



Data Sheet

Form No.	Issue Date	Rev. Date
DS-1000	04/19/96	1/31/23

WATEROUS CM SERIES PUMPS

DESCRIPTION: MIDSHIP MOUNTED TWO STAGE SERIES/PARALLEL CENTRIFUGAL FIRE PUMP

WATEROUS CM SERIES CENTRIFUGAL FIRE PUMPS ARE AVAILABLE AS FOLLOWS:

- CM** Two stage series/parallel: 750, 1000, 1250 GPM capacities at 150 psi
- CMU** Two stage series/parallel: 1250, 1500, 1750, 2000, 2250 GPM capacities at 150 psi
(Note that pump model CMUPA only available with 1250 or 1500 GPM capacities)

Refer to performance sheets for performance data.

Pump Pressure Limits: Hydrostatic Test: Cast Iron Body: 600 PSIG
Discharge Pressure: CM and CMU: 600 PSIG maximum discharge pressure

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WATEROUS CM SERIES PUMPS

SPECIFY A COMPLETE PUMP AS FOLLOWS:

1.) VEHICLE INFORMATION

(See order form)

2.) PUMP INFORMATION

Rated Capacity-

U.S. GPM:	CM- 750, 1000, 1250	CMU- 1250, 1500, 1750, 2000, 2250
L/min.:	CM- 3000, 4000, 5000	CMU- 5000, 6000, 7000
Imperial GPM:	CM- 620, 840, 1050	CMU- 1050, 1250, 1450, 1660

Certification-

NFPA or list other if required

Additional (Dual) Rating-

List capacity of dual rating if required

3.) PUMP MODEL

Complete Pump/Transmission Model-

See tables on page 6 & 7

Discharge Flanges-

Standard, with angle compensated discharge

Optional on special order, non-angle compensated discharge

(Side discharge openings perpendicular to pump mounting pads resulting in discharge openings offset 4° to the vehicle frames)

Pump Body Mounting-

Standard, non-inverted

Optional on special order, inverted (contact Waterous for details)

4.) TRANSMISSIONS

4a.) C22 Series- See data sheet DS-2009 (front or rear mounting must be specified)

4b.) D Series- Specify front or rear drive

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5.) IMPELLER SHAFT

Shaft Material- 17-4 Stainless Steel

Seal Type

Standard- Flexible Graphite (Grafoil®) adjustable packing in main pump (extra pressure (H) stage pump utilizes braided Graph-Lock® with aramind filament)

Optional- Self adjusting mechanical seal (for salt or corrosive water applications order a bronze pump with monel shaft, Waterous furnishes special seals with this configuration)

Impellers:

Flame Plating

CM- Standard without

Optional with

CMU- Standard with

Part Numbers

CM- Standard, 71796/71797, 750 to 1250 GPM capacities

CMU- Standard, 71649-T/71650-T, all capacities

6.) TRANSFER VALVE ACTUATOR

Position- Bottom or top

Type- Manual or electric

Manual Override (Electric Only)- With or without

28 in. Control Rod for Panel Linkage

(Manual Actuators and Electric Actuators with Manual Override Only) - With or without

Notes:

1. Bottom mounted electric transfer valve actuator is not available with C22B or PA transmissions due to actuator interference with driveline.
2. Bottom mounted manual transfer valve actuator is not available with PA transmission or C22B transmission with 1810 series end yoke due to actuator interference with driveline.

7.) PRESSURE CONTROL SYSTEM

7a.) Discharge Relief Valve System- See data sheet DS-4004

7b.) Intake Relief Valve- See data sheet DS-4004

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8.) INTAKE

8a.) Tank to Pump Connection

Check Valve: With or without

Fitting: Blank (no fitting), 2-1/2 in. NPT, 3 in. NPT, 4 in. ANSI flange, blind flange
(Note: 4 in. ANSI flange not available when PA transmission is used)

Tank to Pump Valve:

Fitting: 3-1/2 in. angle comp. hose connection
4 in. non-angle comp. hose connection
4 in. angle comp. hose fitting

With Manual Operator Handle:

Mounting: Top or left

Fig. No. (Open-Close Position): 1 through 16 (see dwg DPL81962)

With Electric Rotary Actuator:

Mounting: Top (see dwg DPL82771)

Voltage: 12 or 24 Volt

With Manual Rotary Actuator Handle (Indicating):

Mounting: Top

Fig. No. 1-2 (see dwg DPL83630)

Voltage: 12 or 24 Volt

With Manual Rotary Actuator Handle (Indicating):

Mounting: Top

Fig No. 1-2 (see dwg DPL83630)

8b, 8e.) Left and Right Rear Intake Adapters

Standard - Without

Optional - 5 in. ANSI fitting, 5 in. victaulic fitting

8c, 8f.) Left and Right Intake Extensions (Use for Wider Panel Widths)

Standard - Without

Optional - 4 in.

Note: If a pump mounted discharge relief valve is ordered, also order a relief valve spacer the same length as the intake extension on the intake fitting relief valve pad.

8d, 8g.) Left and Right Intake Fittings

Select a fitting to be mounted on the pump plus any auxiliary fittings mounted on the main fitting pads. Also select an intake screen if required.

See data sheet DS-4003.

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9.) DISCHARGE

9a, 9b.) Left and Right Discharge Fittings

Select a fitting to be mounted on the pump plus any auxiliary fittings and discharge valves mounted on the main fitting pads.

See data sheet DS-4001 (discharge and auxiliary fittings)

See data sheet DS-4000 (discharge valves)

9c.) Center Discharge Piping

See data sheet DS-4007

9d.) Front Discharge (not available on all bronze pumps)

Non-angle compensated

Angle compensated

Angle compensated to match 4° offset on vehicle frame.

9e.) Additional Discharge Valves

List all valves to be shipped loose

See data sheet DS-4000

9f.) Discharge Valve Accessories

List any control rods, panel items, etc.

See data sheet DS-4000

10.) PRIMING SYSTEM

10a.) Priming Pump- See data sheet DS-4002

10b.) Priming Valve- See data sheet DS-4002

10c.) Priming Tank- See data sheet DS-4002

10d.) Prime-Safe Lubricant- See data sheet DS-4002

11.) FOAM SYSTEM

11a.) Foam Manager- See data sheet DS-4010

11b.) Eclipse CAFS- See data sheet DS-4011

11c.) FoamPro Accessories- See data sheet DS-4010

12.) DRAIN VALVE

See data sheet DS-4006

13.) OVERHEAT PROTECTION MANAGER (OPM)

See data sheet DS-4012

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14.) MISCELLANEOUS

14a.) Additional Fittings- List any additional discharge and auxiliary fittings which are to be shipped loose

See data sheet DS-4001

14b.) Other Items- List any miscellaneous items such as Monarch BFV items, kits, Y transmission oil cooler as required

See data sheet DS-4009

15.) SPECIALITY ITEMS

15a.) Warranty- See data sheet DS-4008

15b.) Paint- See data sheet DS-4008

AVAILABLE MODELS:

Capacities and Ratings	Basic Pump Model	Available Drives				Complete Pump/Trans Model	Drawing
		Trans Series	Trans Type	Trans Model	Driveline Size		
500, 750, 1000, 1250 GPM at 150 psi	CM	C22	Split-Shaft, Chain Drive	C22B, C22C, C22D, C22E, C22F	2.35-46T Involute	CMC22B	DPL83913
						CMC22C	
						CMC22D	
						CMC22E	
						CMC22F	
		K	Two-Gear No Clutch	Heavy Duty K	1-3/8-10 SAE	CMK	
D	Direct Drive	No Pump Mounted Trans (PTO Driven)	1-3/8-10 SAE	CMD			
P	PTO Chain Drive	PA	1-1/2-10 SAE	CMPA			
1250, 1500, 1750, 2000, 2250 GPM at 150 psi	CMU	C22	Split-Shaft, Chain Drive	C22B, C22C, C22D, C22E, C22F	2.35-46T Involute	CMUC22B	
						CMUC22C	
						CMUC22D	
						CMUC22E	
						CMUC22F	
		D	Direct Drive	No Pump Mounted Trans (PTO Driven)	1-3/8-10 SAE	CMUD	
P	PTO Chain Drive	PA	1-1/2-10 SAE	CMUPA			