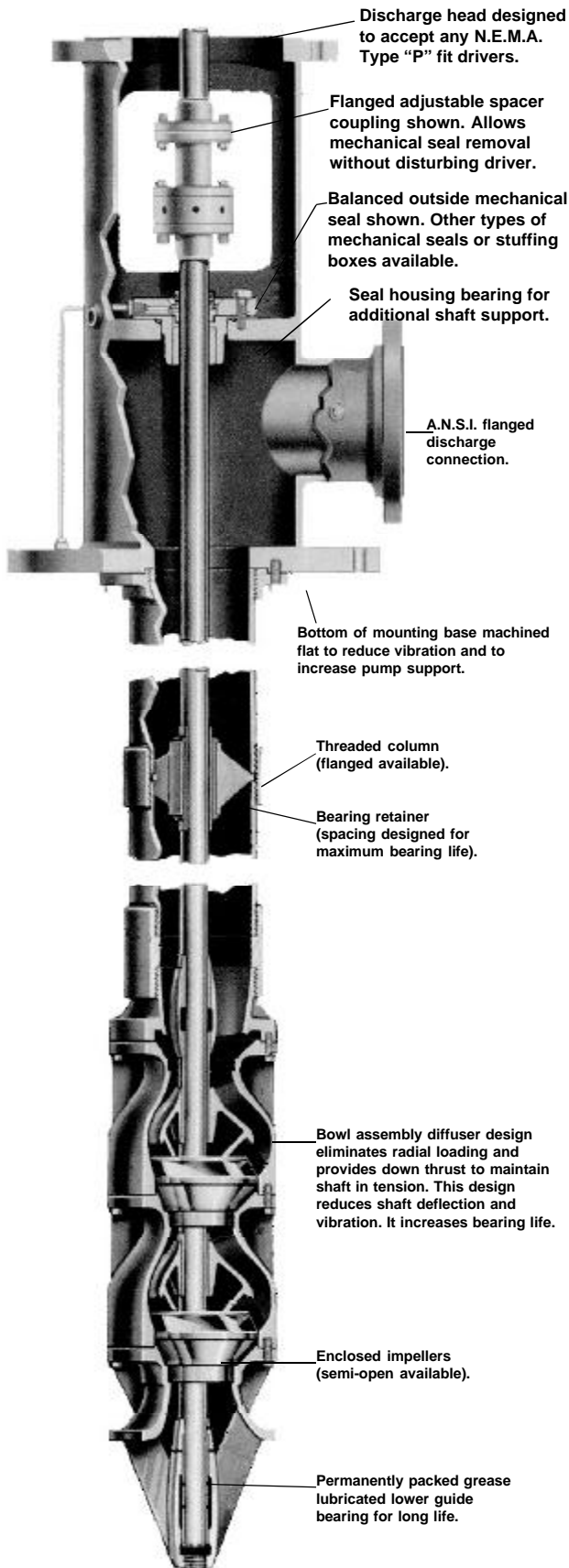


# F, FR and VF



**DESCRIPTION:** Vertical close coupled, single or multistage turbine with fabricated discharge head. For sump or well installation with above ground discharge.

**APPLICATIONS:** Cogeneration, Cooling Tower, Fueling Service, Fire Pump (UL/FM), API-610, Chemical Plants, Power Plants, Water Treatment Plants, Steel Mills, Automotive Paint, Coolant Systems.

**CAPACITY:** To 35,000 GPM.

**PRESSURE:** To 1,500 PSI.

**SETTING:** To 100 feet.

**LIQUID HANDLED:** Water, Chemical Solutions (Acidic or Alkaline) Hydrocarbons.

**TEMPERATURE RANGE:** -150°F to + 450°F.

**APPROX. HP RANGE:** To 3,000 HP.

**DRIVERS:** Electric Motors, Steam Turbines, Engine/Gear Drives, Variable Speed Drives.

## **MATERIALS OF CONSTRUCTION:**

Any machinable and weldable or combinations available. Cast Iron/Bronze fitted (standard).

**Type "F"** - This unit utilizes a fabricated steel discharge head and can be used where cast iron discharge heads are not acceptable; e.g., oil refinery and power plant service. These units are also used where discharge pressures exceed the cast iron discharge head pressure ratings. The type "F" discharge head is available in most weldable and machinable metals and can be manufactured to meet specifications such as API-610 and MIL-P-13386C. Welders are certified in accordance with A.S.M.E. code for Unfired Pressure Vessels, Section IX.

**Type "FR"** - This discharge head has the same features as the type "F" except it uses an enclosed mitered discharge elbow which is furnished as standard construction for discharge heads 24" (610mm) and larger.

**Type "VF"** - This discharge head has all the above features in addition to a standard A.N.S.I. flanged based for direct bolting to a barrel or other type pressure vessel.