

METALLIC NOZZLE-MIX GAS BURNERS

MODEL : **MNG**

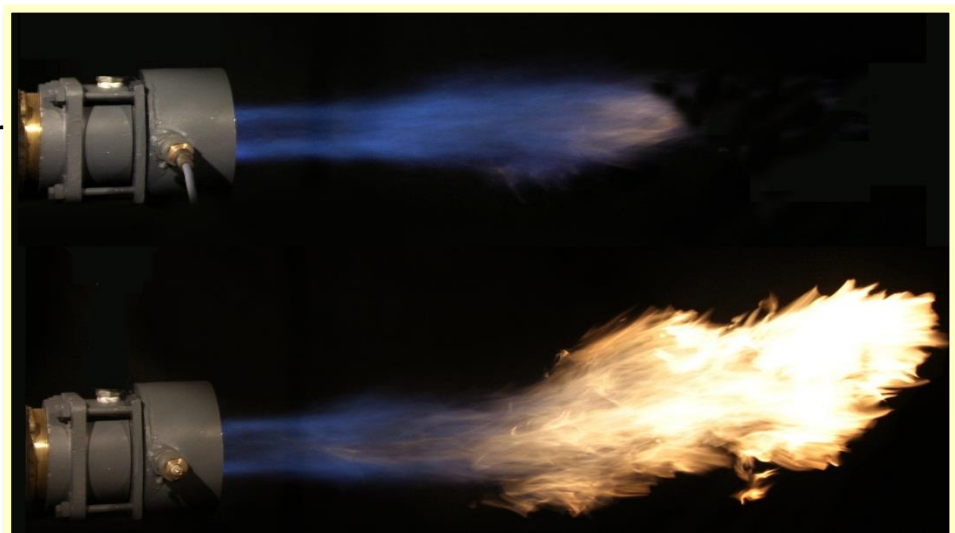
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MNG Nozzle-Mix gas burners operate with a wider stability range than premix burners. Ease of installation, operation, and maintenance has been stressed in the MNG design.

Body sizes from 1" to 4" are available, with two deferent models (LP,HP) to serve a wide range of application. The "LP" version is a low pressure burner that is designed to be used between 1-16 mbar air pressures. The "HP" version requires 60mbar air pressure, and can be operated with an air gas ratio regulator.

**Flame length
On stoichiometric air**



**Flame length
On excess fuel**

Burner model (LP & HP)	Kcal/hr at 70 mbar (air pressure)	Flame Length(cm) with 70 mbar (air pressure)
		GAS
4MNG	4000	20
7MNG	7000	25
22MNG	22000	35
40MNG	40,000	50
90MNG	90,000	80
250MNG	250,000	120

SHOLEH SANAT ENG. & MFG. CO.

MANUFACTURER OF BURNERS FOR FURNACES

FUEL CONVERSION OF BOILERS & FURNACES, DESIGN , CONSULTATION AND INSTALLATION

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"LP" Low Pressure

The **"LP"** version is used when only low pressure air (1-16mbar) is available. The MNG has a wider stability range.

The air pressure across the burner tip can be set low, 1mbar is adequate. Because a small amount of gas is pre-mixed into the air, it is important that the gas pressure be 3 to 6 times as high as the air pressure to ensure good stability. Always install a pressure tap in the air and gas lines at the burner tip to check for suitable pressures.

Do not use an air/gas ratio regulator with the **"LP"** version unless it provides gas pressure 3- 6 times as high as the air pressure.

"HP" Burners

The **"HP"** versions allow use of an air/gas ratio regulator. If air pressure is in the range where a **"HP"** burner can be used with a regulator, it is a better choice than the **"LP"**.

The MNG-HP is designed so that when the air and gas pressures are equal into the burner tip, the flame will burn with approximately 100% excess fuel which is well within the rich stability limit. This makes it easy to set the burner when using a ratio regulator. In many cases the gas adjustable valve can be left fully open, and the regulator will maintain proper air/fuel ratio. The wide stability range makes the MNG ideal for multiple burner applications.

The **MNG** flame is visible from an observation port installation on an air inlet. Although the length of the flame can not be judged fully, it is still useful to use the observation port for setting up the burner and monitoring performance installation.

1. Install the burner in the proper position.
2. Connect air and gas lines to sources upstream of burner control valves. The air lines have to be sized as large as the burner tip thread.
3. If possible use an air/gas ratio regulator on the gas line (except the **"LP"**). Although the ratio stability limits are very wide on the MNG, a regulator assures the burner will run consistently if air pressure varies.

Lighting "LP"

1. Close all fuel supply lines.
2. Set the air pressure at the burner.
3. Supply an ignition source to the spark plug and open the gas until the burner lights.
4. Gas pressures 3-6 times greater than the air pressure are recommended.

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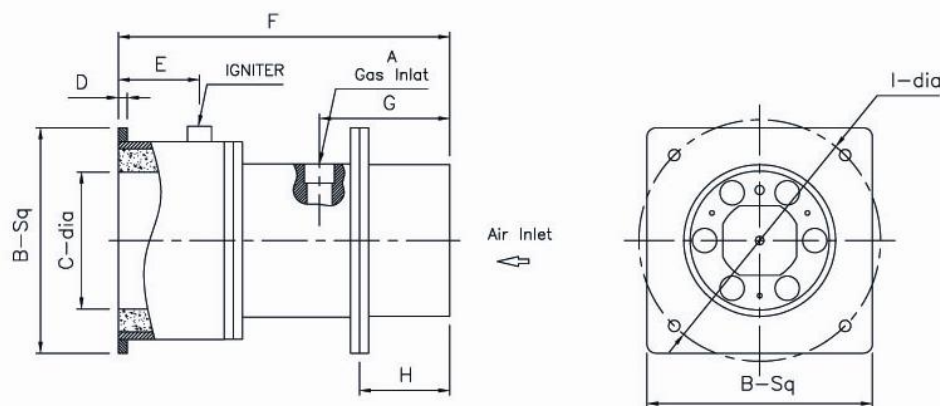
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Lighting "HP"

1. Close all fuel supply lines.
2. Set the air pressure at the burner to 20 to 40mbar.
3. If an air/gas ratio regulator is installed, open the gas adjustable valve to 100% open. If there is no ratio regulator, set the gas pressure so that it equals the air pressure.
4. Supply and ignition source to the spark plug and open the gas valve.
5. Make flame adjustments using the adjustable valve or air valve if necessary.



Burner model (LP & HP)	4 MNG	7 MNG	22 MNG	40 MNG	90 MNG	250 MNG
Pilot head(in)	3/4	1	1.1/2	2	3	4
A(in)	1/4	1/4	1/4	1/4	1/2	1/2
B(mm)	-	-	-	-	-	-
C(mm)	19.1	20	39	51	78	103
D(mm)	-	-	-	-	-	-
E(mm)	50	50	41	42	64.5	66
F(mm)	122	122	113	115.3	166	194
G(mm)	82	75	65	47.3	62.5	74
H(mm)	-	-	-	-	-	41
I(mm)	-	-	-	-	-	-



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