



# Data Sheet

Form No. <b>DS-1010</b>	Issue Date <b>04/19/96</b>	Rev. Date <b>1/31/23</b>
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## WATEROUS CX SERIES PUMPS

### Description: Single Stage Centrifugal Fire Pump

*Waterous CX Series Fire Pumps are Available as Follows:*

Model	Intake	Discharge
CXS	6 in. Victaulic® Tee	4 in. ANSI Flange or Manifold with 3-1/2 in. 8-Bolt End Flanges and (2) 2-1/2 in. 4-Bolt Side Pads or Manifold with 4 in. 8-Bolt End Flanges and (8) 2-1/2 in. 4-Bolt Side Pads
CXV	6 in. Victaulic®	
CXN	DIN PN10 150 Flange	

### Capacities and Ratings:

750 to 1500 U.S. GPM (2839 to 5678 L/min.) at 150 psi (10.3 bar) net pump pressure are available as follows:

Capacity (U.S. GPM)	Available for Models		
	CXS	CXV	CXN
750	No	Yes	Yes
1000	Yes	Yes	Yes
1250	Yes	Yes	Yes
1500	Yes (1)	Yes (1)	Yes (1)

### Note:

1. 1500 GPM rating requires two 6 in. suction hoses.

### Test Pressure Limits: (Applies to both Cast Iron and Bronze Pumps)

**Hydrostatic:** 500 psig (34.5 bar)

**Running:** 350 psig (24.1 bar) maximum discharge pressure

### Performance Data:

Refer to the CX performance sheet in this section of the Engineering Manual for performance data.

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

#### 1.) VEHICLE INFORMATION

(See order form)

#### 2.) PUMP INFORMATION

##### Rated Capacity-

U.S. GPM: 750, 1000, 1250, 1500

L/min.: 3000, 4000, 5000

Imperial GPM: 620, 840, 1050

##### Certification

NFPA or list other if required

##### Additional (Dual) Rating -

List capacity of dual rating if required

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### 3.) PUMP MODEL

#### **Complete Pump/Transmission Model-**

See table on page 5

#### **Material-**

Standard - Cast iron body and fittings, bronze fitted

Optional- Bronze body and fittings

(See form F-2011 for additional information on materials)

#### **Pump Discharge Position-**

Up, left, right, down

(Note: Up position must be selected if a discharge manifold is ordered)

### 4.) TRANSMISSIONS

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

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

**4c.) T Series-** See data sheet DS-2001 (not available on CXS models)

**4d.) C22 Series-** See data sheet DS-2009

**4e.) QB Series-** See data sheet DS-2007 (CXV only)

### 5.) IMPELLER SHAFT

#### **Shaft Material-**

Standard: 17-4 Stainless steel

Optional: K500 Monel (K and T transmissions only)

#### **Seal Type-**

Standard: Self-adjusting mechanical seal (intake pressure on seal not to exceed 200 psi)

#### **Impeller-**

**Flame Plating-** Standard: Without

Optional: With

**Part Number-** 750 to 1500 GPM: 71888 (CW impeller rotation)

71896 (CCW impeller rotation)

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### 6.) PRESSURE CONTROL SYSTEM

6a.) Discharge Relief Valve System- See data sheet DS-4004

**Note:** Pump mounted relief valve available only with 3-1/2 in. end flange discharge manifold, separately mounted relief valve available with all discharge arrangements).

6b.) Intake Relief Valve- See data sheet DS-4004

### 7.) INTAKE

#### Intake Adapter-

#### Size-

CXV: 6 in. Victaulic®

CXS: 6 in. Victaulic® Tee

CXN: DIN PN10 150 Flange

#### Optional O-ring for CXN Flange:

Order Part No. W37108-6 (6-3/4 x 7-1/8 in.)

#### Side Taps-

CXV: Not available CXS:

Not available

CXN: Not available

#### Bottom Tap-

CXV: Not available CXS:

Not available

CXN: Not available

#### Intake Screen-

Size: 4 in., 5 in., 6 in. Material:

Zinc or brass

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### 8.) DISCHARGE

#### 8a.) Discharge Type-

Manifold with 3-1/2 in. end flanges

Manifold with 4 in. end flanges and eight 2-1/2 in. 4-bolt pads

Blank (no manifold, 4 in. ANSI flange)

#### 8b, 8c.) Left and Right Discharge Fittings (Only If Manifold Ordered)-

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

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

See data sheet DS-4000 (discharge valves)

#### 8d, 8e, 8f.) Manifold Pads and Relief Valve Pad Fittings (Only If Manifold Ordered)-

Select fittings and valves to be mounted on these pads

See data sheet DS-4001 (auxiliary fittings)

See data sheet DS-4000 (discharge valves)

#### 8g.) Additional Discharge Valves-

List all valves to be shipped loose

See data sheet DS-4000

#### 8h.) Discharge Valve Accessories-

List any control rods, panel items, etc.

See data sheet DS-4000

### 9.) PRIMING SYSTEM

9a.) Priming Pump- See data sheet DS-4002

9b.) Priming Valve- See data sheet DS-4002

9c.) Priming Tank- See data sheet DS-4002

9d.) Prime-Safe Lubricant- See data sheet DS-4002

### 10.) FOAM SYSTEM

10a.) Foam Manager- See data sheet DS-4010

10b.) Foam Manager Accessories- See data sheet DS-4010

### 11.) DRAIN VALVE

See data sheet DS-4006

### 12.) MISCELLANEOUS

12a.) Additional Fittings- List any additional discharge and auxiliary fittings which are to be shipped loose

See data sheet DS-4001

12b.) Other Items- List any miscellaneous items such as Monarch BFV items, kits as required See data sheet DS-4009

### 13.) SPECIALITY ITEMS

13a.) Warranty- See data sheet DS-4008

13b.) Paint- See data sheet DS-4008

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## WATEROUS CX SERIES PUMPS

### AVAILABLE MODELS:

Table 1. CX Series Pumps

Basic Pump Model	Available Drives				Complete Pump/Trans Model	Drawing
	Trans Series	Trans Type	Trans Model	Driveline Size		
CXV	D	Direct Drive	D	1350/1410 Series End Yoke (1-3/8-10 SAE Spline)	CXD	DPL83916
	K	Two-Gear No Clutch	Heavy Duty K	1-3/8-10 SAE	CXVK	
				SAE Class C Spline Hyd Flange 2 or 4 Bolt		
	P	PTO Chain Drive	PA	1-1/2-10 SAE	CXVPA	
	T	Direct Engine Mount	Heavy Duty T	1-3/4-10 SAE	CXVT	
	C22	Split Shaft Chain Drive	C22C,C22D, C22E, C22F	2.35-46T Involute	CXVC22C CXVC22D CXVC22E CXVC22F	
QB	PTO Chain Drive	QB	1-3/4-10 SAE	CXVQB		
CXS	D	Direct Drive	D	1350/1410 Series End Yoke (1-3/8-10 SAE Spline)	CXSD	
	K	Two-Gear No Clutch	Heavy Duty K	1-3/8-10 SAE	CXSK	
				SAE Class C Spline Hyd Flange 2 of 4 Bolt		
	P	PTO Chain Drive	PA	1-1/2-10 SAE	CXSPA	
	T	Direct Engine Mount	T	1-3/4-10 SAE	CXST	
C22	Split Shaft Chain Drive	C22C,C22D, C22E, C22F	2.35-46T Involute	CXSC22C CXSC22D CXSC22E CXSC22F		
CXN	D	Direct Drive	D	1350/1410 Series End Yoke (1-3/8-10 SAE Spline)	CXND	
	K	Two-Gear No Clutch	Heavy Duty K	1-3/8-10 SAE	CXNK	
				SAE Class C Spline Hyd Flange 2 of 4 Bolt		
	P	PTO Chain Drive	PA	1-1/2-10 SAE	CXNPA	
	T	Direct Engine Mount	Heavy Duty T	1-3/4-10 SAE	CXNT	
C22	Split Shaft Chain Drive	C22C,C22D, C22E, C22F	2.35-46T Involute	CXNC22C CXNC22D CXNC22E CXNC22F		