

- **Superior luminous flame
Heat Transfer**
- **Exceptionally Low NOx**
- **Low Oxygen Pressure Requirement**
- **Simple Installation**
- **Simple low maintenance Operation**

The 5013S produces exceptionally low NOx emissions. It is a combination of a special 5010N-J3 burner and a special 5030-L lance. The 5013S packages these two together to simplify operation, mounting, piping, and installation of the resulting low NOx oxygen burner.

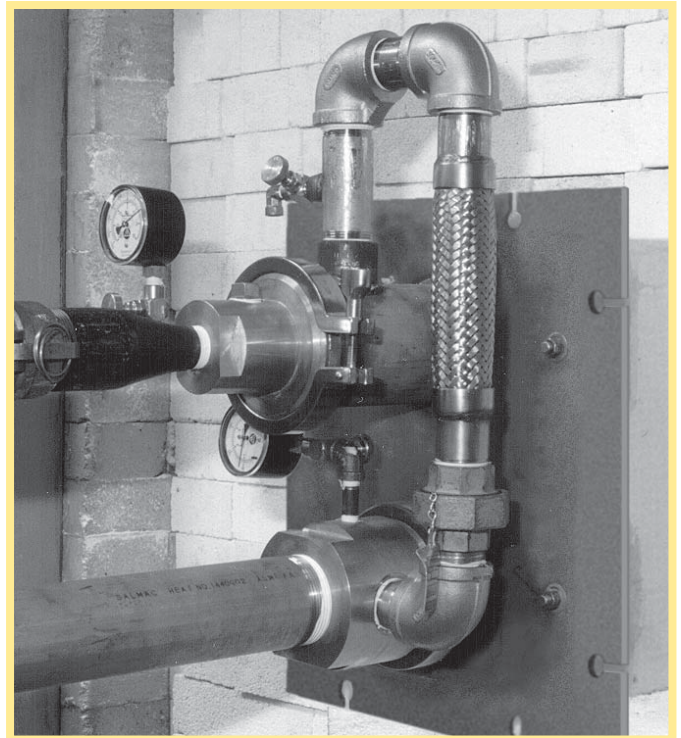
Operation

20% of the theoretical oxygen is supplied to the burner while the remaining 80% oxygen is supplied to the lance. The result is a luminous flame with delayed mixing of fuel and oxygen for exceptionally low NOx production.

The fuel and oxygen tubes can be easily removed from the back of the burner for inspection.

Flame Ignition and Supervision

The burner mounting plate has a rear connection designed to accept a UV scanner. Contact North American for specific application information. If a flame supervision system is not used, the burner must only be operated when the chamber temperature has been verified to be above 1400 F. The 5013S has a pilot or spark ignition system.



5013S Mounted On A Laboratory Furnace

Applications

Steel reheat furnaces, in/out furnaces, box forging, car bottom forging, aluminum melters, and other high temperature furnaces can benefit from the 5013S's high quality heating and exceptionally low NOx.

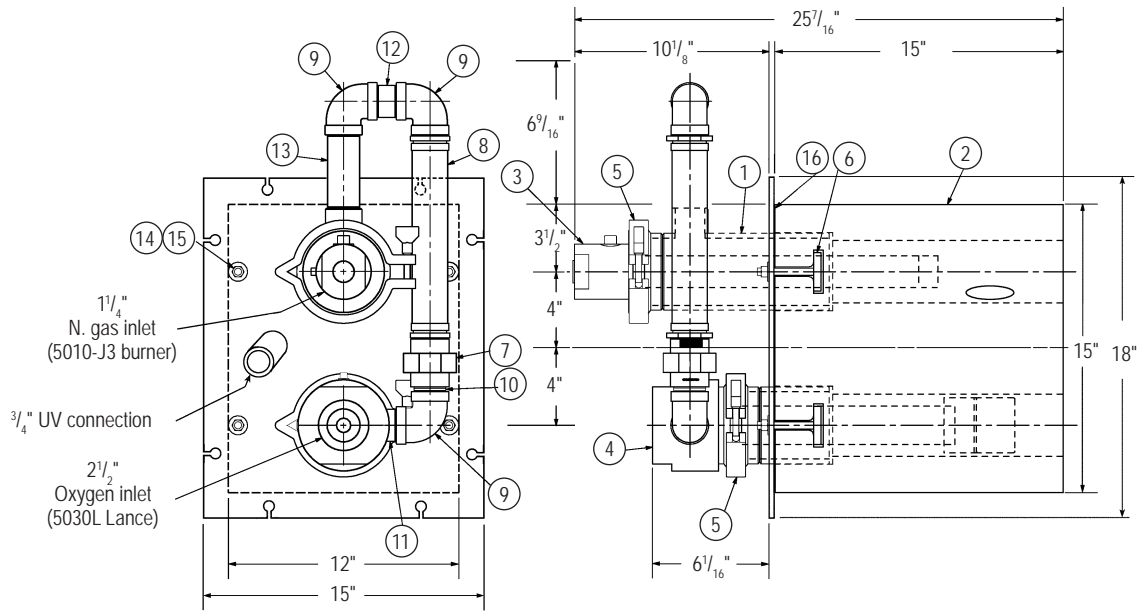
Ordering

Specify oxygen and natural gas flows in scfh. The 5013S burners' orifices are custom-sized to order.

CAPACITIES

"J" Burner			"L" Lance		Total O ₂ scfh
O ₂ scfh	Natural Gas scfh	Natural Gas osig	O ₂ scfh	O ₂ osig	
800	2000	4.0	3200	7.0	4000
1200	3000	8.0	4800	16.0	6000
1600	4000	14.0	6400	27.0	8000
2000	5000	21.0	8000	40.0	10000
2400	6000	29.0	9600	46.0	12000

DIMENSIONS



DIMENSIONS SHOWN ARE SUBJECT TO CHANGE. PLEASE OBTAIN CERTIFIED PRINTS FROM FIVES NORTH AMERICAN COMBUSTION, INC.
IF SPACE LIMITATIONS OR OTHER CONSIDERATIONS MAKE EXACT DIMENSION(S) CRITICAL.

PARTS LIST

Item	Description	Quantity	Material	Part no.
1	Mounting plate	1	—	—
2	Tile	1	Refractory	—
3	"J" burner (special)	—	—	—
4	"L" lance (special)	—	—	—
5	Clamp	2	SST	R120-1175
6	Anchor	4	SST	4-22952-1
7	Orifice union	1	—	8699-2-C815
8	1 1/4" flex hose x 12" long	1	—	8773-2-HTT/12C
9	1 1/4" x 90° elbow	3	SST	R590-4571-S
10	1 1/4" x close nipple	1	304 SST	R590-6600-S
11	1 1/4" x 2" long nipple	1	304 SST	R590-6601-S
12	1 1/4" x 2 1/2" long nipple	1	304 SST	R590-6602-S
13	1 1/4" x 5" long nipple	1	304 SST	R590-6607-S
14	3/8"-16 hex nut	4	Steel	R510-2259-C
15	3/8" flat washer	4	Steel	R970-7300
16	Joint compound	—	—	R110-7230

North American offers "Total Process Solutions" for your combustion needs. Custom Oxygen Control Systems (Bulletin 8502) and MARC® III Oxy Combustion Controller (Bulletin 8198) are ideal compliments to the 5013S burner. Contact your local North American office for further information.

Patents 5,267,850 and 5,076,779. Manufactured under license from Praxair Inc.

WARNING: All equipment and pipe used with oxygen must be made of suitable materials and properly cleaned for oxygen service. Operating personnel should be trained in safety procedures. Failure to do so could result in accidental injury or death. Contact your oxygen supplier and North American for information.

WARNING: Situations dangerous to personnel and property may exist with the operation and maintenance of a combustion equipment. The presence of fuels, oxidants, hot and cold combustion products, hot surfaces, electrical power in control and ignition circuits, etc., are inherent with any combustion application. Parts of this product may exceed 160F in operation and present a contact hazard. Fives North American urges compliance with National Safety Standards and insurance Underwriters recommendations, and care in operation.

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