

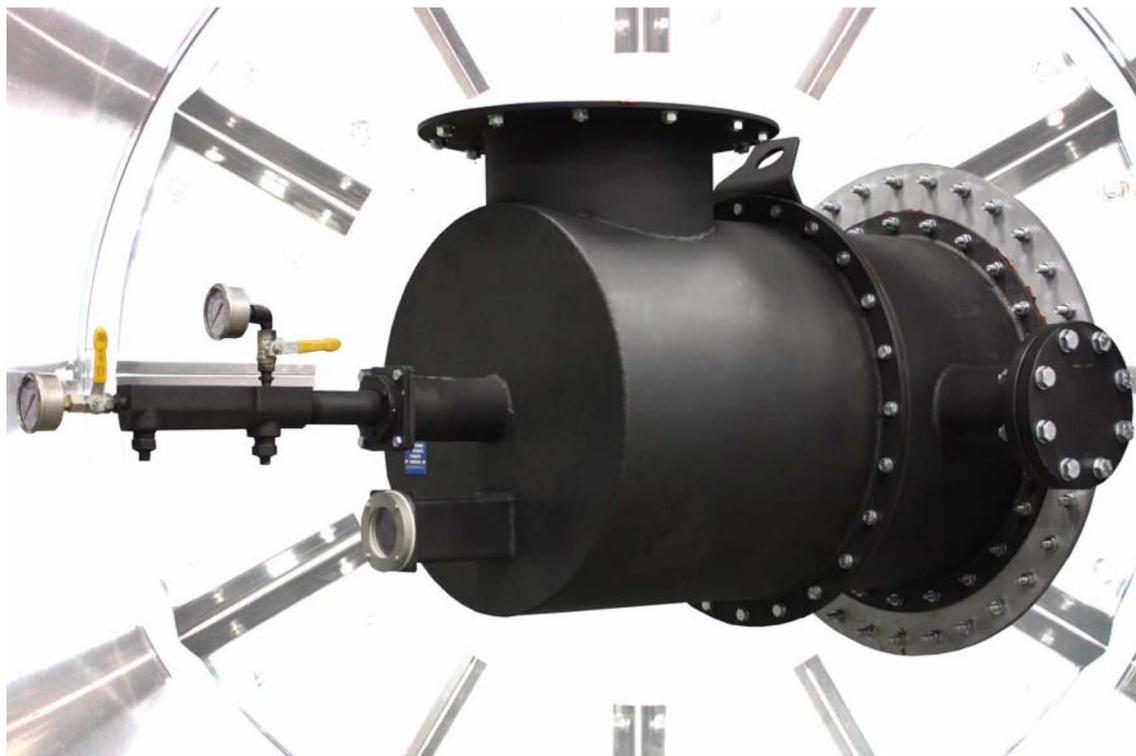
Honeywell

MAXON

MEGAFIRE®

MEDIUM TEMPERATURE DUAL FUEL BURNERS

INSTRUCTION MANUAL



INSTALLATION AND OPERATING INSTRUCTIONS



Please read the operating and mounting instructions before using the equipment. Install the equipment in compliance with the prevailing regulations.

Bedrijfs- en montagehandleiding voor gebruik goed lezen! Apparaat moet volgens de geldende voorschriften worden geïnstalleerd.

Lire les instructions de montage et de service avant utilisation! L'appareil doit impérativement être installé selon les réglementations en vigueur.

Betriebs- und Montageanleitung vor Gebrauch lesen! Gerät muß nach den geltenden Vorschriften installiert werden.

MANUFACTURER AND IMPORTER ADDRESSES

Below are the addresses and contact information for the Honeywell – Maxon manufacturing location and European sales office. The European sales office serves as the importer and EU manufacturer's representative under the EU New Legislative Framework (NLF).

MUNCIE, INDIANA, USA – MANUFACTURER

201 East 18th Street
P.O. Box 2068
Muncie, IN 47307-0068

Tel: 765.284.3304

Fax: 765.286.8394

EUROPEAN SALES OFFICE – IMPORTER

BELGIUM
Maxon International BVBA
Luchthavenlaan 16-18
1800 Vilvoorde, Belgium

Tel: 32.2.255.09.09

Fax: 32.2.251.82.41

Application requirements

View port

The MEGAFIRE® burner has an integrated view port which allows visual detection of both pilot and main flame. An additional view port to observe the burner flame is essential to inspect the flame aspect. Locate the view port on the installation downstream of the flame, looking back to the burner. Make sure the complete flame can be evaluated.

Supporting burner air and gas piping

The MEGAFIRE® burner shall not be used as support for the piping to the burner. Gas and air piping shall be supported in such a way that no additional loads will be created on the burner.

Burner mounting flange loads

Check the burner weight and reinforce the burner mounting connections on the installation or the combustion chamber/furnace back wall if necessary to support the complete burner weight.

Installation instructions

Storage of MEGAFIRE® burners

MEGAFIRE® burners shall be stored dry (inside). Burner refractory blocks have been cured carefully before shipment. It is essential that these blocks are kept dry. Wetting of the blocks during transport or storage could result in premature failures.

Handling of MEGAFIRE® burners

MEGAFIRE® burners are shipped as complete units. Handle burners with care, using proper equipment during unpacking, transporting, lifting and installation. Any impact on the burner could result in damage. To prevent damage in transit, accessories such as UV scanners, control motors and solenoid valves may be packed separately and shipped loose.

Bolting on the installation

Bolt the burner to the installation's burner mounting flange, using all the mounting holes present in the burner mounting flange. Use a proper heat resisting gasket between burner and burner mounting flange when applicable (these gaskets are not supplied as a standard item with the burner). Tighten the flange bolting with correct torque. Retighten all bolts after firing and regularly after commissioning.

Orientation

MEGAFIRE® burners can be mounted and fired in any direction. However, it is advised to avoid orientations which can permit flame supervision ports to collect debris and/or moisture. Also check limitations on orientation of other components mounted on the burner head.



WARNING

Hot surface can cause injury.

In some applications, the burner housing temperature can rise during operation. Hot surface can cause severe burn injuries. Insure appropriate measures are taken to prevent contact and/or correct warning signs are displayed.

START-UP INSTRUCTIONS FOR MEGAFIRE® BURNERS

Instructions provided by the company or individual responsible for the manufacture and/or overall installation of a complete system incorporating MAXON burners take precedence over the installation and operating instructions provided by MAXON. If any of the instructions provided by MAXON are in conflict with local codes or regulations, please contact MAXON before initial start-up of equipment.



CAUTION

Read instruction manual.

Read the combustion system manual carefully before initiating the start-up and adjustment procedure. Verify that all of the equipment associated with and necessary to the safe operation of the burner system has been installed correctly, that all pre-commissioning checks have been carried out successfully and that all safety related aspects of the installation are properly addressed.

Initial adjustment and light-off should be undertaken only by a trained commissioning engineer.

First firing or restart after shut-down

During cold starts, the temperature rise shall be limited. Allow the burner to fire on low fire for some time to allow the parts to heat up slowly. For burner with high temperature refractory sleeves, make sure to allow extended period at low firing range to minimize potential damage from accumulated and retained moisture in the refractory material during start-up of the burner.

Safety interlocks

Guarantee that all the required safety locks as described in the applicable local codes or regulations, or supplementary safety locks requested for safe operation of the overall installation, are working properly and result in a positive safety-lock of the burner.

Do not bypass any of these safety interlocks. This will result in unsafe operation.

Checks during and after start-up

During and after start-up, check the integrity of the system. Check all bolted connections after first firing (first time on temperature) and retighten if necessary.

Purge

For safety reasons, it is required to purge the installation sufficiently long enough to ensure that all possible combustibles are evacuated before ignition. Refer to applicable local codes and your specific application requirements to determine the purge time.

Pilot ignition

GAS PILOT

Adjust the pilot gas regulator at the correct set point before pilot ignition attempt. Turn the adjustable pilot gas orifice screw out (counter-clockwise) several turns from its fully seated position. Refine during lighting of the pilot to a yellow/blue flame and/or strongest flame signal.

OIL FIRING

Adjust the oil pressure regulator at the correct set point. Make sure the atomizing air is set at the correct pressure and available before igniting the main burner. Ensure that the oil/air ratio valve is in the start position when lighting the main burner.

After ignition of the main burner, allow some time on minimum capacity to allow the burner parts to heat up slowly.

Main burner ignition

GAS FIRING

Adjust the main gas regulator at the correct set point before igniting the main burner. Ensure that the gas/air ratio valve is in the start position when lighting the main burner.

OIL FIRING

Adjust the oil pressure regulator at the correct set point. Make sure the atomizing air is set at the correct pressure and available before igniting the main burner. Ensure that the oil/air ratio valve is in the start position when lighting the main burner.

After ignition of the main burner, allow some time on minimum capacity to allow the burner parts to heat up slowly.

Ratio adjustment

Once the main flame is ignited, adjust air/gas/oil ratio of the burner to have the required combustion quality. Slowly increase the capacity while observing the flame. Do not increase the capacity too fast to avoid damage to the burner parts or furnace due to excessive temperature gradient.



CAUTION

Use proper protection.

Oil flames are highly radiant. Use eye protection and avoid prolonged viewing.

MAINTENANCE AND INSPECTION

Safety requirements

Regular inspection, testing and recalibration of the combustion equipment according to the installation's manual are an integral part of its safety. Inspection activities and frequencies shall be carried out as specified in the installation manual. Perform the following activities at least annually as part of a recommended preventative maintenance routine.

- Inspect burner internal parts for wear and oxidation, paying special attention to the refractory of the burner block (when applicable).
- Inspect associated control instruments and devices for function with particular attention to all safety permissive switches.
- Perform leak tests on fuel shut off valves according to any schedule established by the authority having jurisdiction.

Visual inspections

Regular visual inspection of all air, oil and gas connections to the burner, bolting of the burner mounting flange and burner flame shape and aspect are essential for safe operation.

Recommended spare parts

Keep local stock of the spark ignitor and consult the installation manual for other burner spare parts and system accessories.

For More Information

The Honeywell Thermal Solutions family of products includes Honeywell Combustion Safety, Eclipse, Exothermics, Hauck, Kromschröder and Maxon. To learn more about our products, visit ThermalSolutions.honeywell.com or contact your Honeywell Sales Engineer.

Honeywell MAXON branded products

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