

# FAIRFIELD SERVICE COMPANY

Providing excellence in Service, Product, and Value in our efforts to support the Water, Wastewater, and Material Conveyance industries since 1978.

# SCREW COMPACTOR



### **FEATURES**

- ◆ Rugged Materials of Construction
- ◆ Single Shafted Screw Design
- ◆ Indoor/Outdoor Environments
- Integrated Washing System; 65-85% Weight Reduction of Screenings
- ◆ Screenings Weight Reduction of 65-85%
- Dewatered Screenings Capable of Passing a Paint Filter Test; Moisture Content Less Than 55%

#### **BENEFITS**

- Easily fits new screenings applications
- Retrofit into existing screenings applications
- Returns valuable organic material back to process
- Optimizes material handling and disposal costs, lowering overall cost of operations
- ◆ Simple design/Low maintenance

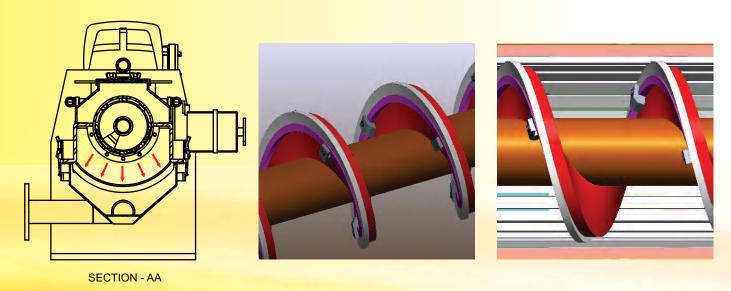


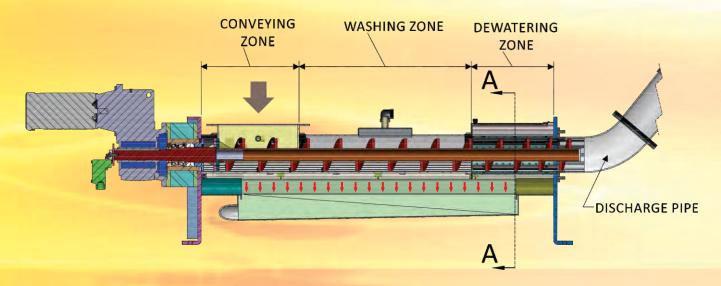
#### **OPERATION**

The Fairfield Screw Compactor receives screenings through the mating inlet flange from a mechanical screen, sluice gate or conveyor chute. Materials entering the unit are then conveyed into the screw assembly and washed in the main assembly. The main assembly consists of the single auger screw and washing system.

The washed materials are then compressed, driving excess water and fine organics through the fine screen. Washwater and fine organics are then discharged into the drain pan and conveyed to the plants washwater discharge through a piped drain connection.

Solid materials, not passing through the screen, are then further washed and then compressed and discharged through the discharge chute. Materials are deposited into a screenings container or optional bagger system and transported off-site by plant operations.









- 7
- 1 Main Assembly
- 2 Screw Assembly
- 3 Drain Pan Assembly
- 4 Drive Assembly
- 5 Discharge Pipe 1
- 6 Discharge Pipe 2
- 7 Support
- 8 Intermediate Chute

## STANDARD CONSTRUCTION

#### MATERIALS OF CONSTRUCTION

- ◆ Typically Type 304 SS materials designed for most Wastewater applications
- Other available materials
  - o A36 Carbon Steel, hot-dipped galvanized
  - o Type 316 stainless steel, for aggressive areas
- Shafted screw design made from alloy steel supported by axial thrust bearings. Includes hollow shaft with perforations for washwater spraying inside out and nylon-bristled brushes with stainless steel backings
- ♦ Wedge wire drain construction
- Cold weather protection system (optional)
- Multiple inlet hopper designs (optional)
- ◆ Inlet grinder, horizontal (optional)
- Discharge bagger system (optional)

#### STANDARD SAFETY FEATURES

- OSHA safety guards at rotating parts
- ◆ Local control panel. Start/Stop/E-Stop
- ◆ SCADA interface and control (optional)

#### **DRIVES**

- Drives selected based upon loading rates.
- Standard TEFC motor enclosures
- ◆ Optional TEFC-XP, Class I, Division 2
- Reducer units, Class II shaft mounted on the conveyor head or tail shaft and direct connected to motor
- Standard Parallel Drive Arrangement (Close-Coupled)
- Right Angle Drive Arrangement (optional)

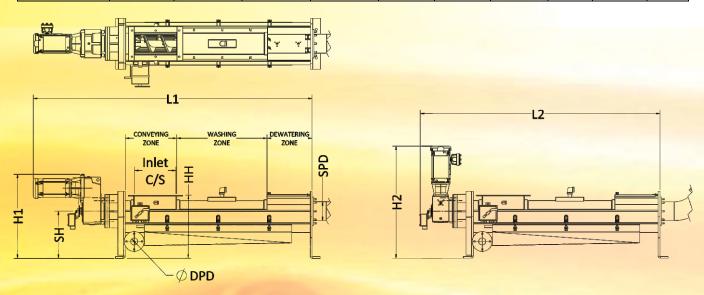


#### **DESIGN REQUIREMENTS**

Model Type	Continuous Mode	Batch Mode	Min. Motor	Wash water Demand		
SC-011-033	Up to 33 ft <sup>3</sup> /hr	Up to 11 ft <sup>3</sup> /hr	1.5 HP	15 gpm; 35 psi min/60 psi max		
SC-018-055	Up to 55 ft <sup>3</sup> /hr	Up to 18 ft <sup>3</sup> /hr	2.0 HP	15 gpm; 35 psi min/60 psi max		
SC-033-099	Up to 99 ft <sup>3</sup> /hr	Up to 33 ft <sup>3</sup> /hr	3.0 HP	20 gpm; 35 psi min/60 psi max		
SC-055-160	Up to 160 ft <sup>3</sup> /hr	Up to 55 ft <sup>3</sup> /hr	5.0 HP	25 gpm; 35 psi min/60 psi max		
SC-085-250	Up to 250 ft <sup>3</sup> /hr	Up to 85 ft <sup>3</sup> /hr	7.5 HP	30 gpm; 35 psi min/60 psi max		
SC-140-450	Up to 450 ft <sup>3</sup> /hr	Up to 140 ft <sup>3</sup> /hr	10.0 HP	30 gpm; 35 psi min/60 psi max		

Electrical requirement: 230 or 460 / 1 Phase or 3 Phase / 60 Hz

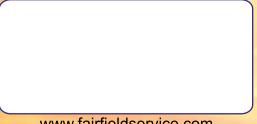
MODEL TYPE	Min L-1	Min L-2	Inlet Cross section		Min H-1	Min H-2	Min HH	DPD	Min SH	SPD
SC-011-033	96	84	18	6	24	42	18	2	13	6
SC-018-055	102	90	24	6	24	42	18	2	13	6
SC-033-099	102	90	24	8	30	48	24	3	18	8
SC-055-160	114	102	36	10	30	48	24	3	17	10
SC-085-250	122	110	44	12	30	48	24	4	16	12
SC-140-450	128	116	50	14	36	54	30	4	21	14



### FAIRFIELD SERVICE COMPANY IS MBE CERTIFIED.

#### **Plant**

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