

«GMBF» fonio huller



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GMBF fonio huller manufactured by IMAF in Bamako (on left: diesel version, on right: electric version)

General description

Specifically conceived for the hulling and the whitening of fonio, GMBF huller consists in a hulling module with a hopper, a winnowing channel, a fan, a cyclone and an engine. There are two versions with an electric motor or a diesel engine.

Functioning

The operating principle of the GMBF huller (Engelberg type) is to cause a friction and a shearing under pressure between the grains and the stator and the rotor surfaces in order to remove the grains teguments and husks. The pressure is created by the rotor screw, the shearing by an interaction between the right veins of the rotor and the blade-brake which retains the grains. The hulling and whitening intensity is adjusted by opening more or less the exit door.

Grains and husks (and bran) fall into the winnowing channel to be separate there. The grains fall into a bowl placed under the channel whereas the impurities are sucked by the winnowing air flow and they fall into the bowl under the cyclone.

Technical specifications

Output:	100 to 120 kg/h for hulling 110 to 150 kg/h for whitening
Engine:	Electric: 7.5 kW or 5.5 kW (only for whitening and with a separated winnowing channel) Diesel: 8 to 10 kW
Dimensions:	height: 1.40 m, width: 0.75 m, length: for the electric version: 1.25 m (without cyclone), 2.10 m (with cyclone), for the Diesel version : 1.8 m (without cyclone), 2.70 m (with cyclone),
Weight	about 200 kg (electric version) and 320 kg (diesel version)
Hopper capacity:	35 kg
Possibility of purchasing the huller electric version with a separated winnowing channel	

Specific adjustments and use conditions

Huller rotation speed:	900 rpm
Fan rotation speed:	2400 rpm
Hulling and whitening rate:	adjustable using the exit door

Manufacturers: IMAF BP E3390, Bamako, Mali (Tel. 221 24 93, Fax 222 98 66)

Approximate price (in 2005): huller with a winnowing channel
FCFA 900.000 with electric motor
FCFA 1.500.000 with diesel engine