

C-B10

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ICAM

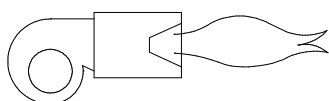


TYPE MC

GAS BURNER

COMTHERM

PACKAGE BURNER



THE MC BURNER

The 'MC' series of **MONOBLOC** gas burners are pre-packaged fan assisted units designed to suit virtually all types of low temperature gas fired application; typical applications include the firing of baking ovens, industrial dryers and air heaters.

The MC burners utilise the well proven Comtherm PC burner head and combustion system.

- ♦ **The design of the 'MONOCONE' MC burners allow the plant designer complete flexibility in their application and they can be adapted for special physical arrangements.**

The 'MC' burners have been designed with appearance and ease of maintenance and installation as top priorities, all parts of the burner including the nozzle and combustion tube can be removed without unbolting the burner off the mounting flange. An access cover on the top of the burner casing allows easy access to the gas nozzle, spark plug and flame sensor.

A heat resistant peepsight is fitted in the casing of all burners allowing visual inspection of the flame during operation.

The nozzle mix design of the burner and the progressive air mixing feature of the combustion head ensure that burners can operate with high turn down capability; turndown ratios up to 25:1 are possible depending on burner applications and selection.

COMPLETE PREPACKAGED BURNERS

Each burner unit is supplied with a packaged and piped valve assembly, including the safety valves and controls necessary to form a fully pre-packaged combustion module.

All burners have an integral combustion air fan, air pressure switch, ignition spark plug and flame sensor; all the electrical components on the burner are prewired to an integral terminal enclosure mounted on the burner assembly.

The electrical terminal enclosure is fitted with an external fault reset button, on-off switch, burner run and flame failure indication lights.

Burners are normally supplied complete with a gas valve assembly consisting of pilot/start valve assembly, safety shut off valves, pressure switches and governors; the exact type of valve assembly will depend on the application and the country of installation.

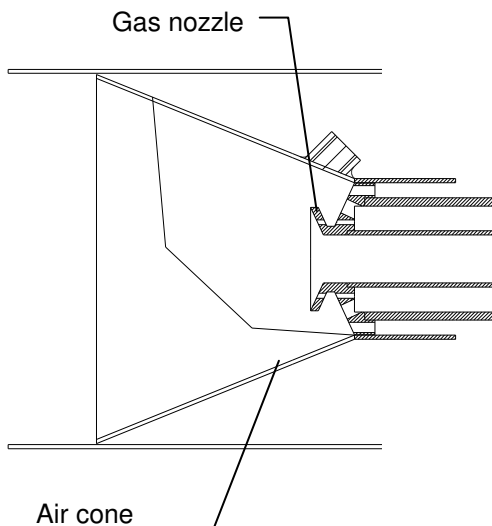
Burners are fitted with complete prewired automatic ignition and flame safety equipment.

Most types of flame failure and automatic ignition control units can be supplied; utilising either flame rectification or ultra-violet flame sensing equipment.

Burners can be supplied with extra large control consoles containing special control gear and switchgear to suit the requirements of any specific application; burners can be supplied with special valve arrangements; standard burners are supplied with right handed assemblies unless otherwise specified.

Fully prebuilt burner packages are fully tested and the operation of all components checked before despatch from the factory.

BASIC BURNER HEAD ASSEMBLY



- ♦ **As well as the standard range of MC burners, the burners can be tailored to meet customer specific requirements such as extended combustion tubes and continuous running burner fan applications.**

GAS SUPPLY

Series MC burners can be supplied for operation on natural or LP gases and are available in basic sizes, ranging from nominal thermal capacities of 40KW to 1200KW

All valve assemblies on the burners are sized to suit an inlet gas pressure of 17.5 mbar (natural gas) or 30mbar (LP gases). Burners can be supplied to suit other gas types and supply pressures.

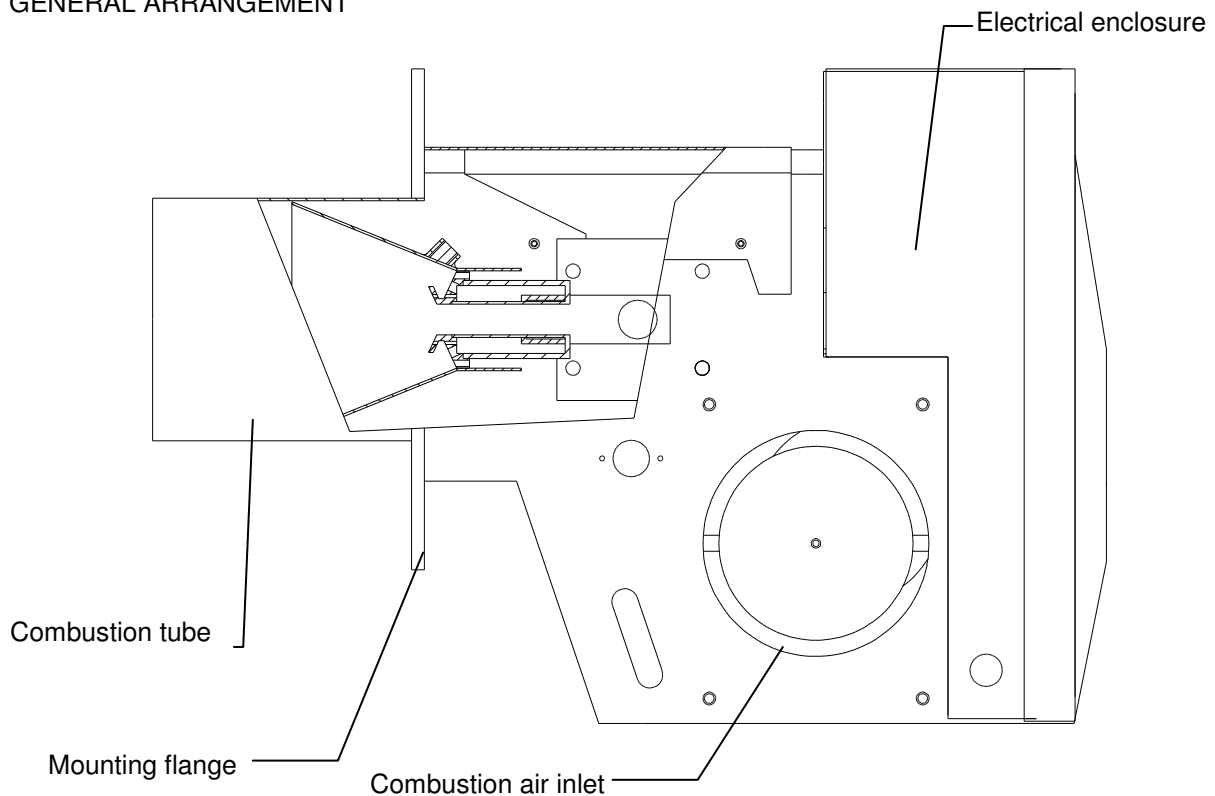
TYPES OF CONTROL AVAILABLE

All sizes of MC 'MONOCONE' gas burner are available suited for on-off, high-low or modulation control.

The majority of MC burners supplied are of the modulation type and can be operated with various types of control signal (as specified)

Electrical or pneumatic temperature control actuators can be fitted.

GENERAL ARRANGEMENT



GAS NOZZLES

The standard model of MC burner uses the basic PC type of gas nozzle, however depending on flame shape, turndown and gas type requirements the burner head can be fitted with a selection of gas nozzles and air cone types..

COMBUSTION AIR CONTROL

Burners can be supplied with control on gas only (with combustion air constant) however the complete range of sizes of MC burner are available with air damper control on the combustion air and gas supply; this is achieved by using an additional internal air damper fixed inside the burner fan housing.

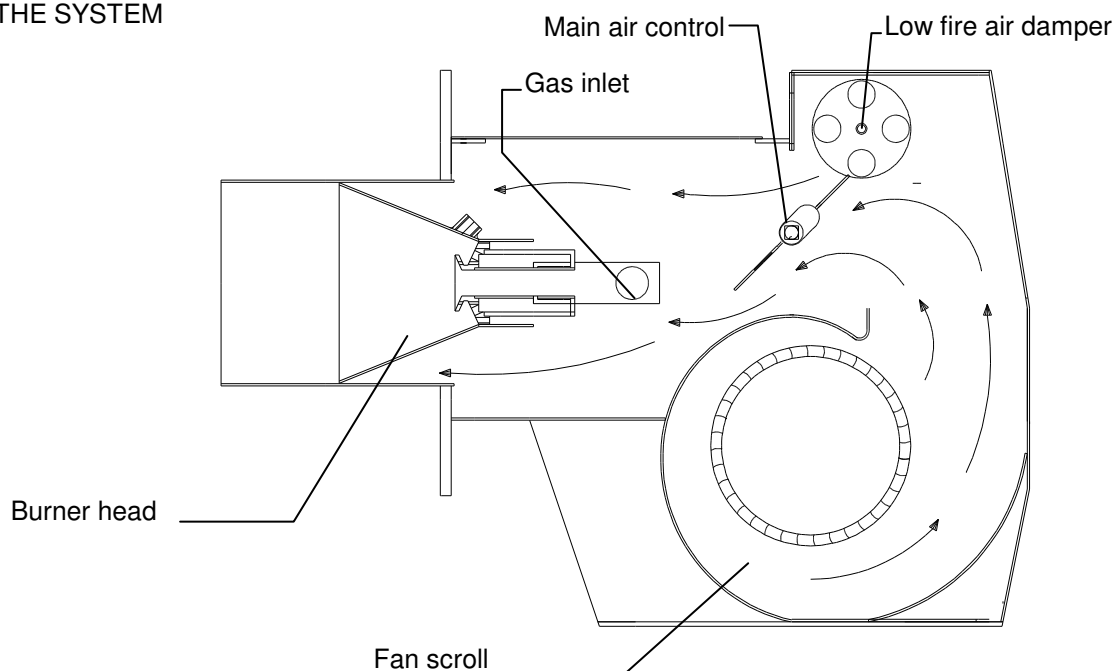
ELECTRICAL SUPPLY

All sizes of MC burners are available fitted with single phase or three phase fan motors although three phase motors are preferred..

Burners are supplied fitted with industrial quality single or three phase motors.

Burners can be supplied to suit almost all types of electrical power supply; including 220/380/440v three phase (50 or 60Hz) power supply and with 110/120v or 220/240v control circuits. Burners to suit other electrical supply voltages can be supplied specially to suit a specific application requirement.

THE SYSTEM



USEFUL FACTS TO ASSIST IN BURNER SELECTION.

1KW = 3412 Btu.hr = 859Kcal.hr = 3.6MJ.hr.

1mbar = 0.4" w.c. = 10mm w.c. = 100Pa.

WHEN ORDERING MC GAS BURNERS PLEASE SPECIFY THE FOLLOWING INFORMATION:-

Type of gas

Gas supply pressure (to inlet of burner valve assembly)

Electric supply data :

Burner motor voltage (1 or 3 phase)

Control circuit voltage (1 phase)

Type of temperature control required. i.e. On-off high/low, modulation etc.

Control signal type if applicable (modulation)

Valve and burner specification required.

Country of installation

Details of application.

INSTALLATION, COMMISSIONING AND MAINTENANCE :-

If required a complete delivery, installation and commissioning service can be supplied, including the manufacture and installation of associated steel fabrications and ductwork.

An installation and maintenance manual is supplied for all burners; commissioning must be carried out by competent engineers in accordance with the instructions in the manual.

Maintenance and service contracts are available - this normally includes scheduled site visits by our engineer and the free of charge supply of burner consumables such as ignition electrode and flame rectification electrode.

A selection of information data sheets (C-B10-INF**) are available showing physical dimensions of types of MC burners and some technical detail.

A selection of complete general arrangement drawings (M3-MC-) are available showing burner assemblies complete with valve assembly and ancillary equipment.

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