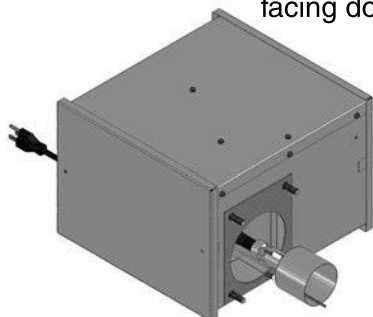


## SECTION 5: MAJOR COMPONENTS

**FIGURE 8: Major Component Descriptions**

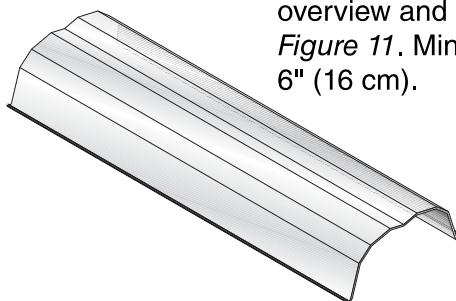
### **Burner with Tube Gasket**

Must be installed with the flame observation window facing down.



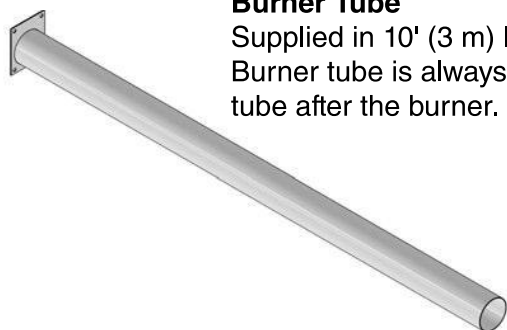
### **Reflector (Aluminum or Stainless Steel)**

Alternate overlap as shown on overview and on Page 16, Figure 11. Minimum overlap is 6" (16 cm).



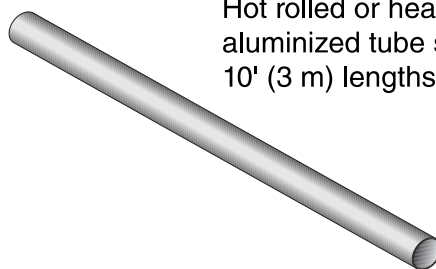
### **Burner Tube**

Supplied in 10' (3 m) lengths. Burner tube is always the first tube after the burner.



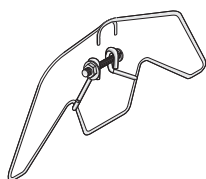
### **Tube**

Hot rolled or heat treated aluminized tube supplied in 10' (3 m) lengths.

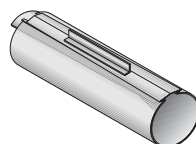


### **Tube and Reflector Hanger, Wide Pattern with Clamp Package**

Position this hanger no more than 4" (10 cm) away from the burner.

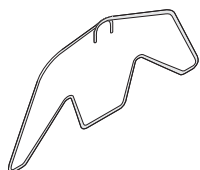


### **Coupling Assembly with Lock**



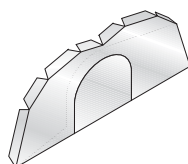
### **Tube and Reflector Hanger, Wide Pattern**

Suspend system from these hangers.

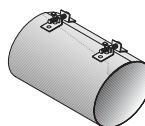


### **Reflector End Cap**

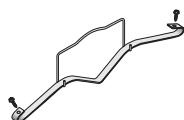
Punch out center section to accommodate tube.



### **Vent Adapter**

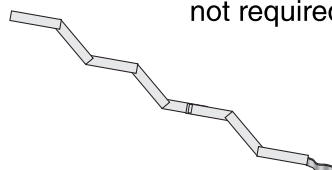


### **Reflector Support Strap, Wide Pattern & Wire Form**

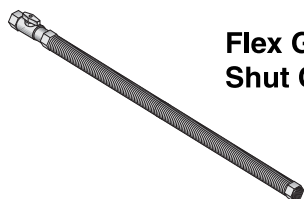


### **Turbulator**

Install turbulator as specified in the "Turbulator Installation" chart. See Page 19, Step 6.4. Turbulator is not required on the ES-125/150.



### **Flex Gas Line with Shut Off Cock**



## 5.1 Standard Parts List

**Table 1: Contents of ES-Series Burner Carton**

Part No.	Description	ES-80	ES-100	ES-125	ES-150
47481X	Burner (Rate and Fuel Varies)	1	1	1	1
02568200	Gasket (Burner to Burner Tube)	1	1	1	1
	Installation, Operation and Service Manual	1	1	1	1
91201708	Pipe Nipple (Black) 1/2" NPT x 4"	1	1	1	1
	Hex Head Nuts 5/16" - 18 Rolok	4	4	4	4
	Split Lock Washer	4	4	4	4
*91412200	Flexible Stainless Steel Gas Hose, 1/2" NPT (US Models Only)	1	1	1	-
	Flexible Stainless Steel Gas Hose, 3/4" NPT (US Models Only)	-	-	-	1
91907302	S-Hooks	1	1	1	1
	Keps Nut	4	4	4	4
03051503	Turbulator Adapter	1	1	-	-
03051504	Turbulator 2.5' (76 cm), Aluminized Steel	4	3	-	-

\*Canadian models: Rubber (Type 1) Gas Hoses available as an accessory. See Page 36.

**Table 2: Contents of Core and Extension Packages**

Part No.	Description	Wide Pattern Core Packages								Wide Pattern Extension Packages							
		Hot Rolled				Aluminized				Hot Rolled				Aluminized			
		20' (6m)	30' (9m)	40' (12m)		10' (3m)	20' (6m)	30' (9m)	40' (12m)	10' (3m)	20' (6m)	30' (9m)	40' (12m)	10' (3m)	20' (6m)	30' (9m)	40' (12m)
	Tube, Hot Rolled Steel, 10' (3 m)	1	2	3		-	-	-	-	1	2	3	4	-	-	-	-
91409408	Tube, HT Aluminized, 10' (3 m)	-	-	-		-	1	2	3	-	-	-	-	1	2	3	4
474833	Burner Tube, HT ALUMI-THERM® Steel, 10' (3 m)	1	1	1		1	1	1	1	-	-	-	-	-	-	-	-
01312700	Coupling Assembly	1	2	3		-	1	2	3	1	2	3	4	1	2	3	4
02750303	Standard Reflector, 8' (3.5 m)	3	4	6		2	3	4	6	2	3	4	6	2	3	4	6
02750800	End Cap	2	2	2		2	2	2	2	-	-	-	-	-	-	-	-
03090101	Tube and Reflector Hanger, Wide Pattern	3	4	5		2	3	4	5	1	2	3	4	1	2	3	4
91907302	S-Hook	3	4	5		2	3	4	5	1	2	3	4	1	2	3	4
03050011	Reflector Support Package, Wide Pattern (Strap, Wire Form, Screws)	2	3	5		1	2	3	5	2	3	4	6	2	3	4	6
91107720	U-Clip Package	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1
90502700	Vent Adapter	1	1	1		1	1	1	1	-	-	-	-	-	-	-	-
01318901	Tube Clamp Package	1	1	1		1	1	1	1	-	-	-	-	-	-	-	-
Part Number		CPWST20HRS	CPWST30HRS	CPWST40HRS		CPWST10ALUM	CPWST20ALUM	CPWST30ALUM	CPWST40ALUM	EXPW10HRS	EXPW20HRS	EXPW30HRS	EXPW40HRS	EXPW10ALUM	EXPW20ALUM	EXPW30ALUM	EXPW40ALUM

**Table 3: ES-Series Component Package Guide**

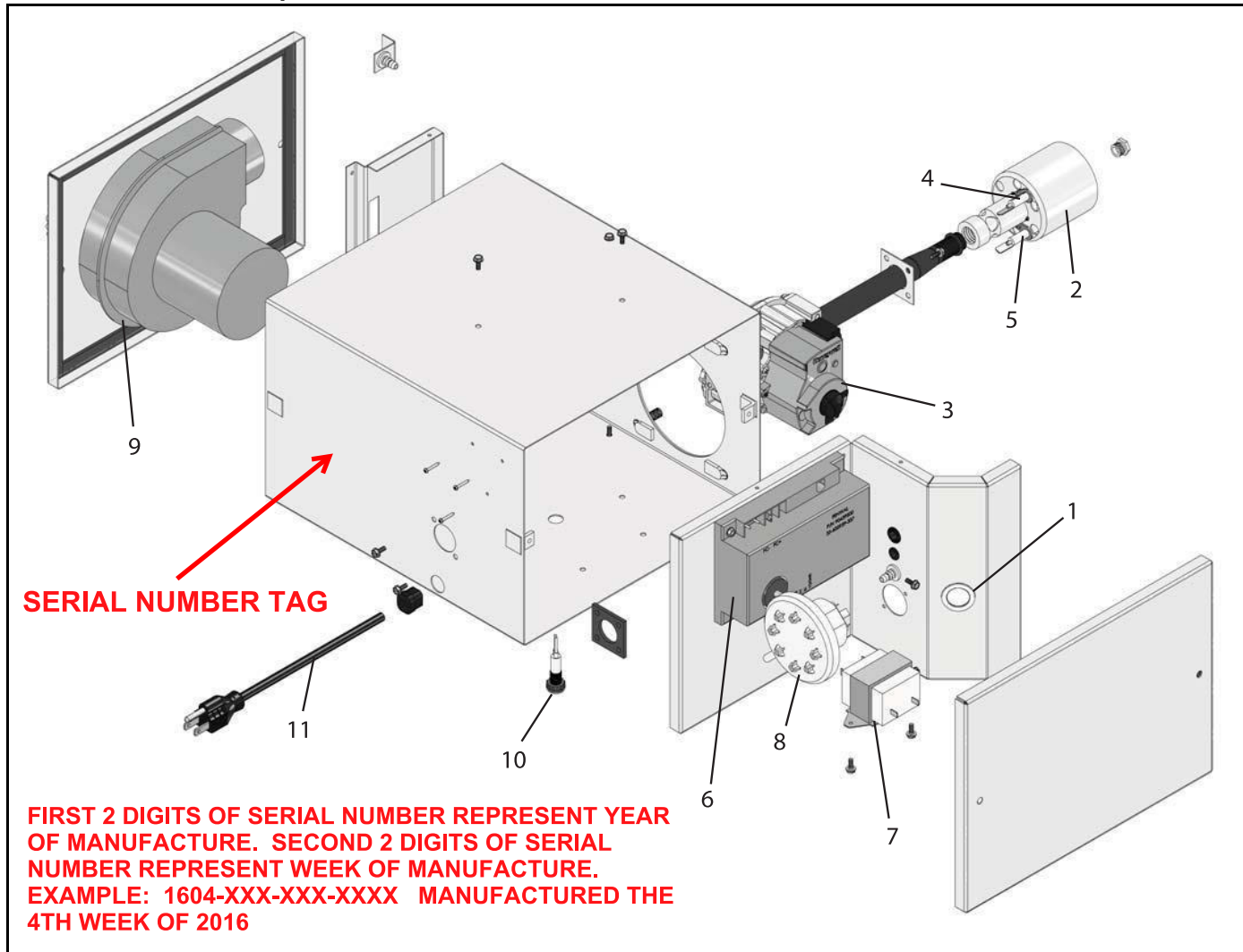
Model	Tubing Length	Wide Pattern Core Packages	
	Minimum	Hot Rolled	Aluminized
ES-80	20' (6 m)		474828
ES-100	30' (9 m)		474829
ES-125	40' (12 m)		474830
ES-150	50' (15 m)		

Additional tubing length may be added to heater. Tubing must be heat-treated, aluminized or porcelain coated. Any additional tubing lengths are considered as vent length for length determination. Maximum venting length for minimum heater length is 45' (13.7 m) total.

# REPAIR PARTS FOR MODELS BUILT BEFORE 12/1/16

ES-SERIES INSTALLATION, OPERATION AND SERVICE MANUAL

**FIGURE 15: Burner Exploded View**



	Description	Part Number
1	Mica Window Assembly	02553203
	Tube Gasket (Not Shown)	474820
2	Burner Cup Assembly	474821
3	Gas Valve (Natural)	474090
3	Gas Valve (LP)	474091
4	Igniter	474822
5	Flame Sensor	90439300
6	DSI Ignition Module	474094
7	Transformer	90436900K
8	Pressure Switch	
	(80)	90439804K (NG), 90439803K (LP)
	(100)	90439805K (NG), 474823 (LP)
	(125)	474824 (NG and LP)
	(150)	474825 (NG), 90439805K (LP)
	Motor/Blower Assembly	90708600-P
9	Blower Inlet Gasket	03050900
10	LED Burner Status Light	474826
11	Power Cord	474827

# REPAIR PARTS FOR MODELS BUILT AFTER 12/1/16

ES-SERIES INSTALLATION, OPERATION AND SERVICE MANUAL

**FIGURE 20: Burner Exploded View**

