# Modern Welding Company, Inc.

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#### Subsidiaries Nationwide

LONG FORM: Section 13215

Guide Specification

Modern Welding Company Kleerwater, Displacement Oil /Water Separator

Single or Double Wall, Steel Construction,

**Underground Configuration** 

#### PART I General

# 1.01 Related Work Specified in Other Sections

A. Cast-in-Place Concrete: Section 03300

B. Anchor Bolts: Section 05501

C. Plastic Pipe: Section 15064

D. Liquid Level Gauges: Section 15174

#### 1.02 Quality Assurance

- A. Acceptable Manufacturer: Modern Welding Company subsidiaries.
- B. Governing Standards
  - 1. UL-2215, Underwriters Laboratories, Inc, Oil Water Separator standard of construction.
  - 2. U.L. 58 / 1746, Underwriters Laboratories, Inc., Steel Underground Tanks for Flammable and Combustible Liquids.
  - 3. ACT 100, Steel Tank Institute Specification for the Fabrication of FRP/Clad Underground Tanks.
  - 4. U.L. 1746, Underwriters Laboratories, Inc., Corrosion Protection Systems for Underground Storage Tanks.
  - 5. NFPA 30 and 30A, National Fire ProtectionAssociation Flammable and Combustible Liquids Code
  - 6. Uniform Fire Code, International Fire Code Institute.
  - 7. PEI/RP100, Petroleum EquipmentInstitute,Recommended Practices for Installation of Underground Liquid Storage Systems.
  - 8. Steel Tank Institute, Sti-P3, Specification for the Fabrication of Underground Tanks with cathodic protection.

### 1.03 Submittals

- A. Shop Drawings: Contractor shall submit \_\_\_\_ copies of shop drawings for each tank. Location of fittings and accessories with specific dimensions shall be shown on all drawings.
- B. Catalog Data: Contractor shall submit \_\_\_\_ current copies of manufacturer's literature.
- C. Certification: Each tank shall bear as a minimum the U.L.58 listing mark for underground storage of flammable liquids.
- D. Installation Instructions: Contractor shall submit \_\_\_\_\_ copies of manufacturer's current installation instructions.

#### PART II Products

### 2.01 Oil/Water Separator Unit

- A. Performance: Supply Oil Water Separator with coalescers designed for intermittent and variable flows of water, oil or any combination for non-emulsified oil-water mixtures ranging from zero to \_\_\_\_\_ gallons per minute. Flow rates should be a function of hourly rainfall and area to be treated. Separator maybe used for treatment of storm water runoff as designated by client's "Storm Water Pollution Protection Plan" (SWPPP).
- B. Operating Parameters: Separator shall meet the following design conditions.
  - 1. Operating temperatures of influent oil/water mixtures shall be from 40°F to 120°F.
  - 2. Specific gravity of oils at operating temperatures shall range between .70 to .95 and be in concentrations of 200 ppm for continual service or up to 200,000 ppm (20%) in emergency spill service.
  - 3. The specific gravity of water to be 1.
  - 4. Coalescers shall be removable through manway opening for ease of cleaning.
- C. Effluent requirements of separator.
  - 1. The oil and grease concentrations in the effluent from the oil water separator shall not exceed the values designated by the owner, architect or engineering firm having the jurisdiction over project.
- D. Loading Conditions: Tank shall meet the following design criteria.
  - 1. Surface Loads: When installed according to manufacturer's installation instructions, tank shall withstand surface H-20 axle loads (32,000 lbs./axle).
  - 2. Internal Load: Tank shall withstand an airpressure test of 3-5 psi.
  - 3. Tank shall be designed in accordance with the Underwriters Laboratories, Inc. #58 / 1746.
- E. Dimensional Requirements
  - 1. Nominal size of the tank shall be gallons.
  - 2. Nominal outside diameter of the tank shall be\_\_\_\_\_ inches.
  - 3. Overall length of the tank shall be approximately \_\_\_\_\_ feet, \_\_\_\_ inches
  - 4.Flow rate of influent shall be \_\_\_\_\_.

# 2.02 Accessories

- A. Certification Plate: As a minimum the tank shall bear the Underwriters Laboratories 58 listed label and bear the Kleerwater product name.
- B. Fittings NPT
- 1. All threaded fittings shall be of a material of construction consistent with the requirements of the Underwriters Laboratories listing. All fittings shall be protected using threaded plugs or suitable covers.
- 2. Standard fittings shall be 4" NPT forged steel weld flanges. (If required by regulation, 5" NPT forged steel weld flanges with 5" x 4" nylon dielectric bushings may be used).
  - 3. Location: Refer to drawings for location.
- C. Interior Ladder: If required, supplied by tank manufacturer and designed to provide for tank deflection.
- D. Manways:
  - 1. All manways shall be furnished with U.L. listed gaskets, bolts, and covers.
  - 2. Location: Refer to drawings.
- E. Interior Paint and Coating: If required, see Paint Section.
- F. Anchor Straps: If required, provide holddown straps or other approved anchoring material as recommended by the tank manufacturer for each tank. The number, size and location shall be as that shown on the contract drawings.
- G. Lifting Lugs: Suitably designed and located lifting lugs shall be provided with each tank and be

capable of sustaining the tank weight with a 2:1 safety factor.

#### PART III Execution

#### 3.01 Installation

A. Tanks shall be installed in strict accordance withthe most recent installation instructions provided by the tank manufacturer, PEI/RP100, NFPA 30, UFC, local ordinance, or other applicable codes.

## 3.02 Testing

A. Tank shall successfully complete an air pressuretest of 3-5 psi prior to or at the completion of installation.

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#### SUBSIDIARIES:

Corporate Office (270) 685-4400

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Owensboro, KY (270) 683-5323

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Modern Welding Company of Texas, Inc.

Rhome, TX (817) 636-2215

Modern Welding Company of Iowa, Inc.

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