

# Rotary drier for egg shells

As a heat source, automatic monobloc natural gas burner with a possibility of combustion to the maximum overpressure in a firebox of 400 Pa is used. The burner capacity can be continuously controlled from 45 to 220 kW. The burner is manufactured by PBS Trebic. The burner is installed on a lining-free twin-shell combustion chamber that operates as a mixing chamber as well. The ambient air is supplied to a space between the combustion chamber shells by a high-pressure fan. There is a noise damper installed at the fan suction. In the rotary drier operation, the chamber outlet temperature of air and exhaust gas mixture will equal to about 500 C. This mixture enters the drier. From the drier, used drying air goes to the cyclone separator and then to the exhaust high-pressure fan.



Wet egg shells are poured to a feed hopper and then to the drum. Out of the drying drum, dried egg shells goes to the settling chamber along with the used air and then outside using a screw conveyor. Fine particles go with air to the cyclone separator. Out of the separator, they are discharged by dumping through a flexible closure.

The combustion chamber and the first part of the drying drum (1 m long) are made from high-temperature steel.

Supplied components:

- Natural gas burner APH-M02 PZN with control microprocessor automatic equipment, a fan battery, a gas filter and an adapte with gas and air manostats and electromagnetic vent valve, a sealing etc.
- Twin-shell lining-free combustion chamber with outer heat insulation.
- Rotary drier with blade internals, a drive, a frame, carrying rollers, a drop out chamber and an inlet feed hopper.
- Cyclone separator with a support structure and a flexible closure.
- 2 high-pressure fans RVR 315; the first one with a cooling disc and the second one with a suction noise damper.
- 2 control high-pressure flap valves. Control automatic equipment of the rotary drier.



## Parameters:

- Drier type.....drum
- Capacity .....450 kg/h
- Heat source ..... natural gas
- Drying environment... exhaust gas and air mixture
- Range of drying temperatures..... 50 - 350° C
- Installed electric input. .... 4 kW
- Operating burner power.....70- 220 kW

# Dimensions

