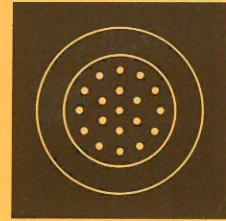


REFRAK SCREEN BURNERS

For furnace
temperatures
up to 2100°F
(1150°C)

CATALOG UNDER
SALES BULLETINS



The Selas RSA Refrak Screen Burner is a sealed-in tunnel burner with superior flame retention and combustion characteristics. The RSA's large, perforated refractory screen distributes the air/gas fuel mixture uniformly within the tunnel, and assures complete combustion over an extremely wide throttling range.

RSA Refrak Screen Burners are employed wherever sealed-in tunnel burners are required and where furnace temperatures do not exceed 2100°F (1150°C). (Use S-123 Refrak Screen Burners for higher furnace temperatures; see Selas Bulletin RS-2). Typical applications include: kilns for brick or clay products; and annealing, melting and heat-treating furnaces for the metalworking industry. RSA Refrak Screen Burners are designed to operate with fuel gas at mixture pressure up to 60 inches w.c. They are now available with various automatic ignition and flame detection accessories including interrupted pilot.

ADVANTAGES

WIDE OPERATING RANGE—Turn down in excess of 10:1 reduces the number of burners required and, therefore, simplifies manifolding and control.

SUPERIOR FLAME RETENTION—High operating pressures, without blow off, can be attained due to the self-piloting action of the many small flames.

LOW OPERATING PRESSURE—The velocity and cooling action imparted by the long, narrow ports permit low operating pressure with no flashback.

COMPLETE COMBUSTION—Uniform furnace atmosphere is assured as all of the gas and air are burned at the burner; tight furnace construction is possible.

REFRACTORY CONSTRUCTION—All parts subjected to heat are made of accurately formed, prefired refractory; they are durable and easy to clean.

EASY INSTALLATION—Conveniently sized burner blocks are easily and quickly cemented into furnace masonry.

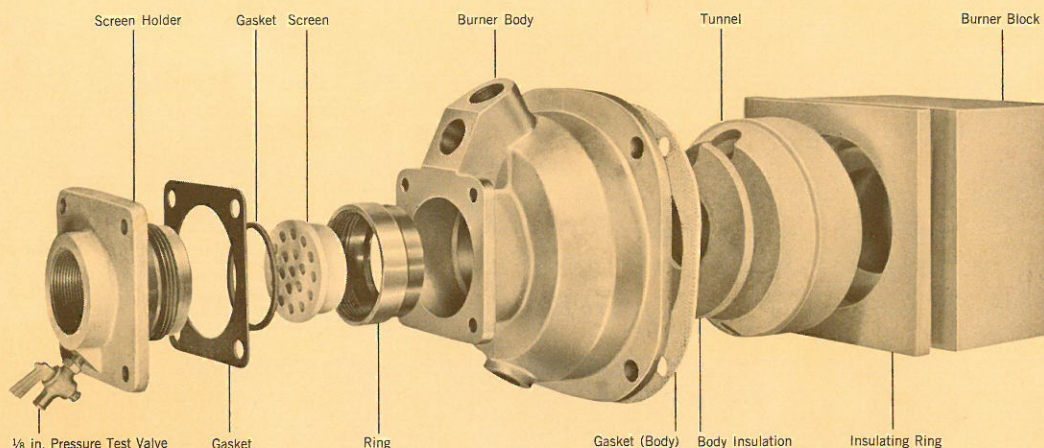
EASY REPLACEMENT—Precision made standard refractory and metal parts facilitate burner change or replacement without disturbing the burner block or furnace lining.

WIDE RANGE OF SIZES—Available in eight standard burner sizes for capacities up to 4,000,000 Btu/hr. (1,000,000 Kcal/hr.), and for wall thickness from 6¾ inches to 12½ inches.

LOW TURBULENCE—Burner noise or "rumble" is greatly reduced with long port, refractory screen.

SHORT FLAME—Long flame "tails" and localized hot spots are minimized; complete combustion takes place at the burner.

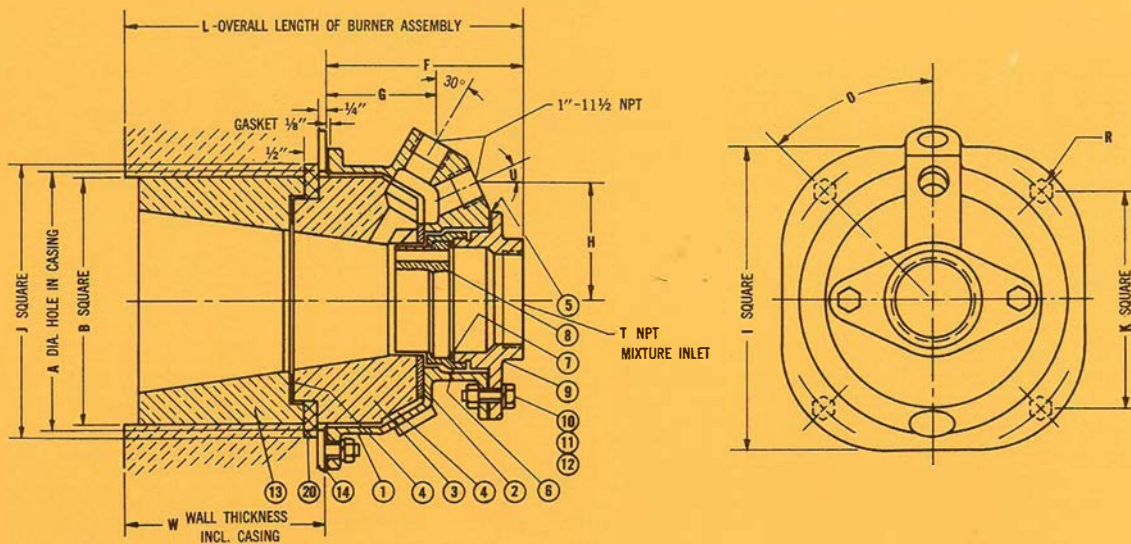
EXPLODED VIEW OF SELAS RSA REFRAK SCREEN BURNER



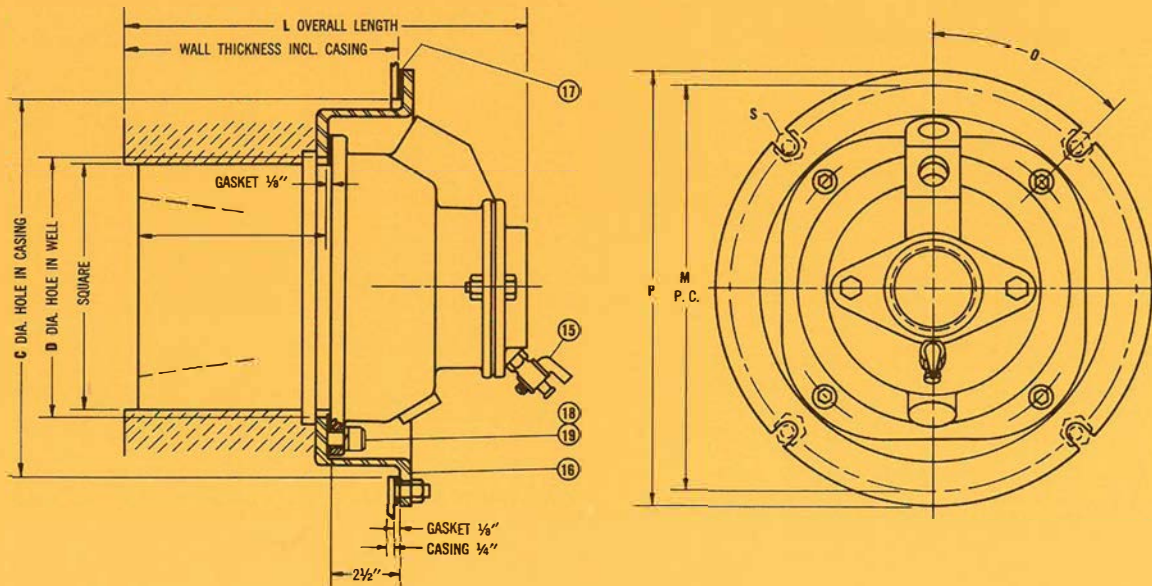
selas
The Heat Technology Company

SELAS CORPORATION OF AMERICA
Dresher, Pa. 19025 • Phone (215) 646-6600
Offices located in principal cities throughout the world.

RSA REFRAK SCREEN BURNER



RSA REFRAK SCREEN BURNER WITH WELL



PARTS LIST

INDEX NO.	NO. REQ'D.	DESCRIPTION	INDEX NO.	NO. REQ'D.	DESCRIPTION
1	1	Burner Body	11	2	3/8 in.—Hex. Nut
2	1	Body Insulation	12	2	3/8 in.—Washer
3	1	Tunnel	13	1	Burner Block
4	—	Cement (Breakable)	14	1	Gasket (Body)
5	1	Gasket	15	1	1/8 in. Pressure Test Valve
6	1	Ring	16	1	Well
7	1	Gasket	17	1	Gasket (Well)
8	1	Screen	18	4	1/2 in.—Socket Hd. Cap Screw
9	1	Screen Holder	19	4	1/2 in. Lockwasher
10	2	3/8 in.—Hex. Head Bolt	20	1	Insulating Ring

NOTE: Burner block, Index No. 13, is supplied loose. For method of installation, refer to Multi No. 558.

RSA BURNER SELECTION

BURNER SELECTION CHART

1
STEP

Select appropriate burner size from selection chart.

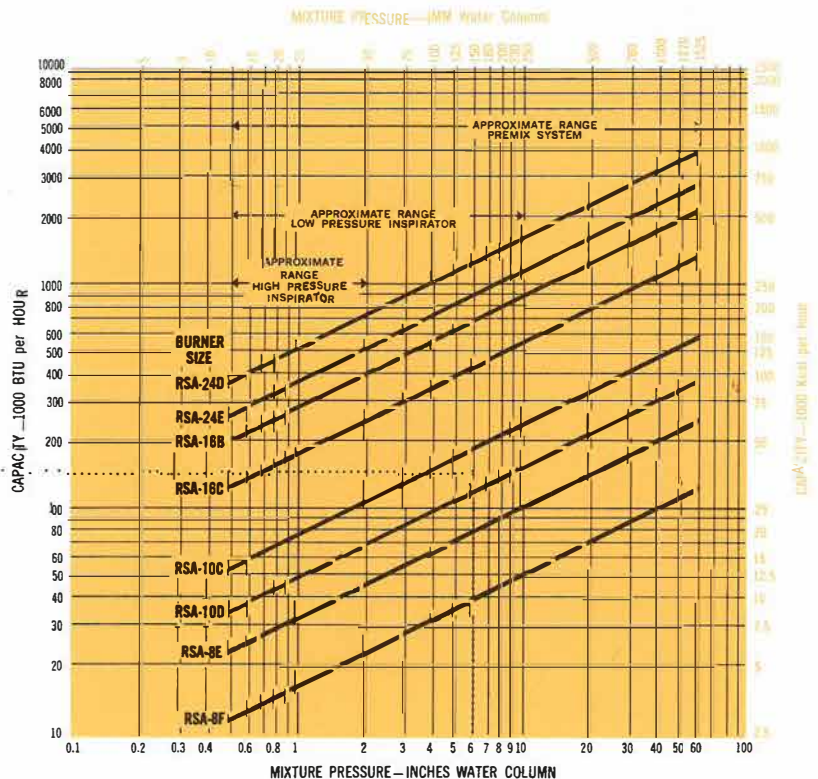
SAMPLE BURNER SIZE

EXAMPLE:

Burner requirement is 150,000 Btu (37,500 Kcal); operating pressure—6" w.c.

SAMPLE BURNER

SIZE DESIGNATION: **RSA-10C**



FURNACE WALL THICKNESS:			
FROM 6¾" (171)	FROM 8¼" (210)	FROM 9¾" (248)	FROM 10¾" (273)
TO 7¾" (197)	TO 9¼" (235)	TO 10¾" (260)	TO 12¼" (311)
-1	-2	-1W*	-2W*

2
STEP

DIMENSION SCHEDULE

(IN INCHES AND MILLIMETERS)

Select suffix consistent with furnace-wall thickness from dimension schedule.

EXAMPLE: Furnace wall thickness of 11 inches.

A furnace wall 11 inches thick falls within the dimensions listed in the fourth column. Thus the suffix "2W" applies. Continuing the example used in STEP 1 the number is now **RSA-10C-2W**. (See Step 3.)

BURNER SIZE	L				Port Area Sq. In.	A	B	C	D	F	G	H	I	J	K	M	O	P	R	S	T	U
RSA-8E	13½"	15"	13½"	15"	.246	6½"	6"	10¾"	6½"	6¾"	3¾"	2¾"	7¾"	7"	5½"	11¾"	45°	12½"	①	②	1	20°
RSA-8F	(343)	(381)	(343)	(381)	.118	(185)	(152)	(263)	(165)	(171)	(84)	(62)	(197)	(178)	(149)	(289)		(317)				
RSA-10C	13½"	15"	13½"	15"	.616	7¾"	7½"	11½"	7¾"	6¾"	3¾"	2¾"	9"	8½"	6¾"	12½"	45°	13¾"	②	②	1¼	20°
RSA-10D	(343)	(381)	(343)	(381)	.410	(197)	(190)	(295)	(197)	(171)	(84)	(70)	(228)	(215)	(162)	(321)		(349)				
RSA-16B	13½"	15½"	13½"	15½"	1.760	8½"	9"	12½"	8½"	6¾"	3¾"	3¾"	10½"	9"	7½"	13½"	60°	14¾"	②	③	2	25°
RSA-16C	(346)	(384)	(346)	(384)	1.180	(216)	(225)	(321)	(216)	(175)	(92)	(90)	(257)	(228)	(181)	(346)		(375)				
RSA-24D	14"	15½"	14"	15½"	3.730	9½"	9"	13¾"	9½"	7¼"	3¾"	4¼"	11"	10"	7¾"	14¾"	60°	15¾"	②	③	3	25°
RSA-24E	(355)	(394)	(355)	(394)	2.850	(243)	(228)	(349)	(243)	(184)	(95)	(108)	(279)	(254)	(200)	(375)		(401)				

* WITH WELL

() = mm

① Four ⅜-inch 16 NC 1¼ LG. stud, washer and nut by customer.

② Four ½-inch 13 NC 1¼ LG. stud, washer and nut by customer.

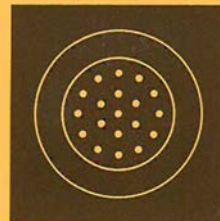
③ Six ½-inch 13 NC 1¼ LG. stud, washer and nut by customer.

NOTE: ⅜-inch = 10 mm; ½-inch = 13 mm.

REFRAK SCREEN BURNERS

For furnace
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up to 2100°F
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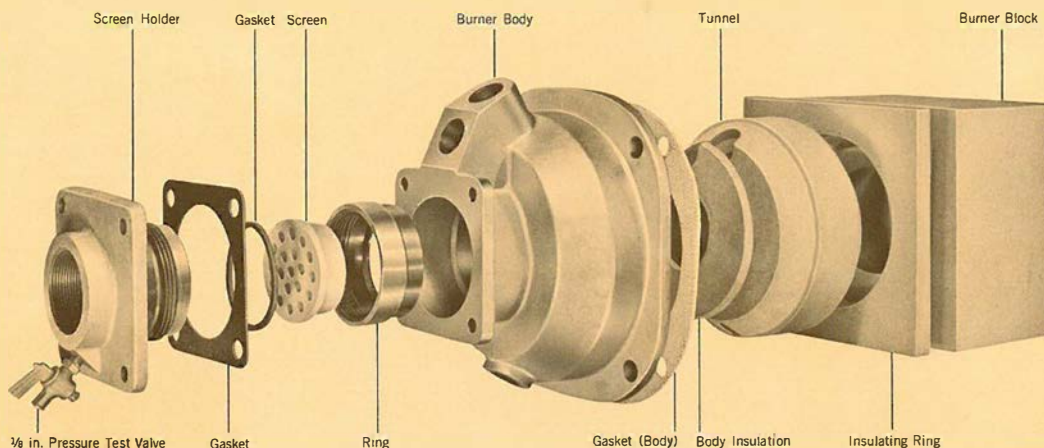
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