

MEDIUM VELOCITY DUAL FUEL BURNERS

MODEL : **MGHO**

BULLETIN : 202

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MGHO dual-fuel burners are nozzle mix, sealed in burner for gas, light or heavy oil. Capable of efficient operation throughout a wide temperature range, this burner is equally used at home on low temperature ovens and high temperature forge and melting furnaces.



Ruggedly built for sustained, maintenance free operation, this burner also provides for quick change of fuels without disturbing process operations.

Sealed mountings help maintain furnace pressure, controlled atmosphere, and closer air/fuel ratio control all contributing to better product quality.

COMBUSTION CHARACTERISTICS

Oil: Oil viscosity at the burner should not exceed 100 SSU.

Minimum atomizing air pressure at the burners is 70 mbar for light oil, 100 mbar for heavy oil.

Gas: Atomizing air (18 mbar minimum) should be left on. Maximum required natural gas pressure at the burner for stoichiometric ratio is about 1/4 combustion air pressure.

Air/Fuel Ratio: These burners are stable with at least 100% excess air. They also can operate with excess fuel without forming carbon, but additional air for complete combustion must be available in the furnace near the burner.

Turn down: MGHO can be turned down to atomizing air only (with fuel to match). For prolonged operation air only, specify an alloy burner nose if furnace temperature is above 800 °C.

Preheated Air: MGHO is designed for use with ambient air. They are suitable for some preheated air applications (up to 400 °C preheat).

SHOLEH SANAT ENG .& MFG. CO.

MANUFACTURER OF BURNERS FOR FURNACES

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

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TOTAL AIR CAPACITIES

(Including main and atomizing air)

Burner Model	70 mbar air at burner				100 mbar air at burner				Approx. flame Length(m) With 70 mbar main air -in open furnace
	Air SCMH	Light oil LPH	Heavy oil LPH	Gas SCMH	Air SCMH	Light oil LPH	Heavy oil LPH	Gas SCMH	
1500 MGHO	1400	140	130	140	1700	176	160	170	2.7
2500 MGHO	2300	240	210	230	2800	290	260	280	3.6
4500 MGHO	2300	240	210	230	5700	600	530	570	5.5
7500 MGHO	2300	240	210	230	8500	890	800	850	6

SPECIFICATIONS

Flame Supervision: An ultraviolet cell will monitor pilot or main flame on gas or oil. For maximum safety SHOLEH SANAT urges interrupted pilots when flame safeguards are used , pilots should be on only for a preset ignition period, after which flame supervision detects main fire only.

Tile/Installation: Burner tiles are cast refractory rated for 1500 °C furnace temperature. They should be supported securely in the furnace wall by a layer of cast able refractory (not insulation) at least 9" thick all around the tile, extending back to the furnace shell and securely anchored to it. Tiles are replaceable in the field For furnace walls thicker than the length of the tile, tunnel beyond the end of the tile should be flared at least 30° angle, starting at the OD of the tile. Complete burners include tile, mounting plate, and an observation port into which a small quantity of atomizing air is introduced to keep the glass clear.

Main air capacities in SCMH

Burner Model	Main air pressure (mbar)					
	3.5	20	24	40	60	70
1500 MGHO	300	670	740	850	1040	1200
2500 MGHO	498	1110	1218	1440	1713	1982
4500 MGHO	1036	2322	2535	2946	3597	4135
7500 MGHO	1543	3456	3824	4362	5353	6175

Atomizing air capacities in SCMH

Burner Model	60	70	75	83	90	100
1500 MGHO	170	180	200	210	215	220
2500 MGHO	300	320	340	360	374	390
4500 MGHO	487	520	555	586	612	637
7500 MGHO	770	825	875	923	966	950

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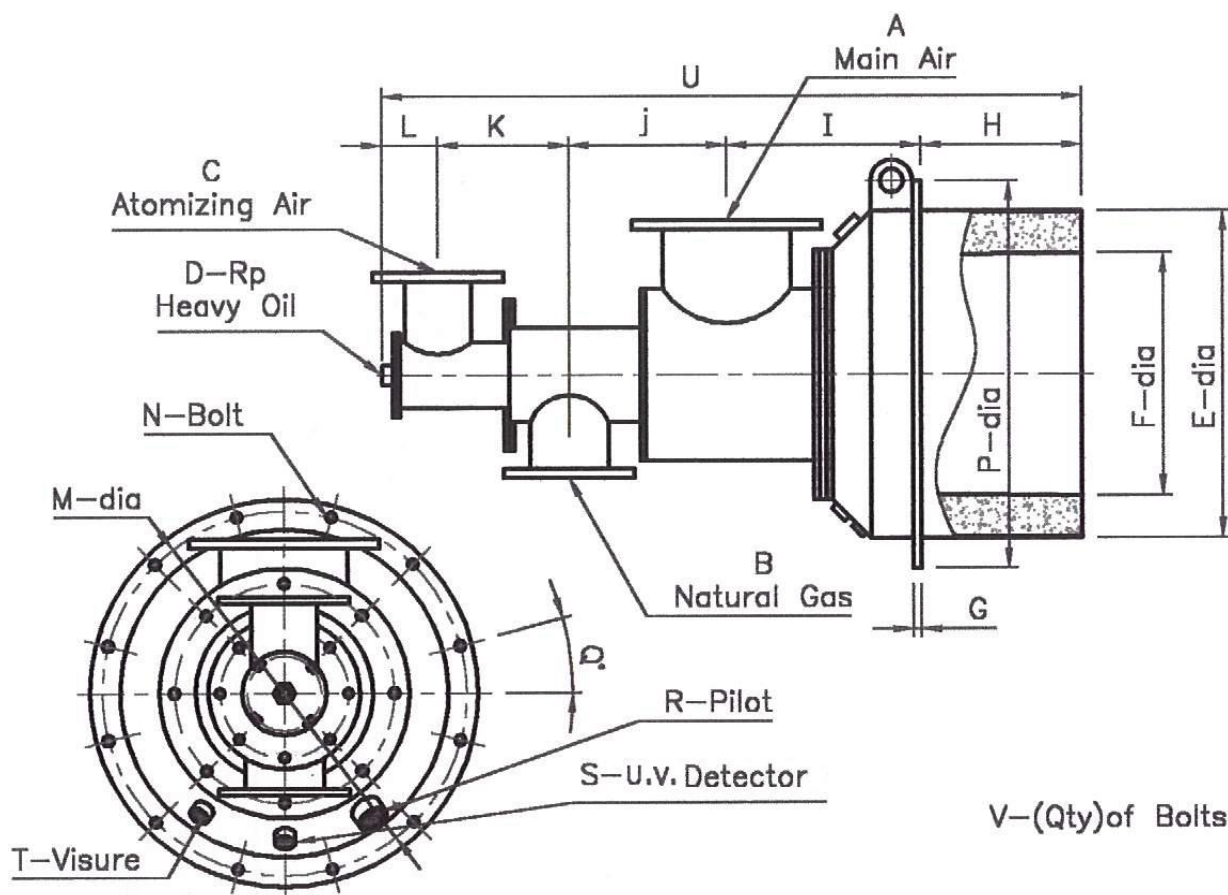
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LEARANCE Dimensions

Burner Model	A in	B in	C in	D in	E mm	F mm	G mm	H mm	I mm	J mm
1500 MGHO	6	2	2	3/8	450	314	12	254	302.8	223
2500 MGHO	6	3	3	1/2	483	343	15	330	337	324
4500 MGHO	8	4	4	1/2	590	406	12	331	380	292
7500 MGHO	10	6	6	1/2	700	520	15	345	415	337.5

Burner Model	K mm	L mm	M mm	N mm	P mm	Q Deg.	R in	S in	T in	U mm	V Qty
1500 MGHO	147	100	542	20	590	22.5	1.1/2	3/4	3/4	1038.8	8
2500 MGHO	232	126	543	20	610	11.25	1.1/2	3/4	3/4	1348	8
4500 MGHO	233	141	650	20	710	11.25	1.1/2	3/4	3/4	1377	8
7500 MGHO	280	119.5	780	20	830	15	2	3/4	3/4	1497	12

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DIMENSIONS - Main air, gas, atomizing air, and oil connections can be rotated relative to one another and to the mounting plate. Drawings show connections as assembled in the factory. These arrangements reduce maintenance by preventing oil dripping into air or gas manifolds (which should be above burners) and by minimizing dirt accumulation in pilots and flame supervisory devices. Pilot and main air connections cannot be aligned in the same direction.



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