

# SERIES 3020

## MODEL EF

### SINGLE STAGE FLEX-COUPLED END SUCTION

**Sizes:** 1.25" to 24" Discharge  
**Flows:** To 24,000 GPM  
**Heads:** To 450 Feet  
**Temp:** To 350°F

#### Services:

Cooling Water  
Raw Water Intake  
Sea Water  
Industrial Process  
Condenser Circulating  
Irrigation & Drainage  
Municipal Water Supply

#### SHAFT ASSEMBLY

- 420 stainless steel shaft is stronger than standard carbon steel and has superior corrosion resistance
- Designed and sized specifically for the aggressive fire protection markets

#### CASE WEAR RINGS

- Supplied in standard bronze or other specified alloy
- Case wear rings are renewable which will renew factory running clearances and performance

#### IMPELLER

- Supplied standard in investment cast, 304 stainless steel
- Francis design allows for hydraulically balanced design with broad band, high efficiency performance
- Machined and dynamically balanced prior to assembly

#### CASING

- Supplied standard in ASTM A48 class 30 cast iron
- Heavy wall thickness for corrosion allowance and high pressure applications
- Axially split to permit complete access to the rotating assembly
- Casing assembly design features pry bar locations to aid in the casing top removal
- Cast integral, vortex suppressor at impeller eye designed to reduce vortexing of fluid prior to it entering the impeller eye
- Threaded taps for gauges and pressure relief valve
- Dedicated cast feet for proper casing support
- Internal flush plan for packing or mechanical seal lubrication
- Suction & discharge gauge package with 304 stainless steel buffer tube, fittings and ball valves
- Suction and discharge flanges supplied in 125 or 250 PSI rating for high pressure applications
- Alternate metallurgy options available upon request

#### ROTATING ASSEMBLY

- Includes investment cast, 304 stainless steel, single suction impeller
- Modular design maximizes the sharing of common components
- 304 stainless steel shaft sleeves completely protect the shaft from wear and corrosion
- Packing, component, single cartridge and/or double cartridge mechanical seals can be supplied upon request

#### POWER FRAME

- Complete back pull-out assembly allows for very easy servicing of the complete assembly
- Both inboard & outboard bearings can be inspected and replaced without the need for disconnecting suction or discharge piping
- Designed for a minimum 50,000 hour bearing life using 6200 series, deep groove inboard and outboard bearings provide superior axial and radial support
- Each bearing housing is protected from contaminants by using lip seals at every location where the shaft enters the housings