Many ethanol production pump users standardize on ASTM A995, grade CD4MCuN. Invented by Flowserve, this duplex stainless steel has a hardness approximately three times that of austenitic stainless steels. It also has greater pitting and crevice corrosion resistance compared with other duplex stainless steels or 316SS.

Other materials include:
- ASTM A995, grade CD4MCuN with hard coating
- CR29 hard chrome cast iron (>500 Brinell)
- ASTM A744, grade CN7M (Alloy 20)
- ASTM A744, grade CF8M (316SS)
- ASTM A395, grade 60-40-18 (DCI)
- Fluoropolymer

In addition to standard shaft materials, Flowserve offers two highly corrosion and abrasion resistant proprietary alloys. These include:
- DC8, a cobalt-based alloy with appreciable amounts of chromium and molybdenum
- SD77 high silicon iron
Industry Leading
Ethanol Production Pumps

- Starch Conversion
- Fermentation
- Distillation
- Storage
- Stillage Handling

Standard Process Pumps
Mark 3 (ANSI B73.1), CPX (ISO 2858/5199)
  - Standard
  - Recessed impeller
  - Self-priming
  - Dynamically sealed

Fluoropolymer Lined Pumps
  - PolyChem™ S-Series (ANSI B73.1 and ISO 2858)

Heavy-duty (Stock) Pumps
  - FRBH
  - Mark 3, Group 3 and 4

Sealless Pumps
  - Magnetic drive-metallic
    - Guardian® (ANSI B73.1)
    - CPXS (ISO 2858/5199)
  - Magnetic drive-fluoropolymer lined
    - PolyChem M-Series (ANSI B73.1 and ISO 2858)

Cooling Water and Sump Pumps
  - VTP vertical turbine
  - LR and LNN axially split, single stage
  - Standard and cantilever sump pumps
  - MDX vertical submersible, formed SS

Boiler Feed Pumps
  - Radially split, multistage ring section