



## ROYAL SERIES CO/CH Stainless Steel Wall Hung Condensing Combi & Heating Boilers

### Residential Models:

- 8 models with inputs from 80 MBH - 200 MBH
- Stainless Steel Water-Tube Heat Exchanger
- Up to 95.2% AFUE with up to 10:1 Turndown
- Combi models provides Domestic Hot Water (CO)

### Commercial Models:

- 3 models with inputs from 299 MBH - 470 MBH
- DUO Power Stainless Steel Water-Tube Heat Exchanger
- Over 95% AFUE (CH-299) or Thermal Efficiency (CH-399/499)
- Easy Service with removeable side panels

### All Models:

- Intuitive programmable control
- Cascade up to 16 boilers
- 3 in 1 adjustable vent connector to attach different vent materials
- Vent with CPVC, PVC, Polypropylene, or Stainless Steel
- Natural Gas or easily field converted to Propane (LP)
- Rubst wall hung design saves space
- Modbus connection standard



Residential

Commercial

General Information (See IOM for Complete Instructions)							
Model	Water Content Gallons	DHW Flow Rate (GPM)	Supply / Return (CH)	Supply / Return DHW (CO)	Gas Inlet	Flue Size	Dimensions H x W x D
<b>Residential</b>							
CO-90	0.37	2.5	NPT 3/4"	NPT 1/2"	NPT 3/4"	3"	28.2" x 17.4" x 16.9"
CO-150	0.55	3.7					
CO-200	0.85	5.1					
CH-80	0.37	NA	NPT 3/4"	NA	NPT 3/4"	3"	28.2" x 17.4" x 16.9"
CH-100	0.46						
CH-120	0.55						
CH-150	0.85						
CH-180	0.85						
<b>Commercial</b>							
CH-299	1.77	NA	NPT 1 1/2"	NA	NPT 1"	4"	33.3" x 17.3" x 21.2"
CH-399	2.19						
CH-499	2.74					6"	
Electrical: 120 V ac, 60 hertz, 1 phase, 12 amp minimum size circuit (15 amp recommended)							

**Residential Royal Series (CH/CO) - Stainless Steel Wall Hung Combi & Heating Condensing Boilers**

Model	Item Number	Type	Max Input MBH CH	Max Input MBH DHW	AHRI Heating Capacity	AHRI Net Water MBH	AFUE	Shp. Wgt. lbs	Trade Price
CH-80*	ECH108003600103	HEATING	80	NA	74	64	95.2%	74	\$2,500
CH-100*	ECH110003600103	HEATING	100	NA	92	80	95.2%	77	\$2,768
CH-120*	ECH112003600103	HEATING	120	NA	110	96	95.2%	83	\$2,902
CH-150*	ECH115003600103	HEATING	150	NA	139	121	95.2%	97	\$3,036
CH-180*	ECH118003600103	HEATING	180	NA	165	143	95.2%	98	\$3,259
CO-90*	ECO109003600103	COMBI	80	90	74	64	95.2%	77	\$3,036
CO-150*	ECO115003600103	COMBI	120	150	110	96	95.2%	86	\$3,483
CO-200*	ECO120003600103	COMBI	180	200	167	145	95.2%	101	\$3,706

**Commercial Royal Series (CH) - Stainless Steel Wall Hung Heating Condensing Boilers**

CH-299*	ECH129903600103	HEATING	299	NA	284	247	95.1%	184	\$8,527
CH-399	ECH139903600103	HEATING	399	NA	381	331	95.5%(T)	193	\$10,358
CH-499	ECH149903600103	HEATING	470	NA	449	390	95.6%(T)	198	\$15,715

(T) = Thermal Efficiency

\* ENERGY STAR models

**Royal CH/CO (Use Parts Multiplier for All of the Following)**

Model	Item Number	Description	Trade Price
80-200	S000.600.001.035	RESIDENTIAL BOILER YEARLY MAINTENANCE AND SERVICE KIT	\$477
299/399/499	S000.500.011.035	COMMERCIAL BOILER YEARLY MAINTENANCE AND SERVICE KIT	\$301
80/90	S022.600.001.035	PROPANE CONVERSION KIT (80/90)	\$244
100	S022.600.002.035	PROPANE CONVERSION KIT (100)	\$244
120/150	S022.600.003.035	PROPANE CONVERSION KIT (120/150)	\$244
180	S022.600.004.035	PROPANE CONVERSION KIT (180)	\$244
150	S022.600.005.035	PROPANE CONVERSION KIT (150)	\$244
200	S022.600.007.035	PROPANE CONVERSION KIT (200)	\$244
	S022.500.020	OUTDOOR (AIR) TEMPERATURE SENSOR	\$145
	S022.500.009	DRY WELL TANK SENSOR FOR AN INDIRECT FIRED WATER HEATER	\$81
299	S022.500.001.035	PROPANE CONVERSION KIT (299)	\$60
399	S022.500.003.035	PROPANE CONVERSION KIT (399)	\$60
499	S022.500.004.035	PROPANE CONVERSION KIT (499)	\$60
	S022.500.021	EXTERNAL FLOW TEMPERATURE SENSOR FOR SYSTEM HEADER (CASCADED)	\$163
	S022.500.031.035	0-10V OUTPUT KIT	\$280
	S022.500.028.035	CIRCULATOR RELAY (3 CIRCULATORS)	\$577
	S022.500.029.035	CIRCULATOR RELAY (2 CIRCULATORS)	\$453
	S022.500.030.035	CIRCULATOR RELAY (1 CIRCULATOR)	\$329
	S022.500.007.035	LOW AND HIGH GAS PRESSURE SWITCH KIT (CSD-1)	\$1,176

NOTE: For 2" venting, a 3" x 2" reducer must be field supplied. (80-100 models)