

### Suction Bell

The suction bell shall be cast iron, ASTM A48-64, Class 30, have a smooth bell-shaped entrance with as large a diameter as is practical in the proposed pump well with adequate clearance. A rigidly supported pump bearing shall be provided in the suction bell below the impeller.

### Pump Bowls

Pump bowls shall be cast iron, ASTM, A48-64, Class 30, and hydraulically tested at 150% of max shut-off head. Bowls shall be machined on top and bottom for bolting together and to the discharge column and suction bell. The flange faces shall have dowels or other approved means to assure accurate alignment. Wearing surfaces shall be renewable pieces, separate from the bowl and shall be of bronze.

### Shafting

Both pump and column pipe shafting shall be solid, made of 410 stainless steel ASTM A479, Type 410HT, flame hardened at bearing surfaces. Shaft couplings shall be of the same material as the shaft and designed to permit reverse rotation with no damage to the couplings or pump.

### Bearings

Pump and pipe column shaft bearings shall be self-lubricating of bronze in accordance with ASTM B-584 Alloy 938. Bearings shall not be more than 10 ft. apart and of a length approximately three times the shaft diameter. Column bearings shall be flanged and bolted to the concentric bored bearing housing within the column to prevent their rotating within the housing.

### Coupling

A flanged adjustable three-piece or spacer type four-piece coupling shall be furnished. The coupling shall be steel designed to transmit the required torque and horsepower. The lower half of the coupling shall have a threaded adjusting nut. The upper half shall have a circular key to absorb pumping downthrust and a vertical key to transmit torque.