

CMCR Rear Mounted Fire Pump

DETAILED SPECIFICATIONS

SPECIAL NOTE:

When preparing the specifications for your new pumper, assure the use of the MAC1 Products pump by incorporating these pump specifications as written. No competitive pump can match MAC1 Products construction or performance.



Pump Assembly

General Description: The fire pump with integrated gearbox is designed for midship split driveline driven chassis installations meeting the current edition of NFPA 1901.

Performance: The pump shall perform to the current edition of NFPA 1901 at ratings from 4500, 5000, 5250, or 5500 gpm. The pump shall be free from objectionable pulsations and vibration. From sufficient engine and hydrant water source the performance should exceed 8000gpm.

Impeller- Bronze mixed flow single suction impeller with a closed shroud design with front and rear wear hubs. Brass castle nut and cotter pin hold impeller onto the pump shaft.

Wear Rings- Front and rear replaceable bronze wear rings

Pump Shaft- The pump shaft is a one piece design made of 17-4PH heat-treated stainless steel. Shaft is rigidly supported by a matched set of tapered roller bearings on one end and a roller bearing on the other end, no outboard bearing is required.

Seal System- Maintenance free self-adjusting mechanical seal with stainless steel spring and hardware is provided. Seal will have O ring and bellows seal, carbon rotating element and a tungsten carbide seat.

Volute- Single cut water, vertically split design, cast ductile iron volute designed.

Hydrostatic Rating- 500PSI per NFPA 1901

Hydrodynamic Rating- 300PSI

Volute Connections- Suction intake has a combination flange and 12" Victaulic connection. The discharge has an 8" flange connection.

Manifold Options- A range of stainless steel suction manifolds and discharge extensions are available.

Inboard Head- Cast iron housing holding rear wear ring and mechanical seal seat, the head is integrated into the pedestal housing. Head is attached to the volute by bolts and studs and is sealed by twin O-ring.

Outboard Head- Cast Iron housing holding front wear ring and pre-rotation baffles. Head is attached to the volute by bolts and is sealed by twin O-ring.

Pedestal Case- The case and rear bearing cap are made of 30,000psi fine grain cast iron. Mounting points will be provided on the base of the housing. Two top 10 bolt access plate is provided for servicing and to mount optional auxiliary drives.

Optional Auxiliary Drive- This system drives off the pump shaft to accommodate up to two Chelsea 870 PTOs.

Bearings- Pump shaft is supported by a matched set of tapered roller bearings on one end and a roller bearing on the other end.

Lubrication System- The lubrication system is a splash type with an upper bearing distribution baffle. Case has a magnetic drain plug, filler plug with vent and oil level plug.

Oil Seals- Rear main drive will have double lip oil seals.

Drive Flange- The drive flange is designed to accommodate 1610 or 1710 flange yokes.

Priming Pump

1. The priming pump shall be a positive displacement, air primer conforming to the requirements of NFPA 1901. The pump body shall be manufactured of heat treated anodized aluminum for wear and corrosion resistance.
2. The pump shall be capable of producing a minimum 24 Hg vacuum at 2000 feet above sea level.
3. The air primer totally enclosed unit.
4. The priming pump shall not require lubrication.
5. The priming pump shall be operated by a single push button control switch mounted on the pump operator panel.