

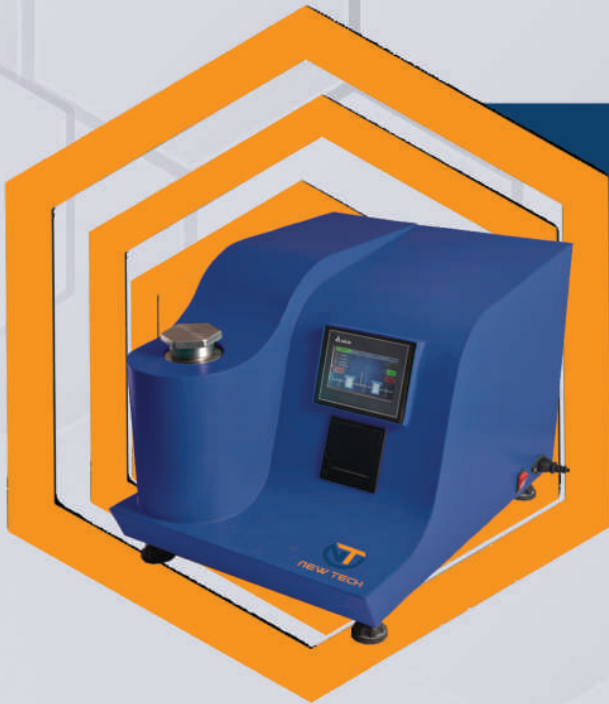


NEW TECH



NEW TECH

pycnometer



It is a device that measures the density of various solid materials, including powdered metals, by measuring gas pressure based on the first law of thermodynamics.

Accuracy of the device: 0.01 g/cm^3

Working pressure: 18 - 20 psi

Sample powder capacity: 55gr

Blain test



This device calculates the amount of air permeability in the powder sample and is used to measure the specific surface of the sample.

It uses the Fisher method in performing tests and is designed based on the ISO 10070 standard.



Water absorption test apparatus



It measures the amount of water absorbed by bentonite at a certain time. during the test period, the water level is kept constant by the inverted balloon. Designed according to the ISO 10769 standard

CCS on line



This device is installed at the end of the pellet production line. And it is designed to measure the power of baked pellets. And its features include sample testing every two minutes, calculation of standard deviation, fully automatic operation, as well as sampling and automatic separation of samples in sizes between 12.5 and 10 mm by the feeder.



Cold compression strength (CCS)

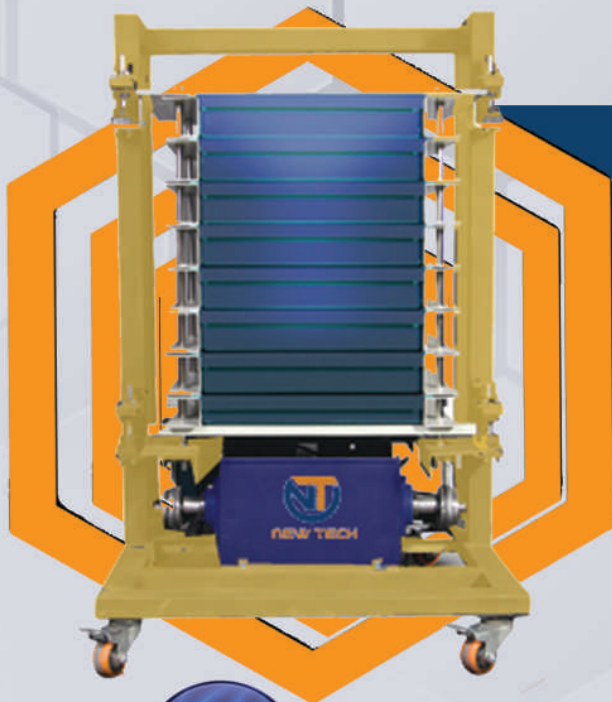
The CCS device is designed to measure the strength of baked pellets. Its features include an average capacity of 10 tests per minute, standard deviation calculation, and its complete automaticity. Also, the entire testing process is in accordance with the ISO 4700 standard.



Green compression strength



This device tests the strength of raw pellets.



Vibration sieve shaker



This device is used to separate and sort materials between sieves based on their size by vertical vibration method.



Tumbler tset

pellet corrosion resistance is one of the mechanical properties that should be measured according to ISO 3271 and ASTM E 279.



Cyclosizer



CYCLOSIZER is a laboratory device for accurate and quick determination of particle distribution in the under the sieve area. The particles are separated according to the principles of Stokes sedimentation by means of a method based on the well-known hydraulic cyclone principle. The samples are divided into 10, 20-, 30-, 40-, and 50-micron parts in 5 cyclones.





Ball mill

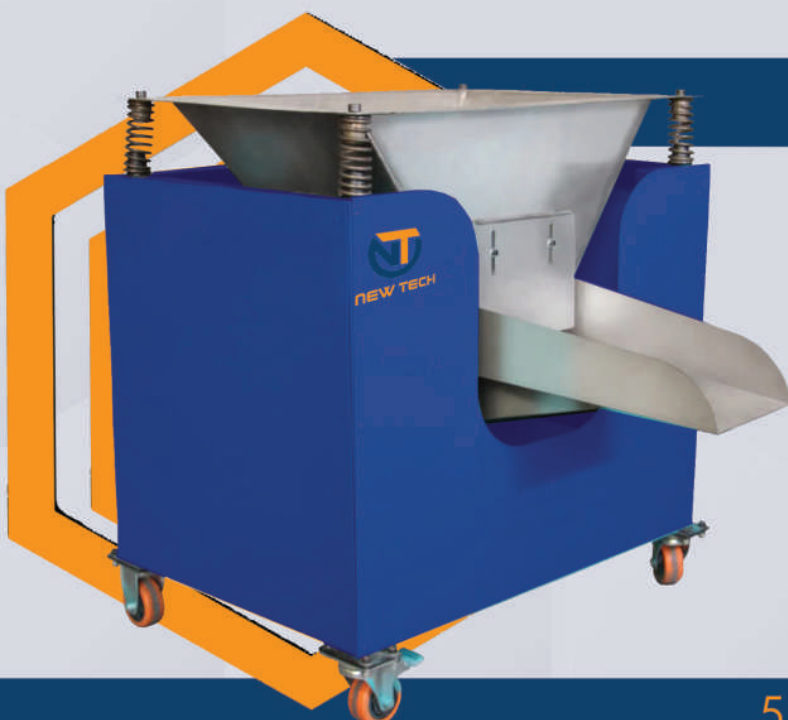


milling through impact and friction.
Operating within 15 to 60 minutes.
Movements of balls using tank rotation.
Regular constant operation.
Primary granulation Material: < 50mm.
Final granulation Material: < 200 μ m.



Mixer

The machine for mixing iron concentrate, bentonite, and water.
Designed by the latest standards defined in the material mix process.



Vibratory feeder



This device prevents the lumping of the concentrate coming out of the mixer and controls the amount of material input to the pelletizing disc.

Feeder conveyor



This machine receives the concentrate from the mixer constantly at an adjustable rate and carries it to the pelletizing disc in the pilot plant. The flow rate of the fed into the pelletizing discs is monitored constantly and online

NEW TECH

Pelletizing disc

It is a disc with a diameter of 80 cm, which is designed with the aim of producing pellets in laboratory quantities. The rotation speed of the disc is adjustable.



Pelletizing pilot plant



Pelletizing pilot plant performs the process of pellet production in laboratory dimensions. The pelletizing pilot plant is fully automatic and is very similar to the pelletizing production line of the Alice Chalmers and LORGY methods.



Pellet sieve

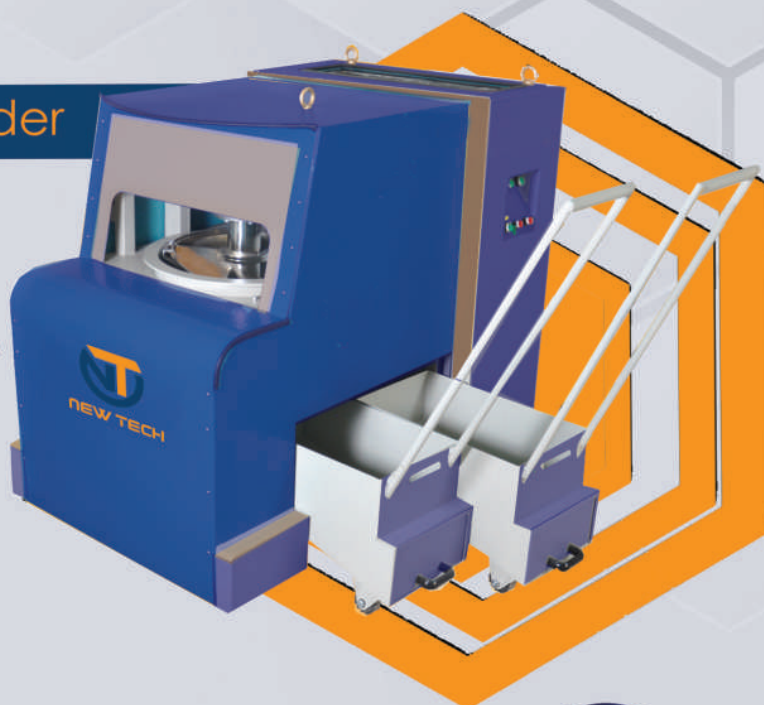


The cooked pellets are granulated by a rotary sieve.

Automatic sample divider



The pellet sampling device is responsible for random sampling with the desired sample percentage and is designed with very suitable dimensions (width and height) for placing the pellet bucket.



Riffle sample splitters



This device is used to divide the sample volume into smaller pieces and prepare it for use in chemical processing and analysis laboratories, and it is used in three sizes with separation plate distance of 6, 20 and 50 mm to divide a wide range of materials.

Automatic sampling of truck cargo



A random sampling of trucks for inspection and laboratory tests. The possibility of sampling through penetration in materials with different properties such as pellets, lime, DRI, etc. Penetration of the sampler to the floor of the truck Designed according to the ISO3082 standard



Automatic sampler

Equipped with primary and secondary sampling, vibrator, excess return, and main sample. Based on the ISO3082 standard, sampling is done completely randomly from the pellet flow.



Linder test



The Linder test device measures the relative crushing of pellets under the direct regeneration process. This device is designed based on the Linder and JAMBO MIDREX method and according to the ISO 11257 standard.

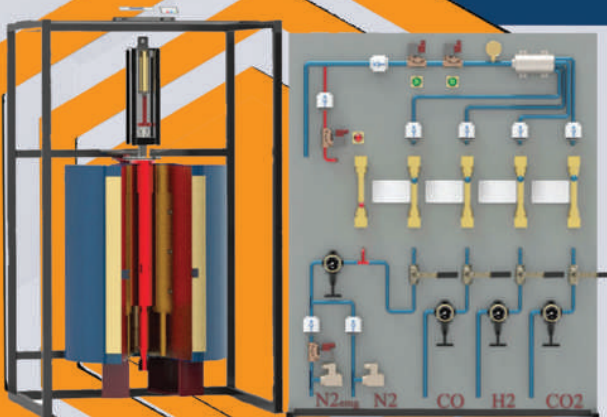
Unload test



This device measures the amount of regeneration and pellet weight reduction in direct reduction in laboratory conditions, based on the ISO 11258 standard.



Clustering test



This device measures according to the ISO 11256 standard for regeneration under load and measuring the adhesiveness of sponge iron in laboratory conditions.



Jaw Crusher

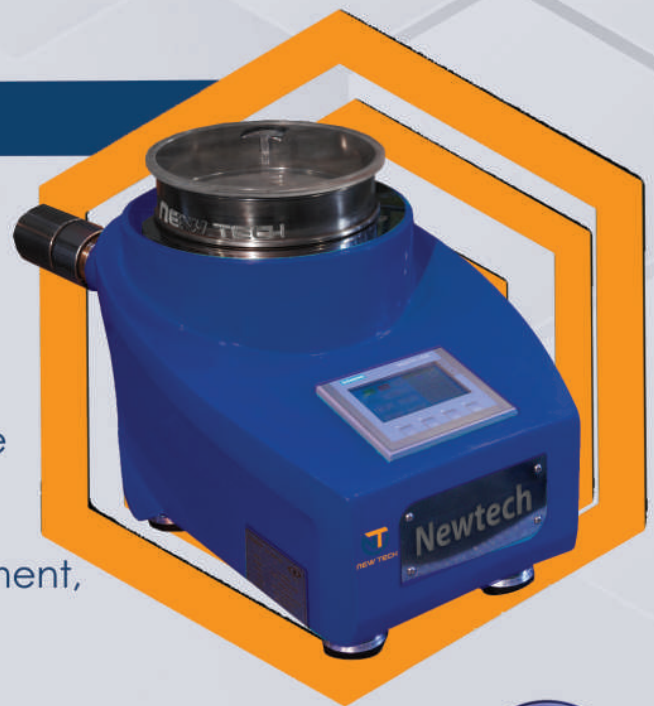


A jaw crusher is a device with fixed and movable jaws that are used for the fast and powerful crushing of materials such as pellets, DRI, and limestone. and breaks the material into adjustable sizes.



Air Jet Test

This device, equipped with a rotating slotted nozzle, performs the screening process by creating a pressure difference on both sides of the sieve. And the particles passing through the sieve are transferred to the suction device. Among its features, we can mention the adjustable nozzle movement, rotation speed, etc....



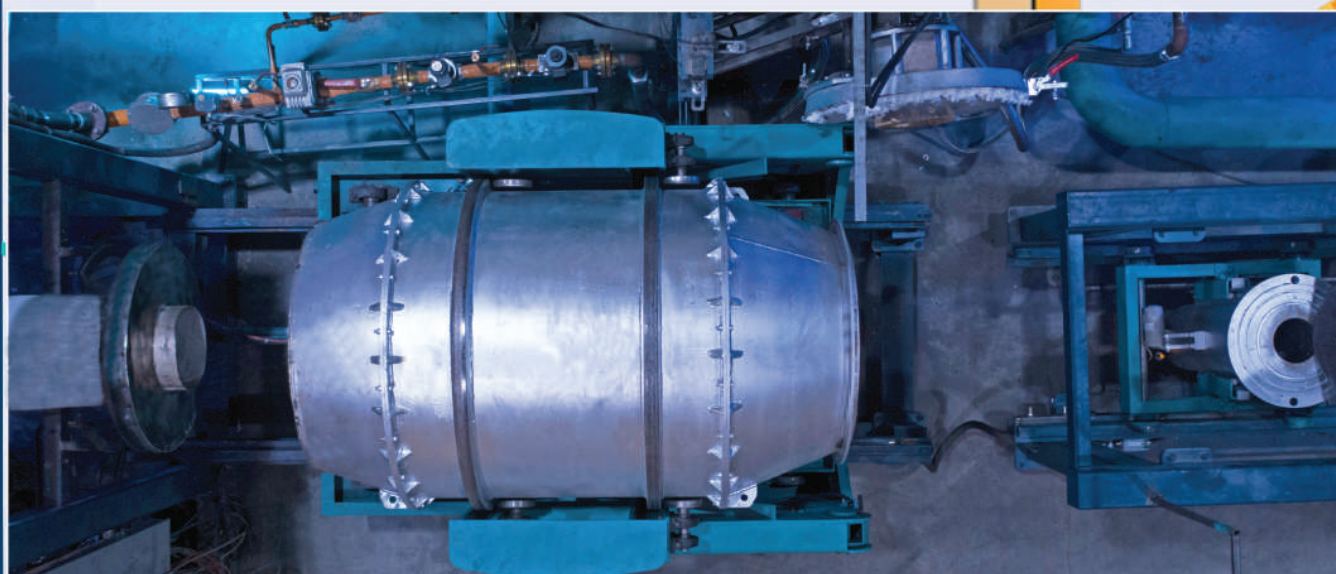
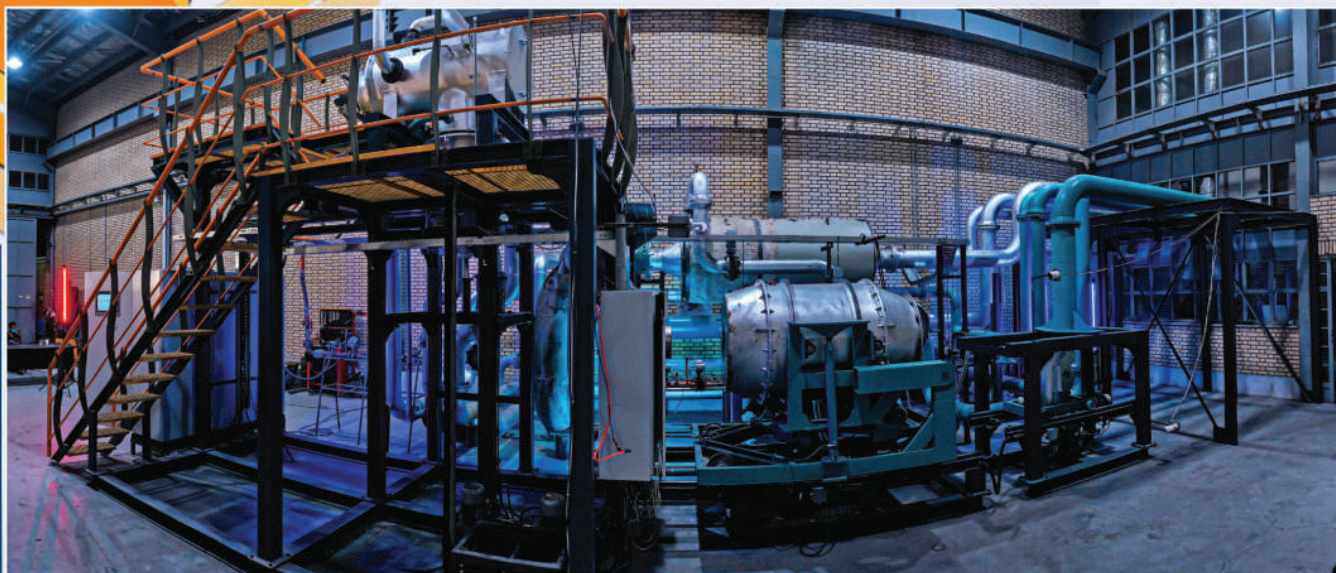
Vibratory Disc mill



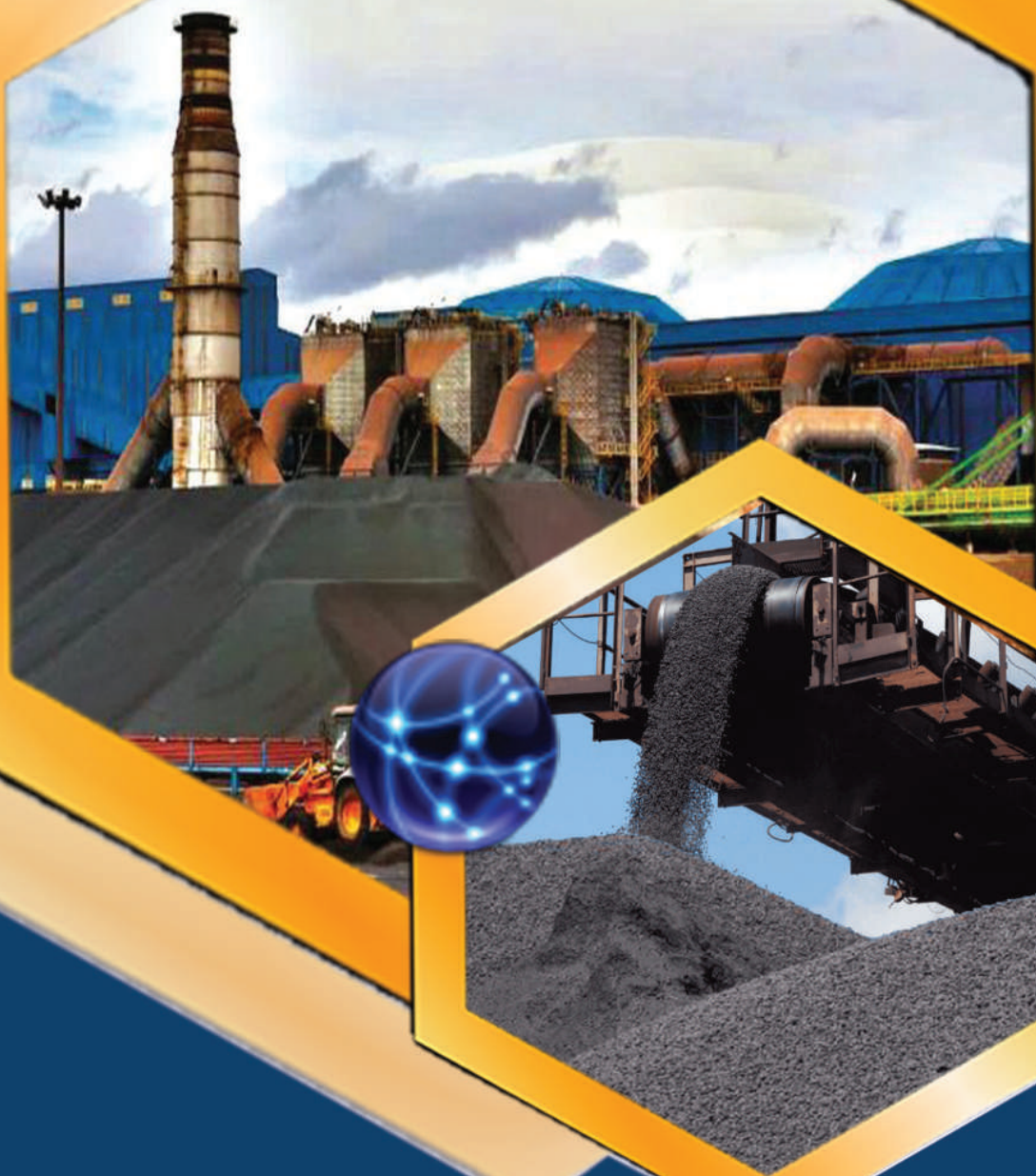
milling the sample by impact and friction method. Operation time 1 to 3 minutes The movement of discs by the method of rotating horizontal vibrations Has fast performance Initial grain size: less than 5 mm Final grain size: less than 150 μm



Pelletizing Pilot plant



NEW TECH



new TECH

info@newtechco.de
www.newtechco.de