



# **RTS/28A SERIES BOILER JACKET ASSEMBLY INSTRUCTIONS**

**TO STEAMFITTER  
NOTE: READ THESE INSTRUCTIONS CAREFULLY. THEY  
WILL SAVE YOU TIME IN ASSEMBLING BOILER PROPERLY.**

**THESE INSTRUCTIONS TO BE LEFT WITH THE BOILER FOR REFERENCE PURPOSES.**



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# RTS/28A SERIES BOILER JACKET INSTRUCTIONS

*Jacket Schedule (Table 1)*

J-3C CARTON																																								
UPPER CHANNELS													R.H. BRACKET	L.H. BRACKET	SPLICE PIECE	HARDWARE BAG	LOWER CHANNELS																							
UC-1R	UC-1L	UC-2	UC-3R	UC-3L	UC-4	UC-5R	UC-5L	UC-6	UC-7	UC-8R	UC-8L	UC-9R					UC-9L	UC-10	UC-11R	UC-11L	UC-12R	UC-12L	UC-13	LC-1	LC-2	LC-3	LC-4	LC-5	LC-6	LC-7	LC-8	LC-9	LC-10	LC-11	LC-12	LC-13	LC-14	LC-15	LC-16	LC-17
4		2																			2																			
5								2														2																		
6														2									2																	
7																				2				2																
8	2	2																		1	1	2	1			4														
9			2	2																1	1	2	1			4														
10						2	2													1	1	2	1				4													
11						1	1					1	1							1	1	2	1						4											
12												2	2							1	1	2	1									4								
13										1	1						1	1		1	1	2	1									4								
14												2	2							1	1	2	1												4					
15				2	2	2														2	2	4	2			4											2			
16					2	2		2												2	2	4	2				4										2			
17					2							2	2							2	2	4	2							4								2		
18								2				2	2							2	2	4	2								4								2	

**J-3C CARTON HARDWARE**

- (17) 1/4" 20 X 3/4" SLOT. RD. HEAD MACH. SCREWS, ZINC PLATED
- (17) 1/4" I.D. WASHER, ZINC PLATED
- (17) 1/4" 20 HEX NUTS, ZINC PLATED
- (4) 5/8" I.D. STD. WASHER

2 RIGHT HAND CHANNELS  
2 LEFT HAND CHANNELS

	J-1B CARTON				J-2A CARTON							J-4-1 CARTON					J-4-2																				
	FRONT PANELS		REAR PANELS		TOP PANELS							LEFT SIDE PANELS 4-18 SEC.					RIGHT SIDE PANELS 4-12 SEC.					RIGHT SIDE PANELS 13-18 SEC.															
	F1	F2	F2A	BH*	B1	B2	LH post	RH post	T1	T2	T3	T4	T5	T6	T7	LH1	LH2	LH3	LH4	KNOB	RH1	RH2	RH3	RH4	RH5	RH1	RH2	RH3	RH4	RH5							
4									1		1					1				3			1	1													
5										1	1					2				4	1			1	1												
6	THE J-1B CARTON, WHICH CONSISTS OF ONE (1) EACH OF THE ABOVE LISTED ITEMS, IS THE SAME FOR ALL SIZE BOILERS.								1		1	1				1	1			4		1	1	1													
7									1				1					2				4		1	1		1										
8									1							1			1		1		6		1	1	2										
9									1								1	1	1	1	1	1	6		1	1	1	1									
10					HARDWARE - J-1B CARTON (23)#10X1/2" SLOT. HEX. WASHER HEAD S.M. SCREWS, ZINC PLATED (21)1/4"-20X1/2" SLOT RD. HEAD MACH. SCREWS, ZINC PLT (9)1/4"20 HEX NUTS, ZINC PLT (21)1/4" I.D. WASHER, ZINC PLT									1	1				1		2	1		6	1			1	2	1							
11													1	1								2		2		8	1			1	4						
12													1	1			1	1				1	1	2		8	1			1	3	1					
13													1	1						2			2	2			8						1			1	5
14									1	1						1	1	2		3			10						1			1	4	1			
15									1	1							2	2	2	2	2	1	10						1			1	3	2			
16									1	1	1					1	1	4		2			12						1			1	5	1			
17									1	1	2					2				4	1		10						1			1	7				
18					1	1	2					1	1	3	3				12						1			1	6	1							

**J-4-1 CARTON HARDWARE**

- KNOB'S w/ONE (1) 8-32 X 1/4" SLOT RD. HEAD MACH. SCREW PER KNOB (FOR QTY. SEE TABLE)

\*Bag of Hardware

## RTS/28A SERIES BOILER JACKET INSTRUCTIONS

### **Boiler Assembly**

The boiler must be completely assembled on base angles supplied by Smith. These are drilled and tapped to accommodate lower channels. Factory assembled blocks of sections are shipped on 6" or 8" channel iron.

### **Control and Piping Installation**

Any operating or limit controls to be located on the front of the front section and the steam gage glass must be installed after front panel F-2. All other piping, burner and control connections may be made before jacket installation.

### **Jacket Assembly**

#### **1. Lower Channels**

Locate lower channels and layout on floor angles. Notches in channels are to accommodate remaining stud from lifting lugs on floor angles for factory assembled blocks of sections. Ignore notches if boiler is not factory assembled. Layout such that 5/16" hole on end of unnotched leg of channels is at the front and rear of boiler, facing upward. Boilers 15 thru 18 sections have 3 piece lower channels with center section only having hole to mount channels to angles. Mount channels to floor angles with 1/4" - 20 round head machine screws and washers.

#### **2. Front Panels**

Locate panel F-2 over the front section with the bottom corners supported by the lower channels. Align holes and fasten with #10 washer head sheet metal screws. Install panels F-1 and F-2A with #10 washer head sheet metal screws.

#### **3. Back Panels**

Assemble right rear post to back panel B-1 with #10 washer head sheet metal screws. Install panel/post assembly on boiler. Assemble left rear post to back panel. Align lower holes of right and left posts with lower channel holes and join with #10 washer head sheet metal screws. Install panel B-2 with sheet metal screws.

#### **4. Upper Channels**

##### **4 thru 7 Section Boilers**

Boilers from 4 thru 7 sections have one piece upper channels. These are installed and attached to the top of front and back panels with 1/4" - 20 round head screws, washers and nuts.

##### **8 thru 18 Section Boilers**

These boiler sizes have two and three piece upper channels supported at each splice by a bracket. Assemble upper channels with splice pieces on the floor with 1/4" - 20 round head screws, washers and nuts. Assemble hardware hand tight. Install channel assemblies on boiler to the top of the front and back panels with 1/4" - 20 round head screws, washers and nuts. Locate left support bracket and center over splice and corresponding draw rods that allow attachment of bracket to the boiler while overlapping the splice in upper channels. Disassemble and install splice hardware that align with slot in top of support bracket. All holes will not align with slot.

### **Important**

Loosen nuts on draw rods to install brackets **behind washer. Level upper channel and re-tighten draw rods nuts immediately to 30 ft. lbs. on left draw rods and 105 ft. lbs. on right draw rods.**

Install the right support brackets in a similar manner. Check alignment and tighten all hardware.

#### **5. Side and Top Panels**

Assemble knobs on left side panels. Install panels by inserting the top first and dropping the bottom into the groove made by the lower channel.

Lay out top panels such that knockouts and openings agree with the assembled boiler. After layout has been checked, make necessary knockouts and install panels.

Lay out and install right side panels similarly to top panels.

This completes jacket assembly.

# RTS/28A SERIES BOILER JACKET INSTRUCTIONS

*Jacket Assembly (Figure 1)*

