



# DATA SHEET WATEROUS CS SERIES PUMPS

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## ***SPECIFY A COMPLETE PUMP AS FOLLOWS:***

### **1.) VEHICLE INFORMATION**

(See order form)

### **2.) PUMP INFORMATION**

#### **Rated Capacity-**

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

### **4.) TRANSMISSIONS**

**4a.) C20 Series-** See data sheet DS-2006 (front or rear mounting must be specified)

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

**4c.) K Series-** See data sheet DS-2000

**4d.) PA Series-** See data sheet DS-2004

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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**

CS- Standard: Without

Optional: With

CSU- Standard: With

**Part Numbers**

Model	Capacity	Main Impeller			Note
		Standard		Optional	
		Non-Flame Plated	Flame Plated		
CS	750 GPM 1000 GPM 1250 GPM	71799	71799-T	-	-
CSU	1250 GPM 1500 GPM 1750 GPM 2000 GPM	-	81882-T	71651-T	Optional Impeller 71651-T only available if altitude exceeds 2000 feet
	2250 GPM	-	71651-T	-	-

### 6.) TRANSFER VALVE ACTUATOR

Not Used on CS Models

### 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)**

or

**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 DPL81962)

**With Electric Rotary Actuator:**

**Mounting:** Top (see 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 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	Assembly No.	Drawing				
		Trans Series	Trans Type	Trans Model	Driveline Size							
750, 1000, 1250 GPM at 150 psi	CS	C20	Split-Shaft, Chain Drive	C20B, C20C, C20D, C20E, C20F	2.35-46T Involute	CSC20B	82791 (Rear Drive)	DPL82791 (Rear Drive)				
						CSC20C						
						CSC20D						
										CSC20E	83130 (Front Drive)	DPL83130 (Front Drive)
										CSC20F		
		K	Two-Gear No Clutch	Heavy Duty K	1-3/8-10 SAE	CSK	82791-2	DPL82791				
		D	Direct Drive	No Pump Mounted Trans (PTO Driven)	1-3/8-10 SAE	CSD	82791-4					
		P	PTO Chain Drive	PA	1-1/2-10 SAE	CSPA	82791-6					
1250, 1500, 1750, 2000, 2250 GPM at 150 psi	CSU	C20	Split-Shaft, Chain Drive	C20B, C20C, C20D, C20E, C20F	2.35-46T Involute	CSUC20B	82791-1 (Rear Drive)	DPL82791 (Rear Drive)				
						CSUC20C						
						CSUC20D						
										CSUC20E	83130-1 (Front Drive)	DPL83130 (Front Drive)
										CSUC20F		
				K*	Two-Gear No Clutch	Extra Heavy Duty K	SAE Class D	CSUK	82791-3	DPL82791		
				D	Direct Drive	No Pump Mounted Trans (PTO Driven)	1-3/8-10 SAE	CSUD	82791-5			
		P*	PTO Chain Drive	PA	1-1/2-10 SAE	CSUPA	82791-7					

\* Models CSUK and CSUPA limited to 1500 GPM max rating.