

ITEM: "A" - One (1) SPECO WasteMaster® Shaftless Spiral Screen
Model GCP400



BASIS OF DESIGN (EACH)

Application:	Municipal Sewage Screening
Peak Design Flow:	1.25 MGD
Max Allowed Upstream Water Level:	20.4 inches (top of basket)
Channel Width:	16 inches (minimum; wider will need supplemental seal support)
Channel Depth:	4.0 feet
Screen Opening:	6 mm
Opening Type:	Perforated
Angle of Inclination:	35 degrees
Wash Water Requirement:	24 GPM at 40-60 psi
Discharge Height:	4.5 feet (above top of channel)
Screenings Capture Ratio (SCR)	52%

FINE SCREEN (EACH)

- Semi-cylindrical screenings basket from type 304L stainless steel.
- Conveyor tube with wear bars from type 304L stainless steel.
- Neoprene side seals fastened to basket to prevent bypass around the screen.
- Shaftless spiral screw from high strength alloy steel with protective primer coating and brushes attached in the basket area. Brushes are supplied in sections each covering 180° of the spiral and shall have nylon bristles molded into a plastic core and attached to the screw with stainless steel fasteners.
- Dual chambered dewatering zone from type 304L stainless steel with hinged access door.
- Discharge zone from SINT® engineered polymer, self-cleaning design.
- Dewatering zone drain flush spray system from type 304L stainless steel with manual ball valve.
- Plastic hose for drain connection to direct pressate back into the channel.
- Drive unit with 1.5 HP TEXP (Class I, Division 1, Group D) motor suitable for 460/3/60 electrical supply.

- Basket mounted spray bar from type 304L stainless steel.
- Centralized washing system with type 304L stainless steel piping, connecting all unit spray locations to single point for customer connection. Includes manual ball valves and solenoids.
- Fasteners – 304 stainless steel.

FINE SCREEN SUPPORTS

- A stand from type 304L stainless steel is supplied to support the fine screen unit. Support shall allow unit to be rotated out of the channel.

CONTROL PANEL AND INSTRUMENTATION (EACH)

- One (1) NEMA 4X composite wall mount main control panel suitable for 480/3/60 electrical supply. Control panel shall contain the following control devices for operation of the spiral screen.
 1. Main disconnect, non-fused type, with through door interlock handle.
 2. Control transformer 480/120, with branch circuit protection.
 3. Motor starter protector, with overload and branch circuit protection.
 4. Screen motor starter, reversing with overload.
 5. Load monitor for screen motor overtorque/overload protection.
 6. Emergency stop pushbutton.
 7. Screen HOA switch.
 8. Screen FOR switch, spring return reverse to off.
 9. Open-Close-Auto switch for each solenoid valve.
 10. Run indicating lights.
 11. Alarm lights indicating overcurrent and starter overload.
 12. Alarm reset pushbutton.
 13. Programmable control relay for screen control logic functions.
 14. Run and alarm auxiliary contacts.
 15. Barrier relay for float level switch and safety microswitch.
 16. UL Label.
- One (1) NEMA 7 Emergency Stop pushbutton station.
- One (1) safety microswitch suitable for the area classification, mounted to dewatering/discharge access door.
- Two (2) NEMA 7 120V solenoid valves to control water spray functions.
- One (1) mercury free type float switch with stainless steel mounting bracket.