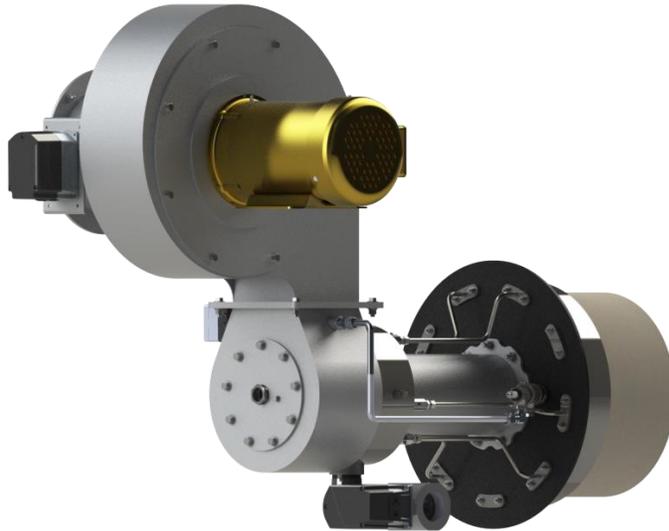


MODEL KX BURNER

Low Emission, Low Excess Air, High Efficiency Gas Burner



TECHNICAL BROCHURE



MODEL KX Description

HEAT RELEASE RANGE

1.0 to 40MMBTU/hr.

BURNER TURNDOWN

Up to 8 to 1.

FUEL

Natural Gas (NG)

Propane (LP)

Town Gas (TG)

Digester Gas (DG)

EMISSION LEVELS

≤30 ppm NO_x at 15% Excess Air

≤9 ppm NO_x at 30% Excess Air

Exact emission performance may vary based on the application and combustion chamber size. No guarantee of emission is intended or implied without specific written guarantee from Access Combustion.

Access Combustion **Model KX** Package Burner combines multiple low NO_x combustion technologies including lean premix, stage fuel and internal recirculation to achieve low emissions and high efficiency performance. Ultra-low NO_x emissions and near zero CO emissions are achievable without the use of external flue gas recirculation.

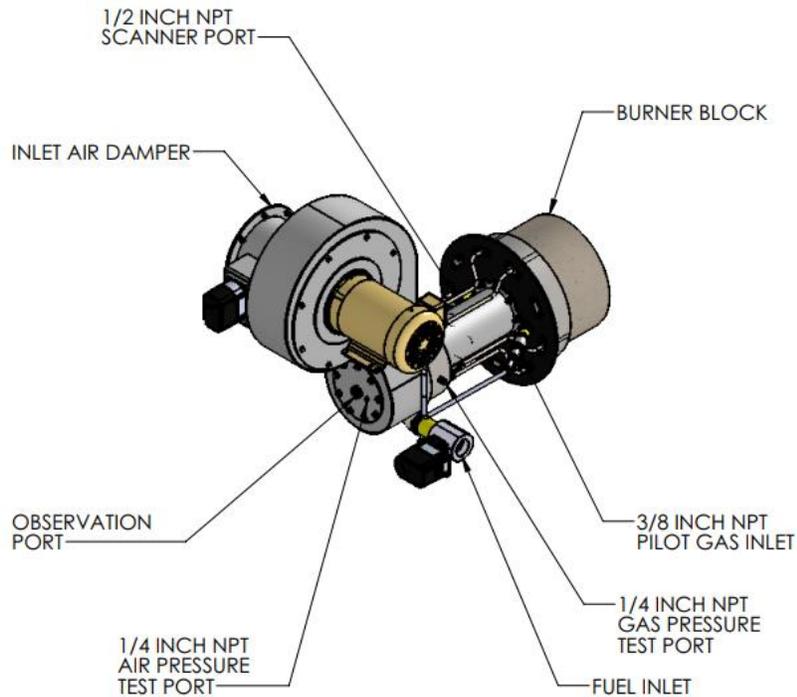
Model KX burner is ideal for thermal fluid heater, as well as water-tube, firebox and thermal oxidizers. Its small footprint and modular design make it ideal for retrofit locations, where space or speed of installation is of concern. The burner is available with package combustion fan (PB), or (EB) less blower configuration where external blower is provided by the customer.

Standard configuration includes a pilot ignition system, package blower, gas and air control valves, provision for UV or IR flame scanner and a refractory block. The refractory block is available in standard dimensions or custom design per job to fit the application.

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MODEL KX Size (Fire Rate)



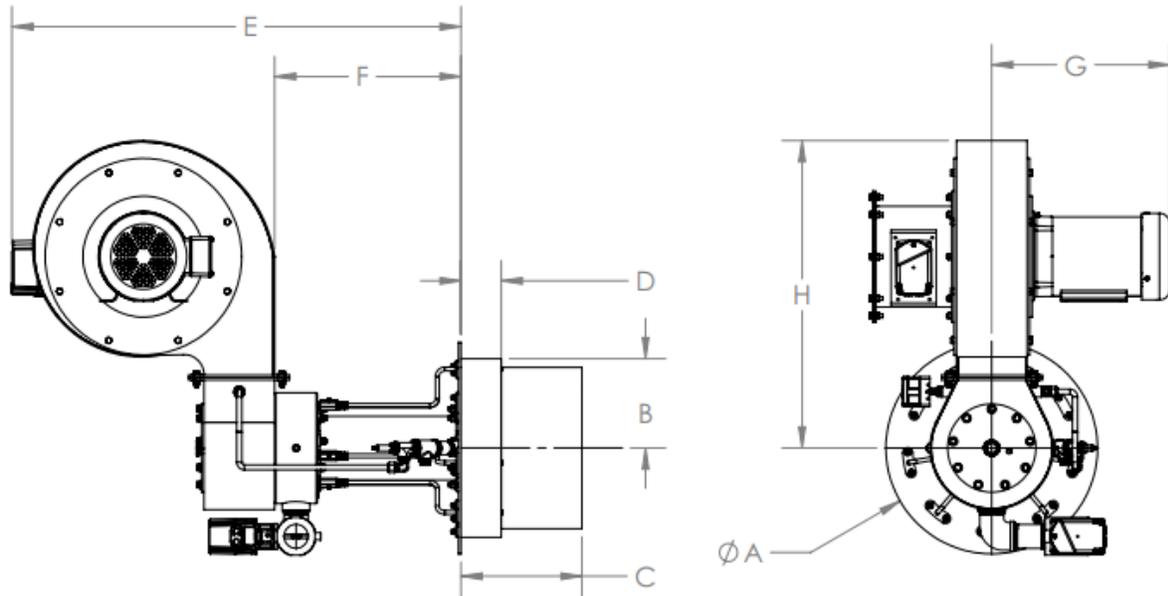
Typical Burner Data								
Burner Model	Input Rate MMBTU	Air Flow CFM	Motor HP	Natural Gas Pressure (PSI)	Pilot Pressure (inch WC)	Pilot Capacity MMBTU	Pilot Inlet Size (NPT)	Fuel Inlet Size (NPT)
KX04	2.5	520	3	4	6	0.06	0.375	1.0
KX06	5	1040	5	4	6	0.06	0.375	1.5
KX08	10	2080	10	6	12	0.08	0.375	2.0
KX10	15	3120	15	6	12	0.08	0.375	2.0
KX12	20	4160	20	6	16	0.1	0.375	2.0
KX14	30	6240	25	6	16	0.1	0.375	2.5
KX16	40	8320	30	6	16	0.1	0.375	3.0

Burner date is based on the following theoretical conditions:

Fuel - Natural Gas at 60deg F, with 1000BTU/FT³, specific gravity of 0.6.

Combustion Air at 70deg F, 21% O², 50% humidity, specific gravity of 1.0

MODEL KX Size (Dimensions)



Typical Burner Size								
Burner Model	A (inch)	B (inch)	C (inch)	D (inch)	E (inch)	F (inch)	G (inch)	H (inch)
KX04	18	7	10	4	34	16.5	16	27
KX06	21	9	12	4	45	18.5	18	30.5
KX08	26	11	12	4	48	18.5	20	32
KX10	30	13	16	6	48	20.5	20	36
KX12	34	15	16	6	52	20.5	20.5	36
KX14	38	17	16	6	52	22.5	20.5	40
KX16	42	19	16	6	60	22.5	22	44

Material of Construction

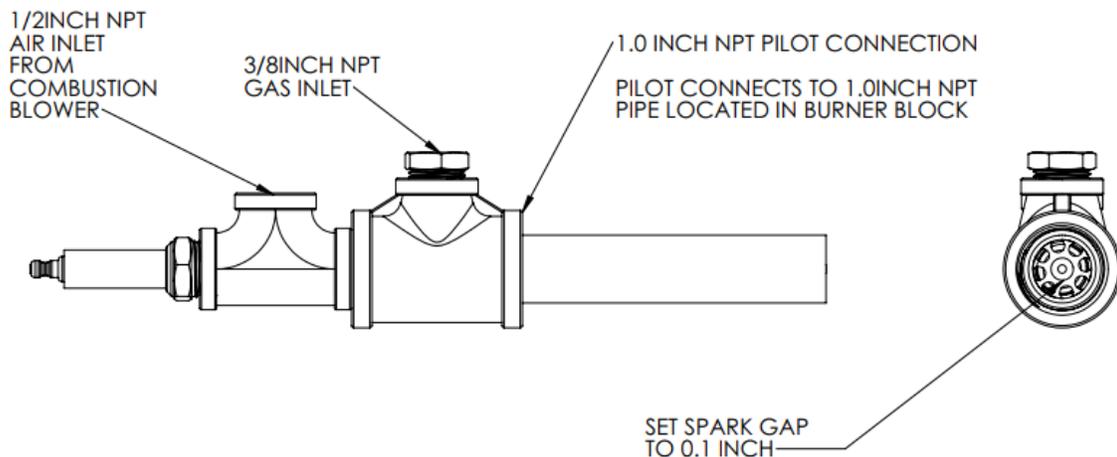
Wind Box/Blower	Carbon Steel
Gas Manifold	Carbon Steel
Blast Tube	AISI 304 Stainless Steel
Gas nozzle	AISI 310 Stainless Steel
Flame Diffuser (Orifice Plate)	AISI 310 Stainless Steel
Burner Block	Castable Refractory

MODEL KX Pilot

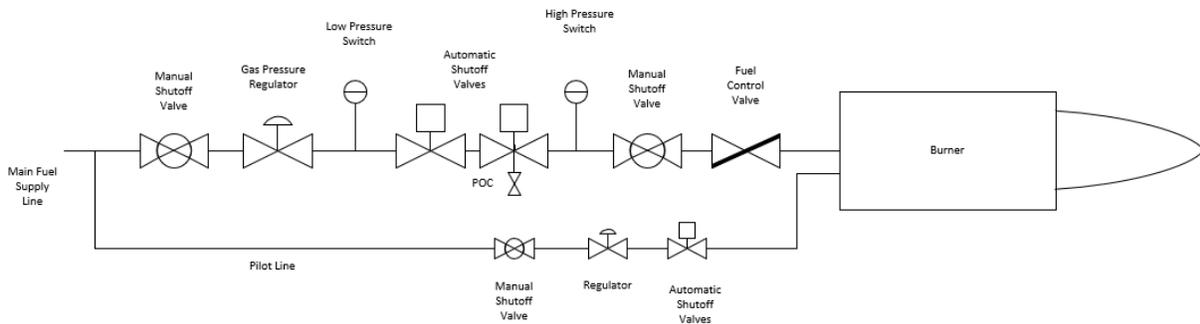
Model KX Burners are equipped with an integrated piloted design. Pilot shall be used only for ignition of the main flame (interrupted pilot). Ideal pilot gas flow rate should be between 60,000BTU/hr. to 100,000BTU/hr. Use minimally 6000V ignition transformer for spark generation.

Igniter should spark to the gas tip nozzle only. Arc should create sufficient light to be visible through the observation window. Check for correct gap between the igniter and the gas nozzle. The gap should be 0.1 inch (2.5mm). Tighten the ceramic in place.

Connect 1/2INCH Air tubing from combustion air blower to the pilot air inlet line. Pilot is designed to work with air pressure of 0.25 to 1.0inch W.C.

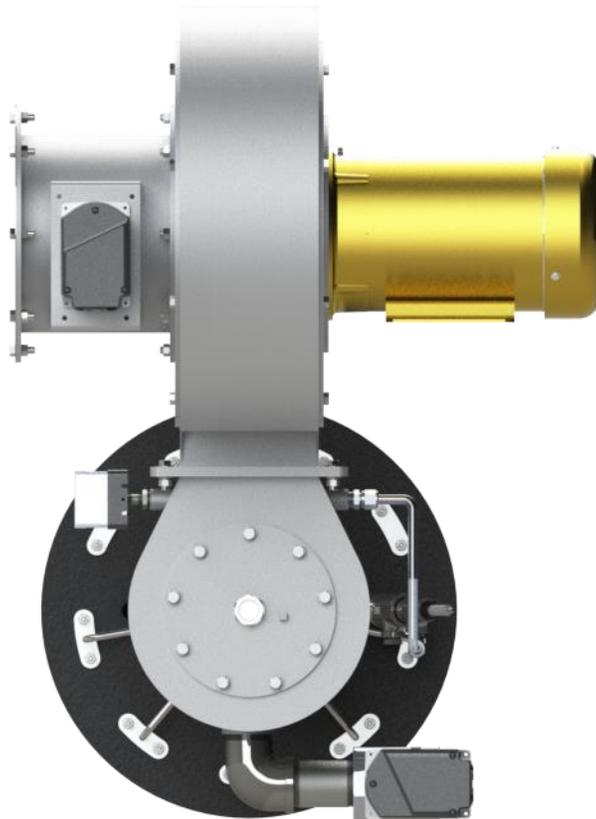


Typical Gas Train Configuration



Typical Burner Ignition Sequence

- Pre-purge the system according to the applicable codes and the installation's requirements.
 - Make sure air control valve is fully open during the Pre-purge sequence.
- During the ignition sequence combustion air valve shall be set to 0.5inch WC air pressure measured at burner air pressure port.
- Start ignition spark (energize ignition transformer)
- Open pilot gas and continue to spark the ignitor (typically 5s).
- Stop sparking, continue to power the pilot gas valves and start flame check.
- Check pilot flame stability and pilot flame signal.
- Open main gas.
- Close the pilot gas valves.
- Release to modulation (allow modulation of the burner).
- Minimum fire air pressure should be set at 0.5inch WC or higher.



Contact Information

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