



# Data Sheet

Form No.	Issue Date	Rev. Date
<b>DS-1011</b>	<b>04/19/96</b>	<b>12/18/14</b>

## WATEROUS CR SERIES PUMPS

### DESCRIPTION: SINGLE STAGE CENTRIFUGAL FIRE PUMP

#### CR PUMPS ARE AVAILABLE AS FOLLOWS:

Table 1. CR Series Pumps

Rating (1)	Pump Model	Intake	Discharge	Transmission			Pump Mounting	Dim. Assy No.	Dimensional Drawing
				Series	Input Rotation (2)	Drive			
2000 gpm at 225 psi	CR	8 in. Victaulic®	5 in. Victaulic®	Direct Drive	CW	Direct Drive with 1-3/4-10 SAE Spline	N/A	81747	DPL81747
				QA	CW	1-3/4-10 SAE Spline for Spicer 1550 Series End Yoke	Rear	82332	DPL82332
				QB	CW	1-3/4-10 SAE Spline for Spicer SPL90 Series End Yoke	Rear	83119	DPL83119
3000 gpm at 150 psi	CRU-1	8 in. ANSI Flange	5 in. Victaulic®	Direct Drive	CW	Direct Drive with 1-3/4-10 SAE Spline	N/A	82429	DPL82332
4000 gpm at 100 psi 3500 gpm at 100 psi 3000 gpm at 150 psi	CRU-2	8 in. ANSI Flange	6 in. ANSI Flange	Direct Drive	CW or CCW (4)	Direct Drive with 1-3/4-10 SAE Spline	N/A	83400	DPL83119
				QC	CW or CCW (4)	1-3/4-10 SAE Spline for 1600 Series Companion Flange	Rear	83401	DPL83401
				C21	CW	2.35-46T Involute Spline	Front or Rear	83409	DPL83409

#### NOTES:

1. Consult Waterous Company for additional capacity and rating information if needed.
2. Input rotation is viewed looking at the splined input shaft.
3. Provisions for relief valve and intake pressure measurements are not provided on the pump.
4. CCW currently not released.

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

**1.) VEHICLE INFORMATION**

(See order form)

**2.) PUMP INFORMATION**

**Rated Capacity-**

See Table

**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 table on page 1

**Material-**

CR and CRU-1 – Cast iron body and fittings, bronze

fitted Optional – Bronze body and fittings

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

CRU-2: Cast iron body and fittings, bronze

**Pump Discharge Adapter – CR and CRU-1 only**

Standard – 5 in. Victaulic® adapter

Optional – Blank flange, no fitting

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Table 2. Mounting

Pump Model	Figure No.	Discharge Position	Mounting Bracket		
			Intake Side	Bearing Housing	
CR	1	Left (25° Below Horizontal)	Vertical (V)	Vertical (V)	
			Inverted (U)	Inverted (U)	
	2	Left	Vertical (V)	Vertical (V)	
			Inverted (U)	Inverted (U)	
	3	Up	Vertical (V)	Vertical (V)	
			Inverted (U)	Inverted (U)	
	4	Right	Vertical (V)	Vertical (V)	
			Inverted (U)	Inverted (U)	
	CRQA	1	Left	Horizontal (H)	--
		2	Up	Vertical (V)	--
		3	Right	--	--
	CRQB	--	Up	--	--
CRU-1	1	Left	Vertical (V)	Vertical (V)	
	2	Up	Vertical (V)	Inverted (U)	
CRU-2	1	Left	Vertical (V)	Vertical (V)	
	2	Up	Vertical (V)	Inverted (U)	
				Vertical (V)	
	3	Right	Vertical (V)	Vertical (V)	
4	Down	Vertical (V)	Inverted (U)		
CRUQC-2	1	Up	Vertical (V)	--	
CRU21-2	1	Left	Vertical (V)	--	
	2	Up	Vertical (V)	--	
	3	Right	Vertical (V)	--	

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### 4.) TRANSMISSIONS

#### 4a.) Direct Drive

Input rotation:

CR: Clockwise

CRU-1: Clockwise

CRU-2: Clockwise or counter-clockwise

#### 4b.) QA Series (Model CR only):

Input rotation: Clockwise

Input shaft: 1-3/4-10 SAE spline with 1550 Series end yoke

Ratio: 1.00

#### 4c.) QB Series (Model CR only):

Input rotation: Clockwise

Input shaft: 1-3/4-10 SAE spline with SPL90 Series end yoke

Output shaft: SAE Class A 2-bolt hydraulic flange, female 5/8 in. keyed shaft (Per SAE J744)

Ratio: 1.06

#### 4d.) QC Series (Model CRU-2 only):

Input rotation: Clockwise or counter-clockwise

Input shaft: 1-3/4-10 SAE spline with 1600 Series Companion Flange

Ratio: 1.31

#### 4e.) C21 Series (Model CRU-2 only):

Input rotation: Clockwise

Input shaft: 2.35-46T Involute Spline

Ratio: 1.77

### 5.) IMPELLER SHAFT

**Shaft Material**– 17-4 Stainless steel

**Seal Type**– Self-adjusting mechanical seal

**Impeller Part No.**– 82203 (CR)

83118 (CRU-1)

83357, 83398 (CRU-2)

### 6.) PRESSURE CONTROL SYSTEM

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

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

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### 7.) INTAKE

- 7a.) **Intake Size**– 8 in. Victaulic® (CR, CRU-1)  
8 in. ANSI Flange (CRU-2)

### 8.) DISCHARGE

- 8a.) **Discharge Size**– 5 in. Victaulic® (CR, CRU-1)  
6 in. ANSI Flange (CRU-2)

#### 8c.) **Additional Discharge Valves**–

List all valves to be shipped loose  
See data sheet DS-4000

#### 8d.) **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.) DRAIN VALVE

See data sheet DS-4006

### 11.) MISCELLANEOUS

- 11a.) **Additional Fittings**– List any additional discharge and auxiliary fittings which are to be shipped loose  
See data sheet DS-4001

- 11b.) **Other Items**– List any miscellaneous items such as Monarch BFV items, kits as required  
See data sheet DS-4009

### 12.) SPECIALITY ITEMS

- 12a.) **Warranty**– See data sheet DS-4008
- 12b.) **Paint**– See data sheet DS-4008