

CLIBOS

Backward centrifugal plug fan type, direct driven, for recirculation of hot gases

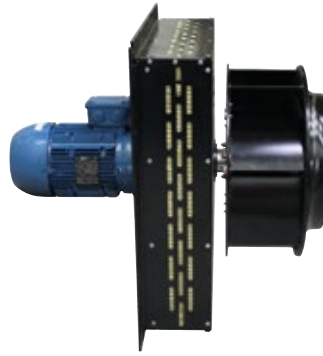
PLUG FANS



Plug fans

CLIBOS

Backward centrifugal plug fan type, direct driven, for recirculation of hot gases



• Manufacturing features

- ° Direct driven centrifugal medium pressure fan, type plug fan.
- ° Insulated casing made of carbon laminated steel, protected against corrosion by powder polyester coat. Finish C3.
- ° Thermal insulation with high density rock wool, 145Kg/m³, thickness 50mm.
- ° Self-cleaning and reinforced impeller with high performance backward (reaction) blades made of carbon laminated steel dynamically balanced to minimize noise and vibrations painted in black heat-resistant paint coating.
- ° Motor for continuous operation (S1) Squirrel cage standardized asynchronous IEC motor with IP-55 protection and Class F electrical insulation. Standard voltages 230/400V 60Hz for three phase motors Up to 4kW and 400/690V 60Hz for higher powers.
- ° Motor with flange (B5).
- ° Maximum continuous working temperature ambient (motor): 60°C.
- ° Suitable for transferring gases from -40°C to 250°C in continuous.
- ° Integrated cooling impeller.

• Applications

- Plug-type installation made for the recirculation of gases in:
- ° Ovens.
 - ° Boilers.
 - ° Paint booths.
 - ° Drying of tobacco, barley, ceramic, glass and wood leaves.
 - ° Insulated thermal cameras subjected to temperature control.
 - ° Burners and incinerators.
 - ° Melting furnaces.







• Under request

- ° Fans for special voltages.
- ° 2 Speed motor, Inox 304 or Inox 316.
- ° Sparking proof construction.
- ° Other sizes.
- ° Other motors according to customer requirement.

• Range



• Accessories

	INT Safety switch.		SFC Frequency speed controller.		CLBI Inlet for PLUG FAN in cabinet.
	LENTICHEK Vibration monitoring system.		LARIDIS Automatic bearing lubricator.		CLBC Inlet for PLUG FAN in cabinet.



° Automatic bearing greaser

- ° Two outlets with independently adjustable lubrication intervals.
- ° Easy integration into machine operation.
- ° Simplification of the maintenance process.
- ° Metering quantities independent of the ambient temperature.
- ° Measurement of back pressure up to the lubrication point.
- ° Power supply: 24V DC or coil.
- ° Lubricant reservoir: 250 cm³ cartridge.
- ° Wide operating temperature range: -20°C to +70°C.
- ° Optional activation using an external control unit.
- ° Monitoring of motor running and filling level.
- ° Good price/performance ratio.



° Vibration monitoring system

- ° Record and analysis of vibration measurement signals
- ° Record of temperature signals
- ° Evaluation of the input signals
- ° Selective permanent control as a function of frequency
- ° Integration of up to three signals connected simultaneously
- ° Output switching and status sampling via LED
- ° Admission inputs of additional signals for integration into a main system



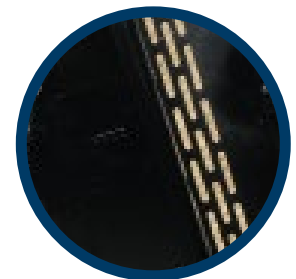
° Rotation speed monitor

- ° 2 in 1 inductive detector: sensor and evaluation of rotation speed.
- ° Multiple evaluation of rotating and linear movements.
- ° Reliable, non-contact monitoring of low rotation speeds.
- ° Switching output and pulse output.
- ° Simple adjustment of the switching point.
- ° Direct connection to a PLC.
- ° Compact housing.
- ° Minimization of installation costs.



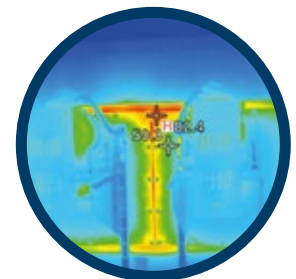
° Installation example

- ° One of the most typical high temperature applications for CLIBOS-TR is the paint booth. This type of installation has an oven for drying the paint once it is applied on the product.
- ° With the CLIBOS-TR fan, thanks to the rock wool (thicknesses of 150 and 200mm) and the thermal grooves of the casing, it is generated a thermal bridge dissipating the internal temperature of the oven.



Thermal grooves

- ° THERMOGRAPHIC STUDY
From two CLIBOS-TR installed in a paint-booth oven, we perform a thermography that shows us how the internal and external temperature ranges of the oven differ substantially thanks to the insulation set.



Result of thermography in the CLIBOS-TR with an operating oven



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