## 1. GENERAL

1.1 The following specifications direct attention to certain required features of the design package, but do not purport to cover all details entering into the design, construction, and/or installation of the equipment.

1.2 Furnish _____ Gulf Stream fountains. Each fountain shall consist of a motor, a centrifugal pump, a direct drive impeller, a corrosive resistant flow valve, a nozzle, a propeller guard, and a corrosive resistant skid assembly.

## 2. PERFORMANCE

2.1 Each fountain shall be capable of a direct pumpage rate of ____ gpm.

2.2 Each unit shall have a minimum operating depth of 12 inches.

## 3. FOUNTAIN DRIVE MOTOR

3.1 Each motor shall deliver _____ brake horsepower at 3,450 rpms and shall be wired for _____ volts, _____ HZ, single phase service.

3.2 The motor shall be totally enclosed, water-cooled, water-lubricated, and rated for chemical duty.

3.3 The motor shall, in all cases, equal or exceed standard NEMA specifications.

3.4 The motor winding shall be hermetically sealed with an anti-track resin system.

3.5 Basic insulation shall equal or exceed NEMA Class H.

3.6 A minimum service factor of 1.15 shall be furnished.

3.7 The manufacturer's nameplate shall be provided with each motor and shall be securely fastened thereto. The voltage, motor speed, basic insulation class, amperage, service factor, serial number, and manufacturer's name and address shall be stamped or otherwise permanently affixed.

3.8 MOTOR SHAFT

3.8.1 Each motor shall have a one piece shaft, continuous from the bottom bearing to the fountain's propeller/impeller.

3.8.2 The motor shaft shall be manufactured from type 303 stainless steel.

3.8.3 The motor shaft shall be machined to a tolerance of plus or minus .002 T.I.R. from lower bearing to upper end of the motor shaft.

3.8.4 The motor shaft shall measure 5/8" in diameter at the top bearing.

3.8.5 The motor shaft nominal length shall not extend more than 1-1/2" beyond the motor.

3.9 MOTOR BEARINGS

3.9.1 Bearings shall be water-lubricated. No ball bearings shall be used.

3.9.2 The top and bottom motor bearings shall be radial sleeve type.

3.9.3 The lower thrust bearing shall be a Kingsbury self-aligning, self-equalizing, water-lubricated thrust bearing.

3.10 MOTOR TERMINAL

3.10.1 The motor terminal shall be of the removable type, submersible connector construction, field replaceable without disturbing the seal of the stator.

## 4. CENTRIFUGAL PUMP

4.1 The pump shall be manufactured from corrosive resistant materials.

## 5. IMPELLER

5.1 The impeller shall be specifically designed for the application intended.

5.2 The impeller shall be hydraulically balanced to assure equalization of load under full operation.

## 6. FLOW CONTROL VALVE

6.1 The flow control valve shall be manufactured of corrosion resistant material.

## 7. PUMP MOUNTING CHAMBER ASSEMBLY

7.1 The pump mounting chamber assembly shall be manufactured of corrosive resistant material.

7.2 The pump mounting chamber assembly shall be designed in such a way as to furnish maximum rigidity and stability.

## 8. NOZZLES

8.1 The nozzles shall be manufactured from cast naval bronze or formed of corrosion resistant materials.

## 9. MOUNTING HARDWARE

9.1 Mounting fasteners shall be stainless steel.

## 10. PROPELLER GUARD

10.1 A propeller guard shall be used to minimize possible damage to the unit

10.2 The propeller guard shall be constructed of corrosion resistant materials.

## 11. ELECTRICAL SERVICE CABLE (MOTOR TO CONTROL BOX)

11.1 All units shall be furnished with 50 feet of AWG#_____ UL approved, water resistant electrical cable.

11.2 One end of electrical service cable shall be connected in the motor.

## 12. CONTROL PANEL

12.1 The control panel enclosure shall be NEMA 4X.

12.2 The control panel shall be ETL listed, ANSI/UL 508.

12.3 Each single phase control panel shall contain a equipment leakage circuit interrupter, a time clock and motor controls.

## 13. OPERATION AND MAINTENANCE MANUALS

13.1 Operation and maintenance manuals shall be furnished before start up of the equipment.