G&L Series e-SV
MULTISTAGE CENTRIFUGAL PUMP
TYPICAL ENGINEERING SPECIFICATIONS
I. Scope
The contractor shall provide ______(quantity) multistage centrifugal pump unit/s, Model e-SV as manufactured by Goulds Water Technology, a Xylem brand, or equal. All pump units shall be from one manufacturer and provided complete including electric motor drive.

II. Conditions of Service

A. Equipment Item Number
B. Flange Inside Diameter
   Note: Suction and discharge must be equal.

C. Primary Service Condition
   Capacity (GPM)
   Total Head (feet)
   Efficiency (%)

D. Minimum Shutoff Head

E. Minimum Flow Allowed

F. Operating Speed

G. Maximum Motor HP

III. Pump Construction

Each pump shall include the following design features:

A. Pump End Components
   A.1 Casing
      The pump casing shall be of deep drawn, laser welded AISI 304L or 316L stainless steel (optional cast iron) and shall be capable of withstanding maximum working pressures of 360 psi or 580 psi. Number based on pump staging and flange selection. Piping connections shall be in-line (optional top/bottom) and shall be compatible with ANSI raised face flanges (optional NPT or Victaulic).

   A.2 Wear Ring
      Wear rings composed of PPS shall be provided within each stage. Wear rings must be self centering and easily replaceable.

   A.3 Impeller
      Impellers shall be of enclosed design and constructed of AISI 316L or AISI 304L stainless steel. Impellers shall provide internal thrust balance in each stage.

   A.4 Diffuser Bowl
      Each stage shall have a bowl with attached diffuser and be constructed of AISI 304L or 316L stainless steel.
A.5 Seal Housing
The seal housing shall be of concave design and shall hold the seal faces below the topmost part of the pump casing.

A.6 Mechanical Seal
The pump shaft seal shall be one of the following configurations as indicated.

<table>
<thead>
<tr>
<th>Rotary Face</th>
<th>Stationary Face</th>
<th>Elastomer</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Temperature Carbon</td>
<td>Silicon Carbide</td>
<td>Viton or EPR</td>
</tr>
<tr>
<td>Silicon Carbide</td>
<td>Graphite Filled</td>
<td>EPR</td>
</tr>
<tr>
<td>Graphite Filled</td>
<td>Silicon Carbide</td>
<td></td>
</tr>
<tr>
<td>Carbon</td>
<td>Silicon Carbide</td>
<td>Aflas</td>
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</tbody>
</table>

A.7 Shaft Sleeve and Bearing
The pump shall have shaft sleeves made of Tungsten Carbide and ceramic bearings. Shaft height shall be set with a standard spacer.

IV. Electric Motor
The pump drive motor shall be NEMA standard design TC frame suitable for vertical mounting and close coupled to the pump unit. Motors shall be of standard manufacturers catalog design and must not use special bearings as a thrust handling device. The motor rating shall be:

_______ HP, _____ RPM
_______ phase, _____ Hz, _____ volts
________________ Enclosure (ODP/TEFC/XP, WD, TEPE, DPPE)
High Efficiency, 1.15 Service Factor

V. Testing
A. Each pump shall be hydrostatically tested by the manufacturer in accordance with Hydraulic Institute Standards at a minimum of 350 PSI.

B. Production performance testing will be conducted by the manufacturer on each pump unit. Head at three operating points (70% of BEP, BEP and 120% of BEP) will be measured to verify performance.