



# FT-C

## Vertical Coil Thermal Fluid Heaters

800 K – 14 MM BTU/HR



# THE FT-C VERTICAL COIL THERMAL FLUID HEATER



The Fulton C-Model combines industry leading efficiency and reliability to provide the lowest cost of ownership available.

## Industry Leading Efficiency

- ▶ Integrally preheated combustion air
- ▶ Four (4) separate flue gas passes
- ▶ Fully air-cooled Jacket
- ▶ High turndown burner with linkageless controls



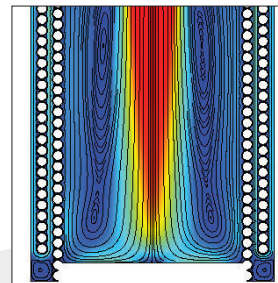
## Lowest Cost of Ownership

- ▶ Highest Possible Operating Efficiency
- ▶ Compact footprint saves valuable production floor space, custom layouts available
- ▶ Controls and safeties located on panel box for easy maintenance
- ▶ Air cooled jacket for cooler mechanical spaces
- ▶ Heater coil backed by industry leading 5-year warranty



## Prolonged Thermal Fluid Life

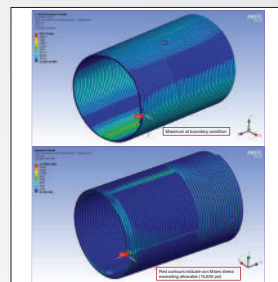
- ▶ Even heat transfer across all four flue gas passes
- ▶ Fluid evenly heated from both sides
- ▶ High velocity turbulent flow coil design
- ▶ Low film temperatures verified with CFD (Computational Fluid Dynamics)



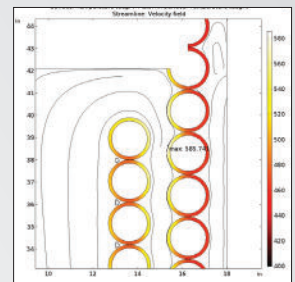
*Heat transfer is balanced in each flue gas path ensuring even heat transfer*



*Heat is transferred to the thermal oil from all sides ensuring even heating*



*FEA (Finite Element Analysis) confirms low stress design and long coil life*



*CFD confirmation of coils to guarantee low film temperatures*

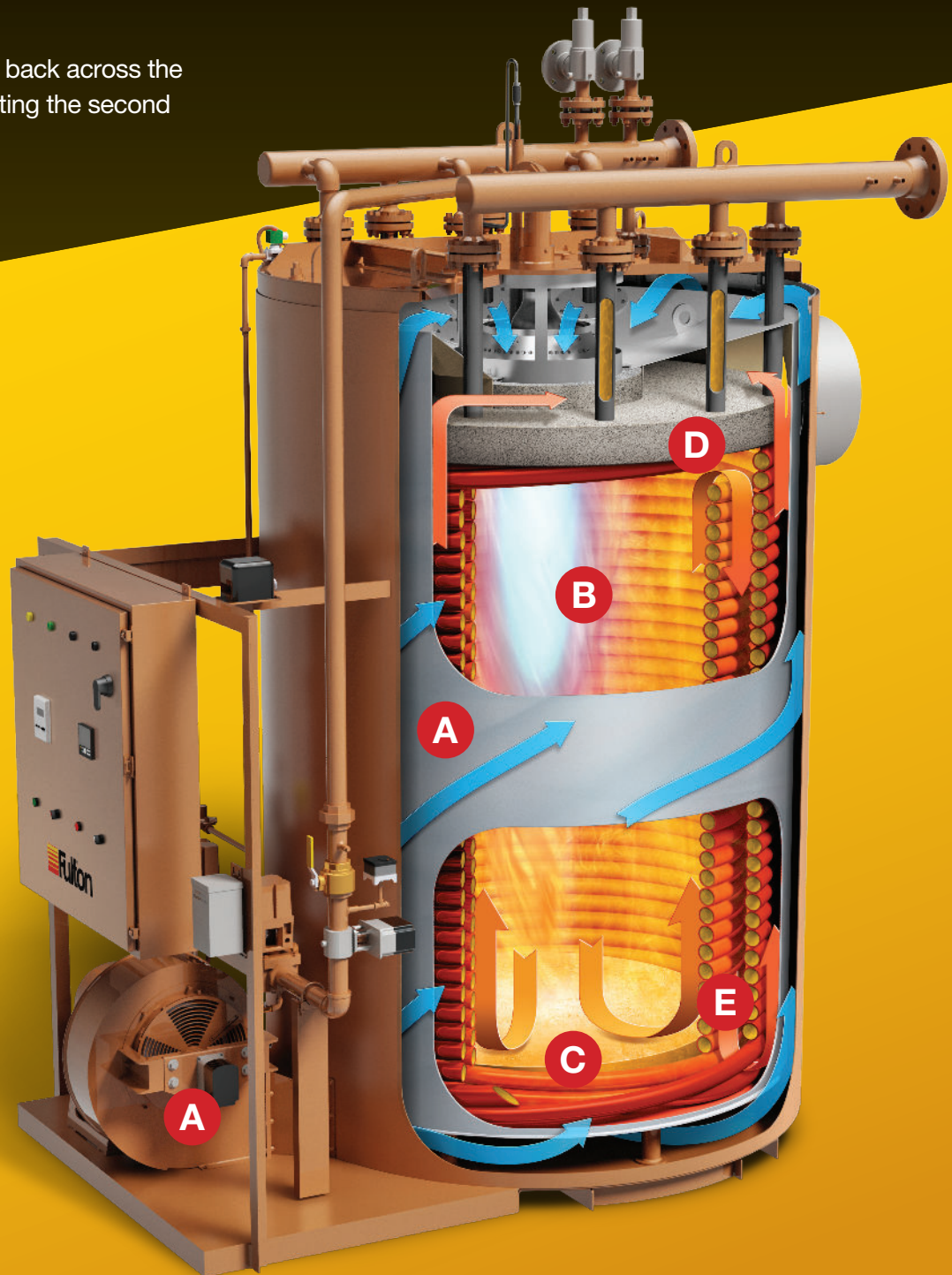


# A CLOSER LOOK

- A** Combustion air enters the burner fan inlet, travels upward between the inner and outer jacket, preheating the air before it enters the top mounted burner.
- B** Air/Gas mixture combusts exiting the down-fired burner. Hot gasses travel down the full length of the vessel creating the first (radiant) pass
- C** The gasses then travel back across the inner row of coils, creating the second (convection) pass
- D** The third (convection) pass is created as the gases continue back down between the inner and outer coil.
- E** The last pass is upward between the outer coil and inner jacket to the flue outlet, creating the fourth (convection) pass.

## Key Features

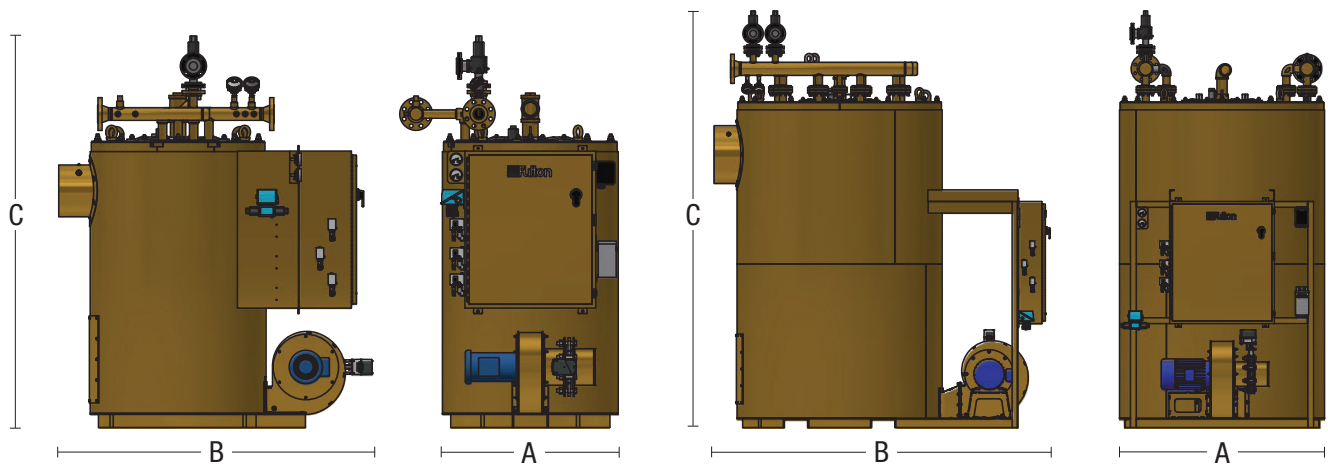
- ▶ Compact Vertical design
- ▶ Heaters Built to ASME Code Section VIII Div 1 as standard. ASME Code Section I is available upon request.
- ▶ 800,000 BTU/Hr to 14MM BTU/Hr Output
- ▶ Operating temperatures up to 700°F
- ▶ Customized controls Available, Including (but not limited to) Class 1, Division 1 or 2 groups C&D of NEC Code
- ▶ Low NOx and Ultra Low NOx Burners Available



# SPECIFICATIONS & DIMENSIONS

MODEL	FT-C	0080	0120	0160	0240	0320	0400	0600	0800	1000	1200	1400
Input*	1,000 BTU/HR	920	1,379	1,839	2,759	3,678	4,598	6,897	9,195	11,494	13,793	16,092
	1,000 KCAL/HR	232	348	463	695	927	1,159	1,738	2,317	1,897	3,476	4,055
Output	1,000 BTU/HR	800	1,200	1,600	2,400	3,200	4,000	6,000	8,000	10,000	12,000	14,000
	1,000 KCAL/HR	200	300	400	600	800	1,000	1,500	2,000	2,500	3,000	3,500
Thermal Fluid Content	Gallons	10	21	19	31	68	76	132	201	290	383	460
	Liters	38	80	72	116	258	288	498	648	1,097	1,448	1,741
Heater Flow Rate	GPM	50	75	100	150	250	250	375	500	615	730	800
	M <sup>3</sup> /HR	11.4	17	22.7	34	56.8	56.8	85.2	113.6	139	167	182
Approx. Dry Weight	lb	1,500	2,100	2,550	3,400	5,300	5,300	8,250	11,450	19,250	21,700	23,000
	kg	700	950	1,150	1,550	2,400	2,400	3,750	5,200	8,750	9,850	10,455
DIMENSIONS												
Inlet/Outlet Connections	IN	1.25	1.5	2	2.5	3	3	4	4	6	6	6
	MM	32	38	51	64	76	76	102	102	152	152	152
(A) Heater Width	IN	32	35	46	50	50	50	64	71	95	109	109
	MM	803	873	1,165	1,273	1,252	1,252	1,611	1,791	2,413	2,753	2,753
(B) Overall Depth	IN	46	61	61	67	81	81	88	108	135	153	153
	MM	1,173	1,540	1,540	1,671	2,046	2,046	2,237	2,736	3,432	3,882	3,882
(C) Overall Height	IN	74	81	81	90	101	113	144	144	147	147	163
	MM	1,872	2,050	2,046	2,278	2,556	2,856	3,648	3,632	3,721	3,718	4,144
Flue Diameter	IN	10	10	10	12	14	14	18	20	20	22	22
	MM	254	254	254	305	356	356	457	508	508	559	559

\*Values are based on LHV of Natural Gas. Consult Factory for site input.



NOTE: Specifications and dimensions are approximate and for reference only. Fulton practices continuous product improvement and reserves the right to change specifications and/or dimensions without notice.



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