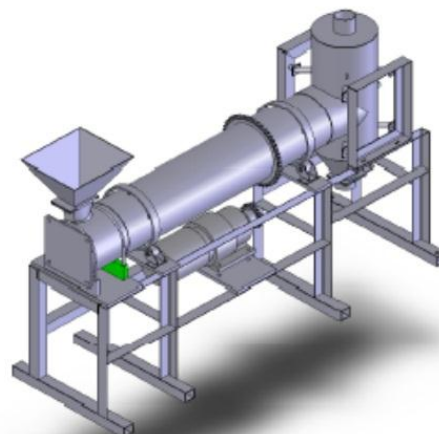


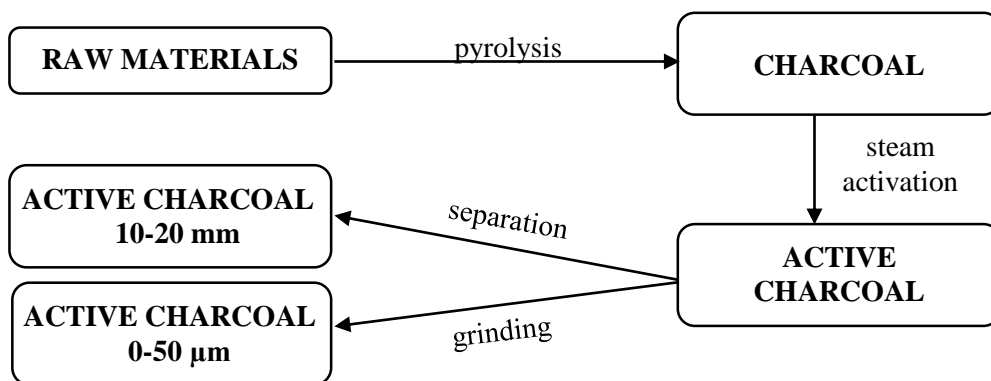
Technological line for active charcoal production based on the installation ACTIVE-1

The installation Active-1 in the various production lines can be used:

1. *For pyrolysis, carbonization, calcination and activation of:*
 - **Mineral coal and charcoal**, in order to obtain active charcoal, dolomite (kieselguhr), etc.;
 - **Wood chips, nutshell, fruit kernels** and other carbonaceous bulk materials in order to obtain charcoal and active charcoal.
2. *For drying, carbonization and calcination of raw materials of various types:*
 - **Mineral raw materials** (that are used as building materials);
 - **Components of dry building mixtures**;
 - **Products of chemical industry**;
 - **Other products** that require similar processes.



Scheme of the active charcoal obtaining process from carbonaceous materials



Elements of the technological line for active charcoal production

1. **Equipment for the raw materials preparation for pyrolysis** (cutting, crushing etc.). *Depending on the types of raw materials used, in agreement with the Customer.*
2. **Pyrolysis installation** (charcoal kiln). *Depending on the parameters of raw materials used for pyrolysis and the productivity of activation line.*
3. **Installation for activation Active-1.**
4. **Separator.** *Separation into fractions 0-10 mm and 10-20 mm.*
5. **Disintegrator.** *Crushing to a fraction 0-50 μm.*

Short description of the installation ACTIVE-1



The kiln with a rotating drum chamber is a continuous device for thermal processing and activation (drying, pyrolysis, calcination, carbonization and activation) of different types of bulk materials and materials with a high porous system, i.e. of the charcoal. Its design provides for installation of burners on liquid, gaseous and solid fuels. Due to the small value of the thermal processing chamber, consistent use of installations is possible in order to conduct sequential processes.

Technical characteristics of the installation for activation

Raw materials and capacity		
Quantity of raw materials consumed	tons/day	0,5 - 4,8
Capacity	tons/day	0,25 - 2,7
Raw material fraction	mm	Depends on raw materials
Personnel and operation mode		
Number of workers per shift	ppl	2
Number of shifts	pcs./h	3x8, 2x12
Qualification of the personnel required		secondary technical education
Estimated time of work per day	h	round-the-clock, or per shift
Estimated time of work per year	days	340
Overall dimensions and infrastructure		
Overall dimensions	mm	7 800 x 2 500 x 3 800
The size of the site/workshop required for the gas generator operation	mm	12 000 x 6 000 x 5 000
Warehouse of the finished products (dry, with ventilation)	m ²	from 50
Warehouse of raw materials	m ²	from 100
Communications		
Amount of water required for the activation process. The water is non-return.	m ³	4 - 45
Required power at peak load	kW*h	4,5
Electricity consumption	kW/month	3 060

General view of the installation

