

DEMING[®]

by Crane Pumps & Systems, Inc.

Full-line Product Overview



End Suction Centrifugal Pumps

This general purpose pump, can be configured in frame-mounted and close-coupled, semi-open and enclosed impeller configurations. They are available in 44 sizes to meet your design requirements.

Model	3000 Series 4000 Series
Capacities (gpm) to	4,000
Head to	780'
Discharge Sizes	1"-10"

Applications

Industrial Service	Air Conditioning
Booster Service	Recirculation
Chemical Service	Cooling Tower
General Water Supply	Washer Lines
Coolants	Irrigation
Building Service	Pollution Control

Casing

Vertically split with streamlined volute and integral or separate suction cover. Double volute casing on larger pumps reduces radial deflection forces and prolongs pump life under varying or off-peak head conditions.

Impeller

Semi-open or enclosed type are available; semi-open impellers have convenient axial micrometer adjustment. Pumps with enclosed impeller have renewable 316 stainless steel or bronze wear rings.

Extra Large Ball Bearings

Thoroughly protected from dust and moisture to provide long life under severe conditions.

High Strength Shaft & Sleeves

Turned and ground steel shaft with optimum diameter and bearing span to minimize deflection. Shaft sleeves of 316 stainless steel are standard on most models.

Materials of Construction

Bronze fitted and all iron are standard. All bronze, ductile iron and stainless steel are available for specific applications.

Frame

A rugged, one-piece cast iron frame with precision bore assures accurate alignment of the rotating assembly.

Stuffing Box Cover

Heavy, one-piece casting with rabbited flange for positive alignment. Packing is easily accessible with removable split-gland. Mechanical seals are also available.

Interchangeability

The Deming line of single stage end suction centrifugal pumps is engineered to cover the widest possible range of service conditions with a maximum interchangeability of parts and sub-assemblies.



Horizontal Split-Case Centrifugal Pumps

Horizontal split-case single stage; double suction, general purpose pump, designed for continuous service handling both hot and cold fluids.



Model 5060 Series

No. of Sizes	30
Capacities (gpm) to	7,000
Head to	500'
Discharge Sizes	1.5"-12"

Applications

General Water Supply	Booster Service
Municipal Waterworks	Air Wash Applications
Condenser Cooling	Water Circulation
Industrial Service	Building Service
Chemical Plants	Power Plants

Casing

Horizontally split, upper and lower half bolted and doweled to provide perfect alignment. Bearing supports are cast and bored integrally with lower half casing. Upper half easily removed for inspection and maintenance without disturbing piping. Casing wear rings are standard and are field replaceable.

Impeller

Enclosed, double suction type, accurately machined and balanced for smooth operation. Impeller wear rings are standard on 8" discharge and larger sizes, optional on other sizes.

High Strength Shaft

High strength steel shaft with renewable shaft sleeves provides protection from corrosion and abrasion.

Compact Size

Overall equipment size and weight have been decreased, permitting larger capacity pumps to be installed in smaller areas.

Materials of Construction

Bronze fitted and all iron are standard. Ductile iron, all bronze and stainless steel, are also available on most sizes.

Stuffing Box

Extra deep stuffing box accepts minimum of five rings of packing or a seal cage. Wide range of mechanical seal options available to suit many applications.

Advanced Design

Short, heavy shaft and close bearing centers limit shaft deflection and assure longer pump life with minimal maintenance.

Long Life Ball Bearings

Cartridge mounted, double-row thrust bearing may be inspected or serviced without disturbing casing bolts or piping. Grease or oil lubrication is available.

Maximum Interchangeability

Standardized parts simplify the design. Shafts, bearings, sleeves, seals and packing are identical within a power group.



Vertical Sump Pumps

Broad range capacity, heavy duty, Simplex and Duplex units to meet demanding requirements of continuous pumping operations.

Model	4500 Series
Sizes	20
Capacities (gpm) to	4,000
Head to	250'
Discharge Sizes	1.5" - 10"
Sump Depth	20' maximum

Applications

Industrial Sump Drainage Industrial Processes
Corrosive & Non-Corrosive Liquids Dewatering Service
Pollution Control Condensate Return
Municipal Systems

Column & Shaft

Full weight pipe with welded flanges, accurately machined with register fit at assembly points for positive alignment. Large diameter, high strength shaft provides maximum service life.

Impeller Adjustment

Axial clearance of the impeller to maintain hydraulic performance is easily adjusted by use of adjusting nut located above the thrust bearing.

Thrust Bearings

High thrust ball bearing is contained in a sealed housing mounted in a heavy one-piece support frame. Frame is doweled for standard NEMA C flange motors.

Bearing Assemblies

Shaft guide bearings, of material selected, are mounted in heavy flanged housing on 3' to 5' intervals. Lubrication is selected to match bearing material and service.



Materials of Construction

Series 4500 standard in all iron with options for bronze fitted, all bronze and stainless steel.

Liquid End

All iron, bronze fitted, all bronze, all stainless, and all stainless fitted configurations are available. Series 4500 pumps have semi-open, high efficiency impellers. Single volute is standard through 2" discharge; Double volute is standard from 3" discharge and larger. All vertical sump pumps include a suction strainer.

Support Plate

Designed as part of the pump unit. Available in vapor-reduced construction. Plate supplied for simplex unit or duplex unit with manholes and vents as options. *Type B for 4507 and 4508 pumps do not utilize a support plate.*

Additional Features

Above or below plate discharges are available. Temperatures to 400°F.

Solids Handling Pumps

Horizontal, submersible and vertical models, compact designs to meet widest range of service conditions.



Model	7150, 7160, 7170, 7180, 7190, 7360, 7370, 7560
Sizes	25
Capacities (gpm) to	8,000
Head to	250'
Discharge Sizes	2"-12"
Solids Capabilities	1.5"-6"

Applications

Sanitary Wastes Industrial Wastes
Process Wastes Pollution Control
Cannery & Meat Process Wastes Storm Water

Casing

End suction volute design with large waterway for solids handling. Includes large hand hole for easy access to casing. Flanges are standard 125lb ANSI. Separate suction cover provides for easy impeller removal.

Impeller

Fully enclosed impeller with back pump-out vanes to prevent accumulation of solids behind the impeller. Impeller is keyed to the shaft and locked with impeller screw. Jack screws provide easy external adjustment of the impeller axial clearance.

Shaft & Sleeve

Shaft is made of high strength steel of optimum diameter and bearing span for maximum loads with minimum deflection. Renewable shaft sleeve protects the shaft against corrosion and wear and extends through the gland for maximum shaft protection. Gasket seals prevents liquid entry under the sleeve.

Wear Rings

Renewable type wear rings are available for impeller and suction cover to maintain maximum pump efficiency.

Materials

All iron and bronze fitted are standard. All bronze is available for specific applications.

Frame

The high strength cast iron frame is precision bored and machined. Series 7160 includes mounting foot. Series 7150, 7170, 7180, and 7190 features rigid base and suction elbow for horizontal configuration.

Compact Size

Overall equipment size and weight have been decreased, permitting larger capacity pumps to be installed in smaller areas.

Stuffing Box

Extra deep to include five packing rings and lantern ring. Split gland provides easy access to packing. Mechanical shaft seals, in lieu of packing, are available.

Bearings

Grease lubricated precision ball bearings are thoroughly protected. Double row outboard bearing is cartridge mounted for easy access. Inboard bearing floats axially in bearing housing.

Vertical Process Pumps

Space saving, always primed, cantilever shaft, no submerged bearings, broad capacity range.

Model	4310-11 Series	5560 Series
Capacities (gpm) to	500	3,600
Head to	100'	150'
Discharge Sizes	1"-3"	1"-10"

Applications

Coolants	Circulation
Metal and Parts Washing	Paint Systems
Filtering	Plating
Air Conditioning	Air Washers
Pickling	Pollution Control

Casing

Vertically split, end suction design. Double volute type on pumps with 3" and larger discharge.

Impeller

Series 5560 pumps have semi-open type impeller with heavy vanes for outstanding performance. Back pump-out vanes on a semi-open impeller reduces pressure behind the impeller and limits axial thrust.

Power Frame

Heavy duty, one piece cast iron, precision bored and machined to assure alignment of the rotating assembly. Series 4310-11 pumps are short set design. Series 5560 are available in 9", 12", and 15" extension lengths below the support plate.

Shaft

High strength shaft is extra heavy for maximum loads with minimum deflection. Impeller is keyed to shaft and locked with impeller nut or large cap screw.



Materials of Construction

Series 5560 Pumps

Pumps available in all iron, bronze fitted, and 316 stainless steel.

Series 4310-11 Pumps

Cast iron standard construction; also available in Bronze fitted.

Bearings

Series 5560 Pumps have precision ball bearings located in the power frame assembly; outboard bearing is cartridge mounted for easy service. External jack screws provide easy impeller adjustment.

Throttle Bushing

Restricts liquid from entering adapter or column. Deflector protects bushing from foreign materials.

In-Line Centrifugal Pumps

Space saving, back pull-out design allows versatile applications in a wide range of industries.



Model	3180 Series
Sizes	11
Capacities (gpm) to	1,200
Head to	390'
Discharge Sizes	1"-4"

Applications

Water	Gasoline
Paint	Brine
Chemicals	Corrosive Fluids

Casing

Heavy one-piece casting with flanged suction and discharge on common center line.

Impeller

Fully enclosed one-piece design. Balance chamber provides control of stuffing box pressure and limits axial thrust. Replaceable wear ring optional.

Shaft & Sleeves

Renewable hook type shaft sleeve protects motor shaft against wear, extends beyond gland for maximum sealing.

Top Pull-Out Simplifies Maintenance

Complete rotating assembly easily removed for inspection without disturbing piping. Full circle register protected by confined gasket assures permanent alignment.

Dual Purpose Jack Screws

Built-in Jack Screws simplify removal and protect mechanical seal during disassembly. Packing box cover held securely in place on adapter after pull-out.

Materials of Construction

All iron, bronze fitted, ductile iron and stainless steel are standard.

Stuffing Box Cover

Extra deep for five packing rings, lantern ring and split gland.

Motor

Standard vertical close coupled JP motors available in various enclosures. Heavy shaft and short over hang provides less than .002 deflection at face of stuffing box.

Interchangeability

Maximum interchangeability of components assures maintenance and reduced inventory requirements. The eleven casings and impellers may be grouped into any of the motor size ranges. Within each group, the shaft sleeve and mechanical seal components are identical.

DEMING®

by Crane Pumps & Systems, Inc.

Excellence in Engineering/Manufacturing

For more than a century, Deming has been committed to excellence in engineering, research and development and manufacturing. Your investment in Deming quality is backed by our advanced Computer Aided Design/Manufacturing system and the latest in automated production machinery and numerically controlled machines.



Markets We Serve

Deming pumps are hard at work in virtually every industrial market where fluids are transferred, including general industry, municipal, water and wastewater treatment, utilities, food processing, oil related, chemical processing, pharmaceutical and OEM.



Distributor Network/Field Service Group

Deming pumps are sold to the general Industrial market through stocking distributors and pump specialists, selected to provide the highest standards of customer service. They're backed by a dedicated sales force to assist with design and application problems when needed.

CRANE

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