

# CONSTRUCTION FEATURES

## STANDARD STUFFING BOX CONSTRUCTION

Extra-deep with ample space for five rings of die-formed packing plus a lantern ring. A lubrication fitting at the lantern ring provides for a grease seal against air leakage into pump, and prolongs life of packing.

For high suction lift, grease fitting may be replaced with flexible tubing from tapped opening on pump discharge to provide a liquid seal.

## FLUSHING TYPE STUFFING BOX



Flushing-type stuffing box

This construction is ideal for shaft cooling, or high vacuum sealing. This option is recommended on pumps operating at or above 212°F.

## SEMI-OPEN IMPELLER



Suction side

Impellers are of the solids-handling type with extra heavy vanes. Semi-open, these impellers permit passage of dirty liquids and/or liquids containing foreign material.

Running clearance between suction side of impeller and casing is adjustable to compensate for wear or regulate capacity. This axial adjustment feature is standard on all sizes.

This impeller with wiping vanes on balance side is suitable for handling liquids with lime, chips, or other similar solids which tend to coat metal surfaces or clog space between casing and impeller.

**NOTE:** Wiping vanes are not available on Fig. 4021H, Size 6ML



Balance side

## MECHANICAL SHAFT SEAL

A mechanical shaft seal can be furnished in lieu of a stuffing box. The mechanical seal requires a different housing, and a chrome plated or stainless steel shaft. Existing installations with stuffing box construction can be converted by substituting proper parts.

## SINGLE MECHANICAL SEAL

Recommended for clear liquids at temperatures not exceeding 180°F. A portion of the liquid being pumped is recirculated from the discharge through the seal chamber as a lubricant and coolant.



## SINGLE MECHANICAL SEAL WITH CHOKER RING

Recommended for general hot water circulating service with clear water at temperatures up to 225°F. A portion of the water being pumped is recirculated from the discharge to pressurize the seal chamber, and to keep the liquid from vaporizing. The choker ring or throat bushing restricts the flow back to the impeller. For higher temperatures, or more severe service conditions, a heat exchanger may be used to cool the liquid being recirculated to an optimum 160°F.



## DOUBLE MECHANICAL SEAL

Recommended when liquid being pumped is abrasive, non-lubricating, or at temperatures exceeding the design limitations for single seals. The seal chamber must be pressurized, either with liquid from the pump discharge through a filter or with clear liquid from an outside source.

**NOTE:** For special seal applications, refer conditions to factory for recommendations.

