



Costruzioni Meccaniche

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60kg COMPUTERIZED FULLY AUTOMATIC COFFEE ROASTER VTR 60

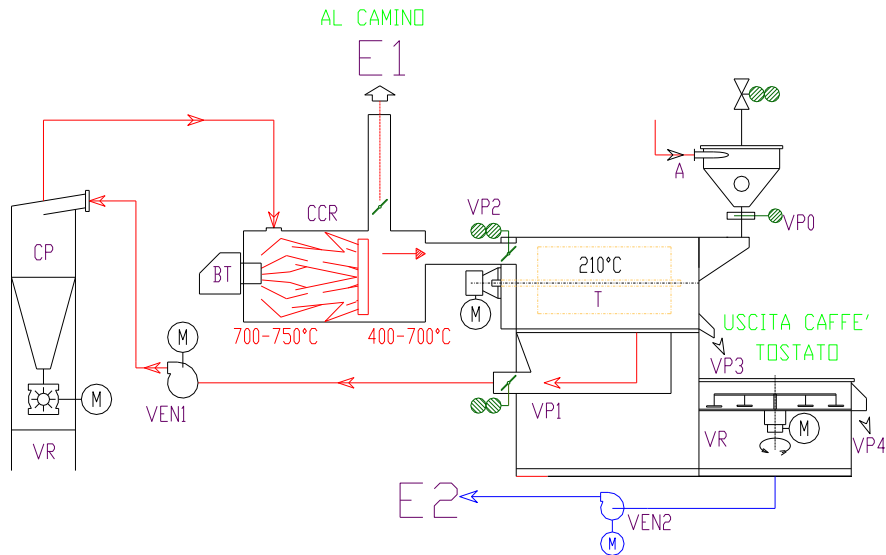
PART 1 - GREEN COFFEE LOADING

Hopper load sacks of green coffee according to EN 294.
Transport for Toaster 60 kg / cycle, max. 4cicli / h;
Configuring transport distances vert . = 4m, H-5 . =
1 Charger phase, with mesh filter and tilt from 73 lt
1 vacuum unit three-phase 2.2 kW - 156 m³ / h
Room # 1 filter DN 400 mm
Mt.5 ventilation pipe DN 50 mm
10m suction hose DN 50 mm produced
Probe # 1 DN 50 mm
1 Electric Management

PART 2 – 60kg COMPUTERIZED ROASTER – Complete with Cooling Tray, Cyclone & De-Stoner

Potenza termica nominale 98 kw (circa 84.000 kcal/h)

Produttività: 60 kg/ciclo di caffè verde (circa 200 kg/ora di caffè tostato)



This is an ecological recirculation air roaster as shown by the sketch above which uses recycled air for toasting the coffee. It allows you to toast coffee and burn emissions with a single burner in accordance with current legislation using less energy and releasing less emission than a normal coffee roaster.

DESCRIPTION:

From the hopper goes green coffee roaster in the revolving drum to begin the process of roasting.

(Average during the loading drum: 10-30 sec / cycle).

The roasting is done, using indirect heat, with heated air inside the special chamber with pressurized burner Weishaupt MODULATING brand.

The combustion chamber, the external cavity and the mixing zone, are kept in constant depression by a fan located downstream of the roasting drum, this aspiration comes into operation before loading the drum.

The additional air to be heated enters the cavity outside the combustion chamber due to the depression itself. Before moving to the mixing zone the air is thus preheated.

The hot air enters the drum (at a temperature ranging between 200 ° C and 500 ° C depending on the stages of roasting and the calibration of the machine), longitudinally through it, heating the product to be toasted, and is drawn, the 150 ° C - 250 ° C, the fan.

The output is sent to the cyclone separation of films (films) that detach from the coffee beans.

At the bottom of the cyclone extractor operates a rotary valve to direct the film, then in a bin for collecting and optionally to a compactor.

(Approximate roasting phase: 12-22 min).

Before being sent to the chimney, the smoke produced, mixed with those coming out of the skins, enter the recirculation gas burner with pressurized continuous ventilation, where they suffer overheating to above the ignition point of the mixture between 700 ° C and 800 ° C, which can oxidize volatile organic compounds and dust emission of organic origin in the same allowing clean air to enter the bloodstream.

At the end of roasting coffee is discharged into the cooling tank where it is constantly mixed by a series of blades fixed to the rotor arms.

The cooling is due to a flow of air generated by an electric suction that is enabled before downloading the coffee. The air passes through the layer of roasted product from top to bottom. (Average cooling phase: 5-10 min).

Once the cooling phase, the damper opens drain the tank, the roasted coffee goes in the hopper design.

EMISSION CHARACTERISTICS VTR 60

PROVA	U.M	RISULTATO	CL	FM (g/h)	METODO
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Portata del camino	Nmc/h	500	-	-	POR001.EM ED.1 2002
Temperatura emissione	°C	218	-	-	EMI001U.EM ED.1 2002
Polveri inerti sospese	mg/Nmc	7,2	150	6	UNICHIM N° 494 1986
Sostanze organiche volatili	mg/Nmc	4,9	50	4	UNI 10493 798
Formaldeide	mg/Nmc	<0,1	20	-	NIOSH 2016
Fenoli	mg/Nmc	<0,1	20	-	OSHA 32
Ossidi di azoto (Nox)	mg/Nmc	107	500	90	EMI001 U.EM D.1 2002
Ossidi di zolfo (Sox)	mg/Nmc	42	500	35	EMI001 U.EM D.1 2002
Ossigeno rilevato	%	16,7	-	-	EMI001 U.EM D.1 2002

VTR features 60 emissions

TEST

RESULT U.M CL FM (g / h) METHOD

Extent of fire NMC / h 500 - - POR001.EM Ed.1 2002

Emission temperature ° C 218 - - EMI001U.EM Ed.1 2002

Inert suspended dust mg / Nm³ UNICHIM 7.2 150 6 # 494 1986

Volatile organic compounds mg / NMC UNI 4.9 50 4 10 493 798

Formaldehyde, mg / Nm³ <0.1 20 - NIOSH 2016

Phenols mg / NMC <0.1 20 - OSHA 32

Oxides of nitrogen (NOx) mg / NMC 107 500 2002 90 EMI001 U. EM D.1

Sulfur oxides (Sox) mg / NMC EMI001 U. 35 42 500 2002 EM D.1

oxygen detected

16.7% - - EMI001 U. D.1 EM 2002

COMPUTERIZATION CONTROL

To control the machine is provided an automation system composed of a control unit (PLC) and colour operator panel 10" Touch Screen.

The operator panel will have the following functions:

- Manual and automatic controls for motors and valves;
- Setting parameters of the machine;
- Setting the control temperature roasting;
- Set stove temperature control;
- Setting the cooling time;
- Storage parameters of roasting;
- Recording trends roasting profiles;

and also:

- Page graphic of roaster;
- Graphic page Trends viewer;
- Graphic page alarms viewer;
- Graphic page of control panel;
- Navigation menu pages.

VITTORIA 150kg BLENDER

150Kg original Vittoria Mixer, mounted on the electronic load cell. The dimensions are: Width 1,6m – Height 2,0m, Depth 2,0m