

KLT, KPT, KLS AND KPS SERIES

2/3 JACKETED DIRECT STEAM TILTING & STATIONARY KETTLES

INSTALLATION - OPERATION - MAINTENANCE



TILTING TRI-LEG

- KLT-20DS
- KLT-30DS
- KLT-40DS
- KLT-60DS
- KLT-80DS
- KLT-100DS



TILTING PEDESTAL

- KPT-20DS
- KPT-30DS
- KPT-40DS
- KPT-60DS
- KPT-80DS



STATIONARY TRI-LEG

- KLS-20DS
- KLS-30DS
- KLS-40DS
- KLS-60DS
- KLS-80DS
- KLS-100DS



STATIONARY PEDESTAL

- KPS-20DS
- KPS-30DS
- KPS-40DS
- KPS-60DS
- KPS-80DS
- KPS-100DS



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S00055 Rev D (10/15)

Your Service Agency's Address:

Model

Serial number

Kettle installed by

Installation checked by

IMPORTANT

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

FOR YOUR SAFETY

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

The information contained in this manual is important for the proper installation, use, and maintenance of this kettle. Adherence to these procedures and instructions will result in satisfactory results and long, trouble free service. Please read this manual carefully and retain it for future reference.

ERRORS: Descriptive, typographic or pictorial errors are subject to correction. Specifications are subject to change without notice.

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Introduction

DESCRIPTION

All 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. Kettles included are tilting and stationary, floor mounted in fixed positions either on legs with adjustable flanged feet or pedestals. All kettles are equipped with a drain cock, safety relief valve and a steam control valve.

FUNCTIONING MODE

Blodgett 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 the surface.

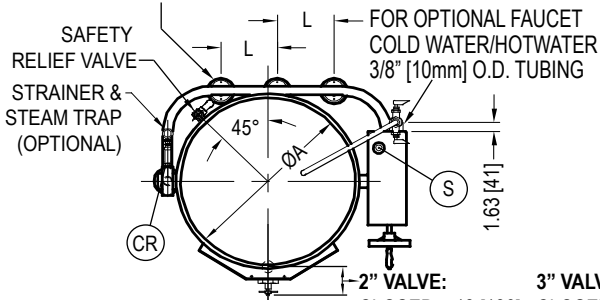
The temperature required for the cooking process to function adequately must be greater than the boiling point of the liquid food product. Further, the greater the steam pressure used, the higher the temperature and consequently the quicker the cooking process. For example, steam pressurized at 30 PSI attains a temperature of 274°F (135°C).

TILTING TRI-LEG KETTLES

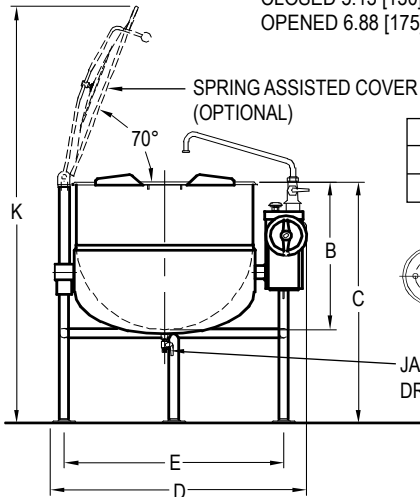
DIMENSIONS

MODEL	A	B	C	D	E	F	G	H (2")	H (3")	J (2")	J (3")	K	L	M
KLT-20DS	21 [535]	18 [460]	37 [940]	34.75 [885]	28.5 [724]	22 [558]	25.63 [651]	12 [305]	13.25 [337]	17 [432]	16.5 [419]	59.5 [1512]	-	15.38 [391]
KLT-30DS	24 [610]	20 [510]	37 [940]	37.75 [960]	31.5 [800]	20.75 [527]	27.13 [689]	12.5 [317]	14.25 [362]	15 [381]	14.5 [368]	62.5 [1588]	-	15.38 [391]
KLT-40DS	26 [660]	22.5 [570]	37 [940]	39.75 [1010]	33.5 [850]	20.25 [514]	28.63 [727]	13 [330]	15.25 [387]	12.5 [318]	12 [305]	64 [1626]	-	16.38 [416]
KLT-60DS	29.5 [749]	26 [660]	40.5 [1029]	43.25 [1100]	37 [940]	21.5 [546]	30.13 [765]	15.5 [394]	15.5 [394]	14.5 [368]	14 [356]	74 [1879]	9.5 [241]	18.38 [467]
FKLT-80DS	33 [838]	28 [710]	42.5 [1080]	46.75 [1185]	40.5 [1030]	20 [506]	32.63 [828]	14.5 [368]	16.25 [413]	12.5 [318]	12 [305]	76 [1930]	11 [279]	19.88 [505]
KLT-100DS	35.5 [802]	30 [762]	42.5 [1080]	49.25 [1251]	43 [1092]	21 [533]	39.25 [997]	18 [457]	20.25 [514]	10.5 [267]	10 [254]	79 [2007]	12.5 [318]	21.5 [546]

NOTE: 60, 80 & 100 GALLON KETTLES ARE SUPPLIED WITH 2 REAR SUPPORT LEGS



2" VALVE: CLOSED 5.13 [130] OPENED 6.88 [175]
 3" VALVE: CLOSED 7.88 [200] OPENED 10.13 [257]



MIN. CLEARANCE	
SIDES	0
BACK	0

FLANGED FEET DETAIL
 4 EQUALLY SPACED Ø7/16 [11] HOLES ON 2.835 [72] B.C.

SERVICE CONNECTIONS

S	Steam Supply - 3/4" IPS (19mm) at 5-30 PSI (0.3-2.1 kg/cm ²). Optional 5-45 PSI (0.3-3.1 kg/cm ²).*
CR	Condensate Return - 1/2" IPS (13mm)†

* Pressure reducing valve is required if incoming pressure exceeds rating at kettle.

† Optional at extra cost.

Optional cold and hot water faucet: 3/8" (10mm) O.D. tubing to faucet.

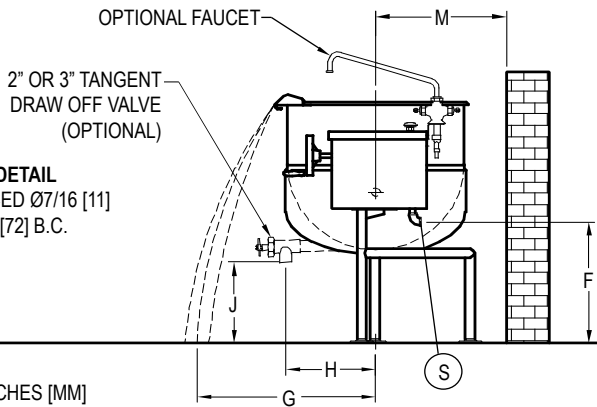


Figure 1

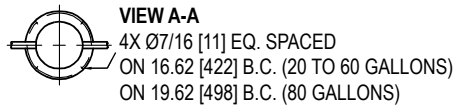
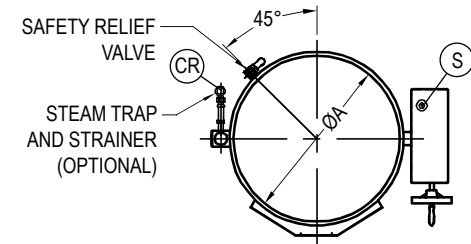
Service Connections

TILTING PEDESTAL BASE KETTLES

DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N (2")	N (3")
KPT-20DS	21 [533]	18 [457]	37 [940]	34.75 [883]	14.75 [375]	20 [508]	135 [343]	41 [1041]	15.25 [387]	20.5 [521]	59.5 [1151]	17.5 [445]	16.75 [425]	16.25 [413]
KPT-30DS	24 [610]	20 [508]	37 [940]	37.75 [959]	16.25 [413]	21.5 [546]	14 [356]	43 [1092]	13.25 [337]	20 [508]	62.5 [1587]	17.5 [445]	14.75 [375]	14.25 [362]
KPT-40DS	26 [660]	22.5 [572]	37 [940]	39.75 [1010]	17.25 [438]	22.5 [572]	15.5 [394]	45 [1143]	10.75 [273]	18.5 [470]	64 [1626]	17.5 [445]	12.25 [311]	11.75 [298]
KPT-60DS	29.5 [749]	26 [660]	40.5 [1029]	43 [1092]	18.87 [479]	24.13 [613]	17.5 [445]	48 [1219]	10.25 [260]	19.25 [489]	74 [1879]	17.5 [445]	14.25 [362]	13.75 [349]
KPT-80DS	33 [838]	28 [711]	42.5 [1080]	46.5 [1181]	20.63 [524]	25.88 [657]	19 [483]	52 [1067]	9.75 [248]	20.5 [521]	76 [1930]	20.5 [521]	12.25 [311]	11.75 [298]

DIMENSIONS ARE IN INCHES [MM]



SERVICE CONNECTIONS

S	Steam Supply - 3/4" IPS (19mm) at 5-30 PSI (0.3-2.1 kg/cm ²). Optional 5-45 PSI (0.3-3.1 kg/cm ²).*
CR	Condensate Return - 1/2" IPS (13mm)†

* Pressure reducing valve is required if incoming pressure exceeds rating at kettle.

† Optional at extra cost.

Optional cold and hot water faucet: 3/8" (10mm) O.D. tubing to faucet.

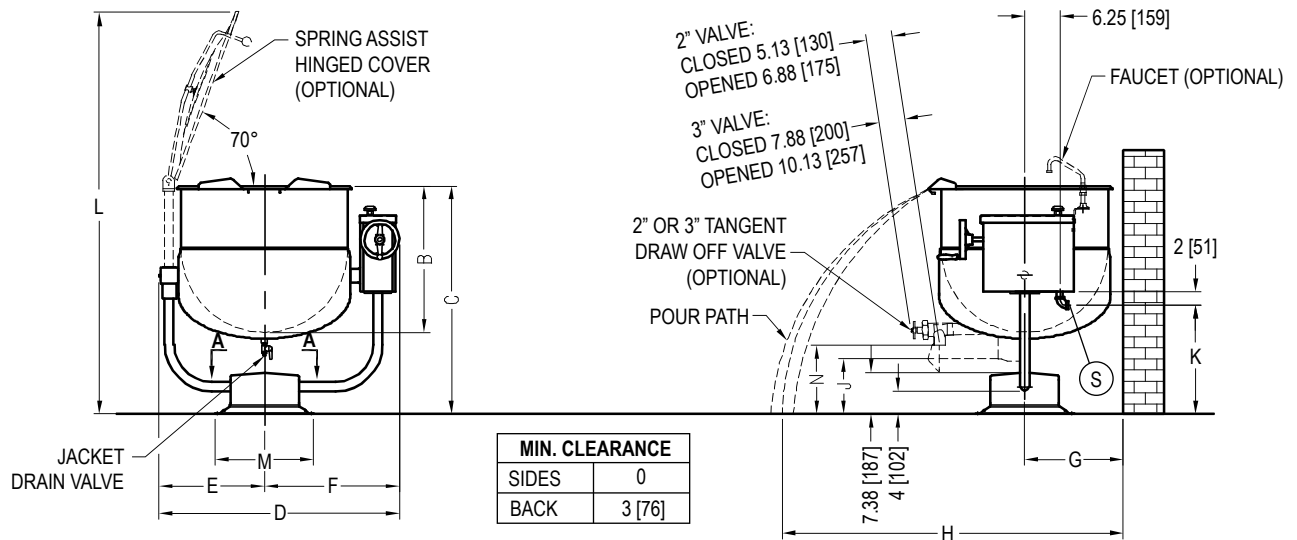


Figure 2

STATIONARY TRI-LEG KETTLES

MODEL	A	B	C	D	E	F (2")	F (3")	G (2")	G (3")	H	J	K
KLS-20DS	21 [533]	18 [457]	37 [940]	22.75 [578]	16 [406]	12.75 [324]	14 [356]	17 [432]	16.5 [419]	25.88 [657]	59.75 [1518]	17.5 [445]
KLS-30DS	24 [610]	20 [508]	37 [940]	25.88 [657]	17.5 [445]	13.5 [343]	15.25 [387]	15 [381]	14.5 [368]	26.88 [683]	62.88 [1597]	20.5 [521]
KLS-40DS	26 [660]	22.5 [572]	37 [940]	27.88 [708]	18.5 [470]	14.25 [362]	16.5 [419]	12.5 [318]	12 [305]	23.88 [606]	64.88 [1648]	22.5 [572]
KLS-60DS	29.5 [749]	26 [660]	40.5 [1029]	31.38 [797]	17.75 [451]	15.5 [394]	17.25 [438]	12.5 [318]	12 [305]	24.69 [627]	72.88 [1851]	25.75 [654]
KLS-80DS	33 [838]	28 [711]	42.5 [1080]	34.75 [883]	19.5 [495]	17.5 [445]	19.25 [489]	10.5 [267]	10 [254]	23.88 [606]	75.25 [1911]	29.25 [743]
KLS-100DS	35.5 [902]	30 [762]	44.5 [1130]	37.25 [946]	20.75 [527]	17 [432]	19.25 [489]	12.5 [318]	12 [305]	26.63 [676]	81.75 [2076]	31.75 [806]

MODEL	SPRING ASSIST HINGES
Gallons	MIN. CLEARANCE
ALL	SIDES 3 [76]
	BACK 0.5 [13]

DIMENSIONS ARE IN INCHES [MM]

SERVICE CONNECTIONS

S	Steam Supply - 3/4" IPS (19mm) at 5-30 PSI (0.3-2.1 kg/cm2). Optional 5-45 PSI (0.3-3.1 kg/cm2).*
CR	Condensate Return - 1/2" IPS (13mm)†

* Pressure reducing valve is required if incoming pressure exceeds rating at kettle.

† Optional at extra cost.

Optional cold and hot water faucet: 3/8" (10mm) O.D. tubing to faucet.

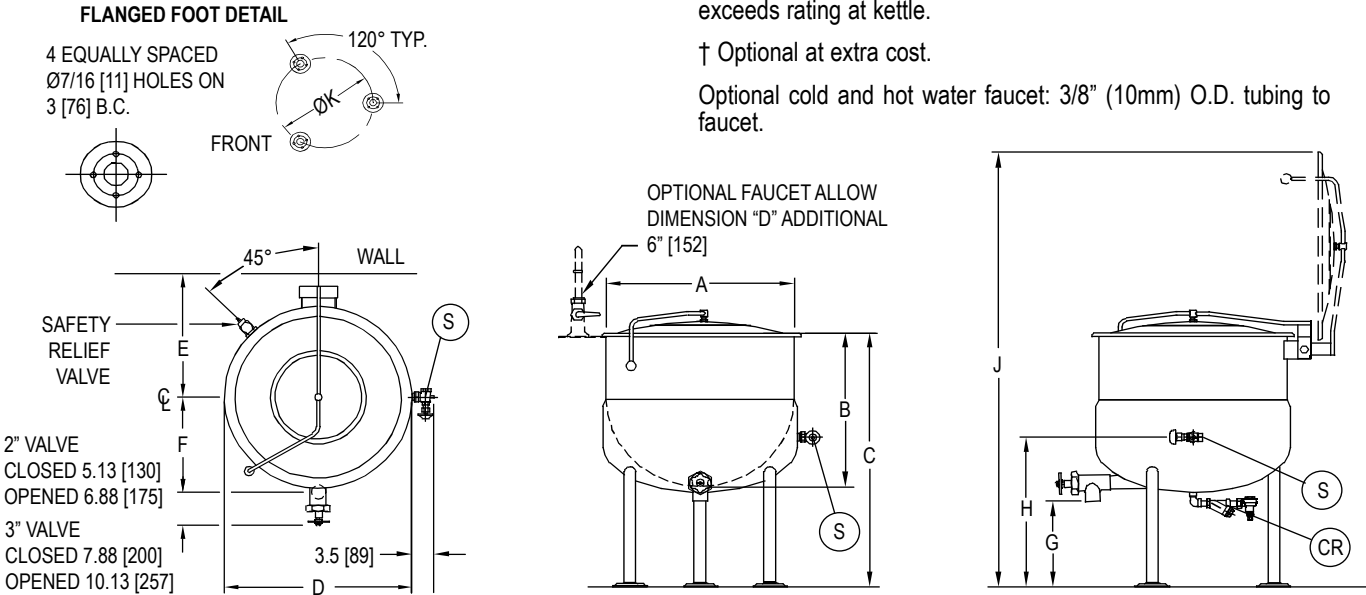


Figure 3

Service Connections

STATIONARY PEDESTAL BASE KETTLES

DIMENSIONS

MODEL	A	B	C	D	E	F (2")	F (3")	G (2")	G (3")	H	J	K
KPS-20DS	21 [533]	18 [457]	37 [940]	22.75 [578]	16 [406]	12.75 [324]	14 [356]	17 [432]	16.5 [419]	25.88 [657]	59.75 [1518]	16.88 [429]
KPS-30DS	24 [610]	20 [508]	37 [940]	25.88 [657]	17.5 [445]	13.5 [343]	15.25 [387]	15 [381]	14.5 [368]	26.88 [683]	62.88 [1597]	16.88 [429]
KPS-40DS	26 [660]	22.5 [572]	37 [940]	27.88 [708]	18.5 [470]	14.25 [362]	16.5 [419]	12.5 [318]	12 [305]	23.88 [606]	64.88 [1648]	16.88 [429]
KPS-60DS	29.5 [749]	26 [660]	40.5 [1029]	31.38 [797]	17.75 [451]	15.5 [394]	17.25 [438]	12.5 [318]	12 [305]	24.69 [627]	72.88 [1851]	16.88 [429]
KPS-80DS	33 [838]	28 [711]	42.5 [1080]	34.75 [883]	19.5 [495]	17.5 [445]	19.25 [489]	10.5 [267]	10 [254]	23.88 [606]	75.25 [1911]	19.63 [498]
KPS-100DS	35.5 [902]	30 [762]	44.5 [1130]	37.25 [946]	20.75 [527]	17 [432]	19.25 [489]	12.5 [318]	12 [305]	26.63 [676]	81.75 [2076]	19.63 [498]

SERVICE CONNECTIONS

MODEL Gallons	SPRING ASIST HINGES MIN. CLEARANCE
ALL	SIDES 3 [76]
	BACK 0.5 [13]

S	Steam Supply - 3/4" IPS (19mm) at 5-30 PSI (0.3-2.1 kg/cm ²). Optional 5-45 PSI (0.3-3.1 kg/cm ²).*
CR	Condensate Return - 1/2" IPS (13mm)†

DIMENSIONS ARE IN INCHES [MM]

* Pressure reducing valve is required if incoming pressure exceeds rating at kettle.

† Optional at extra cost.

Optional cold and hot water faucet: 3/8" (10mm) O.D. tubing to faucet.

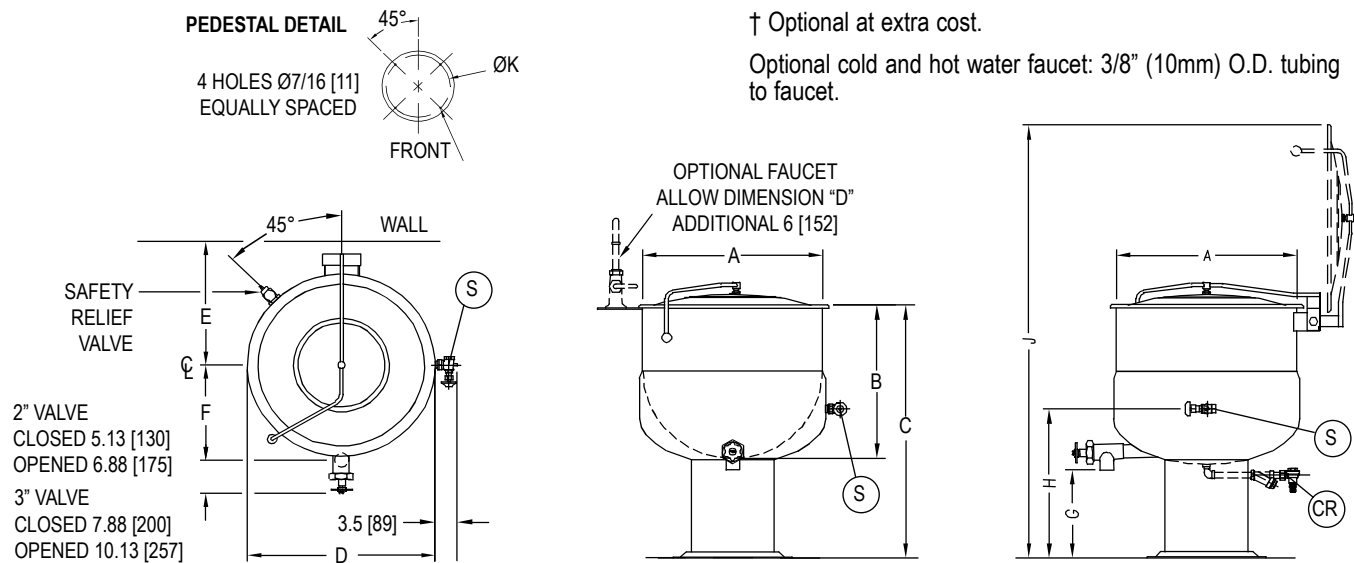


Figure 4

Installation Instructions

1. Select a location to provide drainage for kettle pour path when tilted and for draw-off valve if so equipped.
2. Mark hole locations through flanged adjustable feet on tri-leg models and through pedestal base on pedestal 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 tri-leg 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 fulfil NSF requirements.
6. Connect steam line (3/4" pipe size) to the kettle, making sure there is a steam control valve strainer fairly convenient to the kettle.
7. 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.
8. Safety relief valve on kettle must not be plugged as it is set to relieve excess pressure in the kettle.
9. If incoming steam pressure is greater than kettle maximum operation pressure then a pressure reducing valve must be installed in the line.
10. 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.
11. A steam line pressure gauge is also recommended to determine the actual amount of steam being supplied to the kettle.
12. Check for proper operation.

Operating Instructions

TILTING KETTLES

1. If kettle has draw-off valve, close it.
2. Fill kettle with product to desired level.
3. Slowly turn the steam control valve ON to full open position (counterclockwise).
4. The water or food should boil 2 to 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.

STATIONARY KETTLES

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.



CAUTION

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

 **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.

TILTING KETTLE CLEANING INSTRUCTIONS

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. Tilt kettle fully or open the tangent draw-off valve if one is provided to allow soap and water solution to drain. Rinse with clean water.
5. On kettles equipped with a draw-off valve, turn the large hex nut counterclockwise by hand until it is completely disengaged from the 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. Replace valve stem assembly and engage hex nut fully by hand. Flush kettle with clean warm water. Leave valve open when kettle is not in use.

STATIONARY KETTLE CLEANING INSTRUCTIONS

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 counterclockwise 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.