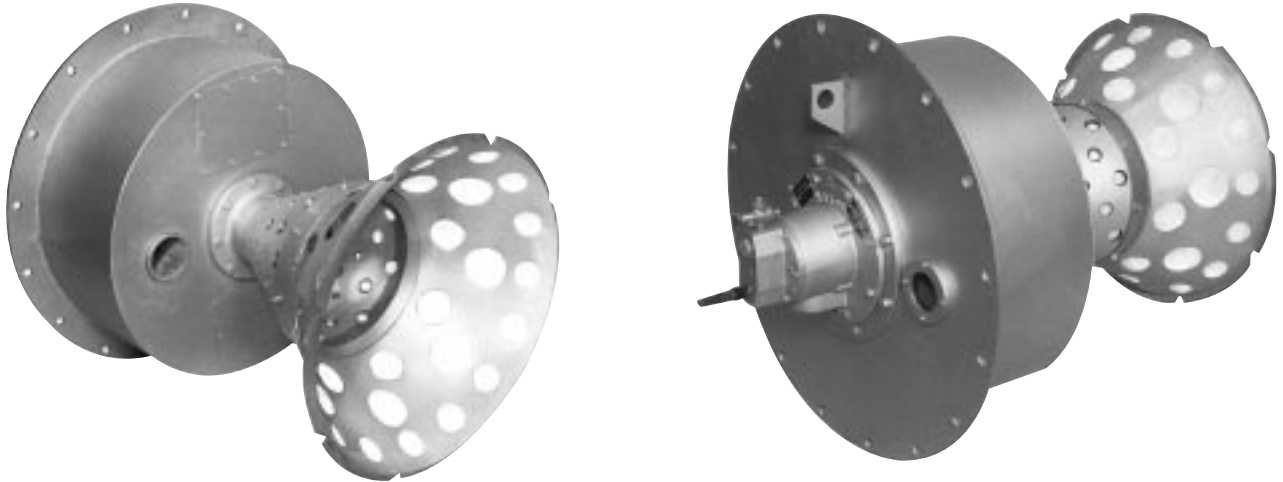


Circular INCINO-PAK® Burners



Circular INCINO-PAK® Burner shown with wall mounting plug

- **Circular INCINO-PAK® Burners** have been specifically designed for the thermal incineration in cylindrical combustion chambers of combustible gaseous effluents from a wide variety of industrial processes.
- **These special cone-type COMBUSTIFUME® Burners** provide outside-the-duct access to the raw gas pilot, ignitor, and flame safeguard components. The vital parts are easily retractable and protected from the heat from the combustion chamber. Easy installation, operation, and maintenance are assured.
- **Considerable savings in primary energy** are realized since the raw gas Circular INCINO-PAK® Burners do not require any external combustion air source. All the oxygen for combustion comes from the oxygen content normally in most effluent air streams.
- **Two popular sizes are offered:** 4,000,000 or 8,000,000 maximum Btu/hr capacities. Both sizes provide 20:1 turndown capabilities on natural gas.
- **Application of a Maxon Circular INCINO-PAK® Burner greatly simplifies** the construction of your cylindrical incinerator chamber, since both burner sizes are available as “standard” with a through-the-wall mounting, or complete with an insulated “wall mounting plug” that further simplifies burner installation.



Circular INCINO-PAK® Burners

Principle of Operation

The time-tested Maxon AIRFLO® Burner principles are also designed into the Circular INCINO-PAK® Burner. A customer-installed profile plate surrounds the burner and creates a pressure drop which directs the passing effluent air stream through the burner's cone and extension ring at a high velocity where it is mixed with a controlled volume of fuel gas. With the intensive mixing and turbulent condition created within the burner's mixing cone, a rapid temperature rise from the combustion reaction is produced to help ensure complete incineration of the effluents.

The burner is a nozzle-mixing type which does not need external combustion air; only the fuel gas flow needs to be controlled.

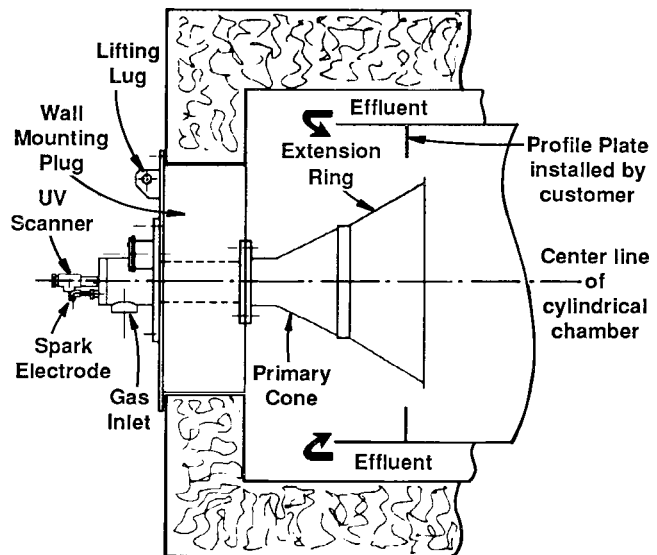
The burner can be ignited by means of the integrated raw gas pilot, or by direct-spark ignition of the main burner. Direct-spark ignition must incorporate a "low fire start" inter-lock.

A special feature is the central gas inlet on which a spark ignitor, a pilot and sight tube for the UV-scanner are mounted. These vital parts are easily retractable and protected from the heat emanating from the combustion chamber. Neither the pilot nor ignitor/sight tube need any compressed/cooling air.

The mixing cone is two-part: the primary cone of a special stainless steel, which can withstand very high temperatures. It not only guarantees resistance to high-reaching temperatures but also ensures accurate supply of oxygen-bearing effluent to the burner.

Radial and tangential drillings in this primary cone create the right swirl required to mix oxygen-bearing effluent and gas correctly inside the mixing cone resulting in an excellent flame stability and a large turndown.

The special connection between the primary cone and extension ring allows for expansion in all directions. The construction is such that no mounting or support brackets are required, thus avoiding deformation.



Cross sectional view

If necessary, the extension ring can be replaced, e.g. if the burner has to operate under severe working conditions.

A complete Circular INCINO-PAK® Burner system normally includes a gas train, an adjustable gradient-type gas control valve and a combustion control panel. Your Maxon representative can help you choose from the broad range available.

Circular INCINO-PAK® Burner applications

This burner is typically used for direct gas-fired incineration of combustible gaseous effluents in applications such as:

Coil coating lines	Paint baking ovens
Fiberglass curing	Printing processes
Lithographing ovens	Textile dryers
Metal coating lines	Wire enameling

