

**EXHIBIT A – Pricing Page**  
**ARFQ DCR250000063**

Section	Description	Unit of Measure	Estimated Quantity	Unit Cost	Extended Cost
3.1.1	One New Groen FT-80, 80-gallon Steam Kettle – Stationary, 2/3 Jacket Direct Steam or equal	EA	1	15308.63	15308.63
3.1.2	One New Groen FT-40, 40-gallon Steam Kettle – Stationary 2/3 Jacket Direct Steam or equal	EA	1	12086.7	12086.7
3.1.3	One New Crown Steam DC-3 Direct Steam Pressure Steamer Full Size Pan Capacity or equal	EA	1	23164.59	23164.59
<b>Overall Total Cost</b>				<b>\$</b>	<b>50,559.92</b>

Quantities are Estimated for Bid purposes ONLY. This is not a guaranteed sale.

Please note: This information is being captured for auditing purposes.
Vendor must complete the pricing page in full as failure to complete the Pricing Page in its entirety will result in Vendor's bid being disqualified.
The Pricing Page contains a list of the Contract Services and estimated service volume. The estimated purchase volume for each item represents the approximate volume of anticipated purchases only. No future use of the Contract or any individual item is guaranteed or implied
Any product or service not on the Agency provided Pricing Page will not be allowable. The state cannot accept alternate pricing pages, failure to use Exhibit A Pricing Pages will lead to disqualification of vendors bid.
Vendor should type or electronically enter the information into the Pricing Page to prevent errors in the evaluation.

**BIDDER /VENDOR INFORMATION:**

Vendor Name:	Superior Equipment & Supply Co.
Address:	4550 S. Brust Ave

City, St. Zip:	<a href="#">St. Francis, WI 53235</a>
Phone No.:	<a href="#">414-671-1200 x 1009</a>
Email Address:	<a href="mailto:imran@supequ.com">imran@supequ.com</a>

[Sam Mahmood](#)

[12/23/2024](#)

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**Vendor Signature:**

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**Date:**

**Project:**  
Huttonsville Jail  
109 HCC BLVD  
HUTTONSVILLE, WV 26273

**From:**  
Superior Equipment & Supply  
4550 S. Brust Ave  
St. Francis, WI 53235  
ATTN: Imran Mahmood  
414-333-0529

Item	Qty	Description	Sell	Sell Total
1	1 ea	<b>KETTLE, DIRECT STEAM, STATIONARY</b> Crown (Middleby) Model No. DL-80 Stationary Kettle, direct steam, 80 gallon capacity, 2/3 jacket, 2" draw-off, includes: perforated strainer, spring assist cover & faucet bracket, 316 stainless steel interior liner, 304 stainless steel exterior finish, (3) stainless steel tubular legs with adjustable flanged feet, NSF	11,403.17	11,403.17
	1 ea	Domestic Shipping, inside of North America		
	1 ea	Standard one year limited, 10 year hemispheric bottom warranty		
	1 ea	TPS-2 Perforated Strainer, for 2" draw-offs, standard		
	1 ea	SF-12 Single pantry faucet with 12" swing spout	446.75	446.75
	1 ea	GM-80 Permanent etched interior markings, for 80 gallon kettle (specify gallon or liter markings)	388.82	388.82
	1 ea	Locking mechanism for lid	257.39	257.39
	1 ea	Correctional screws & tack welds (where applicable)	395.03	395.03
	1 ea	Flanged foot mounting plate	611.22	611.22
	1 ea	"TDCJ" cover/handle (padlocks not included)	1,806.25	1,806.25
		<b>ITEM TOTAL:</b>		<b>15,308.63</b>
2	1 ea	<b>KETTLE, DIRECT STEAM, STATIONARY</b> Crown (Middleby) Model No. DL-40 Stationary Kettle, direct steam, 40 gallon capacity, 2/3 jacket, 2" draw-off, includes: perforated strainer, hinged cover & faucet bracket, 316 stainless steel interior liner, 304 stainless steel exterior finish, (3) stainless steel tubular legs with adjustable flanged feet, NSF	8,199.91	8,199.91
	1 ea	Domestic Shipping, inside of North America		
	1 ea	Standard one year limited, 10 year hemispheric bottom warranty		
	1 ea	TPS-2 Perforated Strainer, for 2" draw-offs, standard		
	1 ea	SF-12 Single pantry faucet with 12" swing spout	446.75	446.75
	1 ea	GM-40 Permanent etched interior markings, for 40 gallon kettle (specify gallon or liter markings)	370.15	370.15
	1 ea	Locking mechanism for lid	257.39	257.39

Item	Qty	Description	Sell	Sell Total
	1 ea	Correctional screws & tack welds (where applicable)	395.03	395.03
	1 ea	Flanged foot mounting plate	611.22	611.22
	1 ea	"TDCJ" cover/handle (padlocks not included)	1,806.25	1,806.25
			<b>ITEM TOTAL:</b>	<b>12,086.70</b>
3	1 ea	<b>STEAMER, PRESSURE, DIRECT STEAM</b> Crown (Middleby) Model No. DC-3 Steamer, direct steam, pressure-type, (3) compartments, 36" cabinet base, independent automatic timer controls with visible and audible signals, automatic shut-off, 304 stainless steel construction, (4) stainless steel legs with adjustable flanged feet, cCSAus, NSF	20,995.81	20,995.81
	1 ea	Domestic Shipping, inside of North America		
	1 ea	Standard one year limited warranty		
	1 ea	115v/60/1-ph, standard		
	1 ea	35 PSI std		
	1 ea	Cabinet base door with locking provision (lock not supplied)	255.06	255.06
	1 ea	Correctional screws & tack welds (where applicable)	395.03	395.03
	1 ea	Stainless steel hinged cover over control panel with locking provisions	1,518.69	1,518.69
			<b>ITEM TOTAL:</b>	<b>23,164.59</b>
			Total	50,559.92



\*\*\*FREE SHIPPING WITH DOCK DELIVERY\*\*\*

### **Terms & Conditions:**

Prices on this quote are guaranteed for 15 days unless otherwise noted.

Prices are based on information available at the time of this quotation. If the plans are modified or any items are added or deleted, the price must be recalculated.

Please note that taxes on this bid are estimated and the exact Local and state taxes will be calculated on the final invoice.

All invoices are due on delivery unless otherwise noted. Payment terms are subject to review of credit references and D & B reports. Deposits may be required. Interest at the rate of 18% per annum will be charged on all past due balances. Cost of collection is authorized in the event of default. Credit card payments may be subject to a 3% surcharge

All items shipped F.O.B. Factory unless otherwise noted. Necessary Lift gate, inside delivery and any other additional services will appear on the final billing.

Installation, where quoted, does not include final connections unless otherwise noted. Purchase orders, signed contract and deposits where required must be received prior to start of work.

Production is dependent upon receipt of approved drawings, final field dimensions and receipt of any customer furnished items.

Claims on error, damage and shortage must be reported on delivery for any claim to be valid. All shortages, overages, discrepancies and damages for product received by the Owner must be ...(A) Noted on the Bill of Lading and (B) Reported to Superior Equipment on delivery of receipt of materials. Claims made after 24 hours may still be resolved by Superior Equipment but the costs to resolve the claim will be the responsibility of the Owner.

Equipment supplied by Superior carries the standard manufacturer's warranty. Service labor is not included unless specifically stated in the manufacturer's printed warranty. All warranty work to be performed by authorized service agencies.

Cords & plugs not furnished with electrical equipment are the responsibility of the General Contractor or Owner

In-wall blocking and ceiling structural support by others.

### **Return Policy:**

All Special orders, Furniture, Equipment & Custom items cannot be canceled and are non-returnable and non-refundable. There are no returns on equipment purchases once the product is ordered. Goods which are accepted for return as an accommodation to the purchaser must be shipped in the original carton, freight prepaid and received in good condition. Such goods are subject to restocking & cancellation charges and refurbishing costs.

### **Delays:**

Superior Equipment will attempt to meet any delivery dates specified but in no event will Superior Equipment be responsible for any delays caused by the manufacturer or other subcontractors

Any additional tax, freight, delivery, installation, shop supplies or disposal fees will be added to the final invoice. The above total selling price does not include plumbing, wiring or carpentry unless specifically noted.

**Changes:**

Contractor or the Owner may request changes in the work or the timing or sequencing of the work that impacts the contract price or the contract schedule. All such changes shall be memorialized in a written change order to be signed by the parties prior to Superior Equipment's commencement of any new work. For changes in the work, Owner and Contractor shall negotiate an adjustment to the Contract Price or the Contract Schedule in good faith and conclude negotiations as expeditiously as possible.

**Security Agreement:**

To secure payment and performance of all obligations, Customer (identified above) hereby grants Creditor (identified above) a continuing security interest in all inventory, equipment, and goods manufactured by or distributed by Creditor, whenever sold, consigned, leased, rented or delivered, directly or indirectly, to or for the benefit of Customer by Creditor, wherever located, now owned and hereafter acquired including but not limited to all equipment described within this Agreement; and all replacement parts, accessories and supplies including repossessions and returns; and all proceeds from the sale, lease or rental thereof; and all existing or subsequently arising accounts and accounts receivables, goods, instruments, chattel paper, general intangibles and supporting obligations which may from time to time hereafter come into existence during the term of this Security Agreement. Creditor's security interest is explicitly limited to outstanding obligations between Creditor and Customer. Customer will maintain the Collateral in original condition but for the ordinary wear and tear, and will insure the Collateral against all expected risks. Customer will not subject the Collateral to any adverse encumbrance or lien, or sale or other transfer other than as approved in writing by Creditor including through this Agreement. If Customer fails to timely make any payment, Creditor may repossess and remove any Collateral from Customer with or without Notice. Customer will not locate the collateral at any location other than as known to Creditor. Customer will promptly advise Creditor of any change of Customer's name or business nature, location, and business openings and closings. The following constitute Customer defaults: Non-payment in timely fashion of Customer's indebtedness to Creditor, Customer's noncompliance with any obligation of this Agreement, bankruptcy, insolvency, or assignment for the benefit of creditors; misrepresentation in respect of any provision of this or any Agreement between Creditor and Customer. In the event of default, Creditor may declare all unpaid balances due and payable and/or may require Customer to assemble the Collateral and make it available to allow Creditor to take possession or dispose of the collateral. Customer authorizes Creditor to file a financing statement describing the Collateral and grants Creditor a limited Power of Attorney to sign any forms/document deemed necessary by Creditor to protect Creditor's interest. By signature on this document, Customer's representative represents and warrants that he/she has the authority to bind Customer as set forth herein.

Acceptance: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Project Grand Total: 50,559.92



<b>IMPORTANT FOR FUTURE REFERENCE</b> Please complete this information and retain this manual for the life of the equipment:
Model #: _____
Serial #: _____
Date Purchased: _____

## Installation & Operation Manual

# Direct Steam Stationary Kettles

## DL-20, DL-30, DL-40, DL-60, DL-80 & DL-100

## DP-20, DP-30, DP-40, DP-60, DP-80 & DP-100



Model DL



Model DP

### **WARNING**

Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.

### **CROWN FOOD SERVICE EQUIPMENT**

 A Middleby Company

70 Oakdale Road, Downsview (Toronto) Ontario, Canada, M3N 1V9

Telephone: 919-762-1000

[www.crownsteamgroup.com](http://www.crownsteamgroup.com)





# SAFETY PRECAUTIONS

Before installing and operating this equipment, be sure everyone involved in its operation is fully trained and aware of precautions. Accidents and problems can be caused by failure to follow fundamental rules and precautions.

The following symbols, found throughout this manual, alert you to potentially dangerous conditions to the operator, service personnel, or to the equipment.



This symbol warns of immediate hazards that will result in severe injury or death.



This symbol refers to a potential hazard or unsafe practice that could result in injury or death.



This symbol refers to a potential hazard or unsafe practice that could result in injury, product damage, or property damage.



This symbol refers to information that needs special attention or must be fully understood, even though not dangerous.

## IMPORTANT NOTES FOR INSTALLATION AND OPERATION

### WARNING

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

### WARNING

FOR YOUR SAFETY:

Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

### WARNING

Improper installation, operation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing, operating or servicing this equipment.

### NOTICE

This product is intended for commercial use only. NOT FOR HOUSEHOLD USE.

### NOTICE

Contact the factory, the factory representative or local service company to perform maintenance and repairs.

### NOTICE

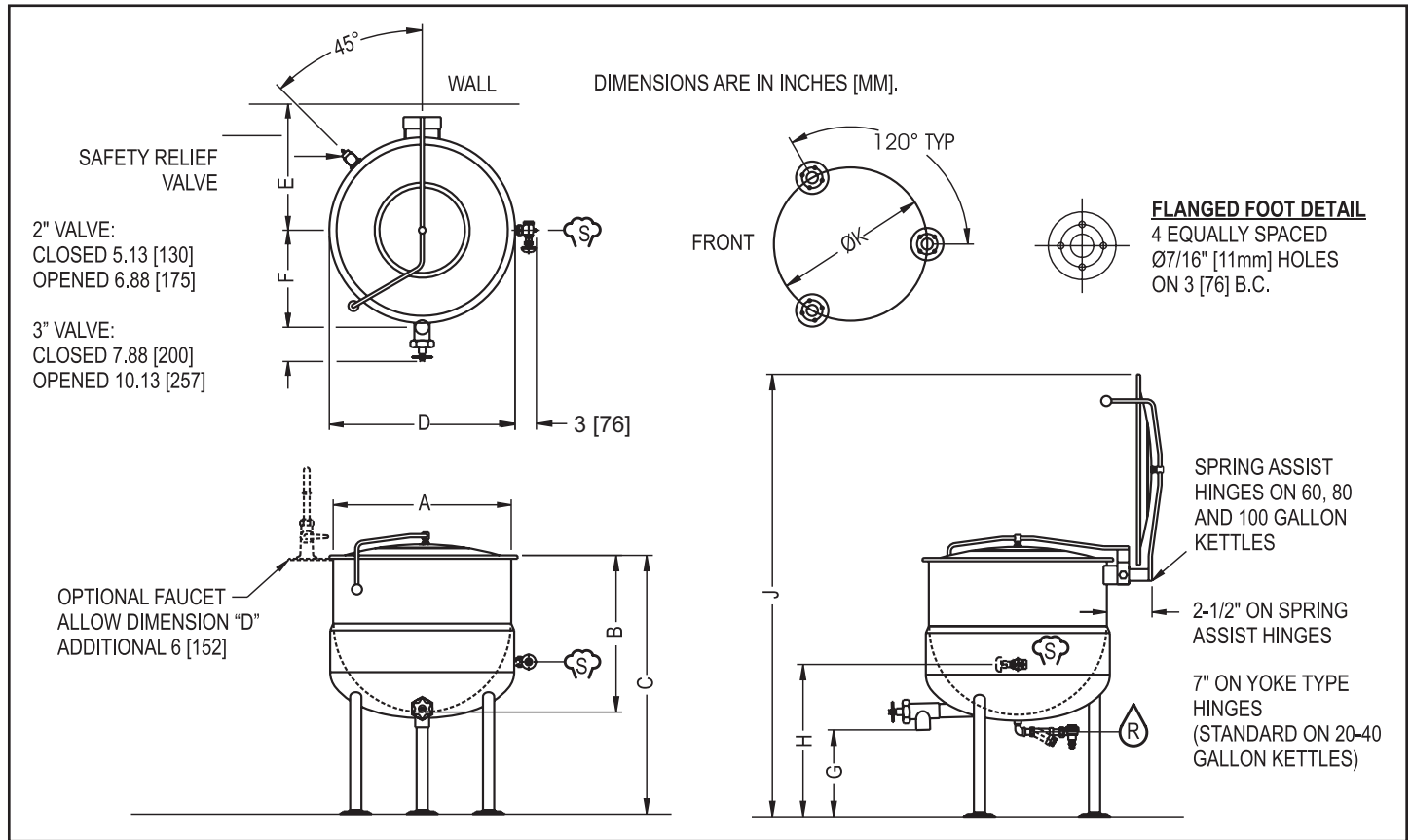
This manual should be retained for future reference.

RETAIN THIS MANUAL FOR FUTURE REFERENCE.

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# SERVICE CONNECTIONS



## SERVICE CONNECTIONS

- STEAM SUPPLY: 3/4" IPS (19 mm) 5-30 PSI (34-206 kPa). Optional 5-45 PSI (34-310 kPa).

- CONDENSATE RETURN: 1/2" IPS (13 mm)

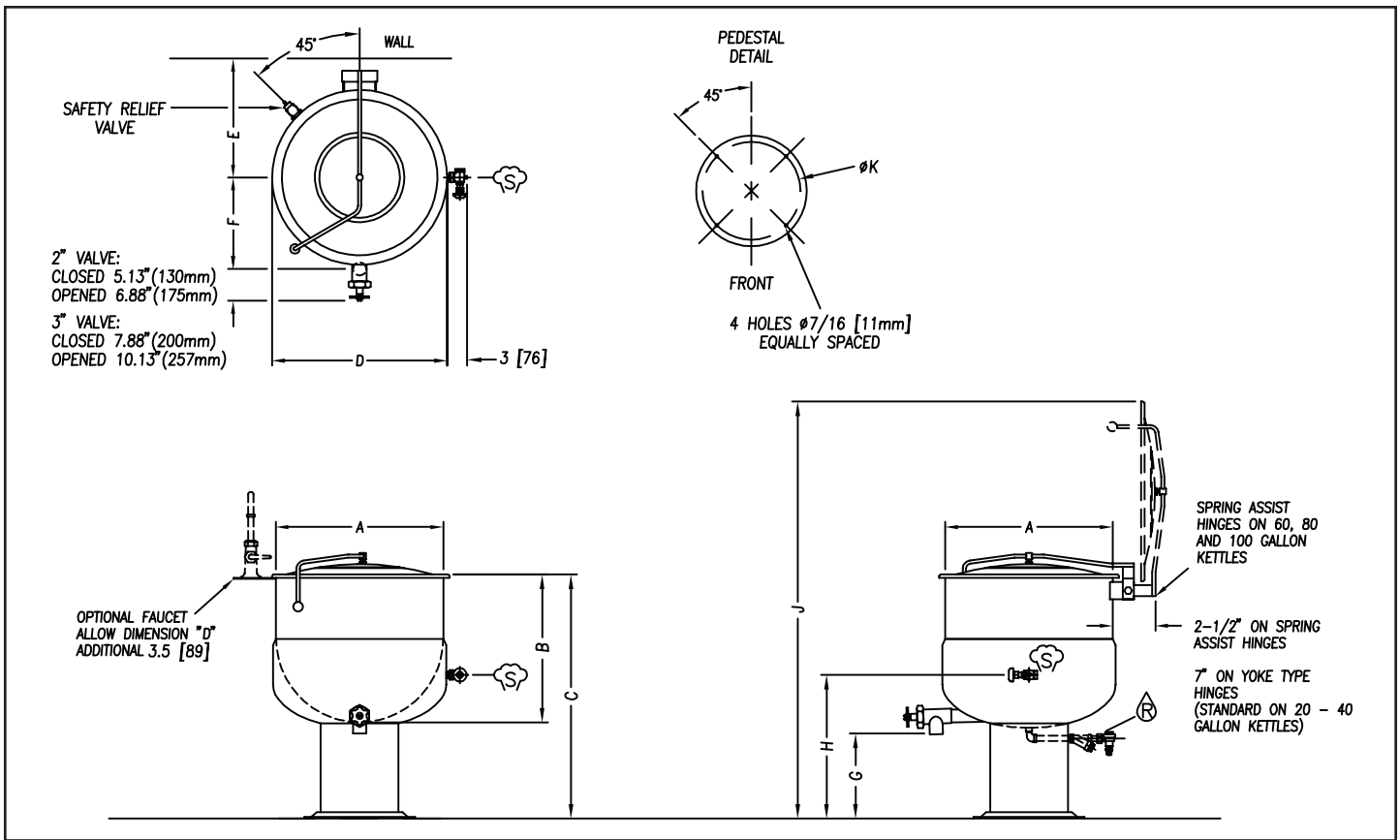
## DIMENSIONS

MODEL	CAPACITY	UNITS	A	B	C	D	E	F(2")	F(3")	G(2")	G(3")	H	J	K
DL-20	20 gallons (76 liters)	in (mm)	21" (533)	18" (457)	37" (940)	22.75" (578)	13.75" (349)	14.25" (362)	14.38" (365)	17" (432)	16.5" (419)	25.75" (654)	59.75" (1518)	17.5" (445)
DL-30	30 gallons (114 liters)	in (mm)	24" (610)	20" (508)	37" (940)	25.88" (657)	15.25" (387)	15.38" (391)	16.38" (416)	15" (381)	14.5" (368)	26.25" (667)	62.88" (1597)	20.5" (521)
DL-40	40 gallons (152 liters)	in (mm)	26" (660)	22.5" (572)	37" (940)	27.88" (708)	16.38" (416)	16.13" (410)	17.38" (441)	12.5" (305)	12" (305)	23.75" (603)	64.88" (1648)	22.5" (572)
DL-60	60 gallons (227 liters)	in (mm)	29.5" (749)	26" (660)	40.5" (1029)	31.38" (822)	18.13 (460)	17.63" (448)	19.13" (486)	12.5" (305)	12" (305)	24.63" (625)	72.88" (1851)	25.75" (654)
DL-80	80 gallons (303 liters)	in (mm)	33" (838)	28" (711)	40.5" (1029)	34.75" (883)	19.88" (505)	19.38" (492)	19.13" (486)	12.5" (305)	10" (254)	25.75" (654)	75.25" (1911)	29.25" (743)
DL-100	100 gallons (379 liters)	in (mm)	35.5" (902)	30" (762)	44.5" (1130)	37.25" (946)	21.13" (537)	20.13" (511)	19.13" (486)	12.5" (305)	12" (305)	26.5" (673)	81.75" (2076)	31.75" (806)

## SPECIFICATIONS

MODEL	SHIPPING WEIGHT	MINIMUM CLEARANCE		MODEL	SHIPPING WEIGHT	MINIMUM CLEARANCE	
DL-20	155 lbs. [70 kg]	SIDES BACK	3 [76] .5 [13]	DL-60	265 lbs. [120 kg]	SIDES BACK	3 [76] .5 [13]
DL-30	180 lbs. [82 kg]			DL-80	308 lbs. [140 kg]		
DL-40	190 lbs. [86 kg]			DL-100	360 lbs. [163 kg]		

As continued product improvement is a policy of Crown, specifications are subject to change without notice.



**SERVICE CONNECTIONS**

- STEAM SUPPLY: 3/4" IPS (19 mm) 5-30 PSI (34-207 kPa). Optional 5-45 PSI (34-310 kPa)\*
- CONDENSATE RETURN: 1/2" IPS (13 mm)

\* Pressure reducing valve is required if incoming pressure exceeds 50 PSI (345 kPa).

**DIMENSIONS**

MODEL	CAPACITY	UNITS	A	B	C	D	E	F(2")	F(3")	G(2")	G(3")	H	J	K
DP-20	20 gallons (76 liters)	in (mm)	21" (533)	18" (457)	37" (940)	22.75" (578)	13.75" (349)	14.25" (362)	14.38" (365)	17" (432)	16.5" (419)	25.75" (654)	59.75" (1518)	16.63" (422)
DP-30	30 gallons (114 liters)	in (mm)	24" (610)	20" (508)	37" (940)	25.88" (657)	15.25" (387)	15.38" (391)	16.38" (416)	15" (381)	14.5" (368)	26.25" (667)	62.88" (1597)	16.63" (422)
DP-40	40 gallons (152 liters)	in (mm)	26" (660)	22.5" (572)	37" (940)	27.88" (708)	16.38" (416)	16.13" (410)	17.38" (441)	12.5" (318)	12" (305)	23.75" (603)	64.88" (1648)	16.63" (422)
DP-60	60 gallons (227 liters)	in (mm)	29.5" (749)	26" (660)	40.5" (1029)	31.38" (822)	18.13" (460)	17.63" (448)	19.13" (486)	12.5" (318)	12" (305)	24.63" (625)	72.88" (1851)	16.63" (422)
DP-80	80 gallons (303 liters)	in (mm)	33" (838)	28" (711)	42.5" (1080)	34.75" (883)	19.88" (505)	19.38" (492)	19.13" (486)	12.5" (318)	12" (305)	25.75" (654)	76.63" (1946)	19.63" (498)
DP-100	100 gallons (379 liters)	in (mm)	35.5" (902)	30" (762)	44.5" (1130)	37.25" (946)	21.13" (537)	20.13" (511)	19.13" (486)	12.5" (318)	12" (305)	26.5" (673)	81.75" (2076)	19.63" (498)

**SPECIFICATIONS**

MODEL	SHIPPING WEIGHT	MINIMUM CLEARANCE		MODEL	SHIPPING WEIGHT	MINIMUM CLEARANCE		YOKE TYPE HINGES MINIMUM CLEARANCE			YOKE TYPE HINGES MINIMUM CLEARANCE		
		SIDES	BACK			SIDES	BACK	MODEL	SIDES	BACK	MODEL	SIDES	BACK
DP-20	155 lbs. [70 kg]	SIDES	3" [76 mm]	DP-60	265 lbs. [120 kg]	SIDES	3" [76 mm]	DP-20	3" [76 mm]	5" [127 mm]	DP-60	3" [76 mm]	5" [127 mm]
DP-30	180 lbs. [82 kg]		BACK	0.5" [13 mm]	DP-80		308 lbs. [140 kg]	BACK	0.5" [13 mm]	DP-30	3" [76 mm]	5" [127 mm]	DP-80
DP-40	190 lbs. [86 kg]			DP-100	360 lbs. [163 kg]			DP-40	3" [76 mm]	5" [127 mm]	DP-100	3" [76 mm]	6" [152 mm]

As continued product improvement is a policy of Crown, specifications are subject to change without notice.

# INSTALLATION

## UNPACKING

### IMMEDIATELY INSPECT FOR SHIPPING DAMAGE

Immediately after unpacking the steamer, check for possible shipping damage. If the steamer is found to be damaged, save the packaging material and contact the carrier within 15 days of delivery.

## INSTALLATION INSTRUCTIONS

1. Select a location to provide drainage directly below the tangent Draw-off Valve.
2. Mark hole locations through flanged adjustable feet on DL models and through pedestal base on DP models. Remove kettle.
3. On hole locations marked, drill holes and insert expansion shields to accommodate 5/16" size lag bolts.
4. Reposition kettle. On DL models level kettle by making necessary adjustment on flanged foot.
5. Bolt down kettle and seal with Silastic or other equivalent sealing compound. Sealant must be applied not only to bolt heads but also around flanges or pedestal base making contact with floor surface to fulfill NSF requirements.
6. Install a steam control valve at a convenient location near kettle on the incoming steam line (3/4" size pipe).
7. Connect steam line to the kettle, making sure there is a steam control valve strainer fairly convenient to the kettle.
8. Connect kettle condensate return line to a drain or to a boiler return line. Each kettle return line must have a suitable steam trap. Boiler return lines must have a check valve.
9. Safety relief valve on kettle must not be plugged as it is set to relieve excess pressure in the kettle.
10. If incoming steam pressure is greater than kettle maximum operating pressure then a pressure reducing valve must be installed in the line.
11. If large amounts of water accumulate in the steam line it will be necessary to install one or more ball float traps in the line to eliminate the water.
12. A steam line pressure gauge is also recommended to determine the actual amount of steam coming to the kettle.
13. Check for proper operation.

# INTRODUCTION

## DESCRIPTION

All Crown direct connected steam jacketed kettles pertaining to this manual are direct steam operated pressure vessels of a double-wall stainless steel construction forming a steam chamber (jacket) enveloping the lower two thirds of the kettle bowl surface. All kettles are stationary, floor mounted in fixed positions either on legs with adjustable flanged feet (DL models) or pedestal (DP models).

## BASIC FUNCTIONING

### CAPACITIES

All models are suffixed with either - 20, - 30, - 40, - 60, - 80 or -100 to indicate the capacity of that kettle in US gallons. Thus a DL - 40 is a two thirds jacketed direct steam kettle mounted on legs with a capacity of 40 gallons (US).

### FUNCTIONING MODE

Crown direct connected steam jacketed kettles consist of a stainless steel bowl and a stainless steel jacket which envelopes two thirds of the lower surface of the bowl thus forming a sealed pressure vessel (chamber) into which steam is introduced by means of a manual control valve.

The kettle bowl is the container for the food product which ideally should be of a liquid or semi-liquid consistency to achieve complete contact with the bowl surface and thus fully absorb the heat transmitted through that surface.

The temperatures required for the cooking process to function adequately must be greater than the boiling point of the liquid food product, viz. water. Further, the greater the steam pressure used, the higher the temperature and consequently the quicker the cooking process. For example, steam pressurized at 30 p.s.i. attains a temperature of 274 degrees Fahrenheit (135 degrees Celsius).

# OPERATION

 **WARNING**

The kettle and its parts are hot. Use care when operating, cleaning and servicing the kettle.

## OPERATING INSTRUCTIONS

1. Ensure that draw-off valve is closed.
2. Fill kettle with product to desired level.
3. Slowly turn the steam control valve ON to full open position (counter-clockwise).
4. The water or food should boil 2 - 3 gallons per minute. If it does not then incoming pressure and piping should be checked to determine that it is adequate to operate the kettle efficiently.
5. Regulate steam control valve depending on type of food being prepared.
6. When food is cooked, turn off steam, remove food and clean kettle immediately to prevent residue from drying on kettle bowl surface.

# CLEANING

 **WARNING**

The equipment and its parts are hot. Use care when operating, cleaning and servicing.

Your kettle should be cleaned immediately after each use.

1. Ensure that steam supply is OFF.
2. Pre-rinse inside of kettle thoroughly and drain to remove any food particles.
3. Using a nylon brush, clean kettle with a mild detergent and warm water rinse. Never use steel wool or scouring powder as it will scratch stainless steel.
4. Open the tangent draw-off valve to allow soap and water solution to drain. Rinse with clean water.

 **WARNING**

If you are cleaning a valve that is assembled to a kettle be sure the kettle is completely empty of any product.

5. By hand, turn the large hex nut counter-clockwise on draw-off valve until it is completely disengaged from thread. Grasp knob to valve and slowly pull out valve stem and disc. Do not allow disc to come in contact with hard surfaces since damage to disc may occur and result in valve leakage. Wash the valve stem, disc and handle. Insert nylon brush with detergent into interior of valve body and tangent draw-off tube and brush vigorously.
6. Replace valve stem assembly and engage hex nut fully by hand. Flush kettle with clean warm water.
7. Leave valve open when kettle is not in use.

 **CAUTION**

Do not use cleaning agents that are corrosive.

Use of cleaning agents that contain chloride, acids or salts are corrosive and may cause pitting and corrosion when used over a period of time; this will reduce the life of the appliance.

Should pitting or corrosion occur this is not covered by warranty.

Follow the recommended cleaning instructions. Use a mild detergent, warm water and rinse thoroughly.



# MAINTENANCE

## PREVENTIVE MAINTENANCE

No preventive maintenance is required other than adhering to the Cleaning Procedure instructions.

## SAFETY VALVE MAINTENANCE AND TESTING

### CAUTION

Under normal operating conditions a “try lever test” should be performed every two months. Under severe service conditions, or if corrosion and/or deposits are noticed within the valve body, testing must be performed more often. A “try lever test” should also be performed at the end of any non-service period.

### CAUTION

Hot, high pressure fluid may be discharged from body drain and vent during “try lever” test. Care must be taken to avoid any bodily contact.

### CAUTION

High sound levels may be experienced during “try lever” test. Wear proper safety equipment and exercise extreme care! Test at, or near, half of the operating pressure by holding the test lever fully open for at least two seconds to flush the valve seat free of sediment and debris. Then release lever and permit the valve to snap shut.

If lift lever does not activate, or there is no evidence of discharge, turn off equipment immediately and contact a licensed contractor or qualified service personnel.

# TROUBLESHOOTING

## DRAW-OFF VALVE LEAKS

If a leak occurs through the valve stem, replace the “O” ring.

If the leak can be attributed to faulty sealing occurring between the stem disc and valve seat, then this problem may be corrected by cleaning off the dried-on food residue with extremely fine emery cloth. If the vulcanized rubber stem piece has been damaged, it must be replaced.

### NOTICE

Draw-off valve has a vulcanized rubber coated stem for better sealing. Do not over tighten. This may cause the rubber to pull away from stem and permanently damage it. This is not covered under warranty.

## EXTREMELY SLOW COOKING TIME

If the cooking time is abnormally slow, this may be due to insufficient steam pressure and/or volume.

First determine that pressure on incoming steam line at kettle is within 5 p.s.i. of rated kettle pressure.

### NOTICE

Pressures approaching the rated kettle pressure are liable to set off the safety relief valve.

If required pressure is available to kettle, then possibly volume of steam is not sufficient.

Minimum 3/4” pipe size is required to the kettle but if the steam generating source is at a great distance from the kettle, larger supply pipe will be required.

Finally, the core of the steam supply pipe may have debris or scalants that impede steam flow and will require disassembly and inspection.

## VENTING INSTRUCTIONS

It is recommended that the “optional” steam trap assembly be installed. This should be plumbed to the exit end of the kettle. The thermostatic trap is a mechanical device that closes on high temperature and opens when the temperature drops, allowing the water which formed from condensate to exhaust but retain the steam under pressure.

The temperatures required for the cooking process to function adequately must be greater than the boiling point of the liquid food product, that is, water. The greater the steam pressure used, the higher the temperature and the quicker the cooking process. For example, steam pressurized at 30 p.s.i. reaches a temperature of 274 degrees Fahrenheit (135° Celsius).

DL-20, DL-30, DL-40, DL-60, DL-80 & DL-100  
DP-20, DP-30, DP-40, DP-60, DP-80 & DP-100  
**DIRECT STEAM  
STATIONARY KETTLES**



A product with the Crown name incorporates the best in durability and low maintenance. We all recognize, however, that replacement parts and occasional professional service may be necessary to extend the useful life of this appliance. When service is needed, contact a Crown Authorized Service Agency, or your dealer. To avoid confusion, always refer to the model number, serial number, and type of your appliance.



**CROWN FOOD SERVICE EQUIPMENT**

 A Middleby Company

70 Oakdale Road, Downsview (Toronto) Ontario, Canada, M3N 1V9  
Telephone: 919-762-1000      [www.crownsteamgroup.com](http://www.crownsteamgroup.com)



<b>IMPORTANT FOR FUTURE REFERENCE</b> Please complete this information and retain this manual for the life of the equipment:
Model #: _____
Serial #: _____
Date Purchased: _____

## Installation & Operation Manual

# Direct Steam Stationary Kettles

## DL-20, DL-30, DL-40, DL-60, DL-80 & DL-100

## DP-20, DP-30, DP-40, DP-60, DP-80 & DP-100



Model DL



Model DP

### **WARNING**

Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.

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## SAFETY PRECAUTIONS

Before installing and operating this equipment, be sure everyone involved in its operation is fully trained and aware of precautions. Accidents and problems can be caused by failure to follow fundamental rules and precautions.

The following symbols, found throughout this manual, alert you to potentially dangerous conditions to the operator, service personnel, or to the equipment.



This symbol warns of immediate hazards that will result in severe injury or death.



This symbol refers to a potential hazard or unsafe practice that could result in injury or death.



This symbol refers to a potential hazard or unsafe practice that could result in injury, product damage, or property damage.



This symbol refers to information that needs special attention or must be fully understood, even though not dangerous.

### IMPORTANT NOTES FOR INSTALLATION AND OPERATION

#### WARNING

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

#### WARNING

FOR YOUR SAFETY:

Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

#### WARNING

Improper installation, operation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing, operating or servicing this equipment.

#### NOTICE

This product is intended for commercial use only. NOT FOR HOUSEHOLD USE.

#### NOTICE

Contact the factory, the factory representative or local service company to perform maintenance and repairs.

#### NOTICE

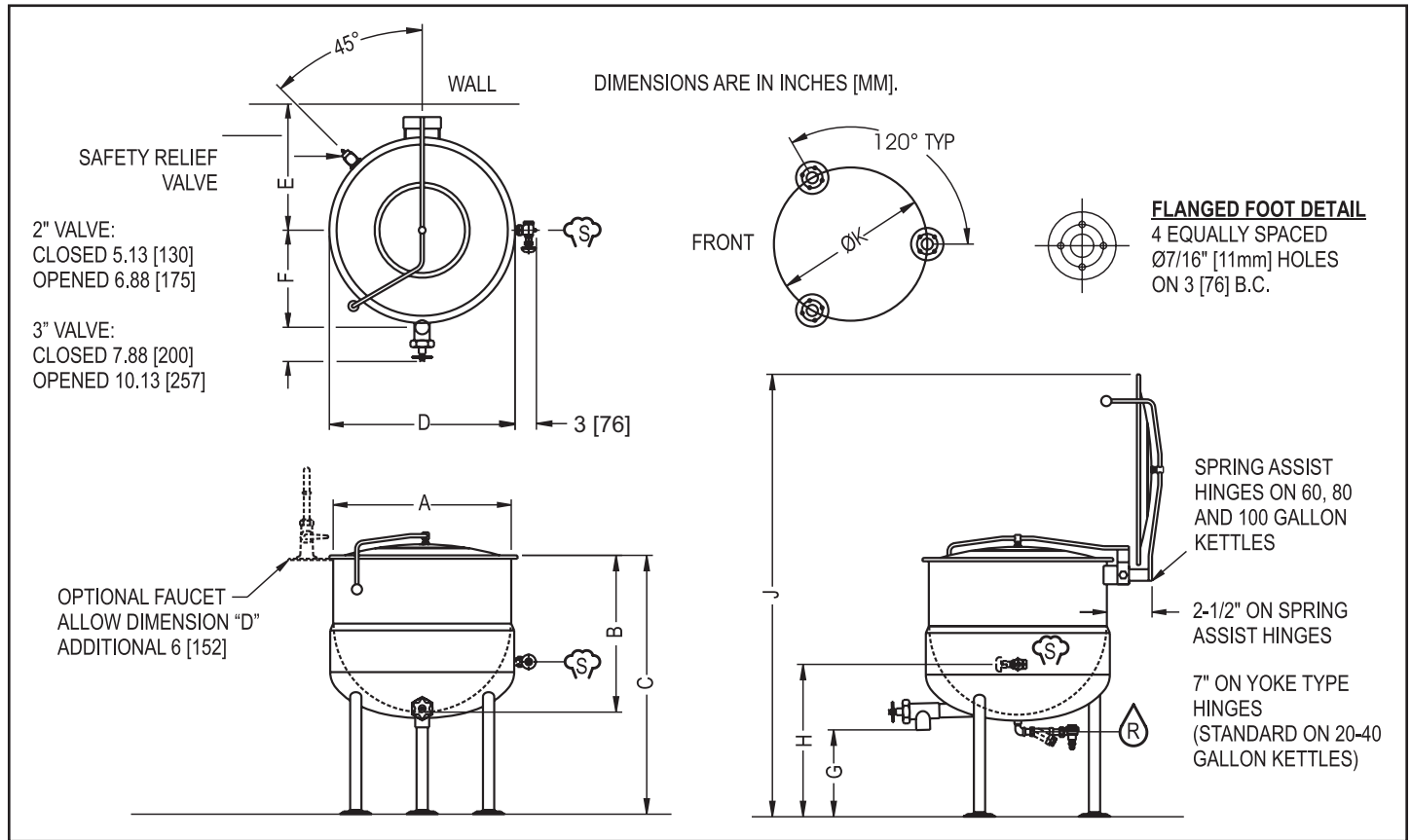
This manual should be retained for future reference.

RETAIN THIS MANUAL FOR FUTURE REFERENCE.

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# SERVICE CONNECTIONS



## SERVICE CONNECTIONS

- STEAM SUPPLY: 3/4" IPS (19 mm) 5-30 PSI (34-206 kPa). Optional 5-45 PSI (34-310 kPa).

- CONDENSATE RETURN: 1/2" IPS (13 mm)

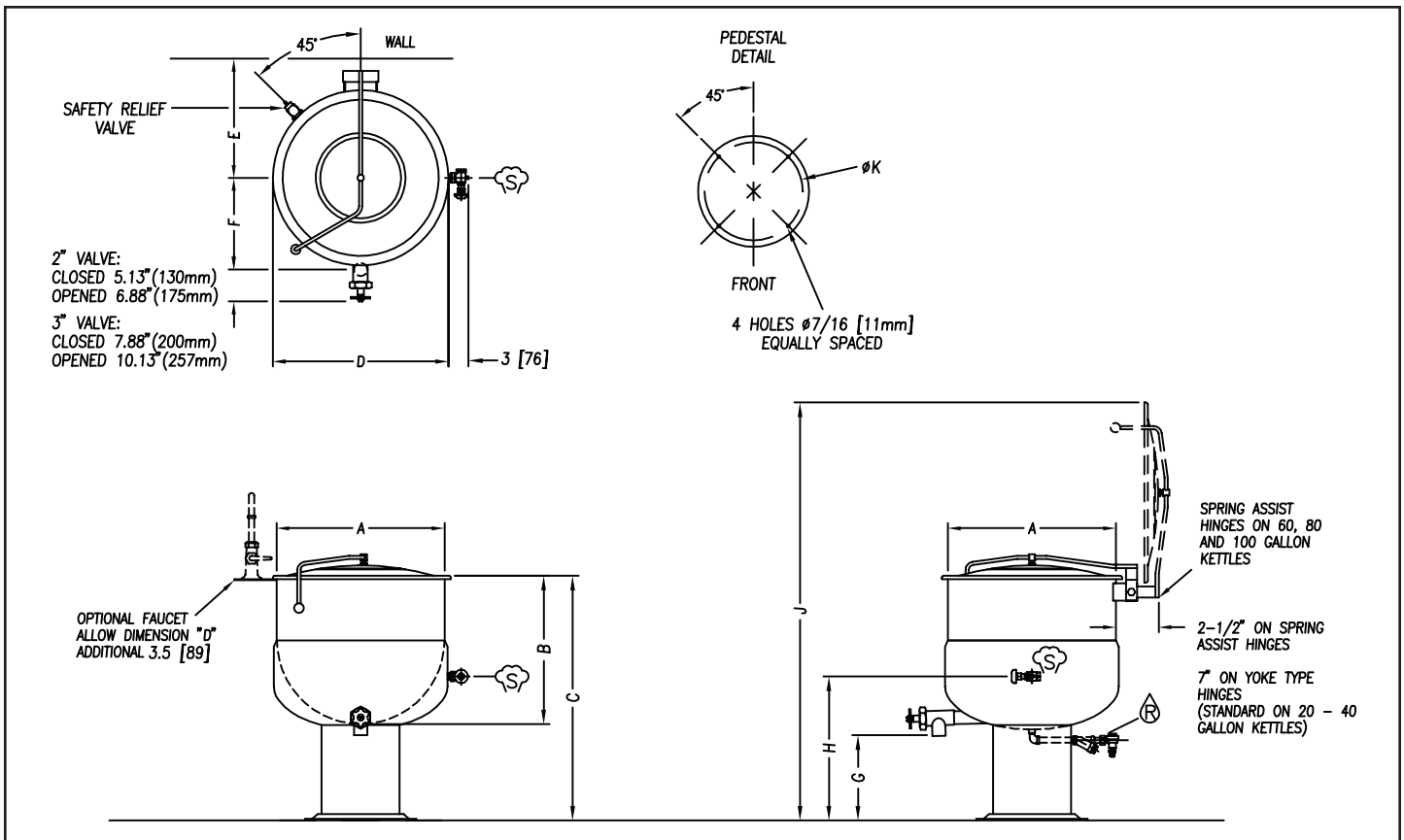
## DIMENSIONS

MODEL	CAPACITY	UNITS	A	B	C	D	E	F(2")	F(3")	G(2")	G(3")	H	J	K
DL-20	20 gallons (76 liters)	in (mm)	21" (533)	18" (457)	37" (940)	22.75" (578)	13.75" (349)	14.25" (362)	14.38" (365)	17" (432)	16.5" (419)	25.75" (654)	59.75" (1518)	17.5" (445)
DL-30	30 gallons (114 liters)	in (mm)	24" (610)	20" (508)	37" (940)	25.88" (657)	15.25" (387)	15.38" (391)	16.38" (416)	15" (381)	14.5" (368)	26.25" (667)	62.88" (1597)	20.5" (521)
DL-40	40 gallons (152 liters)	in (mm)	26" (660)	22.5" (572)	37" (940)	27.88" (708)	16.38" (416)	16.13" (410)	17.38" (441)	12.5" (305)	12" (305)	23.75" (603)	64.88" (1648)	22.5" (572)
DL-60	60 gallons (227 liters)	in (mm)	29.5" (749)	26" (660)	40.5" (1029)	31.38" (822)	18.13" (460)	17.63" (448)	19.13" (486)	12.5" (305)	12" (305)	24.63" (625)	72.88" (1851)	25.75" (654)
DL-80	80 gallons (303 liters)	in (mm)	33" (838)	28" (711)	40.5" (1029)	34.75" (883)	19.88" (505)	19.38" (492)	19.13" (486)	12.5" (305)	10" (254)	25.75" (654)	75.25" (1911)	29.25" (743)
DL-100	100 gallons (379 liters)	in (mm)	35.5" (902)	30" (762)	44.5" (1130)	37.25" (946)	21.13" (537)	20.13" (511)	19.13" (486)	12.5" (305)	12" (305)	26.5" (673)	81.75" (2076)	31.75" (806)

## SPECIFICATIONS

MODEL	SHIPPING WEIGHT	MINIMUM CLEARANCE		MODEL	SHIPPING WEIGHT	MINIMUM CLEARANCE	
DL-20	155 lbs. [70 kg]	SIDES BACK	3 [76] .5 [13]	DL-60	265 lbs. [120 kg]	SIDES BACK	3 [76] .5 [13]
DL-30	180 lbs. [82 kg]			DL-80	308 lbs. [140 kg]		
DL-40	190 lbs. [86 kg]			DL-100	360 lbs. [163 kg]		

As continued product improvement is a policy of Crown, specifications are subject to change without notice.



**SERVICE CONNECTIONS**

- STEAM SUPPLY: 3/4" IPS (19 mm) 5-30 PSI (34-207 kPa). Optional 5-45 PSI (34-310 kPa)\*
- CONDENSATE RETURN: 1/2" IPS (13 mm)

\* Pressure reducing valve is required if incoming pressure exceeds 50 PSI (345 kPa).

**DIMENSIONS**

MODEL	CAPACITY	UNITS	A	B	C	D	E	F(2")	F(3")	G(2")	G(3")	H	J	K
DP-20	20 gallons (76 liters)	in (mm)	21" (533)	18" (457)	37" (940)	22.75" (578)	13.75" (349)	14.25" (362)	14.38" (365)	17" (432)	16.5" (419)	25.75" (654)	59.75" (1518)	16.63" (422)
DP-30	30 gallons (114 liters)	in (mm)	24" (610)	20" (508)	37" (940)	25.88" (657)	15.25" (387)	15.38" (391)	16.38" (416)	15" (381)	14.5" (368)	26.25" (667)	62.88" (1597)	16.63" (422)
DP-40	40 gallons (152 liters)	in (mm)	26" (660)	22.5" (572)	37" (940)	27.88" (708)	16.38" (416)	16.13" (410)	17.38" (441)	12.5" (318)	12" (305)	23.75" (603)	64.88" (1648)	16.63" (422)
DP-60	60 gallons (227 liters)	in (mm)	29.5" (749)	26" (660)	40.5" (1029)	31.38" (822)	18.13" (460)	17.63" (448)	19.13" (486)	12.5" (318)	12" (305)	24.63" (625)	72.88" (1851)	16.63" (422)
DP-80	80 gallons (303 liters)	in (mm)	33" (838)	28" (711)	42.5" (1080)	34.75" (883)	19.88" (505)	19.38" (492)	19.13" (486)	12.5" (318)	12" (305)	25.75" (654)	76.63" (1946)	19.63" (498)
DP-100	100 gallons (379 liters)	in (mm)	35.5" (902)	30" (762)	44.5" (1130)	37.25" (946)	21.13" (537)	20.13" (511)	19.13" (486)	12.5" (318)	12" (305)	26.5" (673)	81.75" (2076)	19.63" (498)

**SPECIFICATIONS**

MODEL	SHIPPING WEIGHT	MINIMUM CLEARANCE		MODEL	SHIPPING WEIGHT	MINIMUM CLEARANCE		YOKE TYPE HINGES MINIMUM CLEARANCE			YOKE TYPE HINGES MINIMUM CLEARANCE		
		SIDES	BACK			SIDES	BACK	MODEL	SIDES	BACK	MODEL	SIDES	BACK
DP-20	155 lbs. [70 kg]	SIDES	3" [76 mm]	DP-60	265 lbs. [120 kg]	SIDES	3" [76 mm]	DP-20	3" [76 mm]	5" [127 mm]	DP-60	3" [76 mm]	5" [127 mm]
DP-30	180 lbs. [82 kg]		BACK	0.5" [13 mm]	DP-80		308 lbs. [140 kg]	BACK	0.5" [13 mm]	DP-30	3" [76 mm]	5" [127 mm]	DP-80
DP-40	190 lbs. [86 kg]			DP-100	360 lbs. [163 kg]			DP-40	3" [76 mm]	5" [127 mm]	DP-100	3" [76 mm]	6" [152 mm]

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# INSTALLATION

## UNPACKING

### IMMEDIATELY INSPECT FOR SHIPPING DAMAGE

Immediately after unpacking the steamer, check for possible shipping damage. If the steamer is found to be damaged, save the packaging material and contact the carrier within 15 days of delivery.

## INSTALLATION INSTRUCTIONS

1. Select a location to provide drainage directly below the tangent Draw-off Valve.
2. Mark hole locations through flanged adjustable feet on DL models and through pedestal base on DP models. Remove kettle.
3. On hole locations marked, drill holes and insert expansion shields to accommodate 5/16" size lag bolts.
4. Reposition kettle. On DL models level kettle by making necessary adjustment on flanged foot.
5. Bolt down kettle and seal with Silastic or other equivalent sealing compound. Sealant must be applied not only to bolt heads but also around flanges or pedestal base making contact with floor surface to fulfill NSF requirements.
6. Install a steam control valve at a convenient location near kettle on the incoming steam line (3/4" size pipe).
7. Connect steam line to the kettle, making sure there is a steam control valve strainer fairly convenient to the kettle.
8. Connect kettle condensate return line to a drain or to a boiler return line. Each kettle return line must have a suitable steam trap. Boiler return lines must have a check valve.
9. Safety relief valve on kettle must not be plugged as it is set to relieve excess pressure in the kettle.
10. If incoming steam pressure is greater than kettle maximum operating pressure then a pressure reducing valve must be installed in the line.
11. If large amounts of water accumulate in the steam line it will be necessary to install one or more ball float traps in the line to eliminate the water.
12. A steam line pressure gauge is also recommended to determine the actual amount of steam coming to the kettle.
13. Check for proper operation.

# INTRODUCTION

## DESCRIPTION

All Crown direct connected steam jacketed kettles pertaining to this manual are direct steam operated pressure vessels of a double-wall stainless steel construction forming a steam chamber (jacket) enveloping the lower two thirds of the kettle bowl surface. All kettles are stationary, floor mounted in fixed positions either on legs with adjustable flanged feet (DL models) or pedestal (DP models).

## BASIC FUNCTIONING

### CAPACITIES

All models are suffixed with either - 20, - 30, - 40, - 60, - 80 or -100 to indicate the capacity of that kettle in US gallons. Thus a DL - 40 is a two thirds jacketed direct steam kettle mounted on legs with a capacity of 40 gallons (US).

### FUNCTIONING MODE

Crown direct connected steam jacketed kettles consist of a stainless steel bowl and a stainless steel jacket which envelopes two thirds of the lower surface of the bowl thus forming a sealed pressure vessel (chamber) into which steam is introduced by means of a manual control valve.

The kettle bowl is the container for the food product which ideally should be of a liquid or semi-liquid consistency to achieve complete contact with the bowl surface and thus fully absorb the heat transmitted through that surface.

The temperatures required for the cooking process to function adequately must be greater than the boiling point of the liquid food product, viz. water. Further, the greater the steam pressure used, the higher the temperature and consequently the quicker the cooking process. For example, steam pressurized at 30 p.s.i. attains a temperature of 274 degrees Fahrenheit (135 degrees Celsius).

# OPERATION

 **WARNING**

The kettle and its parts are hot. Use care when operating, cleaning and servicing the kettle.

## OPERATING INSTRUCTIONS

1. Ensure that draw-off valve is closed.
2. Fill kettle with product to desired level.
3. Slowly turn the steam control valve ON to full open position (counter-clockwise).
4. The water or food should boil 2 - 3 gallons per minute. If it does not then incoming pressure and piping should be checked to determine that it is adequate to operate the kettle efficiently.
5. Regulate steam control valve depending on type of food being prepared.
6. When food is cooked, turn off steam, remove food and clean kettle immediately to prevent residue from drying on kettle bowl surface.

# CLEANING

 **WARNING**

The equipment and its parts are hot. Use care when operating, cleaning and servicing.

Your kettle should be cleaned immediately after each use.

1. Ensure that steam supply is OFF.
2. Pre-rinse inside of kettle thoroughly and drain to remove any food particles.
3. Using a nylon brush, clean kettle with a mild detergent and warm water rinse. Never use steel wool or scouring powder as it will scratch stainless steel.
4. Open the tangent draw-off valve to allow soap and water solution to drain. Rinse with clean water.

 **WARNING**

If you are cleaning a valve that is assembled to a kettle be sure the kettle is completely empty of any product.

5. By hand, turn the large hex nut counter-clockwise on draw-off valve until it is completely disengaged from thread. Grasp knob to valve and slowly pull out valve stem and disc. Do not allow disc to come in contact with hard surfaces since damage to disc may occur and result in valve leakage. Wash the valve stem, disc and handle. Insert nylon brush with detergent into interior of valve body and tangent draw-off tube and brush vigorously.
6. Replace valve stem assembly and engage hex nut fully by hand. Flush kettle with clean warm water.
7. Leave valve open when kettle is not in use.

 **CAUTION**

Do not use cleaning agents that are corrosive.

Use of cleaning agents that contain chloride, acids or salts are corrosive and may cause pitting and corrosion when used over a period of time; this will reduce the life of the appliance.

Should pitting or corrosion occur this is not covered by warranty.

Follow the recommended cleaning instructions. Use a mild detergent, warm water and rinse thoroughly.

# MAINTENANCE

## PREVENTIVE MAINTENANCE

No preventive maintenance is required other than adhering to the Cleaning Procedure instructions.

## SAFETY VALVE MAINTENANCE AND TESTING

### CAUTION

Under normal operating conditions a “try lever test” should be performed every two months. Under severe service conditions, or if corrosion and/or deposits are noticed within the valve body, testing must be performed more often. A “try lever test” should also be performed at the end of any non-service period.

### CAUTION

Hot, high pressure fluid may be discharged from body drain and vent during “try lever” test. Care must be taken to avoid any bodily contact.

### CAUTION

High sound levels may be experienced during “try lever” test. Wear proper safety equipment and exercise extreme care! Test at, or near, half of the operating pressure by holding the test lever fully open for at least two seconds to flush the valve seat free of sediment and debris. Then release lever and permit the valve to snap shut.

If lift lever does not activate, or there is no evidence of discharge, turn off equipment immediately and contact a licensed contractor or qualified service personnel.

# TROUBLESHOOTING

## DRAW-OFF VALVE LEAKS

If a leak occurs through the valve stem, replace the “O” ring.

If the leak can be attributed to faulty sealing occurring between the stem disc and valve seat, then this problem may be corrected by cleaning off the dried-on food residue with extremely fine emery cloth. If the vulcanized rubber stem piece has been damaged, it must be replaced.

### NOTICE

Draw-off valve has a vulcanized rubber coated stem for better sealing. Do not over tighten. This may cause the rubber to pull away from stem and permanently damage it. This is not covered under warranty.

## EXTREMELY SLOW COOKING TIME

If the cooking time is abnormally slow, this may be due to insufficient steam pressure and/or volume.

First determine that pressure on incoming steam line at kettle is within 5 p.s.i. of rated kettle pressure.

### NOTICE

Pressures approaching the rated kettle pressure are liable to set off the safety relief valve.

If required pressure is available to kettle, then possibly volume of steam is not sufficient.

Minimum 3/4” pipe size is required to the kettle but if the steam generating source is at a great distance from the kettle, larger supply pipe will be required.

Finally, the core of the steam supply pipe may have debris or scalants that impede steam flow and will require disassembly and inspection.

## VENTING INSTRUCTIONS

It is recommended that the “optional” steam trap assembly be installed. This should be plumbed to the exit end of the kettle. The thermostatic trap is a mechanical device that closes on high temperature and opens when the temperature drops, allowing the water which formed from condensate to exhaust but retain the steam under pressure.

The temperatures required for the cooking process to function adequately must be greater than the boiling point of the liquid food product, that is, water. The greater the steam pressure used, the higher the temperature and the quicker the cooking process. For example, steam pressurized at 30 p.s.i. reaches a temperature of 274 degrees Fahrenheit (135° Celsius).

DL-20, DL-30, DL-40, DL-60, DL-80 & DL-100  
DP-20, DP-30, DP-40, DP-60, DP-80 & DP-100  
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# DIRECT STEAM COMPARTMENT COOKER WITH CABINET BASE



- DC-2
- DC-3

### OPERATION SHALL BE BY:

Direct non-toxic steam incoming at a minimum of 15 psi (103 kPa) with a flow of 150 psi (68kg) per hour.

A pressure reducing valve shall provide compartment pressure of 6 psi (41 kPa) and a control system is provided to cool the condensate drain.

The control shall be equipped for operate on 115 VAC, 1 Phase 60 Hz.

### OPTIONS & ACCESSORIES AT ADDITIONAL COST

- 220 VAC, 1 Phase, 60 Hz (DBVS-1)
- Stainless steel rear panel (SSB-36)
- Stainless steel frame (SSF-36)
- Correctional package
- Wire shelf rack (SSR-PC)
- Ball float trap (BFT)
- Spray and rinse assembly
- Sheet pan supports (SPS-PC1 or SPS-PC2)

### STANDARD CONSTRUCTION SPECIFICATIONS

Shall be a Crown Model DC-2 or DC-3, pressure compartment cooker, operating on direct steam.

The cooker shall be constructed of all-welded type 304 #4 finished stainless steel.

The doors shall have a removable inner liner of aluminum plate with full perimeter gasket seal, an outer shell of one piece welded stainless steel, and a wheel-and-screw closing mechanism.

The doors, with a clear opening of 10-1/4" x 26-3/8" (260 mm x 670 mm) shall latch upon closing and open 180 degrees upon latch release. Compartment operation shall be at a maximum pressure of 6 psi (41 kPa).

Each compartment shall be provided with universal pan supports.

Each optional sliding shelf will support two full size (1/1 gastronorm) pans.

The control housing shall be constructed of #4 finish stainless steel with a full-access removable panel.

Each compartment shall be independently controlled by an automatic timer control with visible and audible signals.

At the end of the cooking cycle, the controls automatically shut off and exhaust the incoming steam, drain the condensate from the compartment, and sounds a continuous audible signal until turned off manually.

The compartment cooker shall be mounted on a cabinet base with full perimeter angle frame.

Thermostatically controlled cold water shall automatically condensate exhausted steam into water before releasing it to the drain.

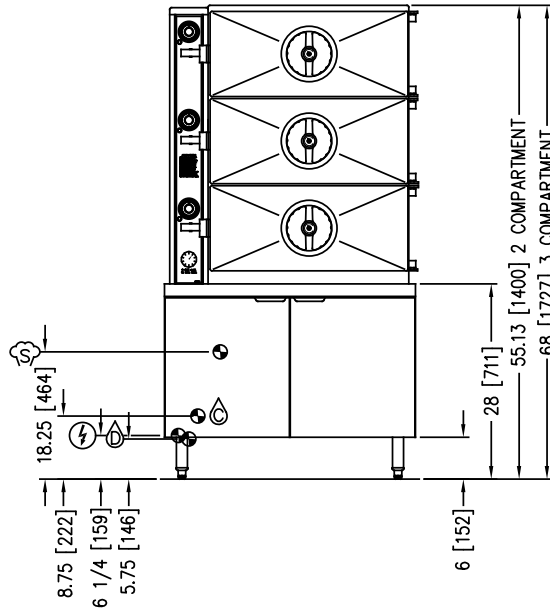
The cabinet shall be all stainless steel #4 finish type 304, hinged doors and 6" (152mm) stainless steel legs fitted with 4 adjustable flanged feet for mounting to the floor.



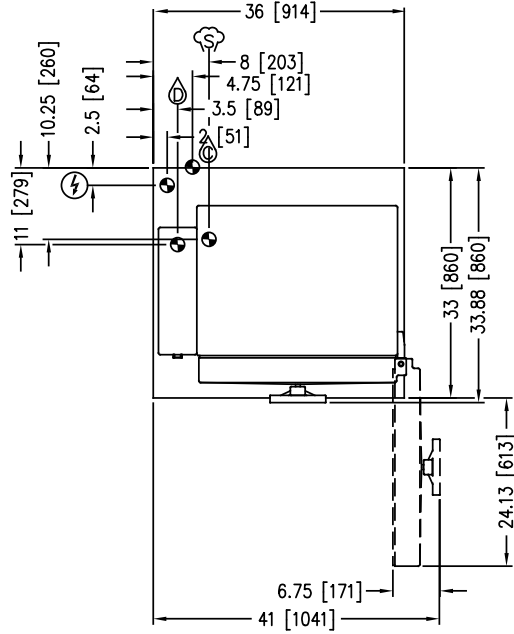
Approval Notes: \_\_\_\_\_

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**REAR FLANGED FOOT DETAIL**  
 2 EQUALLY SPACED  
 Ø7/16" [11mm] HOLES  
 ON 2.5" [63mm] B.C.



IN [mm]

3146R3

**SERVICE CONNECTIONS**

- COLD WATER: 3/8" O.D. tubing at 25-50 PSI (170 - 345 kPa).
- DRAIN: 2" (51 mm) IPS piped to open floor drain. No solid connection.
- ELECTRICAL CONNECTION: Unless otherwise specified, field wiring electrical connection to be 120V, 60 Hz, 1 Phase with ground.
- STEAM SUPPLY: 3/4" (19 mm) female pipe connection for steam supply 15-50 PSI (103-345 kPa)\*

\* Pressure reducing valve is required if incoming pressure exceeds 50 PSI (345 kPa)

**COMPARTMENT PAN CAPACITY**

MODEL	COMPARTMENTS	CAPACITY
DC-2	2	8-16 Pans
DC-3	3	12-24 Pans

**INTENDED FOR COMMERCIAL USE ONLY.  
 NOT FOR HOUSEHOLD USE.**

