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WPSInstSpecGuidelinesRev4N.doc

Red Bag Solutions

SPECIFICATION GUIDELINES FOR INSTALLATION OF SSM-150 INFECTIOUS MEDICAL WASTE UNIT

THE FOLLOWING SPECIFICATIONS ARE PER UNIT REQUIREMENTS

1.0 SITE SELECTION:

The location of the SSM-150 depends upon space availability of the facility but should be installed in a room/area with the following approximate minimum dimensions:

NOTE: Unit is shipped as two separate frames that are bolted together on site. Upon Receipt of the SSM system, DO NOT remove the SSM system from its shipping packaging. RED BAG SOLUTIONS technicians will remove the system upon arrival and place the system using our specific installation process.

Table with 2 columns: Specification Name and Value. Includes Room Size (300 square feet), Ceiling Height (9 feet), Door Opening Width (48 inches), Door Opening Height (78 inches), and Maximum Frame Section Length (66 inches).

The SSM machine should be located approximately 3 feet (1meter) from any wall to facilitate access for maintenance. The location should have a sanitary drain of at least 4-inches (10.16cm) diameter near-by. In addition the room must be compliant to and capable of the following requirements for SSM equipment.

Table with 2 columns: Requirement Name and Value. Includes Maximum Relative Humidity (90%), Room Temperature (40°F to 100°F), Room Air Exchange (Minimum 100 CFM), and Sensible Heat Load (25k BTU per hour).

NOTE: All utility terminations (Water, Vent, Electrical, and Telephone) to the SSM system must be made by the customer or their contractor.

2.0 WATER REQUIREMENTS:

The SSM-150 requires both hot and cold water plumbed to the unit: The water pressure requirements are between 40 psi (2.8 kg/sq cm) to a maximum of 60 psi (4.2 kg/sq cm) for both systems:

Table with 2 columns: Water Type and Specifications. Details Hot Water (3/4 inch pipe, 70 gals, 10 gpm, 120°F to 150°F) and Cold Water (1-inch pipe, 40 gpm, 75°F maximum).



**Additional Water Requirements:**

- Deep sink with hot and cold water to be accessible, within close proximity of SSM system
- Cold water line with hose bib to be located within close proximity of SSM system
- Both the sink and hose bib should be no greater than 20 feet (6.1 meters) from the SSM system.
- **SSM unit equipped with the boiler:** The following water requirements must be tested for by our customer and these water results must be supplied to RED BAG SOLUTIONS prior to installation:

<i>Hardness</i>	8-85 ppm [(-0.5) - 5 gpg]
<i>P-Alkalinity</i>	85-410 ppm [(-5) - 24 gpg]
<i>T-Alkalinity</i>	200-500 ppm (7 - 30 gpg)
<i>PH</i>	7.1 - 11.0

The SSM System’s internal plumbing contains water hammer arrestors on both hot and cold water lines. Because local codes vary as to the type and installation requirements, a back flow arrester must be installed by the facility in both of the supply lines. The only other requirement is for manual shut-off ball valves located approximately 3 feet (91 cm) from the unit. For units fitted with load cells, all plumbing connections to have a minimum 12-inch long flexible connection to the SSM Unit, supplied by RED BAG SOLUTIONS.

**3.0 SANITARY DRAIN:**

The SSM-150 discharges the water separated from the processed solids into a sanitary drain. An additional floor drain is required for removal of floor water created during normal servicing and cleaning of the SSM equipment.

<i>Sanitary Drain</i>	4 inch (10.16 cm) - 5 inch (12.7 cm) Diameter
<i>Flow Capacity</i>	60 gpm (227 lpm)-75 gpm (284 lpm)
<i>Discharge Temperature</i>	145°F (63°C) or to suit local code requirements

**4.0 VENT:**

The SSM-150 requires a vent for releasing the pressure in the process tank to atmosphere. This vent is directed to the sanitary sewer atmospheric vent if its location is convenient; otherwise a vent to atmosphere needs to be provided.

<i>Vent</i>	½ inch (1.27 cm) pipe connection copper tubing
<i>Flow</i>	15 ft <sup>3</sup> (.4245 m <sup>3</sup> )
<i>Discharge Temperature</i>	210°F (99°C) maximum

**5.0 ELECTRICAL REQUIREMENTS:**

The SSM-150 requires the following electrical connections:

For each case listed below, both the 480V and the 110V power supplies to be provided with an in-room power disconnect for lock out safety. All wiring AWG sizes to be as specified in the NEC code with 125% correction factor and 75°C insulation. Units with the Load Cell weight measurement option must be wired with “loops” on the facility wiring to ensure correct weight recording.

**NOTE:** Due to the SSM computer requirements, RED BAG SOLUTIONS requires that the following power backup and protection be provided to ensure system protection from facility power failures and surges. The system will not be installed until these protective measures are in place.

<b>110V Power Supply</b>	UPS System with minimum 1-Hour Backup
<b>480V Power Supply</b>	3-Phase Surge Protection System

**5.1 FOR UNITS WITH AUTOMATIC SCREW COMPRESSION FILTER (FS-6s):****110V Power Supply** 20A

**NOTE:** If a facility compressed air supply is available this electrical requirement is not required.  
To ensure the facility compressed air supply meets the FS-6s requirements please refer to  
Section 7.0, *FS-6s Compressed Air Requirements*.

**5.2 SSM WITH ELECTRIC BOILER:**

480V Power supply	200A
110V Power supply	20A
Power Consumption	62-68 kw/h
Power supply for separator depends on customer preference	

**5.3 SSM WITH CUSTOMER SUPPLIED STEAM:**

480V Power supply	60A
110V Power supply	20A
Power Consumption	24-28 kw/h

**6.0 STEAM SUPPLY:**

For installations where the client provides the steam for the SSM machine, the boiler is not required and a steam line is directed to the SSM-150 and then internally distributed to a heat exchanger and the process tank.

**Steam Supply Specification:**

<i>Steam Pressure</i>	80 to 100 psig (4.8 to 6.9 Bar) Saturated
<i>Steam Flow Rate</i>	Minimum of 800 lb/hr (363 kg/hr)
<i>Steam Connection to SSM-150</i>	1.5" inch (3.8 cm) NB pipe

**7.0 FS-6S COMPRESSED AIR REQUIREMENTS:**

For installations where the client provides the compressed air for the FS-6s separator, the following requirements must be met to ensure proper and safe operation of the FS-6s and SSM systems. If the requirements cannot be met, an air compressor is required and the electrical requirements in Section 5.1 are required.

**Compressed Air Specification:**

<i>Dedicated Air Pressure</i>	100 to 130 psi (6.9 to 8.9 Bar) Constant
<i>Compressed Air Connection to FS-6s</i>	3/8" inch (0.95 cm) NB pipe

**8.0 TELEPHONE LINE:**

A standard telephone line connection capable of being connected to the SSM-150 control panel with direct dialing into the unit and the ability for the SSM-150 to call out is required. In addition, an additional line is required for operator and service personnel support.

For additional information please contact at 443-524-4245  
E-mail: info@redbag.com



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**CUSTOMER SITE PREPARATION COMPLETION CHECK LIST FORM:**

This following checklist is designed to provide the customer with a checklist to ensure that the site preparation for the RED BAG SOLUTIONS SSM-150 Unit is complete and ready for RED BAG SOLUTIONS personnel to complete the installation and start-up of the unit.

**SSM-150 SITE PREPARATION COMPLETION CHECK LIST**

To be Returned to RED BAG SOLUTIONS Upon Completion – Please Retain a Copy for Personal Record

Facility Hot Water Supply	Value - Yes/No	Date	Performed By:
3/4" Hot Water Line Installed	YES - NO		
Flow Rate (PSI / Bar)			
Maximum Temperature (°C / °F)			
Minimum Temperature (°C / °F)			
Facility Cold Water Supply	Value - Yes/No	Date	Performed By:
1" Cold Water Line Installed	YES - NO		
Flow Rate (PSI / Bar)			
Maximum Temperature (°C / °F)			
Minimum Temperature (°C / °F)			
Facility Vent	Value - Yes/No	Date	Performed By:
Vent Line Installed	YES - NO		
Vent Diameter			
Flow Rate (PSI / Bar)			
Maximum Temperature (°C / °F)			
Facility Sanitary Drain	Value - Yes/No	Date	Performed By:
Sanitary Drain Line Installed	YES - NO		
Sanitary Drain Diameter			
Flow Rate (PSI / Bar)			
Sanitary Drain Backflow Possible	YES - NO		
Maximum Temperature (°C / °F)			
120VAC Facility Electrical Supply	Value - Yes/No	Date	Performed By:
110-120VAC - 20A Circuit Installed	YES - NO		
110-120VAC Measurement			
110-120VAC Disconnect Installed	YES - NO		
110-120VAC UPS Installed	YES - NO		
110-120VAC UPS Backup Time (min)			
Disconnect Rating - If CB / Fused			
Facility Telephone Lines	Value - Yes/No	Date	Performed By:
Modem Line Installed	YES - NO		
Modem Number:			
Telephone Line Installed	YES - NO		
Telephone Number:			
Micellaneous Facility Supply	Value - Yes/No	Date	Performed By:
Deep Sink w/ Hot & Cold Water	YES - NO		
Cold Water Line w/ Hose Bib	YES - NO		



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**SSM-150 SITE PREPARATION COMPLETION CHECK LIST (Continued)**

Specific Information Related To Individual Installations. If Not Applicable To Your Site, Please Ignore.

To be Returned to RED BAG SOLUTIONS Upon Completion – Please Retain a Copy for Personal Record

**BOILER UNIT SPECIFIC REQUIREMENTS:**

Boiler Unit Facility Supply	Value - Yes/No	Date	Performed By:
Hot & Cold Facility Water Quality Tested	YES - NO		
480VAC - 3-Phase - 200A Service	YES - NO		
480VAC - 200A Disconnect Installed	YES - NO		
480VAC - 3-Phase Measurement:			
480VAC - 3-Phase - 200A - Frequency Modulation System Installed	YES - NO		

**STEAM-INJECTOR UNIT SPECIFIC REQUIREMENTS:**

Non-Boiler Unit Facility Supply	Value - Yes/No	Date	Performed By:
480VAC - 3-Phase - 40A Service	YES - NO		
480VAC - 40A Disconnect Installed	YES - NO		
480VAC - 3-Phase Measurement:			
480VAC - 3-Phase - 40A - Frequency Modulation System Installed	YES - NO		
Facility Boiler Supplied	YES - NO		
Facility Boiler Pressure (PSI / Bar)			
Facility Boiler Flow (pph)			

**FS-6s SEPARATOR SPECIFIC REQUIREMENTS:**

FS-6s Separator Facility Supply	Value - Yes/No	Date	Performed By:
120VAC - 20A Service	YES - NO		
120VAC Measurement			
120VAC Disconnect Installed	YES - NO		
Disconnect Rating - If CB / Fused			
Facility Compressed Air Available	YES - NO		
Dedicated Air Pressure (psi) min/max:	/		
3/8" Compressed Air Line Installed	YES - NO		

**STEP-UP TRANSFORMER (IF REQUIRED) SPECIFIC REQUIREMENTS:**

Step-Up Transformer Facility Supply	Value - Yes/No	Date	Performed By:
Incoming 3-Phase Voltage Measurement:			
460/480VAC Output	YES - NO		
460/480VAC - 3-Phase Measurement:			
460/480VAC Disconnect Installed	YES - NO		

Customer Approved: \_\_\_\_\_ Date: \_\_\_\_\_

Print Name: \_\_\_\_\_

RED BAG SOLUTIONS Approved: \_\_\_\_\_ Date: \_\_\_\_\_

Print Name: \_\_\_\_\_

**Appendix A:**

Appendix A represents an example of termination/connection locations for facility services and utilities. Due to each facility's unique features, this diagram should not be used for installation of a SSM unit. Please contact the RED BAG SOLUTIONS Company to schedule a site survey and to provide a custom detailed layout of a SSM system in your facility.

