

**SPECIFICALLY  
DESIGNED FOR YOUR  
COIN LAUNDRY WITH  
THESE VALUE ADDED  
FEATURES**

**“Fire Coil”  
WATER HEATER**

**175,000 BTU/HR  
to  
5,000,000 BTU/HR**

- Cupro-Nickel or Copper Heat Exchanger, with External Gasketing
- Honeywell Electronic Ignition
- 2 Stage Firing 500,000 BTU and Larger
- Draft Hood Included All Sizes
- Stainless Steel or Bronze Mounted Circulating Pump
- Energy Saving Pump Controller is Standard
- Glass Lined Storage Tank Jacketed and Insulated
- Optional Stainless Steel Storage Tank
- Available in Indoor or Outdoor Installations
- First Year Parts and 30 Days Labor
- Ask Natco About Low NOx Availability



**10 Year Warranty**

On Cupro Nickel Heat Exchanger

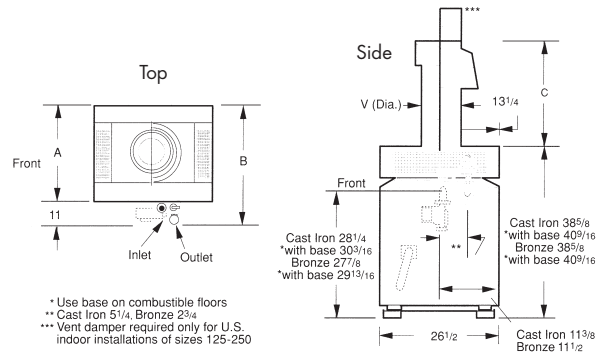
**NATCO<sup>®</sup>**

**NATIONAL COMBUSTION CO. INC.**

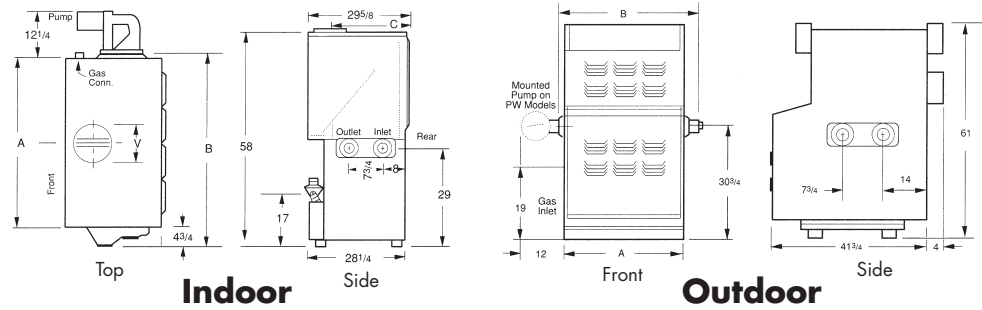
# DIMENSIONAL DIAGRAMS

## SIZES 175-400

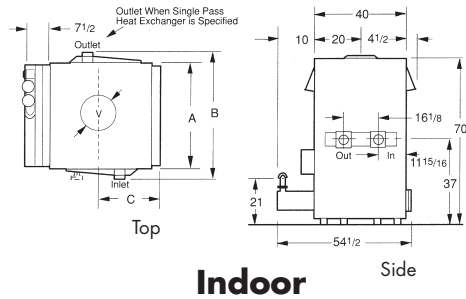
### Indoor/Outdoor



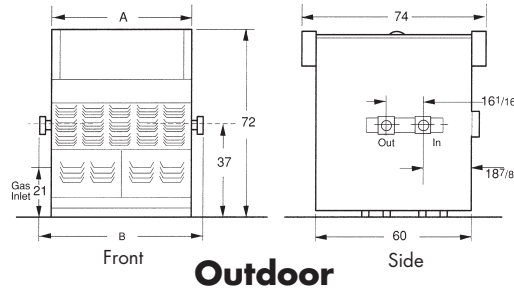
## SIZES 500-1825



## SIZES 2000-5000



## SIZES 2200-4500



# FIRE-COIL DIMENSIONAL DATA

INDOOR MODEL	INPUT BTU/H X 1,000	GAS CONNECTION SIZE IN INCHES		WATER CONN. SIZE	DIMENSIONS (INCHES)			V	HEATER SHIPPING WEIGHT (LBS)
		NATURAL	LP		A	B	C		
175	175	3/4	1/2	1 1/2	18	26 1/2	23 1/2	6	255
250	250	3/4	1/2	1 1/2	22 1/2	31	24 3/4	7	285
325	325	3/4	1/2	1 1/2	26 3/4	35 1/2	25 7/8	8	325
400	400	3/4	1/2	1 1/2	31 3/4	40 1/4	26 7/8	9	360
500	500	1	3/4	2	33 5/8	39 5/8	23 5/8	10	690
600	600	1	3/4	2	38 5/8	44 5/8	22 5/8	12	780
715	715	1	3/4	2	44 1/4	50 1/4	22 5/8	12	850
850	850	1	3/4	2	50 5/8	56 5/8	21 5/8	14	900
1010	1010	1 1/4	1	2 1/2	58	64	20 5/8	16	1020
1200	1200	1 1/4	1	2 1/2	66 1/4	72 1/4	20 5/8	16	1145
1430	1430	1 1/4	1 1/4	2 1/2	76	82	19 5/8	18	1290
1670	1670	1 1/2	1 1/4	2 1/2	85 3/8	91 3/8	19 5/8	18	1375
1825	1825	1 1/2	1 1/4	2 1/2	92 1/8	98 1/8	19 5/8	18	1425
2000	2000	1 1/2	1 1/4-1 1/2	4	55 1/2	63	24 1/2	22	1755
2450	2450	1 1/2-2	1 1/2	4	65 1/2	73	24 1/2	24	2010
3050	3050	1 1/2-2	1 1/2	4	78	85 1/2	24 1/2	26	2350
3500	3500	2	1 1/2	4	88	95 1/2	24 1/2	28	2510
4050	4050	2-2 1/2	2	4	100 1/2	108	24 1/2	30	2910
4500	4500	2 1/2	2	4	110 1/2	118	24 1/2	32	3075
5000	5000	2 1/2	2	4	123	130 1/2	24 1/2	34	3500

Heater input rating is based on a maximum elevation of 2000 ft. and must be derated 4% for every additional 1000 ft.

# FIRE COIL PUMP REQUIREMENTS DATA SHEET



## WATER CATEGORY GRAIN HARDNESS PER GALLON

S = SOFT 1 THRU 7.5 N = NORMAL 7.6 THRU 17 H = HARD OVER 17

INDOOR MODEL	FLOW RATE GPM			HEAD LOSS (FT.)			PIPE SIZE INCHES	TEMP. RISE ACROSS THE HEATER (deg. f.)		
	S	N	H	S	N	H		S	N	H
175	11	17	23	4.9	9.3	15.9	1½	25	16	12
250	11	17	23	4.9	9.3	15.9	1½	35	33	17
325	17	17	23	10.4	10.4	18.1	1½	36	30	22
400	17	17	23	11.1	11.1	19.5	1½	37	37	27
500	45	68	90	5.0	9.9	15.7	2	17	11	8
600	45	68	90	5.1	10.0	17.8	2	20	14	10
715	45	68	90	5.4	11.1	18.1	2	24	16	12
850	45	68	90	5.9	11.0	17.8	2	30	20	15
1010	45	68	90	3.9	7.5	11.7	2½	35	23	18
1200	68	68	90	7.8	7.8	12.2	2½	27	27	21
1430	68	68	90	8.1	8.1	12.6	2½	32	32	24
1670	68	68	90	8.3	8.3	13.0	2½	37	37	28
1825	90	90	90	13.5	13.5	13.5	2½	30	30	30
2000	100	150	200	4.2	9.0	15.0	4	33	22	16
2450	100	150	200	4.5	9.7	16.0	4	40	27	20
3050	200	150	200	6.1	11.0	18.0	4	25	34	25
3500	200	150	200	6.3	11.0	19.0	4	29	38	29
4050	200	150	200	6.7	12.0	20.0	4	33	44	33
4500	200	180	200	6.9	17.0	21.0	4	37	41	37
5000	200	180	200	7.2	18.0	22.0	4	41	46	41

**THE FIRE COIL IS AVAILABLE WITH A HIGH EFFICIENCY STAINLESS STEEL CIRCULATING PUMP.**

Circulating pump must meet the flow rate, and head loss requirements. Pump selection allows for 30 ft. of piping and the use of normal pipe fittings between tank and heater. Any deviation from required specifications will void the warranty.

## STANDARD STEEL STORAGE TANK DIMENSIONS

MODEL NUMBER	STORAGE CAPACITY	TANK STYLE	OVERALL HEIGHT	OVERALL WIDTH	WATER CONNECTION	TEST PRESSURE	WORKING PRESSURE	SHIPPING WEIGHT
ST80	80 GALLONS	GLASS LINED	58 5/16"	24 3/16"	2"	300 PSI	150 PSI	220 LBS
ST120	115 GALLONS	GLASS LINED	59 1/4"	28 1/4"	2"	300 PSI	150 PSI	300 LBS
ST80A	80 GAL. ASME	GLASS LINED	58 5/16"	24 3/16"	2"	300 PSI	125 PSI	260 LBS
ST120A	119 GAL. ASME	GLASS LINED	62 1/2"	28"	2"	300 PSI	150 PSI	366 LBS
ST200A	200 GAL. ASME	GLASS LINED	77"	32"	2"	300 PSI	150 PSI	541 LBS

Dimensions may vary. Optional Steel (ASME) and Stainless Steel tanks are also available.

## HOT WATER PRODUCTION RECOVERY TABLES GALLONS PER HOUR

INDOOR MODEL	WATER TEMPERATURE RISE (deg.F.)								
	40	50	60	70	80	90	100	120	140
175	425	340	284	243	213	189	170	142	122
250	608	486	405	347	304	270	243	203	174
325	790	632	527	451	395	351	316	263	226
400	972	778	648	555	486	432	389	324	278
500	1215	972	810	695	608	540	486	405	347
600	1459	1167	972	833	729	648	583	486	417
715	1738	1391	1159	993	869	773	695	579	497
850	2066	1653	1378	1181	1033	918	827	689	590
1010	2455	1964	1637	1403	1228	1091	982	818	702
1200	2917	2234	1945	1667	1459	1297	1167	972	833
1430	3467	2781	2318	1986	1739	1545	1391	1159	993
1670	4060	3248	2706	2320	2030	1804	1624	1353	1160
1825	4437	3549	2958	2535	2218	1972	1775	1479	1268
2000	4920	3936	3280	2811	2460	2187	1968	1640	1406
2450	6027	4822	4018	3444	3014	2679	2411	2009	1722
3050	7503	6002	5002	4287	3752	3335	3001	2501	2144
3500	8610	6888	5740	4920	4305	3827	3444	2870	2460
4050	9963	7970	6642	5693	4982	4428	3985	3321	2847
4500	11070	8859	7380	6326	5535	4920	4428	3690	3163
5000	12300	9840	8200	7029	6150	5467	4920	4100	3514

Standard pump supplied for 7.6 to 17 grain hardness. For other conditions, call us to resize.

# DESIGN ADVANTAGES

160 PSI Working Pressure

Meets Requirements of ASHRAE Standard 90

Galvanized Steel Jacket with Acrylic Finish for Strength and Long Life

Constructed to Section IV, ASME boiler & Pressure Vessel Code

High Temperature Refractory Firebox Liner - to 2000°F for Greater Efficiency

Built-in Draft Diverter (indoor sizes 500-5000) to Simplify Installation

Integral Finned Cupro Nickel Heat Exchanger Superior to Copper, more Resistant to Corrosion and Wear. Copper is Available.

Automatic Gas Valve On/Off to 4000,000 BTU. 2 Stage Firing From 500,000 to 5,000,000 BTU

Flow Switch Standard on All Models

Stainless Steel Burners Assure Long Life

Integral Header Flanges for Easy Serviceability

Slide Out Burner Tray for Easy Maintenance

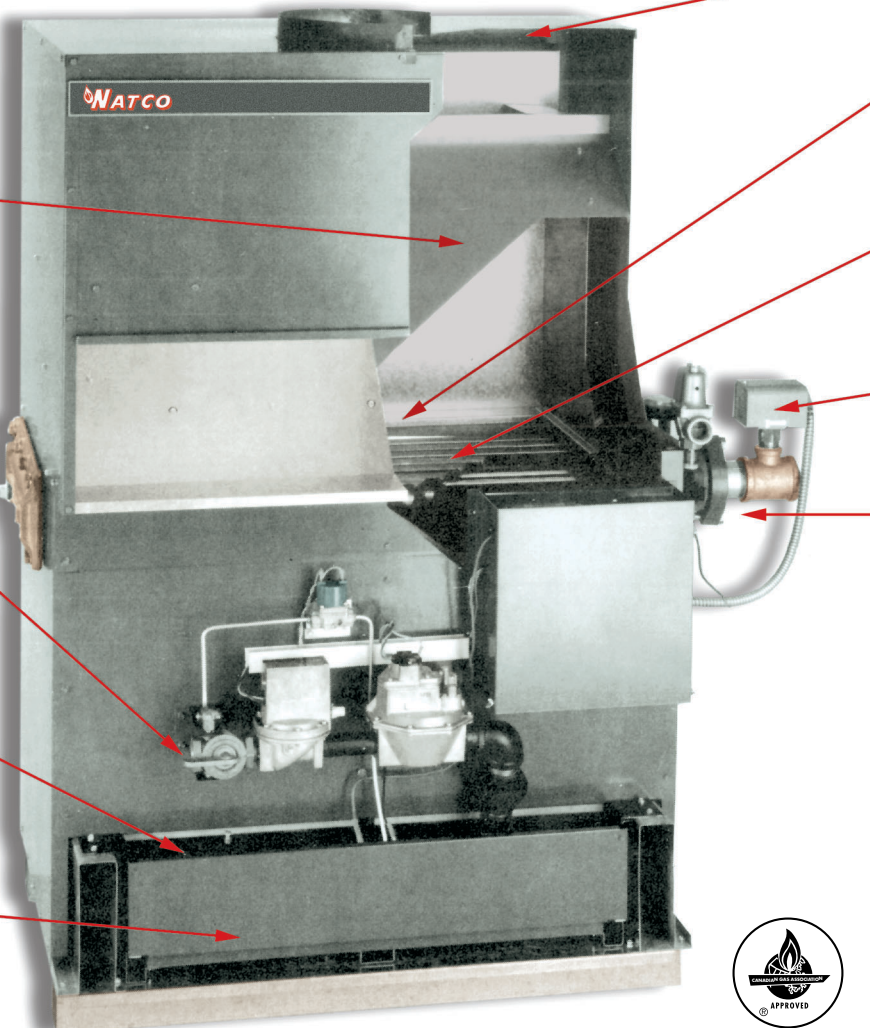
Glass Lined or Bronze Headers for Corrosion Resistance

Electronic Ignition

Natural or Propane Gas

Electronic Flame Supervision

Ask Natco About Low NOx Availability



**DESIGN CERTIFIED AND TESTED BY A.G.A. AND C.G.A.**



Certified by MEA as Water Heater 500 - 5000 Units

## STANDARD FEATURES

- Integral Finned Cupro Nickel or Copper tube heat exchanger, ASME 160 lb. working pressure, 2-pass configuration
- Glass lined cast iron headers
- Stainless steel burners
- Built in integral draft hood
- 115 or 230/24V transformer for 24V control system
- Operating gas valve/pressure regulator
- Circulating pump - stainless steel or bronze
- Redundant safety gas valve (500 - 5000)
- Operating control
- Adjustable manual reset safety high limit (175 - 5000)
- Automatic reset high limit (2800 - 5000)
- Manual shut-off valve
- Flow switch
- Pressure relief valve
- Terminal strip
- 2 amp fuse (175 -1825) 5 amp fuse (2000 - 5000)
- Power on/off switch
- Power-on light (500 - 5000)
- Non-combustible base (500 - 1825 exterior)
- EM<sup>2</sup> Energy saving pump controller
- Hi-gas pressure switch (3050 - 5000)

### OTHER NATCO PRODUCTS

- Water Heaters for Dry Cleaning Laundry (Retriever)
- Sealed Combustion Water Heaters (Millennia)
- Oil/Gas Boiler/Water Heaters to 6,000,000 BTU's (Natco)
- High Pressure Steam Boilers
- 95% high Efficiency Water Heaters (Super-E)
- Space Saving Water Heaters (Minni NAT)

# NATGO<sup>®</sup>

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