For solids handling requiring combined chopping and pumping.

For over 45 years, Hayward Gordon has worked closely with our customers to develop occupational products and tailored process pumping solutions. From our Screw Centrifugal Series, through our hard metal Recessed Impeller Line, to our CHOPX Chopper Pumps, Hayward Gordon’s wide range of Solids Handling Pumps tackles the most severe to the most delicate of applications. Put Hayward Gordon’s products and experience to work for you. We’ll solve your most challenging solids handling pumping problems.

The CHOPX Chopper Series complements this full range of Solids Handling Pumps. Featuring our unique, high efficiency anti-fouling chopping impeller, they simultaneously chop and pump the most difficult solids, eliminating the need for grinders and comminutors. Read on to find out more about this rugged member of our product range.

### PERFORMANCE RANGE

**Direct Drive**
- Drive directly coupled to the pump utilizing a v-belt type coupling or flexible pump and motor coupling.
- V-belt Drive
  - Standard drive with optional enclosed or open belt guard
  - Motor and drive can be located above the pump
  - Easily adjustable for maintenance
- Submersible
  - For highly abrasive service
  - Vertical Line Shaft
  - For pumps over 20 ft. deep

**Vertical Dry Fit**
- For pumping medium and heavy solids
- No submersible parts
- No bearings or seals for operation in sumps that contain abrasive solids or other difficult to handle fluids.

**Vertical Cantilever Pump**
- No submerged bearings or seals for operation in sumps that contain abrasive solids or other difficult to handle fluids.

**V-Belt Drive**
- Standard drive with optional enclosed or open belt guard
- Motor and drive can be located above the pump
- Easily adjustable for maintenance

**Recirculating Nozzles**
- Where floating or settled solids need to be mixed before pump-out from a pit, a recirculating valve and nozzle assembly can be added to several of the vertical wet-pit and submersible chopper pump configurations. Within digesters, vertical chopper pumps with recirculating nozzles are used to break up scum blankets to improve digester performance. Nozzle head positions can be manually or automatically adjusted from outside the tank. Assemblies supplied with diverter valves can operate with full, partial, or no recirculation.

### DRIVE CONFIGURATIONS

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### CONTROL PANELS AND float switches
- Control panels can be supplied to accommodate various operational requirements.
- Options include liquid level control, duplex pump controls, and variable frequency drives.
- For range of alarms, indicators, and emergency float switches, it is also available for monitoring such things as high temperature, low oil level, and liquid level.

### Typical applications

**Waste Treatment**
- Food processing and rendering
- Dewatering solids handling
- Waste water
- Filtration
- Pulp and paper
- Industrial
- Municipal

**Miscellaneous**
- Paints
- Plastics
- Paint sludges
- Detergent cakes
- Lagoon cleaning

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CHOPX SERIES CHOPPER PUMPS

INTRODUCTION

CHOPX Series Chopper Pumps perform the dual function of cutting and pumping debris. They are ideally suited for applications requiring the reduction of solids by means of mechanical action alone. The proven clamp type construction, in conjunction with a Hayward Gordon corrosion resistant solids handling pump, permits the entire system to be furnished in corrosion resistant materials to ensure maximum component life in abrasive services.

The major performance benefits of the CHOPX design are summarized below:

- Dual function – pumping and cutting
- Improved wear resistance
- Anti-Fouling Design
- High efficiency
- Anti-Fouling Design
- Abrasion resistant construction
- Gearless motor

FEATURES AND BENEFITS

The CHOPX Advantages in Detail

Dual Function - Pumping & Cutting

Hayward Gordon chopper pumps provide cutting and pumping action in a single unit. The cutters are designed to break up solid material, while the pump is designed to handle the liquid component. This dual function design eliminates the need for drilled and tapped holes in the pump body, thus reducing the overall cost of the pump.

Horizontally or vertically mounted, the CHOPX Series Chopper Pumps perform the dual function of cutting and pumping.

Protection from Internal Locking and Binding

After chopper solids enter the pump, they are prevented from locking and binding by unique vane design and cutting action at the leading edge.

Abrasion Resistant Construction

Hard facing cuts by the impeller or fouling the seal area by the impeller.

Corrosion Resistant Construction

Materials of construction available include CD4MCu, 316L, 2205, and other corrosion resistant alloys. Where both corrosion and abrasion resistance is required components can be supplied in CD4MCu.

Corrosion-resistant materials are supplied in CD4MCu.

INTRODUCTION

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Vertical Configuration

Hayward Gordon vertical sump chopper pumps are designed for reliable operation in heavy-duty sump applications. To withstand the rigors of handling chopping services, the shaft is supported against radial and axial loads in a number of bearings. The double row thrust bearing at the shaft end reduces axial load, while the ball bearings at the motor end provide radial support. (Note: If the shaft drops below required levels, the inner shaft section is supported by the pump, and incorporated powertrain to dairy defect at the oil level of the pump shafts.

Vertical Configuration

Highly engineered and patented blade profiles provide cutting action at uniform head and heavy radial loads.

Cylindrical roller bearings: meshed in a separate housing for easy installation and minimum adjustment of impeller clearance.

Optimised impeller profile: optimised for easy installation within the pump.

Mechanical seal and packing are designed to withstand large backlash loads and anti-vibration design.

Powerful cutting action achieved by bladed impeller shape.

Double shaft bearings mounted on a separate housing for easy installation and minimum adjustment of impeller clearance.

Oil bath lubrication in a separate oil bath for easy installation and minimum adjustment of impeller clearance.

Cylindrical roller bearings: meshed in a separate housing for easy installation and minimum adjustment of impeller clearance.

Double row thrust bearings provided as standard

Hard facing mechanical seal and packing.

Hayward Gordon horizontal sump chopper pump is built with all the heavy-duty features common to all our full line of sump handled pumps. These pumps are designed for pumping industrial wastewater, and are easily classified for moderate to severe head conditions, not designed for extreme head conditions.

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