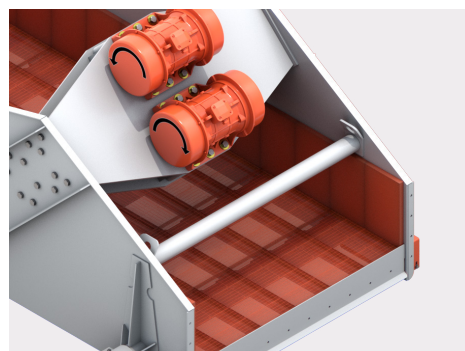


\* Patent pending

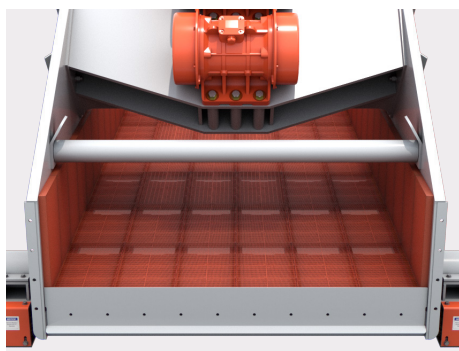
## SAND PRODUCTION SPECIFICATIONS

|                            | 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 (m³)         | 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 (mm)                  | 6" x 4" (152 x 101)   | 6" x 4" (152 x 101)     | 8" x 6" (203 x 152)      | 10" x 8" (254 x 203)     | 12" x 10" (304 x 254)    | 14" x 10" (355 x 254)    |
| 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