

Selas Oxy Conical Flame Burner SOCF 04000

Selas Oxy Conical Flame 04000

The Selas Oxy Conical Flame Burner is designed to provide a luminous flame with highly radiative heat transfer to the load. The nozzle design promotes delay in mixing of the gas and oxygen increasing the cracking and soot generation in the flame thus increasing the radiative heat flux.

The nozzle design promotes stable mixing of the gas and oxygen so that the overall flame remains constant as fuel use varies.

Selas Oxy Conical Flame Burner	Capacity mm Btu			Capacity KW		
	Min	Mid	Max	Min	Mid	Max
SOCF 04000	1.0	2.5	4.0	293.1	732.7	1172.3

Model	N. Gas Flow Nm ³ /hr		N. Gas Press mBar		Oxygen Flow Nm ³ /hr		Oxygen Press mBar	
	Min	Max	Min	Max	Min	Max	Min	Max
SOCF 04000	26.8	104.0	1.2	26.1	53.6	288.0	2.5	69.7

Model	N. Gas Flow SCFH		N. Gas Press IWC		Oxygen Flow SCFH		Oxygen Press IWC	
	Min	Max	Min	Max	Min	Max	Min	Max
SOCF 04000	1000	4000	0.5	10.5	2000	8000	1.0	28

Notes:

1. N. Gas calorific value assumed at 1028 Btu/Cu. Ft.; 9170 Kcal/M³
2. Oxygen ratio is shown at 2.0. Operating ratio can vary based on actual gas and oxygen purities.
3. Pressures shown as reference only should not be used for control. Measured on the header before connection to burner and will vary based on actual conditions and equipment.
4. The burner is available with various options including:
 - a. Tip sizes to alter flame length or velocity
 - b. Extended block / burner to accommodate furnace size variation
 - c. BSPT threading, quick couplers and accessories
 - d. Flame ignition / safety
 - e. Ability to stage the oxygen to the burner
5. Contact your Selas representative for further information.



The Heat Technology Company™

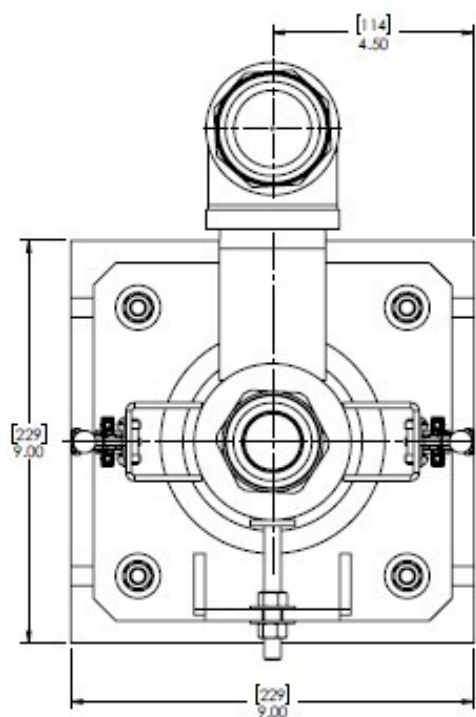
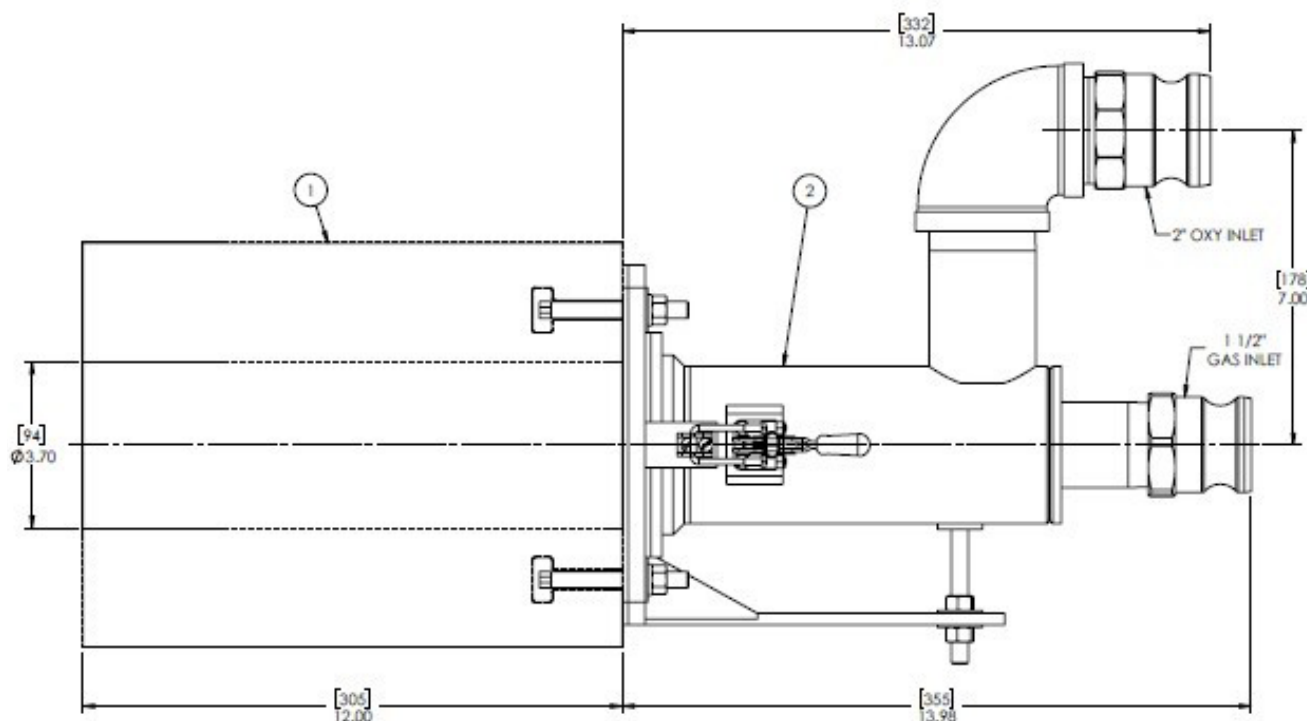
Conical Flame Burner Layout and Dimensions

Oxygen Inlet Options:

1. Straight up
2. Elbow to left or right
3. Elbow to left or right with elbow down

Gas Inlet Options:

1. Straight back
2. Elbow down or up
3. Elbow to left or right



Item	Part Number	Description	QTY.
1	95906602	OXY CF 3.50, BURNER BLOCK, 3.70" BORE	1
2	95906506	OXY CF 3.50, 4MM, BNR/BRK ASSY W/ FTGS	1

SOCF 04000	Lbs.	KG
Burner Weight with Fittings:	20	9.1
Block Weight	99	45.0
Note: Weight can vary based on burner set up		

Block Size

	Burner Block Dim. Inches		
SOCF	H	W	D
04000	9.0	9.0	12.0

	Burner Block Dim. mm		
SOCF	H	W	D
04000	228.6	228.6	304.8

Pipe Size

	Pipe Dim. Inches	
SOCF	N. Gas	Primary O2
04000	1.5	2.0

	Pipe Dim. mm	
SOCF	N. Gas	Primary O2
04000	38.1	50.2

Approx. Flame Dim.

SOCF	04000	
MM Btu	L (Inch)	L (mm)
1.0	54.0	1371.6
2.0	60.0	1524
3.0	69.0	1752.6
4.0	78.0	1981.2

Width is about 9" - 12" or 228 - 305 mm



The Heat Technology Company™

Selas Oxy Conical Flame Burner SOCF 04000

General Items

Safety

Good safe oxygen and natural gas safety, operational and engineering practices should be adhered to in the installation and operation of this equipment and all combustion equipment. If assistance is needed with review of engineering codes, systems, piping and general combustion safety practices, please contact your Selas representative for further assistance.

Copyright

Copyright 2026 by Selas Heat Technology Co. All rights reserved worldwide. This publication is protected by federal regulation and shall not be copied, distributed, transmitted, transcribed or translated into any human or computer language, in any form or by any means, to any third parties, without the express written consent of Selas.

Disclaimer Notice

In accordance with the manufacturer's policy of continual product improvement, the product presented in this brochure is subject to change without notice or obligation.

The material in this manual is believed adequate for the intended use of the product. If the product is used for purposes other than those specified herein, confirmation of validity and suitability must be obtained. Selas warrants that the product itself does not infringe upon any United States patents. No further warranty is expressed or implied.

Liability & Warranty

We have made every effort to make this manual as accurate and complete as possible. Should you find errors or omissions, please bring them to our attention so that we may correct them. In this way we hope to improve our product documentation for the benefit of our customers. Please send your corrections and comments to our Technical Documentation Specialist.

It must be understood that Selas's liability for its product, whether due to breach of warranty, negligence, strict liability, or otherwise is limited to the furnishing of replacement parts and Selas will not be liable for any other injury, loss, damage or expenses, whether direct or consequential, including but not limited to loss of use.

11012 Aurora Hudson Rd • Streetsboro, OH 44241

1-800-523-6500 • sales@selas.com

www.selas.com



The Heat Technology Company™