SPECIFICATIONS - VEHICLE MOUNTED: MODEL CMU
1500, 1750, 2000, 2250 GPM

The result of Waterous' advanced engineering capabilities is a quality product that is thoroughly tested to meet NFPA standards and special contract provisions. With performance ratings up to 2250 GPM (8550 L/min), the CMU offers flexibility that you won't find in most pumps. A powerful tool used to knock down the most dangerous of fires, the CMU is also highly effective for use in pigging and irrigation applications. The CMU is also backed by a standard five-year warranty. An optional Total Protection Package (TPP-5) is available.

Design Features:

The CMU pump has a two-piece, horizontally-split body with intake and discharge passageways in a single casting and on the same level, providing the lowest possible height, a lower center of gravity and more room for hose reels, hose beds, and other equipment. Large intake adapters are standard and provide large passageways to reduce friction losses to the pump. All passageways are carefully matched to assure the very best hydraulic flow characteristics.

The patented ball-type transfer valve has a floating seal design which allows sand to be flushed away to prevent the valve form sticking or jamming.

The hydraulically-balanced seal assembly reduces pressure loss and improves pump efficiency. The two-piece, horizontally-split pump body design allows removal of the bottom pump cover without disturbing the main pump body mounting or any piping. After inspection or repair there is only a single hydraulic flange to seal, which gives you the shortest possible down time. Your Waterous CMU equipped apparatus can be back in service faster than apparatus equipped with other brands of pumps.

Braided flexible graphite (BFG) packing is standard on CMU pumps. These graphite rings of packing are held in place by a split bronze gland which is fully removable and adjustable. BFG packing improves heat dissipation, reduces maintenance and minimizes shaft wear. Self adjusting, spring-loaded mechanical seals are available to eliminate leakage and routine maintenance.

An exclusive two-piece impeller shaft allows true separation of the pump and pump transmission without disassembling either unit. This greatly reduces labor time for repair work.

Simple to Operate:

At the flip of a single switch or valve the proven power shift system engages the pump, an indicating light system confirms that the shift is complete, and the patented shift lock mechanism assures that the transmission remains in PUMP.

A single control activates the complete priming system, automatically opening the priming valve and starting the primer.

A single ON-OFF control will activate the automatic relief valve system.

Versatility:

The Waterous CMU pump was designed with versatility in mind. Waterous offers a complete selection of intake and discharge locations and sizes, and overall piping arrangements.

Discharge locations are available to meet any need, and sizes from 2-1/2 inches to 5 inches are available. The extra large discharge system assures you of the most efficient water delivery system available to the fire service.

The result of Waterous' advanced engineering capabilities is a quality product which has been thoroughly tested to meet NFPA and special contract provisions. Versatility combined with simple operation and exclusive design features have enabled us to continue providing the most reliable fire pumps in the industry for over 100 years

Industry-Leading Sales and Support

When you purchase Waterous equipment, not only do you get quality products, you get quality service. Our expert service technicians are the best in the business and they are always happy to answer any service questions you might have.

Sales / Applications Assistance
Phone: 651-450-5234 (Press 3)
pumpsales@waterousco.com

Service Assistance
Phone: 651-450-5200
Fax: 800-488-1228
service@waterousco.com

SPECIFICATIONS - VEHICLE MOUNTED: MODEL CMU

Pump Specifications

Casing

Two-piece, horizontally-split, high-tensile, close grained gray iron or bronze (optional). All passageways are carefully matched to assure the very best hydraulic flow characteristics.

Wear Rings

Bronze, reverse-flow, labyrinth-type replaceable wear rings increase pump life and keep maintenance costs to a minimum.

Impellers

Matched bronze impellers, balanced both mechanically and hydraulically for vibration-free operation. Flame-plated impeller hubs are standard to assure longer life despite the presence of abrasives in the water supply.

Impeller Shaft

Heat-treated stainless steel is ground at all critical areas, polished under packing. An exclusive two-piece impeller shaft allows separation of the transmission from the pump without disassembling either component. This simplifies repair procedures, resulting in less down time.

Bearings

Three deep-groove, anti-friction ball bearings, located outside the pumping chamber, give support and proper alignment to the impeller shaft assembly. Bearings are oil or grease lubricated, completely separated from the water being pumped, and protected by seal housings, flinger rings and oil seals.

Shaft Seal

Seal housings on packed pumps are equipped with braided flexible graphite (BFG) rings held in place by a split bronze gland which is fully removable and adjustable. BFG packing improves heat dissipation, reduces maintenance and minimizes shaft wear. Self-adjusting, spring-loaded mechanical seals are available which eliminate leakage and routine maintenance.

Flinger Rings

Located on the impeller shaft between seal housings and bearing housings, flinger rings provide added protection and keep water and foreign matter out of the bearings.

Oil Seals

Standard lip type for lubrication and additional bearing protection from dirt and water.

Transfer Valve

Ball-type bronze valve, in removable bronze housings with large waterways for smooth flow. Manual operation is standard, electric operation is optional. The Waterous transfer valve provides smooth transfer to either PRESSURE or VOLUME without sticking.

Pump Characteristics

The Waterous CMU pump meets or exceeds all requirements of NFPA standard

Pump Transmissions

C20 Series

Housings: High-strength aluminum, three-piece, horizontally-split.

Drive Ratios: 1.27, 1.41, 1.48, 1.58, 1.69, 1.79, 1.88, 1.97, 2.03, 2.27, 2.46 and 2.73.

Shafts: Drive line shafts made from alloy steel forgings, hardened and ground to size, 2.35 inch 46-tooth involute spline.

Drive and Driven Sprockets

Made of steel. All sprockets are hardened and have ground bores.

Drive Chain

Morse HV® high-strength involute form chain.

Bearings

Deep-groove, anti-friction ball bearings give support and proper alignment to the impeller shaft assembly. Bearings are oil-splash lubricated, completely separated from the water being pumped, and protected by a V-ring and oil seals.

Lubrication System

An internal lubrication system delivers lubricant directly to the drive chain. This unique design eliminates the need for an external lubrication pump and auxiliary cooling.

Shift Mechanism

Constant-mesh, two-position sliding collar that engages all teeth simultaneously. In-cab controlled pneumatic shift. An internal locking mechanism provides a positive lock in PUMP or ROAD position.

P Series

Housings: Cast aluminum body

Drive Ratios: 1.71, 1.91, 2.05

Drive & Driven Sprockets

Made of a steel. All sprockets are hardened and have ground bores.

Drive Chain

Morse HV®** high-strength involute form chain.

Bearings

Anti friction ball bearings

Optional Rear Facing Output Shaft

1-3/8-10 SAE spline for Spicer 1280 or 1310 series end yokes

Accessories & Optional Equipment

The accessories below are available for Waterous CMU pumps. For detailed information about these accessories, request each specification sheet by number.

Pneumatic Shift

Air power allows the operator to shift to ROAD or PUMP position by actuating a simple valve. Illuminated LED's signal completion of shift from ROAD to PUMP. See Power Shift, F-1154.

Total Protection Package (TPP-5)

The Total Protection Package is a comprehensive warranty that increases your standard warranty to include labor expenses to dismantle, remove and reinstall covered products or parts, F-2626.

Primer

Select an electric rotary vane primer for fast, reliable priming, F-2418.

Pressure Control Systems

Discharge Relief Valve

Simple ON-OFF control permits placing the system in or out of operation in seconds. See Relief Valve, F-897.

Intake Relief Valves

The Waterous intake relief valve is designed to dump excess pressure from the inlet side of the pump. See Intake Relief Valves, F-2192.

Corrosion Protection

Waterous offers replaceable zinc intake screens and anodes to provide corrosion protection. These items are designed to sacrifice the zinc element to galvanic corrosion. Without this protection, galvanic corrosion may damage the iron pump body and fittings.

Overheat Protection Manager

The OPM consists of an illuminated warning light on the operator's panel whenever the pump approaches an overheat condition, F-2422.

Drain Valves

Drains all points of the pump simultaneously with the operation of a single control. F-1158

Tank to Pump Valve

The tank to pump valve is a full-flow 3-1/2 in. diameter ball valve which is attached directly to the pump. The valve is operated by either a 90° spring detent remote control handle or an electric rotary actuator, F-2536.

Discharge Valves

The following Waterous ball-type discharge valves are available: 2-1/2 inch, 3-1/2 inch, rack and sector push-pull, worm gear and electric. Chrome-plated brass ball and hydraulically-balanced seal assembly standard. See Discharge Valves, F-1161.

Extra Pressure Stage

Easily operated with a single control to provide extra pressure when you need it. See Extra Pressure Stage, F-1197.

Electric Transfer Valve

Provides smooth transfer to either PRESSURE or VOLUME. See Electric Transfer Valve, F-1155.